mackinlay_replication

September 21, 2021

```
[1]: import numpy as np
     import pandas as pd
     from matplotlib import pyplot as plt
     import statsmodels.api as sm
[2]: df_sic_peers = pd.read_csv("df_sic_peers.csv")
[3]: len(df_sic_peers)
[3]: 385
[4]: df_sic_peers[["ticker", "datekey"]][df_sic_peers["ticker"] == "ACI"]
[4]:
         ticker
                    datekey
     371
            ACI
                 2021-04-28
            ACI 2021-01-13
     372
     373
           ACI 2020-10-21
     374
           ACI 2020-08-04
    375
           ACI 2020-06-18
     376
           ACI 2020-05-13
    377
           ACI 2020-01-08
     378
           ACI 2019-10-16
    379
            ACI 2019-07-24
     380
           ACI 2019-04-24
     381
           ACI 2019-01-15
     382
           ACI 2018-10-18
     383
            ACI 2018-07-25
     384
           ACI 2018-05-11
[5]: len(df_sic_peers["ticker"].unique())
[5]: 19
[6]: df_sic_peers["ticker"].unique()
[6]: array(['WMK', 'WFM', 'VLGEA', 'TFM', 'SWY', 'SFS', 'SFM', 'RNDY', 'QKLS',
            'NGVC', 'KR', 'IMKTA', 'IFMK', 'HTSI', 'GO', 'FWMHQ', 'ASAI',
            'ARDNA', 'ACI'], dtype=object)
```

```
df_prices = pd.read_csv("prices.csv")
     df_prices.head()
[8]:
                                     high
[8]:
       ticker
                                              low
                                                   close
                                                             volume
                                                                      closeadj
                      date
                              open
     0
          WMK
                2021-05-20
                            52.76
                                    52.93
                                           51.85
                                                   52.35
                                                            51684.0
                                                                         52.35
     1
          WMK
                2021-05-19
                            54.11
                                    54.11
                                            52.29
                                                   52.58
                                                            77231.0
                                                                         52.58
     2
                             54.38
                                    54.95
                                            54.03
          WMK
                2021-05-18
                                                   54.36
                                                           151493.0
                                                                         54.36
     3
                             53.92
                                    54.49
                                            53.45
                                                   54.20
          WMK
                2021-05-17
                                                           104194.0
                                                                         54.20
          WMK
     4
                2021-05-14
                            53.93
                                    54.49
                                            53.54
                                                   53.96
                                                            90920.0
                                                                         53.96
        closeunadj lastupdated
     0
              52.35
                     2021-05-20
             52.58
                     2021-05-19
     1
     2
             54.36
                     2021-05-18
     3
             54.20
                     2021-05-17
     4
             53.96
                     2021-05-14
     df_sic_peers.head()
[9]:
       ticker dimension calendardate
                                            datekey reportperiod lastupdated
          WMK
                            2021-03-31
                                        2021-05-06
                                                       2021-03-27
                                                                    2021-05-06
     0
                     ARQ
          WMK
     1
                     ARQ
                            2020-12-31
                                         2021-03-11
                                                       2020-12-26
                                                                    2021-05-06
     2
          WMK
                     ARQ
                            2020-09-30
                                         2020-11-05
                                                       2020-09-26
                                                                    2021-05-06
     3
          WMK
                     ARQ
                            2020-06-30
                                         2020-08-05
                                                       2020-06-27
                                                                    2021-05-06
     4
          WMK
                                         2020-05-07
                                                                    2021-05-06
                     ARQ
                            2020-03-31
                                                       2020-03-28
           accoci
                           assets
                                   assetsavg
                                                                 sharesbas
                                                   assetsc
     0
        2512000.0
                    1.784923e+09
                                          NaN
                                               586996000.0
                                                                26898443.0
     1
        3286000.0
                    1.820421e+09
                                          NaN
                                               626202000.0
                                                                26898443.0
     2
        2959000.0
                    1.756733e+09
                                                                26898443.0
                                          NaN
                                               586745000.0
     3
        2598000.0
                    1.739130e+09
                                               578379000.0
                                                                26898443.0
                                          NaN
        1569000.0
                    1.716364e+09
                                          NaN
                                               551734000.0
                                                                26898443.0
                                                           taxassets
          shareswa
                    shareswadil
                                               tangibles
                                                                           taxexp
                                      sps
     0
        26898443.0
                      26898443.0
                                   37.413
                                            1.715185e+09
                                                                  0.0
                                                                        8415000.0
                                            1.750532e+09
        26898443.0
                                   38.132
                                                                 0.0
                                                                        8246000.0
     1
                      26898443.0
     2
        26898443.0
                      26898443.0
                                   37.266
                                            1.686571e+09
                                                                  0.0
                                                                       12142000.0
                                                                       14978000.0
     3
        26898443.0
                      26898443.0
                                   40.846
                                            1.668504e+09
                                                                  0.0
        26898443.0
                      26898443.0
                                   36.650
                                            1.646325e+09
                                                                  0.0
                                                                        9396000.0
        taxliabilities
                          tbvps
                                  workingcapital
     0
           115435000.0
                         63.765
                                     288957000.0
     1
            108462000.0
                         65.079
                                     279933000.0
     2
           109646000.0
                         62.701
                                     286083000.0
     3
           129294000.0
                         62.030
                                     267061000.0
     4
           114581000.0
                         61.205
                                     229925000.0
```

```
[5 rows x 111 columns]
```

```
[10]: df_prices["date_2"] = pd.to_datetime(df_prices["date"], format="%Y-%m-%d")
[11]: df_prices["date_2"].max()
[11]: Timestamp('2021-05-20 00:00:00')
[12]: df_prices.head()
[12]:
       ticker
                     date
                            open
                                   high
                                           low close
                                                         volume
                                                                 closeadj \
      0
          WMK
               2021-05-20 52.76 52.93 51.85
                                                52.35
                                                        51684.0
                                                                    52.35
                                  54.11
                                                        77231.0
      1
          WMK
               2021-05-19 54.11
                                         52.29
                                                52.58
                                                                    52.58
      2
          WMK
               2021-05-18 54.38
                                  54.95
                                         54.03 54.36
                                                       151493.0
                                                                    54.36
               2021-05-17 53.92
                                  54.49
                                         53.45
                                                54.20
                                                                    54.20
      3
          WMK
                                                       104194.0
          WMK
               2021-05-14 53.93 54.49 53.54 53.96
                                                        90920.0
                                                                    53.96
         closeunadj lastupdated
                                   date 2
             52.35
      0
                    2021-05-20 2021-05-20
      1
             52.58 2021-05-19 2021-05-19
      2
             54.36
                    2021-05-18 2021-05-18
      3
             54.20
                    2021-05-17 2021-05-17
      4
             53.96 2021-05-14 2021-05-14
[13]: df_prices.drop("date_2", inplace=True, axis=1)
[14]: len(df_prices)
[14]: 26026
[15]: df_prices.info()
     <class 'pandas.core.frame.DataFrame'>
     RangeIndex: 26026 entries, 0 to 26025
     Data columns (total 10 columns):
      #
          Column
                       Non-Null Count Dtype
          _____
                       -----
          ticker
                       26026 non-null
                                       object
      1
          date
                       26026 non-null object
      2
                       26026 non-null float64
          open
      3
                       26026 non-null float64
          high
      4
          low
                       26026 non-null float64
      5
          close
                       26026 non-null float64
                       26026 non-null float64
      6
          volume
      7
          closeadj
                       26026 non-null float64
          closeunadj
                       26026 non-null
                                       float64
          lastupdated 26026 non-null
                                      object
```

```
dtypes: float64(7), object(3)
     memory usage: 2.0+ MB
[16]: df_prices_mackinlay_windows = pd.read_csv(
          "additional_prices_mackinlay_windows_processed_data.csv"
[17]: df_prices_mackinlay_windows.head()
[17]:
        ticker
                                                                   closeadj
                      date
                             open
                                    high
                                            low
                                                 close
                                                           volume
           ACI
                           30.51
                                          29.55
                                                 30.18
                                                                       30.18
      0
                2021-09-01
                                   31.28
                                                        1766137.0
      1
          ASAI
                2021-09-01
                           16.34
                                   16.95
                                          16.34 16.56
                                                         191294.0
                                                                       16.56
      2
            GO
                2021-09-01 25.98
                                   26.01
                                          25.55
                                                 25.83
                                                         774089.0
                                                                       25.83
      3
          IFMK
                2021-09-01
                             1.18
                                    1.18
                                           1.11
                                                  1.13
                                                          92416.0
                                                                       1.13
       IMKTA
                2021-09-01 67.85 68.50 67.01 68.24
                                                          59453.0
                                                                       68.24
         closeunadj lastupdated
      0
              30.18
                     2021-09-01
                     2021-09-01
      1
              16.56
      2
              25.83 2021-09-01
                     2021-09-01
      3
               1.13
      4
              68.24 2021-09-01
[18]: df_prices_mackinlay_windows.info()
     <class 'pandas.core.frame.DataFrame'>
     RangeIndex: 879 entries, 0 to 878
     Data columns (total 10 columns):
      #
                       Non-Null Count
          Column
                                       Dtype
          _____
                       _____
                                       ----
      0
          ticker
                       879 non-null
                                       object
                       879 non-null
      1
          date
                                       object
      2
          open
                       879 non-null
                                       float64
      3
          high
                       879 non-null
                                       float64
      4
                       879 non-null
          low
                                       float64
      5
          close
                       879 non-null
                                       float64
      6
          volume
                       879 non-null
                                       float64
                                       float64
      7
          closeadj
                       879 non-null
          closeunadj
                       879 non-null
                                       float64
          lastupdated 879 non-null
                                       object
     dtypes: float64(7), object(3)
     memory usage: 68.8+ KB
[19]: df_prices = pd.concat([df_prices, df_prices_mackinlay_windows])
[20]: len(df_prices)
```

[20]: 26905

```
[21]: 26905 - 26026
[21]: 879
[22]: df_prices["date_2"] = pd.to_datetime(df_prices["date"], format="%Y-%m-%d")
[23]: df_prices.head()
[23]:
       ticker
                            open
                                   high
                                           low
                                                close
                                                         volume
                                                                 closeadj
                     date
          WMK
               2021-05-20 52.76 52.93 51.85
                                                52.35
                                                        51684.0
                                                                    52.35
      0
          WMK
                                  54.11
                                         52.29
                                                        77231.0
      1
               2021-05-19 54.11
                                                52.58
                                                                    52.58
      2
          WMK
               2021-05-18 54.38
                                  54.95
                                         54.03
                                                54.36
                                                       151493.0
                                                                    54.36
               2021-05-17 53.92 54.49
      3
          WMK
                                         53.45 54.20
                                                       104194.0
                                                                    54.20
          WMK
               2021-05-14 53.93 54.49 53.54 53.96
                                                        90920.0
                                                                    53.96
         closeunadj lastupdated
                                   date_2
      0
             52.35
                    2021-05-20 2021-05-20
             52.58
                    2021-05-19 2021-05-19
      1
      2
             54.36
                    2021-05-18 2021-05-18
      3
             54.20
                    2021-05-17 2021-05-17
      4
             53.96 2021-05-14 2021-05-14
[24]: df_prices.sort_values(by=["ticker", "date_2"], ascending=False, inplace=True)
[25]: df_prices.head()
[25]:
         ticker
                       date
                              open
                                      high
                                              low
                                                   close
                                                           volume
                                                                   closeadj \
      878
             WMK
                 2021-09-15
                             53.47 54.219 53.19
                                                   53.90
                                                          73305.0
                                                                      53.90
      868
            WMK
                 2021-09-14
                             55.47 55.750 53.27
                                                   53.40
                                                          69381.0
                                                                      53.40
      853
            WMK
                 2021-09-13
                             55.78 56.320
                                            55.02
                                                   55.32
                                                          69568.0
                                                                      55.32
      841
                             56.87
                                                                      55.77
            WMK
                 2021-09-10
                                    56.870
                                            55.58 55.77
                                                          79970.0
      831
            WMK
                 2021-09-09
                             56.31
                                    57.290 55.88 56.82
                                                                      56.82
                                                          52773.0
           closeunadj lastupdated
                                     date 2
      878
                53.90 2021-09-15 2021-09-15
      868
                53.40 2021-09-14 2021-09-14
      853
                55.32 2021-09-13 2021-09-13
      841
                55.77 2021-09-10 2021-09-10
      831
               56.82 2021-09-09 2021-09-09
[26]: df_prices[df_prices["ticker"] == "WMK"].head()
[26]:
                                              low close
                                                                   closeadj
         ticker
                       date
                              open
                                      high
                                                           volume
                 2021-09-15 53.47 54.219 53.19
      878
            WMK
                                                   53.90
                                                          73305.0
                                                                      53.90
      868
            WMK
                 2021-09-14
                             55.47 55.750
                                           53.27
                                                   53.40
                                                          69381.0
                                                                      53.40
                             55.78 56.320 55.02 55.32
      853
            WMK
                 2021-09-13
                                                          69568.0
                                                                      55.32
      841
            WMK
                 2021-09-10
                             56.87
                                    56.870
                                            55.58
                                                   55.77
                                                          79970.0
                                                                      55.77
      831
            WMK
                 2021-09-09 56.31 57.290
                                            55.88 56.82 52773.0
                                                                      56.82
```

```
closeunadj lastupdated
                                     date_2
     878
               53.90 2021-09-15 2021-09-15
     868
               53.40 2021-09-14 2021-09-14
     853
               55.32 2021-09-13 2021-09-13
     841
               55.77 2021-09-10 2021-09-10
     831
               56.82 2021-09-09 2021-09-09
[27]: df_prices[df_prices["ticker"] == "WMK"].tail()
[27]:
          ticker
                        date
                               open
                                      high
                                              low close
                                                           volume closeadj \
             WMK 2012-07-09 45.64 45.69 45.28 45.53 10000.0
                                                                     35.919
     2231
     2232
             WMK 2012-07-06 45.32 45.91 45.26 45.82
                                                         17700.0
                                                                    36.147
     2233
             WMK
                  2012-07-05 45.43 45.91
                                            45.43 45.75
                                                          24300.0
                                                                    36.092
     2234
                  2012-07-03 44.96 45.57
                                            44.96 45.57
             WMK
                                                          12900.0
                                                                    35.950
     2235
             WMK 2012-07-02 44.55 45.21
                                            44.34 45.18
                                                          26800.0
                                                                     35.642
           closeunadj lastupdated
                                      date_2
     2231
                45.53
                       2021-05-07 2012-07-09
     2232
                45.82
                       2021-05-07 2012-07-06
     2233
                45.75
                       2021-05-07 2012-07-05
     2234
                45.57
                       2021-05-07 2012-07-03
     2235
                45.18 2021-05-07 2012-07-02
[28]: df prices.reset index(drop=True, inplace=True)
[29]: df_prices.head()
                                            low close
                     date
[29]:
       ticker
                            open
                                    high
                                                         volume
                                                                closeadj \
     0
          WMK
               2021-09-15 53.47 54.219 53.19
                                                 53.90 73305.0
                                                                    53.90
                                                 53.40 69381.0
     1
               2021-09-14 55.47
                                  55.750 53.27
                                                                    53.40
          WMK
     2
          WMK
               2021-09-13 55.78 56.320 55.02
                                                 55.32 69568.0
                                                                    55.32
               2021-09-10 56.87 56.870 55.58
                                                 55.77
     3
          WMK
                                                       79970.0
                                                                    55.77
              2021-09-09 56.31 57.290 55.88 56.82 52773.0
          WMK
                                                                    56.82
        closeunadj lastupdated
                                   date_2
             53.90 2021-09-15 2021-09-15
     0
     1
             53.40 2021-09-14 2021-09-14
     2
             55.32 2021-09-13 2021-09-13
     3
             55.77
                    2021-09-10 2021-09-10
     4
             56.82 2021-09-09 2021-09-09
[30]: df_prices["date_2"].describe(datetime_is_numeric=True)
[30]: count
                                      26905
              2016-10-28 10:54:34.186948608
     mean
                        2012-07-02 00:00:00
     min
```

```
25%
                         2014-06-18 00:00:00
      50%
                         2016-07-22 00:00:00
      75%
                         2019-03-07 00:00:00
                         2021-09-15 00:00:00
      max
      Name: date_2, dtype: object
[31]: df_prices.info()
     <class 'pandas.core.frame.DataFrame'>
     RangeIndex: 26905 entries, 0 to 26904
     Data columns (total 11 columns):
          Column
                       Non-Null Count Dtype
          _____
                       -----
                                       ____
      0
          ticker
                       26905 non-null object
      1
          date
                       26905 non-null object
      2
          open
                       26905 non-null float64
      3
                       26905 non-null float64
          high
      4
          low
                       26905 non-null float64
      5
                       26905 non-null float64
         close
      6
         volume
                       26905 non-null float64
      7
          closeadi
                       26905 non-null float64
          closeunadj
                       26905 non-null float64
          lastupdated 26905 non-null object
      10 date_2
                       26905 non-null datetime64[ns]
     dtypes: datetime64[ns](1), float64(7), object(3)
     memory usage: 2.3+ MB
[32]: len(df_prices["ticker"].unique())
[32]: 20
[33]: len(df_sic_peers["ticker"].unique())
[33]: 19
[34]: df_prices["ticker"].unique()
[34]: array(['WMK', 'WFM', 'VLGEA', 'TFM', 'SWY', 'SFS', 'SFM', 'RNDY', 'QKLS',
             'NGVC', 'KR', 'IMKTA', 'IFMK', 'HTSI', 'GO', 'FWMHQ', 'CBD',
             'ASAI', 'ARDNA', 'ACI'], dtype=object)
[35]: for i in df_prices["ticker"].unique():
          if i not in df_sic_peers["ticker"].unique():
             print(i)
     CBD
[36]: df_prices[df_prices["ticker"] == "ACI"]
```

```
ticker
[36]:
                          date
                                   open
                                           high
                                                   low close
                                                                            closeadj
                                                                    volume
                                                                              30.780
      26597
               ACI
                    2021-09-15
                                 29.655
                                         31.000
                                                 29.47
                                                        30.78
                                                                 1308109.0
      26598
               ACI
                    2021-09-14
                                30.690
                                         30.800
                                                 29.53
                                                        29.63
                                                                              29.630
                                                                 1515390.0
      26599
               ACI
                    2021-09-13
                                30.350
                                         31.400
                                                 30.35
                                                        30.45
                                                                              30.450
                                                                 1448156.0
               ACI
                                                 29.68
      26600
                    2021-09-10
                                 32.080
                                         32.108
                                                        30.03
                                                                 2365836.0
                                                                              30.030
      26601
               ACI
                    2021-09-09
                                 31.990
                                         32.830
                                                 31.62
                                                        32.17
                                                                 1462545.0
                                                                              32.170
                                    ...
                                         •••
      26900
               ACI
                    2020-07-02
                                 15.820
                                         15.890
                                                 15.60
                                                        15.81
                                                                 7190929.0
                                                                              15.539
                                                 15.55
      26901
               ACI
                    2020-07-01
                                 15.790
                                         15.890
                                                        15.76
                                                                 3400498.0
                                                                              15.490
      26902
               ACI
                    2020-06-30
                                 15.570
                                         15.900
                                                 15.45
                                                        15.77
                                                                 5030640.0
                                                                              15.500
                                                 15.50
                                                        15.57
      26903
               ACI
                    2020-06-29
                                 15.890
                                         16.010
                                                                 7349059.0
                                                                              15.303
      26904
               ACI
                    2020-06-26
                                 15.500
                                         16.500
                                                 15.31
                                                        15.45
                                                                37216510.0
                                                                              15.185
             closeunadi lastupdated
                                         date 2
                  30.78
                         2021-09-15 2021-09-15
      26597
      26598
                  29.63
                         2021-09-14 2021-09-14
      26599
                  30.45
                         2021-09-13 2021-09-13
                  30.03
                         2021-09-10 2021-09-10
      26600
      26601
                  32.17
                         2021-09-09 2021-09-09
      26900
                  15.81
                         2021-04-26 2020-07-02
                  15.76
                         2021-04-26 2020-07-01
      26901
      26902
                  15.77
                         2021-04-26 2020-06-30
                         2021-04-26 2020-06-29
      26903
                  15.57
      26904
                  15.45 2021-04-26 2020-06-26
      [308 rows x 11 columns]
[37]: df_prices[
          (df prices["ticker"] == "ACI")
          & (df prices["date"] >= "2018-05-07")
          & (df prices["date"] <= "2020-06-24")
      ]
[37]: Empty DataFrame
      Columns: [ticker, date, open, high, low, close, volume, closeadj, closeunadj,
      lastupdated, date_2]
      Index: []
[38]: df_sic_peers.head()
                                           datekey reportperiod lastupdated
[38]:
        ticker dimension calendardate
           WMK
                            2021-03-31
                                        2021-05-06
                                                     2021-03-27
                                                                  2021-05-06
                     ARQ
      1
           WMK
                     ARQ
                            2020-12-31
                                        2021-03-11
                                                     2020-12-26
                                                                  2021-05-06
      2
           WMK
                     ARQ
                            2020-09-30
                                        2020-11-05
                                                     2020-09-26
                                                                  2021-05-06
           WMK
      3
                     ARQ
                           2020-06-30
                                        2020-08-05
                                                     2020-06-27
                                                                  2021-05-06
      4
           WMK
                            2020-03-31
                                        2020-05-07
                                                     2020-03-28
                     ARQ
                                                                  2021-05-06
```

```
0 2512000.0 1.784923e+09
                                       NaN 586996000.0 ...
                                                            26898443.0
     1 3286000.0 1.820421e+09
                                       NaN 626202000.0
                                                            26898443.0
     2 2959000.0 1.756733e+09
                                       NaN 586745000.0 ...
                                                            26898443.0
     3 2598000.0 1.739130e+09
                                       NaN 578379000.0 ...
                                                            26898443.0
     4 1569000.0 1.716364e+09
                                       NaN 551734000.0 ...
                                                            26898443.0
          shareswa shareswadil
                                    sps
                                            tangibles taxassets
                                                                      taxexp \
     0 26898443.0 26898443.0 37.413 1.715185e+09
                                                             0.0
                                                                   8415000.0
     1 26898443.0 26898443.0 38.132 1.750532e+09
                                                             0.0
                                                                   8246000.0
     2 26898443.0 26898443.0 37.266 1.686571e+09
                                                             0.0 12142000.0
     3 26898443.0 26898443.0 40.846 1.668504e+09
                                                             0.0 14978000.0
     4 26898443.0 26898443.0 36.650 1.646325e+09
                                                             0.0
                                                                 9396000.0
        taxliabilities
                         tbvps workingcapital
     0
           115435000.0 63.765
                                   288957000.0
           108462000.0 65.079
                                   279933000.0
     1
           109646000.0 62.701
                                   286083000.0
           129294000.0 62.030
                                   267061000.0
                                   229925000.0
           114581000.0 61.205
     [5 rows x 111 columns]
[39]: for i in df_sic_peers["ticker"].unique():
         df_temp_sic = df_sic_peers[df_sic_peers["ticker"] == i]
         df_temp_prices = df_prices[df_prices["ticker"] == i]
          # Create two lists, one that contains the dates from the SEC fillings
         # and the other that contains dates from the stock prices series.
         lister = []
         lister_2 = []
         for j in df_temp_sic["datekey"]:
             lister.append(j)
         for q in df_temp_prices["date"]:
             lister 2.append(q)
          # Identify financial statement dates without stock price data. Also,
          # see if shifting the SEC reporting dates forward by a day or two and
          # backward by a day or two result in mergeable dates. Note that this
          # only worked for GO and FWMHQ around their IPOs. This is further
         # examined below the loop. GO's first trading day was 6/20/19
          # and FWMHQ's first trading day was 4/15/13. The loops further
          # condition on pd.dattime().weekday() values which are 0 for Monday
         # and 6 for Sunday. .weekday() values in the data are [0-4].
         for z in lister:
              if z not in lister_2:
                 print("Non-trading date fillings:", i, z)
                 print("Day of the week is:", i, z, pd.to_datetime(z).weekday())
```

accoci

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```
print(
                str(pd.to_datetime(z).date()),
                str(pd.to_datetime(z).date() + pd.Timedelta("1 day")),
           if pd.to_datetime(z).weekday() <= 3:</pre>
               print(
                    "Plus one day:",
                    i,
                    str(pd.to_datetime(z).date() + pd.Timedelta("1 day")),
                    str(pd.to_datetime(z).date() + pd.Timedelta("1 day")) in__
→lister_2,
           if pd.to_datetime(z).weekday() <= 3:</pre>
               print(
                    "Minus one day:",
                    i,
                    str(pd.to_datetime(z).date() - pd.Timedelta("1 day")),
                    str(pd.to_datetime(z).date() - pd.Timedelta("1 day")) in__
\rightarrowlister 2,
               )
           if pd.to_datetime(z).weekday() <= 3:</pre>
               print(
                    "Plus two days:",
                    i,
                    str(pd.to_datetime(z).date() + pd.Timedelta("2 days")),
                    str(pd.to_datetime(z).date() + pd.Timedelta("2 days")) in__
⇒lister 2,
           if pd.to_datetime(z).weekday() <= 3:</pre>
               print(
                    "Minus two days:",
                    i,
                    str(pd.to_datetime(z).date() - pd.Timedelta("2 days")),
                    str(pd.to_datetime(z).date() - pd.Timedelta("2 days")) in_u
⇒lister 2,
           if (pd.to_datetime(z).weekday() > 3) & (pd.to_datetime(z).weekday()__
→<= 5):
               print(
                    "Plus one day:",
                    i,
                    str(pd.to_datetime(z).date() + pd.Timedelta("1 day")),
```

```
str(pd.to_datetime(z).date() + pd.Timedelta("1 day")) in__
→lister_2,
               )
               print(
                   "Minus one day:",
                   i,
                   str(pd.to datetime(z).date() - pd.Timedelta("1 day")),
                   str(pd.to_datetime(z).date() - pd.Timedelta("1 day")) in__
→lister_2,
               )
               print(
                   "Plus two days:",
                   i,
                   str(pd.to_datetime(z).date() + pd.Timedelta("2 days")),
                   str(pd.to_datetime(z).date() + pd.Timedelta("2 days")) in__
→lister_2,
               print(
                   "Minus two days:",
                   z,
                   str(pd.to_datetime(z).date() - pd.Timedelta("2 days")),
                   str(pd.to_datetime(z).date() - pd.Timedelta("2 days")) in__
→lister_2,
               )
```

```
Day of the week is: SWY 2015-03-04 2
2015-03-04 2015-03-05
Plus one day: SWY 2015-03-04 2015-03-05 False
Minus one day: SWY 2015-03-04 2015-03-03 False
Plus two days: SWY 2015-03-04 2015-03-06 False
Minus two days: SWY 2015-03-04 2015-03-02 False
Non-trading date fillings: SFM 2013-07-29
Day of the week is: SFM 2013-07-29 0
2013-07-29 2013-07-30
Plus one day: SFM 2013-07-29 2013-07-30 False
Minus one day: SFM 2013-07-29 2013-07-28 False
Plus two days: SFM 2013-07-29 2013-07-31 False
Minus two days: SFM 2013-07-29 2013-07-27 False
Non-trading date fillings: SFM 2013-07-22
Day of the week is: SFM 2013-07-22 0
2013-07-22 2013-07-23
Plus one day: SFM 2013-07-22 2013-07-23 False
Minus one day: SFM 2013-07-22 2013-07-21 False
```

Non-trading date fillings: SWY 2015-03-04

Plus two days: SFM 2013-07-22 2013-07-24 False Minus two days: SFM 2013-07-22 2013-07-20 False

Non-trading date fillings: NGVC 2012-07-20

Day of the week is: NGVC 2012-07-20 4

2012-07-20 2012-07-21

Plus one day: NGVC 2012-07-20 2012-07-21 False Minus one day: NGVC 2012-07-20 2012-07-19 False Plus two days: NGVC 2012-07-20 2012-07-22 False Minus two days: NGVC 2012-07-20 2012-07-18 False

Non-trading date fillings: KR 2012-06-26

Day of the week is: KR 2012-06-26 1

2012-06-26 2012-06-27

Plus one day: KR 2012-06-26 2012-06-27 False Minus one day: KR 2012-06-26 2012-06-25 False Plus two days: KR 2012-06-26 2012-06-28 False Minus two days: KR 2012-06-26 2012-06-24 False Non-trading date fillings: IFMK 2016-12-16

Day of the week is: IFMK 2016-12-16 4

2016-12-16 2016-12-17

Plus one day: IFMK 2016-12-16 2016-12-17 False Minus one day: IFMK 2016-12-16 2016-12-15 False Plus two days: IFMK 2016-12-16 2016-12-18 False Minus two days: IFMK 2016-12-16 2016-12-14 False

Non-trading date fillings: IFMK 2016-12-09

Day of the week is: IFMK 2016-12-09 4

2016-12-09 2016-12-10

Plus one day: IFMK 2016-12-09 2016-12-10 False Minus one day: IFMK 2016-12-09 2016-12-08 False Plus two days: IFMK 2016-12-09 2016-12-11 False Minus two days: IFMK 2016-12-09 2016-12-07 False Non-trading date fillings: IFMK 2016-11-10

Day of the week is: IFMK 2016-11-10 3

2016-11-10 2016-11-11

Plus one day: IFMK 2016-11-10 2016-11-11 False Minus one day: IFMK 2016-11-10 2016-11-09 False Plus two days: IFMK 2016-11-10 2016-11-12 False Minus two days: IFMK 2016-11-10 2016-11-08 False

Non-trading date fillings: IFMK 2016-10-19

Day of the week is: IFMK 2016-10-19 2

2016-10-19 2016-10-20

Plus one day: IFMK 2016-10-19 2016-10-20 False Minus one day: IFMK 2016-10-19 2016-10-18 False Plus two days: IFMK 2016-10-19 2016-10-21 False Minus two days: IFMK 2016-10-19 2016-10-17 False

Non-trading date fillings: IFMK 2016-08-10

Day of the week is: IFMK 2016-08-10 2

2016-08-10 2016-08-11

Plus one day: IFMK 2016-08-10 2016-08-11 False

Minus one day: IFMK 2016-08-10 2016-08-09 False Plus two days: IFMK 2016-08-10 2016-08-12 False Minus two days: IFMK 2016-08-10 2016-08-08 False

Non-trading date fillings: GO 2019-06-18

Day of the week is: GO 2019-06-18 1

2019-06-18 2019-06-19

Plus one day: GO 2019-06-18 2019-06-19 False Minus one day: GO 2019-06-18 2019-06-17 False Plus two days: GO 2019-06-18 2019-06-20 True Minus two days: GO 2019-06-18 2019-06-16 False Non-trading date fillings: FWMHQ 2013-04-16

Day of the week is: FWMHQ 2013-04-16 1

2013-04-16 2013-04-17

Plus one day: FWMHQ 2013-04-16 2013-04-17 True Minus one day: FWMHQ 2013-04-16 2013-04-15 False Plus two days: FWMHQ 2013-04-16 2013-04-18 True Minus two days: FWMHQ 2013-04-16 2013-04-14 False

Non-trading date fillings: ASAI 2021-01-25

Day of the week is: ASAI 2021-01-25 0

2021-01-25 2021-01-26

Plus one day: ASAI 2021-01-25 2021-01-26 False Minus one day: ASAI 2021-01-25 2021-01-24 False Plus two days: ASAI 2021-01-25 2021-01-27 False Minus two days: ASAI 2021-01-25 2021-01-23 False

Non-trading date fillings: ACI 2020-06-18 Day of the week is: ACI 2020-06-18 3

2020-06-18 2020-06-19

Plus one day: ACI 2020-06-18 2020-06-19 False Minus one day: ACI 2020-06-18 2020-06-17 False Plus two days: ACI 2020-06-18 2020-06-20 False Minus two days: ACI 2020-06-18 2020-06-16 False

Non-trading date fillings: ACI 2020-05-13

Day of the week is: ACI 2020-05-13 $^{\circ}$

2020-05-13 2020-05-14

Plus one day: ACI 2020-05-13 2020-05-14 False Minus one day: ACI 2020-05-13 2020-05-12 False Plus two days: ACI 2020-05-13 2020-05-15 False Minus two days: ACI 2020-05-13 2020-05-11 False

Non-trading date fillings: ACI 2020-01-08 Day of the week is: ACI 2020-01-08 2

2020-01-08 2020-01-09

Plus one day: ACI 2020-01-08 2020-01-09 False Minus one day: ACI 2020-01-08 2020-01-07 False Plus two days: ACI 2020-01-08 2020-01-10 False Minus two days: ACI 2020-01-08 2020-01-06 False

Non-trading date fillings: ACI 2019-10-16

Day of the week is: ACI 2019-10-16 2

2019-10-16 2019-10-17

Plus one day: ACI 2019-10-16 2019-10-17 False Minus one day: ACI 2019-10-16 2019-10-15 False Plus two days: ACI 2019-10-16 2019-10-18 False Minus two days: ACI 2019-10-16 2019-10-14 False

Non-trading date fillings: ACI 2019-07-24 Day of the week is: ACI 2019-07-24 2

2019-07-24 2019-07-25

Plus one day: ACI 2019-07-24 2019-07-25 False Minus one day: ACI 2019-07-24 2019-07-23 False Plus two days: ACI 2019-07-24 2019-07-26 False Minus two days: ACI 2019-07-24 2019-07-22 False

Non-trading date fillings: ACI 2019-04-24

Day of the week is: ACI 2019-04-24 2

2019-04-24 2019-04-25

Plus one day: ACI 2019-04-24 2019-04-25 False Minus one day: ACI 2019-04-24 2019-04-23 False Plus two days: ACI 2019-04-24 2019-04-26 False Minus two days: ACI 2019-04-24 2019-04-22 False

Non-trading date fillings: ACI 2019-01-15 Day of the week is: ACI 2019-01-15 1

2019-01-15 2019-01-16

Plus one day: ACI 2019-01-15 2019-01-16 False Minus one day: ACI 2019-01-15 2019-01-14 False Plus two days: ACI 2019-01-15 2019-01-17 False Minus two days: ACI 2019-01-15 2019-01-13 False

Non-trading date fillings: ACI 2018-10-18 Day of the week is: ACI 2018-10-18 3

2018-10-18 2018-10-19

Plus one day: ACI 2018-10-18 2018-10-19 False Minus one day: ACI 2018-10-18 2018-10-17 False Plus two days: ACI 2018-10-18 2018-10-20 False Minus two days: ACI 2018-10-18 2018-10-16 False

Non-trading date fillings: ACI 2018-07-25 Day of the week is: ACI 2018-07-25 2

2018-07-25 2018-07-26

Plus one day: ACI 2018-07-25 2018-07-26 False Minus one day: ACI 2018-07-25 2018-07-24 False Plus two days: ACI 2018-07-25 2018-07-27 False Minus two days: ACI 2018-07-25 2018-07-23 False

Non-trading date fillings: ACI 2018-05-11 Day of the week is: ACI 2018-05-11 4

2018-05-11 2018-05-12

Plus one day: ACI 2018-05-11 2018-05-12 False Minus one day: ACI 2018-05-11 2018-05-10 False Plus two days: ACI 2018-05-11 2018-05-13 False Minus two days: ACI 2018-05-11 2018-05-09 False

```
[40]: df_prices[
          (df_prices["ticker"] == "SWY")
          & (df_prices["date"] >= "2015-03-01")
          & (df_prices["date"] <= "2015-03-10")
      ]
[40]: Empty DataFrame
      Columns: [ticker, date, open, high, low, close, volume, closeadj, closeunadj,
      lastupdated, date_2]
      Index: []
[41]: df prices[df prices["ticker"] == "SWY"]
[41]:
           ticker
                                                     close
                                                                volume closead; \
                         date
                                open
                                        high
                                                low
      6893
              SWY
                   2015-01-29
                               35.15 35.190
                                              35.10
                                                     35.10
                                                            52536765.0
                                                                           35.100
      6894
                               35.18
                                      35.260
                                              35.14
                                                     35.14
              SWY
                   2015-01-28
                                                             12601142.0
                                                                           35.140
      6895
              SWY
                   2015-01-27
                               35.06
                                      35.240
                                              35.05
                                                     35.15
                                                            19249742.0
                                                                           35.150
      6896
              SWY
                   2015-01-26 35.16
                                      35.220
                                              35.10
                                                     35.10
                                                            41624928.0
                                                                           35.100
                              35.29
                                              35.22
                                      35.290
                                                     35.29
      6897
              SWY
                   2015-01-23
                                                               991713.0
                                                                           35.290
                              17.62 17.750
                                                     17.40
      7536
              SWY
                   2012-07-09
                                             17.33
                                                             4516600.0
                                                                           16.168
      7537
              SWY
                   2012-07-06
                              17.72 17.810 17.55
                                                     17.71
                                                             4352400.0
                                                                           16.456
      7538
              SWY
                   2012-07-05
                               17.87
                                      17.960
                                              17.59
                                                     17.74
                                                             5424800.0
                                                                           16.484
      7539
              SWY
                   2012-07-03
                              17.88 18.080
                                              17.85
                                                     17.97
                                                             1713800.0
                                                                           16.698
      7540
              SWY
                   2012-07-02 18.19 18.198 17.69
                                                     17.85
                                                             5242800.0
                                                                           16.586
            closeunadj lastupdated
                                       date_2
      6893
                 35.10
                        2018-06-13 2015-01-29
      6894
                 35.14
                        2018-06-13 2015-01-28
                 35.15
      6895
                        2018-06-13 2015-01-27
      6896
                 35.10
                        2018-06-13 2015-01-26
      6897
                 35.29
                        2018-06-13 2015-01-23
                 17.40
      7536
                        2018-06-13 2012-07-09
      7537
                 17.71
                        2018-06-13 2012-07-06
      7538
                 17.74
                        2018-06-13 2012-07-05
      7539
                 17.97
                        2018-06-13 2012-07-03
      7540
                 17.85
                        2018-06-13 2012-07-02
      [648 rows x 11 columns]
[42]: df_prices[
          (df_prices["ticker"] == "GO")
          & (df_prices["date"] >= "2019-06-01")
          & (df_prices["date"] <= "2019-06-30")
      ]
```

```
[42]:
            ticker
                                          high
                                                   low close
                                                                   volume
                                                                            closeadj \
                          date
                                  open
                                                32.273
      22998
                GO
                    2019-06-28
                                32.74
                                       34.200
                                                        32.88
                                                                 541394.0
                                                                               32.88
      22999
                GO
                    2019-06-27
                                33.31
                                        33.950
                                                32.050
                                                        32.71
                                                                1057248.0
                                                                               32.71
      23000
                GO
                    2019-06-26
                                31.49
                                        35.630
                                                31.040
                                                        32.98
                                                                2939229.0
                                                                               32.98
      23001
                                29.90
                                       31.293
                                                29.599
                                                        30.69
                GO
                    2019-06-25
                                                                 788947.0
                                                                               30.69
      23002
                GO
                                28.61
                                       30.390
                                                27.750
                                                        29.99
                                                                               29.99
                    2019-06-24
                                                                1085362.0
      23003
                GO
                    2019-06-21
                                29.74
                                       29.900
                                                27.880
                                                        28.60
                                                                1773046.0
                                                                               28.60
      23004
                GO
                    2019-06-20
                                31.00
                                        31.500
                                                28.000
                                                        28.51
                                                               13395468.0
                                                                               28.51
             closeunadj lastupdated
                                         date_2
      22998
                         2020-05-01 2019-06-28
                  32.88
      22999
                  32.71
                         2020-05-01 2019-06-27
                        2020-05-01 2019-06-26
                  32.98
      23000
                  30.69
      23001
                        2020-05-01 2019-06-25
                         2020-05-01 2019-06-24
      23002
                  29.99
      23003
                  28.60 2020-05-01 2019-06-21
      23004
                  28.51
                         2019-06-23 2019-06-20
[43]: df_prices[
          (df_prices["ticker"] == "FWMHQ")
          & (df_prices["date"] >= "2013-04-01")
          & (df_prices["date"] <= "2013-04-30")
      ]
[43]:
            ticker
                                                                          closeadj \
                          date
                                 open
                                        high
                                                 low
                                                      close
                                                                 volume
      23807 FWMHQ
                    2013-04-30
                                17.90
                                       17.90 17.27
                                                      17.58
                                                               175800.0
                                                                             17.58
      23808 FWMHQ
                    2013-04-29
                                17.95
                                       17.95 17.32
                                                      17.45
                                                                             17.45
                                                               337000.0
      23809
             FWMHQ
                                17.54
                                       17.65
                                                      17.18
                                                                             17.18
                    2013-04-26
                                               17.05
                                                               246300.0
                                       18.15
      23810
             FWMHQ
                    2013-04-25
                                18.09
                                               17.56
                                                      17.68
                                                               327600.0
                                                                             17.68
      23811
             FWMHQ
                    2013-04-24 18.81
                                       18.89
                                               17.51
                                                      17.93
                                                               435900.0
                                                                             17.93
            FWMHQ
      23812
                    2013-04-23 18.89
                                       19.00 18.40
                                                      18.66
                                                               244252.0
                                                                             18.66
      23813
             FWMHQ
                    2013-04-22 19.37
                                       19.37
                                               18.37
                                                      18.89
                                                               197100.0
                                                                             18.89
      23814
            FWMHQ
                    2013-04-19 19.00 19.45
                                               18.25
                                                      18.69
                                                                             18.69
                                                               369400.0
                                        19.07
      23815
             FWMHQ
                    2013-04-18
                                18.19
                                               17.63
                                                      18.83
                                                              1683801.0
                                                                             18.83
                    2013-04-17
      23816
             FWMHQ
                                18.00
                                       18.41
                                               16.00
                                                      17.35
                                                             12994769.0
                                                                             17.35
             closeunadj lastupdated
                                         date 2
      23807
                  17.58
                         2019-06-07 2013-04-30
      23808
                  17.45
                         2019-06-07 2013-04-29
      23809
                  17.18
                         2019-06-07 2013-04-26
                  17.68
                         2019-06-07 2013-04-25
      23810
      23811
                  17.93
                        2019-06-07 2013-04-24
      23812
                  18.66
                         2019-06-07 2013-04-23
      23813
                  18.89
                         2019-06-07 2013-04-22
      23814
                  18.69 2019-06-07 2013-04-19
                  18.83
                         2019-06-07 2013-04-18
      23815
                  17.35 2019-06-07 2013-04-17
      23816
```

```
[44]: df_sic_peers.head()
[44]:
        ticker dimension calendardate
                                          datekey reportperiod lastupdated
      0
           WMK
                     ARQ
                           2021-03-31
                                       2021-05-06
                                                     2021-03-27
                                                                 2021-05-06
      1
           WMK
                     ARQ
                           2020-12-31
                                       2021-03-11
                                                     2020-12-26
                                                                 2021-05-06
      2
           WMK
                                       2020-11-05
                     ARQ
                           2020-09-30
                                                     2020-09-26
                                                                 2021-05-06
      3
           WMK
                     ARQ
                           2020-06-30
                                       2020-08-05
                                                     2020-06-27
                                                                 2021-05-06
      4
           WMK
                     ARQ
                           2020-03-31
                                       2020-05-07
                                                     2020-03-28
                                                                 2021-05-06
                                  assetsavg
                                                               sharesbas
            accoci
                          assets
                                                  assetsc
         2512000.0 1.784923e+09
                                                              26898443.0
      0
                                        NaN
                                             586996000.0
      1
         3286000.0
                   1.820421e+09
                                        NaN
                                             626202000.0
                                                              26898443.0
      2 2959000.0 1.756733e+09
                                        NaN
                                            586745000.0
                                                              26898443.0
      3
         2598000.0 1.739130e+09
                                        NaN
                                             578379000.0
                                                              26898443.0
      4 1569000.0 1.716364e+09
                                        NaN 551734000.0 ...
                                                              26898443.0
           shareswa shareswadil
                                     sps
                                             tangibles
                                                        taxassets
                                                                        taxexp
         26898443.0
                      26898443.0
                                  37.413
                                          1.715185e+09
                                                               0.0
                                                                     8415000.0
        26898443.0
                      26898443.0 38.132 1.750532e+09
                                                               0.0
                                                                     8246000.0
      2 26898443.0
                      26898443.0 37.266 1.686571e+09
                                                               0.0
                                                                   12142000.0
                      26898443.0
                                         1.668504e+09
      3 26898443.0
                                 40.846
                                                               0.0
                                                                   14978000.0
                      26898443.0 36.650 1.646325e+09
      4 26898443.0
                                                               0.0
                                                                     9396000.0
         taxliabilities
                          tbvps workingcapital
      0
            115435000.0
                         63.765
                                    288957000.0
            108462000.0
                         65.079
                                    279933000.0
      1
      2
            109646000.0 62.701
                                    286083000.0
      3
            129294000.0
                        62.030
                                    267061000.0
            114581000.0 61.205
                                    229925000.0
      [5 rows x 111 columns]
[45]: df_sic_peers.loc[
          (df_sic_peers["datekey"] == "2019-06-18") & (df_sic_peers["ticker"] == "GO")
[45]:
          ticker dimension calendardate
                                            datekey reportperiod lastupdated
      349
              GO
                       ARQ
                             2019-03-31
                                         2019-06-18
                                                       2019-03-30 2021-05-12
                                                              sharesbas
           accoci
                         assets
                                 assetsavg
                                                 assetsc ...
      349
              0.0
                   2.059912e+09
                                       NaN
                                            256614000.0 ... 85703639.0
             shareswa
                       shareswadil
                                       sps
                                              tangibles
                                                          taxassets
                                                                        taxexp
           68514000.0
                        68553000.0 8.849
                                          1.244978e+09
      349
                                                                0.0
                                                                     1444000.0
           taxliabilities
                            tbvps workingcapital
                           18.171
      349
               19667000.0
                                       63000000.0
```

```
(df_sic_peers["datekey"] == "2019-06-18") & (df_sic_peers["ticker"] == □

→ "GO"),

"datekey",

] = "2019-06-20"
```

```
[47]: ticker dimension calendardate datekey reportperiod lastupdated \ 349 GO ARQ 2019-03-31 2019-06-20 2019-03-30 2021-05-12
```

```
accoci assets assetsavg assetsc ... sharesbas \ 349 0.0 2.059912e+09 NaN 256614000.0 ... 85703639.0
```

```
shareswa shareswadil sps tangibles taxassets taxexp \ 349 68514000.0 68553000.0 8.849 1.244978e+09 0.0 1444000.0
```

taxliabilities tbvps workingcapital 349 19667000.0 18.171 63000000.0

[1 rows x 111 columns]

workingcapital 362 16109000.0

[1 rows x 111 columns]

```
[49]: df_sic_peers.loc[
          (df_sic_peers["datekey"] == "2013-04-16") & (df_sic_peers["ticker"] == __

¬"FWMHQ"),
          "datekey",
      ] = "2013-04-17"
[50]: df_sic_peers.loc[
          (df_sic_peers["datekey"] == "2013-04-17") & (df_sic_peers["ticker"] == "
       →"FWMHQ")
      ]
[50]:
          ticker dimension calendardate
                                             datekey reportperiod lastupdated \
                                                        2012-12-30 2019-06-07
      362 FWMHQ
                              2012-12-31 2013-04-17
                       ARQ
           accoci
                                                assetsc ...
                                                             sharesbas
                                                                           shareswa \
                         assets
                                 assetsavg
                                            75015000.0 ...
                                                           41238260.0 41238260.0
      362
              0.0
                   339178000.0
                                       {\tt NaN}
                                tangibles taxassets taxexp taxliabilities tbvps \
           shareswadil
                        sps
      362
                              218032000.0
                                           4856000.0
                                                                           0.0 5.287
                   {\tt NaN}
                        NaN
                                                          {\tt NaN}
           workingcapital
               16109000.0
      362
      [1 rows x 111 columns]
[51]: df_sic_peers.info(verbose=True)
     <class 'pandas.core.frame.DataFrame'>
     RangeIndex: 385 entries, 0 to 384
     Data columns (total 111 columns):
          Column
                           Dtype
          _____
      0
          ticker
                           object
      1
          dimension
                           object
      2
          calendardate
                           object
      3
          datekey
                           object
      4
          reportperiod
                           object
      5
          lastupdated
                           object
      6
          accoci
                           float64
      7
          assets
                           float64
      8
          assetsavg
                           float64
          assetsc
                           float64
      10
          assetsnc
                           float64
      11
          assetturnover
                           float64
      12
          bvps
                           float64
      13
          capex
                           float64
          cashneq
                           float64
          cashnequsd
                           float64
```

16	cor	float64
17	consolinc	float64
18	currentratio	float64
19	de	float64
20	debt	float64
21	debtc	float64
22	debtnc	float64
23	debtusd	float64
24	deferredrev	float64
25	depamor	float64
26	deposits	float64
27	divyield	float64
28	dps	float64
29	ebit	float64
30	ebitda	float64
31	ebitdamargin	float64
32	ebitdausd	float64
33	ebituadsu	float64
		float64
34	ebt	
35	eps	float64
36	epsdil	float64
37	epsusd	float64
38	equity	float64
39	equityavg	float64
40	equityusd	float64
41	ev	float64
42	evebit	float64
43	evebitda	float64
44	fcf	float64
45	fcfps	float64
46	fxusd	float64
47	gp	float64
48	grossmargin	float64
49	intangibles	float64
50	intexp	float64
51	invcap	float64
52	invcapavg	float64
53	inventory	float64
54	investments	float64
55	investmentsc	float64
56	investmentsnc	float64
57	liabilities	float64
58	liabilitiesc	float64
59	liabilitiesnc	float64
60	marketcap	float64
61	ncf	float64
62	ncfbus	float64
63	ncfcommon	float64

64	ncfdebt	float64	
65	ncfdiv	float64	
66	ncff	float64	
67	ncfi	float64	
68	ncfinv	float64	
69	ncfo	float64	
70	ncfx	float64	
71	netinc	float64	
72	netinccmn	float64	
73	netinccmnusd	float64	
74	netincdis	float64	
75	netincnci	float64	
76	netmargin	float64	
77	opex	float64	
78	opinc	float64	
79	payables	float64	
80	payoutratio	float64	
81	pb	float64	
82	pe	float64	
83	pe1	float64	
84	ppnenet	float64	
85	prefdivis	float64	
86	price	float64	
87	ps	float64	
88	ps1	float64	
89	receivables	float64	
90	retearn	float64	
91	revenue	float64	
92	revenueusd	float64	
93	rnd	float64	
94	roa	float64	
95	roe	float64	
96	roic	float64	
97	ros	float64	
98	sbcomp	float64	
99	sgna	float64	
100	=	float64	
101	sharesbas	float64	
102	shareswa	float64	
103	shareswadil	float64	
104	sps	float64	
105	tangibles	float64	
106	taxassets	float64	
107	taxexp	float64	
	taxliabilities	float64	
109	tbvps	float64	
110	workingcapital	float64	
dtype	es: float64(105)	, object(6)	
-			

memory usage: 334.0+ KB [52]: df_prices.info() <class 'pandas.core.frame.DataFrame'> RangeIndex: 26905 entries, 0 to 26904 Data columns (total 11 columns): Column Non-Null Count Dtype _____ 0 ticker 26905 non-null object 1 date 26905 non-null object 2 26905 non-null float64 open 3 high 26905 non-null float64 4 low 26905 non-null float64 5 close 26905 non-null float64 6 volume 26905 non-null float64 7 closeadj 26905 non-null float64 8 closeunadj 26905 non-null float64 9 lastupdated 26905 non-null object 10 date 2 26905 non-null datetime64[ns] dtypes: datetime64[ns](1), float64(7), object(3) memory usage: 2.3+ MB [53]: df_sic_peers["datekey"] = pd.to_datetime(df_sic_peers["datekey"]) [54]: df_prices["date"] = pd.to_datetime(df_prices["date"]) df_sic_peers.rename(columns={"datekey": "date"}, inplace=True) [56]: df_sic_peers["datekey"] = df_sic_peers["date"] [57]: df = pd.merge(df_prices, df_sic_peers, on=["ticker", "date"], how="left") [58]: df.head() [58]: low close volume closeadj ticker date open high WMK 2021-09-15 53.47 0 54.219 53.19 53.90 73305.0 53.90 55.47 55.750 53.27 53.40 53.40 1 WMK 2021-09-14 69381.0 2 WMK 2021-09-13 55.78 56.320 55.02 55.32 69568.0 55.32 3 WMK 2021-09-10 55.58 55.77 56.87 56.870 55.77 79970.0 55.88 WMK 2021-09-09 56.31 57.290 56.82 52773.0 56.82 closeunadj lastupdated_x ... shareswa shareswadil sps tangibles taxassets 0 53.90 2021-09-15 NaN NaN NaN NaN NaN 1 53.40 2021-09-14 ... NaN NaN NaN NaNNaN 2 55.32 2021-09-13 ... NaN NaN NaN NaNNaN 3 55.77 2021-09-10 NaN NaN NaN NaN NaN

NaN NaN

NaN

NaN

NaN

56.82

2021-09-09 ...

4

```
taxexp taxliabilities tbvps workingcapital datekey
      0
            NaN
                             NaN
                                    NaN
                                                     NaN
                                                              NaT
                                    {\tt NaN}
      1
            NaN
                             {\tt NaN}
                                                     NaN
                                                              NaT
      2
            NaN
                             NaN
                                    NaN
                                                     NaN
                                                              NaT
                                                              NaT
      3
            NaN
                             NaN
                                    {\tt NaN}
                                                     NaN
      4
            NaN
                             NaN
                                    NaN
                                                     NaN
                                                              NaT
      [5 rows x 121 columns]
[59]: df.sort_values(by=["ticker", "date"], ascending=[True, True], inplace=True)
[60]: def daily_ret(dataframe):
          """ Calculates daily returns to be used to calculate the constant mean
          return model later.
          calc = (dataframe["close"] - dataframe["close"].shift(1)) / dataframe[
          l.shift(1)
          return calc
[61]: df["daily_ret"] = df.groupby("ticker", group_keys=False).apply(daily_ret)
[62]: df["mean_ret_model"] = (
          df.groupby("ticker", group_keys=False)["daily_ret"]
          .rolling(250, min_periods=250)
          .mean()
          .reset_index(level=0, drop=True)
      )
[63]: df["mean_ret_model"] = df["mean_ret_model"].shift(2)
[64]: def daily_ret_cont(dataframe):
          """ Calculates continuous daily returns to be used to calculate the 
       \hookrightarrow constant mean
          return model later.
          calc = np.log(dataframe["close"] / dataframe["close"].shift(1))
          return calc
[65]: df["daily_ret_cont"] = df.groupby("ticker", group_keys=False).
       →apply(daily_ret_cont)
[66]: df["mean_ret_model_cont"] = (
          df.groupby("ticker", group_keys=False)["daily_ret_cont"]
          .rolling(250, min_periods=250)
          .mean()
```

```
.reset_index(level=0, drop=True)
      )
     df["mean_ret_model_cont"] = df["mean_ret_model_cont"].shift(2)
[68]: df[
          Г
              "ticker",
              "date",
              "close",
              "daily_ret",
              "daily_ret_cont",
              "mean_ret_model",
              "mean_ret_model_cont",
      ].head(15)
[68]:
                                       daily_ret daily_ret_cont mean_ret_model \
            ticker
                          date
                                close
      26904
               ACI 2020-06-26
                                15.45
                                             NaN
                                                                               NaN
      26903
               ACI 2020-06-29
                                15.57
                                        0.007767
                                                         0.007737
                                                                               NaN
      26902
               ACI 2020-06-30
                                                                               NaN
                                15.77
                                        0.012845
                                                         0.012763
      26901
               ACI 2020-07-01
                                15.76 -0.000634
                                                        -0.000634
                                                                               NaN
      26900
               ACI 2020-07-02
                               15.81
                                        0.003173
                                                                               NaN
                                                         0.003168
      26899
               ACI 2020-07-06
                                15.52
                                      -0.018343
                                                        -0.018513
                                                                               NaN
                                15.18
      26898
               ACI 2020-07-07
                                       -0.021907
                                                        -0.022151
                                                                               NaN
               ACI 2020-07-08 15.16
      26897
                                       -0.001318
                                                        -0.001318
                                                                               NaN
      26896
               ACI 2020-07-09
                               14.75
                                       -0.027045
                                                        -0.027417
                                                                               NaN
      26895
               ACI 2020-07-10 14.60
                                       -0.010169
                                                        -0.010222
                                                                               NaN
      26894
               ACI 2020-07-13 14.00 -0.041096
                                                        -0.041964
                                                                               NaN
               ACI 2020-07-14
                               14.59
                                        0.042143
                                                                               NaN
      26893
                                                         0.041279
      26892
               ACI 2020-07-15
                               14.62
                                        0.002056
                                                                               NaN
                                                         0.002054
      26891
               ACI 2020-07-16
                                14.98
                                        0.024624
                                                         0.024326
                                                                               NaN
      26890
               ACI 2020-07-17
                                15.35
                                                                               NaN
                                        0.024700
                                                         0.024399
             mean_ret_model_cont
      26904
                              NaN
      26903
                              NaN
      26902
                              NaN
                              NaN
      26901
      26900
                              NaN
      26899
                              NaN
      26898
                              NaN
                              NaN
      26897
      26896
                              NaN
      26895
                              NaN
                              NaN
      26894
      26893
                              NaN
```

```
26892
                            NaN
     26891
                            NaN
     26890
                            NaN
[69]: df[
          "ticker",
             "date",
             "close",
             "daily_ret",
             "daily_ret_cont",
             "mean_ret_model",
             "mean_ret_model_cont",
     [(df["ticker"] == "ARDNA") & (df["date"] == "2013-08-08")]
[69]:
                        date close daily_ret daily_ret_cont mean_ret_model \
     26320 ARDNA 2013-08-08 133.1 0.00241
                                                0.002407
                                                                   0.001841
            mean_ret_model_cont
     26320
                       0.001614
[70]: df[["ticker", "date", "close", "daily_ret", "mean_ret_model"]][
         (df["ticker"] == "IMKTA") & (df["date"] == "2019-12-31")
     ].sort values(by="date", ascending=True)
[70]:
                        date close daily_ret mean_ret_model
           ticker
     19003 IMKTA 2019-12-31 47.51 -0.022428
                                                      0.00238
[71]: df[["ticker", "date", "close", "daily_ret", "mean_ret_model"]][
          (df["ticker"] == "IMKTA") & (df["date"] == "2019-12-31")
     ].sort_values(by="date", ascending=True)
[71]:
           ticker
                       date close daily_ret mean_ret_model
     19003 IMKTA 2019-12-31 47.51 -0.022428
                                                      0.00238
[72]: len(df)
[72]: 26905
[73]: len(df_prices)
[73]: 26905
[74]: len(df_sic_peers)
[74]: 385
```

```
[75]: df.head()
[75]:
                          date
                                         high
                                                  low close
                                                                   volume
                                                                           closeadj
            ticker
                                  open
      26904
                ACI 2020-06-26
                                15.50
                                        16.50
                                               15.31
                                                       15.45
                                                               37216510.0
                                                                              15.185
                                 15.89
                                                15.50
      26903
                ACI 2020-06-29
                                        16.01
                                                       15.57
                                                                7349059.0
                                                                              15.303
      26902
                ACI 2020-06-30
                                 15.57
                                        15.90
                                                15.45
                                                       15.77
                                                                5030640.0
                                                                              15.500
      26901
                ACI 2020-07-01
                                 15.79
                                        15.89
                                                15.55
                                                       15.76
                                                                3400498.0
                                                                              15.490
                ACI 2020-07-02
      26900
                                15.82
                                        15.89
                                                15.60
                                                       15.81
                                                                7190929.0
                                                                              15.539
              closeunadj lastupdated_x
                                        ... taxassets taxexp taxliabilities tbvps
      26904
                   15.45
                             2021-04-26
                                         •••
                                                  NaN
                                                         NaN
                                                                          NaN
                                                                                NaN
                            2021-04-26
      26903
                   15.57
                                                  NaN
                                                         NaN
                                                                         NaN
                                                                                NaN
      26902
                   15.77
                            2021-04-26
                                                  NaN
                                                         NaN
                                                                         NaN
                                                                                NaN
      26901
                   15.76
                            2021-04-26
                                                  NaN
                                                         NaN
                                                                          NaN
                                                                                NaN
      26900
                   15.81
                            2021-04-26 ...
                                                  NaN
                                                         NaN
                                                                          NaN
                                                                                NaN
            workingcapital datekey
                                       daily_ret
                                                  mean_ret_model
                                                                    daily_ret_cont
      26904
                        NaN
                                  NaT
                                             NaN
                                                               NaN
      26903
                        NaN
                                  NaT
                                        0.007767
                                                               NaN
                                                                           0.007737
      26902
                        NaN
                                  NaT
                                        0.012845
                                                               NaN
                                                                           0.012763
      26901
                        NaN
                                       -0.000634
                                                               NaN
                                                                          -0.000634
                                  NaT
      26900
                        NaN
                                  NaT
                                        0.003173
                                                               NaN
                                                                           0.003168
             mean_ret_model_cont
      26904
                               NaN
      26903
                               NaN
      26902
                               NaN
      26901
                               NaN
      26900
                               NaN
      [5 rows x 125 columns]
[76]: df.reset_index(drop=True, inplace=True)
[77]:
      df.head()
[77]:
                                              low close
        ticker
                      date
                              open
                                     high
                                                               volume closeadj
           ACI 2020-06-26
                            15.50
                                    16.50
                                                   15.45
      0
                                           15.31
                                                          37216510.0
                                                                          15.185
      1
           ACI 2020-06-29
                            15.89
                                    16.01
                                           15.50
                                                   15.57
                                                           7349059.0
                                                                          15.303
      2
           ACI 2020-06-30
                            15.57
                                    15.90
                                           15.45
                                                   15.77
                                                                          15.500
                                                           5030640.0
      3
           ACI 2020-07-01
                            15.79
                                    15.89
                                           15.55
                                                   15.76
                                                            3400498.0
                                                                          15.490
           ACI 2020-07-02
                            15.82
                                    15.89
                                           15.60
                                                   15.81
                                                           7190929.0
                                                                          15.539
         closeunadj lastupdated_x ... taxassets taxexp taxliabilities tbvps
      0
               15.45
                        2021-04-26
                                                     {\tt NaN}
                                                                            NaN
                                              NaN
                                                                     NaN
      1
               15.57
                        2021-04-26 ...
                                              NaN
                                                     NaN
                                                                     NaN
                                                                            NaN
      2
              15.77
                        2021-04-26 ...
                                                     NaN
                                                                     NaN
                                                                            NaN
                                              NaN
```

```
3
              15.76
                       2021-04-26 ...
                                            NaN
                                                    NaN
                                                                   NaN
                                                                          NaN
      4
              15.81
                       2021-04-26 ...
                                            NaN
                                                    NaN
                                                                          NaN
                                                                   NaN
        workingcapital
                        datekey
                                  daily_ret mean_ret_model
                                                              daily_ret_cont
                   NaN
                             NaT
                                        NaN
                                                         NaN
      0
                                                                    0.007737
      1
                   NaN
                            NaT
                                   0.007767
                                                         NaN
      2
                   NaN
                            NaT
                                   0.012845
                                                         NaN
                                                                    0.012763
      3
                   NaN
                            NaT
                                  -0.000634
                                                         {\tt NaN}
                                                                   -0.000634
                   NaN
                                   0.003173
                                                         {\tt NaN}
                                                                    0.003168
                            NaT
         mean ret model cont
      0
                          NaN
      1
                          NaN
      2
                          NaN
      3
                          NaN
      4
                          NaN
      [5 rows x 125 columns]
[78]: lister = []
      def cum ret(df, window):
          """ This function calculates the return for the period of t-1 from the
          \it EDGAR file date through t + window. New dataframes for each ticker
          are then stored into a list, lister. These will be merged in later
          with the dataframe, df, that has both price and financial
          statement data.
          for i, t in enumerate(df["ticker"].unique()):
              df_temp = df[df["ticker"] == t].copy()
              # df_temp['cum_ret'] = np.nan
              df_temp.loc[:, "cum_ret"] = np.nan
              df_temp.loc[:, "cum_ret_cont"] = np.nan
              cut offs = []
              for j in df temp["calendardate"][df temp["calendardate"].notnull()].
       ⇒index:
                  cut_offs.append(j)
              for x in cut_offs:
                  # start the window from the day before earnings are announced.
                  # this is to try and deal with companies that may release earnings
                  # either after markets close on a given day, before
                  # markets open on a given day, or during a trading day.
                  # Below modifies starting index for GO and FWMHQ who
                  # have no price observations before the IPO filings.
                  if x - 1 not in df temp.index:
                      start_index = df_temp.index.min()
                  else:
                      start index = x - 1
                  # if there are not t-1 plus 16 trading days after a
```

```
# given announcement, use the last trading day for the
                  # company in the dataframe.
                  if x + window not in df_temp.index:
                      end_index = df_temp.index.max()
                  else:
                      end_index = start_index + window
                  print(
                      "ticker is", t, "start_index", start_index, "end_index", u
       →end index,
                  print(
                      "start_price",
                      df_temp["close"].loc[start_index],
                      "end_price",
                      df_temp["close"].loc[end_index],
                  )
                  # modify the start_index by adding one to line up with
                  # the actual earnings report release date.
                  df_temp["cum_ret"].loc[start_index + 1] = (
                      df_temp["close"].loc[end_index] - df_temp["close"].
       →loc[start index]
                  ) / df_temp["close"].loc[start_index]
                  # continuous returns- modify the start index by adding one to line_
       \hookrightarrow up with
                  # the actual earnings report release date.
                  df_temp["cum_ret_cont"].loc[start_index + 1] = np.log(
                      df_temp["close"].loc[end_index] / df_temp["close"].
       →loc[start_index]
              print("appending", df_temp["ticker"].iloc[0])
              lister.append(df_temp[["ticker", "date", "cum_ret", "cum_ret_cont"]])
              # lister.append(df_temp[["ticker", "date", "cum_ret"]])
[79]: d_values = []
      for mackinlay_rep in range(0, 21):
          lister = []
          cum_ret(df, mackinlay_rep)
          combined_df = pd.concat([i for i in lister])
          combined_df.rename(
```

del combined_df

```
ticker is ACI start index 25 end index 25
start_price 14.83 end_price 14.83
ticker is ACI start_index 80 end_index 80
start_price 15.22 end_price 15.22
ticker is ACI start_index 137 end_index 137
start_price 17.1 end_price 17.1
ticker is ACI start_index 209 end_index 209
start_price 18.11 end_price 18.11
appending ACI
ticker is ARDNA start_index 330 end_index 330
start_price 82.6 end_price 82.6
ticker is ARDNA start_index 394 end_index 394
start_price 95.88 end_price 95.88
ticker is ARDNA start_index 478 end_index 478
start_price 98.31 end_price 98.31
ticker is ARDNA start_index 519 end_index 519
start_price 98.65 end_price 98.65
ticker is ARDNA start_index 583 end_index 583
start_price 132.78 end_price 132.78
ticker is ARDNA start_index 647 end_index 647
start_price 129.85 end_price 129.85
appending ARDNA
ticker is ASAI start_index 754 end_index 754
start_price 14.81 end_price 14.81
appending ASAI
appending CBD
ticker is FWMHQ start_index 3088 end_index 3088
start_price 17.35 end_price 17.35
ticker is FWMHQ start_index 3122 end_index 3122
start_price 20.73 end_price 20.73
ticker is FWMHQ start_index 3166 end_index 3166
start_price 25.83 end_price 25.83
ticker is FWMHQ start_index 3230 end_index 3230
start_price 25.46 end_price 25.46
ticker is FWMHQ start_index 3291 end_index 3291
start_price 11.14 end_price 11.14
ticker is FWMHQ start_index 3368 end_index 3368
start_price 6.75 end_price 6.75
ticker is FWMHQ start_index 3417 end_index 3417
start_price 5.74 end_price 5.74
ticker is FWMHQ start_index 3481 end_index 3481
start_price 2.59 end_price 2.59
ticker is FWMHQ start_index 3542 end_index 3542
start_price 5.02 end_price 5.02
ticker is FWMHQ start_index 3617 end_index 3617
start_price 4.63 end_price 4.63
```

ticker is FWMHQ start_index 3666 end_index 3666 start_price 3.02 end_price 3.02 ticker is FWMHQ start_index 3727 end_index 3727 start_price 1.71 end_price 1.71 ticker is FWMHQ start index 3794 end index 3794 start_price 0.499 end_price 0.499 appending FWMHQ ticker is GO start_index 3900 end_index 3900 start_price 28.51 end_price 28.51 ticker is GO start_index 3936 end_index 3936 start_price 37.54 end_price 37.54 ticker is GO start_index 3972 end_index 3972 start_price 33.01 end_price 33.01 ticker is GO start_index 4000 end_index 4000 start_price 31.0 end_price 31.0 ticker is GO start_index 4050 end_index 4050 start_price 35.43 end_price 35.43 ticker is GO start_index 4091 end_index 4091 start_price 33.2 end_price 33.2 ticker is GO start index 4124 end index 4124 start_price 36.67 end_price 36.67 ticker is GO start_index 4187 end_index 4187 start_price 44.33 end_price 44.33 ticker is GO start_index 4251 end_index 4251 start_price 41.21 end_price 41.21 ticker is GO start_index 4326 end_index 4326 start_price 35.91 end_price 35.91 ticker is GO start_index 4376 end_index 4376 start_price 40.54 end_price 40.54 appending GO ticker is HTSI start_index 4491 end_index 4491 start_price 41.53 end_price 41.53 ticker is HTSI start_index 4562 end_index 4562 start_price 36.17 end_price 36.17 ticker is HTSI start index 4614 end index 4614 start_price 36.95 end_price 36.95 ticker is HTSI start_index 4676 end_index 4676 start_price 45.29 end_price 45.29 ticker is HTSI start_index 4740 end_index 4740 start_price 49.2 end_price 49.2 ticker is HTSI start_index 4820 end_index 4820 start_price 49.38 end_price 49.38 appending HTSI ticker is IFMK start_index 4953 end_index 4953 start_price 11.99 end_price 11.99 ticker is IFMK start_index 4984 end_index 4984 start_price 12.81 end_price 12.81

ticker is IFMK start_index 5049 end_index 5049

```
start_price 11.13 end_price 11.13
ticker is IFMK start_index 5111 end_index 5111
start_price 11.92 end_price 11.92
ticker is IFMK start_index 5205 end_index 5205
start price 5.5 end price 5.5
ticker is IFMK start_index 5236 end_index 5236
start_price 3.8 end_price 3.8
ticker is IFMK start_index 5301 end_index 5301
start_price 1.4 end_price 1.4
ticker is IFMK start_index 5362 end_index 5362
start_price 1.07 end_price 1.07
ticker is IFMK start_index 5455 end_index 5455
start_price 1.2 end_price 1.2
ticker is IFMK start_index 5487 end_index 5487
start_price 2.27 end_price 2.27
ticker is IFMK start_index 5552 end_index 5552
start_price 0.375 end_price 0.375
ticker is IFMK start_index 5614 end_index 5614
start_price 0.42200000000000004 end_price 0.42200000000000004
ticker is IFMK start index 5739 end index 5739
start price 0.939000000000001 end price 0.939000000000001
ticker is IFMK start index 5744 end index 5744
start_price 0.9 end_price 0.9
ticker is IFMK start index 5810 end index 5810
start_price 0.859000000000001 end_price 0.859000000000001
ticker is IFMK start_index 5830 end_index 5830
start_price 0.822000000000001 end_price 0.822000000000001
ticker is IFMK start_index 5870 end_index 5870
start_price 1.95 end_price 1.95
appending IFMK
ticker is IMKTA start_index 6035 end_index 6035
start_price 16.36 end_price 16.36
ticker is IMKTA start_index 6135 end_index 6135
start_price 17.2 end_price 17.2
ticker is IMKTA start index 6164 end index 6164
start_price 19.3 end_price 19.3
ticker is IMKTA start index 6226 end index 6226
start_price 21.46 end_price 21.46
ticker is IMKTA start_index 6288 end_index 6288
start_price 25.69 end_price 25.69
ticker is IMKTA start_index 6378 end_index 6378
start_price 24.41 end_price 24.41
ticker is IMKTA start_index 6413 end_index 6413
start_price 24.02 end_price 24.02
ticker is IMKTA start_index 6476 end_index 6476
start_price 26.07 end_price 26.07
ticker is IMKTA start_index 6541 end_index 6541
start_price 24.47 end_price 24.47
```

ticker is IMKTA start_index 6632 end_index 6632 start_price 32.08 end_price 32.08 ticker is IMKTA start_index 6666 end_index 6666 start_price 44.06 end_price 44.06 ticker is IMKTA start index 6728 end index 6728 start_price 40.87 end_price 40.87 ticker is IMKTA start index 6790 end index 6790 start_price 49.9 end_price 49.9 ticker is IMKTA start_index 6880 end_index 6880 start_price 53.84 end_price 53.84 ticker is IMKTA start_index 6917 end_index 6917 start_price 36.2 end_price 36.2 ticker is IMKTA start_index 6980 end_index 6980 start_price 36.73 end_price 36.73 ticker is IMKTA start_index 7042 end_index 7042 start_price 36.86 end_price 36.86 ticker is IMKTA start_index 7137 end_index 7137 start_price 48.05 end_price 48.05 ticker is IMKTA start_index 7167 end_index 7167 start price 45.25 end price 45.25 ticker is IMKTA start_index 7230 end_index 7230 start price 45.85 end price 45.85 ticker is IMKTA start_index 7293 end_index 7293 start_price 29.5 end_price 29.5 ticker is IMKTA start_index 7381 end_index 7381 start_price 27.7 end_price 27.7 ticker is IMKTA start_index 7424 end_index 7424 start_price 30.55 end_price 30.55 ticker is IMKTA start_index 7486 end_index 7486 start_price 30.95 end_price 30.95 ticker is IMKTA start_index 7550 end_index 7550 start_price 29.55 end_price 29.55 ticker is IMKTA start_index 7633 end_index 7633 start_price 28.1 end_price 28.1 ticker is IMKTA start index 7674 end index 7674 start_price 28.96 end_price 28.96 ticker is IMKTA start_index 7736 end_index 7736 start_price 27.45 end_price 27.45 ticker is IMKTA start_index 7800 end_index 7800 start_price 31.75 end_price 31.75 ticker is IMKTA start_index 7886 end_index 7886 start_price 43.48 end_price 43.48 ticker is IMKTA start_index 7925 end_index 7925 start_price 42.76 end_price 42.76 ticker is IMKTA start_index 7988 end_index 7988 start_price 37.61 end_price 37.61

ticker is IMKTA start_index 8051 end_index 8051

start_price 39.9 end_price 39.9

ticker is IMKTA start_index 8137 end_index 8137 start_price 37.41 end_price 37.41 ticker is IMKTA start_index 8176 end_index 8176 start_price 47.26 end_price 47.26 ticker is IMKTA start index 8238 end index 8238 start_price 62.74 end_price 62.74 appending IMKTA ticker is KR start_index 8385 end_index 8385 start_price 11.905 end_price 11.905 ticker is KR start_index 8442 end_index 8442 start_price 13.325 end_price 13.325 ticker is KR start_index 8517 end_index 8517 start_price 16.27 end_price 16.27 ticker is KR start_index 8579 end_index 8579 start_price 17.355 end_price 17.355 ticker is KR start_index 8639 end_index 8639 start_price 20.24 end_price 20.24 ticker is KR start_index 8696 end_index 8696

 $\label{libsite-packages} $$ C:\Users\Robso\anaconda3\envs\ml\lib\site-packages\pandas\core\indexing.py:670: Setting\WithCopy\Warning:$

A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy iloc._setitem_with_indexer(indexer, value)

start_price 19.995 end_price 19.995 ticker is KR start_index 8769 end_index 8769 start_price 21.825 end_price 21.825 ticker is KR start_index 8832 end_index 8832 start_price 24.715 end_price 24.715 ticker is KR start_index 8890 end_index 8890 start_price 26.015 end_price 26.015 ticker is KR start_index 8949 end_index 8949 start price 30.765 end price 30.765 ticker is KR start_index 9020 end_index 9020 start_price 38.62 end_price 38.62 ticker is KR start_index 9083 end_index 9083 start_price 36.335 end_price 36.335 ticker is KR start_index 9141 end_index 9141 start_price 36.66 end_price 36.66 ticker is KR start_index 9202 end_index 9202 start_price 42.43 end_price 42.43 ticker is KR start_index 9270 end_index 9270 start_price 38.06 end_price 38.06 ticker is KR start_index 9334 end_index 9334 start_price 36.62 end_price 36.62 ticker is KR start_index 9392 end_index 9392 start_price 30.79 end_price 30.79 ticker is KR start_index 9451 end_index 9451 start_price 34.22 end_price 34.22 ticker is KR start_index 9522 end_index 9522 start price 28.93 end price 28.93 ticker is KR start_index 9585 end_index 9585 start_price 22.61 end_price 22.61 ticker is KR start_index 9641 end_index 9641 start_price 21.26 end_price 21.26 ticker is KR start_index 9700 end_index 9700 start_price 26.53 end_price 26.53 ticker is KR start_index 9777 end_index 9777 start_price 23.28 end_price 23.28 ticker is KR start_index 9839 end_index 9839 start_price 28.43 end_price 28.43 ticker is KR start_index 9899 end_index 9899 start_price 29.61 end_price 29.61 ticker is KR start_index 9957 end_index 9957 start_price 28.92 end_price 28.92 ticker is KR start index 10028 end index 10028 start_price 24.48 end_price 24.48 ticker is KR start_index 10089 end_index 10089 start_price 21.39 end_price 21.39 ticker is KR start_index 10149 end_index 10149 start_price 25.72 end_price 25.72 ticker is KR start_index 10208 end_index 10208 start_price 28.31 end_price 28.31 ticker is KR start_index 10280 end_index 10280 start_price 30.12 end_price 30.12 ticker is KR start_index 10340 end_index 10340 start_price 32.78 end_price 32.78 ticker is KR start_index 10400 end_index 10400 start_price 33.46 end_price 33.46 ticker is KR start_index 10459 end_index 10459 start price 31.3 end price 31.3 ticker is KR start_index 10530 end_index 10530 start_price 37.95 end_price 37.95 appending KR ticker is NGVC start_index 10745 end_index 10745 start_price 19.38 end_price 19.38 ticker is NGVC start_index 10747 end_index 10747 start_price 19.59 end_price 19.59 ticker is NGVC start_index 10777 end_index 10777 start_price 20.32 end_price 20.32 ticker is NGVC start_index 10845 end_index 10845 start_price 25.03 end_price 25.03 ticker is NGVC start_index 10907 end_index 10907 start_price 35.4 end_price 35.4

```
ticker is NGVC start_index 10996 end_index 10996
start_price 37.94 end_price 37.94
ticker is NGVC start_index 11028 end_index 11028
start_price 33.51 end_price 33.51
ticker is NGVC start index 11091 end index 11091
start_price 35.6 end_price 35.6
ticker is NGVC start index 11154 end index 11154
start_price 23.88 end_price 23.88
ticker is NGVC start_index 11247 end_index 11247
start_price 25.45 end_price 25.45
ticker is NGVC start_index 11279 end_index 11279
start_price 28.06 end_price 28.06
ticker is NGVC start_index 11347 end_index 11347
start_price 26.87 end_price 26.87
ticker is NGVC start_index 11405 end_index 11405
start_price 22.29 end_price 22.29
ticker is NGVC start_index 11498 end_index 11498
start_price 20.11 end_price 20.11
ticker is NGVC start_index 11530 end_index 11530
start price 20.67 end price 20.67
ticker is NGVC start_index 11598 end_index 11598
start_price 13.09 end_price 13.09
ticker is NGVC start_index 11656 end_index 11656
start_price 13.49 end_price 13.49
ticker is NGVC start_index 11749 end_index 11749
start_price 11.69 end_price 11.69
ticker is NGVC start_index 11786 end_index 11786
start_price 12.54 end_price 12.54
ticker is NGVC start_index 11849 end_index 11849
start_price 10.7 end_price 10.7
ticker is NGVC start_index 11912 end_index 11912
start_price 8.61 end_price 8.61
ticker is NGVC start_index 12000 end_index 12000
start_price 8.3 end_price 8.3
ticker is NGVC start index 12037 end index 12037
start_price 8.6 end_price 8.6
ticker is NGVC start_index 12100 end_index 12100
start_price 7.19 end_price 7.19
ticker is NGVC start_index 12163 end_index 12163
start_price 12.54 end_price 12.54
ticker is NGVC start_index 12250 end_index 12250
start_price 17.5 end_price 17.5
ticker is NGVC start_index 12292 end_index 12292
start_price 14.0 end_price 14.0
ticker is NGVC start_index 12350 end_index 12350
start_price 12.16 end_price 12.16
ticker is NGVC start_index 12413 end_index 12413
start_price 9.17 end_price 9.17
```

```
ticker is NGVC start_index 12501 end_index 12501
start_price 9.32 end_price 9.32
ticker is NGVC start_index 12543 end_index 12543
start_price 9.35 end_price 9.35
ticker is NGVC start index 12606 end index 12606
start_price 10.72 end_price 10.72
ticker is NGVC start index 12669 end index 12669
start_price 16.06 end_price 16.06
ticker is NGVC start_index 12757 end_index 12757
start_price 13.8 end_price 13.8
ticker is NGVC start_index 12794 end_index 12794
start_price 16.18 end_price 16.18
ticker is NGVC start_index 12857 end_index 12857
start_price 16.08 end_price 16.08
appending NGVC
ticker is QKLS start_index 12979 end_index 12979
start_price 8.08 end_price 8.08
ticker is QKLS start_index 13042 end_index 13042
start_price 5.12 end_price 5.12
ticker is QKLS start index 13144 end index 13144
start_price 5.98 end_price 5.98
ticker is QKLS start index 13165 end index 13165
start_price 3.43 end_price 3.43
ticker is QKLS start_index 13229 end_index 13229
start_price 6.2 end_price 6.2
ticker is QKLS start_index 13294 end_index 13294
start_price 4.55 end_price 4.55
ticker is QKLS start_index 13390 end_index 13390
start_price 4.33 end_price 4.33
ticker is QKLS start_index 13418 end_index 13418
start_price 3.71 end_price 3.71
ticker is QKLS start_index 13481 end_index 13481
start_price 3.37 end_price 3.37
ticker is QKLS start_index 13546 end_index 13546
start price 2.31 end price 2.31
ticker is QKLS start_index 13648 end_index 13648
start_price 3.15 end_price 3.15
ticker is QKLS start_index 13670 end_index 13670
start_price 3.1 end_price 3.1
ticker is QKLS start_index 13734 end_index 13734
start_price 1.64 end_price 1.64
ticker is QKLS start_index 13798 end_index 13798
start_price 0.9 end_price 0.9
ticker is QKLS start_index 13900 end_index 13900
start_price 0.66 end_price 0.66
appending QKLS
ticker is RNDY start_index 15282 end_index 15282
start_price 7.71 end_price 7.71
```

```
ticker is RNDY start_index 15345 end_index 15345
start_price 4.24 end_price 4.24
ticker is RNDY start_index 15433 end_index 15433
start_price 6.74 end_price 6.74
ticker is RNDY start index 15467 end index 15467
start_price 7.33 end_price 7.33
ticker is RNDY start index 15530 end index 15530
start_price 8.57 end_price 8.57
ticker is RNDY start_index 15594 end_index 15594
start_price 9.15 end_price 9.15
ticker is RNDY start_index 15674 end_index 15674
start_price 6.08 end_price 6.08
ticker is RNDY start_index 15716 end_index 15716
start_price 6.65 end_price 6.65
ticker is RNDY start_index 15779 end_index 15779
start_price 4.78 end_price 4.78
ticker is RNDY start_index 15843 end_index 15843
start_price 3.45 end_price 3.45
ticker is RNDY start_index 15930 end_index 15930
start price 4.48 end price 4.48
ticker is RNDY start_index 15972 end_index 15972
start price 4.65 end price 4.65
ticker is RNDY start_index 16035 end_index 16035
start_price 2.46 end_price 2.46
ticker is RNDY start_index 16100 end_index 16100
start_price 3.57 end_price 3.57
appending RNDY
ticker is SFM start_index 16141 end_index 16141
start_price 38.59 end_price 38.59
ticker is SFM start_index 16194 end_index 16194
start_price 48.04 end_price 48.04
ticker is SFM start_index 16201 end_index 16201
start_price 43.05 end_price 43.05
ticker is SFM start_index 16269 end_index 16269
start price 36.85 end price 36.85
ticker is SFM start_index 16281 end_index 16281
start_price 37.95 end_price 37.95
ticker is SFM start_index 16317 end_index 16317
start_price 31.09 end_price 31.09
ticker is SFM start_index 16381 end_index 16381
start_price 31.75 end_price 31.75
ticker is SFM start_index 16445 end_index 16445
start_price 30.69 end_price 30.69
ticker is SFM start_index 16520 end_index 16520
start_price 37.09 end_price 37.09
ticker is SFM start_index 16569 end_index 16569
start_price 31.06 end_price 31.06
ticker is SFM start_index 16632 end_index 16632
```

start_price 24.03 end_price 24.03 ticker is SFM start_index 16696 end_index 16696 start_price 19.88 end_price 19.88 ticker is SFM start_index 16771 end_index 16771 start price 25.21 end price 25.21 ticker is SFM start_index 16820 end_index 16820 start_price 27.38 end_price 27.38 ticker is SFM start_index 16883 end_index 16883 start_price 23.25 end_price 23.25 ticker is SFM start_index 16947 end_index 16947 start_price 22.57 end_price 22.57 ticker is SFM start_index 17022 end_index 17022 start_price 19.0 end_price 19.0 ticker is SFM start_index 17071 end_index 17071 start_price 22.75 end_price 22.75 ticker is SFM start_index 17134 end_index 17134 start_price 23.98 end_price 23.98 ticker is SFM start_index 17198 end_index 17198 start_price 18.87 end_price 18.87 ticker is SFM start index 17273 end index 17273 start_price 26.12 end_price 26.12 ticker is SFM start_index 17322 end_index 17322 start_price 24.39 end_price 24.39 ticker is SFM start_index 17385 end_index 17385 start_price 21.2 end_price 21.2 ticker is SFM start_index 17449 end_index 17449 start_price 26.89 end_price 26.89 ticker is SFM start_index 17523 end_index 17523 start_price 24.14 end_price 24.14 ticker is SFM start_index 17572 end_index 17572 start_price 21.29 end_price 21.29 ticker is SFM start_index 17635 end_index 17635 start_price 16.93 end_price 16.93 ticker is SFM start_index 17699 end_index 17699 start price 18.75 end price 18.75 ticker is SFM start_index 17774 end_index 17774 start price 15.86 end price 15.86 ticker is SFM start_index 17826 end_index 17826 start_price 21.76 end_price 21.76 ticker is SFM start_index 17885 end_index 17885 start_price 27.02 end_price 27.02 ticker is SFM start_index 17949 end_index 17949 start_price 20.4 end_price 20.4 ticker is SFM start_index 18030 end_index 18030 start_price 21.48 end_price 21.48 ticker is SFM start_index 18079 end_index 18079 start_price 25.87 end_price 25.87 appending SFM

ticker is SFS start_index 18209 end_index 18209 start_price 15.49 end_price 15.49

ticker is SFS start_index 18296 end_index 18296 start_price 18.4 end_price 18.4

ticker is SFS start_index 18320 end_index 18320 start_price 17.87 end_price 17.87

ticker is SFS start_index 18379 end_index 18379 start_price 17.79 end_price 17.79

ticker is SFS start_index 18458 end_index 18458 start_price 14.6 end_price 14.6

ticker is SFS start_index 18541 end_index 18541 start_price 15.8 end_price 15.8

ticker is SFS start_index 18576 end_index 18576 start_price 16.03 end_price 16.03

ticker is SFS start_index 18636 end_index 18636 start_price 15.03 end_price 15.03

ticker is SFS start_index 18714 end_index 18714 start_price 13.45 end_price 13.45

ticker is SFS start_index 18795 end_index 18795 start price 11.55 end price 11.55

ticker is SFS start_index 18828 end_index 18828 start price 11.65 end price 11.65

ticker is SFS start_index 18885 end_index 18885 start_price 8.1 end_price 8.1

ticker is SFS start_index 18965 end_index 18965 start_price 7.25 end_price 7.25

ticker is SFS start_index 19046 end_index 19046 start_price 6.0 end_price 6.0

ticker is SFS start_index 19079 end_index 19079 start_price 5.3 end_price 5.3

ticker is SFS start_index 19137 end_index 19137 start_price 5.5 end_price 5.5

ticker is SFS start_index 19216 end_index 19216 start_price 4.95 end_price 4.95

ticker is SFS start_index 19296 end_index 19296 start_price 5.26 end_price 5.26

ticker is SFS start_index 19330 end_index 19330 start_price 6.52 end_price 6.52

appending SFS

ticker is SWY start_index 19378 end_index 19378 start_price 15.26 end_price 15.26

ticker is SWY start_index 19437 end_index 19437 start_price 15.67 end_price 15.67

ticker is SWY start_index 19525 end_index 19525 start_price 22.76 end_price 22.76

ticker is SWY start_index 19569 end_index 19569 start_price 23.51 end_price 23.51

ticker is SWY start_index 19628 end_index 19628

start_price 25.57 end_price 25.57 ticker is SWY start_index 19687 end_index 19687 start_price 32.74 end_price 32.74 ticker is SWY start_index 19777 end_index 19777 start price 37.13 end price 37.13 ticker is SWY start_index 19821 end_index 19821 start_price 34.08 end_price 34.08 ticker is SWY start_index 19878 end_index 19878 start_price 34.82 end_price 34.82 ticker is SWY start_index 19938 end_index 19938 start_price 33.97 end_price 33.97 appending SWY ticker is TFM start_index 20057 end_index 20057 start_price 58.34 end_price 58.34 ticker is TFM start_index 20119 end_index 20119 start_price 50.7 end_price 50.7 ticker is TFM start_index 20194 end_index 20194 start_price 42.7 end_price 42.7 ticker is TFM start_index 20243 end_index 20243 start price 50.26 end price 50.26 ticker is TFM start_index 20307 end_index 20307 start price 49.7 end price 49.7 ticker is TFM start_index 20364 end_index 20364 start_price 39.97 end_price 39.97 ticker is TFM start_index 20442 end_index 20442 start_price 34.18 end_price 34.18 ticker is TFM start_index 20493 end_index 20493 start_price 32.95 end_price 32.95 ticker is TFM start_index 20557 end_index 20557 start_price 33.73 end_price 33.73 ticker is TFM start_index 20621 end_index 20621 start_price 39.53 end_price 39.53 ticker is TFM start_index 20694 end_index 20694 start_price 41.09 end_price 41.09 ticker is TFM start index 20740 end index 20740 start_price 32.43 end_price 32.43 ticker is TFM start_index 20804 end_index 20804 start_price 19.91 end_price 19.91 ticker is TFM start_index 20870 end_index 20870 start_price 23.98 end_price 23.98 ticker is TFM start_index 20947 end_index 20947 start_price 28.47 end_price 28.47 appending TFM ticker is VLGEA start_index 21041 end_index 21041 start_price 34.06 end_price 34.06 ticker is VLGEA start_index 21079 end_index 21079 start_price 37.11 end_price 37.11 ticker is VLGEA start_index 21140 end_index 21140

```
start_price 34.1 end_price 34.1
ticker is VLGEA start_index 21203 end_index 21203
start_price 36.37 end_price 36.37
ticker is VLGEA start_index 21290 end_index 21290
start price 34.85 end price 34.85
ticker is VLGEA start_index 21330 end_index 21330
start_price 38.45 end_price 38.45
ticker is VLGEA start_index 21390 end_index 21390
start_price 27.32 end_price 27.32
ticker is VLGEA start_index 21454 end_index 21454
start_price 22.89 end_price 22.89
ticker is VLGEA start_index 21542 end_index 21542
start_price 23.46 end_price 23.46
ticker is VLGEA start_index 21581 end_index 21581
start_price 24.04 end_price 24.04
ticker is VLGEA start_index 21642 end_index 21642
start_price 27.66 end_price 27.66
ticker is VLGEA start_index 21705 end_index 21705
start_price 32.29 end_price 32.29
ticker is VLGEA start index 21793 end index 21793
start_price 25.39 end_price 25.39
ticker is VLGEA start_index 21833 end_index 21833
start_price 25.61 end_price 25.61
ticker is VLGEA start_index 21893 end_index 21893
start_price 26.41 end_price 26.41
ticker is VLGEA start_index 21957 end_index 21957
start_price 27.37 end_price 27.37
ticker is VLGEA start_index 22049 end_index 22049
start_price 31.72 end_price 31.72
ticker is VLGEA start_index 22088 end_index 22088
start_price 35.63 end_price 35.63
ticker is VLGEA start_index 22150 end_index 22150
start_price 27.06 end_price 27.06
ticker is VLGEA start_index 22212 end_index 22212
start price 25.07 end price 25.07
ticker is VLGEA start_index 22301 end_index 22301
start_price 24.9 end_price 24.9
ticker is VLGEA start_index 22338 end_index 22338
start_price 25.44 end_price 25.44
ticker is VLGEA start_index 22401 end_index 22401
start_price 24.07 end_price 24.07
ticker is VLGEA start_index 22464 end_index 22464
start_price 28.29 end_price 28.29
ticker is VLGEA start_index 22552 end_index 22552
start_price 24.9 end_price 24.9
ticker is VLGEA start_index 22590 end_index 22590
start_price 25.44 end_price 25.44
ticker is VLGEA start_index 22650 end_index 22650
```

```
start_price 31.5 end_price 31.5
ticker is VLGEA start_index 22712 end_index 22712
start_price 26.18 end_price 26.18
ticker is VLGEA start_index 22802 end_index 22802
start price 26.27 end price 26.27
ticker is VLGEA start_index 22841 end_index 22841
start_price 25.79 end_price 25.79
ticker is VLGEA start_index 22902 end_index 22902
start_price 21.35 end_price 21.35
ticker is VLGEA start_index 22965 end_index 22965
start_price 25.46 end_price 25.46
ticker is VLGEA start_index 23053 end_index 23053
start_price 24.32 end_price 24.32
ticker is VLGEA start_index 23092 end_index 23092
start_price 23.13 end_price 23.13
ticker is VLGEA start_index 23153 end_index 23153
start_price 23.88 end_price 23.88
appending VLGEA
ticker is WFM start_index 23312 end_index 23312
start price 46.455 end price 46.455
ticker is WFM start_index 23387 end_index 23387
start price 46.71199999999999 end price 46.71199999999999
ticker is WFM start_index 23449 end_index 23449
start_price 42.465 end_price 42.465
ticker is WFM start_index 23508 end_index 23508
start_price 51.02 end_price 51.02
ticker is WFM start_index 23566 end_index 23566
start_price 55.9 end_price 55.9
ticker is WFM start_index 23640 end_index 23640
start_price 56.48 end_price 56.48
ticker is WFM start_index 23700 end_index 23700
start_price 52.35 end_price 52.35
ticker is WFM start_index 23759 end_index 23759
start_price 38.76 end_price 38.76
ticker is WFM start index 23817 end index 23817
start_price 37.35 end_price 37.35
ticker is WFM start_index 23891 end_index 23891
start_price 47.69 end_price 47.69
ticker is WFM start_index 23956 end_index 23956
start_price 56.73 end_price 56.73
ticker is WFM start_index 24010 end_index 24010
start_price 42.9 end_price 42.9
ticker is WFM start_index 24068 end_index 24068
start_price 34.84 end_price 34.84
ticker is WFM start_index 24137 end_index 24137
start_price 29.91 end_price 29.91
ticker is WFM start_index 24207 end_index 24207
start_price 30.86 end_price 30.86
```

ticker is WFM start_index 24261 end_index 24261 start_price 30.51 end_price 30.51

ticker is WFM start_index 24319 end_index 24319 start_price 30.39 end_price 30.39

ticker is WFM start_index 24393 end_index 24393 start_price 30.94 end_price 30.94

ticker is WFM start_index 24453 end_index 24453 start_price 30.72 end_price 30.72

ticker is WFM start_index 24517 end_index 24517 start_price 36.15 end_price 36.15

ticker is WFM start_index 24570 end_index 24570 start_price 41.84 end_price 41.84 appending WFM

ticker is WMK start_index 24614 end_index 24614 start_price 43.27 end_price 43.27

ticker is WMK start_index 24676 end_index 24676 start_price 40.38 end_price 40.38

ticker is WMK start_index 24761 end_index 24761 start_price 41.02 end_price 41.02

ticker is WMK start_index 24800 end_index 24800 start_price 42.49 end_price 42.49

ticker is WMK start_index 24863 end_index 24863 start_price 50.81 end_price 50.81

ticker is WMK start_index 24927 end_index 24927 start_price 49.21 end_price 49.21

ticker is WMK start_index 25013 end_index 25013 start_price 49.49 end_price 49.49

ticker is WMK start_index 25051 end_index 25051 start_price 45.2 end_price 45.2

ticker is WMK start_index 25114 end_index 25114 start_price 43.43 end_price 43.43

ticker is WMK start_index 25178 end_index 25178 start_price 44.63 end_price 44.63

ticker is WMK start_index 25264 end_index 25264 start price 50.36 end price 50.36

ticker is WMK start_index 25298 end_index 25298 start price 44.35 end price 44.35

ticker is WMK start_index 25363 end_index 25363 start_price 42.01 end_price 42.01

ticker is WMK start_index 25497 end_index 25497 start_price 38.92 end_price 38.92

ticker is WMK start_index 25520 end_index 25520 start_price 43.38 end_price 43.38

ticker is WMK start_index 25553 end_index 25553 start_price 45.43 end_price 45.43

ticker is WMK start_index 25611 end_index 25611 start_price 51.55 end_price 51.55

ticker is WMK start_index 25680 end_index 25680

start_price 56.51 end_price 56.51 ticker is WMK start_index 25770 end_index 25770 start_price 59.08 end_price 59.08 ticker is WMK start_index 25809 end_index 25809 start price 57.79 end price 57.79 ticker is WMK start_index 25872 end_index 25872 start price 44.49 end price 44.49 ticker is WMK start_index 25934 end_index 25934 start_price 34.0 end_price 34.0 ticker is WMK start_index 26021 end_index 26021 start_price 38.37 end_price 38.37 ticker is WMK start_index 26060 end_index 26060 start_price 48.03 end_price 48.03 ticker is WMK start_index 26122 end_index 26122 start_price 48.66 end_price 48.66 ticker is WMK start_index 26187 end_index 26187 start_price 46.46 end_price 46.46 ticker is WMK start_index 26271 end_index 26271 start_price 40.5 end_price 40.5 ticker is WMK start index 26310 end index 26310 start_price 38.77 end_price 38.77 ticker is WMK start index 26371 end index 26371 start_price 37.6 end_price 37.6 ticker is WMK start_index 26434 end_index 26434 start_price 38.87 end_price 38.87 ticker is WMK start_index 26522 end_index 26522 start_price 36.39 end_price 36.39 ticker is WMK start_index 26561 end_index 26561 start_price 54.64 end_price 54.64 ticker is WMK start_index 26623 end_index 26623 start_price 51.17 end_price 51.17 ticker is WMK start_index 26688 end_index 26688 start_price 46.35 end_price 46.35 ticker is WMK start_index 26773 end_index 26773 start price 58.85 end price 58.85 ticker is WMK start_index 26812 end_index 26812 start_price 52.64 end_price 52.64 appending WMK ticker is ACI start_index 25 end_index 26 start_price 14.83 end_price 15.18 ticker is ACI start_index 80 end_index 81 start_price 15.22 end_price 14.98 ticker is ACI start_index 137 end_index 138 start_price 17.1 end_price 17.12 ticker is ACI start_index 209 end_index 210 start_price 18.11 end_price 18.71 appending ACI ticker is ARDNA start_index 330 end_index 331

start_price 82.6 end_price 87.61 ticker is ARDNA start_index 394 end_index 395 start_price 95.88 end_price 96.43 ticker is ARDNA start_index 478 end_index 479 start price 98.31 end price 101.5 ticker is ARDNA start_index 519 end_index 520 start_price 98.65 end_price 99.75 ticker is ARDNA start_index 583 end_index 584 start_price 132.78 end_price 133.1 ticker is ARDNA start_index 647 end_index 648 start_price 129.85 end_price 129.4 appending ARDNA ticker is ASAI start_index 754 end_index 755 start_price 14.81 end_price 14.94 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3089 start_price 17.35 end_price 18.83 ticker is FWMHQ start_index 3122 end_index 3123 start price 20.73 end price 20.18 ticker is FWMHQ start index 3166 end index 3167 start price 25.83 end price 26.08 ticker is FWMHQ start_index 3230 end_index 3231 start_price 25.46 end_price 19.95 ticker is FWMHQ start_index 3291 end_index 3292 start_price 11.14 end_price 11.43 ticker is FWMHQ start_index 3368 end_index 3369 start_price 6.75 end_price 6.64 ticker is FWMHQ start_index 3417 end_index 3418 start_price 5.74 end_price 5.65 ticker is FWMHQ start_index 3481 end_index 3482 start_price 2.59 end_price 2.72 ticker is FWMHQ start_index 3542 end_index 3543 start_price 5.02 end_price 5.06 ticker is FWMHQ start index 3617 end index 3618 start_price 4.63 end_price 4.45 ticker is FWMHQ start index 3666 end index 3667 start_price 3.02 end_price 3.0 ticker is FWMHQ start_index 3727 end_index 3728 start_price 1.71 end_price 1.82 ticker is FWMHQ start_index 3794 end_index 3795 start_price 0.499 end_price 0.45 appending FWMHQ ticker is GO start_index 3900 end_index 3901 start_price 28.51 end_price 28.6 ticker is GO start_index 3936 end_index 3937 start_price 37.54 end_price 37.6 ticker is GO start_index 3972 end_index 3973

start_price 33.01 end_price 33.91 ticker is GO start_index 4000 end_index 4001 start_price 31.0 end_price 32.6 ticker is GO start_index 4050 end_index 4051 start price 35.43 end price 35.25 ticker is GO start_index 4091 end_index 4092 start_price 33.2 end_price 33.45 ticker is GO start_index 4124 end_index 4125 start_price 36.67 end_price 37.49 ticker is GO start_index 4187 end_index 4188 start_price 44.33 end_price 42.66 ticker is GO start_index 4251 end_index 4252 start_price 41.21 end_price 42.44 ticker is GO start_index 4326 end_index 4327 start_price 35.91 end_price 36.14 ticker is GO start_index 4376 end_index 4377 start_price 40.54 end_price 33.03 appending GO ticker is HTSI start_index 4491 end_index 4492 start price 41.53 end price 41.05 ticker is HTSI start_index 4562 end_index 4563 start_price 36.17 end_price 36.79 ticker is HTSI start_index 4614 end_index 4615 start_price 36.95 end_price 37.08 ticker is HTSI start_index 4676 end_index 4677 start_price 45.29 end_price 44.99 ticker is HTSI start_index 4740 end_index 4741 start_price 49.2 end_price 49.25 ticker is HTSI start_index 4820 end_index 4821 start_price 49.38 end_price 49.41 appending HTSI ticker is IFMK start_index 4953 end_index 4954 start_price 11.99 end_price 12.01 ticker is IFMK start_index 4984 end_index 4985 start price 12.81 end price 12.89 ticker is IFMK start_index 5049 end_index 5050 start_price 11.13 end_price 11.565 ticker is IFMK start_index 5111 end_index 5112 start_price 11.92 end_price 12.39 ticker is IFMK start_index 5205 end_index 5206 start_price 5.5 end_price 5.2 ticker is IFMK start_index 5236 end_index 5237 start_price 3.8 end_price 3.36 ticker is IFMK start_index 5301 end_index 5302 start_price 1.4 end_price 1.226 ticker is IFMK start_index 5362 end_index 5363 start_price 1.07 end_price 1.41 ticker is IFMK start_index 5455 end_index 5456

```
start_price 1.2 end_price 1.25
ticker is IFMK start_index 5487 end_index 5488
start_price 2.27 end_price 1.84
ticker is IFMK start_index 5552 end_index 5553
start price 0.375 end price 0.375
ticker is IFMK start_index 5614 end_index 5615
start price 0.422000000000000004 end price 0.421000000000000004
ticker is IFMK start_index 5739 end_index 5740
ticker is IFMK start_index 5744 end_index 5745
start_price 0.9 end_price 1.04
ticker is IFMK start_index 5810 end_index 5811
start_price 0.859000000000001 end_price 0.819000000000001
ticker is IFMK start_index 5830 end_index 5831
ticker is IFMK start_index 5870 end_index 5871
start_price 1.95 end_price 2.14
appending IFMK
ticker is IMKTA start_index 6035 end_index 6036
start price 16.36 end price 16.62
ticker is IMKTA start index 6135 end index 6136
start price 17.2 end price 17.08
ticker is IMKTA start_index 6164 end_index 6165
start_price 19.3 end_price 19.25
ticker is IMKTA start_index 6226 end_index 6227
start_price 21.46 end_price 21.29
ticker is IMKTA start_index 6288 end_index 6289
start_price 25.69 end_price 25.72
ticker is IMKTA start_index 6378 end_index 6379
start_price 24.41 end_price 24.74
ticker is IMKTA start_index 6413 end_index 6414
start_price 24.02 end_price 23.15
ticker is IMKTA start_index 6476 end_index 6477
start_price 26.07 end_price 26.64
ticker is IMKTA start index 6541 end index 6542
start_price 24.47 end_price 24.67
ticker is IMKTA start index 6632 end index 6633
start_price 32.08 end_price 32.83
ticker is IMKTA start_index 6666 end_index 6667
start_price 44.06 end_price 43.8
ticker is IMKTA start_index 6728 end_index 6729
start_price 40.87 end_price 41.69
ticker is IMKTA start_index 6790 end_index 6791
start_price 49.9 end_price 50.31
ticker is IMKTA start_index 6880 end_index 6881
start_price 53.84 end_price 53.75
ticker is IMKTA start_index 6917 end_index 6918
start_price 36.2 end_price 36.14
```

```
ticker is IMKTA start_index 6980 end_index 6981
start_price 36.73 end_price 36.16
ticker is IMKTA start_index 7042 end_index 7043
start_price 36.86 end_price 36.41
ticker is IMKTA start index 7137 end index 7138
start_price 48.05 end_price 49.25
ticker is IMKTA start index 7167 end index 7168
start_price 45.25 end_price 45.5
ticker is IMKTA start_index 7230 end_index 7231
start_price 45.85 end_price 45.25
ticker is IMKTA start_index 7293 end_index 7294
start_price 29.5 end_price 28.55
ticker is IMKTA start_index 7381 end_index 7382
start_price 27.7 end_price 27.7
ticker is IMKTA start_index 7424 end_index 7425
start_price 30.55 end_price 30.15
ticker is IMKTA start_index 7486 end_index 7487
start_price 30.95 end_price 31.0
ticker is IMKTA start_index 7550 end_index 7551
start price 29.55 end price 29.95
ticker is IMKTA start_index 7633 end_index 7634
start price 28.1 end price 28.82
ticker is IMKTA start_index 7674 end_index 7675
start_price 28.96 end_price 31.09
ticker is IMKTA start_index 7736 end_index 7737
start_price 27.45 end_price 27.53
ticker is IMKTA start_index 7800 end_index 7801
start_price 31.75 end_price 33.21
ticker is IMKTA start_index 7886 end_index 7887
start_price 43.48 end_price 45.13
ticker is IMKTA start_index 7925 end_index 7926
start_price 42.76 end_price 41.66
ticker is IMKTA start_index 7988 end_index 7989
start_price 37.61 end_price 39.82
ticker is IMKTA start index 8051 end index 8052
start_price 39.9 end_price 40.64
ticker is IMKTA start_index 8137 end_index 8138
start_price 37.41 end_price 41.77
ticker is IMKTA start_index 8176 end_index 8177
start_price 47.26 end_price 50.96
ticker is IMKTA start_index 8238 end_index 8239
start_price 62.74 end_price 64.39
appending IMKTA
ticker is KR start_index 8385 end_index 8386
start_price 11.905 end_price 11.815
ticker is KR start_index 8442 end_index 8443
start_price 13.325 end_price 13.3
ticker is KR start_index 8517 end_index 8518
```

start_price 16.27 end_price 16.395 ticker is KR start_index 8579 end_index 8580 start_price 17.355 end_price 17.27 ticker is KR start_index 8639 end_index 8640 start price 20.24 end price 20.425 ticker is KR start_index 8696 end_index 8697 start_price 19.995 end_price 19.96 ticker is KR start_index 8769 end_index 8770 start_price 21.825 end_price 21.81 ticker is KR start_index 8832 end_index 8833 start_price 24.715 end_price 24.765 ticker is KR start_index 8890 end_index 8891 start_price 26.015 end_price 26.015 ticker is KR start_index 8949 end_index 8950 start_price 30.765 end_price 30.75 ticker is KR start_index 9020 end_index 9021 start_price 38.62 end_price 38.33 ticker is KR start_index 9083 end_index 9084 start_price 36.335 end_price 36.255 ticker is KR start index 9141 end index 9142 start_price 36.66 end_price 36.41 ticker is KR start_index 9202 end_index 9203 start_price 42.43 end_price 41.94 ticker is KR start_index 9270 end_index 9271 start_price 38.06 end_price 38.03 ticker is KR start_index 9334 end_index 9335 start_price 36.62 end_price 36.05 ticker is KR start_index 9392 end_index 9393 start_price 30.79 end_price 31.09 ticker is KR start_index 9451 end_index 9452 start_price 34.22 end_price 34.42 ticker is KR start_index 9522 end_index 9523 start_price 28.93 end_price 29.04 ticker is KR start_index 9585 end_index 9586 start price 22.61 end price 22.77 ticker is KR start_index 9641 end_index 9642 start_price 21.26 end_price 21.57 ticker is KR start_index 9700 end_index 9701 start_price 26.53 end_price 26.68 ticker is KR start_index 9777 end_index 9778 start_price 23.28 end_price 23.59 ticker is KR start_index 9839 end_index 9840 start_price 28.43 end_price 28.45 ticker is KR start_index 9899 end_index 9900 start_price 29.61 end_price 29.26 ticker is KR start_index 9957 end_index 9958 start_price 28.92 end_price 28.55 ticker is KR start_index 10028 end_index 10029 start_price 24.48 end_price 23.76 ticker is KR start_index 10089 end_index 10090 start_price 21.39 end_price 21.71 ticker is KR start_index 10149 end_index 10150 start price 25.72 end price 25.81 ticker is KR start_index 10208 end_index 10209 start_price 28.31 end_price 28.7 ticker is KR start_index 10280 end_index 10281 start_price 30.12 end_price 30.5 ticker is KR start_index 10340 end_index 10341 start_price 32.78 end_price 32.68 ticker is KR start_index 10400 end_index 10401 start_price 33.46 end_price 33.74 ticker is KR start_index 10459 end_index 10460 start_price 31.3 end_price 31.19 ticker is KR start_index 10530 end_index 10531 start_price 37.95 end_price 38.08 appending KR ticker is NGVC start_index 10745 end_index 10746 start price 19.38 end price 19.97 ticker is NGVC start_index 10747 end_index 10748 start price 19.59 end price 19.59 ticker is NGVC start_index 10777 end_index 10778 start_price 20.32 end_price 20.54 ticker is NGVC start_index 10845 end_index 10846 start_price 25.03 end_price 25.2 ticker is NGVC start_index 10907 end_index 10908 start_price 35.4 end_price 34.44 ticker is NGVC start_index 10996 end_index 10997 start_price 37.94 end_price 38.76 ticker is NGVC start_index 11028 end_index 11029 start_price 33.51 end_price 33.94 ticker is NGVC start_index 11091 end_index 11092 start_price 35.6 end_price 36.5 ticker is NGVC start index 11154 end index 11155 start_price 23.88 end_price 22.68 ticker is NGVC start index 11247 end index 11248 start_price 25.45 end_price 26.31 ticker is NGVC start_index 11279 end_index 11280 start_price 28.06 end_price 28.46 ticker is NGVC start_index 11347 end_index 11348 start_price 26.87 end_price 25.88 ticker is NGVC start_index 11405 end_index 11406 start_price 22.29 end_price 21.53 ticker is NGVC start_index 11498 end_index 11499 start_price 20.11 end_price 20.18 ticker is NGVC start_index 11530 end_index 11531 start_price 20.67 end_price 20.73

```
ticker is NGVC start_index 11598 end_index 11599
start_price 13.09 end_price 13.23
ticker is NGVC start_index 11656 end_index 11657
start_price 13.49 end_price 13.15
ticker is NGVC start index 11749 end index 11750
start_price 11.69 end_price 11.95
ticker is NGVC start index 11786 end index 11787
start_price 12.54 end_price 12.97
ticker is NGVC start_index 11849 end_index 11850
start_price 10.7 end_price 10.8
ticker is NGVC start_index 11912 end_index 11913
start_price 8.61 end_price 8.5
ticker is NGVC start_index 12000 end_index 12001
start_price 8.3 end_price 8.48
ticker is NGVC start_index 12037 end_index 12038
start_price 8.6 end_price 9.03
ticker is NGVC start_index 12100 end_index 12101
start_price 7.19 end_price 6.9
ticker is NGVC start_index 12163 end_index 12164
start price 12.54 end price 13.45
ticker is NGVC start_index 12250 end_index 12251
start price 17.5 end price 17.96
ticker is NGVC start_index 12292 end_index 12293
start_price 14.0 end_price 14.0
ticker is NGVC start_index 12350 end_index 12351
start_price 12.16 end_price 12.32
ticker is NGVC start_index 12413 end_index 12414
start_price 9.17 end_price 9.18
ticker is NGVC start_index 12501 end_index 12502
start_price 9.32 end_price 9.13
ticker is NGVC start_index 12543 end_index 12544
start_price 9.35 end_price 9.24
ticker is NGVC start_index 12606 end_index 12607
start_price 10.72 end_price 10.88
ticker is NGVC start index 12669 end index 12670
start_price 16.06 end_price 16.06
ticker is NGVC start index 12757 end index 12758
start_price 13.8 end_price 14.09
ticker is NGVC start_index 12794 end_index 12795
start_price 16.18 end_price 16.47
ticker is NGVC start_index 12857 end_index 12858
start_price 16.08 end_price 15.95
appending NGVC
ticker is QKLS start_index 12979 end_index 12980
start_price 8.08 end_price 7.92
ticker is QKLS start_index 13042 end_index 13043
start_price 5.12 end_price 5.6
ticker is QKLS start_index 13144 end_index 13145
```

```
start_price 5.98 end_price 5.35
ticker is QKLS start_index 13165 end_index 13166
start_price 3.43 end_price 3.51
ticker is QKLS start_index 13229 end_index 13230
start price 6.2 end price 4.92
ticker is QKLS start_index 13294 end_index 13295
start price 4.55 end price 4.5
ticker is QKLS start_index 13390 end_index 13391
start_price 4.33 end_price 3.74
ticker is QKLS start_index 13418 end_index 13419
start_price 3.71 end_price 3.55
ticker is QKLS start_index 13481 end_index 13482
start_price 3.37 end_price 3.37
ticker is QKLS start_index 13546 end_index 13547
start_price 2.31 end_price 2.3
ticker is QKLS start_index 13648 end_index 13649
start_price 3.15 end_price 2.71
ticker is QKLS start_index 13670 end_index 13671
start_price 3.1 end_price 2.77
ticker is QKLS start index 13734 end index 13735
start_price 1.64 end_price 1.66
ticker is QKLS start index 13798 end index 13799
start_price 0.9 end_price 0.91
ticker is QKLS start_index 13900 end_index 13901
start_price 0.66 end_price 0.59
appending QKLS
ticker is RNDY start_index 15282 end_index 15283
start_price 7.71 end_price 7.85
ticker is RNDY start_index 15345 end_index 15346
start_price 4.24 end_price 4.19
ticker is RNDY start_index 15433 end_index 15434
start_price 6.74 end_price 6.46
ticker is RNDY start_index 15467 end_index 15468
start_price 7.33 end_price 7.09
ticker is RNDY start index 15530 end index 15531
start_price 8.57 end_price 8.2
ticker is RNDY start index 15594 end index 15595
start_price 9.15 end_price 8.63
ticker is RNDY start_index 15674 end_index 15675
start_price 6.08 end_price 6.21
ticker is RNDY start_index 15716 end_index 15717
start_price 6.65 end_price 6.46
ticker is RNDY start_index 15779 end_index 15780
start_price 4.78 end_price 4.95
ticker is RNDY start_index 15843 end_index 15844
start_price 3.45 end_price 3.58
ticker is RNDY start_index 15930 end_index 15931
start_price 4.48 end_price 4.45
```

```
ticker is RNDY start_index 15972 end_index 15973 start_price 4.65 end_price 4.58
```

ticker is RNDY start_index 16035 end_index 16036 start_price 2.46 end_price 2.63

ticker is RNDY start_index 16100 end_index 16101 start_price 3.57 end_price 3.57 appending RNDY

ticker is SFM start_index 16141 end_index 16142
start_price 38.59 end_price 39.06

ticker is SFM start_index 16194 end_index 16195 start_price 48.04 end_price 46.58

ticker is SFM start_index 16201 end_index 16202 start_price 43.05 end_price 40.59

ticker is SFM start_index 16269 end_index 16270 start_price 36.85 end_price 37.46

ticker is SFM start_index 16281 end_index 16282 start_price 37.95 end_price 37.83

ticker is SFM start_index 16317 end_index 16318 start_price 31.09 end_price 27.4

ticker is SFM start_index 16381 end_index 16382 start_price 31.75 end_price 30.55

ticker is SFM start_index 16445 end_index 16446 start_price 30.69 end_price 31.28

ticker is SFM start_index 16520 end_index 16521 start_price 37.09 end_price 36.01

ticker is SFM start_index 16569 end_index 16570 start_price 31.06 end_price 30.21

ticker is SFM start_index 16632 end_index 16633 start_price 24.03 end_price 23.5

ticker is SFM start_index 16696 end_index 16697 start_price 19.88 end_price 23.01

ticker is SFM start_index 16771 end_index 16772
start_price 25.21 end_price 27.43

ticker is SFM start_index 16820 end_index 16821 start price 27.38 end price 25.48

ticker is SFM start_index 16883 end_index 16884 start_price 23.25 end_price 22.95

ticker is SFM start_index 16947 end_index 16948 start_price 22.57 end_price 20.025

ticker is SFM start_index 17022 end_index 17023
start_price 19.0 end_price 19.13

ticker is SFM start_index 17071 end_index 17072 start_price 22.75 end_price 22.74

ticker is SFM start_index 17134 end_index 17135 start_price 23.98 end_price 23.57

ticker is SFM start_index 17198 end_index 17199 start_price 18.87 end_price 20.48

ticker is SFM start_index 17273 end_index 17274

start_price 26.12 end_price 25.51 ticker is SFM start_index 17322 end_index 17323 start_price 24.39 end_price 21.15 ticker is SFM start_index 17385 end_index 17386 start price 21.2 end price 23.83 ticker is SFM start_index 17449 end_index 17450 start_price 26.89 end_price 27.01 ticker is SFM start_index 17523 end_index 17524 start_price 24.14 end_price 23.29 ticker is SFM start_index 17572 end_index 17573 start_price 21.29 end_price 22.44 ticker is SFM start_index 17635 end_index 17636 start_price 16.93 end_price 18.17 ticker is SFM start_index 17699 end_index 17700 start_price 18.75 end_price 19.41 ticker is SFM start_index 17774 end_index 17775 start_price 15.86 end_price 16.045 ticker is SFM start_index 17826 end_index 17827 start_price 21.76 end_price 22.26 ticker is SFM start index 17885 end index 17886 start_price 27.02 end_price 27.15 ticker is SFM start index 17949 end index 17950 start_price 20.4 end_price 20.33 ticker is SFM start_index 18030 end_index 18031 start_price 21.48 end_price 20.52 ticker is SFM start_index 18079 end_index 18080 start_price 25.87 end_price 26.37 appending SFM ticker is SFS start_index 18209 end_index 18210 start_price 15.49 end_price 15.04 ticker is SFS start_index 18296 end_index 18297 start_price 18.4 end_price 18.06 ticker is SFS start_index 18320 end_index 18321 start_price 17.87 end_price 17.3 ticker is SFS start index 18379 end index 18380 start_price 17.79 end_price 16.86 ticker is SFS start index 18458 end index 18459 start_price 14.6 end_price 16.33 ticker is SFS start_index 18541 end_index 18542 start_price 15.8 end_price 15.76 ticker is SFS start_index 18576 end_index 18577 start_price 16.03 end_price 15.51 ticker is SFS start_index 18636 end_index 18637 start_price 15.03 end_price 13.79 ticker is SFS start_index 18714 end_index 18715 start_price 13.45 end_price 13.55 ticker is SFS start_index 18795 end_index 18796 start_price 11.55 end_price 12.1

```
ticker is SFS start_index 18828 end_index 18829 start_price 11.65 end_price 12.75
```

ticker is SFS start_index 18885 end_index 18886 start_price 8.1 end_price 8.7

ticker is SFS start_index 18965 end_index 18966 start_price 7.25 end_price 7.65

ticker is SFS start_index 19046 end_index 19047 start_price 6.0 end_price 6.25

ticker is SFS start_index 19079 end_index 19080 start_price 5.3 end_price 4.55

ticker is SFS start_index 19137 end_index 19138 start_price 5.5 end_price 5.95

ticker is SFS start_index 19216 end_index 19217 start_price 4.95 end_price 6.7

ticker is SFS start_index 19296 end_index 19297 start_price 5.26 end_price 5.03

ticker is SFS start_index 19330 end_index 19331 start_price 6.52 end_price 6.57

appending SFS

ticker is SWY start_index 19378 end_index 19379 start_price 15.26 end_price 15.26

ticker is SWY start_index 19437 end_index 19438 start_price 15.67 end_price 15.92

ticker is SWY start_index 19525 end_index 19526 start_price 22.76 end_price 23.66

ticker is SWY start_index 19569 end_index 19570 start_price 23.51 end_price 22.52

ticker is SWY start_index 19628 end_index 19629 start_price 25.57 end_price 25.51

ticker is SWY start_index 19687 end_index 19688 start_price 32.74 end_price 33.08

ticker is SWY start_index 19777 end_index 19778 start_price 37.13 end_price 36.96

ticker is SWY start_index 19821 end_index 19822 start price 34.08 end price 34.06

ticker is SWY start_index 19878 end_index 19879 start price 34.82 end price 34.79

ticker is SWY start_index 19938 end_index 19939 start_price 33.97 end_price 33.28

appending SWY

ticker is TFM start_index 20057 end_index 20058 start_price 58.34 end_price 56.02

ticker is TFM start_index 20119 end_index 20120 start_price 50.7 end_price 50.43

ticker is TFM start_index 20194 end_index 20195 start_price 42.7 end_price 42.69

ticker is TFM start_index 20243 end_index 20244 start_price 50.26 end_price 50.24

```
ticker is TFM start_index 20307 end_index 20308
start_price 49.7 end_price 50.07
ticker is TFM start_index 20364 end_index 20365
start_price 39.97 end_price 39.46
ticker is TFM start index 20442 end index 20443
start_price 34.18 end_price 34.33
ticker is TFM start index 20493 end index 20494
start_price 32.95 end_price 33.16
ticker is TFM start_index 20557 end_index 20558
start_price 33.73 end_price 34.37
ticker is TFM start_index 20621 end_index 20622
start_price 39.53 end_price 39.88
ticker is TFM start_index 20694 end_index 20695
start_price 41.09 end_price 40.73
ticker is TFM start_index 20740 end_index 20741
start_price 32.43 end_price 31.98
ticker is TFM start_index 20804 end_index 20805
start_price 19.91 end_price 20.18
ticker is TFM start_index 20870 end_index 20871
start price 23.98 end price 24.43
ticker is TFM start_index 20947 end_index 20948
start_price 28.47 end_price 28.37
appending TFM
ticker is VLGEA start_index 21041 end_index 21042
start_price 34.06 end_price 32.87
ticker is VLGEA start_index 21079 end_index 21080
start_price 37.11 end_price 36.96
ticker is VLGEA start_index 21140 end_index 21141
start_price 34.1 end_price 33.6
ticker is VLGEA start_index 21203 end_index 21204
start_price 36.37 end_price 35.56
ticker is VLGEA start_index 21290 end_index 21291
start_price 34.85 end_price 34.65
ticker is VLGEA start_index 21330 end_index 21331
start price 38.45 end price 34.66
ticker is VLGEA start_index 21390 end_index 21391
start_price 27.32 end_price 28.61
ticker is VLGEA start_index 21454 end_index 21455
start_price 22.89 end_price 22.62
ticker is VLGEA start_index 21542 end_index 21543
start_price 23.46 end_price 23.4
ticker is VLGEA start_index 21581 end_index 21582
start_price 24.04 end_price 24.67
ticker is VLGEA start_index 21642 end_index 21643
start_price 27.66 end_price 27.67
ticker is VLGEA start_index 21705 end_index 21706
start_price 32.29 end_price 32.76
ticker is VLGEA start_index 21793 end_index 21794
```

```
start_price 25.39 end_price 24.45
ticker is VLGEA start_index 21833 end_index 21834
start_price 25.61 end_price 25.64
ticker is VLGEA start_index 21893 end_index 21894
start price 26.41 end price 25.31
ticker is VLGEA start_index 21957 end_index 21958
start price 27.37 end price 26.77
ticker is VLGEA start_index 22049 end_index 22050
start_price 31.72 end_price 31.96
ticker is VLGEA start_index 22088 end_index 22089
start_price 35.63 end_price 35.62
ticker is VLGEA start_index 22150 end_index 22151
start_price 27.06 end_price 26.97
ticker is VLGEA start_index 22212 end_index 22213
start_price 25.07 end_price 27.05
ticker is VLGEA start_index 22301 end_index 22302
start_price 24.9 end_price 24.68
ticker is VLGEA start_index 22338 end_index 22339
start_price 25.44 end_price 23.82
ticker is VLGEA start index 22401 end index 22402
start_price 24.07 end_price 23.89
ticker is VLGEA start_index 22464 end_index 22465
start_price 28.29 end_price 28.64
ticker is VLGEA start_index 22552 end_index 22553
start_price 24.9 end_price 24.73
ticker is VLGEA start_index 22590 end_index 22591
start_price 25.44 end_price 26.0
ticker is VLGEA start_index 22650 end_index 22651
start_price 31.5 end_price 30.69
ticker is VLGEA start_index 22712 end_index 22713
start_price 26.18 end_price 25.43
ticker is VLGEA start_index 22802 end_index 22803
start_price 26.27 end_price 25.93
ticker is VLGEA start_index 22841 end_index 22842
start price 25.79 end price 25.69
ticker is VLGEA start_index 22902 end_index 22903
start_price 21.35 end_price 20.0
ticker is VLGEA start_index 22965 end_index 22966
start_price 25.46 end_price 25.51
ticker is VLGEA start_index 23053 end_index 23054
start_price 24.32 end_price 24.67
ticker is VLGEA start_index 23092 end_index 23093
start_price 23.13 end_price 23.19
ticker is VLGEA start_index 23153 end_index 23154
start_price 23.88 end_price 24.7
appending VLGEA
ticker is WFM start_index 23312 end_index 23313
start_price 46.455 end_price 47.3
```

ticker is WFM start_index 23387 end_index 23388 start_price 46.7119999999999 end_price 46.035 ticker is WFM start_index 23449 end_index 23450 start_price 42.465 end_price 42.915 ticker is WFM start index 23508 end index 23509 start_price 51.02 end_price 51.885 ticker is WFM start index 23566 end index 23567 start_price 55.9 end_price 55.42 ticker is WFM start_index 23640 end_index 23641 start_price 56.48 end_price 55.95 ticker is WFM start_index 23700 end_index 23701 start_price 52.35 end_price 52.76 ticker is WFM start_index 23759 end_index 23760 start_price 38.76 end_price 37.91 ticker is WFM start_index 23817 end_index 23818 start_price 37.35 end_price 37.89 ticker is WFM start_index 23891 end_index 23892 start_price 47.69 end_price 48.23 ticker is WFM start_index 23956 end_index 23957 start price 56.73 end price 56.49 ticker is WFM start_index 24010 end_index 24011 start_price 42.9 end_price 43.075 ticker is WFM start_index 24068 end_index 24069 start_price 34.84 end_price 34.475 ticker is WFM start_index 24137 end_index 24138 start_price 29.91 end_price 29.55 ticker is WFM start_index 24207 end_index 24208 start_price 30.86 end_price 31.1 ticker is WFM start_index 24261 end_index 24262 start_price 30.51 end_price 30.3 ticker is WFM start_index 24319 end_index 24320 start_price 30.39 end_price 30.3 ticker is WFM start_index 24393 end_index 24394 start_price 30.94 end_price 30.96 ticker is WFM start index 24453 end index 24454 start_price 30.72 end_price 30.56 ticker is WFM start_index 24517 end_index 24518 start_price 36.15 end_price 35.99 ticker is WFM start_index 24570 end_index 24571 start_price 41.84 end_price 41.81 appending WFM ticker is WMK start_index 24614 end_index 24615 start_price 43.27 end_price 43.24 ticker is WMK start_index 24676 end_index 24677 start_price 40.38 end_price 39.82 ticker is WMK start_index 24761 end_index 24762 start_price 41.02 end_price 41.44 ticker is WMK start_index 24800 end_index 24801 start_price 42.49 end_price 41.16 ticker is WMK start_index 24863 end_index 24864 start_price 50.81 end_price 50.95 ticker is WMK start_index 24927 end_index 24928 start price 49.21 end price 48.63 ticker is WMK start_index 25013 end_index 25014 start_price 49.49 end_price 49.65 ticker is WMK start_index 25051 end_index 25052 start_price 45.2 end_price 44.6 ticker is WMK start_index 25114 end_index 25115 start_price 43.43 end_price 43.28 ticker is WMK start_index 25178 end_index 25179 start_price 44.63 end_price 44.82 ticker is WMK start_index 25264 end_index 25265 start_price 50.36 end_price 50.21 ticker is WMK start_index 25298 end_index 25299 start_price 44.35 end_price 44.14 ticker is WMK start_index 25363 end_index 25364 start_price 42.01 end_price 41.85 ticker is WMK start index 25497 end index 25498 start_price 38.92 end_price 39.85 ticker is WMK start index 25520 end index 25521 start_price 43.38 end_price 43.57 ticker is WMK start_index 25553 end_index 25554 start_price 45.43 end_price 45.46 ticker is WMK start_index 25611 end_index 25612 start_price 51.55 end_price 50.54 ticker is WMK start_index 25680 end_index 25681 start_price 56.51 end_price 55.28 ticker is WMK start_index 25770 end_index 25771 start_price 59.08 end_price 60.21 ticker is WMK start_index 25809 end_index 25810 start_price 57.79 end_price 56.73 ticker is WMK start_index 25872 end_index 25873 start price 44.49 end price 44.9 ticker is WMK start_index 25934 end_index 25935 start_price 34.0 end_price 34.59 ticker is WMK start_index 26021 end_index 26022 start_price 38.37 end_price 37.93 ticker is WMK start_index 26060 end_index 26061 start_price 48.03 end_price 47.55 ticker is WMK start_index 26122 end_index 26123 start_price 48.66 end_price 49.55 ticker is WMK start_index 26187 end_index 26188 start_price 46.46 end_price 47.53 ticker is WMK start_index 26271 end_index 26272 start_price 40.5 end_price 40.56 ticker is WMK start_index 26310 end_index 26311 start_price 38.77 end_price 39.41 ticker is WMK start_index 26371 end_index 26372 start_price 37.6 end_price 38.13 ticker is WMK start_index 26434 end_index 26435 start price 38.87 end price 39.71 ticker is WMK start_index 26522 end_index 26523 start price 36.39 end price 32.62 ticker is WMK start_index 26561 end_index 26562 start_price 54.64 end_price 53.78 ticker is WMK start_index 26623 end_index 26624 start_price 51.17 end_price 49.35 ticker is WMK start_index 26688 end_index 26689 start_price 46.35 end_price 46.7 ticker is WMK start_index 26773 end_index 26774 start_price 58.85 end_price 58.98 ticker is WMK start_index 26812 end_index 26813 start_price 52.64 end_price 54.28 appending WMK ticker is ACI start_index 25 end_index 27 start price 14.83 end price 15.47 ticker is ACI start_index 80 end_index 82 start_price 15.22 end_price 14.7 ticker is ACI start_index 137 end_index 139 start_price 17.1 end_price 17.46 ticker is ACI start_index 209 end_index 211 start_price 18.11 end_price 19.31 appending ACI ticker is ARDNA start_index 330 end_index 332 start_price 82.6 end_price 88.5 ticker is ARDNA start_index 394 end_index 396 start_price 95.88 end_price 95.75 ticker is ARDNA start_index 478 end_index 480 start_price 98.31 end_price 102.5 ticker is ARDNA start_index 519 end_index 521 start price 98.65 end price 99.84 ticker is ARDNA start_index 583 end_index 585 start price 132.78 end price 132.4 ticker is ARDNA start_index 647 end_index 649 start_price 129.85 end_price 130.5 appending ARDNA ticker is ASAI start_index 754 end_index 756 start_price 14.81 end_price 14.73 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3090 start_price 17.35 end_price 18.69 ticker is FWMHQ start_index 3122 end_index 3124 start_price 20.73 end_price 20.11

```
ticker is FWMHQ start_index 3166 end_index 3168
start_price 25.83 end_price 25.49
ticker is FWMHQ start_index 3230 end_index 3232
start_price 25.46 end_price 21.1
ticker is FWMHQ start index 3291 end index 3293
start_price 11.14 end_price 8.12
ticker is FWMHQ start index 3368 end index 3370
start_price 6.75 end_price 6.16
ticker is FWMHQ start_index 3417 end_index 3419
start_price 5.74 end_price 5.48
ticker is FWMHQ start_index 3481 end_index 3483
start_price 2.59 end_price 2.46
ticker is FWMHQ start_index 3542 end_index 3544
start_price 5.02 end_price 5.31
ticker is FWMHQ start_index 3617 end_index 3619
start_price 4.63 end_price 4.32
ticker is FWMHQ start_index 3666 end_index 3668
start_price 3.02 end_price 2.36
ticker is FWMHQ start_index 3727 end_index 3729
start price 1.71 end price 1.16
ticker is FWMHQ start_index 3794 end_index 3796
start price 0.499 end price 0.405
appending FWMHQ
ticker is GO start_index 3900 end_index 3902
start_price 28.51 end_price 29.99
ticker is GO start_index 3936 end_index 3938
start_price 37.54 end_price 39.5
ticker is GO start_index 3972 end_index 3974
start_price 33.01 end_price 34.0
ticker is GO start_index 4000 end_index 4002
start_price 31.0 end_price 31.58
ticker is GO start_index 4050 end_index 4052
start_price 35.43 end_price 33.5
ticker is GO start_index 4091 end_index 4093
start price 33.2 end price 35.43
ticker is GO start_index 4124 end_index 4126
start price 36.67 end price 36.88
ticker is GO start_index 4187 end_index 4189
start_price 44.33 end_price 42.86
ticker is GO start_index 4251 end_index 4253
start_price 41.21 end_price 40.24
ticker is GO start_index 4326 end_index 4328
start_price 35.91 end_price 35.27
ticker is GO start_index 4376 end_index 4378
start_price 40.54 end_price 34.71
appending GO
ticker is HTSI start_index 4491 end_index 4493
start_price 41.53 end_price 40.89
```

```
ticker is HTSI start_index 4562 end_index 4564
start_price 36.17 end_price 37.56
ticker is HTSI start_index 4614 end_index 4616
start_price 36.95 end_price 37.23
ticker is HTSI start index 4676 end index 4678
start_price 45.29 end_price 44.58
ticker is HTSI start index 4740 end index 4742
start_price 49.2 end_price 49.23
ticker is HTSI start_index 4820 end_index 4822
start_price 49.38 end_price 49.42
appending HTSI
ticker is IFMK start_index 4953 end_index 4955
start_price 11.99 end_price 12.25
ticker is IFMK start_index 4984 end_index 4986
start_price 12.81 end_price 12.53
ticker is IFMK start_index 5049 end_index 5051
start_price 11.13 end_price 11.527000000000001
ticker is IFMK start_index 5111 end_index 5113
start_price 11.92 end_price 12.63
ticker is IFMK start index 5205 end index 5207
start_price 5.5 end_price 5.24
ticker is IFMK start index 5236 end index 5238
start_price 3.8 end_price 3.45
ticker is IFMK start_index 5301 end_index 5303
start_price 1.4 end_price 1.24
ticker is IFMK start_index 5362 end_index 5364
start_price 1.07 end_price 1.04
ticker is IFMK start_index 5455 end_index 5457
start_price 1.2 end_price 1.26
ticker is IFMK start_index 5487 end_index 5489
start_price 2.27 end_price 2.24
ticker is IFMK start_index 5552 end_index 5554
start_price 0.375 end_price 0.37
ticker is IFMK start_index 5614 end_index 5616
start price 0.4220000000000004 end price 0.415
ticker is IFMK start_index 5739 end_index 5741
start price 0.93900000000001 end price 0.915
ticker is IFMK start_index 5744 end_index 5746
start_price 0.9 end_price 0.97
ticker is IFMK start_index 5810 end_index 5812
start_price 0.859000000000001 end_price 0.809
ticker is IFMK start_index 5830 end_index 5832
start_price 0.822000000000001 end_price 0.78
ticker is IFMK start_index 5870 end_index 5872
start_price 1.95 end_price 1.81
appending IFMK
ticker is IMKTA start_index 6035 end_index 6037
start_price 16.36 end_price 16.7
```

```
ticker is IMKTA start_index 6135 end_index 6137
start_price 17.2 end_price 17.19
ticker is IMKTA start_index 6164 end_index 6166
start_price 19.3 end_price 19.31
ticker is IMKTA start index 6226 end index 6228
start_price 21.46 end_price 21.43
ticker is IMKTA start index 6288 end index 6290
start_price 25.69 end_price 26.22
ticker is IMKTA start_index 6378 end_index 6380
start_price 24.41 end_price 24.63
ticker is IMKTA start_index 6413 end_index 6415
start_price 24.02 end_price 22.41
ticker is IMKTA start_index 6476 end_index 6478
start_price 26.07 end_price 26.59
ticker is IMKTA start_index 6541 end_index 6543
start_price 24.47 end_price 24.89
ticker is IMKTA start_index 6632 end_index 6634
start_price 32.08 end_price 33.33
ticker is IMKTA start_index 6666 end_index 6668
start price 44.06 end price 41.29
ticker is IMKTA start_index 6728 end_index 6730
start_price 40.87 end_price 42.0
ticker is IMKTA start_index 6790 end_index 6792
start_price 49.9 end_price 52.66
ticker is IMKTA start_index 6880 end_index 6882
start_price 53.84 end_price 47.16
ticker is IMKTA start_index 6917 end_index 6919
start_price 36.2 end_price 34.23
ticker is IMKTA start_index 6980 end_index 6982
start_price 36.73 end_price 37.12
ticker is IMKTA start_index 7042 end_index 7044
start_price 36.86 end_price 37.49
ticker is IMKTA start_index 7137 end_index 7139
start_price 48.05 end_price 51.4
ticker is IMKTA start index 7167 end index 7169
start_price 45.25 end_price 47.45
ticker is IMKTA start_index 7230 end_index 7232
start_price 45.85 end_price 41.85
ticker is IMKTA start_index 7293 end_index 7295
start_price 29.5 end_price 29.1
ticker is IMKTA start_index 7381 end_index 7383
start_price 27.7 end_price 30.55
ticker is IMKTA start_index 7424 end_index 7426
start_price 30.55 end_price 31.95
ticker is IMKTA start_index 7486 end_index 7488
start_price 30.95 end_price 27.925
ticker is IMKTA start_index 7550 end_index 7552
start_price 29.55 end_price 34.35
```

ticker is IMKTA start_index 7633 end_index 7635 start_price 28.1 end_price 30.07 ticker is IMKTA start_index 7674 end_index 7676 start_price 28.96 end_price 29.78 ticker is IMKTA start index 7736 end index 7738 start_price 27.45 end_price 28.92 ticker is IMKTA start index 7800 end index 7802 start_price 31.75 end_price 33.23 ticker is IMKTA start_index 7886 end_index 7888 start_price 43.48 end_price 45.34 ticker is IMKTA start_index 7925 end_index 7927 start_price 42.76 end_price 37.11 ticker is IMKTA start_index 7988 end_index 7990 start_price 37.61 end_price 43.43 ticker is IMKTA start_index 8051 end_index 8053 start_price 39.9 end_price 42.97 ticker is IMKTA start_index 8137 end_index 8139 start_price 37.41 end_price 42.71 ticker is IMKTA start_index 8176 end_index 8178 start price 47.26 end price 49.96 ticker is IMKTA start_index 8238 end_index 8240 start price 62.74 end price 65.96 appending IMKTA ticker is KR start_index 8385 end_index 8387 start_price 11.905 end_price 11.995 ticker is KR start_index 8442 end_index 8444 start_price 13.325 end_price 13.295 ticker is KR start_index 8517 end_index 8519 start_price 16.27 end_price 16.02 ticker is KR start_index 8579 end_index 8581 start_price 17.355 end_price 17.335 ticker is KR start_index 8639 end_index 8641 start_price 20.24 end_price 20.335 ticker is KR start_index 8696 end_index 8698 start price 19.995 end price 20.03 ticker is KR start_index 8769 end_index 8771 start_price 21.825 end_price 22.63 ticker is KR start_index 8832 end_index 8834 start_price 24.715 end_price 24.715 ticker is KR start_index 8890 end_index 8892 start_price 26.015 end_price 26.39 ticker is KR start_index 8949 end_index 8951 start_price 30.765 end_price 31.23 ticker is KR start_index 9020 end_index 9022 start_price 38.62 end_price 38.385 ticker is KR start_index 9083 end_index 9085 start_price 36.335 end_price 36.615 ticker is KR start_index 9141 end_index 9143

start_price 36.66 end_price 36.38 ticker is KR start_index 9202 end_index 9204 start_price 42.43 end_price 40.64 ticker is KR start_index 9270 end_index 9272 start price 38.06 end price 38.09 ticker is KR start_index 9334 end_index 9336 start_price 36.62 end_price 36.45 ticker is KR start_index 9392 end_index 9394 start_price 30.79 end_price 30.84 ticker is KR start_index 9451 end_index 9453 start_price 34.22 end_price 34.72 ticker is KR start_index 9522 end_index 9524 start_price 28.93 end_price 29.34 ticker is KR start_index 9585 end_index 9587 start_price 22.61 end_price 23.35 ticker is KR start_index 9641 end_index 9643 start_price 21.26 end_price 21.44 ticker is KR start_index 9700 end_index 9702 start_price 26.53 end_price 26.58 ticker is KR start_index 9777 end_index 9779 start_price 23.28 end_price 24.08 ticker is KR start_index 9839 end_index 9841 start_price 28.43 end_price 28.22 ticker is KR start_index 9899 end_index 9901 start_price 29.61 end_price 29.39 ticker is KR start_index 9957 end_index 9959 start_price 28.92 end_price 28.23 ticker is KR start_index 10028 end_index 10030 start_price 24.48 end_price 23.8 ticker is KR start_index 10089 end_index 10091 start_price 21.39 end_price 21.6 ticker is KR start_index 10149 end_index 10151 start_price 25.72 end_price 25.77 ticker is KR start_index 10208 end_index 10210 start price 28.31 end price 28.33 ticker is KR start_index 10280 end_index 10282 start_price 30.12 end_price 31.6 ticker is KR start_index 10340 end_index 10342 start_price 32.78 end_price 34.13 ticker is KR start_index 10400 end_index 10402 start_price 33.46 end_price 33.28 ticker is KR start_index 10459 end_index 10461 start_price 31.3 end_price 30.97 ticker is KR start_index 10530 end_index 10532 start_price 37.95 end_price 35.99 appending KR ticker is NGVC start_index 10745 end_index 10747 start_price 19.38 end_price 19.59

```
ticker is NGVC start_index 10747 end_index 10749
start_price 19.59 end_price 20.19
ticker is NGVC start_index 10777 end_index 10779
start_price 20.32 end_price 22.03
ticker is NGVC start index 10845 end index 10847
start_price 25.03 end_price 29.41
ticker is NGVC start index 10907 end index 10909
start_price 35.4 end_price 34.91
ticker is NGVC start_index 10996 end_index 10998
start_price 37.94 end_price 38.47
ticker is NGVC start_index 11028 end_index 11030
start_price 33.51 end_price 37.97
ticker is NGVC start_index 11091 end_index 11093
start_price 35.6 end_price 23.15
ticker is NGVC start_index 11154 end_index 11156
start_price 23.88 end_price 20.69
ticker is NGVC start_index 11247 end_index 11249
start_price 25.45 end_price 25.93
ticker is NGVC start_index 11279 end_index 11281
start price 28.06 end price 30.8
ticker is NGVC start_index 11347 end_index 11349
start_price 26.87 end_price 23.58
ticker is NGVC start_index 11405 end_index 11407
start_price 22.29 end_price 26.74
ticker is NGVC start_index 11498 end_index 11500
start_price 20.11 end_price 20.09
ticker is NGVC start_index 11530 end_index 11532
start_price 20.67 end_price 18.01
ticker is NGVC start_index 11598 end_index 11600
start_price 13.09 end_price 13.43
ticker is NGVC start_index 11656 end_index 11658
start_price 13.49 end_price 13.69
ticker is NGVC start_index 11749 end_index 11751
start_price 11.69 end_price 12.37
ticker is NGVC start index 11786 end index 11788
start_price 12.54 end_price 11.99
ticker is NGVC start_index 11849 end_index 11851
start_price 10.7 end_price 9.9
ticker is NGVC start_index 11912 end_index 11914
start_price 8.61 end_price 5.63
ticker is NGVC start_index 12000 end_index 12002
start_price 8.3 end_price 8.25
ticker is NGVC start_index 12037 end_index 12039
start_price 8.6 end_price 6.61
ticker is NGVC start_index 12100 end_index 12102
start_price 7.19 end_price 8.5
ticker is NGVC start_index 12163 end_index 12165
start_price 12.54 end_price 17.35
```

```
ticker is NGVC start_index 12250 end_index 12252
start_price 17.5 end_price 17.8
ticker is NGVC start_index 12292 end_index 12294
start_price 14.0 end_price 13.53
ticker is NGVC start index 12350 end index 12352
start_price 12.16 end_price 12.63
ticker is NGVC start index 12413 end index 12415
start_price 9.17 end_price 11.89
ticker is NGVC start_index 12501 end_index 12503
start_price 9.32 end_price 9.38
ticker is NGVC start_index 12543 end_index 12545
start_price 9.35 end_price 8.87
ticker is NGVC start_index 12606 end_index 12608
start_price 10.72 end_price 15.51
ticker is NGVC start_index 12669 end_index 12671
start_price 16.06 end_price 14.91
ticker is NGVC start_index 12757 end_index 12759
start_price 13.8 end_price 13.41
ticker is NGVC start_index 12794 end_index 12796
start price 16.18 end price 16.04
ticker is NGVC start_index 12857 end_index 12859
start price 16.08 end price 12.95
appending NGVC
ticker is QKLS start_index 12979 end_index 12981
start_price 8.08 end_price 6.8
ticker is QKLS start_index 13042 end_index 13044
start_price 5.12 end_price 6.0
ticker is QKLS start_index 13144 end_index 13146
start_price 5.98 end_price 5.9
ticker is QKLS start_index 13165 end_index 13167
start_price 3.43 end_price 3.61
ticker is QKLS start_index 13229 end_index 13231
start_price 6.2 end_price 4.22
ticker is QKLS start_index 13294 end_index 13296
start price 4.55 end price 4.35
ticker is QKLS start_index 13390 end_index 13392
start_price 4.33 end_price 3.92
ticker is QKLS start_index 13418 end_index 13420
start_price 3.71 end_price 3.64
ticker is QKLS start_index 13481 end_index 13483
start_price 3.37 end_price 3.29
ticker is QKLS start_index 13546 end_index 13548
start_price 2.31 end_price 2.43
ticker is QKLS start_index 13648 end_index 13650
start_price 3.15 end_price 2.78
ticker is QKLS start_index 13670 end_index 13672
start_price 3.1 end_price 3.02
ticker is QKLS start_index 13734 end_index 13736
```

```
start_price 1.64 end_price 1.66
ticker is QKLS start_index 13798 end_index 13800
start_price 0.9 end_price 0.89
ticker is QKLS start_index 13900 end_index 13902
start price 0.66 end price 0.58
appending QKLS
ticker is RNDY start index 15282 end index 15284
start_price 7.71 end_price 7.67
ticker is RNDY start_index 15345 end_index 15347
start_price 4.24 end_price 4.07
ticker is RNDY start_index 15433 end_index 15435
start_price 6.74 end_price 6.55
ticker is RNDY start_index 15467 end_index 15469
start_price 7.33 end_price 7.19
ticker is RNDY start_index 15530 end_index 15532
start_price 8.57 end_price 8.51
ticker is RNDY start_index 15594 end_index 15596
start_price 9.15 end_price 8.24
ticker is RNDY start_index 15674 end_index 15676
start price 6.08 end price 6.32
ticker is RNDY start_index 15716 end_index 15718
start price 6.65 end price 4.85
ticker is RNDY start_index 15779 end_index 15781
start_price 4.78 end_price 3.98
ticker is RNDY start_index 15843 end_index 15845
start_price 3.45 end_price 3.26
ticker is RNDY start_index 15930 end_index 15932
start_price 4.48 end_price 4.49
ticker is RNDY start_index 15972 end_index 15974
start_price 4.65 end_price 4.99
ticker is RNDY start_index 16035 end_index 16037
start_price 2.46 end_price 2.42
ticker is RNDY start_index 16100 end_index 16102
start_price 3.57 end_price 3.57
appending RNDY
ticker is SFM start_index 16141 end_index 16143
start price 38.59 end price 38.99
ticker is SFM start_index 16194 end_index 16196
start_price 48.04 end_price 45.69
ticker is SFM start_index 16201 end_index 16203
start_price 43.05 end_price 39.66
ticker is SFM start_index 16269 end_index 16271
start_price 36.85 end_price 38.971
ticker is SFM start_index 16281 end_index 16283
start_price 37.95 end_price 37.16
ticker is SFM start_index 16317 end_index 16319
start_price 31.09 end_price 26.26
ticker is SFM start_index 16381 end_index 16383
```

start_price 31.75 end_price 31.67 ticker is SFM start_index 16445 end_index 16447 start_price 30.69 end_price 31.7 ticker is SFM start_index 16520 end_index 16522 start price 37.09 end price 36.81 ticker is SFM start_index 16569 end_index 16571 start_price 31.06 end_price 27.23 ticker is SFM start_index 16632 end_index 16634 start_price 24.03 end_price 20.77 ticker is SFM start_index 16696 end_index 16698 start_price 19.88 end_price 24.04 ticker is SFM start_index 16771 end_index 16773 start_price 25.21 end_price 27.9 ticker is SFM start_index 16820 end_index 16822 start_price 27.38 end_price 26.21 ticker is SFM start_index 16883 end_index 16885 start_price 23.25 end_price 23.0 ticker is SFM start_index 16947 end_index 16949 start_price 22.57 end_price 20.48 ticker is SFM start index 17022 end index 17024 start_price 19.0 end_price 19.37 ticker is SFM start_index 17071 end_index 17073 start_price 22.75 end_price 23.56 ticker is SFM start_index 17134 end_index 17136 start_price 23.98 end_price 23.81 ticker is SFM start_index 17198 end_index 17200 start_price 18.87 end_price 20.37 ticker is SFM start_index 17273 end_index 17275 start_price 26.12 end_price 25.09 ticker is SFM start_index 17322 end_index 17324 start_price 24.39 end_price 21.66 ticker is SFM start_index 17385 end_index 17387 start_price 21.2 end_price 23.35 ticker is SFM start_index 17449 end_index 17451 start price 26.89 end price 26.5 ticker is SFM start_index 17523 end_index 17525 start_price 24.14 end_price 23.48 ticker is SFM start_index 17572 end_index 17574 start_price 21.29 end_price 22.13 ticker is SFM start_index 17635 end_index 17637 start_price 16.93 end_price 17.74 ticker is SFM start_index 17699 end_index 17701 start_price 18.75 end_price 19.48 ticker is SFM start_index 17774 end_index 17776 start_price 15.86 end_price 17.99 ticker is SFM start_index 17826 end_index 17828 start_price 21.76 end_price 23.89 ticker is SFM start_index 17885 end_index 17887 start_price 27.02 end_price 26.5 ticker is SFM start_index 17949 end_index 17951 start_price 20.4 end_price 19.48 ticker is SFM start_index 18030 end_index 18032 start price 21.48 end price 21.11 ticker is SFM start_index 18079 end_index 18081 start price 25.87 end price 25.81 appending SFM ticker is SFS start_index 18209 end_index 18211 start_price 15.49 end_price 14.96 ticker is SFS start_index 18296 end_index 18298 start_price 18.4 end_price 17.77 ticker is SFS start_index 18320 end_index 18322 start_price 17.87 end_price 17.32 ticker is SFS start_index 18379 end_index 18381 start_price 17.79 end_price 15.76 ticker is SFS start_index 18458 end_index 18460 start_price 14.6 end_price 16.1 ticker is SFS start_index 18541 end_index 18543 start price 15.8 end price 15.39 ticker is SFS start_index 18576 end_index 18578 start price 16.03 end price 15.51 ticker is SFS start_index 18636 end_index 18638 start_price 15.03 end_price 14.15 ticker is SFS start_index 18714 end_index 18716 start_price 13.45 end_price 13.55 ticker is SFS start_index 18795 end_index 18797 start_price 11.55 end_price 11.5 ticker is SFS start_index 18828 end_index 18830 start_price 11.65 end_price 13.05 ticker is SFS start_index 18885 end_index 18887 start_price 8.1 end_price 8.7 ticker is SFS start_index 18965 end_index 18967 start_price 7.25 end_price 8.05 ticker is SFS start index 19046 end index 19048 start_price 6.0 end_price 6.45 ticker is SFS start_index 19079 end_index 19081 start_price 5.3 end_price 4.7 ticker is SFS start_index 19137 end_index 19139 start_price 5.5 end_price 5.95 ticker is SFS start_index 19216 end_index 19218 start_price 4.95 end_price 6.78 ticker is SFS start_index 19296 end_index 19298 start_price 5.26 end_price 5.23 ticker is SFS start_index 19330 end_index 19332 start_price 6.52 end_price 6.53 appending SFS ticker is SWY start_index 19378 end_index 19380 start_price 15.26 end_price 15.0 ticker is SWY start_index 19437 end_index 19439 start_price 15.67 end_price 16.33 ticker is SWY start_index 19525 end_index 19527 start price 22.76 end price 23.77 ticker is SWY start_index 19569 end_index 19571 start price 23.51 end price 22.7 ticker is SWY start_index 19628 end_index 19630 start_price 25.57 end_price 25.61 ticker is SWY start_index 19687 end_index 19689 start_price 32.74 end_price 33.38 ticker is SWY start_index 19777 end_index 19779 start_price 37.13 end_price 37.31 ticker is SWY start_index 19821 end_index 19823 start_price 34.08 end_price 34.21 ticker is SWY start_index 19878 end_index 19880 start_price 34.82 end_price 34.83 ticker is SWY start_index 19938 end_index 19940 start_price 33.97 end_price 33.35 appending SWY ticker is TFM start index 20057 end index 20059 start price 58.34 end price 56.98 ticker is TFM start_index 20119 end_index 20121 start_price 50.7 end_price 49.92 ticker is TFM start_index 20194 end_index 20196 start_price 42.7 end_price 42.77 ticker is TFM start_index 20243 end_index 20245 start_price 50.26 end_price 52.17 ticker is TFM start_index 20307 end_index 20309 start_price 49.7 end_price 50.55 ticker is TFM start_index 20364 end_index 20366 start_price 39.97 end_price 39.87 ticker is TFM start_index 20442 end_index 20444 start_price 34.18 end_price 34.08 ticker is TFM start index 20493 end index 20495 start_price 32.95 end_price 33.46 ticker is TFM start_index 20557 end_index 20559 start_price 33.73 end_price 35.63 ticker is TFM start_index 20621 end_index 20623 start_price 39.53 end_price 40.08 ticker is TFM start_index 20694 end_index 20696 start_price 41.09 end_price 40.76 ticker is TFM start_index 20740 end_index 20742 start_price 32.43 end_price 31.75 ticker is TFM start_index 20804 end_index 20806 start_price 19.91 end_price 20.69 ticker is TFM start_index 20870 end_index 20872 start_price 23.98 end_price 24.13

ticker is TFM start_index 20947 end_index 20949 start_price 28.47 end_price 28.36 appending TFM ticker is VLGEA start_index 21041 end_index 21043 start price 34.06 end price 33.16 ticker is VLGEA start_index 21079 end_index 21081 start price 37.11 end price 36.47 ticker is VLGEA start_index 21140 end_index 21142 start_price 34.1 end_price 33.68 ticker is VLGEA start_index 21203 end_index 21205 start_price 36.37 end_price 34.63 ticker is VLGEA start_index 21290 end_index 21292 start_price 34.85 end_price 34.53 ticker is VLGEA start_index 21330 end_index 21332 start_price 38.45 end_price 33.78 ticker is VLGEA start_index 21390 end_index 21392 start_price 27.32 end_price 27.99 ticker is VLGEA start_index 21454 end_index 21456 start_price 22.89 end_price 23.45 ticker is VLGEA start index 21542 end index 21544 start_price 23.46 end_price 23.21 ticker is VLGEA start_index 21581 end_index 21583 start_price 24.04 end_price 23.9 ticker is VLGEA start_index 21642 end_index 21644 start_price 27.66 end_price 28.43 ticker is VLGEA start_index 21705 end_index 21707 start_price 32.29 end_price 31.69 ticker is VLGEA start_index 21793 end_index 21795 start_price 25.39 end_price 25.97 ticker is VLGEA start_index 21833 end_index 21835 start_price 25.61 end_price 25.54 ticker is VLGEA start_index 21893 end_index 21895 start_price 26.41 end_price 24.88 ticker is VLGEA start_index 21957 end_index 21959 start price 27.37 end price 27.6 ticker is VLGEA start_index 22049 end_index 22051 start_price 31.72 end_price 31.88 ticker is VLGEA start_index 22088 end_index 22090 start_price 35.63 end_price 32.32 ticker is VLGEA start_index 22150 end_index 22152 start_price 27.06 end_price 26.86 ticker is VLGEA start_index 22212 end_index 22214 start_price 25.07 end_price 26.15 ticker is VLGEA start_index 22301 end_index 22303 start_price 24.9 end_price 24.91 ticker is VLGEA start_index 22338 end_index 22340 start_price 25.44 end_price 23.42 ticker is VLGEA start_index 22401 end_index 22403

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start_price 24.07 end_price 24.59
ticker is VLGEA start_index 22464 end_index 22466
start_price 28.29 end_price 28.93
ticker is VLGEA start_index 22552 end_index 22554
start price 24.9 end price 23.94
ticker is VLGEA start_index 22590 end_index 22592
start price 25.44 end price 26.2
ticker is VLGEA start_index 22650 end_index 22652
start_price 31.5 end_price 29.84
ticker is VLGEA start_index 22712 end_index 22714
start_price 26.18 end_price 25.15
ticker is VLGEA start_index 22802 end_index 22804
start_price 26.27 end_price 26.09
ticker is VLGEA start_index 22841 end_index 22843
start_price 25.79 end_price 25.57
ticker is VLGEA start_index 22902 end_index 22904
start_price 21.35 end_price 20.09
ticker is VLGEA start_index 22965 end_index 22967
start_price 25.46 end_price 25.28
ticker is VLGEA start index 23053 end index 23055
start_price 24.32 end_price 25.24
ticker is VLGEA start index 23092 end index 23094
start_price 23.13 end_price 22.8
ticker is VLGEA start index 23153 end index 23155
start_price 23.88 end_price 25.14
appending VLGEA
ticker is WFM start_index 23312 end_index 23314
start_price 46.455 end_price 47.165
ticker is WFM start_index 23387 end_index 23389
start_price 46.7119999999999 end_price 47.53
ticker is WFM start_index 23449 end_index 23451
start_price 42.465 end_price 42.25
ticker is WFM start_index 23508 end_index 23510
start_price 51.02 end_price 51.87
ticker is WFM start index 23566 end index 23568
start_price 55.9 end_price 55.4
ticker is WFM start_index 23640 end_index 23642
start_price 56.48 end_price 56.12
ticker is WFM start_index 23700 end_index 23702
start_price 52.35 end_price 52.88
ticker is WFM start_index 23759 end_index 23761
start_price 38.76 end_price 37.76
ticker is WFM start_index 23817 end_index 23819
start_price 37.35 end_price 38.26
ticker is WFM start_index 23891 end_index 23893
start_price 47.69 end_price 48.21
ticker is WFM start_index 23956 end_index 23958
start_price 56.73 end_price 56.22
```

ticker is WFM start_index 24010 end_index 24012 start_price 42.9 end_price 42.7

ticker is WFM start_index 24068 end_index 24070 start_price 34.84 end_price 34.21

ticker is WFM start_index 24137 end_index 24139 start_price 29.91 end_price 30.065

ticker is WFM start_index 24207 end_index 24209 start_price 30.86 end_price 31.31

ticker is WFM start_index 24261 end_index 24263 start_price 30.51 end_price 30.48

ticker is WFM start_index 24319 end_index 24321 start_price 30.39 end_price 30.64

ticker is WFM start_index 24393 end_index 24395 start_price 30.94 end_price 31.0

ticker is WFM start_index 24453 end_index 24455 start_price 30.72 end_price 30.91

ticker is WFM start_index 24517 end_index 24519 start_price 36.15 end_price 36.22

ticker is WFM start_index 24570 end_index 24572 start_price 41.84 end_price 41.82 appending WFM

ticker is WMK start_index 24614 end_index 24616 start_price 43.27 end_price 43.0

ticker is WMK start_index 24676 end_index 24678 start_price 40.38 end_price 39.69

ticker is WMK start_index 24761 end_index 24763 start_price 41.02 end_price 41.65

ticker is WMK start_index 24800 end_index 24802 start_price 42.49 end_price 40.9

ticker is WMK start_index 24863 end_index 24865 start_price 50.81 end_price 50.69

ticker is WMK start_index 24927 end_index 24929 start_price 49.21 end_price 49.37

ticker is WMK start_index 25013 end_index 25015 start price 49.49 end price 50.58

ticker is WMK start_index 25051 end_index 25053 start price 45.2 end price 45.21

ticker is WMK start_index 25114 end_index 25116 start_price 43.43 end_price 43.64

ticker is WMK start_index 25178 end_index 25180 start_price 44.63 end_price 44.93

ticker is WMK start_index 25264 end_index 25266 start_price 50.36 end_price 50.03

ticker is WMK start_index 25298 end_index 25300 start_price 44.35 end_price 43.75

ticker is WMK start_index 25363 end_index 25365 start_price 42.01 end_price 42.65

ticker is WMK start_index 25497 end_index 25499

start_price 38.92 end_price 39.63 ticker is WMK start_index 25520 end_index 25522 start_price 43.38 end_price 43.41 ticker is WMK start_index 25553 end_index 25555 start price 45.43 end price 46.01 ticker is WMK start_index 25611 end_index 25613 start_price 51.55 end_price 51.67 ticker is WMK start_index 25680 end_index 25682 start_price 56.51 end_price 55.05 ticker is WMK start_index 25770 end_index 25772 start_price 59.08 end_price 61.1 ticker is WMK start_index 25809 end_index 25811 start_price 57.79 end_price 54.02 ticker is WMK start_index 25872 end_index 25874 start_price 44.49 end_price 45.68 ticker is WMK start_index 25934 end_index 25936 start_price 34.0 end_price 35.0 ticker is WMK start_index 26021 end_index 26023 start_price 38.37 end_price 39.01 ticker is WMK start index 26060 end index 26062 start_price 48.03 end_price 46.75 ticker is WMK start index 26122 end index 26124 start_price 48.66 end_price 48.81 ticker is WMK start_index 26187 end_index 26189 start_price 46.46 end_price 47.35 ticker is WMK start_index 26271 end_index 26273 start_price 40.5 end_price 40.38 ticker is WMK start_index 26310 end_index 26312 start_price 38.77 end_price 40.22 ticker is WMK start_index 26371 end_index 26373 start_price 37.6 end_price 38.56 ticker is WMK start_index 26434 end_index 26436 start_price 38.87 end_price 40.41 ticker is WMK start_index 26522 end_index 26524 start price 36.39 end price 36.95 ticker is WMK start_index 26561 end_index 26563 start_price 54.64 end_price 55.84 ticker is WMK start_index 26623 end_index 26625 start_price 51.17 end_price 48.73 ticker is WMK start_index 26688 end_index 26690 start_price 46.35 end_price 46.21 ticker is WMK start_index 26773 end_index 26775 start_price 58.85 end_price 59.61 ticker is WMK start_index 26812 end_index 26814 start_price 52.64 end_price 53.68 appending WMK ticker is ACI start_index 25 end_index 28 start_price 14.83 end_price 15.27

ticker is ACI start_index 80 end_index 83 start_price 15.22 end_price 14.83 ticker is ACI start_index 137 end_index 140 start_price 17.1 end_price 17.29 ticker is ACI start index 209 end index 212 start_price 18.11 end_price 18.57 appending ACI ticker is ARDNA start_index 330 end_index 333 start_price 82.6 end_price 88.74 ticker is ARDNA start_index 394 end_index 397 start_price 95.88 end_price 96.0 ticker is ARDNA start_index 478 end_index 481 start_price 98.31 end_price 102.36 ticker is ARDNA start_index 519 end_index 522 start_price 98.65 end_price 99.84 ticker is ARDNA start_index 583 end_index 586 start_price 132.78 end_price 132.2 ticker is ARDNA start_index 647 end_index 650 start_price 129.85 end_price 129.99 appending ARDNA ticker is ASAI start_index 754 end_index 757 start price 14.81 end price 14.96 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3091 start_price 17.35 end_price 18.89 ticker is FWMHQ start_index 3122 end_index 3125 start_price 20.73 end_price 21.39 ticker is FWMHQ start_index 3166 end_index 3169 start_price 25.83 end_price 25.1 ticker is FWMHQ start_index 3230 end_index 3233 start_price 25.46 end_price 20.32 ticker is FWMHQ start_index 3291 end_index 3294 start_price 11.14 end_price 8.12 ticker is FWMHQ start index 3368 end index 3371 start_price 6.75 end_price 5.94 ticker is FWMHQ start index 3417 end index 3420 start_price 5.74 end_price 5.2 ticker is FWMHQ start_index 3481 end_index 3484 start_price 2.59 end_price 2.43 ticker is FWMHQ start_index 3542 end_index 3545 start_price 5.02 end_price 5.4 ticker is FWMHQ start_index 3617 end_index 3620 start_price 4.63 end_price 4.52 ticker is FWMHQ start_index 3666 end_index 3669 start_price 3.02 end_price 2.3 ticker is FWMHQ start_index 3727 end_index 3730 start_price 1.71 end_price 1.18

ticker is FWMHQ start_index 3794 end_index 3797 start_price 0.499 end_price 0.32 appending FWMHQ ticker is GO start_index 3900 end_index 3903 start price 28.51 end price 30.69 ticker is GO start_index 3936 end_index 3939 start price 37.54 end price 43.76 ticker is GO start_index 3972 end_index 3975 start_price 33.01 end_price 33.55 ticker is GO start_index 4000 end_index 4003 start_price 31.0 end_price 31.84 ticker is GO start_index 4050 end_index 4053 start_price 35.43 end_price 33.74 ticker is GO start_index 4091 end_index 4094 start_price 33.2 end_price 33.81 ticker is GO start_index 4124 end_index 4127 start_price 36.67 end_price 37.61 ticker is GO start_index 4187 end_index 4190 start_price 44.33 end_price 42.88 ticker is GO start index 4251 end index 4254 start_price 41.21 end_price 39.26 ticker is GO start_index 4326 end_index 4329 start_price 35.91 end_price 35.45 ticker is GO start index 4376 end index 4379 start_price 40.54 end_price 34.75 appending GO ticker is HTSI start_index 4491 end_index 4494 start_price 41.53 end_price 40.84 ticker is HTSI start_index 4562 end_index 4565 start_price 36.17 end_price 36.49 ticker is HTSI start_index 4614 end_index 4617 start_price 36.95 end_price 37.04 ticker is HTSI start_index 4676 end_index 4679 start_price 45.29 end_price 45.22 ticker is HTSI start index 4740 end index 4743 start_price 49.2 end_price 49.3 ticker is HTSI start index 4820 end index 4823 start_price 49.38 end_price 49.46 appending HTSI ticker is IFMK start_index 4953 end_index 4956 start_price 11.99 end_price 12.745 ticker is IFMK start_index 4984 end_index 4987 start_price 12.81 end_price 12.23 ticker is IFMK start_index 5049 end_index 5052 start_price 11.13 end_price 11.775 ticker is IFMK start_index 5111 end_index 5114 start_price 11.92 end_price 12.31200000000001 ticker is IFMK start_index 5205 end_index 5208

```
start_price 5.5 end_price 5.18
ticker is IFMK start_index 5236 end_index 5239
start_price 3.8 end_price 3.49
ticker is IFMK start_index 5301 end_index 5304
start price 1.4 end price 1.17
ticker is IFMK start_index 5362 end_index 5365
start price 1.07 end price 1.11
ticker is IFMK start_index 5455 end_index 5458
start_price 1.2 end_price 1.2
ticker is IFMK start_index 5487 end_index 5490
start_price 2.27 end_price 2.29
ticker is IFMK start_index 5552 end_index 5555
start_price 0.375 end_price 0.41
ticker is IFMK start_index 5614 end_index 5617
start price 0.42200000000000004 end price 0.4379999999999999
ticker is IFMK start_index 5739 end_index 5742
ticker is IFMK start_index 5744 end_index 5747
start_price 0.9 end_price 0.92
ticker is IFMK start index 5810 end index 5813
start_price 0.859000000000001 end_price 0.79
ticker is IFMK start index 5830 end index 5833
start_price 0.822000000000001 end_price 0.775
ticker is IFMK start_index 5870 end_index 5873
start_price 1.95 end_price 1.89
appending IFMK
ticker is IMKTA start_index 6035 end_index 6038
start_price 16.36 end_price 16.58
ticker is IMKTA start_index 6135 end_index 6138
start_price 17.2 end_price 17.07
ticker is IMKTA start_index 6164 end_index 6167
start_price 19.3 end_price 19.42
ticker is IMKTA start_index 6226 end_index 6229
start_price 21.46 end_price 21.53
ticker is IMKTA start index 6288 end index 6291
start_price 25.69 end_price 26.87
ticker is IMKTA start_index 6378 end_index 6381
start_price 24.41 end_price 25.19
ticker is IMKTA start_index 6413 end_index 6416
start_price 24.02 end_price 22.22
ticker is IMKTA start_index 6476 end_index 6479
start_price 26.07 end_price 26.11
ticker is IMKTA start_index 6541 end_index 6544
start_price 24.47 end_price 25.31
ticker is IMKTA start_index 6632 end_index 6635
start_price 32.08 end_price 33.33
ticker is IMKTA start_index 6666 end_index 6669
start_price 44.06 end_price 42.14
```

```
ticker is IMKTA start_index 6728 end_index 6731
start_price 40.87 end_price 42.26
ticker is IMKTA start_index 6790 end_index 6793
start_price 49.9 end_price 51.22
ticker is IMKTA start index 6880 end index 6883
start_price 53.84 end_price 43.93
ticker is IMKTA start index 6917 end index 6920
start_price 36.2 end_price 34.18
ticker is IMKTA start_index 6980 end_index 6983
start_price 36.73 end_price 40.9
ticker is IMKTA start_index 7042 end_index 7045
start_price 36.86 end_price 37.91
ticker is IMKTA start_index 7137 end_index 7140
start_price 48.05 end_price 51.7
ticker is IMKTA start_index 7167 end_index 7170
start_price 45.25 end_price 47.7
ticker is IMKTA start_index 7230 end_index 7233
start_price 45.85 end_price 41.9
ticker is IMKTA start_index 7293 end_index 7296
start price 29.5 end price 29.65
ticker is IMKTA start_index 7381 end_index 7384
start price 27.7 end price 31.3
ticker is IMKTA start_index 7424 end_index 7427
start_price 30.55 end_price 30.55
ticker is IMKTA start_index 7486 end_index 7489
start_price 30.95 end_price 29.0
ticker is IMKTA start_index 7550 end_index 7553
start_price 29.55 end_price 32.85
ticker is IMKTA start_index 7633 end_index 7636
start_price 28.1 end_price 31.45
ticker is IMKTA start_index 7674 end_index 7677
start_price 28.96 end_price 30.19
ticker is IMKTA start_index 7736 end_index 7739
start_price 27.45 end_price 29.91
ticker is IMKTA start index 7800 end index 7803
start_price 31.75 end_price 33.58
ticker is IMKTA start_index 7886 end_index 7889
start_price 43.48 end_price 45.79
ticker is IMKTA start_index 7925 end_index 7928
start_price 42.76 end_price 35.67
ticker is IMKTA start_index 7988 end_index 7991
start_price 37.61 end_price 44.46
ticker is IMKTA start_index 8051 end_index 8054
start_price 39.9 end_price 42.8
ticker is IMKTA start_index 8137 end_index 8140
start_price 37.41 end_price 42.51
ticker is IMKTA start_index 8176 end_index 8179
start_price 47.26 end_price 51.49
```

ticker is IMKTA start_index 8238 end_index 8241 start_price 62.74 end_price 65.71 appending IMKTA ticker is KR start_index 8385 end_index 8388 start price 11.905 end price 11.95 ticker is KR start_index 8442 end_index 8445 start_price 13.325 end_price 13.175 ticker is KR start_index 8517 end_index 8520 start_price 16.27 end_price 16.155 ticker is KR start_index 8579 end_index 8582 start_price 17.355 end_price 17.96 ticker is KR start_index 8639 end_index 8642 start_price 20.24 end_price 20.48 ticker is KR start_index 8696 end_index 8699 start_price 19.995 end_price 19.915 ticker is KR start_index 8769 end_index 8772 start_price 21.825 end_price 22.48 ticker is KR start_index 8832 end_index 8835 start_price 24.715 end_price 24.83 ticker is KR start index 8890 end index 8893 start_price 26.015 end_price 25.845 ticker is KR start_index 8949 end_index 8952 start_price 30.765 end_price 31.82 ticker is KR start_index 9020 end_index 9023 start_price 38.62 end_price 38.565 ticker is KR start_index 9083 end_index 9086 start_price 36.335 end_price 36.555 ticker is KR start_index 9141 end_index 9144 start_price 36.66 end_price 35.96 ticker is KR start_index 9202 end_index 9205 start_price 42.43 end_price 41.21 ticker is KR start_index 9270 end_index 9273 start_price 38.06 end_price 38.25 ticker is KR start_index 9334 end_index 9337 start price 36.62 end price 36.79 ticker is KR start_index 9392 end_index 9395 start_price 30.79 end_price 30.75 ticker is KR start_index 9451 end_index 9454 start_price 34.22 end_price 35.96 ticker is KR start_index 9522 end_index 9525 start_price 28.93 end_price 29.2 ticker is KR start_index 9585 end_index 9588 start_price 22.61 end_price 23.24 ticker is KR start_index 9641 end_index 9644 start_price 21.26 end_price 21.13 ticker is KR start_index 9700 end_index 9703 start_price 26.53 end_price 26.33 ticker is KR start_index 9777 end_index 9780

start_price 23.28 end_price 23.81 ticker is KR start_index 9839 end_index 9842 start_price 28.43 end_price 28.7 ticker is KR start_index 9899 end_index 9902 start price 29.61 end price 29.0 ticker is KR start_index 9957 end_index 9960 start_price 28.92 end_price 27.68 ticker is KR start_index 10028 end_index 10031 start_price 24.48 end_price 23.68 ticker is KR start_index 10089 end_index 10092 start_price 21.39 end_price 21.44 ticker is KR start_index 10149 end_index 10152 start_price 25.72 end_price 25.78 ticker is KR start_index 10208 end_index 10211 start_price 28.31 end_price 28.76 ticker is KR start_index 10280 end_index 10283 start_price 30.12 end_price 32.29 ticker is KR start_index 10340 end_index 10343 start_price 32.78 end_price 33.85 ticker is KR start index 10400 end index 10403 start_price 33.46 end_price 33.43 ticker is KR start index 10459 end index 10462 start_price 31.3 end_price 31.0 ticker is KR start_index 10530 end_index 10533 start_price 37.95 end_price 35.95 appending KR ticker is NGVC start_index 10745 end_index 10748 start_price 19.38 end_price 19.59 ticker is NGVC start_index 10747 end_index 10750 start_price 19.59 end_price 19.82 ticker is NGVC start_index 10777 end_index 10780 start_price 20.32 end_price 21.03 ticker is NGVC start_index 10845 end_index 10848 start_price 25.03 end_price 28.89 ticker is NGVC start index 10907 end index 10910 start_price 35.4 end_price 34.5 ticker is NGVC start index 10996 end index 10999 start_price 37.94 end_price 38.67 ticker is NGVC start_index 11028 end_index 11031 start_price 33.51 end_price 37.99 ticker is NGVC start_index 11091 end_index 11094 start_price 35.6 end_price 23.97 ticker is NGVC start_index 11154 end_index 11157 start_price 23.88 end_price 20.1 ticker is NGVC start_index 11247 end_index 11250 start_price 25.45 end_price 25.72 ticker is NGVC start_index 11279 end_index 11282 start_price 28.06 end_price 30.21

```
ticker is NGVC start_index 11347 end_index 11350
start_price 26.87 end_price 24.13
ticker is NGVC start_index 11405 end_index 11408
start_price 22.29 end_price 25.66
ticker is NGVC start index 11498 end index 11501
start_price 20.11 end_price 20.08
ticker is NGVC start index 11530 end index 11533
start_price 20.67 end_price 18.02
ticker is NGVC start_index 11598 end_index 11601
start_price 13.09 end_price 13.86
ticker is NGVC start_index 11656 end_index 11659
start_price 13.49 end_price 13.06
ticker is NGVC start_index 11749 end_index 11752
start_price 11.69 end_price 12.21
ticker is NGVC start_index 11786 end_index 11789
start_price 12.54 end_price 12.01
ticker is NGVC start_index 11849 end_index 11852
start_price 10.7 end_price 9.84
ticker is NGVC start_index 11912 end_index 11915
start price 8.61 end price 5.95
ticker is NGVC start_index 12000 end_index 12003
start price 8.3 end price 8.32
ticker is NGVC start_index 12037 end_index 12040
start_price 8.6 end_price 7.02
ticker is NGVC start_index 12100 end_index 12103
start_price 7.19 end_price 9.12
ticker is NGVC start_index 12163 end_index 12166
start_price 12.54 end_price 16.43
ticker is NGVC start_index 12250 end_index 12253
start_price 17.5 end_price 17.28
ticker is NGVC start_index 12292 end_index 12295
start_price 14.0 end_price 14.26
ticker is NGVC start_index 12350 end_index 12353
start_price 12.16 end_price 13.17
ticker is NGVC start index 12413 end index 12416
start_price 9.17 end_price 11.76
ticker is NGVC start_index 12501 end_index 12504
start_price 9.32 end_price 9.72
ticker is NGVC start_index 12543 end_index 12546
start_price 9.35 end_price 8.89
ticker is NGVC start_index 12606 end_index 12609
start_price 10.72 end_price 14.5
ticker is NGVC start_index 12669 end_index 12672
start_price 16.06 end_price 13.64
ticker is NGVC start_index 12757 end_index 12760
start_price 13.8 end_price 13.11
ticker is NGVC start_index 12794 end_index 12797
start_price 16.18 end_price 16.43
```

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ticker is NGVC start_index 12857 end_index 12860
start_price 16.08 end_price 12.5
appending NGVC
ticker is QKLS start_index 12979 end_index 12982
start price 8.08 end price 6.8
ticker is QKLS start_index 13042 end_index 13045
start price 5.12 end price 6.72
ticker is QKLS start_index 13144 end_index 13147
start_price 5.98 end_price 5.9
ticker is QKLS start_index 13165 end_index 13168
start_price 3.43 end_price 3.95
ticker is QKLS start_index 13229 end_index 13232
start_price 6.2 end_price 4.54
ticker is QKLS start_index 13294 end_index 13297
start_price 4.55 end_price 4.28
ticker is QKLS start_index 13390 end_index 13393
start_price 4.33 end_price 4.0
ticker is QKLS start_index 13418 end_index 13421
start_price 3.71 end_price 3.69
ticker is QKLS start index 13481 end index 13484
start_price 3.37 end_price 3.1
ticker is QKLS start index 13546 end index 13549
start_price 2.31 end_price 2.4
ticker is QKLS start_index 13648 end_index 13651
start_price 3.15 end_price 2.66
ticker is QKLS start_index 13670 end_index 13673
start_price 3.1 end_price 2.8
ticker is QKLS start_index 13734 end_index 13737
start_price 1.64 end_price 1.66
ticker is QKLS start_index 13798 end_index 13801
start_price 0.9 end_price 0.82
ticker is QKLS start_index 13900 end_index 13903
start_price 0.66 end_price 0.54
appending QKLS
ticker is RNDY start index 15282 end index 15285
start_price 7.71 end_price 7.68
ticker is RNDY start_index 15345 end_index 15348
start_price 4.24 end_price 3.87
ticker is RNDY start_index 15433 end_index 15436
start_price 6.74 end_price 6.52
ticker is RNDY start_index 15467 end_index 15470
start_price 7.33 end_price 7.32
ticker is RNDY start_index 15530 end_index 15533
start_price 8.57 end_price 8.95
ticker is RNDY start_index 15594 end_index 15597
start_price 9.15 end_price 8.54
ticker is RNDY start_index 15674 end_index 15677
start_price 6.08 end_price 6.22
```

```
ticker is RNDY start_index 15716 end_index 15719
start_price 6.65 end_price 4.93
ticker is RNDY start_index 15779 end_index 15782
start_price 4.78 end_price 3.86
ticker is RNDY start index 15843 end index 15846
start_price 3.45 end_price 3.31
ticker is RNDY start index 15930 end index 15933
start_price 4.48 end_price 4.6
ticker is RNDY start_index 15972 end_index 15975
start_price 4.65 end_price 4.76
ticker is RNDY start_index 16035 end_index 16038
start_price 2.46 end_price 2.51
ticker is RNDY start_index 16100 end_index 16103
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start_index 16141 end_index 16144
start_price 38.59 end_price 37.88
ticker is SFM start_index 16194 end_index 16197
start_price 48.04 end_price 45.14
ticker is SFM start index 16201 end index 16204
start_price 43.05 end_price 38.18
ticker is SFM start index 16269 end index 16272
start_price 36.85 end_price 38.51
ticker is SFM start_index 16281 end_index 16284
start_price 37.95 end_price 37.31
ticker is SFM start_index 16317 end_index 16320
start_price 31.09 end_price 26.51
ticker is SFM start_index 16381 end_index 16384
start_price 31.75 end_price 32.56
ticker is SFM start_index 16445 end_index 16448
start_price 30.69 end_price 31.47
ticker is SFM start_index 16520 end_index 16523
start_price 37.09 end_price 35.85
ticker is SFM start_index 16569 end_index 16572
start price 31.06 end price 27.82
ticker is SFM start_index 16632 end_index 16635
start price 24.03 end price 21.11
ticker is SFM start_index 16696 end_index 16699
start_price 19.88 end_price 22.98
ticker is SFM start_index 16771 end_index 16774
start_price 25.21 end_price 28.48
ticker is SFM start_index 16820 end_index 16823
start_price 27.38 end_price 26.65
ticker is SFM start_index 16883 end_index 16886
start_price 23.25 end_price 22.52
ticker is SFM start_index 16947 end_index 16950
start_price 22.57 end_price 20.73
ticker is SFM start_index 17022 end_index 17025
```

start_price 19.0 end_price 19.03 ticker is SFM start_index 17071 end_index 17074 start_price 22.75 end_price 23.41 ticker is SFM start_index 17134 end_index 17137 start price 23.98 end price 24.52 ticker is SFM start_index 17198 end_index 17201 start_price 18.87 end_price 20.77 ticker is SFM start_index 17273 end_index 17276 start_price 26.12 end_price 25.99 ticker is SFM start_index 17322 end_index 17325 start_price 24.39 end_price 21.65 ticker is SFM start_index 17385 end_index 17388 start_price 21.2 end_price 23.56 ticker is SFM start_index 17449 end_index 17452 start_price 26.89 end_price 26.29 ticker is SFM start_index 17523 end_index 17526 start_price 24.14 end_price 23.69 ticker is SFM start_index 17572 end_index 17575 start_price 21.29 end_price 22.51 ticker is SFM start index 17635 end index 17638 start_price 16.93 end_price 17.71 ticker is SFM start index 17699 end index 17702 start_price 18.75 end_price 20.13 ticker is SFM start_index 17774 end_index 17777 start_price 15.86 end_price 17.36 ticker is SFM start_index 17826 end_index 17829 start_price 21.76 end_price 24.24 ticker is SFM start_index 17885 end_index 17888 start_price 27.02 end_price 26.38 ticker is SFM start_index 17949 end_index 17952 start_price 20.4 end_price 19.05 ticker is SFM start_index 18030 end_index 18033 start_price 21.48 end_price 21.78 ticker is SFM start_index 18079 end_index 18082 start price 25.87 end price 26.92 appending SFM ticker is SFS start index 18209 end index 18212 start_price 15.49 end_price 14.62 ticker is SFS start_index 18296 end_index 18299 start_price 18.4 end_price 17.75 ticker is SFS start_index 18320 end_index 18323 start_price 17.87 end_price 17.68 ticker is SFS start_index 18379 end_index 18382 start_price 17.79 end_price 16.32 ticker is SFS start_index 18458 end_index 18461 start_price 14.6 end_price 16.56 ticker is SFS start_index 18541 end_index 18544 start_price 15.8 end_price 15.63

ticker is SFS start_index 18576 end_index 18579 start_price 16.03 end_price 15.65 ticker is SFS start_index 18636 end_index 18639 start_price 15.03 end_price 14.53 ticker is SFS start index 18714 end index 18717 start_price 13.45 end_price 13.55 ticker is SFS start index 18795 end index 18798 start_price 11.55 end_price 11.5 ticker is SFS start_index 18828 end_index 18831 start_price 11.65 end_price 12.9 ticker is SFS start_index 18885 end_index 18888 start_price 8.1 end_price 8.75 ticker is SFS start_index 18965 end_index 18968 start_price 7.25 end_price 8.15 ticker is SFS start_index 19046 end_index 19049 start_price 6.0 end_price 6.3 ticker is SFS start_index 19079 end_index 19082 start_price 5.3 end_price 4.95 ticker is SFS start_index 19137 end_index 19140 start price 5.5 end price 5.95 ticker is SFS start index 19216 end index 19219 start price 4.95 end price 6.69 ticker is SFS start_index 19296 end_index 19299 start_price 5.26 end_price 5.01 ticker is SFS start_index 19330 end_index 19333 start_price 6.52 end_price 6.5 appending SFS ticker is SWY start_index 19378 end_index 19381 start_price 15.26 end_price 15.09 ticker is SWY start_index 19437 end_index 19440 start_price 15.67 end_price 16.52 ticker is SWY start_index 19525 end_index 19528 start_price 22.76 end_price 23.86 ticker is SWY start_index 19569 end_index 19572 start price 23.51 end price 23.39 ticker is SWY start_index 19628 end_index 19631 start price 25.57 end price 25.98 ticker is SWY start_index 19687 end_index 19690 start_price 32.74 end_price 33.36 ticker is SWY start_index 19777 end_index 19780 start_price 37.13 end_price 37.45 ticker is SWY start_index 19821 end_index 19824 start_price 34.08 end_price 34.18 ticker is SWY start_index 19878 end_index 19881 start_price 34.82 end_price 34.96 ticker is SWY start_index 19938 end_index 19941 start_price 33.97 end_price 33.69 appending SWY

ticker is TFM start_index 20057 end_index 20060 start_price 58.34 end_price 57.7 ticker is TFM start_index 20119 end_index 20122 start_price 50.7 end_price 49.6 ticker is TFM start index 20194 end index 20197 start_price 42.7 end_price 41.38 ticker is TFM start index 20243 end index 20246 start_price 50.26 end_price 52.08 ticker is TFM start_index 20307 end_index 20310 start_price 49.7 end_price 50.8 ticker is TFM start_index 20364 end_index 20367 start_price 39.97 end_price 40.71 ticker is TFM start_index 20442 end_index 20445 start_price 34.18 end_price 34.04 ticker is TFM start_index 20493 end_index 20496 start_price 32.95 end_price 33.43 ticker is TFM start_index 20557 end_index 20560 start_price 33.73 end_price 35.5 ticker is TFM start_index 20621 end_index 20624 start price 39.53 end price 40.24 ticker is TFM start_index 20694 end_index 20697 start price 41.09 end price 40.27 ticker is TFM start_index 20740 end_index 20743 start_price 32.43 end_price 32.51 ticker is TFM start_index 20804 end_index 20807 start_price 19.91 end_price 21.53 ticker is TFM start_index 20870 end_index 20873 start_price 23.98 end_price 23.96 ticker is TFM start_index 20947 end_index 20950 start_price 28.47 end_price 28.51 appending TFM ticker is VLGEA start_index 21041 end_index 21044 start_price 34.06 end_price 33.58 ticker is VLGEA start_index 21079 end_index 21082 start price 37.11 end price 36.2 ticker is VLGEA start_index 21140 end_index 21143 start_price 34.1 end_price 33.89 ticker is VLGEA start_index 21203 end_index 21206 start_price 36.37 end_price 34.37 ticker is VLGEA start_index 21290 end_index 21293 start_price 34.85 end_price 35.74 ticker is VLGEA start_index 21330 end_index 21333 start_price 38.45 end_price 33.61 ticker is VLGEA start_index 21390 end_index 21393 start_price 27.32 end_price 28.49 ticker is VLGEA start_index 21454 end_index 21457 start_price 22.89 end_price 23.73 ticker is VLGEA start_index 21542 end_index 21545

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start_price 23.46 end_price 23.18
ticker is VLGEA start_index 21581 end_index 21584
start_price 24.04 end_price 24.45
ticker is VLGEA start_index 21642 end_index 21645
start price 27.66 end price 27.89
ticker is VLGEA start_index 21705 end_index 21708
start_price 32.29 end_price 31.1
ticker is VLGEA start_index 21793 end_index 21796
start_price 25.39 end_price 25.29
ticker is VLGEA start_index 21833 end_index 21836
start_price 25.61 end_price 25.47
ticker is VLGEA start_index 21893 end_index 21896
start_price 26.41 end_price 24.77
ticker is VLGEA start_index 21957 end_index 21960
start_price 27.37 end_price 26.95
ticker is VLGEA start_index 22049 end_index 22052
start_price 31.72 end_price 31.95
ticker is VLGEA start_index 22088 end_index 22091
start_price 35.63 end_price 32.04
ticker is VLGEA start index 22150 end index 22153
start_price 27.06 end_price 27.03
ticker is VLGEA start_index 22212 end_index 22215
start_price 25.07 end_price 26.16
ticker is VLGEA start_index 22301 end_index 22304
start_price 24.9 end_price 24.23
ticker is VLGEA start_index 22338 end_index 22341
start_price 25.44 end_price 23.41
ticker is VLGEA start_index 22401 end_index 22404
start_price 24.07 end_price 24.79
ticker is VLGEA start_index 22464 end_index 22467
start_price 28.29 end_price 28.96
ticker is VLGEA start_index 22552 end_index 22555
start_price 24.9 end_price 24.71
ticker is VLGEA start_index 22590 end_index 22593
start price 25.44 end price 27.13
ticker is VLGEA start_index 22650 end_index 22653
start_price 31.5 end_price 29.72
ticker is VLGEA start_index 22712 end_index 22715
start_price 26.18 end_price 25.32
ticker is VLGEA start_index 22802 end_index 22805
start_price 26.27 end_price 25.67
ticker is VLGEA start_index 22841 end_index 22844
start_price 25.79 end_price 25.07
ticker is VLGEA start_index 22902 end_index 22905
start_price 21.35 end_price 18.52
ticker is VLGEA start_index 22965 end_index 22968
start_price 25.46 end_price 26.11
ticker is VLGEA start_index 23053 end_index 23056
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start_price 24.32 end_price 25.49 ticker is VLGEA start_index 23092 end_index 23095 start_price 23.13 end_price 22.71 ticker is VLGEA start_index 23153 end_index 23156 start price 23.88 end price 26.03 appending VLGEA ticker is WFM start index 23312 end index 23315 start_price 46.455 end_price 46.955 ticker is WFM start_index 23387 end_index 23390 start_price 46.7119999999999 end_price 46.075 ticker is WFM start_index 23449 end_index 23452 start_price 42.465 end_price 41.98 ticker is WFM start_index 23508 end_index 23511 start_price 51.02 end_price 52.535 ticker is WFM start_index 23566 end_index 23569 start_price 55.9 end_price 55.53 ticker is WFM start_index 23640 end_index 23643 start_price 56.48 end_price 56.47 ticker is WFM start_index 23700 end_index 23703 start price 52.35 end price 53.55 ticker is WFM start_index 23759 end_index 23762 start price 38.76 end price 37.18 ticker is WFM start_index 23817 end_index 23820 start_price 37.35 end_price 38.395 ticker is WFM start_index 23891 end_index 23894 start_price 47.69 end_price 48.18 ticker is WFM start_index 23956 end_index 23959 start_price 56.73 end_price 55.53 ticker is WFM start_index 24010 end_index 24013 start_price 42.9 end_price 42.48 ticker is WFM start_index 24068 end_index 24071 start_price 34.84 end_price 33.97 ticker is WFM start_index 24137 end_index 24140 start_price 29.91 end_price 29.89 ticker is WFM start index 24207 end index 24210 start_price 30.86 end_price 32.46 ticker is WFM start_index 24261 end_index 24264 start_price 30.51 end_price 30.46 ticker is WFM start_index 24319 end_index 24322 start_price 30.39 end_price 30.52 ticker is WFM start_index 24393 end_index 24396 start_price 30.94 end_price 31.06 ticker is WFM start_index 24453 end_index 24456 start_price 30.72 end_price 31.22 ticker is WFM start_index 24517 end_index 24520 start_price 36.15 end_price 35.33 ticker is WFM start_index 24570 end_index 24573 start_price 41.84 end_price 41.85

appending WFM

ticker is WMK start_index 24614 end_index 24617

 $start_price 43.27 end_price 43.13$

ticker is WMK start_index 24676 end_index 24679 start price 40.38 end price 39.17

ticker is WMK start_index 24761 end_index 24764 start_price 41.02 end_price 41.14

ticker is WMK start_index 24800 end_index 24803 start_price 42.49 end_price 41.26

ticker is WMK start_index 24863 end_index 24866 start_price 50.81 end_price 51.06

ticker is WMK start_index 24927 end_index 24930 start_price 49.21 end_price 48.77

ticker is WMK start_index 25013 end_index 25016 start_price 49.49 end_price 51.22

ticker is WMK start_index 25051 end_index 25054 start_price 45.2 end_price 46.63

ticker is WMK start_index 25114 end_index 25117 start_price 43.43 end_price 43.67

ticker is WMK start_index 25178 end_index 25181 start_price 44.63 end_price 45.34

ticker is WMK start_index 25264 end_index 25267 start_price 50.36 end_price 50.32

ticker is WMK start_index 25298 end_index 25301 start_price 44.35 end_price 42.79

ticker is WMK start_index 25363 end_index 25366 start_price 42.01 end_price 42.71

ticker is WMK start_index 25497 end_index 25500 start_price 38.92 end_price 39.55

ticker is WMK start_index 25520 end_index 25523 start_price 43.38 end_price 43.74

ticker is WMK start_index 25553 end_index 25556 start_price 45.43 end_price 47.11

ticker is WMK start_index 25611 end_index 25614 start price 51.55 end price 51.07

ticker is WMK start_index 25680 end_index 25683 start price 56.51 end price 55.8

ticker is WMK start_index 25770 end_index 25773 start_price 59.08 end_price 60.51

ticker is WMK start_index 25809 end_index 25812 start_price 57.79 end_price 54.32

ticker is WMK start_index 25872 end_index 25875 start_price 44.49 end_price 46.29

ticker is WMK start_index 25934 end_index 25937 start_price 34.0 end_price 34.05

ticker is WMK start_index 26021 end_index 26024 start_price 38.37 end_price 38.48

ticker is WMK start_index 26060 end_index 26063

start_price 48.03 end_price 49.37 ticker is WMK start_index 26122 end_index 26125 start_price 48.66 end_price 47.88 ticker is WMK start_index 26187 end_index 26190 start price 46.46 end price 47.59 ticker is WMK start_index 26271 end_index 26274 start price 40.5 end price 40.93 ticker is WMK start_index 26310 end_index 26313 start_price 38.77 end_price 40.36 ticker is WMK start_index 26371 end_index 26374 start_price 37.6 end_price 39.46 ticker is WMK start_index 26434 end_index 26437 start_price 38.87 end_price 41.57 ticker is WMK start_index 26522 end_index 26525 start_price 36.39 end_price 35.5 ticker is WMK start_index 26561 end_index 26564 start_price 54.64 end_price 58.58 ticker is WMK start_index 26623 end_index 26626 start_price 51.17 end_price 48.96 ticker is WMK start index 26688 end index 26691 start_price 46.35 end_price 45.38 ticker is WMK start index 26773 end index 26776 start_price 58.85 end_price 58.36 ticker is WMK start_index 26812 end_index 26815 start_price 52.64 end_price 54.11 appending WMK ticker is ACI start_index 25 end_index 29 start_price 14.83 end_price 15.35 ticker is ACI start_index 80 end_index 84 start_price 15.22 end_price 14.8 ticker is ACI start_index 137 end_index 141 start_price 17.1 end_price 17.79 ticker is ACI start_index 209 end_index 213 start_price 18.11 end_price 18.85 appending ACI ticker is ARDNA start_index 330 end_index 334 start price 82.6 end price 89.0 ticker is ARDNA start_index 394 end_index 398 start_price 95.88 end_price 98.5 ticker is ARDNA start_index 478 end_index 482 start_price 98.31 end_price 103.5 ticker is ARDNA start_index 519 end_index 523 start_price 98.65 end_price 99.84 ticker is ARDNA start_index 583 end_index 587 start_price 132.78 end_price 132.14 ticker is ARDNA start_index 647 end_index 651 start_price 129.85 end_price 129.7 appending ARDNA

ticker is ASAI start_index 754 end_index 758 start_price 14.81 end_price 15.07 appending ASAI appending CBD ticker is FWMHQ start index 3088 end index 3092 start_price 17.35 end_price 18.66 ticker is FWMHQ start index 3122 end index 3126 start_price 20.73 end_price 22.45 ticker is FWMHQ start_index 3166 end_index 3170 start_price 25.83 end_price 24.67 ticker is FWMHQ start_index 3230 end_index 3234 start_price 25.46 end_price 21.47 ticker is FWMHQ start_index 3291 end_index 3295 start_price 11.14 end_price 8.04 ticker is FWMHQ start_index 3368 end_index 3372 start_price 6.75 end_price 5.55 ticker is FWMHQ start_index 3417 end_index 3421 start_price 5.74 end_price 4.96 ticker is FWMHQ start_index 3481 end_index 3485 start price 2.59 end price 2.25 ticker is FWMHQ start_index 3542 end_index 3546 start price 5.02 end price 5.42 ticker is FWMHQ start_index 3617 end_index 3621 start_price 4.63 end_price 4.52 ticker is FWMHQ start_index 3666 end_index 3670 start_price 3.02 end_price 2.16 ticker is FWMHQ start_index 3727 end_index 3731 start_price 1.71 end_price 1.15 ticker is FWMHQ start_index 3794 end_index 3798 start_price 0.499 end_price 0.278 appending FWMHQ ticker is GO start_index 3900 end_index 3904 start_price 28.51 end_price 32.98 ticker is GO start_index 3936 end_index 3940 start price 37.54 end price 46.64 ticker is GO start_index 3972 end_index 3976 start_price 33.01 end_price 32.8 ticker is GO start_index 4000 end_index 4004 start_price 31.0 end_price 31.56 ticker is GO start_index 4050 end_index 4054 start_price 35.43 end_price 32.61 ticker is GO start_index 4091 end_index 4095 start_price 33.2 end_price 33.8 ticker is GO start_index 4124 end_index 4128 start_price 36.67 end_price 37.53 ticker is GO start_index 4187 end_index 4191 start_price 44.33 end_price 42.88 ticker is GO start_index 4251 end_index 4255

start_price 41.21 end_price 38.41 ticker is GO start_index 4326 end_index 4330 start_price 35.91 end_price 36.03 ticker is GO start_index 4376 end_index 4380 start price 40.54 end price 35.0 appending GO ticker is HTSI start index 4491 end index 4495 start_price 41.53 end_price 40.47 ticker is HTSI start_index 4562 end_index 4566 start_price 36.17 end_price 36.46 ticker is HTSI start_index 4614 end_index 4618 start_price 36.95 end_price 39.5 ticker is HTSI start_index 4676 end_index 4680 start_price 45.29 end_price 45.0 ticker is HTSI start_index 4740 end_index 4744 start_price 49.2 end_price 49.24 ticker is HTSI start_index 4820 end_index 4824 start_price 49.38 end_price 49.5 appending HTSI ticker is IFMK start index 4953 end index 4957 start_price 11.99 end_price 12.4 ticker is IFMK start index 4984 end index 4988 start_price 12.81 end_price 12.687000000000001 ticker is IFMK start_index 5049 end_index 5053 start_price 11.13 end_price 11.32 ticker is IFMK start_index 5111 end_index 5115 start_price 11.92 end_price 12.297 ticker is IFMK start_index 5205 end_index 5209 start_price 5.5 end_price 5.06 ticker is IFMK start_index 5236 end_index 5240 start_price 3.8 end_price 3.15 ticker is IFMK start_index 5301 end_index 5305 start_price 1.4 end_price 1.13 ticker is IFMK start_index 5362 end_index 5366 start price 1.07 end price 1.0 ticker is IFMK start_index 5455 end_index 5459 start_price 1.2 end_price 1.24 ticker is IFMK start_index 5487 end_index 5491 start_price 2.27 end_price 2.35 ticker is IFMK start_index 5552 end_index 5556 start_price 0.375 end_price 0.47600000000000003 ticker is IFMK start_index 5614 end_index 5618 start_price 0.4220000000000004 end_price 0.43 ticker is IFMK start_index 5739 end_index 5743 start_price 0.93900000000001 end_price 0.91 ticker is IFMK start_index 5744 end_index 5748 start_price 0.9 end_price 0.91 ticker is IFMK start_index 5810 end_index 5814

start_price 0.859000000000001 end_price 0.818 ticker is IFMK start_index 5830 end_index 5834 start_price 0.822000000000001 end_price 0.79 ticker is IFMK start_index 5870 end_index 5874 start price 1.95 end price 1.77 appending IFMK ticker is IMKTA start index 6035 end index 6039 start_price 16.36 end_price 16.64 ticker is IMKTA start_index 6135 end_index 6139 start_price 17.2 end_price 17.26 ticker is IMKTA start_index 6164 end_index 6168 start_price 19.3 end_price 19.33 ticker is IMKTA start_index 6226 end_index 6230 start_price 21.46 end_price 21.57 ticker is IMKTA start_index 6288 end_index 6292 start_price 25.69 end_price 26.76 ticker is IMKTA start_index 6378 end_index 6382 start_price 24.41 end_price 25.72199999999998 ticker is IMKTA start_index 6413 end_index 6417 start price 24.02 end price 22.26 ticker is IMKTA start_index 6476 end_index 6480 start price 26.07 end price 26.39 ticker is IMKTA start_index 6541 end_index 6545 start_price 24.47 end_price 25.07 ticker is IMKTA start_index 6632 end_index 6636 start_price 32.08 end_price 33.97 ticker is IMKTA start_index 6666 end_index 6670 start_price 44.06 end_price 42.01 ticker is IMKTA start_index 6728 end_index 6732 start_price 40.87 end_price 49.68 ticker is IMKTA start_index 6790 end_index 6794 start_price 49.9 end_price 49.61 ticker is IMKTA start_index 6880 end_index 6884 start_price 53.84 end_price 44.97 ticker is IMKTA start index 6917 end index 6921 start_price 36.2 end_price 34.44 ticker is IMKTA start_index 6980 end_index 6984 start_price 36.73 end_price 39.42 ticker is IMKTA start_index 7042 end_index 7046 start_price 36.86 end_price 37.36 ticker is IMKTA start_index 7137 end_index 7141 start_price 48.05 end_price 50.5 ticker is IMKTA start_index 7167 end_index 7171 start_price 45.25 end_price 45.7 ticker is IMKTA start_index 7230 end_index 7234 start_price 45.85 end_price 42.15 ticker is IMKTA start_index 7293 end_index 7297 start_price 29.5 end_price 29.0

ticker is IMKTA start_index 7381 end_index 7385 start_price 27.7 end_price 33.25 ticker is IMKTA start_index 7424 end_index 7428 start_price 30.55 end_price 31.1 ticker is IMKTA start index 7486 end index 7490 start_price 30.95 end_price 28.45 ticker is IMKTA start index 7550 end index 7554 start_price 29.55 end_price 33.8 ticker is IMKTA start_index 7633 end_index 7637 start_price 28.1 end_price 31.3 ticker is IMKTA start_index 7674 end_index 7678 start_price 28.96 end_price 29.83 ticker is IMKTA start_index 7736 end_index 7740 start_price 27.45 end_price 30.18 ticker is IMKTA start_index 7800 end_index 7804 start_price 31.75 end_price 34.16 ticker is IMKTA start_index 7886 end_index 7890 start_price 43.48 end_price 44.86 ticker is IMKTA start_index 7925 end_index 7929 start price 42.76 end price 36.23 ticker is IMKTA start_index 7988 end_index 7992 start price 37.61 end price 43.83 ticker is IMKTA start_index 8051 end_index 8055 start_price 39.9 end_price 42.1 ticker is IMKTA start_index 8137 end_index 8141 start_price 37.41 end_price 40.95 ticker is IMKTA start_index 8176 end_index 8180 start_price 47.26 end_price 51.98 ticker is IMKTA start_index 8238 end_index 8242 start_price 62.74 end_price 65.45 appending IMKTA ticker is KR start_index 8385 end_index 8389 start_price 11.905 end_price 11.84 ticker is KR start_index 8442 end_index 8446 start price 13.325 end price 13.145 ticker is KR start_index 8517 end_index 8521 start_price 16.27 end_price 16.02 ticker is KR start_index 8579 end_index 8583 start_price 17.355 end_price 17.8 ticker is KR start_index 8639 end_index 8643 start_price 20.24 end_price 20.345 ticker is KR start_index 8696 end_index 8700 start_price 19.995 end_price 20.04 ticker is KR start_index 8769 end_index 8773 start_price 21.825 end_price 22.34 ticker is KR start_index 8832 end_index 8836 start_price 24.715 end_price 24.735 ticker is KR start_index 8890 end_index 8894

start_price 26.015 end_price 25.865 ticker is KR start_index 8949 end_index 8953 start_price 30.765 end_price 31.775 ticker is KR start_index 9020 end_index 9024 start price 38.62 end price 38.485 ticker is KR start_index 9083 end_index 9087 start_price 36.335 end_price 36.785 ticker is KR start_index 9141 end_index 9145 start_price 36.66 end_price 36.11 ticker is KR start_index 9202 end_index 9206 start_price 42.43 end_price 42.1 ticker is KR start_index 9270 end_index 9274 start_price 38.06 end_price 38.32 ticker is KR start_index 9334 end_index 9338 start_price 36.62 end_price 36.55 ticker is KR start_index 9392 end_index 9396 start_price 30.79 end_price 30.45 ticker is KR start_index 9451 end_index 9455 start_price 34.22 end_price 35.94 ticker is KR start index 9522 end index 9526 start_price 28.93 end_price 29.49 ticker is KR start_index 9585 end_index 9589 start_price 22.61 end_price 23.32 ticker is KR start_index 9641 end_index 9645 start_price 21.26 end_price 20.8 ticker is KR start_index 9700 end_index 9704 start_price 26.53 end_price 26.69 ticker is KR start_index 9777 end_index 9781 start_price 23.28 end_price 23.77 ticker is KR start_index 9839 end_index 9843 start_price 28.43 end_price 28.6 ticker is KR start_index 9899 end_index 9903 start_price 29.61 end_price 29.11 ticker is KR start_index 9957 end_index 9961 start price 28.92 end price 27.4 ticker is KR start_index 10028 end_index 10032 start_price 24.48 end_price 23.9 ticker is KR start_index 10089 end_index 10093 start_price 21.39 end_price 21.55 ticker is KR start_index 10149 end_index 10153 start_price 25.72 end_price 25.74 ticker is KR start_index 10208 end_index 10212 start_price 28.31 end_price 29.0 ticker is KR start_index 10280 end_index 10284 start_price 30.12 end_price 32.63 ticker is KR start_index 10340 end_index 10344 start_price 32.78 end_price 33.57 ticker is KR start_index 10400 end_index 10404 start_price 33.46 end_price 33.53 ticker is KR start_index 10459 end_index 10463 start_price 31.3 end_price 30.87 ticker is KR start_index 10530 end_index 10534 start price 37.95 end price 36.73 appending KR ticker is NGVC start index 10745 end index 10749 start_price 19.38 end_price 20.19 ticker is NGVC start_index 10747 end_index 10751 start_price 19.59 end_price 20.12 ticker is NGVC start_index 10777 end_index 10781 start_price 20.32 end_price 21.14 ticker is NGVC start_index 10845 end_index 10849 start_price 25.03 end_price 29.67 ticker is NGVC start_index 10907 end_index 10911 start_price 35.4 end_price 34.06 ticker is NGVC start_index 10996 end_index 11000 start_price 37.94 end_price 39.49 ticker is NGVC start_index 11028 end_index 11032 start price 33.51 end price 38.2 ticker is NGVC start index 11091 end index 11095 start price 35.6 end price 23.78 ticker is NGVC start_index 11154 end_index 11158 start_price 23.88 end_price 20.35 ticker is NGVC start_index 11247 end_index 11251 start_price 25.45 end_price 25.96 ticker is NGVC start_index 11279 end_index 11283 start_price 28.06 end_price 29.64 ticker is NGVC start_index 11347 end_index 11351 start_price 26.87 end_price 24.83 ticker is NGVC start_index 11405 end_index 11409 start_price 22.29 end_price 25.6 ticker is NGVC start_index 11498 end_index 11502 start_price 20.11 end_price 20.19 ticker is NGVC start index 11530 end index 11534 start_price 20.67 end_price 17.66 ticker is NGVC start index 11598 end index 11602 start_price 13.09 end_price 13.55 ticker is NGVC start_index 11656 end_index 11660 start_price 13.49 end_price 12.78 ticker is NGVC start_index 11749 end_index 11753 start_price 11.69 end_price 12.37 ticker is NGVC start_index 11786 end_index 11790 start_price 12.54 end_price 12.0 ticker is NGVC start_index 11849 end_index 11853 start_price 10.7 end_price 9.95 ticker is NGVC start_index 11912 end_index 11916 start_price 8.61 end_price 6.0

```
ticker is NGVC start_index 12000 end_index 12004
start_price 8.3 end_price 8.05
ticker is NGVC start_index 12037 end_index 12041
start_price 8.6 end_price 7.28
ticker is NGVC start index 12100 end index 12104
start_price 7.19 end_price 9.58
ticker is NGVC start index 12163 end index 12167
start_price 12.54 end_price 16.48
ticker is NGVC start_index 12250 end_index 12254
start_price 17.5 end_price 18.0
ticker is NGVC start_index 12292 end_index 12296
start_price 14.0 end_price 14.03
ticker is NGVC start_index 12350 end_index 12354
start_price 12.16 end_price 12.83
ticker is NGVC start_index 12413 end_index 12417
start_price 9.17 end_price 10.74
ticker is NGVC start_index 12501 end_index 12505
start_price 9.32 end_price 9.87
ticker is NGVC start_index 12543 end_index 12547
start price 9.35 end price 8.88
ticker is NGVC start_index 12606 end_index 12610
start price 10.72 end price 13.68
ticker is NGVC start_index 12669 end_index 12673
start_price 16.06 end_price 13.45
ticker is NGVC start_index 12757 end_index 12761
start_price 13.8 end_price 13.1
ticker is NGVC start_index 12794 end_index 12798
start_price 16.18 end_price 16.22
ticker is NGVC start_index 12857 end_index 12861
start_price 16.08 end_price 12.0
appending NGVC
ticker is QKLS start_index 12979 end_index 12983
start_price 8.08 end_price 6.16
ticker is QKLS start_index 13042 end_index 13046
start price 5.12 end price 6.8
ticker is QKLS start_index 13144 end_index 13148
start_price 5.98 end_price 5.25
ticker is QKLS start_index 13165 end_index 13169
start_price 3.43 end_price 3.85
ticker is QKLS start_index 13229 end_index 13233
start_price 6.2 end_price 4.9
ticker is QKLS start_index 13294 end_index 13298
start_price 4.55 end_price 4.51
ticker is QKLS start_index 13390 end_index 13394
start_price 4.33 end_price 4.0
ticker is QKLS start_index 13418 end_index 13422
start_price 3.71 end_price 3.64
ticker is QKLS start_index 13481 end_index 13485
```

```
start_price 3.37 end_price 3.47
ticker is QKLS start_index 13546 end_index 13550
start_price 2.31 end_price 2.4
ticker is QKLS start_index 13648 end_index 13652
start price 3.15 end price 2.65
ticker is QKLS start_index 13670 end_index 13674
start_price 3.1 end_price 2.46
ticker is QKLS start_index 13734 end_index 13738
start_price 1.64 end_price 1.6
ticker is QKLS start_index 13798 end_index 13802
start_price 0.9 end_price 0.82
ticker is QKLS start_index 13900 end_index 13904
start_price 0.66 end_price 0.56
appending QKLS
ticker is RNDY start_index 15282 end_index 15286
start_price 7.71 end_price 7.78
ticker is RNDY start_index 15345 end_index 15349
start_price 4.24 end_price 3.73
ticker is RNDY start_index 15433 end_index 15437
start price 6.74 end price 6.55
ticker is RNDY start_index 15467 end_index 15471
start price 7.33 end price 7.35
ticker is RNDY start_index 15530 end_index 15534
start_price 8.57 end_price 8.83
ticker is RNDY start_index 15594 end_index 15598
start_price 9.15 end_price 8.64
ticker is RNDY start_index 15674 end_index 15678
start_price 6.08 end_price 6.2
ticker is RNDY start_index 15716 end_index 15720
start_price 6.65 end_price 4.94
ticker is RNDY start_index 15779 end_index 15783
start_price 4.78 end_price 3.68
ticker is RNDY start_index 15843 end_index 15847
start_price 3.45 end_price 3.34
ticker is RNDY start index 15930 end index 15934
start_price 4.48 end_price 4.68
ticker is RNDY start_index 15972 end_index 15976
start_price 4.65 end_price 4.49
ticker is RNDY start_index 16035 end_index 16039
start_price 2.46 end_price 2.46
ticker is RNDY start_index 16100 end_index 16104
start_price 3.57 end_price 3.59
appending RNDY
ticker is SFM start_index 16141 end_index 16145
start_price 38.59 end_price 37.47
ticker is SFM start_index 16194 end_index 16198
start_price 48.04 end_price 44.67
ticker is SFM start_index 16201 end_index 16205
```

start_price 43.05 end_price 38.31 ticker is SFM start_index 16269 end_index 16273 start_price 36.85 end_price 39.01 ticker is SFM start_index 16281 end_index 16285 start price 37.95 end price 37.13 ticker is SFM start_index 16317 end_index 16321 start_price 31.09 end_price 27.85 ticker is SFM start_index 16381 end_index 16385 start_price 31.75 end_price 30.31 ticker is SFM start_index 16445 end_index 16449 start_price 30.69 end_price 29.79 ticker is SFM start_index 16520 end_index 16524 start_price 37.09 end_price 35.16 ticker is SFM start_index 16569 end_index 16573 start_price 31.06 end_price 28.97 ticker is SFM start_index 16632 end_index 16636 start_price 24.03 end_price 20.98 ticker is SFM start_index 16696 end_index 16700 start_price 19.88 end_price 23.26 ticker is SFM start index 16771 end index 16775 start_price 25.21 end_price 28.63 ticker is SFM start_index 16820 end_index 16824 start_price 27.38 end_price 26.0 ticker is SFM start_index 16883 end_index 16887 start_price 23.25 end_price 22.43 ticker is SFM start_index 16947 end_index 16951 start_price 22.57 end_price 20.44 ticker is SFM start_index 17022 end_index 17026 start_price 19.0 end_price 18.46 ticker is SFM start_index 17071 end_index 17075 start_price 22.75 end_price 23.32 ticker is SFM start_index 17134 end_index 17138 start_price 23.98 end_price 24.34 ticker is SFM start_index 17198 end_index 17202 start price 18.87 end price 20.25 ticker is SFM start_index 17273 end_index 17277 start_price 26.12 end_price 25.82 ticker is SFM start_index 17322 end_index 17326 start_price 24.39 end_price 21.68 ticker is SFM start_index 17385 end_index 17389 start_price 21.2 end_price 23.46 ticker is SFM start_index 17449 end_index 17453 start_price 26.89 end_price 26.21 ticker is SFM start_index 17523 end_index 17527 start_price 24.14 end_price 23.32 ticker is SFM start_index 17572 end_index 17576 start_price 21.29 end_price 22.28 ticker is SFM start_index 17635 end_index 17639 start_price 16.93 end_price 17.78 ticker is SFM start_index 17699 end_index 17703 start_price 18.75 end_price 20.35 ticker is SFM start_index 17774 end_index 17778 start price 15.86 end price 16.75 ticker is SFM start_index 17826 end_index 17830 start_price 21.76 end_price 25.18 ticker is SFM start_index 17885 end_index 17889 start_price 27.02 end_price 25.24 ticker is SFM start_index 17949 end_index 17953 start_price 20.4 end_price 18.59 ticker is SFM start_index 18030 end_index 18034 start_price 21.48 end_price 21.77 ticker is SFM start_index 18079 end_index 18083 start_price 25.87 end_price 26.945 appending SFM ticker is SFS start_index 18209 end_index 18213 start_price 15.49 end_price 14.99 ticker is SFS start_index 18296 end_index 18300 start price 18.4 end price 17.69 ticker is SFS start_index 18320 end_index 18324 start price 17.87 end price 17.36 ticker is SFS start_index 18379 end_index 18383 start_price 17.79 end_price 16.55 ticker is SFS start_index 18458 end_index 18462 start_price 14.6 end_price 16.46 ticker is SFS start_index 18541 end_index 18545 start_price 15.8 end_price 16.35 ticker is SFS start_index 18576 end_index 18580 start_price 16.03 end_price 16.06 ticker is SFS start_index 18636 end_index 18640 start_price 15.03 end_price 14.58 ticker is SFS start_index 18714 end_index 18718 start_price 13.45 end_price 13.5 ticker is SFS start index 18795 end index 18799 start_price 11.55 end_price 11.55 ticker is SFS start index 18828 end index 18832 start_price 11.65 end_price 12.9 ticker is SFS start_index 18885 end_index 18889 start_price 8.1 end_price 8.6 ticker is SFS start_index 18965 end_index 18969 start_price 7.25 end_price 8.05 ticker is SFS start_index 19046 end_index 19050 start_price 6.0 end_price 6.15 ticker is SFS start_index 19079 end_index 19083 start_price 5.3 end_price 4.95 ticker is SFS start_index 19137 end_index 19141 start_price 5.5 end_price 5.9

ticker is SFS start_index 19216 end_index 19220 start_price 4.95 end_price 6.22 ticker is SFS start_index 19296 end_index 19300 start_price 5.26 end_price 5.11 ticker is SFS start index 19330 end index 19334 start_price 6.52 end_price 6.5 appending SFS ticker is SWY start_index 19378 end_index 19382 start_price 15.26 end_price 15.32 ticker is SWY start_index 19437 end_index 19441 start_price 15.67 end_price 16.35 ticker is SWY start_index 19525 end_index 19529 start_price 22.76 end_price 24.1 ticker is SWY start_index 19569 end_index 19573 start_price 23.51 end_price 23.95 ticker is SWY start_index 19628 end_index 19632 start_price 25.57 end_price 26.05 ticker is SWY start_index 19687 end_index 19691 start_price 32.74 end_price 32.93 ticker is SWY start index 19777 end index 19781 start_price 37.13 end_price 38.02 ticker is SWY start_index 19821 end_index 19825 start_price 34.08 end_price 34.2 ticker is SWY start_index 19878 end_index 19882 start_price 34.82 end_price 34.87 ticker is SWY start_index 19938 end_index 19942 start_price 33.97 end_price 33.94 appending SWY ticker is TFM start_index 20057 end_index 20061 start_price 58.34 end_price 56.28 ticker is TFM start_index 20119 end_index 20123 start_price 50.7 end_price 50.39 ticker is TFM start_index 20194 end_index 20198 start_price 42.7 end_price 41.0 ticker is TFM start index 20243 end index 20247 start_price 50.26 end_price 51.87 ticker is TFM start_index 20307 end_index 20311 start_price 49.7 end_price 50.17 ticker is TFM start_index 20364 end_index 20368 start_price 39.97 end_price 39.61 ticker is TFM start_index 20442 end_index 20446 start_price 34.18 end_price 33.46 ticker is TFM start_index 20493 end_index 20497 start_price 32.95 end_price 33.83 ticker is TFM start_index 20557 end_index 20561 start_price 33.73 end_price 35.25 ticker is TFM start_index 20621 end_index 20625

start_price 39.53 end_price 40.26

```
ticker is TFM start_index 20694 end_index 20698
start_price 41.09 end_price 40.02
ticker is TFM start_index 20740 end_index 20744
start_price 32.43 end_price 32.51
ticker is TFM start index 20804 end index 20808
start_price 19.91 end_price 21.16
ticker is TFM start index 20870 end index 20874
start_price 23.98 end_price 24.33
ticker is TFM start_index 20947 end_index 20951
start_price 28.47 end_price 28.59
appending TFM
ticker is VLGEA start_index 21041 end_index 21045
start_price 34.06 end_price 34.86
ticker is VLGEA start_index 21079 end_index 21083
start_price 37.11 end_price 34.45
ticker is VLGEA start_index 21140 end_index 21144
start_price 34.1 end_price 33.0
ticker is VLGEA start_index 21203 end_index 21207
start_price 36.37 end_price 35.69
ticker is VLGEA start index 21290 end index 21294
start_price 34.85 end_price 35.4
ticker is VLGEA start index 21330 end index 21334
start_price 38.45 end_price 30.92
ticker is VLGEA start_index 21390 end_index 21394
start_price 27.32 end_price 28.82
ticker is VLGEA start_index 21454 end_index 21458
start_price 22.89 end_price 23.78
ticker is VLGEA start_index 21542 end_index 21546
start_price 23.46 end_price 24.85
ticker is VLGEA start_index 21581 end_index 21585
start_price 24.04 end_price 25.16
ticker is VLGEA start_index 21642 end_index 21646
start_price 27.66 end_price 28.4
ticker is VLGEA start_index 21705 end_index 21709
start price 32.29 end price 29.38
ticker is VLGEA start_index 21793 end_index 21797
start_price 25.39 end_price 25.53
ticker is VLGEA start_index 21833 end_index 21837
start_price 25.61 end_price 25.5
ticker is VLGEA start_index 21893 end_index 21897
start_price 26.41 end_price 25.13
ticker is VLGEA start_index 21957 end_index 21961
start_price 27.37 end_price 27.9
ticker is VLGEA start_index 22049 end_index 22053
start_price 31.72 end_price 31.88
ticker is VLGEA start_index 22088 end_index 22092
start_price 35.63 end_price 31.89
ticker is VLGEA start_index 22150 end_index 22154
```

```
start_price 27.06 end_price 26.84
ticker is VLGEA start_index 22212 end_index 22216
start_price 25.07 end_price 26.24
ticker is VLGEA start_index 22301 end_index 22305
start price 24.9 end price 24.55
ticker is VLGEA start_index 22338 end_index 22342
start_price 25.44 end_price 23.26
ticker is VLGEA start_index 22401 end_index 22405
start_price 24.07 end_price 25.2
ticker is VLGEA start_index 22464 end_index 22468
start_price 28.29 end_price 28.25
ticker is VLGEA start_index 22552 end_index 22556
start_price 24.9 end_price 25.43
ticker is VLGEA start_index 22590 end_index 22594
start_price 25.44 end_price 27.46
ticker is VLGEA start_index 22650 end_index 22654
start_price 31.5 end_price 30.05
ticker is VLGEA start_index 22712 end_index 22716
start_price 26.18 end_price 25.55
ticker is VLGEA start index 22802 end index 22806
start_price 26.27 end_price 25.23
ticker is VLGEA start_index 22841 end_index 22845
start_price 25.79 end_price 24.86
ticker is VLGEA start_index 22902 end_index 22906
start_price 21.35 end_price 18.96
ticker is VLGEA start_index 22965 end_index 22969
start_price 25.46 end_price 26.23
ticker is VLGEA start_index 23053 end_index 23057
start_price 24.32 end_price 24.81
ticker is VLGEA start_index 23092 end_index 23096
start_price 23.13 end_price 23.11
ticker is VLGEA start_index 23153 end_index 23157
start_price 23.88 end_price 25.95
appending VLGEA
ticker is WFM start index 23312 end index 23316
start_price 46.455 end_price 46.855
ticker is WFM start_index 23387 end_index 23391
start_price 46.7119999999999 end_price 45.685
ticker is WFM start_index 23449 end_index 23453
start_price 42.465 end_price 42.64899999999994
ticker is WFM start_index 23508 end_index 23512
start_price 51.02 end_price 51.775
ticker is WFM start_index 23566 end_index 23570
start_price 55.9 end_price 54.61
ticker is WFM start_index 23640 end_index 23644
start_price 56.48 end_price 57.07
ticker is WFM start_index 23700 end_index 23704
start_price 52.35 end_price 53.31
```

ticker is WFM start_index 23759 end_index 23763 start_price 38.76 end_price 37.55

ticker is WFM start_index 23817 end_index 23821 start_price 37.35 end_price 37.96

ticker is WFM start_index 23891 end_index 23895 start_price 47.69 end_price 48.36

ticker is WFM start_index 23956 end_index 23960 start_price 56.73 end_price 55.34

ticker is WFM start_index 24010 end_index 24014 start_price 42.9 end_price 42.56

ticker is WFM start_index 24068 end_index 24072 start_price 34.84 end_price 34.27

ticker is WFM start_index 24137 end_index 24141 start_price 29.91 end_price 30.18

ticker is WFM start_index 24207 end_index 24211 start_price 30.86 end_price 32.75

ticker is WFM start_index 24261 end_index 24265 start_price 30.51 end_price 30.34

ticker is WFM start_index 24319 end_index 24323 start price 30.39 end price 30.41

ticker is WFM start_index 24393 end_index 24397 start price 30.94 end price 31.13

ticker is WFM start_index 24453 end_index 24457 start_price 30.72 end_price 31.1

ticker is WFM start_index 24517 end_index 24521 start_price 36.15 end_price 35.32

ticker is WFM start_index 24570 end_index 24574 start_price 41.84 end_price 41.85 appending WFM

ticker is WMK start_index 24614 end_index 24618 start_price 43.27 end_price 43.36

ticker is WMK start_index 24676 end_index 24680 start_price 40.38 end_price 38.69

ticker is WMK start_index 24761 end_index 24765 start price 41.02 end price 41.2

ticker is WMK start_index 24800 end_index 24804 start_price 42.49 end_price 42.49

ticker is WMK start_index 24863 end_index 24867 start_price 50.81 end_price 50.72

ticker is WMK start_index 24927 end_index 24931 start_price 49.21 end_price 49.45

ticker is WMK start_index 25013 end_index 25017 start_price 49.49 end_price 50.26

ticker is WMK start_index 25051 end_index 25055 start_price 45.2 end_price 45.77

ticker is WMK start_index 25114 end_index 25118 start_price 43.43 end_price 43.18

ticker is WMK start_index 25178 end_index 25182

start_price 44.63 end_price 45.4 ticker is WMK start_index 25264 end_index 25268 start_price 50.36 end_price 49.99 ticker is WMK start_index 25298 end_index 25302 start price 44.35 end price 42.99 ticker is WMK start_index 25363 end_index 25367 start_price 42.01 end_price 42.46 ticker is WMK start_index 25497 end_index 25501 start_price 38.92 end_price 39.85 ticker is WMK start_index 25520 end_index 25524 start_price 43.38 end_price 42.24 ticker is WMK start_index 25553 end_index 25557 start_price 45.43 end_price 47.63 ticker is WMK start_index 25611 end_index 25615 start_price 51.55 end_price 50.38 ticker is WMK start_index 25680 end_index 25684 start_price 56.51 end_price 56.04 ticker is WMK start_index 25770 end_index 25774 start_price 59.08 end_price 60.03 ticker is WMK start index 25809 end index 25813 start_price 57.79 end_price 53.92 ticker is WMK start_index 25872 end_index 25876 start_price 44.49 end_price 45.57 ticker is WMK start_index 25934 end_index 25938 start_price 34.0 end_price 34.77 ticker is WMK start_index 26021 end_index 26025 start_price 38.37 end_price 37.95 ticker is WMK start_index 26060 end_index 26064 start_price 48.03 end_price 50.33 ticker is WMK start_index 26122 end_index 26126 start_price 48.66 end_price 47.3 ticker is WMK start_index 26187 end_index 26191 start_price 46.46 end_price 47.3 ticker is WMK start_index 26271 end_index 26275 start price 40.5 end price 41.29 ticker is WMK start_index 26310 end_index 26314 start_price 38.77 end_price 40.59 ticker is WMK start_index 26371 end_index 26375 start_price 37.6 end_price 38.82 ticker is WMK start_index 26434 end_index 26438 start_price 38.87 end_price 40.66 ticker is WMK start_index 26522 end_index 26526 start_price 36.39 end_price 38.3 ticker is WMK start_index 26561 end_index 26565 start_price 54.64 end_price 56.89 ticker is WMK start_index 26623 end_index 26627 start_price 51.17 end_price 49.35 ticker is WMK start_index 26688 end_index 26692 start_price 46.35 end_price 46.77 ticker is WMK start_index 26773 end_index 26777 start_price 58.85 end_price 58.03 ticker is WMK start_index 26812 end_index 26816 start_price 52.64 end_price 52.83 appending WMK ticker is ACI start index 25 end index 30 start_price 14.83 end_price 15.37 ticker is ACI start_index 80 end_index 85 start_price 15.22 end_price 14.89 ticker is ACI start_index 137 end_index 142 start_price 17.1 end_price 17.33 ticker is ACI start_index 209 end_index 214 start_price 18.11 end_price 18.38 appending ACI ticker is ARDNA start_index 330 end_index 335 start_price 82.6 end_price 88.22 ticker is ARDNA start_index 394 end_index 399 start_price 95.88 end_price 95.7 ticker is ARDNA start index 478 end index 483 start_price 98.31 end_price 99.5 ticker is ARDNA start index 519 end index 524 start_price 98.65 end_price 100.45 ticker is ARDNA start_index 583 end_index 588 start_price 132.78 end_price 132.14 ticker is ARDNA start_index 647 end_index 652 start_price 129.85 end_price 127.06 appending ARDNA ticker is ASAI start_index 754 end_index 759 start_price 14.81 end_price 15.91 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3093 start_price 17.35 end_price 17.93 ticker is FWMHQ start index 3122 end index 3127 start_price 20.73 end_price 22.7 ticker is FWMHQ start_index 3166 end_index 3171 start_price 25.83 end_price 23.72 ticker is FWMHQ start_index 3230 end_index 3235 start_price 25.46 end_price 21.7 ticker is FWMHQ start_index 3291 end_index 3296 start_price 11.14 end_price 7.72 ticker is FWMHQ start_index 3368 end_index 3373 start_price 6.75 end_price 5.72 ticker is FWMHQ start_index 3417 end_index 3422 start_price 5.74 end_price 4.77 ticker is FWMHQ start_index 3481 end_index 3486 start_price 2.59 end_price 2.31

ticker is FWMHQ start_index 3542 end_index 3547 start_price 5.02 end_price 5.41 ticker is FWMHQ start_index 3617 end_index 3622 start_price 4.63 end_price 4.4 ticker is FWMHQ start index 3666 end index 3671 start_price 3.02 end_price 2.21 ticker is FWMHQ start index 3727 end index 3732 start_price 1.71 end_price 1.14 ticker is FWMHQ start_index 3794 end_index 3799 start_price 0.499 end_price 0.29 appending FWMHQ ticker is GO start_index 3900 end_index 3905 start_price 28.51 end_price 32.71 ticker is GO start_index 3936 end_index 3941 start_price 37.54 end_price 43.33 ticker is GO start_index 3972 end_index 3977 start_price 33.01 end_price 32.85 ticker is GO start_index 4000 end_index 4005 start_price 31.0 end_price 30.6 ticker is GO start index 4050 end index 4055 start_price 35.43 end_price 32.74 ticker is GO start_index 4091 end_index 4096 start_price 33.2 end_price 34.34 ticker is GO start_index 4124 end_index 4129 start_price 36.67 end_price 38.38 ticker is GO start_index 4187 end_index 4192 start_price 44.33 end_price 42.46 ticker is GO start_index 4251 end_index 4256 start_price 41.21 end_price 37.295 ticker is GO start_index 4326 end_index 4331 start_price 35.91 end_price 35.41 ticker is GO start_index 4376 end_index 4381 start_price 40.54 end_price 35.05 appending GO ticker is HTSI start index 4491 end index 4496 start_price 41.53 end_price 40.15 ticker is HTSI start_index 4562 end_index 4567 start_price 36.17 end_price 37.61 ticker is HTSI start_index 4614 end_index 4619 start_price 36.95 end_price 40.72 ticker is HTSI start_index 4676 end_index 4681 start_price 45.29 end_price 45.39 ticker is HTSI start_index 4740 end_index 4745 start_price 49.2 end_price 49.25 ticker is HTSI start_index 4820 end_index 4825 start_price 49.38 end_price 49.47 appending HTSI ticker is IFMK start_index 4953 end_index 4958

```
start_price 11.99 end_price 12.59
ticker is IFMK start_index 4984 end_index 4989
start_price 12.81 end_price 11.95
ticker is IFMK start_index 5049 end_index 5054
start price 11.13 end price 11.32
ticker is IFMK start_index 5111 end_index 5116
start_price 11.92 end_price 12.12
ticker is IFMK start_index 5205 end_index 5210
start_price 5.5 end_price 5.34
ticker is IFMK start_index 5236 end_index 5241
start_price 3.8 end_price 3.37
ticker is IFMK start_index 5301 end_index 5306
start_price 1.4 end_price 0.97
ticker is IFMK start_index 5362 end_index 5367
start_price 1.07 end_price 0.99
ticker is IFMK start_index 5455 end_index 5460
start_price 1.2 end_price 1.28
ticker is IFMK start_index 5487 end_index 5492
start_price 2.27 end_price 2.37
ticker is IFMK start index 5552 end index 5557
start_price 0.375 end_price 0.4320000000000005
ticker is IFMK start index 5614 end index 5619
start_price 0.4220000000000004 end_price 0.43
ticker is IFMK start_index 5739 end_index 5744
start_price 0.939000000000001 end_price 0.9
ticker is IFMK start_index 5744 end_index 5749
start_price 0.9 end_price 0.939000000000001
ticker is IFMK start_index 5810 end_index 5815
start_price 0.859000000000001 end_price 0.82
ticker is IFMK start_index 5830 end_index 5835
ticker is IFMK start_index 5870 end_index 5875
start_price 1.95 end_price 1.65
appending IFMK
ticker is IMKTA start index 6035 end index 6040
start_price 16.36 end_price 16.74
ticker is IMKTA start_index 6135 end_index 6140
start_price 17.2 end_price 17.49
ticker is IMKTA start_index 6164 end_index 6169
start_price 19.3 end_price 19.33
ticker is IMKTA start_index 6226 end_index 6231
start_price 21.46 end_price 21.68
ticker is IMKTA start_index 6288 end_index 6293
start_price 25.69 end_price 27.37
ticker is IMKTA start_index 6378 end_index 6383
start_price 24.41 end_price 26.17
ticker is IMKTA start_index 6413 end_index 6418
start_price 24.02 end_price 22.23
```

ticker is IMKTA start_index 6476 end_index 6481 start_price 26.07 end_price 27.22 ticker is IMKTA start_index 6541 end_index 6546 start_price 24.47 end_price 24.93 ticker is IMKTA start index 6632 end index 6637 start_price 32.08 end_price 34.52 ticker is IMKTA start index 6666 end index 6671 start_price 44.06 end_price 42.55 ticker is IMKTA start_index 6728 end_index 6733 start_price 40.87 end_price 47.12 ticker is IMKTA start_index 6790 end_index 6795 start_price 49.9 end_price 49.71 ticker is IMKTA start_index 6880 end_index 6885 start_price 53.84 end_price 46.06 ticker is IMKTA start_index 6917 end_index 6922 start_price 36.2 end_price 34.58 ticker is IMKTA start_index 6980 end_index 6985 start_price 36.73 end_price 37.68 ticker is IMKTA start_index 7042 end_index 7047 start price 36.86 end price 37.52 ticker is IMKTA start_index 7137 end_index 7142 start price 48.05 end price 48.8 ticker is IMKTA start_index 7167 end_index 7172 start_price 45.25 end_price 44.95 ticker is IMKTA start_index 7230 end_index 7235 start_price 45.85 end_price 40.55 ticker is IMKTA start_index 7293 end_index 7298 start_price 29.5 end_price 27.05 ticker is IMKTA start_index 7381 end_index 7386 start_price 27.7 end_price 32.35 ticker is IMKTA start_index 7424 end_index 7429 start_price 30.55 end_price 31.425 ticker is IMKTA start_index 7486 end_index 7491 start_price 30.95 end_price 28.55 ticker is IMKTA start index 7550 end index 7555 start_price 29.55 end_price 33.05 ticker is IMKTA start_index 7633 end_index 7638 start_price 28.1 end_price 30.25 ticker is IMKTA start_index 7674 end_index 7679 start_price 28.96 end_price 30.78 ticker is IMKTA start_index 7736 end_index 7741 start_price 27.45 end_price 30.86 ticker is IMKTA start_index 7800 end_index 7805 start_price 31.75 end_price 33.87 ticker is IMKTA start_index 7886 end_index 7891 start_price 43.48 end_price 45.77 ticker is IMKTA start_index 7925 end_index 7930 start_price 42.76 end_price 36.0

ticker is IMKTA start_index 7988 end_index 7993 start_price 37.61 end_price 43.88 ticker is IMKTA start_index 8051 end_index 8056 start_price 39.9 end_price 42.49 ticker is IMKTA start_index 8137 end_index 8142 start_price 37.41 end_price 41.5 ticker is IMKTA start index 8176 end index 8181 start_price 47.26 end_price 51.42 ticker is IMKTA start_index 8238 end_index 8243 start_price 62.74 end_price 62.18 appending IMKTA ticker is KR start_index 8385 end_index 8390 start_price 11.905 end_price 11.84 ticker is KR start_index 8442 end_index 8447 start_price 13.325 end_price 13.285 ticker is KR start_index 8517 end_index 8522 start_price 16.27 end_price 15.94 ticker is KR start_index 8579 end_index 8584 start_price 17.355 end_price 18.035 ticker is KR start index 8639 end index 8644 start_price 20.24 end_price 20.17 ticker is KR start_index 8696 end_index 8701 start_price 19.995 end_price 19.835 ticker is KR start_index 8769 end_index 8774 start_price 21.825 end_price 22.07 ticker is KR start_index 8832 end_index 8837 start_price 24.715 end_price 24.485 ticker is KR start_index 8890 end_index 8895 start_price 26.015 end_price 25.985 ticker is KR start_index 8949 end_index 8954 start_price 30.765 end_price 32.11 ticker is KR start_index 9020 end_index 9025 start_price 38.62 end_price 38.18 ticker is KR start_index 9083 end_index 9088 start price 36.335 end price 37.695 ticker is KR start_index 9141 end_index 9146 start price 36.66 end price 35.75 ticker is KR start_index 9202 end_index 9207 start_price 42.43 end_price 42.31 ticker is KR start_index 9270 end_index 9275 start_price 38.06 end_price 38.03 ticker is KR start_index 9334 end_index 9339 start_price 36.62 end_price 37.33 ticker is KR start_index 9392 end_index 9397 start_price 30.79 end_price 30.08 ticker is KR start_index 9451 end_index 9456 start_price 34.22 end_price 35.88 ticker is KR start_index 9522 end_index 9527

start_price 28.93 end_price 29.4 ticker is KR start_index 9585 end_index 9590 start_price 22.61 end_price 23.55 ticker is KR start_index 9641 end_index 9646 start price 21.26 end price 20.22 ticker is KR start_index 9700 end_index 9705 start_price 26.53 end_price 25.9 ticker is KR start_index 9777 end_index 9782 start_price 23.28 end_price 23.54 ticker is KR start_index 9839 end_index 9844 start_price 28.43 end_price 29.12 ticker is KR start_index 9899 end_index 9904 start_price 29.61 end_price 28.75 ticker is KR start_index 9957 end_index 9962 start_price 28.92 end_price 26.6 ticker is KR start_index 10028 end_index 10033 start_price 24.48 end_price 23.86 ticker is KR start_index 10089 end_index 10094 start_price 21.39 end_price 21.75 ticker is KR start index 10149 end index 10154 start_price 25.72 end_price 25.78 ticker is KR start_index 10208 end_index 10213 start_price 28.31 end_price 28.89 ticker is KR start_index 10280 end_index 10285 start_price 30.12 end_price 31.86 ticker is KR start_index 10340 end_index 10345 start_price 32.78 end_price 33.5 ticker is KR start_index 10400 end_index 10405 start_price 33.46 end_price 33.7 ticker is KR start_index 10459 end_index 10464 start_price 31.3 end_price 30.8 ticker is KR start_index 10530 end_index 10535 start_price 37.95 end_price 36.89 appending KR ticker is NGVC start index 10745 end index 10750 start_price 19.38 end_price 19.82 ticker is NGVC start_index 10747 end_index 10752 start_price 19.59 end_price 19.53 ticker is NGVC start_index 10777 end_index 10782 start_price 20.32 end_price 21.47 ticker is NGVC start_index 10845 end_index 10850 start_price 25.03 end_price 29.64 ticker is NGVC start_index 10907 end_index 10912 start_price 35.4 end_price 33.86 ticker is NGVC start_index 10996 end_index 11001 start_price 37.94 end_price 40.57 ticker is NGVC start_index 11028 end_index 11033 start_price 33.51 end_price 37.58

```
ticker is NGVC start_index 11091 end_index 11096
start_price 35.6 end_price 22.63
ticker is NGVC start_index 11154 end_index 11159
start_price 23.88 end_price 20.39
ticker is NGVC start index 11247 end index 11252
start_price 25.45 end_price 26.53
ticker is NGVC start index 11279 end index 11284
start_price 28.06 end_price 31.07
ticker is NGVC start_index 11347 end_index 11352
start_price 26.87 end_price 24.62
ticker is NGVC start_index 11405 end_index 11410
start_price 22.29 end_price 25.9
ticker is NGVC start_index 11498 end_index 11503
start_price 20.11 end_price 20.73
ticker is NGVC start_index 11530 end_index 11535
start_price 20.67 end_price 18.02
ticker is NGVC start_index 11598 end_index 11603
start_price 13.09 end_price 13.24
ticker is NGVC start_index 11656 end_index 11661
start price 13.49 end price 12.66
ticker is NGVC start_index 11749 end_index 11754
start_price 11.69 end_price 12.27
ticker is NGVC start_index 11786 end_index 11791
start_price 12.54 end_price 12.2
ticker is NGVC start_index 11849 end_index 11854
start_price 10.7 end_price 10.26
ticker is NGVC start_index 11912 end_index 11917
start_price 8.61 end_price 5.89
ticker is NGVC start_index 12000 end_index 12005
start_price 8.3 end_price 8.5
ticker is NGVC start_index 12037 end_index 12042
start_price 8.6 end_price 7.06
ticker is NGVC start_index 12100 end_index 12105
start_price 7.19 end_price 9.9
ticker is NGVC start index 12163 end index 12168
start_price 12.54 end_price 18.18
ticker is NGVC start_index 12250 end_index 12255
start_price 17.5 end_price 18.18
ticker is NGVC start_index 12292 end_index 12297
start_price 14.0 end_price 14.81
ticker is NGVC start_index 12350 end_index 12355
start_price 12.16 end_price 11.92
ticker is NGVC start_index 12413 end_index 12418
start_price 9.17 end_price 10.32
ticker is NGVC start_index 12501 end_index 12506
start_price 9.32 end_price 9.74
ticker is NGVC start_index 12543 end_index 12548
start_price 9.35 end_price 8.85
```

```
ticker is NGVC start_index 12606 end_index 12611
start_price 10.72 end_price 15.18
ticker is NGVC start_index 12669 end_index 12674
start_price 16.06 end_price 13.35
ticker is NGVC start index 12757 end index 12762
start_price 13.8 end_price 13.01
ticker is NGVC start index 12794 end index 12799
start_price 16.18 end_price 16.04
ticker is NGVC start_index 12857 end_index 12862
start_price 16.08 end_price 11.61
appending NGVC
ticker is QKLS start_index 12979 end_index 12984
start_price 8.08 end_price 6.24
ticker is QKLS start_index 13042 end_index 13047
start_price 5.12 end_price 6.8
ticker is QKLS start_index 13144 end_index 13149
start_price 5.98 end_price 5.0
ticker is QKLS start_index 13165 end_index 13170
start_price 3.43 end_price 3.98
ticker is QKLS start index 13229 end index 13234
start_price 6.2 end_price 4.74
ticker is QKLS start index 13294 end index 13299
start_price 4.55 end_price 4.5
ticker is QKLS start_index 13390 end_index 13395
start_price 4.33 end_price 4.0
ticker is QKLS start_index 13418 end_index 13423
start_price 3.71 end_price 3.64
ticker is QKLS start_index 13481 end_index 13486
start_price 3.37 end_price 3.46
ticker is QKLS start_index 13546 end_index 13551
start_price 2.31 end_price 2.4
ticker is QKLS start_index 13648 end_index 13653
start_price 3.15 end_price 2.54
ticker is QKLS start_index 13670 end_index 13675
start price 3.1 end price 2.69
ticker is QKLS start_index 13734 end_index 13739
start price 1.64 end price 1.52
ticker is QKLS start_index 13798 end_index 13803
start_price 0.9 end_price 0.9
ticker is QKLS start_index 13900 end_index 13905
start_price 0.66 end_price 0.54
appending QKLS
ticker is RNDY start_index 15282 end_index 15287
start_price 7.71 end_price 7.65
ticker is RNDY start_index 15345 end_index 15350
start_price 4.24 end_price 3.86
ticker is RNDY start_index 15433 end_index 15438
start_price 6.74 end_price 6.57
```

```
ticker is RNDY start_index 15467 end_index 15472
start_price 7.33 end_price 7.31
ticker is RNDY start_index 15530 end_index 15535
start_price 8.57 end_price 8.66
ticker is RNDY start index 15594 end index 15599
start_price 9.15 end_price 8.17
ticker is RNDY start index 15674 end index 15679
start_price 6.08 end_price 6.11
ticker is RNDY start_index 15716 end_index 15721
start_price 6.65 end_price 4.98
ticker is RNDY start_index 15779 end_index 15784
start_price 4.78 end_price 3.61
ticker is RNDY start_index 15843 end_index 15848
start_price 3.45 end_price 3.29
ticker is RNDY start_index 15930 end_index 15935
start_price 4.48 end_price 4.83
ticker is RNDY start_index 15972 end_index 15977
start_price 4.65 end_price 3.6
ticker is RNDY start_index 16035 end_index 16040
start price 2.46 end price 2.36
ticker is RNDY start_index 16100 end_index 16105
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start_index 16141 end_index 16146
start_price 38.59 end_price 37.38
ticker is SFM start_index 16194 end_index 16199
start_price 48.04 end_price 44.66
ticker is SFM start_index 16201 end_index 16206
start_price 43.05 end_price 37.86
ticker is SFM start_index 16269 end_index 16274
start_price 36.85 end_price 39.24
ticker is SFM start_index 16281 end_index 16286
start_price 37.95 end_price 36.96
ticker is SFM start_index 16317 end_index 16322
start price 31.09 end price 28.55
ticker is SFM start_index 16381 end_index 16386
start price 31.75 end price 30.0
ticker is SFM start_index 16445 end_index 16450
start_price 30.69 end_price 30.08
ticker is SFM start_index 16520 end_index 16525
start_price 37.09 end_price 34.73
ticker is SFM start_index 16569 end_index 16574
start_price 31.06 end_price 29.7
ticker is SFM start_index 16632 end_index 16637
start_price 24.03 end_price 21.3
ticker is SFM start_index 16696 end_index 16701
start_price 19.88 end_price 22.83
ticker is SFM start_index 16771 end_index 16776
```

start_price 25.21 end_price 28.88 ticker is SFM start_index 16820 end_index 16825 start_price 27.38 end_price 25.87 ticker is SFM start_index 16883 end_index 16888 start price 23.25 end price 22.55 ticker is SFM start_index 16947 end_index 16952 start_price 22.57 end_price 20.49 ticker is SFM start_index 17022 end_index 17027 start_price 19.0 end_price 18.46 ticker is SFM start_index 17071 end_index 17076 start_price 22.75 end_price 23.63 ticker is SFM start_index 17134 end_index 17139 start_price 23.98 end_price 23.89 ticker is SFM start_index 17198 end_index 17203 start_price 18.87 end_price 20.38 ticker is SFM start_index 17273 end_index 17278 start_price 26.12 end_price 25.76 ticker is SFM start_index 17322 end_index 17327 start_price 24.39 end_price 22.03 ticker is SFM start index 17385 end index 17390 start_price 21.2 end_price 23.33 ticker is SFM start_index 17449 end_index 17454 start_price 26.89 end_price 26.62 ticker is SFM start_index 17523 end_index 17528 start_price 24.14 end_price 23.29 ticker is SFM start_index 17572 end_index 17577 start_price 21.29 end_price 22.17 ticker is SFM start_index 17635 end_index 17640 start_price 16.93 end_price 17.81 ticker is SFM start_index 17699 end_index 17704 start_price 18.75 end_price 19.92 ticker is SFM start_index 17774 end_index 17779 start_price 15.86 end_price 16.11 ticker is SFM start_index 17826 end_index 17831 start price 21.76 end price 26.52 ticker is SFM start_index 17885 end_index 17890 start_price 27.02 end_price 25.28 ticker is SFM start_index 17949 end_index 17954 start_price 20.4 end_price 19.8 ticker is SFM start_index 18030 end_index 18035 start_price 21.48 end_price 23.0 ticker is SFM start_index 18079 end_index 18084 start_price 25.87 end_price 25.72 appending SFM ticker is SFS start_index 18209 end_index 18214 start_price 15.49 end_price 14.96 ticker is SFS start_index 18296 end_index 18301 start_price 18.4 end_price 17.6

ticker is SFS start_index 18320 end_index 18325 start_price 17.87 end_price 17.34

ticker is SFS start_index 18379 end_index 18384 start_price 17.79 end_price 16.95

ticker is SFS start_index 18458 end_index 18463 start_price 14.6 end_price 17.47

ticker is SFS start_index 18541 end_index 18546 start_price 15.8 end_price 16.52

ticker is SFS start_index 18576 end_index 18581 start_price 16.03 end_price 16.05

ticker is SFS start_index 18636 end_index 18641 start_price 15.03 end_price 14.44

ticker is SFS start_index 18714 end_index 18719 start_price 13.45 end_price 13.55

ticker is SFS start_index 18795 end_index 18800 start_price 11.55 end_price 11.7

ticker is SFS start_index 18828 end_index 18833 start_price 11.65 end_price 13.2

ticker is SFS start_index 18885 end_index 18890 start price 8.1 end price 8.55

ticker is SFS start_index 18965 end_index 18970 start price 7.25 end price 8.85

ticker is SFS start_index 19046 end_index 19051

start_price 6.0 end_price 6.15
ticker is SFS start_index 19079 end_index 19084

start_price 5.3 end_price 4.8
ticker is SFS start_index 19137 end_index 19142

start_price 5.5 end_price 5.7
ticker is SFS start_index 19216 end_index 19221

start_price 4.95 end_price 6.23

ticker is SFS start_index 19296 end_index 19301 start_price 5.26 end_price 5.22

ticker is SFS start_index 19330 end_index 19335 start_price 6.52 end_price 6.5 appending SFS

ticker is SWY start_index 19378 end_index 19383 start price 15.26 end price 15.43

ticker is SWY start_index 19437 end_index 19442 start_price 15.67 end_price 16.54

ticker is SWY start_index 19525 end_index 19530 start_price 22.76 end_price 23.9

ticker is SWY start_index 19569 end_index 19574 start_price 23.51 end_price 23.74

ticker is SWY start_index 19628 end_index 19633 start_price 25.57 end_price 25.81

ticker is SWY start_index 19687 end_index 19692 start_price 32.74 end_price 32.9

ticker is SWY start_index 19777 end_index 19782

start_price 37.13 end_price 38.65 ticker is SWY start_index 19821 end_index 19826 start_price 34.08 end_price 34.15 ticker is SWY start_index 19878 end_index 19883 start price 34.82 end price 34.79 ticker is SWY start_index 19938 end_index 19943 start_price 33.97 end_price 34.0 appending SWY ticker is TFM start_index 20057 end_index 20062 start_price 58.34 end_price 57.26 ticker is TFM start_index 20119 end_index 20124 start_price 50.7 end_price 49.85 ticker is TFM start_index 20194 end_index 20199 start_price 42.7 end_price 40.03 ticker is TFM start_index 20243 end_index 20248 start_price 50.26 end_price 52.2 ticker is TFM start_index 20307 end_index 20312 start_price 49.7 end_price 50.22 ticker is TFM start_index 20364 end_index 20369 start price 39.97 end price 39.29 ticker is TFM start_index 20442 end_index 20447 start price 34.18 end price 32.67 ticker is TFM start_index 20493 end_index 20498 start_price 32.95 end_price 33.75 ticker is TFM start_index 20557 end_index 20562 start_price 33.73 end_price 35.01 ticker is TFM start_index 20621 end_index 20626 start_price 39.53 end_price 39.13 ticker is TFM start_index 20694 end_index 20699 start_price 41.09 end_price 40.22 ticker is TFM start_index 20740 end_index 20745 start_price 32.43 end_price 32.69 ticker is TFM start_index 20804 end_index 20809 start_price 19.91 end_price 21.99 ticker is TFM start index 20870 end index 20875 start_price 23.98 end_price 24.66 ticker is TFM start index 20947 end index 20952 start_price 28.47 end_price 28.52 appending TFM ticker is VLGEA start_index 21041 end_index 21046 start_price 34.06 end_price 35.19 ticker is VLGEA start_index 21079 end_index 21084 start_price 37.11 end_price 35.0 ticker is VLGEA start_index 21140 end_index 21145 start_price 34.1 end_price 32.89 ticker is VLGEA start_index 21203 end_index 21208 start_price 36.37 end_price 35.4 ticker is VLGEA start_index 21290 end_index 21295

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start_price 34.85 end_price 35.16
ticker is VLGEA start_index 21330 end_index 21335
start_price 38.45 end_price 28.45
ticker is VLGEA start_index 21390 end_index 21395
start price 27.32 end price 29.3
ticker is VLGEA start_index 21454 end_index 21459
start_price 22.89 end_price 23.56
ticker is VLGEA start_index 21542 end_index 21547
start_price 23.46 end_price 25.44
ticker is VLGEA start_index 21581 end_index 21586
start_price 24.04 end_price 25.73
ticker is VLGEA start_index 21642 end_index 21647
start_price 27.66 end_price 28.05
ticker is VLGEA start_index 21705 end_index 21710
start_price 32.29 end_price 29.83
ticker is VLGEA start_index 21793 end_index 21798
start_price 25.39 end_price 24.28
ticker is VLGEA start_index 21833 end_index 21838
start_price 25.61 end_price 25.42
ticker is VLGEA start index 21893 end index 21898
start_price 26.41 end_price 24.69
ticker is VLGEA start_index 21957 end_index 21962
start_price 27.37 end_price 28.48
ticker is VLGEA start_index 22049 end_index 22054
start_price 31.72 end_price 31.9
ticker is VLGEA start_index 22088 end_index 22093
start_price 35.63 end_price 31.68
ticker is VLGEA start_index 22150 end_index 22155
start_price 27.06 end_price 26.39
ticker is VLGEA start_index 22212 end_index 22217
start_price 25.07 end_price 26.0
ticker is VLGEA start_index 22301 end_index 22306
start_price 24.9 end_price 24.31
ticker is VLGEA start_index 22338 end_index 22343
start price 25.44 end price 23.17
ticker is VLGEA start_index 22401 end_index 22406
start_price 24.07 end_price 24.94
ticker is VLGEA start_index 22464 end_index 22469
start_price 28.29 end_price 28.3
ticker is VLGEA start_index 22552 end_index 22557
start_price 24.9 end_price 25.45
ticker is VLGEA start_index 22590 end_index 22595
start_price 25.44 end_price 28.37
ticker is VLGEA start_index 22650 end_index 22655
start_price 31.5 end_price 29.64
ticker is VLGEA start_index 22712 end_index 22717
start_price 26.18 end_price 25.07
ticker is VLGEA start_index 22802 end_index 22807
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start_price 26.27 end_price 25.43 ticker is VLGEA start_index 22841 end_index 22846 start_price 25.79 end_price 24.71 ticker is VLGEA start_index 22902 end_index 22907 start price 21.35 end price 17.44 ticker is VLGEA start_index 22965 end_index 22970 start_price 25.46 end_price 26.28 ticker is VLGEA start_index 23053 end_index 23058 start_price 24.32 end_price 23.62 ticker is VLGEA start_index 23092 end_index 23097 start_price 23.13 end_price 22.84 ticker is VLGEA start_index 23153 end_index 23158 start_price 23.88 end_price 26.19 appending VLGEA ticker is WFM start_index 23312 end_index 23317 start_price 46.455 end_price 47.33 ticker is WFM start_index 23387 end_index 23392 start_price 46.7119999999999 end_price 46.22 ticker is WFM start_index 23449 end_index 23454 start price 42.465 end price 42.81 ticker is WFM start_index 23508 end_index 23513 start_price 51.02 end_price 52.29 ticker is WFM start_index 23566 end_index 23571 start_price 55.9 end_price 53.82 ticker is WFM start_index 23640 end_index 23645 start_price 56.48 end_price 56.6 ticker is WFM start_index 23700 end_index 23705 start_price 52.35 end_price 53.45 ticker is WFM start_index 23759 end_index 23764 start_price 38.76 end_price 37.5 ticker is WFM start_index 23817 end_index 23822 start_price 37.35 end_price 38.56 ticker is WFM start_index 23891 end_index 23896 start_price 47.69 end_price 49.03 ticker is WFM start index 23956 end index 23961 start_price 56.73 end_price 56.15 ticker is WFM start_index 24010 end_index 24015 start_price 42.9 end_price 42.56 ticker is WFM start_index 24068 end_index 24073 start_price 34.84 end_price 33.72 ticker is WFM start_index 24137 end_index 24142 start_price 29.91 end_price 29.93 ticker is WFM start_index 24207 end_index 24212 start_price 30.86 end_price 32.74 ticker is WFM start_index 24261 end_index 24266 start_price 30.51 end_price 30.86 ticker is WFM start_index 24319 end_index 24324 start_price 30.39 end_price 30.42

ticker is WFM start_index 24393 end_index 24398 start_price 30.94 end_price 30.93

ticker is WFM start_index 24453 end_index 24458 start_price 30.72 end_price 31.15

ticker is WFM start_index 24517 end_index 24522 start_price 36.15 end_price 35.32

ticker is WFM start_index 24570 end_index 24575 start_price 41.84 end_price 41.83 appending WFM

ticker is WMK start_index 24614 end_index 24619 start_price 43.27 end_price 43.58

ticker is WMK start_index 24676 end_index 24681 start_price 40.38 end_price 38.25

ticker is WMK start_index 24761 end_index 24766 start_price 41.02 end_price 41.8

ticker is WMK start_index 24800 end_index 24805 start_price 42.49 end_price 42.8

ticker is WMK start_index 24863 end_index 24868 start_price 50.81 end_price 50.76

ticker is WMK start_index 24927 end_index 24932 start_price 49.21 end_price 49.15

ticker is WMK start_index 25013 end_index 25018 start_price 49.49 end_price 50.47

ticker is WMK start_index 25051 end_index 25056 start_price 45.2 end_price 45.05

ticker is WMK start_index 25114 end_index 25119 start_price 43.43 end_price 43.19

ticker is WMK start_index 25178 end_index 25183 start_price 44.63 end_price 45.49

ticker is WMK start_index 25264 end_index 25269 start_price 50.36 end_price 50.18

ticker is WMK start_index 25298 end_index 25303 start_price 44.35 end_price 42.95

ticker is WMK start_index 25363 end_index 25368 start price 42.01 end price 42.48

ticker is WMK start_index 25497 end_index 25502 start_price 38.92 end_price 39.5

ticker is WMK start_index 25520 end_index 25525 start_price 43.38 end_price 42.76

ticker is WMK start_index 25553 end_index 25558 start_price 45.43 end_price 46.13

ticker is WMK start_index 25611 end_index 25616 start_price 51.55 end_price 50.4

ticker is WMK start_index 25680 end_index 25685 start_price 56.51 end_price 57.69

ticker is WMK start_index 25770 end_index 25775 start_price 59.08 end_price 59.52

ticker is WMK start_index 25809 end_index 25814

start_price 57.79 end_price 53.37 ticker is WMK start_index 25872 end_index 25877 start_price 44.49 end_price 45.7 ticker is WMK start_index 25934 end_index 25939 start price 34.0 end price 34.2 ticker is WMK start_index 26021 end_index 26026 start_price 38.37 end_price 38.31 ticker is WMK start_index 26060 end_index 26065 start_price 48.03 end_price 51.07 ticker is WMK start_index 26122 end_index 26127 start_price 48.66 end_price 48.37 ticker is WMK start_index 26187 end_index 26192 start_price 46.46 end_price 47.02 ticker is WMK start_index 26271 end_index 26276 start_price 40.5 end_price 40.45 ticker is WMK start_index 26310 end_index 26315 start_price 38.77 end_price 40.2 ticker is WMK start_index 26371 end_index 26376 start_price 37.6 end_price 38.7 ticker is WMK start index 26434 end index 26439 start_price 38.87 end_price 39.39 ticker is WMK start index 26522 end index 26527 start_price 36.39 end_price 37.99 ticker is WMK start_index 26561 end_index 26566 start_price 54.64 end_price 56.73 ticker is WMK start_index 26623 end_index 26628 start_price 51.17 end_price 48.69 ticker is WMK start_index 26688 end_index 26693 start_price 46.35 end_price 48.28 ticker is WMK start_index 26773 end_index 26778 start_price 58.85 end_price 56.86 ticker is WMK start_index 26812 end_index 26817 start_price 52.64 end_price 51.58 appending WMK ticker is ACI start index 25 end index 31 start_price 14.83 end_price 14.92 ticker is ACI start_index 80 end_index 86 start_price 15.22 end_price 15.11 ticker is ACI start_index 137 end_index 143 start_price 17.1 end_price 17.38 ticker is ACI start_index 209 end_index 215 start_price 18.11 end_price 18.61 appending ACI ticker is ARDNA start_index 330 end_index 336 start_price 82.6 end_price 88.12 ticker is ARDNA start_index 394 end_index 400 start_price 95.88 end_price 98.01 ticker is ARDNA start_index 478 end_index 484

start_price 98.31 end_price 101.75 ticker is ARDNA start_index 519 end_index 525 start_price 98.65 end_price 99.95 ticker is ARDNA start_index 583 end_index 589 start price 132.78 end price 130.54 ticker is ARDNA start_index 647 end_index 653 start_price 129.85 end_price 128.69 appending ARDNA ticker is ASAI start_index 754 end_index 760 start_price 14.81 end_price 16.4 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3094 start_price 17.35 end_price 17.68 ticker is FWMHQ start_index 3122 end_index 3128 start_price 20.73 end_price 23.06 ticker is FWMHQ start_index 3166 end_index 3172 start_price 25.83 end_price 22.82 ticker is FWMHQ start_index 3230 end_index 3236 start price 25.46 end price 22.17 ticker is FWMHQ start index 3291 end index 3297 start price 11.14 end price 7.51 ticker is FWMHQ start_index 3368 end_index 3374 start_price 6.75 end_price 6.11 ticker is FWMHQ start_index 3417 end_index 3423 start_price 5.74 end_price 4.8 ticker is FWMHQ start_index 3481 end_index 3487 start_price 2.59 end_price 2.3 ticker is FWMHQ start_index 3542 end_index 3548 start_price 5.02 end_price 5.47 ticker is FWMHQ start_index 3617 end_index 3623 start_price 4.63 end_price 4.22 ticker is FWMHQ start_index 3666 end_index 3672 start_price 3.02 end_price 2.24 ticker is FWMHQ start index 3727 end index 3733 start_price 1.71 end_price 1.07 ticker is FWMHQ start_index 3794 end_index 3800 start_price 0.499 end_price 0.308 appending FWMHQ ticker is GO start_index 3900 end_index 3906 start_price 28.51 end_price 32.88 ticker is GO start_index 3936 end_index 3942 start_price 37.54 end_price 42.96 ticker is GO start_index 3972 end_index 3978 start_price 33.01 end_price 32.3 ticker is GO start_index 4000 end_index 4006 start_price 31.0 end_price 30.66 ticker is GO start_index 4050 end_index 4056

start_price 35.43 end_price 32.72 ticker is GO start_index 4091 end_index 4097 start_price 33.2 end_price 34.42 ticker is GO start_index 4124 end_index 4130 start price 36.67 end price 38.37 ticker is GO start_index 4187 end_index 4193 start_price 44.33 end_price 41.91 ticker is GO start_index 4251 end_index 4257 start_price 41.21 end_price 37.1 ticker is GO start_index 4326 end_index 4332 start_price 35.91 end_price 35.83 ticker is GO start_index 4376 end_index 4382 start_price 40.54 end_price 34.06 appending GO ticker is HTSI start_index 4491 end_index 4497 start_price 41.53 end_price 40.08 ticker is HTSI start_index 4562 end_index 4568 start_price 36.17 end_price 38.57 ticker is HTSI start_index 4614 end_index 4620 start price 36.95 end price 41.39 ticker is HTSI start_index 4676 end_index 4682 start price 45.29 end price 45.65 ticker is HTSI start_index 4740 end_index 4746 start_price 49.2 end_price 49.16 ticker is HTSI start_index 4820 end_index 4826 start_price 49.38 end_price 49.48 appending HTSI ticker is IFMK start_index 4953 end_index 4959 start_price 11.99 end_price 12.7 ticker is IFMK start_index 4984 end_index 4990 start_price 12.81 end_price 11.5 ticker is IFMK start_index 5049 end_index 5055 start_price 11.13 end_price 10.86 ticker is IFMK start_index 5111 end_index 5117 start price 11.92 end price 12.13 ticker is IFMK start_index 5205 end_index 5211 start_price 5.5 end_price 5.184 ticker is IFMK start_index 5236 end_index 5242 start_price 3.8 end_price 3.2 ticker is IFMK start_index 5301 end_index 5307 start_price 1.4 end_price 1.07 ticker is IFMK start_index 5362 end_index 5368 ticker is IFMK start_index 5455 end_index 5461 start_price 1.2 end_price 1.42 ticker is IFMK start_index 5487 end_index 5493 start_price 2.27 end_price 2.35 ticker is IFMK start_index 5552 end_index 5558 start_price 0.375 end_price 0.42100000000000004 ticker is IFMK start_index 5614 end_index 5620 start_price 0.4220000000000004 end_price 0.41 ticker is IFMK start_index 5739 end_index 5745 start price 0.93900000000001 end price 1.04 ticker is IFMK start_index 5744 end_index 5750 start_price 0.9 end_price 0.97 ticker is IFMK start_index 5810 end_index 5816 start_price 0.859000000000001 end_price 0.8 ticker is IFMK start_index 5830 end_index 5836 start_price 0.822000000000001 end_price 0.78 ticker is IFMK start_index 5870 end_index 5876 start_price 1.95 end_price 1.66 appending IFMK ticker is IMKTA start_index 6035 end_index 6041 start_price 16.36 end_price 16.48 ticker is IMKTA start_index 6135 end_index 6141 start_price 17.2 end_price 17.56 ticker is IMKTA start_index 6164 end_index 6170 start price 19.3 end price 19.35 ticker is IMKTA start_index 6226 end_index 6232 start price 21.46 end price 21.66 ticker is IMKTA start_index 6288 end_index 6294 start_price 25.69 end_price 27.09 ticker is IMKTA start_index 6378 end_index 6384 start_price 24.41 end_price 25.96 ticker is IMKTA start_index 6413 end_index 6419 start_price 24.02 end_price 22.26 ticker is IMKTA start_index 6476 end_index 6482 start_price 26.07 end_price 27.43 ticker is IMKTA start_index 6541 end_index 6547 start_price 24.47 end_price 24.97 ticker is IMKTA start_index 6632 end_index 6638 start_price 32.08 end_price 35.8 ticker is IMKTA start index 6666 end index 6672 start_price 44.06 end_price 42.44 ticker is IMKTA start_index 6728 end_index 6734 start_price 40.87 end_price 47.21 ticker is IMKTA start_index 6790 end_index 6796 start_price 49.9 end_price 50.26 ticker is IMKTA start_index 6880 end_index 6886 start_price 53.84 end_price 43.24 ticker is IMKTA start_index 6917 end_index 6923 start_price 36.2 end_price 34.93 ticker is IMKTA start_index 6980 end_index 6986 start_price 36.73 end_price 38.46 ticker is IMKTA start_index 7042 end_index 7048 start_price 36.86 end_price 37.49

ticker is IMKTA start_index 7137 end_index 7143 start_price 48.05 end_price 49.25 ticker is IMKTA start_index 7167 end_index 7173 start_price 45.25 end_price 45.45 ticker is IMKTA start_index 7230 end_index 7236 start_price 45.85 end_price 40.5 ticker is IMKTA start index 7293 end index 7299 start_price 29.5 end_price 26.55 ticker is IMKTA start_index 7381 end_index 7387 start_price 27.7 end_price 32.95 ticker is IMKTA start_index 7424 end_index 7430 start_price 30.55 end_price 32.4 ticker is IMKTA start_index 7486 end_index 7492 start_price 30.95 end_price 29.45 ticker is IMKTA start_index 7550 end_index 7556 start_price 29.55 end_price 33.4 ticker is IMKTA start_index 7633 end_index 7639 start_price 28.1 end_price 29.43 ticker is IMKTA start_index 7674 end_index 7680 start price 28.96 end price 30.99 ticker is IMKTA start_index 7736 end_index 7742 start price 27.45 end price 30.49 ticker is IMKTA start_index 7800 end_index 7806 start_price 31.75 end_price 34.01 ticker is IMKTA start_index 7886 end_index 7892 start_price 43.48 end_price 46.44 ticker is IMKTA start_index 7925 end_index 7931 start_price 42.76 end_price 36.85 ticker is IMKTA start_index 7988 end_index 7994 start_price 37.61 end_price 42.58 ticker is IMKTA start_index 8051 end_index 8057 start_price 39.9 end_price 42.66 ticker is IMKTA start_index 8137 end_index 8143 start_price 37.41 end_price 42.04 ticker is IMKTA start index 8176 end index 8182 start_price 47.26 end_price 51.28 ticker is IMKTA start_index 8238 end_index 8244 start_price 62.74 end_price 61.23 appending IMKTA ticker is KR start_index 8385 end_index 8391 start_price 11.905 end_price 11.735 ticker is KR start_index 8442 end_index 8448 start_price 13.325 end_price 13.375 ticker is KR start_index 8517 end_index 8523 start_price 16.27 end_price 16.03 ticker is KR start_index 8579 end_index 8585 start_price 17.355 end_price 18.095 ticker is KR start_index 8639 end_index 8645

start_price 20.24 end_price 20.325 ticker is KR start_index 8696 end_index 8702 start_price 19.995 end_price 19.85 ticker is KR start_index 8769 end_index 8775 start price 21.825 end price 22.155 ticker is KR start_index 8832 end_index 8838 start_price 24.715 end_price 24.645 ticker is KR start_index 8890 end_index 8896 start_price 26.015 end_price 26.0 ticker is KR start_index 8949 end_index 8955 start_price 30.765 end_price 32.14 ticker is KR start_index 9020 end_index 9026 start_price 38.62 end_price 38.45 ticker is KR start_index 9083 end_index 9089 start_price 36.335 end_price 37.575 ticker is KR start_index 9141 end_index 9147 start_price 36.66 end_price 35.61 ticker is KR start_index 9202 end_index 9208 start_price 42.43 end_price 42.46 ticker is KR start index 9270 end index 9276 start_price 38.06 end_price 38.22 ticker is KR start_index 9334 end_index 9340 start_price 36.62 end_price 37.58 ticker is KR start_index 9392 end_index 9398 start_price 30.79 end_price 29.9 ticker is KR start_index 9451 end_index 9457 start_price 34.22 end_price 35.49 ticker is KR start_index 9522 end_index 9528 start_price 28.93 end_price 29.69 ticker is KR start_index 9585 end_index 9591 start_price 22.61 end_price 23.23 ticker is KR start_index 9641 end_index 9647 start_price 21.26 end_price 20.15 ticker is KR start_index 9700 end_index 9706 start price 26.53 end price 26.45 ticker is KR start_index 9777 end_index 9783 start_price 23.28 end_price 23.46 ticker is KR start_index 9839 end_index 9845 start_price 28.43 end_price 28.75 ticker is KR start_index 9899 end_index 9905 start_price 29.61 end_price 29.08 ticker is KR start_index 9957 end_index 9963 start_price 28.92 end_price 27.73 ticker is KR start_index 10028 end_index 10034 start_price 24.48 end_price 23.94 ticker is KR start_index 10089 end_index 10095 start_price 21.39 end_price 21.8 ticker is KR start_index 10149 end_index 10155 start_price 25.72 end_price 25.59 ticker is KR start_index 10208 end_index 10214 start_price 28.31 end_price 29.1 ticker is KR start_index 10280 end_index 10286 start price 30.12 end price 31.02 ticker is KR start_index 10340 end_index 10346 start_price 32.78 end_price 33.73 ticker is KR start_index 10400 end_index 10406 start_price 33.46 end_price 33.77 ticker is KR start_index 10459 end_index 10465 start_price 31.3 end_price 30.89 ticker is KR start_index 10530 end_index 10536 start_price 37.95 end_price 37.15 appending KR ticker is NGVC start_index 10745 end_index 10751 start_price 19.38 end_price 20.12 ticker is NGVC start_index 10747 end_index 10753 start_price 19.59 end_price 19.61 ticker is NGVC start_index 10777 end_index 10783 start price 20.32 end price 21.25 ticker is NGVC start_index 10845 end_index 10851 start price 25.03 end price 29.51 ticker is NGVC start_index 10907 end_index 10913 start_price 35.4 end_price 34.89 ticker is NGVC start_index 10996 end_index 11002 start_price 37.94 end_price 40.56 ticker is NGVC start_index 11028 end_index 11034 start_price 33.51 end_price 38.53 ticker is NGVC start_index 11091 end_index 11097 start_price 35.6 end_price 22.67 ticker is NGVC start_index 11154 end_index 11160 start_price 23.88 end_price 19.96 ticker is NGVC start_index 11247 end_index 11253 start_price 25.45 end_price 26.46 ticker is NGVC start index 11279 end index 11285 start_price 28.06 end_price 31.54 ticker is NGVC start_index 11347 end_index 11353 start_price 26.87 end_price 25.43 ticker is NGVC start_index 11405 end_index 11411 start_price 22.29 end_price 25.75 ticker is NGVC start_index 11498 end_index 11504 start_price 20.11 end_price 20.46 ticker is NGVC start_index 11530 end_index 11536 start_price 20.67 end_price 18.23 ticker is NGVC start_index 11598 end_index 11604 start_price 13.09 end_price 13.57 ticker is NGVC start_index 11656 end_index 11662 start_price 13.49 end_price 12.56

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ticker is NGVC start_index 11749 end_index 11755
start_price 11.69 end_price 12.33
ticker is NGVC start_index 11786 end_index 11792
start_price 12.54 end_price 12.05
ticker is NGVC start index 11849 end index 11855
start_price 10.7 end_price 10.32
ticker is NGVC start index 11912 end index 11918
start_price 8.61 end_price 6.22
ticker is NGVC start_index 12000 end_index 12006
start_price 8.3 end_price 8.38
ticker is NGVC start_index 12037 end_index 12043
start_price 8.6 end_price 7.23
ticker is NGVC start_index 12100 end_index 12106
start_price 7.19 end_price 10.6
ticker is NGVC start_index 12163 end_index 12169
start_price 12.54 end_price 18.39
ticker is NGVC start_index 12250 end_index 12256
start_price 17.5 end_price 17.9
ticker is NGVC start_index 12292 end_index 12298
start price 14.0 end price 14.79
ticker is NGVC start_index 12350 end_index 12356
start_price 12.16 end_price 12.14
ticker is NGVC start_index 12413 end_index 12419
start_price 9.17 end_price 10.1
ticker is NGVC start_index 12501 end_index 12507
start_price 9.32 end_price 9.74
ticker is NGVC start_index 12543 end_index 12549
start_price 9.35 end_price 8.65
ticker is NGVC start_index 12606 end_index 12612
start_price 10.72 end_price 13.81
ticker is NGVC start_index 12669 end_index 12675
start_price 16.06 end_price 13.51
ticker is NGVC start_index 12757 end_index 12763
start_price 13.8 end_price 12.62
ticker is NGVC start index 12794 end index 12800
start_price 16.18 end_price 15.72
ticker is NGVC start index 12857 end index 12863
start_price 16.08 end_price 11.97
appending NGVC
ticker is QKLS start_index 12979 end_index 12985
start_price 8.08 end_price 6.0
ticker is QKLS start_index 13042 end_index 13048
start_price 5.12 end_price 7.28
ticker is QKLS start_index 13144 end_index 13150
start_price 5.98 end_price 4.7
ticker is QKLS start_index 13165 end_index 13171
start_price 3.43 end_price 4.0
ticker is QKLS start_index 13229 end_index 13235
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```
start_price 6.2 end_price 4.8
ticker is QKLS start_index 13294 end_index 13300
start_price 4.55 end_price 4.61
ticker is QKLS start_index 13390 end_index 13396
start price 4.33 end price 3.81
ticker is QKLS start_index 13418 end_index 13424
start_price 3.71 end_price 3.64
ticker is QKLS start_index 13481 end_index 13487
start_price 3.37 end_price 3.44
ticker is QKLS start_index 13546 end_index 13552
start_price 2.31 end_price 2.4
ticker is QKLS start_index 13648 end_index 13654
start_price 3.15 end_price 2.33
ticker is QKLS start_index 13670 end_index 13676
start_price 3.1 end_price 2.58
ticker is QKLS start_index 13734 end_index 13740
start_price 1.64 end_price 1.52
ticker is QKLS start_index 13798 end_index 13804
start_price 0.9 end_price 0.81
ticker is QKLS start index 13900 end index 13906
start_price 0.66 end_price 0.5
appending QKLS
ticker is RNDY start_index 15282 end_index 15288
start_price 7.71 end_price 7.75
ticker is RNDY start_index 15345 end_index 15351
start_price 4.24 end_price 4.22
ticker is RNDY start_index 15433 end_index 15439
start_price 6.74 end_price 6.56
ticker is RNDY start_index 15467 end_index 15473
start_price 7.33 end_price 7.49
ticker is RNDY start_index 15530 end_index 15536
start_price 8.57 end_price 8.76
ticker is RNDY start_index 15594 end_index 15600
start_price 9.15 end_price 8.32
ticker is RNDY start index 15674 end index 15680
start_price 6.08 end_price 6.11
ticker is RNDY start_index 15716 end_index 15722
start_price 6.65 end_price 5.01
ticker is RNDY start_index 15779 end_index 15785
start_price 4.78 end_price 3.57
ticker is RNDY start_index 15843 end_index 15849
start_price 3.45 end_price 3.37
ticker is RNDY start_index 15930 end_index 15936
start_price 4.48 end_price 4.79
ticker is RNDY start_index 15972 end_index 15978
start_price 4.65 end_price 3.64
ticker is RNDY start_index 16035 end_index 16041
start_price 2.46 end_price 2.43
```

ticker is RNDY start_index 16100 end_index 16106 start_price 3.57 end_price 3.6

appending RNDY

ticker is SFM start_index 16141 end_index 16147 start price 38.59 end price 36.96

ticker is SFM start_index 16194 end_index 16200 start_price 48.04 end_price 43.65

ticker is SFM start_index 16201 end_index 16207 start_price 43.05 end_price 37.52

ticker is SFM start_index 16269 end_index 16275 start_price 36.85 end_price 39.0

ticker is SFM start_index 16281 end_index 16287 start_price 37.95 end_price 35.94

ticker is SFM start_index 16317 end_index 16323 start_price 31.09 end_price 28.46

ticker is SFM start_index 16381 end_index 16387 start_price 31.75 end_price 30.07

ticker is SFM start_index 16445 end_index 16451 start_price 30.69 end_price 30.225

ticker is SFM start index 16520 end index 16526 start_price 37.09 end_price 35.19

ticker is SFM start_index 16569 end_index 16575 start_price 31.06 end_price 29.84

ticker is SFM start_index 16632 end_index 16638 start_price 24.03 end_price 21.14

ticker is SFM start_index 16696 end_index 16702 start_price 19.88 end_price 22.91

ticker is SFM start_index 16771 end_index 16777 start_price 25.21 end_price 28.67

ticker is SFM start_index 16820 end_index 16826 start_price 27.38 end_price 26.07

ticker is SFM start_index 16883 end_index 16889 start_price 23.25 end_price 22.53

ticker is SFM start_index 16947 end_index 16953 start price 22.57 end price 21.15

ticker is SFM start_index 17022 end_index 17028 start_price 19.0 end_price 18.41

ticker is SFM start_index 17071 end_index 17077 start_price 22.75 end_price 24.13

ticker is SFM start_index 17134 end_index 17140 start_price 23.98 end_price 23.82

ticker is SFM start_index 17198 end_index 17204 start_price 18.87 end_price 20.8

ticker is SFM start_index 17273 end_index 17279 start_price 26.12 end_price 25.83

ticker is SFM start_index 17322 end_index 17328 start_price 24.39 end_price 21.95

ticker is SFM start_index 17385 end_index 17391

start_price 21.2 end_price 23.08 ticker is SFM start_index 17449 end_index 17455 start_price 26.89 end_price 27.16 ticker is SFM start_index 17523 end_index 17529 start price 24.14 end price 23.32 ticker is SFM start_index 17572 end_index 17578 start_price 21.29 end_price 22.48 ticker is SFM start_index 17635 end_index 17641 start_price 16.93 end_price 17.99 ticker is SFM start_index 17699 end_index 17705 start_price 18.75 end_price 19.75 ticker is SFM start_index 17774 end_index 17780 start_price 15.86 end_price 16.45 ticker is SFM start_index 17826 end_index 17832 start_price 21.76 end_price 25.58 ticker is SFM start_index 17885 end_index 17891 start_price 27.02 end_price 24.88 ticker is SFM start_index 17949 end_index 17955 start_price 20.4 end_price 19.81 ticker is SFM start index 18030 end index 18036 start_price 21.48 end_price 24.08 ticker is SFM start index 18079 end index 18085 start_price 25.87 end_price 25.89 appending SFM ticker is SFS start_index 18209 end_index 18215 start_price 15.49 end_price 15.3 ticker is SFS start_index 18296 end_index 18302 start_price 18.4 end_price 17.65 ticker is SFS start_index 18320 end_index 18326 start_price 17.87 end_price 17.15 ticker is SFS start_index 18379 end_index 18385 start_price 17.79 end_price 17.23 ticker is SFS start_index 18458 end_index 18464 start_price 14.6 end_price 17.3 ticker is SFS start index 18541 end index 18547 start_price 15.8 end_price 16.03 ticker is SFS start_index 18576 end_index 18582 start_price 16.03 end_price 15.86 ticker is SFS start_index 18636 end_index 18642 start_price 15.03 end_price 14.44 ticker is SFS start_index 18714 end_index 18720 start_price 13.45 end_price 13.55 ticker is SFS start_index 18795 end_index 18801 start_price 11.55 end_price 11.65 ticker is SFS start_index 18828 end_index 18834 start_price 11.65 end_price 13.2 ticker is SFS start_index 18885 end_index 18891 start_price 8.1 end_price 8.5

```
ticker is SFS start_index 18965 end_index 18971
start_price 7.25 end_price 8.15
ticker is SFS start_index 19046 end_index 19052
start_price 6.0 end_price 5.8
ticker is SFS start index 19079 end index 19085
start_price 5.3 end_price 4.55
ticker is SFS start index 19137 end index 19143
start_price 5.5 end_price 5.85
ticker is SFS start_index 19216 end_index 19222
start_price 4.95 end_price 6.6
ticker is SFS start_index 19296 end_index 19302
start_price 5.26 end_price 5.15
ticker is SFS start_index 19330 end_index 19336
start_price 6.52 end_price 6.51
appending SFS
ticker is SWY start_index 19378 end_index 19384
start_price 15.26 end_price 15.55
ticker is SWY start_index 19437 end_index 19443
start_price 15.67 end_price 16.29
ticker is SWY start index 19525 end index 19531
start_price 22.76 end_price 24.3
ticker is SWY start_index 19569 end_index 19575
start_price 23.51 end_price 24.13
ticker is SWY start_index 19628 end_index 19634
start_price 25.57 end_price 25.79
ticker is SWY start_index 19687 end_index 19693
start_price 32.74 end_price 35.58
ticker is SWY start_index 19777 end_index 19783
start_price 37.13 end_price 39.48
ticker is SWY start_index 19821 end_index 19827
start_price 34.08 end_price 34.3
ticker is SWY start_index 19878 end_index 19884
start_price 34.82 end_price 34.74
ticker is SWY start_index 19938 end_index 19944
start_price 33.97 end_price 34.06
appending SWY
ticker is TFM start_index 20057 end_index 20063
start_price 58.34 end_price 57.6
ticker is TFM start_index 20119 end_index 20125
start_price 50.7 end_price 49.31
ticker is TFM start_index 20194 end_index 20200
start_price 42.7 end_price 40.62
ticker is TFM start_index 20243 end_index 20249
start_price 50.26 end_price 52.3
ticker is TFM start_index 20307 end_index 20313
```

start_price 49.7 end_price 48.84

start_price 39.97 end_price 39.57

ticker is TFM start_index 20364 end_index 20370

ticker is TFM start_index 20442 end_index 20448 start_price 34.18 end_price 33.24 ticker is TFM start_index 20493 end_index 20499 start_price 32.95 end_price 34.27 ticker is TFM start index 20557 end index 20563 start_price 33.73 end_price 35.27 ticker is TFM start index 20621 end index 20627 start_price 39.53 end_price 39.22 ticker is TFM start_index 20694 end_index 20700 start_price 41.09 end_price 40.61 ticker is TFM start_index 20740 end_index 20746 start_price 32.43 end_price 32.83 ticker is TFM start_index 20804 end_index 20810 start_price 19.91 end_price 21.66 ticker is TFM start_index 20870 end_index 20876 start_price 23.98 end_price 23.87 ticker is TFM start_index 20947 end_index 20953 start_price 28.47 end_price 28.53 appending TFM ticker is VLGEA start index 21041 end index 21047 start_price 34.06 end_price 34.9 ticker is VLGEA start_index 21079 end_index 21085 start_price 37.11 end_price 33.97 ticker is VLGEA start_index 21140 end_index 21146 start_price 34.1 end_price 33.29 ticker is VLGEA start_index 21203 end_index 21209 start_price 36.37 end_price 34.93 ticker is VLGEA start_index 21290 end_index 21296 start_price 34.85 end_price 34.66 ticker is VLGEA start_index 21330 end_index 21336 start_price 38.45 end_price 29.23 ticker is VLGEA start_index 21390 end_index 21396 start_price 27.32 end_price 29.0 ticker is VLGEA start_index 21454 end_index 21460 start price 22.89 end price 23.37 ticker is VLGEA start_index 21542 end_index 21548 start_price 23.46 end_price 26.33 ticker is VLGEA start_index 21581 end_index 21587 start_price 24.04 end_price 24.88 ticker is VLGEA start_index 21642 end_index 21648 start_price 27.66 end_price 29.06 ticker is VLGEA start_index 21705 end_index 21711 start_price 32.29 end_price 29.68 ticker is VLGEA start_index 21793 end_index 21799 start_price 25.39 end_price 23.91 ticker is VLGEA start_index 21833 end_index 21839 start_price 25.61 end_price 25.45 ticker is VLGEA start_index 21893 end_index 21899

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start_price 26.41 end_price 24.68
ticker is VLGEA start_index 21957 end_index 21963
start_price 27.37 end_price 28.42
ticker is VLGEA start_index 22049 end_index 22055
start price 31.72 end price 31.75
ticker is VLGEA start_index 22088 end_index 22094
start_price 35.63 end_price 31.63
ticker is VLGEA start_index 22150 end_index 22156
start_price 27.06 end_price 26.71
ticker is VLGEA start_index 22212 end_index 22218
start_price 25.07 end_price 25.87
ticker is VLGEA start_index 22301 end_index 22307
start_price 24.9 end_price 24.13
ticker is VLGEA start_index 22338 end_index 22344
start_price 25.44 end_price 23.01
ticker is VLGEA start_index 22401 end_index 22407
start_price 24.07 end_price 25.07
ticker is VLGEA start_index 22464 end_index 22470
start_price 28.29 end_price 28.58
ticker is VLGEA start index 22552 end index 22558
start_price 24.9 end_price 25.13
ticker is VLGEA start_index 22590 end_index 22596
start_price 25.44 end_price 27.43
ticker is VLGEA start_index 22650 end_index 22656
start_price 31.5 end_price 28.86
ticker is VLGEA start_index 22712 end_index 22718
start_price 26.18 end_price 25.44
ticker is VLGEA start_index 22802 end_index 22808
start_price 26.27 end_price 25.6
ticker is VLGEA start_index 22841 end_index 22847
start_price 25.79 end_price 24.23
ticker is VLGEA start_index 22902 end_index 22908
start_price 21.35 end_price 17.1
ticker is VLGEA start_index 22965 end_index 22971
start price 25.46 end price 25.45
ticker is VLGEA start_index 23053 end_index 23059
start_price 24.32 end_price 24.32
ticker is VLGEA start_index 23092 end_index 23098
start_price 23.13 end_price 23.01
ticker is VLGEA start_index 23153 end_index 23159
start_price 23.88 end_price 25.85
appending VLGEA
ticker is WFM start_index 23312 end_index 23318
start_price 46.455 end_price 46.98
ticker is WFM start_index 23387 end_index 23393
start_price 46.7119999999999 end_price 46.54
ticker is WFM start_index 23449 end_index 23455
start_price 42.465 end_price 42.895
```

ticker is WFM start_index 23508 end_index 23514 start_price 51.02 end_price 52.4

ticker is WFM start_index 23566 end_index 23572 start_price 55.9 end_price 52.96

ticker is WFM start_index 23640 end_index 23646 start_price 56.48 end_price 56.73

ticker is WFM start_index 23700 end_index 23706 start_price 52.35 end_price 54.05

ticker is WFM start_index 23759 end_index 23765 start_price 38.76 end_price 37.78

ticker is WFM start_index 23817 end_index 23823 start_price 37.35 end_price 38.53

ticker is WFM start_index 23891 end_index 23897 start_price 47.69 end_price 48.7

ticker is WFM start_index 23956 end_index 23962 start_price 56.73 end_price 55.66

ticker is WFM start_index 24010 end_index 24016 start_price 42.9 end_price 42.3

ticker is WFM start_index 24068 end_index 24074 start_price 34.84 end_price 33.31

ticker is WFM start_index 24137 end_index 24143 start_price 29.91 end_price 29.93

ticker is WFM start_index 24207 end_index 24213 start_price 30.86 end_price 32.5

ticker is WFM start_index 24261 end_index 24267 start_price 30.51 end_price 31.52

ticker is WFM start_index 24319 end_index 24325 start_price 30.39 end_price 30.9

ticker is WFM start_index 24393 end_index 24399 start_price 30.94 end_price 30.94

ticker is WFM start_index 24453 end_index 24459 start_price 30.72 end_price 31.56

ticker is WFM start_index 24517 end_index 24523 start_price 36.15 end_price 35.12

ticker is WFM start_index 24570 end_index 24576 start_price 41.84 end_price 41.75 appending WFM

ticker is WMK start_index 24614 end_index 24620 start_price 43.27 end_price 43.84

ticker is WMK start_index 24676 end_index 24682 start_price 40.38 end_price 38.15

ticker is WMK start_index 24761 end_index 24767 start_price 41.02 end_price 41.39

ticker is WMK start_index 24800 end_index 24806 start_price 42.49 end_price 41.81

ticker is WMK start_index 24863 end_index 24869 start_price 50.81 end_price 48.45

ticker is WMK start_index 24927 end_index 24933

start_price 49.21 end_price 49.48 ticker is WMK start_index 25013 end_index 25019 start_price 49.49 end_price 51.26 ticker is WMK start_index 25051 end_index 25057 start price 45.2 end price 44.47 ticker is WMK start_index 25114 end_index 25120 start_price 43.43 end_price 43.0 ticker is WMK start_index 25178 end_index 25184 start_price 44.63 end_price 45.08 ticker is WMK start_index 25264 end_index 25270 start_price 50.36 end_price 51.36 ticker is WMK start_index 25298 end_index 25304 start_price 44.35 end_price 43.07 ticker is WMK start_index 25363 end_index 25369 start_price 42.01 end_price 42.54 ticker is WMK start_index 25497 end_index 25503 start_price 38.92 end_price 41.11 ticker is WMK start_index 25520 end_index 25526 start_price 43.38 end_price 43.11 ticker is WMK start index 25553 end index 25559 start_price 45.43 end_price 46.67 ticker is WMK start_index 25611 end_index 25617 start_price 51.55 end_price 50.38 ticker is WMK start_index 25680 end_index 25686 start_price 56.51 end_price 59.8 ticker is WMK start_index 25770 end_index 25776 start_price 59.08 end_price 59.7 ticker is WMK start_index 25809 end_index 25815 start_price 57.79 end_price 54.33 ticker is WMK start_index 25872 end_index 25878 start_price 44.49 end_price 44.55 ticker is WMK start_index 25934 end_index 25940 start_price 34.0 end_price 35.77 ticker is WMK start_index 26021 end_index 26027 start price 38.37 end price 39.46 ticker is WMK start_index 26060 end_index 26066 start_price 48.03 end_price 52.48 ticker is WMK start_index 26122 end_index 26128 start_price 48.66 end_price 47.25 ticker is WMK start_index 26187 end_index 26193 start_price 46.46 end_price 47.38 ticker is WMK start_index 26271 end_index 26277 start_price 40.5 end_price 41.2 ticker is WMK start_index 26310 end_index 26316 start_price 38.77 end_price 39.43 ticker is WMK start_index 26371 end_index 26377 start_price 37.6 end_price 38.37 ticker is WMK start_index 26434 end_index 26440 start_price 38.87 end_price 39.72 ticker is WMK start_index 26522 end_index 26528 start_price 36.39 end_price 38.49 ticker is WMK start_index 26561 end_index 26567 start price 54.64 end price 54.45 ticker is WMK start_index 26623 end_index 26629 start price 51.17 end price 49.3 ticker is WMK start_index 26688 end_index 26694 start_price 46.35 end_price 48.03 ticker is WMK start_index 26773 end_index 26779 start_price 58.85 end_price 56.46 ticker is WMK start_index 26812 end_index 26818 start_price 52.64 end_price 53.67 appending WMK ticker is ACI start_index 25 end_index 32 start_price 14.83 end_price 14.8 ticker is ACI start_index 80 end_index 87 start_price 15.22 end_price 15.15 ticker is ACI start_index 137 end_index 144 start price 17.1 end price 17.5 ticker is ACI start_index 209 end_index 216 start price 18.11 end price 19.29 appending ACI ticker is ARDNA start_index 330 end_index 337 start_price 82.6 end_price 88.47 ticker is ARDNA start_index 394 end_index 401 start_price 95.88 end_price 96.68 ticker is ARDNA start_index 478 end_index 485 start_price 98.31 end_price 101.2 ticker is ARDNA start_index 519 end_index 526 start_price 98.65 end_price 101.16 ticker is ARDNA start_index 583 end_index 590 start_price 132.78 end_price 130.1 ticker is ARDNA start_index 647 end_index 654 start_price 129.85 end_price 129.65 appending ARDNA ticker is ASAI start index 754 end index 761 start_price 14.81 end_price 16.86 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3095 start_price 17.35 end_price 17.18 ticker is FWMHQ start_index 3122 end_index 3129 start_price 20.73 end_price 23.91 ticker is FWMHQ start_index 3166 end_index 3173 start_price 25.83 end_price 23.29 ticker is FWMHQ start_index 3230 end_index 3237 start_price 25.46 end_price 21.76

ticker is FWMHQ start_index 3291 end_index 3298 start_price 11.14 end_price 7.36 ticker is FWMHQ start_index 3368 end_index 3375 start_price 6.75 end_price 6.06 ticker is FWMHQ start index 3417 end index 3424 start_price 5.74 end_price 4.71 ticker is FWMHQ start index 3481 end index 3488 start_price 2.59 end_price 2.3 ticker is FWMHQ start_index 3542 end_index 3549 start_price 5.02 end_price 5.55 ticker is FWMHQ start_index 3617 end_index 3624 start_price 4.63 end_price 3.87 ticker is FWMHQ start_index 3666 end_index 3673 start_price 3.02 end_price 2.31 ticker is FWMHQ start_index 3727 end_index 3734 start_price 1.71 end_price 1.23 ticker is FWMHQ start_index 3794 end_index 3801 start_price 0.499 end_price 0.309 appending FWMHQ ticker is GO start index 3900 end index 3907 start_price 28.51 end_price 33.1 ticker is GO start_index 3936 end_index 3943 start_price 37.54 end_price 41.78 ticker is GO start_index 3972 end_index 3979 start_price 33.01 end_price 32.79 ticker is GO start_index 4000 end_index 4007 start_price 31.0 end_price 31.0 ticker is GO start_index 4050 end_index 4057 start_price 35.43 end_price 32.15 ticker is GO start_index 4091 end_index 4098 start_price 33.2 end_price 34.53 ticker is GO start_index 4124 end_index 4131 start_price 36.67 end_price 37.8 ticker is GO start_index 4187 end_index 4194 start price 44.33 end price 42.09 ticker is GO start_index 4251 end_index 4258 start_price 41.21 end_price 36.75 ticker is GO start_index 4326 end_index 4333 start_price 35.91 end_price 36.14 ticker is GO start_index 4376 end_index 4383 start_price 40.54 end_price 34.53 appending GO ticker is HTSI start_index 4491 end_index 4498 start_price 41.53 end_price 40.55 ticker is HTSI start_index 4562 end_index 4569 start_price 36.17 end_price 37.99 ticker is HTSI start_index 4614 end_index 4621 start_price 36.95 end_price 41.5

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ticker is HTSI start_index 4676 end_index 4683
start_price 45.29 end_price 45.65
ticker is HTSI start_index 4740 end_index 4747
start_price 49.2 end_price 49.18
ticker is HTSI start index 4820 end index 4827
start_price 49.38 end_price 49.47
appending HTSI
ticker is IFMK start_index 4953 end_index 4960
start_price 11.99 end_price 12.21
ticker is IFMK start_index 4984 end_index 4991
start_price 12.81 end_price 11.5
ticker is IFMK start_index 5049 end_index 5056
start_price 11.13 end_price 11.0
ticker is IFMK start_index 5111 end_index 5118
start_price 11.92 end_price 11.875
ticker is IFMK start_index 5205 end_index 5212
start_price 5.5 end_price 5.06
ticker is IFMK start_index 5236 end_index 5243
start_price 3.8 end_price 3.25
ticker is IFMK start index 5301 end index 5308
start_price 1.4 end_price 1.15
ticker is IFMK start index 5362 end index 5369
ticker is IFMK start_index 5455 end_index 5462
start_price 1.2 end_price 1.58
ticker is IFMK start_index 5487 end_index 5494
start_price 2.27 end_price 1.9
ticker is IFMK start_index 5552 end_index 5559
start_price 0.375 end_price 0.41100000000000003
ticker is IFMK start_index 5614 end_index 5621
start_price 0.4220000000000004 end_price 0.425
ticker is IFMK start_index 5739 end_index 5746
start_price 0.939000000000001 end_price 0.97
ticker is IFMK start_index 5744 end_index 5751
start price 0.9 end price 0.96
ticker is IFMK start_index 5810 end_index 5817
ticker is IFMK start_index 5830 end_index 5837
ticker is IFMK start_index 5870 end_index 5877
start_price 1.95 end_price 1.58
appending IFMK
ticker is IMKTA start_index 6035 end_index 6042
start_price 16.36 end_price 16.37
ticker is IMKTA start_index 6135 end_index 6142
start_price 17.2 end_price 17.72
ticker is IMKTA start_index 6164 end_index 6171
start_price 19.3 end_price 19.36
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```
ticker is IMKTA start_index 6226 end_index 6233
start_price 21.46 end_price 21.34
ticker is IMKTA start_index 6288 end_index 6295
start_price 25.69 end_price 27.05
ticker is IMKTA start_index 6378 end_index 6385
start_price 24.41 end_price 26.72
ticker is IMKTA start index 6413 end index 6420
start_price 24.02 end_price 22.4
ticker is IMKTA start_index 6476 end_index 6483
start_price 26.07 end_price 27.16
ticker is IMKTA start_index 6541 end_index 6548
start_price 24.47 end_price 24.93
ticker is IMKTA start_index 6632 end_index 6639
start_price 32.08 end_price 35.66
ticker is IMKTA start_index 6666 end_index 6673
start_price 44.06 end_price 42.26
ticker is IMKTA start_index 6728 end_index 6735
start_price 40.87 end_price 47.6
ticker is IMKTA start_index 6790 end_index 6797
start price 49.9 end price 50.23
ticker is IMKTA start_index 6880 end_index 6887
start_price 53.84 end_price 42.2
ticker is IMKTA start_index 6917 end_index 6924
start_price 36.2 end_price 35.47
ticker is IMKTA start_index 6980 end_index 6987
start_price 36.73 end_price 38.33
ticker is IMKTA start_index 7042 end_index 7049
start_price 36.86 end_price 36.98
ticker is IMKTA start_index 7137 end_index 7144
start_price 48.05 end_price 49.65
ticker is IMKTA start_index 7167 end_index 7174
start_price 45.25 end_price 46.35
ticker is IMKTA start_index 7230 end_index 7237
start_price 45.85 end_price 39.85
ticker is IMKTA start index 7293 end index 7300
start_price 29.5 end_price 26.45
ticker is IMKTA start_index 7381 end_index 7388
start_price 27.7 end_price 31.9
ticker is IMKTA start_index 7424 end_index 7431
start_price 30.55 end_price 32.15
ticker is IMKTA start_index 7486 end_index 7493
start_price 30.95 end_price 29.95
ticker is IMKTA start_index 7550 end_index 7557
start_price 29.55 end_price 33.9
ticker is IMKTA start_index 7633 end_index 7640
start_price 28.1 end_price 29.1
ticker is IMKTA start_index 7674 end_index 7681
start_price 28.96 end_price 31.12
```

ticker is IMKTA start_index 7736 end_index 7743 start_price 27.45 end_price 30.58 ticker is IMKTA start_index 7800 end_index 7807 start_price 31.75 end_price 35.29 ticker is IMKTA start index 7886 end index 7893 start_price 43.48 end_price 47.13 ticker is IMKTA start index 7925 end index 7932 start_price 42.76 end_price 36.17 ticker is IMKTA start_index 7988 end_index 7995 start_price 37.61 end_price 43.37 ticker is IMKTA start_index 8051 end_index 8058 start_price 39.9 end_price 42.92 ticker is IMKTA start_index 8137 end_index 8144 start_price 37.41 end_price 41.71 ticker is IMKTA start_index 8176 end_index 8183 start_price 47.26 end_price 50.64 ticker is IMKTA start_index 8238 end_index 8245 start_price 62.74 end_price 62.5 appending IMKTA ticker is KR start index 8385 end index 8392 start_price 11.905 end_price 11.76 ticker is KR start_index 8442 end_index 8449 start_price 13.325 end_price 13.25 ticker is KR start_index 8517 end_index 8524 start_price 16.27 end_price 16.325 ticker is KR start_index 8579 end_index 8586 start_price 17.355 end_price 18.575 ticker is KR start_index 8639 end_index 8646 start_price 20.24 end_price 20.29 ticker is KR start_index 8696 end_index 8703 start_price 19.995 end_price 19.945 ticker is KR start_index 8769 end_index 8776 start_price 21.825 end_price 22.36 ticker is KR start_index 8832 end_index 8839 start price 24.715 end price 24.485 ticker is KR start_index 8890 end_index 8897 start_price 26.015 end_price 25.8 ticker is KR start_index 8949 end_index 8956 start_price 30.765 end_price 32.025 ticker is KR start_index 9020 end_index 9027 start_price 38.62 end_price 38.405 ticker is KR start_index 9083 end_index 9090 start_price 36.335 end_price 37.785 ticker is KR start_index 9141 end_index 9148 start_price 36.66 end_price 36.07 ticker is KR start_index 9202 end_index 9209 start_price 42.43 end_price 42.45 ticker is KR start_index 9270 end_index 9277

start_price 38.06 end_price 39.08 ticker is KR start_index 9334 end_index 9341 start_price 36.62 end_price 37.32 ticker is KR start_index 9392 end_index 9399 start price 30.79 end price 29.84 ticker is KR start_index 9451 end_index 9458 start_price 34.22 end_price 35.21 ticker is KR start_index 9522 end_index 9529 start_price 28.93 end_price 29.31 ticker is KR start_index 9585 end_index 9592 start_price 22.61 end_price 23.13 ticker is KR start_index 9641 end_index 9648 start_price 21.26 end_price 19.94 ticker is KR start_index 9700 end_index 9707 start_price 26.53 end_price 27.0 ticker is KR start_index 9777 end_index 9784 start_price 23.28 end_price 23.48 ticker is KR start_index 9839 end_index 9846 start_price 28.43 end_price 28.77 ticker is KR start_index 9899 end_index 9906 start_price 29.61 end_price 29.38 ticker is KR start_index 9957 end_index 9964 start_price 28.92 end_price 27.38 ticker is KR start_index 10028 end_index 10035 start_price 24.48 end_price 24.98 ticker is KR start_index 10089 end_index 10096 start_price 21.39 end_price 21.71 ticker is KR start_index 10149 end_index 10156 start_price 25.72 end_price 25.05 ticker is KR start_index 10208 end_index 10215 start_price 28.31 end_price 28.89 ticker is KR start_index 10280 end_index 10287 start_price 30.12 end_price 31.06 ticker is KR start_index 10340 end_index 10347 start price 32.78 end price 33.68 ticker is KR start_index 10400 end_index 10407 start price 33.46 end price 33.91 ticker is KR start_index 10459 end_index 10466 start_price 31.3 end_price 31.39 ticker is KR start_index 10530 end_index 10537 start_price 37.95 end_price 37.23 appending KR ticker is NGVC start_index 10745 end_index 10752 start_price 19.38 end_price 19.53 ticker is NGVC start_index 10747 end_index 10754 start_price 19.59 end_price 19.19 ticker is NGVC start_index 10777 end_index 10784 start_price 20.32 end_price 21.07

```
ticker is NGVC start_index 10845 end_index 10852
start_price 25.03 end_price 29.5
ticker is NGVC start_index 10907 end_index 10914
start_price 35.4 end_price 33.28
ticker is NGVC start index 10996 end index 11003
start_price 37.94 end_price 41.1
ticker is NGVC start index 11028 end index 11035
start_price 33.51 end_price 37.88
ticker is NGVC start_index 11091 end_index 11098
start_price 35.6 end_price 24.18
ticker is NGVC start_index 11154 end_index 11161
start_price 23.88 end_price 19.92
ticker is NGVC start_index 11247 end_index 11254
start_price 25.45 end_price 26.39
ticker is NGVC start_index 11279 end_index 11286
start_price 28.06 end_price 31.3
ticker is NGVC start_index 11347 end_index 11354
start_price 26.87 end_price 25.49
ticker is NGVC start_index 11405 end_index 11412
start price 22.29 end price 25.19
ticker is NGVC start_index 11498 end_index 11505
start_price 20.11 end_price 20.13
ticker is NGVC start_index 11530 end_index 11537
start_price 20.67 end_price 18.11
ticker is NGVC start_index 11598 end_index 11605
start_price 13.09 end_price 13.47
ticker is NGVC start_index 11656 end_index 11663
start_price 13.49 end_price 12.62
ticker is NGVC start_index 11749 end_index 11756
start_price 11.69 end_price 12.5
ticker is NGVC start_index 11786 end_index 11793
start_price 12.54 end_price 12.26
ticker is NGVC start_index 11849 end_index 11856
start_price 10.7 end_price 9.9
ticker is NGVC start index 11912 end index 11919
start_price 8.61 end_price 6.4
ticker is NGVC start_index 12000 end_index 12007
start_price 8.3 end_price 8.94
ticker is NGVC start_index 12037 end_index 12044
start_price 8.6 end_price 7.26
ticker is NGVC start_index 12100 end_index 12107
start_price 7.19 end_price 10.54
ticker is NGVC start_index 12163 end_index 12170
start_price 12.54 end_price 18.47
ticker is NGVC start_index 12250 end_index 12257
start_price 17.5 end_price 17.96
ticker is NGVC start_index 12292 end_index 12299
start_price 14.0 end_price 15.07
```

```
ticker is NGVC start_index 12350 end_index 12357
start_price 12.16 end_price 12.18
ticker is NGVC start_index 12413 end_index 12420
start_price 9.17 end_price 9.84
ticker is NGVC start index 12501 end index 12508
start_price 9.32 end_price 9.58
ticker is NGVC start index 12543 end index 12550
start_price 9.35 end_price 8.26
ticker is NGVC start_index 12606 end_index 12613
start_price 10.72 end_price 14.53
ticker is NGVC start_index 12669 end_index 12676
start_price 16.06 end_price 13.82
ticker is NGVC start_index 12757 end_index 12764
start_price 13.8 end_price 12.72
ticker is NGVC start_index 12794 end_index 12801
start_price 16.18 end_price 15.68
ticker is NGVC start_index 12857 end_index 12864
start_price 16.08 end_price 12.17
appending NGVC
ticker is QKLS start index 12979 end index 12986
start_price 8.08 end_price 7.04
ticker is QKLS start index 13042 end index 13049
start_price 5.12 end_price 7.84
ticker is QKLS start_index 13144 end_index 13151
start_price 5.98 end_price 5.3
ticker is QKLS start_index 13165 end_index 13172
start_price 3.43 end_price 4.23
ticker is QKLS start_index 13229 end_index 13236
start_price 6.2 end_price 4.6
ticker is QKLS start_index 13294 end_index 13301
start_price 4.55 end_price 4.65
ticker is QKLS start_index 13390 end_index 13397
start_price 4.33 end_price 3.83
ticker is QKLS start_index 13418 end_index 13425
start price 3.71 end price 3.69
ticker is QKLS start_index 13481 end_index 13488
start_price 3.37 end_price 3.42
ticker is QKLS start_index 13546 end_index 13553
start_price 2.31 end_price 2.4
ticker is QKLS start_index 13648 end_index 13655
start_price 3.15 end_price 2.47
ticker is QKLS start_index 13670 end_index 13677
start_price 3.1 end_price 2.46
ticker is QKLS start_index 13734 end_index 13741
start_price 1.64 end_price 1.45
ticker is QKLS start_index 13798 end_index 13805
start_price 0.9 end_price 0.8
ticker is QKLS start_index 13900 end_index 13907
```

```
start_price 0.66 end_price 0.53
appending QKLS
ticker is RNDY start_index 15282 end_index 15289
start_price 7.71 end_price 7.75
ticker is RNDY start index 15345 end index 15352
start_price 4.24 end_price 4.31
ticker is RNDY start index 15433 end index 15440
start_price 6.74 end_price 6.61
ticker is RNDY start_index 15467 end_index 15474
start_price 7.33 end_price 7.42
ticker is RNDY start_index 15530 end_index 15537
start_price 8.57 end_price 8.63
ticker is RNDY start_index 15594 end_index 15601
start_price 9.15 end_price 8.17
ticker is RNDY start_index 15674 end_index 15681
start_price 6.08 end_price 6.16
ticker is RNDY start_index 15716 end_index 15723
start_price 6.65 end_price 5.03
ticker is RNDY start_index 15779 end_index 15786
start price 4.78 end price 3.55
ticker is RNDY start_index 15843 end_index 15850
start price 3.45 end price 3.41
ticker is RNDY start_index 15930 end_index 15937
start_price 4.48 end_price 4.94
ticker is RNDY start_index 15972 end_index 15979
start_price 4.65 end_price 3.73
ticker is RNDY start_index 16035 end_index 16042
start_price 2.46 end_price 2.29
ticker is RNDY start_index 16100 end_index 16107
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start_index 16141 end_index 16148
start_price 38.59 end_price 36.75
ticker is SFM start_index 16194 end_index 16201
start price 48.04 end price 43.05
ticker is SFM start_index 16201 end_index 16208
start price 43.05 end price 38.0
ticker is SFM start_index 16269 end_index 16276
start_price 36.85 end_price 38.66
ticker is SFM start_index 16281 end_index 16288
start_price 37.95 end_price 35.49
ticker is SFM start_index 16317 end_index 16324
start_price 31.09 end_price 28.64
ticker is SFM start_index 16381 end_index 16388
start_price 31.75 end_price 29.5
ticker is SFM start_index 16445 end_index 16452
start_price 30.69 end_price 30.75
ticker is SFM start_index 16520 end_index 16527
```

start_price 37.09 end_price 35.485 ticker is SFM start_index 16569 end_index 16576 start_price 31.06 end_price 30.26 ticker is SFM start_index 16632 end_index 16639 start price 24.03 end price 21.02 ticker is SFM start_index 16696 end_index 16703 start_price 19.88 end_price 22.93 ticker is SFM start_index 16771 end_index 16778 start_price 25.21 end_price 28.21 ticker is SFM start_index 16820 end_index 16827 start_price 27.38 end_price 25.27 ticker is SFM start_index 16883 end_index 16890 start_price 23.25 end_price 22.66 ticker is SFM start_index 16947 end_index 16954 start_price 22.57 end_price 21.74 ticker is SFM start_index 17022 end_index 17029 start_price 19.0 end_price 18.11 ticker is SFM start_index 17071 end_index 17078 start_price 22.75 end_price 23.89 ticker is SFM start index 17134 end index 17141 start_price 23.98 end_price 24.14 ticker is SFM start_index 17198 end_index 17205 start_price 18.87 end_price 20.8 ticker is SFM start_index 17273 end_index 17280 start_price 26.12 end_price 25.64 ticker is SFM start_index 17322 end_index 17329 start_price 24.39 end_price 21.96 ticker is SFM start_index 17385 end_index 17392 start_price 21.2 end_price 23.69 ticker is SFM start_index 17449 end_index 17456 start_price 26.89 end_price 27.01 ticker is SFM start_index 17523 end_index 17530 start_price 24.14 end_price 23.2 ticker is SFM start_index 17572 end_index 17579 start price 21.29 end price 22.47 ticker is SFM start_index 17635 end_index 17642 start_price 16.93 end_price 17.75 ticker is SFM start_index 17699 end_index 17706 start_price 18.75 end_price 19.83 ticker is SFM start_index 17774 end_index 17781 start_price 15.86 end_price 15.98 ticker is SFM start_index 17826 end_index 17833 start_price 21.76 end_price 25.6 ticker is SFM start_index 17885 end_index 17892 start_price 27.02 end_price 24.66 ticker is SFM start_index 17949 end_index 17956 start_price 20.4 end_price 20.245 ticker is SFM start_index 18030 end_index 18037 start_price 21.48 end_price 23.62 ticker is SFM start_index 18079 end_index 18086 start_price 25.87 end_price 26.37 appending SFM ticker is SFS start index 18209 end index 18216 start_price 15.49 end_price 15.24 ticker is SFS start index 18296 end index 18303 start_price 18.4 end_price 18.2 ticker is SFS start_index 18320 end_index 18327 start_price 17.87 end_price 17.08 ticker is SFS start_index 18379 end_index 18386 start_price 17.79 end_price 17.4 ticker is SFS start_index 18458 end_index 18465 start_price 14.6 end_price 17.52 ticker is SFS start_index 18541 end_index 18548 start_price 15.8 end_price 15.78 ticker is SFS start_index 18576 end_index 18583 start_price 16.03 end_price 15.51 ticker is SFS start_index 18636 end_index 18643 start_price 15.03 end_price 14.34 ticker is SFS start_index 18714 end_index 18721 start_price 13.45 end_price 13.5 ticker is SFS start_index 18795 end_index 18802 start_price 11.55 end_price 11.7 ticker is SFS start_index 18828 end_index 18835 start_price 11.65 end_price 12.9 ticker is SFS start_index 18885 end_index 18892 start_price 8.1 end_price 8.2 ticker is SFS start_index 18965 end_index 18972 start_price 7.25 end_price 8.25 ticker is SFS start_index 19046 end_index 19053 start_price 6.0 end_price 5.85 ticker is SFS start_index 19079 end_index 19086 start_price 5.3 end_price 4.6 ticker is SFS start index 19137 end index 19144 start_price 5.5 end_price 5.7 ticker is SFS start_index 19216 end_index 19223 start_price 4.95 end_price 6.38 ticker is SFS start_index 19296 end_index 19303 start_price 5.26 end_price 5.01 ticker is SFS start_index 19330 end_index 19337 start_price 6.52 end_price 6.5 appending SFS ticker is SWY start_index 19378 end_index 19385 start_price 15.26 end_price 15.58 ticker is SWY start_index 19437 end_index 19444 start_price 15.67 end_price 16.12 ticker is SWY start_index 19525 end_index 19532 start_price 22.76 end_price 23.94 ticker is SWY start_index 19569 end_index 19576 start_price 23.51 end_price 24.24 ticker is SWY start_index 19628 end_index 19635 start price 25.57 end price 25.64 ticker is SWY start_index 19687 end_index 19694 start_price 32.74 end_price 36.06 ticker is SWY start_index 19777 end_index 19784 start_price 37.13 end_price 39.47 ticker is SWY start_index 19821 end_index 19828 start_price 34.08 end_price 34.28 ticker is SWY start_index 19878 end_index 19885 start_price 34.82 end_price 34.81 ticker is SWY start_index 19938 end_index 19945 start_price 33.97 end_price 34.11 appending SWY ticker is TFM start_index 20057 end_index 20064 start_price 58.34 end_price 57.97 ticker is TFM start_index 20119 end_index 20126 start price 50.7 end price 47.55 ticker is TFM start_index 20194 end_index 20201 start price 42.7 end price 40.39 ticker is TFM start_index 20243 end_index 20250 start_price 50.26 end_price 51.95 ticker is TFM start_index 20307 end_index 20314 start_price 49.7 end_price 48.26 ticker is TFM start_index 20364 end_index 20371 start_price 39.97 end_price 40.65 ticker is TFM start_index 20442 end_index 20449 start_price 34.18 end_price 33.6 ticker is TFM start_index 20493 end_index 20500 start_price 32.95 end_price 34.86 ticker is TFM start_index 20557 end_index 20564 start_price 33.73 end_price 35.21 ticker is TFM start index 20621 end index 20628 start_price 39.53 end_price 39.67 ticker is TFM start_index 20694 end_index 20701 start_price 41.09 end_price 40.64 ticker is TFM start_index 20740 end_index 20747 start_price 32.43 end_price 33.0 ticker is TFM start_index 20804 end_index 20811 start_price 19.91 end_price 21.41 ticker is TFM start_index 20870 end_index 20877 start_price 23.98 end_price 24.0 ticker is TFM start_index 20947 end_index 20954 start_price 28.47 end_price 28.53 appending TFM ticker is VLGEA start_index 21041 end_index 21048

```
start_price 34.06 end_price 35.71
ticker is VLGEA start_index 21079 end_index 21086
start_price 37.11 end_price 33.42
ticker is VLGEA start_index 21140 end_index 21147
start price 34.1 end price 33.1
ticker is VLGEA start_index 21203 end_index 21210
start_price 36.37 end_price 35.67
ticker is VLGEA start_index 21290 end_index 21297
start_price 34.85 end_price 34.52
ticker is VLGEA start_index 21330 end_index 21337
start_price 38.45 end_price 29.36
ticker is VLGEA start_index 21390 end_index 21397
start_price 27.32 end_price 29.19
ticker is VLGEA start_index 21454 end_index 21461
start_price 22.89 end_price 22.96
ticker is VLGEA start_index 21542 end_index 21549
start_price 23.46 end_price 26.01
ticker is VLGEA start_index 21581 end_index 21588
start_price 24.04 end_price 25.11
ticker is VLGEA start index 21642 end index 21649
start_price 27.66 end_price 29.51
ticker is VLGEA start_index 21705 end_index 21712
start_price 32.29 end_price 30.25
ticker is VLGEA start_index 21793 end_index 21800
start_price 25.39 end_price 24.29
ticker is VLGEA start_index 21833 end_index 21840
start_price 25.61 end_price 25.34
ticker is VLGEA start_index 21893 end_index 21900
start_price 26.41 end_price 24.2
ticker is VLGEA start_index 21957 end_index 21964
start_price 27.37 end_price 28.81
ticker is VLGEA start_index 22049 end_index 22056
start_price 31.72 end_price 31.89
ticker is VLGEA start_index 22088 end_index 22095
start price 35.63 end price 31.86
ticker is VLGEA start_index 22150 end_index 22157
start_price 27.06 end_price 27.22
ticker is VLGEA start_index 22212 end_index 22219
start_price 25.07 end_price 25.04
ticker is VLGEA start_index 22301 end_index 22308
start_price 24.9 end_price 23.87
ticker is VLGEA start_index 22338 end_index 22345
start_price 25.44 end_price 23.13
ticker is VLGEA start_index 22401 end_index 22408
start_price 24.07 end_price 25.42
ticker is VLGEA start_index 22464 end_index 22471
start_price 28.29 end_price 28.46
ticker is VLGEA start_index 22552 end_index 22559
```

start_price 24.9 end_price 25.09 ticker is VLGEA start_index 22590 end_index 22597 start_price 25.44 end_price 27.4 ticker is VLGEA start_index 22650 end_index 22657 start price 31.5 end price 29.35 ticker is VLGEA start_index 22712 end_index 22719 start price 26.18 end price 25.73 ticker is VLGEA start_index 22802 end_index 22809 start_price 26.27 end_price 25.62 ticker is VLGEA start_index 22841 end_index 22848 start_price 25.79 end_price 24.18 ticker is VLGEA start_index 22902 end_index 22909 start_price 21.35 end_price 18.75 ticker is VLGEA start_index 22965 end_index 22972 start_price 25.46 end_price 25.52 ticker is VLGEA start_index 23053 end_index 23060 start_price 24.32 end_price 24.07 ticker is VLGEA start_index 23092 end_index 23099 start_price 23.13 end_price 23.01 ticker is VLGEA start index 23153 end index 23160 start_price 23.88 end_price 25.24 appending VLGEA ticker is WFM start_index 23312 end_index 23319 start price 46.455 end price 46.995 ticker is WFM start_index 23387 end_index 23394 start_price 46.7119999999999 end_price 46.68 ticker is WFM start_index 23449 end_index 23456 start_price 42.465 end_price 43.025 ticker is WFM start_index 23508 end_index 23515 start_price 51.02 end_price 52.855 ticker is WFM start_index 23566 end_index 23573 start_price 55.9 end_price 52.55 ticker is WFM start_index 23640 end_index 23647 start_price 56.48 end_price 56.69 ticker is WFM start index 23700 end index 23707 start_price 52.35 end_price 53.53 ticker is WFM start_index 23759 end_index 23766 start_price 38.76 end_price 38.65 ticker is WFM start_index 23817 end_index 23824 start_price 37.35 end_price 38.75 ticker is WFM start_index 23891 end_index 23898 start_price 47.69 end_price 48.3 ticker is WFM start_index 23956 end_index 23963 start_price 56.73 end_price 55.635 ticker is WFM start_index 24010 end_index 24017 start_price 42.9 end_price 42.45 ticker is WFM start_index 24068 end_index 24075 start_price 34.84 end_price 33.69

ticker is WFM start_index 24137 end_index 24144 start_price 29.91 end_price 29.57

ticker is WFM start_index 24207 end_index 24214 start_price 30.86 end_price 33.61

ticker is WFM start_index 24261 end_index 24268 start_price 30.51 end_price 31.16

ticker is WFM start_index 24319 end_index 24326 start_price 30.39 end_price 31.13

ticker is WFM start_index 24393 end_index 24400 start_price 30.94 end_price 30.61

ticker is WFM start_index 24453 end_index 24460 start_price 30.72 end_price 31.1

ticker is WFM start_index 24517 end_index 24524 start_price 36.15 end_price 34.87

ticker is WFM start_index 24570 end_index 24577 start_price 41.84 end_price 41.86 appending WFM

ticker is WMK start_index 24614 end_index 24621 start_price 43.27 end_price 43.95

ticker is WMK start_index 24676 end_index 24683 start_price 40.38 end_price 38.1

ticker is WMK start_index 24761 end_index 24768 start_price 41.02 end_price 41.51

ticker is WMK start_index 24800 end_index 24807 start_price 42.49 end_price 42.48

ticker is WMK start_index 24863 end_index 24870 start_price 50.81 end_price 48.45

ticker is WMK start_index 24927 end_index 24934 start_price 49.21 end_price 49.29

ticker is WMK start_index 25013 end_index 25020 start_price 49.49 end_price 51.33

ticker is WMK start_index 25051 end_index 25058 start_price 45.2 end_price 44.94

ticker is WMK start_index 25114 end_index 25121 start price 43.43 end price 43.02

ticker is WMK start_index 25178 end_index 25185 start price 44.63 end price 44.5

ticker is WMK start_index 25264 end_index 25271 start_price 50.36 end_price 50.92

ticker is WMK start_index 25298 end_index 25305 start_price 44.35 end_price 43.73

ticker is WMK start_index 25363 end_index 25370 start_price 42.01 end_price 42.68

ticker is WMK start_index 25497 end_index 25504 start_price 38.92 end_price 41.69

ticker is WMK start_index 25520 end_index 25527 start_price 43.38 end_price 44.47

ticker is WMK start_index 25553 end_index 25560

start_price 45.43 end_price 46.98 ticker is WMK start_index 25611 end_index 25618 start_price 51.55 end_price 51.09 ticker is WMK start_index 25680 end_index 25687 start price 56.51 end price 60.8 ticker is WMK start_index 25770 end_index 25777 start_price 59.08 end_price 59.34 ticker is WMK start_index 25809 end_index 25816 start_price 57.79 end_price 54.76 ticker is WMK start_index 25872 end_index 25879 start_price 44.49 end_price 44.43 ticker is WMK start_index 25934 end_index 25941 start_price 34.0 end_price 35.27 ticker is WMK start_index 26021 end_index 26028 start_price 38.37 end_price 38.7 ticker is WMK start_index 26060 end_index 26067 start_price 48.03 end_price 52.05 ticker is WMK start_index 26122 end_index 26129 start_price 48.66 end_price 47.28 ticker is WMK start index 26187 end index 26194 start_price 46.46 end_price 47.54 ticker is WMK start index 26271 end index 26278 start_price 40.5 end_price 40.85 ticker is WMK start_index 26310 end_index 26317 start_price 38.77 end_price 38.21 ticker is WMK start_index 26371 end_index 26378 start_price 37.6 end_price 37.95 ticker is WMK start_index 26434 end_index 26441 start_price 38.87 end_price 39.52 ticker is WMK start_index 26522 end_index 26529 start_price 36.39 end_price 38.28 ticker is WMK start_index 26561 end_index 26568 start_price 54.64 end_price 55.01 ticker is WMK start_index 26623 end_index 26630 start price 51.17 end price 49.11 ticker is WMK start_index 26688 end_index 26695 start price 46.35 end price 47.31 ticker is WMK start_index 26773 end_index 26780 start_price 58.85 end_price 56.87 ticker is WMK start_index 26812 end_index 26819 start_price 52.64 end_price 53.96 appending WMK ticker is ACI start_index 25 end_index 33 start_price 14.83 end_price 14.9 ticker is ACI start_index 80 end_index 88 start_price 15.22 end_price 14.69 ticker is ACI start_index 137 end_index 145 start_price 17.1 end_price 18.59

ticker is ACI start_index 209 end_index 217 start_price 18.11 end_price 19.18 appending ACI ticker is ARDNA start_index 330 end_index 338 start price 82.6 end price 88.47 ticker is ARDNA start_index 394 end_index 402 start price 95.88 end price 96.12 ticker is ARDNA start_index 478 end_index 486 start_price 98.31 end_price 101.16 ticker is ARDNA start_index 519 end_index 527 start_price 98.65 end_price 100.8 ticker is ARDNA start_index 583 end_index 591 start_price 132.78 end_price 130.12 ticker is ARDNA start_index 647 end_index 655 start_price 129.85 end_price 127.4 appending ARDNA ticker is ASAI start_index 754 end_index 762 start_price 14.81 end_price 16.78 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3096 start price 17.35 end price 17.45 ticker is FWMHQ start_index 3122 end_index 3130 start_price 20.73 end_price 23.86 ticker is FWMHQ start_index 3166 end_index 3174 start_price 25.83 end_price 22.62 ticker is FWMHQ start_index 3230 end_index 3238 start_price 25.46 end_price 20.46 ticker is FWMHQ start_index 3291 end_index 3299 start_price 11.14 end_price 7.75 ticker is FWMHQ start_index 3368 end_index 3376 start_price 6.75 end_price 6.43 ticker is FWMHQ start_index 3417 end_index 3425 start_price 5.74 end_price 4.66 ticker is FWMHQ start index 3481 end index 3489 start_price 2.59 end_price 2.23 ticker is FWMHQ start index 3542 end index 3550 start_price 5.02 end_price 5.69 ticker is FWMHQ start_index 3617 end_index 3625 start_price 4.63 end_price 3.88 ticker is FWMHQ start_index 3666 end_index 3674 start_price 3.02 end_price 2.2 ticker is FWMHQ start_index 3727 end_index 3735 start_price 1.71 end_price 1.15 ticker is FWMHQ start_index 3794 end_index 3802 start_price 0.499 end_price 0.39 appending FWMHQ ticker is GO start_index 3900 end_index 3908

start_price 28.51 end_price 33.0 ticker is GO start_index 3936 end_index 3944 start_price 37.54 end_price 43.56 ticker is GO start_index 3972 end_index 3980 start price 33.01 end price 33.56 ticker is GO start_index 4000 end_index 4008 start_price 31.0 end_price 30.85 ticker is GO start_index 4050 end_index 4058 start_price 35.43 end_price 31.56 ticker is GO start_index 4091 end_index 4099 start_price 33.2 end_price 34.41 ticker is GO start_index 4124 end_index 4132 start_price 36.67 end_price 37.63 ticker is GO start_index 4187 end_index 4195 start_price 44.33 end_price 41.85 ticker is GO start_index 4251 end_index 4259 start_price 41.21 end_price 37.52 ticker is GO start_index 4326 end_index 4334 start_price 35.91 end_price 36.22 ticker is GO start index 4376 end index 4384 start_price 40.54 end_price 33.79 appending GO ticker is HTSI start_index 4491 end_index 4499 start_price 41.53 end_price 40.69 ticker is HTSI start_index 4562 end_index 4570 start_price 36.17 end_price 38.65 ticker is HTSI start_index 4614 end_index 4622 start_price 36.95 end_price 41.8 ticker is HTSI start_index 4676 end_index 4684 start_price 45.29 end_price 46.08 ticker is HTSI start_index 4740 end_index 4748 start_price 49.2 end_price 49.19 ticker is HTSI start_index 4820 end_index 4828 start_price 49.38 end_price 49.3 appending HTSI ticker is IFMK start_index 4953 end_index 4961 start_price 11.99 end_price 12.44 ticker is IFMK start_index 4984 end_index 4992 start_price 12.81 end_price 11.862 ticker is IFMK start_index 5049 end_index 5057 start_price 11.13 end_price 10.98 ticker is IFMK start_index 5111 end_index 5119 start_price 11.92 end_price 11.8 ticker is IFMK start_index 5205 end_index 5213 start_price 5.5 end_price 5.23 ticker is IFMK start_index 5236 end_index 5244 start_price 3.8 end_price 3.03 ticker is IFMK start_index 5301 end_index 5309 start_price 1.4 end_price 1.05 ticker is IFMK start_index 5362 end_index 5370 start_price 1.07 end_price 1.17 ticker is IFMK start_index 5455 end_index 5463 start price 1.2 end price 1.72 ticker is IFMK start_index 5487 end_index 5495 start_price 2.27 end_price 2.01 ticker is IFMK start_index 5552 end_index 5560 start_price 0.375 end_price 0.41 ticker is IFMK start_index 5614 end_index 5622 start_price 0.4220000000000004 end_price 0.425 ticker is IFMK start_index 5739 end_index 5747 start_price 0.939000000000001 end_price 0.92 ticker is IFMK start_index 5744 end_index 5752 start_price 0.9 end_price 0.938 ticker is IFMK start_index 5810 end_index 5818 start_price 0.859000000000001 end_price 0.823 ticker is IFMK start_index 5830 end_index 5838 start_price 0.822000000000001 end_price 0.794 ticker is IFMK start index 5870 end index 5878 start_price 1.95 end_price 1.56 appending IFMK ticker is IMKTA start_index 6035 end_index 6043 start_price 16.36 end_price 16.4 ticker is IMKTA start_index 6135 end_index 6143 start_price 17.2 end_price 17.71 ticker is IMKTA start_index 6164 end_index 6172 start_price 19.3 end_price 19.56 ticker is IMKTA start_index 6226 end_index 6234 start_price 21.46 end_price 21.56 ticker is IMKTA start_index 6288 end_index 6296 start_price 25.69 end_price 26.25 ticker is IMKTA start_index 6378 end_index 6386 start_price 24.41 end_price 27.08 ticker is IMKTA start index 6413 end index 6421 start_price 24.02 end_price 22.83 ticker is IMKTA start_index 6476 end_index 6484 start_price 26.07 end_price 26.8 ticker is IMKTA start_index 6541 end_index 6549 start_price 24.47 end_price 25.34 ticker is IMKTA start_index 6632 end_index 6640 start_price 32.08 end_price 35.59 ticker is IMKTA start_index 6666 end_index 6674 start_price 44.06 end_price 44.12 ticker is IMKTA start_index 6728 end_index 6736 start_price 40.87 end_price 47.5 ticker is IMKTA start_index 6790 end_index 6798 start_price 49.9 end_price 51.32

```
ticker is IMKTA start_index 6880 end_index 6888
start_price 53.84 end_price 43.2
ticker is IMKTA start_index 6917 end_index 6925
start_price 36.2 end_price 35.84
ticker is IMKTA start_index 6980 end_index 6988
start_price 36.73 end_price 38.45
ticker is IMKTA start index 7042 end index 7050
start_price 36.86 end_price 37.12
ticker is IMKTA start_index 7137 end_index 7145
start_price 48.05 end_price 49.2
ticker is IMKTA start_index 7167 end_index 7175
start_price 45.25 end_price 47.15
ticker is IMKTA start_index 7230 end_index 7238
start_price 45.85 end_price 38.45
ticker is IMKTA start_index 7293 end_index 7301
start_price 29.5 end_price 27.05
ticker is IMKTA start_index 7381 end_index 7389
start_price 27.7 end_price 33.0
ticker is IMKTA start_index 7424 end_index 7432
start price 30.55 end price 31.55
ticker is IMKTA start_index 7486 end_index 7494
start price 30.95 end price 29.75
ticker is IMKTA start_index 7550 end_index 7558
start_price 29.55 end_price 33.0
ticker is IMKTA start_index 7633 end_index 7641
start_price 28.1 end_price 29.28
ticker is IMKTA start_index 7674 end_index 7682
start_price 28.96 end_price 31.03
ticker is IMKTA start_index 7736 end_index 7744
start_price 27.45 end_price 30.67
ticker is IMKTA start_index 7800 end_index 7808
start_price 31.75 end_price 36.01
ticker is IMKTA start_index 7886 end_index 7894
start_price 43.48 end_price 47.67
ticker is IMKTA start index 7925 end index 7933
start_price 42.76 end_price 36.62
ticker is IMKTA start_index 7988 end_index 7996
start_price 37.61 end_price 44.15
ticker is IMKTA start_index 8051 end_index 8059
start_price 39.9 end_price 43.06
ticker is IMKTA start_index 8137 end_index 8145
start_price 37.41 end_price 41.66
ticker is IMKTA start_index 8176 end_index 8184
start_price 47.26 end_price 50.53
ticker is IMKTA start_index 8238 end_index 8246
start_price 62.74 end_price 62.55
appending IMKTA
ticker is KR start_index 8385 end_index 8393
```

start_price 11.905 end_price 11.79 ticker is KR start_index 8442 end_index 8450 start_price 13.325 end_price 13.315 ticker is KR start_index 8517 end_index 8525 start price 16.27 end price 16.585 ticker is KR start_index 8579 end_index 8587 start_price 17.355 end_price 18.67 ticker is KR start_index 8639 end_index 8647 start_price 20.24 end_price 20.045 ticker is KR start_index 8696 end_index 8704 start_price 19.995 end_price 19.945 ticker is KR start_index 8769 end_index 8777 start_price 21.825 end_price 21.935 ticker is KR start_index 8832 end_index 8840 start_price 24.715 end_price 24.41 ticker is KR start_index 8890 end_index 8898 start_price 26.015 end_price 25.75 ticker is KR start_index 8949 end_index 8957 start_price 30.765 end_price 32.145 ticker is KR start index 9020 end index 9028 start_price 38.62 end_price 38.535 ticker is KR start_index 9083 end_index 9091 start_price 36.335 end_price 38.17 ticker is KR start_index 9141 end_index 9149 start_price 36.66 end_price 36.68 ticker is KR start_index 9202 end_index 9210 start_price 42.43 end_price 42.64 ticker is KR start_index 9270 end_index 9278 start_price 38.06 end_price 38.17 ticker is KR start_index 9334 end_index 9342 start_price 36.62 end_price 37.86 ticker is KR start_index 9392 end_index 9400 start_price 30.79 end_price 29.5 ticker is KR start_index 9451 end_index 9459 start price 34.22 end price 34.98 ticker is KR start_index 9522 end_index 9530 start_price 28.93 end_price 29.51 ticker is KR start_index 9585 end_index 9593 start_price 22.61 end_price 23.16 ticker is KR start_index 9641 end_index 9649 start_price 21.26 end_price 20.19 ticker is KR start_index 9700 end_index 9708 start_price 26.53 end_price 26.95 ticker is KR start_index 9777 end_index 9785 start_price 23.28 end_price 23.6 ticker is KR start_index 9839 end_index 9847 start_price 28.43 end_price 27.97 ticker is KR start_index 9899 end_index 9907 start_price 29.61 end_price 28.78 ticker is KR start_index 9957 end_index 9965 start_price 28.92 end_price 27.58 ticker is KR start_index 10028 end_index 10036 start price 24.48 end price 25.74 ticker is KR start_index 10089 end_index 10097 start_price 21.39 end_price 21.65 ticker is KR start_index 10149 end_index 10157 start_price 25.72 end_price 24.59 ticker is KR start_index 10208 end_index 10216 start_price 28.31 end_price 28.76 ticker is KR start_index 10280 end_index 10288 start_price 30.12 end_price 31.33 ticker is KR start_index 10340 end_index 10348 start_price 32.78 end_price 32.42 ticker is KR start_index 10400 end_index 10408 start_price 33.46 end_price 34.02 ticker is KR start_index 10459 end_index 10467 start_price 31.3 end_price 31.53 ticker is KR start index 10530 end index 10538 start_price 37.95 end_price 37.78 appending KR ticker is NGVC start_index 10745 end_index 10753 start_price 19.38 end_price 19.61 ticker is NGVC start_index 10747 end_index 10755 start_price 19.59 end_price 18.99 ticker is NGVC start_index 10777 end_index 10785 start_price 20.32 end_price 20.71 ticker is NGVC start_index 10845 end_index 10853 start_price 25.03 end_price 29.83 ticker is NGVC start_index 10907 end_index 10915 start_price 35.4 end_price 33.0 ticker is NGVC start_index 10996 end_index 11004 start_price 37.94 end_price 41.58 ticker is NGVC start index 11028 end index 11036 start_price 33.51 end_price 37.91 ticker is NGVC start_index 11091 end_index 11099 start_price 35.6 end_price 24.31 ticker is NGVC start_index 11154 end_index 11162 start_price 23.88 end_price 19.68 ticker is NGVC start_index 11247 end_index 11255 start_price 25.45 end_price 26.42 ticker is NGVC start_index 11279 end_index 11287 start_price 28.06 end_price 30.27 ticker is NGVC start_index 11347 end_index 11355 start_price 26.87 end_price 25.4 ticker is NGVC start_index 11405 end_index 11413 start_price 22.29 end_price 24.72

```
ticker is NGVC start_index 11498 end_index 11506
start_price 20.11 end_price 20.42
ticker is NGVC start_index 11530 end_index 11538
start_price 20.67 end_price 17.95
ticker is NGVC start index 11598 end index 11606
start_price 13.09 end_price 13.48
ticker is NGVC start index 11656 end index 11664
start_price 13.49 end_price 12.61
ticker is NGVC start_index 11749 end_index 11757
start_price 11.69 end_price 12.59
ticker is NGVC start_index 11786 end_index 11794
start_price 12.54 end_price 12.48
ticker is NGVC start_index 11849 end_index 11857
start_price 10.7 end_price 9.95
ticker is NGVC start_index 11912 end_index 11920
start_price 8.61 end_price 5.89
ticker is NGVC start_index 12000 end_index 12008
start_price 8.3 end_price 9.15
ticker is NGVC start_index 12037 end_index 12045
start price 8.6 end price 6.82
ticker is NGVC start_index 12100 end_index 12108
start_price 7.19 end_price 10.29
ticker is NGVC start_index 12163 end_index 12171
start_price 12.54 end_price 17.81
ticker is NGVC start_index 12250 end_index 12258
start_price 17.5 end_price 17.16
ticker is NGVC start_index 12292 end_index 12300
start_price 14.0 end_price 14.86
ticker is NGVC start_index 12350 end_index 12358
start_price 12.16 end_price 12.1
ticker is NGVC start_index 12413 end_index 12421
start_price 9.17 end_price 9.61
ticker is NGVC start_index 12501 end_index 12509
start_price 9.32 end_price 9.64
ticker is NGVC start index 12543 end index 12551
start_price 9.35 end_price 8.3
ticker is NGVC start_index 12606 end_index 12614
start_price 10.72 end_price 14.42
ticker is NGVC start_index 12669 end_index 12677
start_price 16.06 end_price 14.09
ticker is NGVC start_index 12757 end_index 12765
start_price 13.8 end_price 12.55
ticker is NGVC start_index 12794 end_index 12802
start_price 16.18 end_price 15.2
ticker is NGVC start_index 12857 end_index 12865
start_price 16.08 end_price 12.34
appending NGVC
ticker is QKLS start_index 12979 end_index 12987
```

```
start_price 8.08 end_price 6.72
ticker is QKLS start_index 13042 end_index 13050
start_price 5.12 end_price 7.84
ticker is QKLS start_index 13144 end_index 13152
start price 5.98 end price 5.32
ticker is QKLS start_index 13165 end_index 13173
start price 3.43 end price 4.23
ticker is QKLS start_index 13229 end_index 13237
start_price 6.2 end_price 4.65
ticker is QKLS start_index 13294 end_index 13302
start_price 4.55 end_price 4.65
ticker is QKLS start_index 13390 end_index 13398
start_price 4.33 end_price 4.09
ticker is QKLS start_index 13418 end_index 13426
start_price 3.71 end_price 3.73
ticker is QKLS start_index 13481 end_index 13489
start_price 3.37 end_price 3.37
ticker is QKLS start_index 13546 end_index 13554
start_price 2.31 end_price 2.25
ticker is QKLS start index 13648 end index 13656
start_price 3.15 end_price 2.46
ticker is QKLS start index 13670 end index 13678
start_price 3.1 end_price 2.49
ticker is QKLS start_index 13734 end_index 13742
start_price 1.64 end_price 1.3
ticker is QKLS start_index 13798 end_index 13806
start_price 0.9 end_price 0.84
ticker is QKLS start_index 13900 end_index 13908
start_price 0.66 end_price 0.51
appending QKLS
ticker is RNDY start_index 15282 end_index 15290
start_price 7.71 end_price 7.71
ticker is RNDY start_index 15345 end_index 15353
start_price 4.24 end_price 4.36
ticker is RNDY start index 15433 end index 15441
start_price 6.74 end_price 6.57
ticker is RNDY start_index 15467 end_index 15475
start_price 7.33 end_price 7.37
ticker is RNDY start_index 15530 end_index 15538
start_price 8.57 end_price 8.63
ticker is RNDY start_index 15594 end_index 15602
start_price 9.15 end_price 8.23
ticker is RNDY start_index 15674 end_index 15682
start_price 6.08 end_price 6.21
ticker is RNDY start_index 15716 end_index 15724
start_price 6.65 end_price 5.01
ticker is RNDY start_index 15779 end_index 15787
start_price 4.78 end_price 3.53
```

ticker is RNDY start_index 15843 end_index 15851 start_price 3.45 end_price 3.47 ticker is RNDY start_index 15930 end_index 15938 start_price 4.48 end_price 5.0 ticker is RNDY start index 15972 end index 15980 start_price 4.65 end_price 3.59 ticker is RNDY start index 16035 end index 16043 start_price 2.46 end_price 2.26 ticker is RNDY start_index 16100 end_index 16108 start_price 3.57 end_price 3.58 appending RNDY ticker is SFM start_index 16141 end_index 16149 start_price 38.59 end_price 36.8 ticker is SFM start_index 16194 end_index 16202 start_price 48.04 end_price 40.59 ticker is SFM start_index 16201 end_index 16209 start_price 43.05 end_price 38.1 ticker is SFM start_index 16269 end_index 16277 start_price 36.85 end_price 37.9 ticker is SFM start index 16281 end index 16289 start_price 37.95 end_price 35.28 ticker is SFM start_index 16317 end_index 16325 start_price 31.09 end_price 28.86 ticker is SFM start_index 16381 end_index 16389 start_price 31.75 end_price 29.55 ticker is SFM start_index 16445 end_index 16453 start_price 30.69 end_price 30.91 ticker is SFM start_index 16520 end_index 16528 start_price 37.09 end_price 35.41 ticker is SFM start_index 16569 end_index 16577 start_price 31.06 end_price 30.04 ticker is SFM start_index 16632 end_index 16640 start_price 24.03 end_price 21.26 ticker is SFM start_index 16696 end_index 16704 start price 19.88 end price 23.36 ticker is SFM start_index 16771 end_index 16779 start_price 25.21 end_price 28.18 ticker is SFM start_index 16820 end_index 16828 start_price 27.38 end_price 24.89 ticker is SFM start_index 16883 end_index 16891 start_price 23.25 end_price 23.05 ticker is SFM start_index 16947 end_index 16955 start_price 22.57 end_price 22.29 ticker is SFM start_index 17022 end_index 17030 start_price 19.0 end_price 17.83 ticker is SFM start_index 17071 end_index 17079 start_price 22.75 end_price 23.97 ticker is SFM start_index 17134 end_index 17142

start_price 23.98 end_price 24.24 ticker is SFM start_index 17198 end_index 17206 start_price 18.87 end_price 20.85 ticker is SFM start_index 17273 end_index 17281 start price 26.12 end price 25.18 ticker is SFM start_index 17322 end_index 17330 start_price 24.39 end_price 22.14 ticker is SFM start_index 17385 end_index 17393 start_price 21.2 end_price 23.48 ticker is SFM start_index 17449 end_index 17457 start_price 26.89 end_price 27.45 ticker is SFM start_index 17523 end_index 17531 start_price 24.14 end_price 23.12 ticker is SFM start_index 17572 end_index 17580 start_price 21.29 end_price 21.7 ticker is SFM start_index 17635 end_index 17643 start_price 16.93 end_price 17.54 ticker is SFM start_index 17699 end_index 17707 start_price 18.75 end_price 19.645 ticker is SFM start index 17774 end index 17782 start_price 15.86 end_price 16.62 ticker is SFM start_index 17826 end_index 17834 start_price 21.76 end_price 24.63 ticker is SFM start_index 17885 end_index 17893 start_price 27.02 end_price 25.03 ticker is SFM start_index 17949 end_index 17957 start_price 20.4 end_price 20.315 ticker is SFM start_index 18030 end_index 18038 start_price 21.48 end_price 23.86 ticker is SFM start_index 18079 end_index 18087 start_price 25.87 end_price 26.36 appending SFM ticker is SFS start_index 18209 end_index 18217 start_price 15.49 end_price 15.36 ticker is SFS start index 18296 end index 18304 start_price 18.4 end_price 18.15 ticker is SFS start_index 18320 end_index 18328 start_price 17.87 end_price 16.85 ticker is SFS start_index 18379 end_index 18387 start_price 17.79 end_price 17.4 ticker is SFS start_index 18458 end_index 18466 start_price 14.6 end_price 17.4 ticker is SFS start_index 18541 end_index 18549 start_price 15.8 end_price 15.68 ticker is SFS start_index 18576 end_index 18584 start_price 16.03 end_price 15.53 ticker is SFS start_index 18636 end_index 18644 start_price 15.03 end_price 13.91

```
ticker is SFS start_index 18714 end_index 18722 start_price 13.45 end_price 13.45
```

ticker is SFS start_index 18795 end_index 18803 start_price 11.55 end_price 11.7

ticker is SFS start_index 18828 end_index 18836 start_price 11.65 end_price 12.95

ticker is SFS start_index 18885 end_index 18893 start_price 8.1 end_price 8.25

ticker is SFS start_index 18965 end_index 18973 start_price 7.25 end_price 8.45

ticker is SFS start_index 19046 end_index 19054 start_price 6.0 end_price 5.7

ticker is SFS start_index 19079 end_index 19087 start_price 5.3 end_price 4.85

ticker is SFS start_index 19137 end_index 19145 start_price 5.5 end_price 5.8

ticker is SFS start_index 19216 end_index 19224 start_price 4.95 end_price 6.42

ticker is SFS start_index 19296 end_index 19304 start price 5.26 end price 5.13

ticker is SFS start_index 19330 end_index 19338 start_price 6.52 end_price 6.57

appending SFS

ticker is SWY start_index 19378 end_index 19386 start_price 15.26 end_price 15.1

ticker is SWY start_index 19437 end_index 19445 start_price 15.67 end_price 16.57

ticker is SWY start_index 19525 end_index 19533 start_price 22.76 end_price 23.92

ticker is SWY start_index 19569 end_index 19577 start_price 23.51 end_price 24.16

ticker is SWY start_index 19628 end_index 19636 start_price 25.57 end_price 25.35

ticker is SWY start_index 19687 end_index 19695 start price 32.74 end price 36.54

ticker is SWY start_index 19777 end_index 19785 start_price 37.13 end_price 38.6

ticker is SWY start_index 19821 end_index 19829 start_price 34.08 end_price 34.29

ticker is SWY start_index 19878 end_index 19886 start_price 34.82 end_price 34.46

ticker is SWY start_index 19938 end_index 19946 start_price 33.97 end_price 34.12

appending SWY

ticker is TFM start_index 20057 end_index 20065 start_price 58.34 end_price 57.44

ticker is TFM start_index 20119 end_index 20127
start_price 50.7 end_price 49.78

ticker is TFM start_index 20194 end_index 20202 start_price 42.7 end_price 40.3 ticker is TFM start_index 20243 end_index 20251 start_price 50.26 end_price 52.73 ticker is TFM start index 20307 end index 20315 start_price 49.7 end_price 49.82 ticker is TFM start index 20364 end index 20372 start_price 39.97 end_price 40.42 ticker is TFM start_index 20442 end_index 20450 start_price 34.18 end_price 34.53 ticker is TFM start_index 20493 end_index 20501 start_price 32.95 end_price 34.97 ticker is TFM start_index 20557 end_index 20565 start_price 33.73 end_price 34.57 ticker is TFM start_index 20621 end_index 20629 start_price 39.53 end_price 39.62 ticker is TFM start_index 20694 end_index 20702 start_price 41.09 end_price 40.61 ticker is TFM start_index 20740 end_index 20748 start price 32.43 end price 32.49 ticker is TFM start_index 20804 end_index 20812 start price 19.91 end price 22.51 ticker is TFM start_index 20870 end_index 20878 start_price 23.98 end_price 24.02 ticker is TFM start_index 20947 end_index 20955 start_price 28.47 end_price 28.41 appending TFM ticker is VLGEA start_index 21041 end_index 21049 start_price 34.06 end_price 35.11 ticker is VLGEA start_index 21079 end_index 21087 start_price 37.11 end_price 33.73 ticker is VLGEA start_index 21140 end_index 21148 start_price 34.1 end_price 33.2 ticker is VLGEA start_index 21203 end_index 21211 start price 36.37 end price 34.81 ticker is VLGEA start_index 21290 end_index 21298 start_price 34.85 end_price 34.4 ticker is VLGEA start_index 21330 end_index 21338 start_price 38.45 end_price 30.27 ticker is VLGEA start_index 21390 end_index 21398 start_price 27.32 end_price 28.81 ticker is VLGEA start_index 21454 end_index 21462 start_price 22.89 end_price 22.93 ticker is VLGEA start_index 21542 end_index 21550 start_price 23.46 end_price 24.93 ticker is VLGEA start_index 21581 end_index 21589 start_price 24.04 end_price 24.51 ticker is VLGEA start_index 21642 end_index 21650

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start_price 27.66 end_price 30.24
ticker is VLGEA start_index 21705 end_index 21713
start_price 32.29 end_price 30.34
ticker is VLGEA start_index 21793 end_index 21801
start price 25.39 end price 24.17
ticker is VLGEA start_index 21833 end_index 21841
start_price 25.61 end_price 25.29
ticker is VLGEA start_index 21893 end_index 21901
start_price 26.41 end_price 24.41
ticker is VLGEA start_index 21957 end_index 21965
start_price 27.37 end_price 28.04
ticker is VLGEA start_index 22049 end_index 22057
start_price 31.72 end_price 31.76
ticker is VLGEA start_index 22088 end_index 22096
start_price 35.63 end_price 32.86
ticker is VLGEA start_index 22150 end_index 22158
start_price 27.06 end_price 26.81
ticker is VLGEA start_index 22212 end_index 22220
start_price 25.07 end_price 25.03
ticker is VLGEA start index 22301 end index 22309
start_price 24.9 end_price 24.19
ticker is VLGEA start_index 22338 end_index 22346
start_price 25.44 end_price 23.0
ticker is VLGEA start_index 22401 end_index 22409
start_price 24.07 end_price 25.18
ticker is VLGEA start_index 22464 end_index 22472
start_price 28.29 end_price 28.79
ticker is VLGEA start_index 22552 end_index 22560
start_price 24.9 end_price 25.15
ticker is VLGEA start_index 22590 end_index 22598
start_price 25.44 end_price 26.73
ticker is VLGEA start_index 22650 end_index 22658
start_price 31.5 end_price 28.16
ticker is VLGEA start_index 22712 end_index 22720
start price 26.18 end price 26.3
ticker is VLGEA start_index 22802 end_index 22810
start_price 26.27 end_price 25.67
ticker is VLGEA start_index 22841 end_index 22849
start_price 25.79 end_price 24.03
ticker is VLGEA start_index 22902 end_index 22910
start_price 21.35 end_price 19.71
ticker is VLGEA start_index 22965 end_index 22973
start_price 25.46 end_price 25.42
ticker is VLGEA start_index 23053 end_index 23061
start_price 24.32 end_price 23.36
ticker is VLGEA start_index 23092 end_index 23100
start_price 23.13 end_price 22.91
ticker is VLGEA start_index 23153 end_index 23161
```

start_price 23.88 end_price 25.19
appending VLGEA

ticker is WFM start_index 23312 end_index 23320 start_price 46.455 end_price 46.865

ticker is WFM start_index 23387 end_index 23395 start_price 46.71199999999996 end_price 46.207 ticker is WFM start_index 23449 end_index 23457

start_price 42.465 end_price 42.855

ticker is WFM start_index 23508 end_index 23516 start_price 51.02 end_price 52.705

ticker is WFM start_index 23566 end_index 23574 start_price 55.9 end_price 52.44

ticker is WFM start_index 23640 end_index 23648 start_price 56.48 end_price 56.16

ticker is WFM start_index 23700 end_index 23708 start_price 52.35 end_price 55.07

ticker is WFM start_index 23759 end_index 23767 start_price 38.76 end_price 37.85

ticker is WFM start_index 23817 end_index 23825 start price 37.35 end price 38.76

ticker is WFM start_index 23891 end_index 23899 start price 47.69 end price 48.19

ticker is WFM start_index 23956 end_index 23964 start_price 56.73 end_price 54.49

ticker is WFM start_index 24010 end_index 24018 start_price 42.9 end_price 42.725

ticker is WFM start_index 24068 end_index 24076 start_price 34.84 end_price 33.36

ticker is WFM start_index 24137 end_index 24145 start_price 29.91 end_price 29.56

ticker is WFM start_index 24207 end_index 24215 start_price 30.86 end_price 33.57

ticker is WFM start_index 24261 end_index 24269 start_price 30.51 end_price 31.68

ticker is WFM start_index 24319 end_index 24327 start_price 30.39 end_price 30.63

ticker is WFM start_index 24393 end_index 24401 start_price 30.94 end_price 30.39

ticker is WFM start_index 24453 end_index 24461 start_price 30.72 end_price 30.67

ticker is WFM start_index 24517 end_index 24525 start_price 36.15 end_price 34.99

ticker is WFM start_index 24570 end_index 24578 start_price 41.84 end_price 41.79

appending WFM

ticker is WMK start_index 24614 end_index 24622 start_price 43.27 end_price 43.96

ticker is WMK start_index 24676 end_index 24684

start_price 40.38 end_price 38.6 ticker is WMK start_index 24761 end_index 24769 start_price 41.02 end_price 41.36 ticker is WMK start_index 24800 end_index 24808 start price 42.49 end price 42.62 ticker is WMK start_index 24863 end_index 24871 start_price 50.81 end_price 48.27 ticker is WMK start_index 24927 end_index 24935 start_price 49.21 end_price 49.05 ticker is WMK start_index 25013 end_index 25021 start_price 49.49 end_price 50.83 ticker is WMK start_index 25051 end_index 25059 start_price 45.2 end_price 45.15 ticker is WMK start_index 25114 end_index 25122 start_price 43.43 end_price 43.44 ticker is WMK start_index 25178 end_index 25186 start_price 44.63 end_price 43.91 ticker is WMK start_index 25264 end_index 25272 start_price 50.36 end_price 50.72 ticker is WMK start index 25298 end index 25306 start_price 44.35 end_price 43.4 ticker is WMK start_index 25363 end_index 25371 start_price 42.01 end_price 42.23 ticker is WMK start_index 25497 end_index 25505 start_price 38.92 end_price 41.65 ticker is WMK start_index 25520 end_index 25528 start_price 43.38 end_price 45.07 ticker is WMK start_index 25553 end_index 25561 start_price 45.43 end_price 47.41 ticker is WMK start_index 25611 end_index 25619 start_price 51.55 end_price 50.92 ticker is WMK start_index 25680 end_index 25688 start_price 56.51 end_price 62.04 ticker is WMK start_index 25770 end_index 25778 start price 59.08 end price 58.57 ticker is WMK start_index 25809 end_index 25817 start_price 57.79 end_price 55.3 ticker is WMK start_index 25872 end_index 25880 start_price 44.49 end_price 44.94 ticker is WMK start_index 25934 end_index 25942 start_price 34.0 end_price 36.27 ticker is WMK start_index 26021 end_index 26029 start_price 38.37 end_price 39.51 ticker is WMK start_index 26060 end_index 26068 start_price 48.03 end_price 52.34 ticker is WMK start_index 26122 end_index 26130 start_price 48.66 end_price 47.46 ticker is WMK start_index 26187 end_index 26195 start_price 46.46 end_price 46.53 ticker is WMK start_index 26271 end_index 26279 start_price 40.5 end_price 40.72 ticker is WMK start_index 26310 end_index 26318 start price 38.77 end price 37.9 ticker is WMK start_index 26371 end_index 26379 start price 37.6 end price 37.97 ticker is WMK start_index 26434 end_index 26442 start_price 38.87 end_price 40.38 ticker is WMK start_index 26522 end_index 26530 start_price 36.39 end_price 38.24 ticker is WMK start_index 26561 end_index 26569 start_price 54.64 end_price 57.03 ticker is WMK start_index 26623 end_index 26631 start_price 51.17 end_price 50.14 ticker is WMK start_index 26688 end_index 26696 start_price 46.35 end_price 48.09 ticker is WMK start_index 26773 end_index 26781 start_price 58.85 end_price 56.72 ticker is WMK start index 26812 end index 26820 start_price 52.64 end_price 54.2 appending WMK ticker is ACI start_index 25 end_index 34 start_price 14.83 end_price 14.85 ticker is ACI start_index 80 end_index 89 start_price 15.22 end_price 14.66 ticker is ACI start_index 137 end_index 146 start_price 17.1 end_price 19.5 ticker is ACI start_index 209 end_index 218 start_price 18.11 end_price 19.34 appending ACI ticker is ARDNA start_index 330 end_index 339 start_price 82.6 end_price 89.77 ticker is ARDNA start_index 394 end_index 403 start price 95.88 end price 96.88 ticker is ARDNA start_index 478 end_index 487 start price 98.31 end price 98.2 ticker is ARDNA start_index 519 end_index 528 start_price 98.65 end_price 100.75 ticker is ARDNA start_index 583 end_index 592 start_price 132.78 end_price 130.99 ticker is ARDNA start_index 647 end_index 656 start_price 129.85 end_price 126.61 appending ARDNA ticker is ASAI start_index 754 end_index 763 start_price 14.81 end_price 16.6 appending ASAI appending CBD

ticker is FWMHQ start_index 3088 end_index 3097 start_price 17.35 end_price 17.58 ticker is FWMHQ start_index 3122 end_index 3131 start_price 20.73 end_price 23.95 ticker is FWMHQ start index 3166 end index 3175 start_price 25.83 end_price 23.4 ticker is FWMHQ start index 3230 end index 3239 start_price 25.46 end_price 19.48 ticker is FWMHQ start_index 3291 end_index 3300 start_price 11.14 end_price 7.88 ticker is FWMHQ start_index 3368 end_index 3377 start_price 6.75 end_price 6.59 ticker is FWMHQ start_index 3417 end_index 3426 start_price 5.74 end_price 4.55 ticker is FWMHQ start_index 3481 end_index 3490 start_price 2.59 end_price 2.8 ticker is FWMHQ start_index 3542 end_index 3551 start_price 5.02 end_price 5.8 ticker is FWMHQ start_index 3617 end_index 3626 start price 4.63 end price 3.87 ticker is FWMHQ start_index 3666 end_index 3675 start price 3.02 end price 2.25 ticker is FWMHQ start_index 3727 end_index 3736 start_price 1.71 end_price 1.26 ticker is FWMHQ start_index 3794 end_index 3803 start_price 0.499 end_price 0.401 appending FWMHQ ticker is GO start_index 3900 end_index 3909 start_price 28.51 end_price 33.2 ticker is GO start_index 3936 end_index 3945 start_price 37.54 end_price 41.75 ticker is GO start_index 3972 end_index 3981 start_price 33.01 end_price 33.67 ticker is GO start_index 4000 end_index 4009 start price 31.0 end price 31.68 ticker is GO start_index 4050 end_index 4059 start price 35.43 end price 31.23 ticker is GO start_index 4091 end_index 4100 start_price 33.2 end_price 37.24 ticker is GO start_index 4124 end_index 4133 start_price 36.67 end_price 37.84 ticker is GO start_index 4187 end_index 4196 start_price 44.33 end_price 41.51 ticker is GO start_index 4251 end_index 4260 start_price 41.21 end_price 38.48 ticker is GO start_index 4326 end_index 4335 start_price 35.91 end_price 36.67 ticker is GO start_index 4376 end_index 4385

start_price 40.54 end_price 33.78 appending GO ticker is HTSI start_index 4491 end_index 4500 start_price 41.53 end_price 40.73 ticker is HTSI start index 4562 end index 4571 start_price 36.17 end_price 38.42 ticker is HTSI start index 4614 end index 4623 start_price 36.95 end_price 41.5 ticker is HTSI start_index 4676 end_index 4685 start_price 45.29 end_price 46.08 ticker is HTSI start_index 4740 end_index 4749 start_price 49.2 end_price 49.18 ticker is HTSI start_index 4820 end_index 4829 start_price 49.38 end_price 49.38 appending HTSI ticker is IFMK start_index 4953 end_index 4962 start_price 11.99 end_price 12.95 ticker is IFMK start_index 4984 end_index 4993 start_price 12.81 end_price 12.449000000000002 ticker is IFMK start index 5049 end index 5058 start_price 11.13 end_price 11.187000000000001 ticker is IFMK start index 5111 end index 5120 start_price 11.92 end_price 11.505 ticker is IFMK start_index 5205 end_index 5214 start_price 5.5 end_price 5.01 ticker is IFMK start_index 5236 end_index 5245 start_price 3.8 end_price 3.09 ticker is IFMK start_index 5301 end_index 5310 start_price 1.4 end_price 1.05 ticker is IFMK start_index 5362 end_index 5371 start_price 1.07 end_price 1.16 ticker is IFMK start_index 5455 end_index 5464 start_price 1.2 end_price 1.35 ticker is IFMK start_index 5487 end_index 5496 start price 2.27 end price 1.83 ticker is IFMK start_index 5552 end_index 5561 start_price 0.375 end_price 0.392 ticker is IFMK start_index 5614 end_index 5623 start_price 0.4220000000000004 end_price 0.395 ticker is IFMK start_index 5739 end_index 5748 start_price 0.939000000000001 end_price 0.91 ticker is IFMK start_index 5744 end_index 5753 ticker is IFMK start_index 5810 end_index 5819 start_price 0.859000000000001 end_price 0.84 ticker is IFMK start_index 5830 end_index 5839 start_price 0.822000000000001 end_price 0.792 ticker is IFMK start_index 5870 end_index 5879

start_price 1.95 end_price 1.38 appending IFMK ticker is IMKTA start_index 6035 end_index 6044 start_price 16.36 end_price 16.34 ticker is IMKTA start index 6135 end index 6144 start_price 17.2 end_price 17.33 ticker is IMKTA start index 6164 end index 6173 start_price 19.3 end_price 19.19 ticker is IMKTA start_index 6226 end_index 6235 start_price 21.46 end_price 21.8 ticker is IMKTA start_index 6288 end_index 6297 start_price 25.69 end_price 25.88 ticker is IMKTA start_index 6378 end_index 6387 start_price 24.41 end_price 27.46 ticker is IMKTA start_index 6413 end_index 6422 start_price 24.02 end_price 23.03 ticker is IMKTA start_index 6476 end_index 6485 start_price 26.07 end_price 26.68 ticker is IMKTA start_index 6541 end_index 6550 start price 24.47 end price 25.2 ticker is IMKTA start index 6632 end index 6641 start price 32.08 end price 36.9 ticker is IMKTA start_index 6666 end_index 6675 start_price 44.06 end_price 43.34 ticker is IMKTA start_index 6728 end_index 6737 start_price 40.87 end_price 50.54 ticker is IMKTA start_index 6790 end_index 6799 start_price 49.9 end_price 54.36 ticker is IMKTA start_index 6880 end_index 6889 start_price 53.84 end_price 44.55 ticker is IMKTA start_index 6917 end_index 6926 start_price 36.2 end_price 35.38 ticker is IMKTA start_index 6980 end_index 6989 start_price 36.73 end_price 37.23 ticker is IMKTA start index 7042 end index 7051 start_price 36.86 end_price 37.36 ticker is IMKTA start_index 7137 end_index 7146 start_price 48.05 end_price 49.0 ticker is IMKTA start_index 7167 end_index 7176 start_price 45.25 end_price 46.4 ticker is IMKTA start_index 7230 end_index 7239 start_price 45.85 end_price 39.55 ticker is IMKTA start_index 7293 end_index 7302 start_price 29.5 end_price 26.8 ticker is IMKTA start_index 7381 end_index 7390 start_price 27.7 end_price 34.0 ticker is IMKTA start_index 7424 end_index 7433 start_price 30.55 end_price 32.4

ticker is IMKTA start_index 7486 end_index 7495 start_price 30.95 end_price 30.2 ticker is IMKTA start_index 7550 end_index 7559 start_price 29.55 end_price 33.85 ticker is IMKTA start index 7633 end index 7642 start_price 28.1 end_price 28.46 ticker is IMKTA start index 7674 end index 7683 start_price 28.96 end_price 30.33 ticker is IMKTA start_index 7736 end_index 7745 start_price 27.45 end_price 30.41 ticker is IMKTA start_index 7800 end_index 7809 start_price 31.75 end_price 35.64 ticker is IMKTA start_index 7886 end_index 7895 start_price 43.48 end_price 48.14 ticker is IMKTA start_index 7925 end_index 7934 start_price 42.76 end_price 36.34 ticker is IMKTA start_index 7988 end_index 7997 start_price 37.61 end_price 41.92 ticker is IMKTA start_index 8051 end_index 8060 start price 39.9 end price 43.56 ticker is IMKTA start_index 8137 end_index 8146 start price 37.41 end price 41.1 ticker is IMKTA start_index 8176 end_index 8185 start_price 47.26 end_price 51.61 ticker is IMKTA start_index 8238 end_index 8247 start_price 62.74 end_price 61.58 appending IMKTA ticker is KR start_index 8385 end_index 8394 start_price 11.905 end_price 11.77 ticker is KR start_index 8442 end_index 8451 start_price 13.325 end_price 13.15 ticker is KR start_index 8517 end_index 8526 start_price 16.27 end_price 16.555 ticker is KR start_index 8579 end_index 8588 start price 17.355 end price 18.895 ticker is KR start_index 8639 end_index 8648 start_price 20.24 end_price 20.28 ticker is KR start_index 8696 end_index 8705 start_price 19.995 end_price 19.925 ticker is KR start_index 8769 end_index 8778 start_price 21.825 end_price 22.0 ticker is KR start_index 8832 end_index 8841 start_price 24.715 end_price 24.63 ticker is KR start_index 8890 end_index 8899 start_price 26.015 end_price 26.44 ticker is KR start_index 8949 end_index 8958 start_price 30.765 end_price 32.195 ticker is KR start_index 9020 end_index 9029

start_price 38.62 end_price 38.165 ticker is KR start_index 9083 end_index 9092 start_price 36.335 end_price 38.475 ticker is KR start_index 9141 end_index 9150 start price 36.66 end price 37.14 ticker is KR start_index 9202 end_index 9211 start_price 42.43 end_price 42.31 ticker is KR start_index 9270 end_index 9279 start_price 38.06 end_price 37.99 ticker is KR start_index 9334 end_index 9343 start_price 36.62 end_price 37.54 ticker is KR start_index 9392 end_index 9401 start_price 30.79 end_price 29.68 ticker is KR start_index 9451 end_index 9460 start_price 34.22 end_price 35.08 ticker is KR start_index 9522 end_index 9531 start_price 28.93 end_price 29.86 ticker is KR start_index 9585 end_index 9594 start_price 22.61 end_price 22.61 ticker is KR start_index 9641 end_index 9650 start_price 21.26 end_price 20.23 ticker is KR start_index 9700 end_index 9709 start_price 26.53 end_price 27.32 ticker is KR start_index 9777 end_index 9786 start_price 23.28 end_price 23.73 ticker is KR start_index 9839 end_index 9848 start_price 28.43 end_price 27.95 ticker is KR start_index 9899 end_index 9908 start_price 29.61 end_price 29.07 ticker is KR start_index 9957 end_index 9966 start_price 28.92 end_price 27.5 ticker is KR start_index 10028 end_index 10037 start_price 24.48 end_price 25.67 ticker is KR start_index 10089 end_index 10098 start price 21.39 end price 21.76 ticker is KR start_index 10149 end_index 10158 start_price 25.72 end_price 24.79 ticker is KR start_index 10208 end_index 10217 start_price 28.31 end_price 29.06 ticker is KR start_index 10280 end_index 10289 start_price 30.12 end_price 32.09 ticker is KR start_index 10340 end_index 10349 start_price 32.78 end_price 32.76 ticker is KR start_index 10400 end_index 10409 start_price 33.46 end_price 34.07 ticker is KR start_index 10459 end_index 10468 start_price 31.3 end_price 31.39 ticker is KR start_index 10530 end_index 10539 start_price 37.95 end_price 37.97 appending KR ticker is NGVC start_index 10745 end_index 10754 start_price 19.38 end_price 19.19 ticker is NGVC start index 10747 end index 10756 start_price 19.59 end_price 19.3 ticker is NGVC start index 10777 end index 10786 start_price 20.32 end_price 21.08 ticker is NGVC start_index 10845 end_index 10854 start_price 25.03 end_price 29.92 ticker is NGVC start_index 10907 end_index 10916 start_price 35.4 end_price 32.85 ticker is NGVC start_index 10996 end_index 11005 start_price 37.94 end_price 41.78 ticker is NGVC start_index 11028 end_index 11037 start_price 33.51 end_price 38.15 ticker is NGVC start_index 11091 end_index 11100 start_price 35.6 end_price 24.0 ticker is NGVC start_index 11154 end_index 11163 start price 23.88 end price 19.14 ticker is NGVC start_index 11247 end_index 11256 start price 25.45 end price 26.3 ticker is NGVC start_index 11279 end_index 11288 start_price 28.06 end_price 29.84 ticker is NGVC start_index 11347 end_index 11356 start_price 26.87 end_price 25.84 ticker is NGVC start_index 11405 end_index 11414 start_price 22.29 end_price 24.02 ticker is NGVC start_index 11498 end_index 11507 start_price 20.11 end_price 20.59 ticker is NGVC start_index 11530 end_index 11539 start_price 20.67 end_price 17.91 ticker is NGVC start_index 11598 end_index 11607 start_price 13.09 end_price 12.99 ticker is NGVC start index 11656 end index 11665 start_price 13.49 end_price 12.48 ticker is NGVC start index 11749 end index 11758 start_price 11.69 end_price 12.57 ticker is NGVC start_index 11786 end_index 11795 start_price 12.54 end_price 12.27 ticker is NGVC start_index 11849 end_index 11858 start_price 10.7 end_price 9.66 ticker is NGVC start_index 11912 end_index 11921 start_price 8.61 end_price 6.0 ticker is NGVC start_index 12000 end_index 12009 start_price 8.3 end_price 9.01 ticker is NGVC start_index 12037 end_index 12046

start_price 8.6 end_price 6.9

```
ticker is NGVC start_index 12100 end_index 12109
start_price 7.19 end_price 10.33
ticker is NGVC start_index 12163 end_index 12172
start_price 12.54 end_price 19.46
ticker is NGVC start index 12250 end index 12259
start_price 17.5 end_price 17.05
ticker is NGVC start index 12292 end index 12301
start_price 14.0 end_price 14.61
ticker is NGVC start_index 12350 end_index 12359
start_price 12.16 end_price 11.82
ticker is NGVC start_index 12413 end_index 12422
start_price 9.17 end_price 9.4
ticker is NGVC start_index 12501 end_index 12510
start_price 9.32 end_price 9.79
ticker is NGVC start_index 12543 end_index 12552
start_price 9.35 end_price 8.2
ticker is NGVC start_index 12606 end_index 12615
start_price 10.72 end_price 14.05
ticker is NGVC start_index 12669 end_index 12678
start price 16.06 end price 14.22
ticker is NGVC start_index 12757 end_index 12766
start price 13.8 end price 12.97
ticker is NGVC start_index 12794 end_index 12803
start_price 16.18 end_price 15.1
ticker is NGVC start_index 12857 end_index 12866
start_price 16.08 end_price 12.16
appending NGVC
ticker is QKLS start_index 12979 end_index 12988
start_price 8.08 end_price 6.64
ticker is QKLS start_index 13042 end_index 13051
start_price 5.12 end_price 7.04
ticker is QKLS start_index 13144 end_index 13153
start_price 5.98 end_price 4.06
ticker is QKLS start_index 13165 end_index 13174
start price 3.43 end price 4.19
ticker is QKLS start_index 13229 end_index 13238
start_price 6.2 end_price 4.7
ticker is QKLS start_index 13294 end_index 13303
start_price 4.55 end_price 4.45
ticker is QKLS start_index 13390 end_index 13399
start_price 4.33 end_price 3.91
ticker is QKLS start_index 13418 end_index 13427
start_price 3.71 end_price 3.67
ticker is QKLS start_index 13481 end_index 13490
start_price 3.37 end_price 3.33
ticker is QKLS start_index 13546 end_index 13555
start_price 2.31 end_price 2.25
ticker is QKLS start_index 13648 end_index 13657
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start_price 3.15 end_price 2.36
ticker is QKLS start_index 13670 end_index 13679
start_price 3.1 end_price 2.28
ticker is QKLS start_index 13734 end_index 13743
start price 1.64 end price 1.3
ticker is QKLS start_index 13798 end_index 13807
start_price 0.9 end_price 0.77
ticker is QKLS start_index 13900 end_index 13909
start_price 0.66 end_price 0.47
appending QKLS
ticker is RNDY start_index 15282 end_index 15291
start_price 7.71 end_price 7.77
ticker is RNDY start_index 15345 end_index 15354
start_price 4.24 end_price 4.39
ticker is RNDY start_index 15433 end_index 15442
start_price 6.74 end_price 6.54
ticker is RNDY start_index 15467 end_index 15476
start_price 7.33 end_price 7.39
ticker is RNDY start_index 15530 end_index 15539
start price 8.57 end price 8.6
ticker is RNDY start index 15594 end index 15603
start price 9.15 end price 8.28
ticker is RNDY start_index 15674 end_index 15683
start_price 6.08 end_price 6.18
ticker is RNDY start_index 15716 end_index 15725
start_price 6.65 end_price 4.98
ticker is RNDY start_index 15779 end_index 15788
start_price 4.78 end_price 3.76
ticker is RNDY start_index 15843 end_index 15852
start_price 3.45 end_price 3.47
ticker is RNDY start_index 15930 end_index 15939
start_price 4.48 end_price 4.93
ticker is RNDY start_index 15972 end_index 15981
start_price 4.65 end_price 3.54
ticker is RNDY start index 16035 end index 16044
start_price 2.46 end_price 2.2
ticker is RNDY start_index 16100 end_index 16109
start_price 3.57 end_price 3.59
appending RNDY
ticker is SFM start_index 16141 end_index 16150
start_price 38.59 end_price 36.87
ticker is SFM start_index 16194 end_index 16203
start_price 48.04 end_price 39.66
ticker is SFM start_index 16201 end_index 16210
start_price 43.05 end_price 37.84
ticker is SFM start_index 16269 end_index 16278
start_price 36.85 end_price 37.1
ticker is SFM start_index 16281 end_index 16290
```

start_price 37.95 end_price 34.17 ticker is SFM start_index 16317 end_index 16326 start_price 31.09 end_price 28.5 ticker is SFM start_index 16381 end_index 16390 start price 31.75 end price 29.8 ticker is SFM start_index 16445 end_index 16454 start_price 30.69 end_price 31.41 ticker is SFM start_index 16520 end_index 16529 start_price 37.09 end_price 34.76 ticker is SFM start_index 16569 end_index 16578 start_price 31.06 end_price 29.85 ticker is SFM start_index 16632 end_index 16641 start_price 24.03 end_price 21.19 ticker is SFM start_index 16696 end_index 16705 start_price 19.88 end_price 23.78 ticker is SFM start_index 16771 end_index 16780 start_price 25.21 end_price 27.59 ticker is SFM start_index 16820 end_index 16829 start_price 27.38 end_price 24.45 ticker is SFM start index 16883 end index 16892 start_price 23.25 end_price 22.81 ticker is SFM start_index 16947 end_index 16956 start_price 22.57 end_price 22.24 ticker is SFM start_index 17022 end_index 17031 start_price 19.0 end_price 17.63 ticker is SFM start_index 17071 end_index 17080 start_price 22.75 end_price 23.81 ticker is SFM start_index 17134 end_index 17143 start_price 23.98 end_price 24.14 ticker is SFM start_index 17198 end_index 17207 start_price 18.87 end_price 20.59 ticker is SFM start_index 17273 end_index 17282 start_price 26.12 end_price 25.9 ticker is SFM start_index 17322 end_index 17331 start price 24.39 end price 22.02 ticker is SFM start_index 17385 end_index 17394 start_price 21.2 end_price 24.22 ticker is SFM start_index 17449 end_index 17458 start_price 26.89 end_price 27.74 ticker is SFM start_index 17523 end_index 17532 start_price 24.14 end_price 23.12 ticker is SFM start_index 17572 end_index 17581 start_price 21.29 end_price 21.49 ticker is SFM start_index 17635 end_index 17644 start_price 16.93 end_price 17.71 ticker is SFM start_index 17699 end_index 17708 start_price 18.75 end_price 19.82 ticker is SFM start_index 17774 end_index 17783 start_price 15.86 end_price 16.445 ticker is SFM start_index 17826 end_index 17835 start_price 21.76 end_price 24.86 ticker is SFM start_index 17885 end_index 17894 start price 27.02 end price 24.77 ticker is SFM start_index 17949 end_index 17958 start_price 20.4 end_price 19.56 ticker is SFM start_index 18030 end_index 18039 start_price 21.48 end_price 23.23 ticker is SFM start_index 18079 end_index 18088 start_price 25.87 end_price 26.3 appending SFM ticker is SFS start_index 18209 end_index 18218 start_price 15.49 end_price 15.66 ticker is SFS start_index 18296 end_index 18305 start_price 18.4 end_price 18.69 ticker is SFS start_index 18320 end_index 18329 start_price 17.87 end_price 17.03 ticker is SFS start_index 18379 end_index 18388 start price 17.79 end price 17.17 ticker is SFS start_index 18458 end_index 18467 start price 14.6 end price 17.36 ticker is SFS start_index 18541 end_index 18550 start_price 15.8 end_price 15.79 ticker is SFS start_index 18576 end_index 18585 start_price 16.03 end_price 15.67 ticker is SFS start_index 18636 end_index 18645 start_price 15.03 end_price 14.0 ticker is SFS start_index 18714 end_index 18723 start_price 13.45 end_price 13.5 ticker is SFS start_index 18795 end_index 18804 start_price 11.55 end_price 12.0 ticker is SFS start_index 18828 end_index 18837 start_price 11.65 end_price 13.3 ticker is SFS start index 18885 end index 18894 start_price 8.1 end_price 8.3 ticker is SFS start_index 18965 end_index 18974 start_price 7.25 end_price 9.15 ticker is SFS start_index 19046 end_index 19055 start_price 6.0 end_price 5.65 ticker is SFS start_index 19079 end_index 19088 start_price 5.3 end_price 4.85 ticker is SFS start_index 19137 end_index 19146 start_price 5.5 end_price 5.75 ticker is SFS start_index 19216 end_index 19225 start_price 4.95 end_price 6.47 ticker is SFS start_index 19296 end_index 19305 start_price 5.26 end_price 5.12

ticker is SFS start_index 19330 end_index 19339 start_price 6.52 end_price 6.58 appending SFS

ticker is SWY start_index 19378 end_index 19387 start price 15.26 end price 15.45

ticker is SWY start_index 19437 end_index 19446 start_price 15.67 end_price 16.38

ticker is SWY start_index 19525 end_index 19534 start_price 22.76 end_price 23.6

ticker is SWY start_index 19569 end_index 19578 start_price 23.51 end_price 24.46

ticker is SWY start_index 19628 end_index 19637 start_price 25.57 end_price 25.1

ticker is SWY start_index 19687 end_index 19696 start_price 32.74 end_price 35.85

ticker is SWY start_index 19777 end_index 19786 start_price 37.13 end_price 38.88

ticker is SWY start_index 19821 end_index 19830 start_price 34.08 end_price 34.38

ticker is SWY start_index 19878 end_index 19887 start_price 34.82 end_price 34.38

ticker is SWY start_index 19938 end_index 19947 start_price 33.97 end_price 34.09

appending SWY

ticker is TFM start_index 20057 end_index 20066 start_price 58.34 end_price 57.54

ticker is TFM start_index 20119 end_index 20128 start_price 50.7 end_price 50.77

ticker is TFM start_index 20194 end_index 20203 start_price 42.7 end_price 40.18

ticker is TFM start_index 20243 end_index 20252 start_price 50.26 end_price 52.74

ticker is TFM start_index 20307 end_index 20316 start_price 49.7 end_price 49.69

ticker is TFM start_index 20364 end_index 20373 start_price 39.97 end_price 41.14

ticker is TFM start_index 20442 end_index 20451 start_price 34.18 end_price 36.83

ticker is TFM start_index 20493 end_index 20502 start_price 32.95 end_price 35.39

ticker is TFM start_index 20557 end_index 20566 start_price 33.73 end_price 34.26

ticker is TFM start_index 20621 end_index 20630 start_price 39.53 end_price 39.58

ticker is TFM start_index 20694 end_index 20703 start_price 41.09 end_price 41.17

ticker is TFM start_index 20740 end_index 20749 start_price 32.43 end_price 32.25

```
ticker is TFM start_index 20804 end_index 20813
start_price 19.91 end_price 22.495
ticker is TFM start_index 20870 end_index 20879
start_price 23.98 end_price 23.98
ticker is TFM start index 20947 end index 20956
start_price 28.47 end_price 28.42
appending TFM
ticker is VLGEA start_index 21041 end_index 21050
start_price 34.06 end_price 35.22
ticker is VLGEA start_index 21079 end_index 21088
start_price 37.11 end_price 34.16
ticker is VLGEA start_index 21140 end_index 21149
start_price 34.1 end_price 33.29
ticker is VLGEA start_index 21203 end_index 21212
start_price 36.37 end_price 34.99
ticker is VLGEA start_index 21290 end_index 21299
start_price 34.85 end_price 34.87
ticker is VLGEA start_index 21330 end_index 21339
start_price 38.45 end_price 30.8
ticker is VLGEA start index 21390 end index 21399
start_price 27.32 end_price 28.83
ticker is VLGEA start_index 21454 end_index 21463
start_price 22.89 end_price 24.21
ticker is VLGEA start_index 21542 end_index 21551
start_price 23.46 end_price 24.55
ticker is VLGEA start_index 21581 end_index 21590
start_price 24.04 end_price 24.45
ticker is VLGEA start_index 21642 end_index 21651
start_price 27.66 end_price 29.97
ticker is VLGEA start_index 21705 end_index 21714
start_price 32.29 end_price 30.4
ticker is VLGEA start_index 21793 end_index 21802
start_price 25.39 end_price 24.08
ticker is VLGEA start_index 21833 end_index 21842
start price 25.61 end price 25.37
ticker is VLGEA start_index 21893 end_index 21902
start_price 26.41 end_price 24.27
ticker is VLGEA start_index 21957 end_index 21966
start_price 27.37 end_price 28.41
ticker is VLGEA start_index 22049 end_index 22058
start_price 31.72 end_price 31.425
ticker is VLGEA start_index 22088 end_index 22097
start_price 35.63 end_price 32.81
ticker is VLGEA start_index 22150 end_index 22159
start_price 27.06 end_price 26.54
ticker is VLGEA start_index 22212 end_index 22221
start_price 25.07 end_price 25.29
ticker is VLGEA start_index 22301 end_index 22310
```

```
start_price 24.9 end_price 24.23
ticker is VLGEA start_index 22338 end_index 22347
start_price 25.44 end_price 23.27
ticker is VLGEA start_index 22401 end_index 22410
start price 24.07 end price 25.08
ticker is VLGEA start_index 22464 end_index 22473
start_price 28.29 end_price 29.35
ticker is VLGEA start_index 22552 end_index 22561
start_price 24.9 end_price 25.16
ticker is VLGEA start_index 22590 end_index 22599
start_price 25.44 end_price 26.06
ticker is VLGEA start_index 22650 end_index 22659
start_price 31.5 end_price 28.96
ticker is VLGEA start_index 22712 end_index 22721
start_price 26.18 end_price 26.22
ticker is VLGEA start_index 22802 end_index 22811
start_price 26.27 end_price 26.02
ticker is VLGEA start_index 22841 end_index 22850
start_price 25.79 end_price 24.07
ticker is VLGEA start index 22902 end index 22911
start_price 21.35 end_price 23.69
ticker is VLGEA start_index 22965 end_index 22974
start_price 25.46 end_price 26.89
ticker is VLGEA start_index 23053 end_index 23062
start_price 24.32 end_price 23.19
ticker is VLGEA start_index 23092 end_index 23101
start_price 23.13 end_price 22.76
ticker is VLGEA start_index 23153 end_index 23162
start_price 23.88 end_price 25.24
appending VLGEA
ticker is WFM start_index 23312 end_index 23321
start_price 46.455 end_price 47.23
ticker is WFM start_index 23387 end_index 23396
start_price 46.7119999999999 end_price 46.035
ticker is WFM start index 23449 end index 23458
start_price 42.465 end_price 42.745
ticker is WFM start_index 23508 end_index 23517
start_price 51.02 end_price 53.17
ticker is WFM start_index 23566 end_index 23575
start_price 55.9 end_price 52.2
ticker is WFM start_index 23640 end_index 23649
start_price 56.48 end_price 55.61
ticker is WFM start_index 23700 end_index 23709
start_price 52.35 end_price 54.16
ticker is WFM start_index 23759 end_index 23768
start_price 38.76 end_price 38.1
ticker is WFM start_index 23817 end_index 23826
start_price 37.35 end_price 38.19
```

ticker is WFM start_index 23891 end_index 23900 start_price 47.69 end_price 48.91

ticker is WFM start_index 23956 end_index 23965 start_price 56.73 end_price 54.09

ticker is WFM start_index 24010 end_index 24019 start_price 42.9 end_price 42.23

ticker is WFM start_index 24068 end_index 24077 start_price 34.84 end_price 32.79

ticker is WFM start_index 24137 end_index 24146 start_price 29.91 end_price 29.84

ticker is WFM start_index 24207 end_index 24216 start_price 30.86 end_price 33.92

ticker is WFM start_index 24261 end_index 24270 start_price 30.51 end_price 32.06

ticker is WFM start_index 24319 end_index 24328 start_price 30.39 end_price 30.22

ticker is WFM start_index 24393 end_index 24402 start_price 30.94 end_price 30.91

ticker is WFM start_index 24453 end_index 24462 start price 30.72 end price 30.62

ticker is WFM start_index 24517 end_index 24526 start_price 36.15 end_price 35.21

ticker is WFM start_index 24570 end_index 24579 start_price 41.84 end_price 41.75

appending WFM

ticker is WMK start_index 24614 end_index 24623 start_price 43.27 end_price 43.89

ticker is WMK start_index 24676 end_index 24685 start_price 40.38 end_price 38.45

ticker is WMK start_index 24761 end_index 24770 start_price 41.02 end_price 40.7

ticker is WMK start_index 24800 end_index 24809 start_price 42.49 end_price 42.51

ticker is WMK start_index 24863 end_index 24872 start price 50.81 end price 48.24

ticker is WMK start_index 24927 end_index 24936 start_price 49.21 end_price 49.18

ticker is WMK start_index 25013 end_index 25022 start_price 49.49 end_price 48.68

ticker is WMK start_index 25051 end_index 25060
start_price 45.2 end_price 43.65

ticker is WMK start_index 25114 end_index 25123 start_price 43.43 end_price 43.1

ticker is WMK start_index 25178 end_index 25187 start_price 44.63 end_price 43.96

ticker is WMK start_index 25264 end_index 25273 start_price 50.36 end_price 49.42

ticker is WMK start_index 25298 end_index 25307

start_price 44.35 end_price 43.66 ticker is WMK start_index 25363 end_index 25372 start_price 42.01 end_price 43.12 ticker is WMK start_index 25497 end_index 25506 start price 38.92 end price 41.14 ticker is WMK start_index 25520 end_index 25529 start_price 43.38 end_price 45.06 ticker is WMK start_index 25553 end_index 25562 start_price 45.43 end_price 46.4 ticker is WMK start_index 25611 end_index 25620 start_price 51.55 end_price 51.6 ticker is WMK start_index 25680 end_index 25689 start_price 56.51 end_price 63.38 ticker is WMK start_index 25770 end_index 25779 start_price 59.08 end_price 58.84 ticker is WMK start_index 25809 end_index 25818 start_price 57.79 end_price 57.82 ticker is WMK start_index 25872 end_index 25881 start_price 44.49 end_price 45.03 ticker is WMK start index 25934 end index 25943 start_price 34.0 end_price 36.88 ticker is WMK start_index 26021 end_index 26030 start_price 38.37 end_price 38.98 ticker is WMK start_index 26060 end_index 26069 start_price 48.03 end_price 51.93 ticker is WMK start_index 26122 end_index 26131 start_price 48.66 end_price 47.58 ticker is WMK start_index 26187 end_index 26196 start_price 46.46 end_price 45.81 ticker is WMK start_index 26271 end_index 26280 start_price 40.5 end_price 41.23 ticker is WMK start_index 26310 end_index 26319 start_price 38.77 end_price 38.52 ticker is WMK start_index 26371 end_index 26380 start price 37.6 end price 38.84 ticker is WMK start_index 26434 end_index 26443 start_price 38.87 end_price 40.93 ticker is WMK start_index 26522 end_index 26531 start_price 36.39 end_price 37.64 ticker is WMK start_index 26561 end_index 26570 start_price 54.64 end_price 55.71 ticker is WMK start_index 26623 end_index 26632 start_price 51.17 end_price 51.13 ticker is WMK start_index 26688 end_index 26697 start_price 46.35 end_price 48.19 ticker is WMK start_index 26773 end_index 26782 start_price 58.85 end_price 56.68 ticker is WMK start_index 26812 end_index 26821 start_price 52.64 end_price 54.36 appending WMK ticker is ACI start_index 25 end_index 35 start_price 14.83 end_price 14.93 ticker is ACI start index 80 end index 90 start_price 15.22 end_price 15.22 ticker is ACI start index 137 end index 147 start_price 17.1 end_price 20.42 ticker is ACI start_index 209 end_index 219 start_price 18.11 end_price 19.49 appending ACI ticker is ARDNA start_index 330 end_index 340 start_price 82.6 end_price 89.95 ticker is ARDNA start_index 394 end_index 404 start_price 95.88 end_price 99.45 ticker is ARDNA start_index 478 end_index 488 start_price 98.31 end_price 100.6 ticker is ARDNA start_index 519 end_index 529 start_price 98.65 end_price 102.12 ticker is ARDNA start index 583 end index 593 start_price 132.78 end_price 130.39 ticker is ARDNA start index 647 end index 657 start_price 129.85 end_price 124.4 appending ARDNA ticker is ASAI start_index 754 end_index 764 start_price 14.81 end_price 15.9 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3098 start_price 17.35 end_price 17.43 ticker is FWMHQ start_index 3122 end_index 3132 start_price 20.73 end_price 25.24 ticker is FWMHQ start_index 3166 end_index 3176 start_price 25.83 end_price 23.31 ticker is FWMHQ start index 3230 end index 3240 start_price 25.46 end_price 19.31 ticker is FWMHQ start index 3291 end index 3301 start_price 11.14 end_price 7.57 ticker is FWMHQ start_index 3368 end_index 3378 start_price 6.75 end_price 6.51 ticker is FWMHQ start_index 3417 end_index 3427 start_price 5.74 end_price 4.44 ticker is FWMHQ start_index 3481 end_index 3491 start_price 2.59 end_price 2.89 ticker is FWMHQ start_index 3542 end_index 3552 start_price 5.02 end_price 5.94 ticker is FWMHQ start_index 3617 end_index 3627 start_price 4.63 end_price 3.83

ticker is FWMHQ start_index 3666 end_index 3676 start_price 3.02 end_price 2.42 ticker is FWMHQ start_index 3727 end_index 3737 start_price 1.71 end_price 1.16 ticker is FWMHQ start index 3794 end index 3804 start_price 0.499 end_price 0.38 appending FWMHQ ticker is GO start_index 3900 end_index 3910 start_price 28.51 end_price 33.03 ticker is GO start_index 3936 end_index 3946 start_price 37.54 end_price 42.8 ticker is GO start_index 3972 end_index 3982 start_price 33.01 end_price 33.51 ticker is GO start_index 4000 end_index 4010 start_price 31.0 end_price 31.77 ticker is GO start_index 4050 end_index 4060 start_price 35.43 end_price 30.96 ticker is GO start_index 4091 end_index 4101 start_price 33.2 end_price 36.74 ticker is GO start index 4124 end index 4134 start_price 36.67 end_price 37.05 ticker is GO start_index 4187 end_index 4197 start_price 44.33 end_price 41.62 ticker is GO start_index 4251 end_index 4261 start_price 41.21 end_price 38.46 ticker is GO start_index 4326 end_index 4336 start_price 35.91 end_price 37.24 ticker is GO start_index 4376 end_index 4386 start_price 40.54 end_price 33.88 appending GO ticker is HTSI start_index 4491 end_index 4501 start_price 41.53 end_price 40.23 ticker is HTSI start_index 4562 end_index 4572 start_price 36.17 end_price 38.81 ticker is HTSI start index 4614 end index 4624 start_price 36.95 end_price 42.12 ticker is HTSI start_index 4676 end_index 4686 start_price 45.29 end_price 46.5 ticker is HTSI start_index 4740 end_index 4750 start_price 49.2 end_price 49.14 ticker is HTSI start_index 4820 end_index 4830 start_price 49.38 end_price 49.37 appending HTSI ticker is IFMK start_index 4953 end_index 4963 start_price 11.99 end_price 12.908 ticker is IFMK start_index 4984 end_index 4994 start_price 12.81 end_price 12.77 ticker is IFMK start_index 5049 end_index 5059

```
start_price 11.13 end_price 10.82
ticker is IFMK start_index 5111 end_index 5121
start_price 11.92 end_price 11.15
ticker is IFMK start_index 5205 end_index 5215
start price 5.5 end price 5.064
ticker is IFMK start_index 5236 end_index 5246
start_price 3.8 end_price 3.21
ticker is IFMK start_index 5301 end_index 5311
start_price 1.4 end_price 1.09
ticker is IFMK start_index 5362 end_index 5372
start_price 1.07 end_price 1.32
ticker is IFMK start_index 5455 end_index 5465
start_price 1.2 end_price 1.51
ticker is IFMK start_index 5487 end_index 5497
start_price 2.27 end_price 1.63
ticker is IFMK start_index 5552 end_index 5562
start_price 0.375 end_price 0.385
ticker is IFMK start_index 5614 end_index 5624
start_price 0.4220000000000004 end_price 0.389
ticker is IFMK start index 5739 end index 5749
start price 0.939000000000001 end price 0.939000000000001
ticker is IFMK start index 5744 end index 5754
start\_price 0.9 end\_price 0.92
ticker is IFMK start_index 5810 end_index 5820
start_price 0.859000000000001 end_price 0.85
ticker is IFMK start_index 5830 end_index 5840
ticker is IFMK start_index 5870 end_index 5880
start_price 1.95 end_price 1.36
appending IFMK
ticker is IMKTA start_index 6035 end_index 6045
start_price 16.36 end_price 16.34
ticker is IMKTA start_index 6135 end_index 6145
start_price 17.2 end_price 17.31
ticker is IMKTA start index 6164 end index 6174
start_price 19.3 end_price 19.49
ticker is IMKTA start_index 6226 end_index 6236
start_price 21.46 end_price 21.54
ticker is IMKTA start_index 6288 end_index 6298
start_price 25.69 end_price 25.03
ticker is IMKTA start_index 6378 end_index 6388
start_price 24.41 end_price 27.38
ticker is IMKTA start_index 6413 end_index 6423
start_price 24.02 end_price 23.34
ticker is IMKTA start_index 6476 end_index 6486
start_price 26.07 end_price 27.51
ticker is IMKTA start_index 6541 end_index 6551
start_price 24.47 end_price 25.0
```

ticker is IMKTA start_index 6632 end_index 6642 start_price 32.08 end_price 37.14 ticker is IMKTA start_index 6666 end_index 6676 start_price 44.06 end_price 43.87 ticker is IMKTA start_index 6728 end_index 6738 start_price 40.87 end_price 50.68 ticker is IMKTA start index 6790 end index 6800 start_price 49.9 end_price 55.9 ticker is IMKTA start_index 6880 end_index 6890 start_price 53.84 end_price 44.84 ticker is IMKTA start_index 6917 end_index 6927 start_price 36.2 end_price 34.97 ticker is IMKTA start_index 6980 end_index 6990 start_price 36.73 end_price 36.71 ticker is IMKTA start_index 7042 end_index 7052 start_price 36.86 end_price 36.71 ticker is IMKTA start_index 7137 end_index 7147 start_price 48.05 end_price 48.1 ticker is IMKTA start_index 7167 end_index 7177 start price 45.25 end price 46.6 ticker is IMKTA start_index 7230 end_index 7240 start_price 45.85 end_price 39.25 ticker is IMKTA start_index 7293 end_index 7303 start_price 29.5 end_price 27.15 ticker is IMKTA start_index 7381 end_index 7391 start_price 27.7 end_price 34.75 ticker is IMKTA start_index 7424 end_index 7434 start_price 30.55 end_price 32.0 ticker is IMKTA start_index 7486 end_index 7496 start_price 30.95 end_price 29.65 ticker is IMKTA start_index 7550 end_index 7560 start_price 29.55 end_price 35.1 ticker is IMKTA start_index 7633 end_index 7643 start_price 28.1 end_price 27.64 ticker is IMKTA start index 7674 end index 7684 start_price 28.96 end_price 29.92 ticker is IMKTA start_index 7736 end_index 7746 start_price 27.45 end_price 30.95 ticker is IMKTA start_index 7800 end_index 7810 start_price 31.75 end_price 37.01 ticker is IMKTA start_index 7886 end_index 7896 start_price 43.48 end_price 47.84 ticker is IMKTA start_index 7925 end_index 7935 start_price 42.76 end_price 35.9 ticker is IMKTA start_index 7988 end_index 7998 start_price 37.61 end_price 42.65 ticker is IMKTA start_index 8051 end_index 8061 start_price 39.9 end_price 43.91

ticker is IMKTA start_index 8137 end_index 8147 start_price 37.41 end_price 40.52 ticker is IMKTA start_index 8176 end_index 8186 start_price 47.26 end_price 50.93 ticker is IMKTA start index 8238 end index 8248 start_price 62.74 end_price 62.17 appending IMKTA ticker is KR start_index 8385 end_index 8395 start_price 11.905 end_price 11.89 ticker is KR start_index 8442 end_index 8452 start_price 13.325 end_price 13.17 ticker is KR start_index 8517 end_index 8527 start_price 16.27 end_price 16.36 ticker is KR start_index 8579 end_index 8589 start_price 17.355 end_price 18.815 ticker is KR start_index 8639 end_index 8649 start_price 20.24 end_price 19.95 ticker is KR start_index 8696 end_index 8706 start_price 19.995 end_price 19.77 ticker is KR start index 8769 end index 8779 start_price 21.825 end_price 22.29 ticker is KR start_index 8832 end_index 8842 start_price 24.715 end_price 24.665 ticker is KR start_index 8890 end_index 8900 start_price 26.015 end_price 26.51 ticker is KR start_index 8949 end_index 8959 start_price 30.765 end_price 32.255 ticker is KR start_index 9020 end_index 9030 start_price 38.62 end_price 37.61 ticker is KR start_index 9083 end_index 9093 start_price 36.335 end_price 38.2 ticker is KR start_index 9141 end_index 9151 start_price 36.66 end_price 38.07 ticker is KR start_index 9202 end_index 9212 start price 42.43 end price 41.83 ticker is KR start_index 9270 end_index 9280 start_price 38.06 end_price 37.17 ticker is KR start_index 9334 end_index 9344 start_price 36.62 end_price 37.39 ticker is KR start_index 9392 end_index 9402 start_price 30.79 end_price 29.28 ticker is KR start_index 9451 end_index 9461 start_price 34.22 end_price 35.17 ticker is KR start_index 9522 end_index 9532 start_price 28.93 end_price 30.19 ticker is KR start_index 9585 end_index 9595 start_price 22.61 end_price 22.63 ticker is KR start_index 9641 end_index 9651

start_price 21.26 end_price 20.26 ticker is KR start_index 9700 end_index 9710 start_price 26.53 end_price 27.55 ticker is KR start_index 9777 end_index 9787 start price 23.28 end price 24.17 ticker is KR start_index 9839 end_index 9849 start_price 28.43 end_price 28.05 ticker is KR start_index 9899 end_index 9909 start_price 29.61 end_price 29.35 ticker is KR start_index 9957 end_index 9967 start_price 28.92 end_price 27.3 ticker is KR start_index 10028 end_index 10038 start_price 24.48 end_price 25.47 ticker is KR start_index 10089 end_index 10099 start_price 21.39 end_price 21.89 ticker is KR start_index 10149 end_index 10159 start_price 25.72 end_price 24.84 ticker is KR start_index 10208 end_index 10218 start_price 28.31 end_price 28.99 ticker is KR start index 10280 end index 10290 start_price 30.12 end_price 32.03 ticker is KR start_index 10340 end_index 10350 start_price 32.78 end_price 33.44 ticker is KR start_index 10400 end_index 10410 start_price 33.46 end_price 34.53 ticker is KR start_index 10459 end_index 10469 start_price 31.3 end_price 31.46 ticker is KR start_index 10530 end_index 10540 start_price 37.95 end_price 37.58 appending KR ticker is NGVC start_index 10745 end_index 10755 start_price 19.38 end_price 18.99 ticker is NGVC start_index 10747 end_index 10757 start_price 19.59 end_price 19.09 ticker is NGVC start index 10777 end index 10787 start_price 20.32 end_price 22.63 ticker is NGVC start index 10845 end index 10855 start_price 25.03 end_price 28.0 ticker is NGVC start_index 10907 end_index 10917 start_price 35.4 end_price 33.13 ticker is NGVC start_index 10996 end_index 11006 start_price 37.94 end_price 41.93 ticker is NGVC start_index 11028 end_index 11038 start_price 33.51 end_price 38.45 ticker is NGVC start_index 11091 end_index 11101 start_price 35.6 end_price 22.98 ticker is NGVC start_index 11154 end_index 11164 start_price 23.88 end_price 19.11

```
ticker is NGVC start_index 11247 end_index 11257
start_price 25.45 end_price 26.39
ticker is NGVC start_index 11279 end_index 11289
start_price 28.06 end_price 30.43
ticker is NGVC start index 11347 end index 11357
start_price 26.87 end_price 25.78
ticker is NGVC start index 11405 end index 11415
start_price 22.29 end_price 24.9
ticker is NGVC start_index 11498 end_index 11508
start_price 20.11 end_price 20.94
ticker is NGVC start_index 11530 end_index 11540
start_price 20.67 end_price 17.09
ticker is NGVC start_index 11598 end_index 11608
start_price 13.09 end_price 12.98
ticker is NGVC start_index 11656 end_index 11666
start_price 13.49 end_price 12.21
ticker is NGVC start_index 11749 end_index 11759
start_price 11.69 end_price 12.65
ticker is NGVC start_index 11786 end_index 11796
start price 12.54 end price 12.37
ticker is NGVC start_index 11849 end_index 11859
start price 10.7 end price 9.39
ticker is NGVC start_index 11912 end_index 11922
start_price 8.61 end_price 6.01
ticker is NGVC start_index 12000 end_index 12010
start_price 8.3 end_price 8.75
ticker is NGVC start_index 12037 end_index 12047
start_price 8.6 end_price 6.9
ticker is NGVC start_index 12100 end_index 12110
start_price 7.19 end_price 10.88
ticker is NGVC start_index 12163 end_index 12173
start_price 12.54 end_price 19.31
ticker is NGVC start_index 12250 end_index 12260
start_price 17.5 end_price 17.12
ticker is NGVC start index 12292 end index 12302
start_price 14.0 end_price 14.36
ticker is NGVC start index 12350 end index 12360
start_price 12.16 end_price 12.14
ticker is NGVC start_index 12413 end_index 12423
start_price 9.17 end_price 9.03
ticker is NGVC start_index 12501 end_index 12511
start_price 9.32 end_price 9.74
ticker is NGVC start_index 12543 end_index 12553
start_price 9.35 end_price 8.21
ticker is NGVC start_index 12606 end_index 12616
start_price 10.72 end_price 14.12
ticker is NGVC start_index 12669 end_index 12679
start_price 16.06 end_price 14.25
```

```
ticker is NGVC start_index 12757 end_index 12767
start_price 13.8 end_price 13.25
ticker is NGVC start_index 12794 end_index 12804
start_price 16.18 end_price 15.06
ticker is NGVC start index 12857 end index 12867
start_price 16.08 end_price 11.6
appending NGVC
ticker is QKLS start_index 12979 end_index 12989
start_price 8.08 end_price 6.64
ticker is QKLS start_index 13042 end_index 13052
start_price 5.12 end_price 6.8
ticker is QKLS start_index 13144 end_index 13154
start_price 5.98 end_price 3.65
ticker is QKLS start_index 13165 end_index 13175
start_price 3.43 end_price 4.15
ticker is QKLS start_index 13229 end_index 13239
start_price 6.2 end_price 4.51
ticker is QKLS start_index 13294 end_index 13304
start_price 4.55 end_price 4.56
ticker is QKLS start index 13390 end index 13400
start_price 4.33 end_price 3.88
ticker is QKLS start_index 13418 end_index 13428
start_price 3.71 end_price 3.67
ticker is QKLS start_index 13481 end_index 13491
start_price 3.37 end_price 3.37
ticker is QKLS start_index 13546 end_index 13556
start_price 2.31 end_price 2.17
ticker is QKLS start_index 13648 end_index 13658
start_price 3.15 end_price 2.37
ticker is QKLS start_index 13670 end_index 13680
start_price 3.1 end_price 2.29
ticker is QKLS start_index 13734 end_index 13744
start_price 1.64 end_price 1.25
ticker is QKLS start_index 13798 end_index 13808
start price 0.9 end price 0.82
ticker is QKLS start_index 13900 end_index 13910
start_price 0.66 end_price 0.47
appending QKLS
ticker is RNDY start_index 15282 end_index 15292
start_price 7.71 end_price 7.76
ticker is RNDY start_index 15345 end_index 15355
start_price 4.24 end_price 4.43
ticker is RNDY start_index 15433 end_index 15443
start_price 6.74 end_price 6.56
ticker is RNDY start_index 15467 end_index 15477
start_price 7.33 end_price 7.43
ticker is RNDY start_index 15530 end_index 15540
start_price 8.57 end_price 8.77
```

```
ticker is RNDY start_index 15594 end_index 15604
start_price 9.15 end_price 8.36
ticker is RNDY start_index 15674 end_index 15684
start_price 6.08 end_price 6.33
ticker is RNDY start index 15716 end index 15726
start_price 6.65 end_price 4.86
ticker is RNDY start index 15779 end index 15789
start_price 4.78 end_price 3.62
ticker is RNDY start_index 15843 end_index 15853
start_price 3.45 end_price 3.46
ticker is RNDY start_index 15930 end_index 15940
start_price 4.48 end_price 4.89
ticker is RNDY start_index 15972 end_index 15982
start_price 4.65 end_price 3.58
ticker is RNDY start_index 16035 end_index 16045
start_price 2.46 end_price 2.24
ticker is RNDY start_index 16100 end_index 16110
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start index 16141 end index 16151
start_price 38.59 end_price 38.84
ticker is SFM start_index 16194 end_index 16204
start_price 48.04 end_price 38.18
ticker is SFM start_index 16201 end_index 16211
start_price 43.05 end_price 38.2
ticker is SFM start_index 16269 end_index 16279
start_price 36.85 end_price 38.12
ticker is SFM start_index 16281 end_index 16291
start_price 37.95 end_price 36.47
ticker is SFM start_index 16317 end_index 16327
start_price 31.09 end_price 27.77
ticker is SFM start_index 16381 end_index 16391
start_price 31.75 end_price 29.73
ticker is SFM start_index 16445 end_index 16455
start price 30.69 end price 31.43
ticker is SFM start_index 16520 end_index 16530
start_price 37.09 end_price 34.33
ticker is SFM start_index 16569 end_index 16579
start_price 31.06 end_price 29.895
ticker is SFM start_index 16632 end_index 16642
start_price 24.03 end_price 20.95
ticker is SFM start_index 16696 end_index 16706
start_price 19.88 end_price 24.61
ticker is SFM start_index 16771 end_index 16781
start_price 25.21 end_price 27.7
ticker is SFM start_index 16820 end_index 16830
start_price 27.38 end_price 24.02
ticker is SFM start_index 16883 end_index 16893
```

start_price 23.25 end_price 22.38 ticker is SFM start_index 16947 end_index 16957 start_price 22.57 end_price 21.79 ticker is SFM start_index 17022 end_index 17032 start price 19.0 end price 17.92 ticker is SFM start_index 17071 end_index 17081 start_price 22.75 end_price 23.7 ticker is SFM start_index 17134 end_index 17144 start_price 23.98 end_price 24.18 ticker is SFM start_index 17198 end_index 17208 start_price 18.87 end_price 20.22 ticker is SFM start_index 17273 end_index 17283 start_price 26.12 end_price 25.21 ticker is SFM start_index 17322 end_index 17332 start_price 24.39 end_price 22.35 ticker is SFM start_index 17385 end_index 17395 start_price 21.2 end_price 23.9 ticker is SFM start_index 17449 end_index 17459 start_price 26.89 end_price 28.56 ticker is SFM start index 17523 end index 17533 start_price 24.14 end_price 23.03 ticker is SFM start_index 17572 end_index 17582 start_price 21.29 end_price 21.41 ticker is SFM start_index 17635 end_index 17645 start_price 16.93 end_price 17.1 ticker is SFM start_index 17699 end_index 17709 start_price 18.75 end_price 19.87 ticker is SFM start_index 17774 end_index 17784 start_price 15.86 end_price 16.82 ticker is SFM start_index 17826 end_index 17836 start_price 21.76 end_price 25.14 ticker is SFM start_index 17885 end_index 17895 start_price 27.02 end_price 23.71 ticker is SFM start_index 17949 end_index 17959 start price 20.4 end price 20.01 ticker is SFM start_index 18030 end_index 18040 start_price 21.48 end_price 24.1 ticker is SFM start_index 18079 end_index 18089 start_price 25.87 end_price 25.42 appending SFM ticker is SFS start_index 18209 end_index 18219 start_price 15.49 end_price 14.9 ticker is SFS start_index 18296 end_index 18306 start_price 18.4 end_price 19.15 ticker is SFS start_index 18320 end_index 18330 start_price 17.87 end_price 17.22 ticker is SFS start_index 18379 end_index 18389 start_price 17.79 end_price 17.29

ticker is SFS start_index 18458 end_index 18468 start_price 14.6 end_price 17.59

ticker is SFS start_index 18541 end_index 18551 start_price 15.8 end_price 16.25

ticker is SFS start_index 18576 end_index 18586 start_price 16.03 end_price 15.49

ticker is SFS start_index 18636 end_index 18646 start_price 15.03 end_price 14.08

ticker is SFS start_index 18714 end_index 18724 start_price 13.45 end_price 13.25

ticker is SFS start_index 18795 end_index 18805 start_price 11.55 end_price 12.05

ticker is SFS start_index 18828 end_index 18838 start_price 11.65 end_price 13.3

ticker is SFS start_index 18885 end_index 18895 start_price 8.1 end_price 8.3

ticker is SFS start_index 18965 end_index 18975 start_price 7.25 end_price 9.15

ticker is SFS start_index 19046 end_index 19056 start price 6.0 end price 5.55

ticker is SFS start_index 19079 end_index 19089 start price 5.3 end price 4.95

ticker is SFS start_index 19137 end_index 19147 start_price 5.5 end_price 6.2

ticker is SFS start_index 19216 end_index 19226

start_price 4.95 end_price 6.5
ticker is SFS start_index 19296 end_index 19306

start_price 5.26 end_price 4.99
ticker is SFS start_index 19330 end_index 19340
start_price 6.52 end_price 6.55

appending SFS

ticker is SWY start_index 19378 end_index 19388 start_price 15.26 end_price 15.83

ticker is SWY start_index 19437 end_index 19447 start price 15.67 end price 16.31

ticker is SWY start_index 19525 end_index 19535 start price 22.76 end price 23.31

ticker is SWY start_index 19569 end_index 19579 start_price 23.51 end_price 24.65

ticker is SWY start_index 19628 end_index 19638 start_price 25.57 end_price 24.99

ticker is SWY start_index 19687 end_index 19697 start_price 32.74 end_price 35.47

ticker is SWY start_index 19777 end_index 19787 start_price 37.13 end_price 38.65

ticker is SWY start_index 19821 end_index 19831 start_price 34.08 end_price 34.37

ticker is SWY start_index 19878 end_index 19888

start_price 34.82 end_price 34.38 ticker is SWY start_index 19938 end_index 19948 start_price 33.97 end_price 34.13 appending SWY ticker is TFM start index 20057 end index 20067 start_price 58.34 end_price 58.35 ticker is TFM start index 20119 end index 20129 start_price 50.7 end_price 50.78 ticker is TFM start_index 20194 end_index 20204 start_price 42.7 end_price 39.9 ticker is TFM start_index 20243 end_index 20253 start_price 50.26 end_price 51.87 ticker is TFM start_index 20307 end_index 20317 start_price 49.7 end_price 48.75 ticker is TFM start_index 20364 end_index 20374 start_price 39.97 end_price 41.32 ticker is TFM start_index 20442 end_index 20452 start_price 34.18 end_price 36.58 ticker is TFM start_index 20493 end_index 20503 start price 32.95 end price 35.65 ticker is TFM start_index 20557 end_index 20567 start_price 33.73 end_price 35.62 ticker is TFM start_index 20621 end_index 20631 start_price 39.53 end_price 41.01 ticker is TFM start_index 20694 end_index 20704 start_price 41.09 end_price 40.65 ticker is TFM start_index 20740 end_index 20750 start_price 32.43 end_price 32.48 ticker is TFM start_index 20804 end_index 20814 start_price 19.91 end_price 23.57 ticker is TFM start_index 20870 end_index 20880 start_price 23.98 end_price 23.73 ticker is TFM start_index 20947 end_index 20957 start_price 28.47 end_price 28.4 appending TFM ticker is VLGEA start_index 21041 end_index 21051 start_price 34.06 end_price 35.09 ticker is VLGEA start_index 21079 end_index 21089 start_price 37.11 end_price 34.06 ticker is VLGEA start_index 21140 end_index 21150 start_price 34.1 end_price 33.42 ticker is VLGEA start_index 21203 end_index 21213 start_price 36.37 end_price 34.94 ticker is VLGEA start_index 21290 end_index 21300 start_price 34.85 end_price 35.35 ticker is VLGEA start_index 21330 end_index 21340 start_price 38.45 end_price 31.57 ticker is VLGEA start_index 21390 end_index 21400

```
start_price 27.32 end_price 28.98
ticker is VLGEA start_index 21454 end_index 21464
start_price 22.89 end_price 23.74
ticker is VLGEA start_index 21542 end_index 21552
start price 23.46 end price 24.8
ticker is VLGEA start_index 21581 end_index 21591
start_price 24.04 end_price 25.29
ticker is VLGEA start_index 21642 end_index 21652
start_price 27.66 end_price 30.23
ticker is VLGEA start_index 21705 end_index 21715
start_price 32.29 end_price 30.75
ticker is VLGEA start_index 21793 end_index 21803
start_price 25.39 end_price 24.16
ticker is VLGEA start_index 21833 end_index 21843
start_price 25.61 end_price 25.88
ticker is VLGEA start_index 21893 end_index 21903
start_price 26.41 end_price 24.24
ticker is VLGEA start_index 21957 end_index 21967
start_price 27.37 end_price 28.27
ticker is VLGEA start index 22049 end index 22059
start_price 31.72 end_price 31.03
ticker is VLGEA start_index 22088 end_index 22098
start_price 35.63 end_price 33.19
ticker is VLGEA start_index 22150 end_index 22160
start_price 27.06 end_price 26.19
ticker is VLGEA start_index 22212 end_index 22222
start_price 25.07 end_price 25.0
ticker is VLGEA start_index 22301 end_index 22311
start_price 24.9 end_price 24.22
ticker is VLGEA start_index 22338 end_index 22348
start_price 25.44 end_price 23.35
ticker is VLGEA start_index 22401 end_index 22411
start_price 24.07 end_price 25.43
ticker is VLGEA start_index 22464 end_index 22474
start price 28.29 end price 29.15
ticker is VLGEA start_index 22552 end_index 22562
start_price 24.9 end_price 25.28
ticker is VLGEA start_index 22590 end_index 22600
start_price 25.44 end_price 26.12
ticker is VLGEA start_index 22650 end_index 22660
start_price 31.5 end_price 27.86
ticker is VLGEA start_index 22712 end_index 22722
start_price 26.18 end_price 25.77
ticker is VLGEA start_index 22802 end_index 22812
start_price 26.27 end_price 26.23
ticker is VLGEA start_index 22841 end_index 22851
start_price 25.79 end_price 23.95
ticker is VLGEA start_index 22902 end_index 22912
```

start_price 21.35 end_price 22.3 ticker is VLGEA start_index 22965 end_index 22975 start_price 25.46 end_price 26.08 ticker is VLGEA start_index 23053 end_index 23063 start price 24.32 end price 23.4 ticker is VLGEA start_index 23092 end_index 23102 start_price 23.13 end_price 22.63 ticker is VLGEA start_index 23153 end_index 23163 start_price 23.88 end_price 24.66 appending VLGEA ticker is WFM start_index 23312 end_index 23322 start_price 46.455 end_price 47.965 ticker is WFM start_index 23387 end_index 23397 start_price 46.7119999999999 end_price 46.43 ticker is WFM start_index 23449 end_index 23459 start_price 42.465 end_price 43.015 ticker is WFM start_index 23508 end_index 23518 start_price 51.02 end_price 51.86 ticker is WFM start_index 23566 end_index 23576 start price 55.9 end price 52.86 ticker is WFM start_index 23640 end_index 23650 start price 56.48 end price 56.26 ticker is WFM start_index 23700 end_index 23710 start_price 52.35 end_price 53.89 ticker is WFM start_index 23759 end_index 23769 start_price 38.76 end_price 38.24 ticker is WFM start_index 23817 end_index 23827 start_price 37.35 end_price 37.92 ticker is WFM start_index 23891 end_index 23901 start_price 47.69 end_price 48.29 ticker is WFM start_index 23956 end_index 23966 start_price 56.73 end_price 54.61 ticker is WFM start_index 24010 end_index 24020 start_price 42.9 end_price 41.24 ticker is WFM start index 24068 end index 24078 start_price 34.84 end_price 32.85 ticker is WFM start_index 24137 end_index 24147 start_price 29.91 end_price 29.41 ticker is WFM start_index 24207 end_index 24217 start_price 30.86 end_price 33.07 ticker is WFM start_index 24261 end_index 24271 start_price 30.51 end_price 32.51 ticker is WFM start_index 24319 end_index 24329 start_price 30.39 end_price 30.21 ticker is WFM start_index 24393 end_index 24403 start_price 30.94 end_price 30.76 ticker is WFM start_index 24453 end_index 24463 start_price 30.72 end_price 30.46

ticker is WFM start_index 24517 end_index 24527 start_price 36.15 end_price 35.08

ticker is WFM start_index 24570 end_index 24580 start_price 41.84 end_price 41.73

appending WFM

ticker is WMK start_index 24614 end_index 24624 start price 43.27 end price 43.35

ticker is WMK start_index 24676 end_index 24686 start_price 40.38 end_price 38.54

ticker is WMK start_index 24761 end_index 24771 start_price 41.02 end_price 40.77

ticker is WMK start_index 24800 end_index 24810 start_price 42.49 end_price 42.0

ticker is WMK start_index 24863 end_index 24873 start_price 50.81 end_price 47.04

ticker is WMK start_index 24927 end_index 24937 start_price 49.21 end_price 48.85

ticker is WMK start_index 25013 end_index 25023 start_price 49.49 end_price 48.32

ticker is WMK start_index 25051 end_index 25061 start_price 45.2 end_price 43.99

ticker is WMK start_index 25114 end_index 25124 start_price 43.43 end_price 42.31

ticker is WMK start_index 25178 end_index 25188 start_price 44.63 end_price 43.97

ticker is WMK start_index 25264 end_index 25274 start_price 50.36 end_price 49.43

ticker is WMK start_index 25298 end_index 25308 start_price 44.35 end_price 44.0

ticker is WMK start_index 25363 end_index 25373 start_price 42.01 end_price 43.34

ticker is WMK start_index 25497 end_index 25507 start_price 38.92 end_price 41.63

ticker is WMK start_index 25520 end_index 25530 start price 43.38 end price 45.43

ticker is WMK start_index 25553 end_index 25563 start_price 45.43 end_price 46.6

ticker is WMK start_index 25611 end_index 25621 start_price 51.55 end_price 51.33

ticker is WMK start_index 25680 end_index 25690 start_price 56.51 end_price 62.29

ticker is WMK start_index 25770 end_index 25780 start_price 59.08 end_price 61.14

ticker is WMK start_index 25809 end_index 25819 start_price 57.79 end_price 54.86

ticker is WMK start_index 25872 end_index 25882 start_price 44.49 end_price 45.29

ticker is WMK start_index 25934 end_index 25944

start_price 34.0 end_price 37.84 ticker is WMK start_index 26021 end_index 26031 start_price 38.37 end_price 39.54 ticker is WMK start_index 26060 end_index 26070 start price 48.03 end price 52.62 ticker is WMK start_index 26122 end_index 26132 start_price 48.66 end_price 48.42 ticker is WMK start_index 26187 end_index 26197 start_price 46.46 end_price 45.82 ticker is WMK start_index 26271 end_index 26281 start_price 40.5 end_price 40.82 ticker is WMK start_index 26310 end_index 26320 start_price 38.77 end_price 38.6 ticker is WMK start_index 26371 end_index 26381 start_price 37.6 end_price 39.3 ticker is WMK start_index 26434 end_index 26444 start_price 38.87 end_price 40.48 ticker is WMK start_index 26522 end_index 26532 start_price 36.39 end_price 37.66 ticker is WMK start index 26561 end index 26571 start_price 54.64 end_price 55.94 ticker is WMK start_index 26623 end_index 26633 start_price 51.17 end_price 50.76 ticker is WMK start_index 26688 end_index 26698 start_price 46.35 end_price 47.73 ticker is WMK start_index 26773 end_index 26783 start_price 58.85 end_price 55.21 ticker is WMK start_index 26812 end_index 26822 start_price 52.64 end_price 52.58 appending WMK ticker is ACI start_index 25 end_index 36 start_price 14.83 end_price 15.07 ticker is ACI start_index 80 end_index 91 start_price 15.22 end_price 15.45 ticker is ACI start index 137 end index 148 start_price 17.1 end_price 17.58 ticker is ACI start_index 209 end_index 220 start_price 18.11 end_price 18.63 appending ACI ticker is ARDNA start_index 330 end_index 341 start_price 82.6 end_price 90.6 ticker is ARDNA start_index 394 end_index 405 start_price 95.88 end_price 102.5 ticker is ARDNA start_index 478 end_index 489 start_price 98.31 end_price 98.4 ticker is ARDNA start_index 519 end_index 530 start_price 98.65 end_price 102.7 ticker is ARDNA start_index 583 end_index 594

start_price 132.78 end_price 131.46 ticker is ARDNA start_index 647 end_index 658 start_price 129.85 end_price 126.9 appending ARDNA ticker is ASAI start index 754 end index 765 start_price 14.81 end_price 16.04 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3099 start_price 17.35 end_price 17.3 ticker is FWMHQ start_index 3122 end_index 3133 start_price 20.73 end_price 24.99 ticker is FWMHQ start_index 3166 end_index 3177 start_price 25.83 end_price 24.41 ticker is FWMHQ start_index 3230 end_index 3241 start_price 25.46 end_price 19.33 ticker is FWMHQ start_index 3291 end_index 3302 start_price 11.14 end_price 7.69 ticker is FWMHQ start_index 3368 end_index 3379 start price 6.75 end price 6.52 ticker is FWMHQ start_index 3417 end_index 3428 start price 5.74 end price 4.36 ticker is FWMHQ start_index 3481 end_index 3492 start_price 2.59 end_price 3.38 ticker is FWMHQ start_index 3542 end_index 3553 start_price 5.02 end_price 5.63 ticker is FWMHQ start_index 3617 end_index 3628 start_price 4.63 end_price 3.75 ticker is FWMHQ start_index 3666 end_index 3677 start_price 3.02 end_price 2.29 ticker is FWMHQ start_index 3727 end_index 3738 start_price 1.71 end_price 1.12 ticker is FWMHQ start_index 3794 end_index 3805 start_price 0.499 end_price 0.332999999999996 appending FWMHQ ticker is GO start_index 3900 end_index 3911 start price 28.51 end price 32.25 ticker is GO start_index 3936 end_index 3947 start_price 37.54 end_price 44.01 ticker is GO start_index 3972 end_index 3983 start_price 33.01 end_price 33.48 ticker is GO start_index 4000 end_index 4011 start_price 31.0 end_price 32.72 ticker is GO start_index 4050 end_index 4061 start_price 35.43 end_price 30.75 ticker is GO start_index 4091 end_index 4102 start_price 33.2 end_price 35.77 ticker is GO start_index 4124 end_index 4135

start_price 36.67 end_price 37.29 ticker is GO start_index 4187 end_index 4198 start_price 44.33 end_price 41.305 ticker is GO start_index 4251 end_index 4262 start price 41.21 end price 37.25 ticker is GO start_index 4326 end_index 4337 start_price 35.91 end_price 36.36 ticker is GO start_index 4376 end_index 4387 start_price 40.54 end_price 33.97 appending GO ticker is HTSI start_index 4491 end_index 4502 start_price 41.53 end_price 39.39 ticker is HTSI start_index 4562 end_index 4573 start_price 36.17 end_price 38.99 ticker is HTSI start_index 4614 end_index 4625 start_price 36.95 end_price 42.63 ticker is HTSI start_index 4676 end_index 4687 start_price 45.29 end_price 45.38 ticker is HTSI start_index 4740 end_index 4751 start price 49.2 end price 49.22 ticker is HTSI start_index 4820 end_index 4831 start_price 49.38 end_price 49.34 appending HTSI ticker is IFMK start_index 4953 end_index 4964 start_price 11.99 end_price 13.385 ticker is IFMK start_index 4984 end_index 4995 start_price 12.81 end_price 12.36 ticker is IFMK start_index 5049 end_index 5060 start_price 11.13 end_price 11.37 ticker is IFMK start_index 5111 end_index 5122 start_price 11.92 end_price 10.85 ticker is IFMK start_index 5205 end_index 5216 start_price 5.5 end_price 4.6 ticker is IFMK start_index 5236 end_index 5247 start price 3.8 end price 3.35 ticker is IFMK start_index 5301 end_index 5312 start_price 1.4 end_price 1.08 ticker is IFMK start_index 5362 end_index 5373 start_price 1.07 end_price 1.357 ticker is IFMK start_index 5455 end_index 5466 start_price 1.2 end_price 1.62 ticker is IFMK start_index 5487 end_index 5498 start_price 2.27 end_price 1.67 ticker is IFMK start_index 5552 end_index 5563 start_price 0.375 end_price 0.374 ticker is IFMK start_index 5614 end_index 5625 start_price 0.4220000000000000 end_price 0.387999999999999999 ticker is IFMK start_index 5739 end_index 5750

start_price 0.93900000000001 end_price 0.97 ticker is IFMK start_index 5744 end_index 5755 start_price 0.9 end_price 0.91 ticker is IFMK start_index 5810 end_index 5821 start price 0.859000000000001 end price 0.84 ticker is IFMK start_index 5830 end_index 5841 start price 0.82200000000001 end price 0.82 ticker is IFMK start_index 5870 end_index 5881 start_price 1.95 end_price 1.37 appending IFMK ticker is IMKTA start_index 6035 end_index 6046 start_price 16.36 end_price 16.42 ticker is IMKTA start_index 6135 end_index 6146 start_price 17.2 end_price 17.08 ticker is IMKTA start_index 6164 end_index 6175 start_price 19.3 end_price 19.6 ticker is IMKTA start_index 6226 end_index 6237 start_price 21.46 end_price 20.77 ticker is IMKTA start_index 6288 end_index 6299 start price 25.69 end price 24.99 ticker is IMKTA start_index 6378 end_index 6389 start_price 24.41 end_price 27.0 ticker is IMKTA start_index 6413 end_index 6424 start_price 24.02 end_price 23.24 ticker is IMKTA start_index 6476 end_index 6487 start_price 26.07 end_price 26.3 ticker is IMKTA start_index 6541 end_index 6552 start_price 24.47 end_price 24.91 ticker is IMKTA start_index 6632 end_index 6643 start_price 32.08 end_price 37.09 ticker is IMKTA start_index 6666 end_index 6677 start_price 44.06 end_price 42.91 ticker is IMKTA start_index 6728 end_index 6739 start_price 40.87 end_price 51.31 ticker is IMKTA start index 6790 end index 6801 start_price 49.9 end_price 54.315 ticker is IMKTA start_index 6880 end_index 6891 start_price 53.84 end_price 43.29 ticker is IMKTA start_index 6917 end_index 6928 start_price 36.2 end_price 34.14 ticker is IMKTA start_index 6980 end_index 6991 start_price 36.73 end_price 37.07 ticker is IMKTA start_index 7042 end_index 7053 start_price 36.86 end_price 36.63 ticker is IMKTA start_index 7137 end_index 7148 start_price 48.05 end_price 49.5 ticker is IMKTA start_index 7167 end_index 7178 start_price 45.25 end_price 46.85

ticker is IMKTA start_index 7230 end_index 7241 start_price 45.85 end_price 38.0 ticker is IMKTA start_index 7293 end_index 7304 start_price 29.5 end_price 26.55 ticker is IMKTA start_index 7381 end_index 7392 start_price 27.7 end_price 33.7 ticker is IMKTA start index 7424 end index 7435 start_price 30.55 end_price 32.0 ticker is IMKTA start_index 7486 end_index 7497 start_price 30.95 end_price 30.05 ticker is IMKTA start_index 7550 end_index 7561 start_price 29.55 end_price 36.8 ticker is IMKTA start_index 7633 end_index 7644 start_price 28.1 end_price 27.14 ticker is IMKTA start_index 7674 end_index 7685 start_price 28.96 end_price 30.25 ticker is IMKTA start_index 7736 end_index 7747 start_price 27.45 end_price 30.83 ticker is IMKTA start_index 7800 end_index 7811 start price 31.75 end price 37.41 ticker is IMKTA start_index 7886 end_index 7897 start_price 43.48 end_price 47.67 ticker is IMKTA start_index 7925 end_index 7936 start_price 42.76 end_price 35.99 ticker is IMKTA start_index 7988 end_index 7999 start_price 37.61 end_price 42.24 ticker is IMKTA start_index 8051 end_index 8062 start_price 39.9 end_price 43.2 ticker is IMKTA start_index 8137 end_index 8148 start_price 37.41 end_price 40.62 ticker is IMKTA start_index 8176 end_index 8187 start_price 47.26 end_price 50.79 ticker is IMKTA start_index 8238 end_index 8249 start_price 62.74 end_price 61.67 appending IMKTA ticker is KR start_index 8385 end_index 8396 start_price 11.905 end_price 11.845 ticker is KR start_index 8442 end_index 8453 start_price 13.325 end_price 13.05 ticker is KR start_index 8517 end_index 8528 start_price 16.27 end_price 16.65 ticker is KR start_index 8579 end_index 8590 start_price 17.355 end_price 18.88 ticker is KR start_index 8639 end_index 8650 start_price 20.24 end_price 19.875 ticker is KR start_index 8696 end_index 8707 start_price 19.995 end_price 19.825 ticker is KR start_index 8769 end_index 8780

start_price 21.825 end_price 22.01 ticker is KR start_index 8832 end_index 8843 start_price 24.715 end_price 24.675 ticker is KR start_index 8890 end_index 8901 start price 26.015 end price 26.475 ticker is KR start_index 8949 end_index 8960 start_price 30.765 end_price 32.105 ticker is KR start_index 9020 end_index 9031 start_price 38.62 end_price 36.955 ticker is KR start_index 9083 end_index 9094 start_price 36.335 end_price 38.33 ticker is KR start_index 9141 end_index 9152 start_price 36.66 end_price 37.13 ticker is KR start_index 9202 end_index 9213 start_price 42.43 end_price 41.16 ticker is KR start_index 9270 end_index 9281 start_price 38.06 end_price 37.16 ticker is KR start_index 9334 end_index 9345 start_price 36.62 end_price 37.48 ticker is KR start index 9392 end index 9403 start_price 30.79 end_price 29.0 ticker is KR start_index 9451 end_index 9462 start_price 34.22 end_price 34.68 ticker is KR start_index 9522 end_index 9533 start_price 28.93 end_price 29.57 ticker is KR start_index 9585 end_index 9596 start_price 22.61 end_price 22.8 ticker is KR start_index 9641 end_index 9652 start_price 21.26 end_price 20.06 ticker is KR start_index 9700 end_index 9711 start_price 26.53 end_price 28.25 ticker is KR start_index 9777 end_index 9788 start_price 23.28 end_price 24.23 ticker is KR start_index 9839 end_index 9850 start price 28.43 end price 27.99 ticker is KR start_index 9899 end_index 9910 start_price 29.61 end_price 27.92 ticker is KR start_index 9957 end_index 9968 start_price 28.92 end_price 27.35 ticker is KR start_index 10028 end_index 10039 start_price 24.48 end_price 25.57 ticker is KR start_index 10089 end_index 10100 start_price 21.39 end_price 22.08 ticker is KR start_index 10149 end_index 10160 start_price 25.72 end_price 24.46 ticker is KR start_index 10208 end_index 10219 start_price 28.31 end_price 28.66 ticker is KR start_index 10280 end_index 10291 start_price 30.12 end_price 31.95 ticker is KR start_index 10340 end_index 10351 start_price 32.78 end_price 33.28 ticker is KR start_index 10400 end_index 10411 start price 33.46 end price 33.95 ticker is KR start_index 10459 end_index 10470 start_price 31.3 end_price 31.55 ticker is KR start_index 10530 end_index 10541 start_price 37.95 end_price 37.24 appending KR ticker is NGVC start_index 10745 end_index 10756 start_price 19.38 end_price 19.3 ticker is NGVC start_index 10747 end_index 10758 start_price 19.59 end_price 19.98 ticker is NGVC start_index 10777 end_index 10788 start_price 20.32 end_price 22.66 ticker is NGVC start_index 10845 end_index 10856 start_price 25.03 end_price 28.48 ticker is NGVC start_index 10907 end_index 10918 start price 35.4 end price 34.42 ticker is NGVC start_index 10996 end_index 11007 start_price 37.94 end_price 41.91 ticker is NGVC start_index 11028 end_index 11039 start_price 33.51 end_price 38.61 ticker is NGVC start_index 11091 end_index 11102 start_price 35.6 end_price 23.02 ticker is NGVC start_index 11154 end_index 11165 start_price 23.88 end_price 18.87 ticker is NGVC start_index 11247 end_index 11258 start_price 25.45 end_price 26.74 ticker is NGVC start_index 11279 end_index 11290 start_price 28.06 end_price 29.83 ticker is NGVC start_index 11347 end_index 11358 start_price 26.87 end_price 25.53 ticker is NGVC start index 11405 end index 11416 start_price 22.29 end_price 24.62 ticker is NGVC start_index 11498 end_index 11509 start_price 20.11 end_price 20.92 ticker is NGVC start_index 11530 end_index 11541 start_price 20.67 end_price 17.71 ticker is NGVC start_index 11598 end_index 11609 start_price 13.09 end_price 12.88 ticker is NGVC start_index 11656 end_index 11667 start_price 13.49 end_price 12.14 ticker is NGVC start_index 11749 end_index 11760 start_price 11.69 end_price 12.53 ticker is NGVC start_index 11786 end_index 11797 start_price 12.54 end_price 12.31

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ticker is NGVC start_index 11849 end_index 11860
start_price 10.7 end_price 9.48
ticker is NGVC start_index 11912 end_index 11923
start_price 8.61 end_price 6.04
ticker is NGVC start index 12000 end index 12011
start_price 8.3 end_price 8.93
ticker is NGVC start index 12037 end index 12048
start_price 8.6 end_price 6.93
ticker is NGVC start_index 12100 end_index 12111
start_price 7.19 end_price 11.14
ticker is NGVC start_index 12163 end_index 12174
start_price 12.54 end_price 19.17
ticker is NGVC start_index 12250 end_index 12261
start_price 17.5 end_price 17.07
ticker is NGVC start_index 12292 end_index 12303
start_price 14.0 end_price 14.51
ticker is NGVC start_index 12350 end_index 12361
start_price 12.16 end_price 12.03
ticker is NGVC start_index 12413 end_index 12424
start price 9.17 end price 8.93
ticker is NGVC start_index 12501 end_index 12512
start price 9.32 end price 9.62
ticker is NGVC start_index 12543 end_index 12554
start_price 9.35 end_price 8.13
ticker is NGVC start_index 12606 end_index 12617
start_price 10.72 end_price 14.11
ticker is NGVC start_index 12669 end_index 12680
start_price 16.06 end_price 14.33
ticker is NGVC start_index 12757 end_index 12768
start_price 13.8 end_price 13.28
ticker is NGVC start_index 12794 end_index 12805
start_price 16.18 end_price 15.24
ticker is NGVC start_index 12857 end_index 12868
start_price 16.08 end_price 11.62
appending NGVC
ticker is QKLS start_index 12979 end_index 12990
start_price 8.08 end_price 5.68
ticker is QKLS start_index 13042 end_index 13053
start_price 5.12 end_price 7.28
ticker is QKLS start_index 13144 end_index 13155
start_price 5.98 end_price 3.68
ticker is QKLS start_index 13165 end_index 13176
start_price 3.43 end_price 4.46
ticker is QKLS start_index 13229 end_index 13240
start_price 6.2 end_price 4.34
ticker is QKLS start_index 13294 end_index 13305
start_price 4.55 end_price 4.56
ticker is QKLS start_index 13390 end_index 13401
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start_price 4.33 end_price 4.04
ticker is QKLS start_index 13418 end_index 13429
start_price 3.71 end_price 3.6
ticker is QKLS start_index 13481 end_index 13492
start price 3.37 end price 3.12
ticker is QKLS start_index 13546 end_index 13557
start_price 2.31 end_price 2.17
ticker is QKLS start_index 13648 end_index 13659
start_price 3.15 end_price 2.73
ticker is QKLS start_index 13670 end_index 13681
start_price 3.1 end_price 2.24
ticker is QKLS start_index 13734 end_index 13745
start_price 1.64 end_price 1.38
ticker is QKLS start_index 13798 end_index 13809
start_price 0.9 end_price 1.2
ticker is QKLS start_index 13900 end_index 13911
start_price 0.66 end_price 0.45
appending QKLS
ticker is RNDY start_index 15282 end_index 15293
start price 7.71 end price 7.87
ticker is RNDY start_index 15345 end_index 15356
start price 4.24 end price 4.45
ticker is RNDY start_index 15433 end_index 15444
start_price 6.74 end_price 6.63
ticker is RNDY start_index 15467 end_index 15478
start_price 7.33 end_price 7.46
ticker is RNDY start_index 15530 end_index 15541
start_price 8.57 end_price 8.77
ticker is RNDY start_index 15594 end_index 15605
start_price 9.15 end_price 8.36
ticker is RNDY start_index 15674 end_index 15685
start_price 6.08 end_price 6.28
ticker is RNDY start_index 15716 end_index 15727
start_price 6.65 end_price 4.86
ticker is RNDY start index 15779 end index 15790
start_price 4.78 end_price 3.57
ticker is RNDY start_index 15843 end_index 15854
start_price 3.45 end_price 3.85
ticker is RNDY start_index 15930 end_index 15941
start_price 4.48 end_price 4.97
ticker is RNDY start_index 15972 end_index 15983
start_price 4.65 end_price 3.49
ticker is RNDY start_index 16035 end_index 16046
start_price 2.46 end_price 2.25
ticker is RNDY start_index 16100 end_index 16111
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start_index 16141 end_index 16152
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start_price 38.59 end_price 39.03 ticker is SFM start_index 16194 end_index 16205 start_price 48.04 end_price 38.31 ticker is SFM start_index 16201 end_index 16212 start price 43.05 end price 38.3 ticker is SFM start_index 16269 end_index 16280 start_price 36.85 end_price 38.5 ticker is SFM start_index 16281 end_index 16292 start_price 37.95 end_price 36.03 ticker is SFM start_index 16317 end_index 16328 start_price 31.09 end_price 27.38 ticker is SFM start_index 16381 end_index 16392 start_price 31.75 end_price 29.6 ticker is SFM start_index 16445 end_index 16456 start_price 30.69 end_price 31.4 ticker is SFM start_index 16520 end_index 16531 start_price 37.09 end_price 34.61 ticker is SFM start_index 16569 end_index 16580 start_price 31.06 end_price 30.3 ticker is SFM start index 16632 end index 16643 start_price 24.03 end_price 21.03 ticker is SFM start_index 16696 end_index 16707 start_price 19.88 end_price 23.69 ticker is SFM start_index 16771 end_index 16782 start_price 25.21 end_price 27.33 ticker is SFM start_index 16820 end_index 16831 start_price 27.38 end_price 24.53 ticker is SFM start_index 16883 end_index 16894 start_price 23.25 end_price 22.44 ticker is SFM start_index 16947 end_index 16958 start_price 22.57 end_price 21.59 ticker is SFM start_index 17022 end_index 17033 start_price 19.0 end_price 17.78 ticker is SFM start_index 17071 end_index 17082 start price 22.75 end price 23.9 ticker is SFM start_index 17134 end_index 17145 start_price 23.98 end_price 24.11 ticker is SFM start_index 17198 end_index 17209 start_price 18.87 end_price 20.37 ticker is SFM start_index 17273 end_index 17284 start_price 26.12 end_price 24.11 ticker is SFM start_index 17322 end_index 17333 start_price 24.39 end_price 22.3 ticker is SFM start_index 17385 end_index 17396 start_price 21.2 end_price 23.96 ticker is SFM start_index 17449 end_index 17460 start_price 26.89 end_price 27.5 ticker is SFM start_index 17523 end_index 17534 start_price 24.14 end_price 22.85 ticker is SFM start_index 17572 end_index 17583 start_price 21.29 end_price 21.1 ticker is SFM start_index 17635 end_index 17646 start price 16.93 end price 17.74 ticker is SFM start_index 17699 end_index 17710 start_price 18.75 end_price 19.9 ticker is SFM start_index 17774 end_index 17785 start_price 15.86 end_price 17.25 ticker is SFM start_index 17826 end_index 17837 start_price 21.76 end_price 25.3 ticker is SFM start_index 17885 end_index 17896 start_price 27.02 end_price 23.86 ticker is SFM start_index 17949 end_index 17960 start_price 20.4 end_price 20.16 ticker is SFM start_index 18030 end_index 18041 start_price 21.48 end_price 24.35 ticker is SFM start_index 18079 end_index 18090 start_price 25.87 end_price 25.48 appending SFM ticker is SFS start index 18209 end index 18220 start price 15.49 end price 15.74 ticker is SFS start_index 18296 end_index 18307 start_price 18.4 end_price 18.89 ticker is SFS start_index 18320 end_index 18331 start_price 17.87 end_price 16.97 ticker is SFS start_index 18379 end_index 18390 start_price 17.79 end_price 16.72 ticker is SFS start_index 18458 end_index 18469 start_price 14.6 end_price 17.93 ticker is SFS start_index 18541 end_index 18552 start_price 15.8 end_price 16.24 ticker is SFS start_index 18576 end_index 18587 start_price 16.03 end_price 15.48 ticker is SFS start index 18636 end index 18647 start_price 15.03 end_price 14.02 ticker is SFS start_index 18714 end_index 18725 start_price 13.45 end_price 13.15 ticker is SFS start_index 18795 end_index 18806 start_price 11.55 end_price 12.1 ticker is SFS start_index 18828 end_index 18839 start_price 11.65 end_price 13.65 ticker is SFS start_index 18885 end_index 18896 start_price 8.1 end_price 7.8 ticker is SFS start_index 18965 end_index 18976 start_price 7.25 end_price 9.1 ticker is SFS start_index 19046 end_index 19057 start_price 6.0 end_price 5.35

ticker is SFS start_index 19079 end_index 19090 start_price 5.3 end_price 5.25 ticker is SFS start_index 19137 end_index 19148 start_price 5.5 end_price 6.1 ticker is SFS start index 19216 end index 19227 start_price 4.95 end_price 6.34 ticker is SFS start index 19296 end index 19307 start_price 5.26 end_price 4.94 ticker is SFS start_index 19330 end_index 19341 start_price 6.52 end_price 6.52 appending SFS ticker is SWY start_index 19378 end_index 19389 start_price 15.26 end_price 15.7 ticker is SWY start_index 19437 end_index 19448 start_price 15.67 end_price 16.56 ticker is SWY start_index 19525 end_index 19536 start_price 22.76 end_price 23.87 ticker is SWY start_index 19569 end_index 19580 start_price 23.51 end_price 25.45 ticker is SWY start index 19628 end index 19639 start_price 25.57 end_price 24.66 ticker is SWY start index 19687 end index 19698 start_price 32.74 end_price 35.24 ticker is SWY start_index 19777 end_index 19788 start_price 37.13 end_price 38.71 ticker is SWY start_index 19821 end_index 19832 start_price 34.08 end_price 34.39 ticker is SWY start_index 19878 end_index 19889 start_price 34.82 end_price 34.4 ticker is SWY start_index 19938 end_index 19949 start_price 33.97 end_price 34.7 appending SWY ticker is TFM start_index 20057 end_index 20068 start_price 58.34 end_price 58.2 ticker is TFM start index 20119 end index 20130 start_price 50.7 end_price 49.72 ticker is TFM start_index 20194 end_index 20205 start_price 42.7 end_price 40.61 ticker is TFM start_index 20243 end_index 20254 start_price 50.26 end_price 49.28 ticker is TFM start_index 20307 end_index 20318 start_price 49.7 end_price 48.19 ticker is TFM start_index 20364 end_index 20375 start_price 39.97 end_price 41.14 ticker is TFM start_index 20442 end_index 20453 start_price 34.18 end_price 35.98 ticker is TFM start_index 20493 end_index 20504 start_price 32.95 end_price 35.24

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ticker is TFM start_index 20557 end_index 20568
start_price 33.73 end_price 36.94
ticker is TFM start_index 20621 end_index 20632
start_price 39.53 end_price 40.91
ticker is TFM start index 20694 end index 20705
start_price 41.09 end_price 40.36
ticker is TFM start index 20740 end index 20751
start_price 32.43 end_price 32.44
ticker is TFM start_index 20804 end_index 20815
start_price 19.91 end_price 23.4
ticker is TFM start_index 20870 end_index 20881
start_price 23.98 end_price 23.79
ticker is TFM start_index 20947 end_index 20958
start_price 28.47 end_price 28.4
appending TFM
ticker is VLGEA start_index 21041 end_index 21052
start_price 34.06 end_price 34.93
ticker is VLGEA start_index 21079 end_index 21090
start_price 37.11 end_price 33.35
ticker is VLGEA start index 21140 end index 21151
start_price 34.1 end_price 33.2
ticker is VLGEA start_index 21203 end_index 21214
start_price 36.37 end_price 33.78
ticker is VLGEA start_index 21290 end_index 21301
start_price 34.85 end_price 34.71
ticker is VLGEA start_index 21330 end_index 21341
start_price 38.45 end_price 32.83
ticker is VLGEA start_index 21390 end_index 21401
start_price 27.32 end_price 28.75
ticker is VLGEA start_index 21454 end_index 21465
start_price 22.89 end_price 23.36
ticker is VLGEA start_index 21542 end_index 21553
start_price 23.46 end_price 24.19
ticker is VLGEA start_index 21581 end_index 21592
start price 24.04 end price 25.48
ticker is VLGEA start_index 21642 end_index 21653
start_price 27.66 end_price 29.83
ticker is VLGEA start_index 21705 end_index 21716
start_price 32.29 end_price 30.59
ticker is VLGEA start_index 21793 end_index 21804
start_price 25.39 end_price 24.1
ticker is VLGEA start_index 21833 end_index 21844
start_price 25.61 end_price 25.55
ticker is VLGEA start_index 21893 end_index 21904
start_price 26.41 end_price 24.24
ticker is VLGEA start_index 21957 end_index 21968
start_price 27.37 end_price 28.81
ticker is VLGEA start_index 22049 end_index 22060
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start_price 31.72 end_price 30.6
ticker is VLGEA start_index 22088 end_index 22099
start_price 35.63 end_price 32.65
ticker is VLGEA start_index 22150 end_index 22161
start price 27.06 end price 26.14
ticker is VLGEA start_index 22212 end_index 22223
start_price 25.07 end_price 25.0
ticker is VLGEA start_index 22301 end_index 22312
start_price 24.9 end_price 24.42
ticker is VLGEA start_index 22338 end_index 22349
start_price 25.44 end_price 23.52
ticker is VLGEA start_index 22401 end_index 22412
start_price 24.07 end_price 25.34
ticker is VLGEA start_index 22464 end_index 22475
start_price 28.29 end_price 30.07
ticker is VLGEA start_index 22552 end_index 22563
start_price 24.9 end_price 25.06
ticker is VLGEA start_index 22590 end_index 22601
start_price 25.44 end_price 25.79
ticker is VLGEA start index 22650 end index 22661
start_price 31.5 end_price 28.4
ticker is VLGEA start index 22712 end index 22723
start_price 26.18 end_price 25.28
ticker is VLGEA start_index 22802 end_index 22813
start_price 26.27 end_price 25.94
ticker is VLGEA start_index 22841 end_index 22852
start_price 25.79 end_price 23.86
ticker is VLGEA start_index 22902 end_index 22913
start_price 21.35 end_price 21.57
ticker is VLGEA start_index 22965 end_index 22976
start_price 25.46 end_price 25.7
ticker is VLGEA start_index 23053 end_index 23064
start_price 24.32 end_price 23.35
ticker is VLGEA start_index 23092 end_index 23103
start price 23.13 end price 22.66
ticker is VLGEA start_index 23153 end_index 23164
start_price 23.88 end_price 24.33
appending VLGEA
ticker is WFM start_index 23312 end_index 23323
start_price 46.455 end_price 47.865
ticker is WFM start_index 23387 end_index 23398
start_price 46.7119999999999 end_price 45.585
ticker is WFM start_index 23449 end_index 23460
start_price 42.465 end_price 42.5
ticker is WFM start_index 23508 end_index 23519
start_price 51.02 end_price 52.38
ticker is WFM start_index 23566 end_index 23577
start_price 55.9 end_price 52.88
```

ticker is WFM start_index 23640 end_index 23651 start_price 56.48 end_price 55.69 ticker is WFM start_index 23700 end_index 23711 start_price 52.35 end_price 53.67 ticker is WFM start index 23759 end index 23770 start_price 38.76 end_price 37.76 ticker is WFM start index 23817 end index 23828 start_price 37.35 end_price 38.55 ticker is WFM start_index 23891 end_index 23902 start_price 47.69 end_price 48.02 ticker is WFM start_index 23956 end_index 23967 start_price 56.73 end_price 54.21 ticker is WFM start_index 24010 end_index 24021 start_price 42.9 end_price 41.07 ticker is WFM start_index 24068 end_index 24079 start_price 34.84 end_price 31.64 ticker is WFM start_index 24137 end_index 24148 start_price 29.91 end_price 29.15 ticker is WFM start_index 24207 end_index 24218 start price 30.86 end price 33.04 ticker is WFM start_index 24261 end_index 24272 start_price 30.51 end_price 32.03 ticker is WFM start_index 24319 end_index 24330 start_price 30.39 end_price 30.28 ticker is WFM start_index 24393 end_index 24404 start_price 30.94 end_price 30.76 ticker is WFM start_index 24453 end_index 24464 start_price 30.72 end_price 29.7 ticker is WFM start_index 24517 end_index 24528 start_price 36.15 end_price 35.13 ticker is WFM start_index 24570 end_index 24581 start_price 41.84 end_price 41.73 appending WFM ticker is WMK start_index 24614 end_index 24625 start price 43.27 end price 42.47 ticker is WMK start_index 24676 end_index 24687 start_price 40.38 end_price 38.66 ticker is WMK start_index 24761 end_index 24772 start_price 41.02 end_price 40.7 ticker is WMK start_index 24800 end_index 24811 start_price 42.49 end_price 41.95 ticker is WMK start_index 24863 end_index 24874 start_price 50.81 end_price 47.75 ticker is WMK start_index 24927 end_index 24938

start_price 49.21 end_price 49.55

start_price 49.49 end_price 48.31

ticker is WMK start_index 25013 end_index 25024

ticker is WMK start_index 25051 end_index 25062

start_price 45.2 end_price 44.07 ticker is WMK start_index 25114 end_index 25125 start_price 43.43 end_price 42.41 ticker is WMK start_index 25178 end_index 25189 start price 44.63 end price 44.08 ticker is WMK start_index 25264 end_index 25275 start_price 50.36 end_price 49.62 ticker is WMK start_index 25298 end_index 25309 start_price 44.35 end_price 43.55 ticker is WMK start_index 25363 end_index 25374 start_price 42.01 end_price 43.13 ticker is WMK start_index 25497 end_index 25508 start_price 38.92 end_price 41.61 ticker is WMK start_index 25520 end_index 25531 start_price 43.38 end_price 44.38 ticker is WMK start_index 25553 end_index 25564 start_price 45.43 end_price 47.31 ticker is WMK start_index 25611 end_index 25622 start_price 51.55 end_price 51.63 ticker is WMK start index 25680 end index 25691 start_price 56.51 end_price 60.95 ticker is WMK start_index 25770 end_index 25781 start_price 59.08 end_price 60.44 ticker is WMK start_index 25809 end_index 25820 start_price 57.79 end_price 54.23 ticker is WMK start_index 25872 end_index 25883 start_price 44.49 end_price 44.34 ticker is WMK start_index 25934 end_index 25945 start_price 34.0 end_price 37.59 ticker is WMK start_index 26021 end_index 26032 start_price 38.37 end_price 40.98 ticker is WMK start_index 26060 end_index 26071 start_price 48.03 end_price 52.81 ticker is WMK start_index 26122 end_index 26133 start price 48.66 end price 49.03 ticker is WMK start_index 26187 end_index 26198 start_price 46.46 end_price 48.37 ticker is WMK start_index 26271 end_index 26282 start_price 40.5 end_price 40.49 ticker is WMK start_index 26310 end_index 26321 start_price 38.77 end_price 38.17 ticker is WMK start_index 26371 end_index 26382 start_price 37.6 end_price 39.37 ticker is WMK start_index 26434 end_index 26445 start_price 38.87 end_price 39.82 ticker is WMK start_index 26522 end_index 26533 start_price 36.39 end_price 38.58 ticker is WMK start_index 26561 end_index 26572 start_price 54.64 end_price 56.15 ticker is WMK start_index 26623 end_index 26634 start_price 51.17 end_price 50.57 ticker is WMK start_index 26688 end_index 26699 start price 46.35 end price 48.84 ticker is WMK start_index 26773 end_index 26784 start price 58.85 end price 56.35 ticker is WMK start_index 26812 end_index 26823 start_price 52.64 end_price 52.35 appending WMK ticker is ACI start_index 25 end_index 37 start_price 14.83 end_price 15.19 ticker is ACI start_index 80 end_index 92 start_price 15.22 end_price 15.52 ticker is ACI start_index 137 end_index 149 start_price 17.1 end_price 17.37 ticker is ACI start_index 209 end_index 221 start_price 18.11 end_price 18.78 appending ACI ticker is ARDNA start index 330 end index 342 start_price 82.6 end_price 89.7 ticker is ARDNA start index 394 end index 406 start_price 95.88 end_price 108.0 ticker is ARDNA start_index 478 end_index 490 start_price 98.31 end_price 98.77 ticker is ARDNA start_index 519 end_index 531 start_price 98.65 end_price 103.4 ticker is ARDNA start_index 583 end_index 595 start_price 132.78 end_price 134.49 ticker is ARDNA start_index 647 end_index 659 start_price 129.85 end_price 127.0 appending ARDNA ticker is ASAI start_index 754 end_index 766 start_price 14.81 end_price 16.24 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3100 start_price 17.35 end_price 17.2 ticker is FWMHQ start_index 3122 end_index 3134 start_price 20.73 end_price 24.81 ticker is FWMHQ start_index 3166 end_index 3178 start_price 25.83 end_price 24.97 ticker is FWMHQ start_index 3230 end_index 3242 start_price 25.46 end_price 18.52 ticker is FWMHQ start_index 3291 end_index 3303 start_price 11.14 end_price 7.61 ticker is FWMHQ start_index 3368 end_index 3380 start_price 6.75 end_price 6.79

ticker is FWMHQ start_index 3417 end_index 3429 start_price 5.74 end_price 4.69 ticker is FWMHQ start_index 3481 end_index 3493 start_price 2.59 end_price 3.9 ticker is FWMHQ start index 3542 end index 3554 start_price 5.02 end_price 5.47 ticker is FWMHQ start index 3617 end index 3629 start_price 4.63 end_price 3.83 ticker is FWMHQ start_index 3666 end_index 3678 start_price 3.02 end_price 2.2 ticker is FWMHQ start_index 3727 end_index 3739 start_price 1.71 end_price 1.12 ticker is FWMHQ start_index 3794 end_index 3806 start_price 0.499 end_price 0.3 appending FWMHQ ticker is GO start_index 3900 end_index 3912 start_price 28.51 end_price 32.68 ticker is GO start_index 3936 end_index 3948 start_price 37.54 end_price 42.57 ticker is GO start index 3972 end index 3984 start_price 33.01 end_price 33.07 ticker is GO start index 4000 end index 4012 start_price 31.0 end_price 32.78 ticker is GO start_index 4050 end_index 4062 start_price 35.43 end_price 30.75 ticker is GO start_index 4091 end_index 4103 start_price 33.2 end_price 33.86 ticker is GO start_index 4124 end_index 4136 start_price 36.67 end_price 36.17 ticker is GO start_index 4187 end_index 4199 start_price 44.33 end_price 40.74 ticker is GO start_index 4251 end_index 4263 start_price 41.21 end_price 37.26 ticker is GO start_index 4326 end_index 4338 start price 35.91 end price 36.45 ticker is GO start_index 4376 end_index 4388 start_price 40.54 end_price 34.32 appending GO ticker is HTSI start_index 4491 end_index 4503 start_price 41.53 end_price 39.37 ticker is HTSI start_index 4562 end_index 4574 start_price 36.17 end_price 38.38 ticker is HTSI start_index 4614 end_index 4626 start_price 36.95 end_price 41.88 ticker is HTSI start_index 4676 end_index 4688 start_price 45.29 end_price 45.66 ticker is HTSI start_index 4740 end_index 4752 start_price 49.2 end_price 49.26

ticker is HTSI start_index 4820 end_index 4832 start_price 49.38 end_price 49.33 appending HTSI ticker is IFMK start_index 4953 end_index 4965 start price 11.99 end price 13.7 ticker is IFMK start_index 4984 end_index 4996 start_price 12.81 end_price 12.92 ticker is IFMK start_index 5049 end_index 5061 start_price 11.13 end_price 11.001 ticker is IFMK start_index 5111 end_index 5123 start_price 11.92 end_price 10.5 ticker is IFMK start_index 5205 end_index 5217 start_price 5.5 end_price 4.2 ticker is IFMK start_index 5236 end_index 5248 start_price 3.8 end_price 3.46 ticker is IFMK start_index 5301 end_index 5313 start_price 1.4 end_price 1.06 ticker is IFMK start_index 5362 end_index 5374 start_price 1.07 end_price 1.56 ticker is IFMK start index 5455 end index 5467 start_price 1.2 end_price 1.65 ticker is IFMK start_index 5487 end_index 5499 start_price 2.27 end_price 1.74 ticker is IFMK start_index 5552 end_index 5564 start_price 0.375 end_price 0.36 ticker is IFMK start_index 5614 end_index 5626 start_price 0.4220000000000004 end_price 0.392 ticker is IFMK start_index 5739 end_index 5751 start_price 0.93900000000001 end_price 0.96 ticker is IFMK start_index 5744 end_index 5756 start_price 0.9 end_price 0.91 ticker is IFMK start_index 5810 end_index 5822 start_price 0.859000000000001 end_price 0.818 ticker is IFMK start_index 5830 end_index 5842 start price 0.82200000000001 end price 0.86 ticker is IFMK start_index 5870 end_index 5882 start_price 1.95 end_price 1.51 appending IFMK ticker is IMKTA start_index 6035 end_index 6047 start_price 16.36 end_price 16.39 ticker is IMKTA start_index 6135 end_index 6147 start_price 17.2 end_price 16.96 ticker is IMKTA start_index 6164 end_index 6176 start_price 19.3 end_price 20.07 ticker is IMKTA start_index 6226 end_index 6238 start_price 21.46 end_price 21.85 ticker is IMKTA start_index 6288 end_index 6300 start_price 25.69 end_price 24.91

ticker is IMKTA start_index 6378 end_index 6390 start_price 24.41 end_price 26.92 ticker is IMKTA start_index 6413 end_index 6425 start_price 24.02 end_price 23.55 ticker is IMKTA start index 6476 end index 6488 start_price 26.07 end_price 26.31 ticker is IMKTA start index 6541 end index 6553 start_price 24.47 end_price 25.14 ticker is IMKTA start_index 6632 end_index 6644 start_price 32.08 end_price 38.49 ticker is IMKTA start_index 6666 end_index 6678 start_price 44.06 end_price 43.11 ticker is IMKTA start_index 6728 end_index 6740 start_price 40.87 end_price 51.25 ticker is IMKTA start_index 6790 end_index 6802 start_price 49.9 end_price 53.9 ticker is IMKTA start_index 6880 end_index 6892 start_price 53.84 end_price 43.21 ticker is IMKTA start_index 6917 end_index 6929 start price 36.2 end price 34.41 ticker is IMKTA start_index 6980 end_index 6992 start price 36.73 end price 37.04 ticker is IMKTA start_index 7042 end_index 7054 start_price 36.86 end_price 36.89 ticker is IMKTA start_index 7137 end_index 7149 start_price 48.05 end_price 49.8 ticker is IMKTA start_index 7167 end_index 7179 start_price 45.25 end_price 46.45 ticker is IMKTA start_index 7230 end_index 7242 start_price 45.85 end_price 37.85 ticker is IMKTA start_index 7293 end_index 7305 start_price 29.5 end_price 25.7 ticker is IMKTA start_index 7381 end_index 7393 start_price 27.7 end_price 35.05 ticker is IMKTA start index 7424 end index 7436 start_price 30.55 end_price 32.9 ticker is IMKTA start_index 7486 end_index 7498 start_price 30.95 end_price 30.35 ticker is IMKTA start_index 7550 end_index 7562 start_price 29.55 end_price 36.35 ticker is IMKTA start_index 7633 end_index 7645 start_price 28.1 end_price 25.95 ticker is IMKTA start_index 7674 end_index 7686 start_price 28.96 end_price 30.44 ticker is IMKTA start_index 7736 end_index 7748 start_price 27.45 end_price 30.51 ticker is IMKTA start_index 7800 end_index 7812 start_price 31.75 end_price 37.08

ticker is IMKTA start_index 7886 end_index 7898 start_price 43.48 end_price 47.69 ticker is IMKTA start_index 7925 end_index 7937 start_price 42.76 end_price 34.8 ticker is IMKTA start_index 7988 end_index 8000 start_price 37.61 end_price 41.49 ticker is IMKTA start index 8051 end index 8063 start_price 39.9 end_price 42.01 ticker is IMKTA start_index 8137 end_index 8149 start_price 37.41 end_price 40.93 ticker is IMKTA start_index 8176 end_index 8188 start_price 47.26 end_price 51.32 ticker is IMKTA start_index 8238 end_index 8250 start_price 62.74 end_price 61.43 appending IMKTA ticker is KR start_index 8385 end_index 8397 start_price 11.905 end_price 11.895 ticker is KR start_index 8442 end_index 8454 start_price 13.325 end_price 12.98 ticker is KR start_index 8517 end_index 8529 start_price 16.27 end_price 16.715 ticker is KR start_index 8579 end_index 8591 start_price 17.355 end_price 19.065 ticker is KR start_index 8639 end_index 8651 start_price 20.24 end_price 20.075 ticker is KR start_index 8696 end_index 8708 start_price 19.995 end_price 19.765 ticker is KR start_index 8769 end_index 8781 start_price 21.825 end_price 22.16 ticker is KR start_index 8832 end_index 8844 start_price 24.715 end_price 24.8 ticker is KR start_index 8890 end_index 8902 start_price 26.015 end_price 27.035 ticker is KR start_index 8949 end_index 8961 start price 30.765 end price 31.765 ticker is KR start_index 9020 end_index 9032 start_price 38.62 end_price 36.685 ticker is KR start_index 9083 end_index 9095 start_price 36.335 end_price 38.59 ticker is KR start_index 9141 end_index 9153 start_price 36.66 end_price 37.51 ticker is KR start_index 9202 end_index 9214 start_price 42.43 end_price 42.09 ticker is KR start_index 9270 end_index 9282 start_price 38.06 end_price 37.86 ticker is KR start_index 9334 end_index 9346 start_price 36.62 end_price 37.3 ticker is KR start_index 9392 end_index 9404

start_price 30.79 end_price 28.84 ticker is KR start_index 9451 end_index 9463 start_price 34.22 end_price 34.59 ticker is KR start_index 9522 end_index 9534 start price 28.93 end price 29.86 ticker is KR start_index 9585 end_index 9597 start_price 22.61 end_price 22.92 ticker is KR start_index 9641 end_index 9653 start_price 21.26 end_price 19.96 ticker is KR start_index 9700 end_index 9712 start_price 26.53 end_price 27.8 ticker is KR start_index 9777 end_index 9789 start_price 23.28 end_price 24.58 ticker is KR start_index 9839 end_index 9851 start_price 28.43 end_price 28.42 ticker is KR start_index 9899 end_index 9911 start_price 29.61 end_price 27.73 ticker is KR start_index 9957 end_index 9969 start_price 28.92 end_price 27.66 ticker is KR start_index 10028 end_index 10040 start_price 24.48 end_price 25.54 ticker is KR start_index 10089 end_index 10101 start_price 21.39 end_price 21.96 ticker is KR start_index 10149 end_index 10161 start_price 25.72 end_price 24.53 ticker is KR start_index 10208 end_index 10220 start_price 28.31 end_price 28.7 ticker is KR start_index 10280 end_index 10292 start_price 30.12 end_price 31.93 ticker is KR start_index 10340 end_index 10352 start_price 32.78 end_price 34.24 ticker is KR start_index 10400 end_index 10412 start_price 33.46 end_price 34.03 ticker is KR start_index 10459 end_index 10471 start price 31.3 end price 31.76 ticker is KR start_index 10530 end_index 10542 start_price 37.95 end_price 37.19 appending KR ticker is NGVC start_index 10745 end_index 10757 start_price 19.38 end_price 19.09 ticker is NGVC start_index 10747 end_index 10759 start_price 19.59 end_price 19.68 ticker is NGVC start_index 10777 end_index 10789 start_price 20.32 end_price 22.56 ticker is NGVC start_index 10845 end_index 10857 start_price 25.03 end_price 28.73 ticker is NGVC start_index 10907 end_index 10919 start_price 35.4 end_price 35.32

```
ticker is NGVC start_index 10996 end_index 11008
start_price 37.94 end_price 42.01
ticker is NGVC start_index 11028 end_index 11040
start_price 33.51 end_price 39.8
ticker is NGVC start index 11091 end index 11103
start_price 35.6 end_price 23.19
ticker is NGVC start index 11154 end index 11166
start_price 23.88 end_price 18.52
ticker is NGVC start_index 11247 end_index 11259
start_price 25.45 end_price 27.37
ticker is NGVC start_index 11279 end_index 11291
start_price 28.06 end_price 30.28
ticker is NGVC start_index 11347 end_index 11359
start_price 26.87 end_price 25.17
ticker is NGVC start_index 11405 end_index 11417
start_price 22.29 end_price 25.06
ticker is NGVC start_index 11498 end_index 11510
start_price 20.11 end_price 20.6
ticker is NGVC start_index 11530 end_index 11542
start_price 20.67 end_price 18.36
ticker is NGVC start_index 11598 end_index 11610
start_price 13.09 end_price 13.01
ticker is NGVC start_index 11656 end_index 11668
start_price 13.49 end_price 11.98
ticker is NGVC start_index 11749 end_index 11761
start_price 11.69 end_price 12.22
ticker is NGVC start_index 11786 end_index 11798
start_price 12.54 end_price 12.41
ticker is NGVC start_index 11849 end_index 11861
start_price 10.7 end_price 9.46
ticker is NGVC start_index 11912 end_index 11924
start_price 8.61 end_price 6.1
ticker is NGVC start_index 12000 end_index 12012
start_price 8.3 end_price 8.91
ticker is NGVC start index 12037 end index 12049
start_price 8.6 end_price 7.11
ticker is NGVC start_index 12100 end_index 12112
start_price 7.19 end_price 10.74
ticker is NGVC start_index 12163 end_index 12175
start_price 12.54 end_price 18.77
ticker is NGVC start_index 12250 end_index 12262
start_price 17.5 end_price 16.62
ticker is NGVC start_index 12292 end_index 12304
start_price 14.0 end_price 14.15
ticker is NGVC start_index 12350 end_index 12362
start_price 12.16 end_price 11.84
ticker is NGVC start_index 12413 end_index 12425
start_price 9.17 end_price 9.4
```

```
ticker is NGVC start_index 12501 end_index 12513
start_price 9.32 end_price 9.86
ticker is NGVC start_index 12543 end_index 12555
start_price 9.35 end_price 7.81
ticker is NGVC start index 12606 end index 12618
start_price 10.72 end_price 14.08
ticker is NGVC start index 12669 end index 12681
start_price 16.06 end_price 13.62
ticker is NGVC start_index 12757 end_index 12769
start_price 13.8 end_price 13.5
ticker is NGVC start_index 12794 end_index 12806
start_price 16.18 end_price 15.2
ticker is NGVC start_index 12857 end_index 12869
start_price 16.08 end_price 11.92
appending NGVC
ticker is QKLS start_index 12979 end_index 12991
start_price 8.08 end_price 6.8
ticker is QKLS start_index 13042 end_index 13054
start_price 5.12 end_price 6.8
ticker is QKLS start index 13144 end index 13156
start_price 5.98 end_price 3.85
ticker is QKLS start index 13165 end index 13177
start_price 3.43 end_price 4.15
ticker is QKLS start_index 13229 end_index 13241
start_price 6.2 end_price 4.31
ticker is QKLS start_index 13294 end_index 13306
start_price 4.55 end_price 4.5
ticker is QKLS start_index 13390 end_index 13402
start_price 4.33 end_price 4.04
ticker is QKLS start_index 13418 end_index 13430
start_price 3.71 end_price 3.47
ticker is QKLS start_index 13481 end_index 13493
start_price 3.37 end_price 3.18
ticker is QKLS start_index 13546 end_index 13558
start price 2.31 end price 1.86
ticker is QKLS start_index 13648 end_index 13660
start_price 3.15 end_price 2.5
ticker is QKLS start_index 13670 end_index 13682
start_price 3.1 end_price 2.11
ticker is QKLS start_index 13734 end_index 13746
start_price 1.64 end_price 1.31
ticker is QKLS start_index 13798 end_index 13810
start_price 0.9 end_price 0.92
ticker is QKLS start_index 13900 end_index 13912
start_price 0.66 end_price 0.46
appending QKLS
ticker is RNDY start_index 15282 end_index 15294
start_price 7.71 end_price 7.58
```

```
ticker is RNDY start_index 15345 end_index 15357
start_price 4.24 end_price 4.65
ticker is RNDY start_index 15433 end_index 15445
start_price 6.74 end_price 6.74
ticker is RNDY start index 15467 end index 15479
start_price 7.33 end_price 7.56
ticker is RNDY start index 15530 end index 15542
start_price 8.57 end_price 8.97
ticker is RNDY start_index 15594 end_index 15606
start_price 9.15 end_price 8.33
ticker is RNDY start_index 15674 end_index 15686
start_price 6.08 end_price 6.21
ticker is RNDY start_index 15716 end_index 15728
start_price 6.65 end_price 4.99
ticker is RNDY start_index 15779 end_index 15791
start_price 4.78 end_price 3.56
ticker is RNDY start_index 15843 end_index 15855
start_price 3.45 end_price 3.93
ticker is RNDY start_index 15930 end_index 15942
start price 4.48 end price 4.83
ticker is RNDY start_index 15972 end_index 15984
start price 4.65 end price 3.49
ticker is RNDY start_index 16035 end_index 16047
start_price 2.46 end_price 2.31
ticker is RNDY start_index 16100 end_index 16112
start_price 3.57 end_price 3.58
appending RNDY
ticker is SFM start_index 16141 end_index 16153
start_price 38.59 end_price 38.224000000000004
ticker is SFM start_index 16194 end_index 16206
start_price 48.04 end_price 37.86
ticker is SFM start_index 16201 end_index 16213
start_price 43.05 end_price 38.3
ticker is SFM start_index 16269 end_index 16281
start price 36.85 end price 37.95
ticker is SFM start_index 16281 end_index 16293
start_price 37.95 end_price 37.21
ticker is SFM start_index 16317 end_index 16329
start_price 31.09 end_price 27.2
ticker is SFM start_index 16381 end_index 16393
start_price 31.75 end_price 30.34
ticker is SFM start_index 16445 end_index 16457
start_price 30.69 end_price 32.05
ticker is SFM start_index 16520 end_index 16532
start_price 37.09 end_price 34.64
ticker is SFM start_index 16569 end_index 16581
start_price 31.06 end_price 30.46
ticker is SFM start_index 16632 end_index 16644
```

start_price 24.03 end_price 19.62 ticker is SFM start_index 16696 end_index 16708 start_price 19.88 end_price 23.48 ticker is SFM start_index 16771 end_index 16783 start price 25.21 end price 27.97 ticker is SFM start_index 16820 end_index 16832 start_price 27.38 end_price 24.77 ticker is SFM start_index 16883 end_index 16895 start_price 23.25 end_price 22.48 ticker is SFM start_index 16947 end_index 16959 start_price 22.57 end_price 21.56 ticker is SFM start_index 17022 end_index 17034 start_price 19.0 end_price 17.85 ticker is SFM start_index 17071 end_index 17083 start_price 22.75 end_price 24.07 ticker is SFM start_index 17134 end_index 17146 start_price 23.98 end_price 24.44 ticker is SFM start_index 17198 end_index 17210 start_price 18.87 end_price 20.69 ticker is SFM start index 17273 end index 17285 start_price 26.12 end_price 25.23 ticker is SFM start_index 17322 end_index 17334 start_price 24.39 end_price 21.79 ticker is SFM start_index 17385 end_index 17397 start_price 21.2 end_price 24.24 ticker is SFM start_index 17449 end_index 17461 start_price 26.89 end_price 27.67 ticker is SFM start_index 17523 end_index 17535 start_price 24.14 end_price 22.11 ticker is SFM start_index 17572 end_index 17584 start_price 21.29 end_price 20.98 ticker is SFM start_index 17635 end_index 17647 start_price 16.93 end_price 17.9 ticker is SFM start_index 17699 end_index 17711 start price 18.75 end price 19.86 ticker is SFM start_index 17774 end_index 17786 start_price 15.86 end_price 17.23 ticker is SFM start_index 17826 end_index 17838 start_price 21.76 end_price 25.31 ticker is SFM start_index 17885 end_index 17897 start_price 27.02 end_price 24.47 ticker is SFM start_index 17949 end_index 17961 start_price 20.4 end_price 20.23 ticker is SFM start_index 18030 end_index 18042 start_price 21.48 end_price 24.43 ticker is SFM start_index 18079 end_index 18091 start_price 25.87 end_price 25.8 appending SFM

ticker is SFS start_index 18209 end_index 18221 start_price 15.49 end_price 16.26 ticker is SFS start_index 18296 end_index 18308 start_price 18.4 end_price 18.9

ticker is SFS start_index 18320 end_index 18332

start_price 17.87 end_price 17.05
ticker is SFS start_index 18379 end_index 18391
start_price 17.79 end_price 16.45

ticker is SFS start_index 18458 end_index 18470 start_price 14.6 end_price 17.57

ticker is SFS start_index 18541 end_index 18553 start_price 15.8 end_price 16.2

ticker is SFS start_index 18576 end_index 18588 start_price 16.03 end_price 15.7

ticker is SFS start_index 18636 end_index 18648 start_price 15.03 end_price 14.1

ticker is SFS start_index 18714 end_index 18726 start_price 13.45 end_price 13.15

ticker is SFS start_index 18795 end_index 18807 start_price 11.55 end_price 11.85

ticker is SFS start_index 18828 end_index 18840 start price 11.65 end price 13.47

ticker is SFS start_index 18885 end_index 18897 start_price 8.1 end_price 7.65

ticker is SFS start_index 18965 end_index 18977 start_price 7.25 end_price 9.5

ticker is SFS start_index 19046 end_index 19058 start_price 6.0 end_price 5.35

ticker is SFS start_index 19079 end_index 19091 start_price 5.3 end_price 4.75

ticker is SFS start_index 19137 end_index 19149 start_price 5.5 end_price 6.15

ticker is SFS start_index 19216 end_index 19228 start_price 4.95 end_price 6.32

ticker is SFS start_index 19296 end_index 19308 start_price 5.26 end_price 5.16

ticker is SFS start_index 19330 end_index 19342 start_price 6.52 end_price 6.54

appending SFS

ticker is SWY start_index 19378 end_index 19390 start_price 15.26 end_price 16.06

ticker is SWY start_index 19437 end_index 19449 start_price 15.67 end_price 16.83

ticker is SWY start_index 19525 end_index 19537 start_price 22.76 end_price 24.0

ticker is SWY start_index 19569 end_index 19581 start_price 23.51 end_price 25.47

ticker is SWY start_index 19628 end_index 19640

start_price 25.57 end_price 24.95 ticker is SWY start_index 19687 end_index 19699 start_price 32.74 end_price 34.9 ticker is SWY start_index 19777 end_index 19789 start price 37.13 end price 38.32 ticker is SWY start_index 19821 end_index 19833 start_price 34.08 end_price 34.3 ticker is SWY start_index 19878 end_index 19890 start_price 34.82 end_price 34.56 ticker is SWY start_index 19938 end_index 19950 start_price 33.97 end_price 34.78 appending SWY ticker is TFM start_index 20057 end_index 20069 start_price 58.34 end_price 58.79 ticker is TFM start_index 20119 end_index 20131 start_price 50.7 end_price 49.54 ticker is TFM start_index 20194 end_index 20206 start_price 42.7 end_price 41.21 ticker is TFM start_index 20243 end_index 20255 start price 50.26 end price 48.61 ticker is TFM start_index 20307 end_index 20319 start price 49.7 end price 48.39 ticker is TFM start_index 20364 end_index 20376 start_price 39.97 end_price 40.54 ticker is TFM start_index 20442 end_index 20454 start_price 34.18 end_price 34.98 ticker is TFM start_index 20493 end_index 20505 start_price 32.95 end_price 34.52 ticker is TFM start_index 20557 end_index 20569 start_price 33.73 end_price 36.09 ticker is TFM start_index 20621 end_index 20633 start_price 39.53 end_price 40.41 ticker is TFM start_index 20694 end_index 20706 start_price 41.09 end_price 40.98 ticker is TFM start index 20740 end index 20752 start_price 32.43 end_price 32.51 ticker is TFM start_index 20804 end_index 20816 start_price 19.91 end_price 23.19 ticker is TFM start_index 20870 end_index 20882 start_price 23.98 end_price 24.34 ticker is TFM start_index 20947 end_index 20959 start_price 28.47 end_price 28.39 appending TFM ticker is VLGEA start_index 21041 end_index 21053 start_price 34.06 end_price 35.6 ticker is VLGEA start_index 21079 end_index 21091 start_price 37.11 end_price 32.9 ticker is VLGEA start_index 21140 end_index 21152

```
start_price 34.1 end_price 32.99
ticker is VLGEA start_index 21203 end_index 21215
start_price 36.37 end_price 32.875
ticker is VLGEA start_index 21290 end_index 21302
start price 34.85 end price 35.16
ticker is VLGEA start_index 21330 end_index 21342
start_price 38.45 end_price 31.91
ticker is VLGEA start_index 21390 end_index 21402
start_price 27.32 end_price 28.39
ticker is VLGEA start_index 21454 end_index 21466
start_price 22.89 end_price 23.01
ticker is VLGEA start_index 21542 end_index 21554
start_price 23.46 end_price 24.48
ticker is VLGEA start_index 21581 end_index 21593
start_price 24.04 end_price 25.44
ticker is VLGEA start_index 21642 end_index 21654
start_price 27.66 end_price 29.75
ticker is VLGEA start_index 21705 end_index 21717
start_price 32.29 end_price 30.91
ticker is VLGEA start index 21793 end index 21805
start_price 25.39 end_price 25.02
ticker is VLGEA start_index 21833 end_index 21845
start_price 25.61 end_price 25.76
ticker is VLGEA start_index 21893 end_index 21905
start_price 26.41 end_price 24.04
ticker is VLGEA start_index 21957 end_index 21969
start_price 27.37 end_price 28.05
ticker is VLGEA start_index 22049 end_index 22061
start_price 31.72 end_price 30.54
ticker is VLGEA start_index 22088 end_index 22100
start_price 35.63 end_price 31.86
ticker is VLGEA start_index 22150 end_index 22162
start_price 27.06 end_price 26.03
ticker is VLGEA start_index 22212 end_index 22224
start price 25.07 end price 25.0
ticker is VLGEA start_index 22301 end_index 22313
start_price 24.9 end_price 24.37
ticker is VLGEA start_index 22338 end_index 22350
start_price 25.44 end_price 23.0
ticker is VLGEA start_index 22401 end_index 22413
start_price 24.07 end_price 25.23
ticker is VLGEA start_index 22464 end_index 22476
start_price 28.29 end_price 31.28
ticker is VLGEA start_index 22552 end_index 22564
start_price 24.9 end_price 25.34
ticker is VLGEA start_index 22590 end_index 22602
start_price 25.44 end_price 25.83
ticker is VLGEA start_index 22650 end_index 22662
```

start_price 31.5 end_price 28.22 ticker is VLGEA start_index 22712 end_index 22724 start_price 26.18 end_price 26.38 ticker is VLGEA start_index 22802 end_index 22814 start price 26.27 end price 25.73 ticker is VLGEA start_index 22841 end_index 22853 start_price 25.79 end_price 23.8 ticker is VLGEA start_index 22902 end_index 22914 start_price 21.35 end_price 21.71 ticker is VLGEA start_index 22965 end_index 22977 start_price 25.46 end_price 25.56 ticker is VLGEA start_index 23053 end_index 23065 start_price 24.32 end_price 23.33 ticker is VLGEA start_index 23092 end_index 23104 start_price 23.13 end_price 22.33 ticker is VLGEA start_index 23153 end_index 23165 start_price 23.88 end_price 23.94 appending VLGEA ticker is WFM start_index 23312 end_index 23324 start price 46.455 end price 47.545 ticker is WFM start_index 23387 end_index 23399 start price 46.7119999999999 end price 45.295 ticker is WFM start_index 23449 end_index 23461 start_price 42.465 end_price 43.0 ticker is WFM start_index 23508 end_index 23520 start_price 51.02 end_price 51.24 ticker is WFM start_index 23566 end_index 23578 start_price 55.9 end_price 52.39 ticker is WFM start_index 23640 end_index 23652 start_price 56.48 end_price 55.705 ticker is WFM start_index 23700 end_index 23712 start_price 52.35 end_price 53.85 ticker is WFM start_index 23759 end_index 23771 start_price 38.76 end_price 37.71 ticker is WFM start index 23817 end index 23829 start_price 37.35 end_price 38.49 ticker is WFM start_index 23891 end_index 23903 start_price 47.69 end_price 48.15 ticker is WFM start_index 23956 end_index 23968 start_price 56.73 end_price 54.66 ticker is WFM start_index 24010 end_index 24022 start_price 42.9 end_price 40.975 ticker is WFM start_index 24068 end_index 24080 start_price 34.84 end_price 31.82 ticker is WFM start_index 24137 end_index 24149 start_price 29.91 end_price 30.07 ticker is WFM start_index 24207 end_index 24219 start_price 30.86 end_price 33.49

ticker is WFM start_index 24261 end_index 24273 start_price 30.51 end_price 32.35

ticker is WFM start_index 24319 end_index 24331 start_price 30.39 end_price 31.01

ticker is WFM start_index 24393 end_index 24405 start_price 30.94 end_price 30.5

ticker is WFM start_index 24453 end_index 24465 start_price 30.72 end_price 29.66

ticker is WFM start_index 24517 end_index 24529 start_price 36.15 end_price 34.73

ticker is WFM start_index 24570 end_index 24582 start_price 41.84 end_price 41.73 appending WFM

ticker is WMK start_index 24614 end_index 24626 start_price 43.27 end_price 42.48

ticker is WMK start_index 24676 end_index 24688 start_price 40.38 end_price 38.45

ticker is WMK start_index 24761 end_index 24773 start_price 41.02 end_price 40.3

ticker is WMK start_index 24800 end_index 24812 start_price 42.49 end_price 42.7

ticker is WMK start_index 24863 end_index 24875 start_price 50.81 end_price 48.03

ticker is WMK start_index 24927 end_index 24939 start_price 49.21 end_price 49.77

ticker is WMK start_index 25013 end_index 25025 start_price 49.49 end_price 49.25

ticker is WMK start_index 25051 end_index 25063 start_price 45.2 end_price 44.66

ticker is WMK start_index 25114 end_index 25126 start_price 43.43 end_price 42.5

ticker is WMK start_index 25178 end_index 25190 start_price 44.63 end_price 44.08

ticker is WMK start_index 25264 end_index 25276 start price 50.36 end price 50.02

ticker is WMK start_index 25298 end_index 25310 start price 44.35 end price 43.8

ticker is WMK start_index 25363 end_index 25375 start_price 42.01 end_price 42.73

ticker is WMK start_index 25497 end_index 25509 start_price 38.92 end_price 41.91

ticker is WMK start_index 25520 end_index 25532 start_price 43.38 end_price 44.39

ticker is WMK start_index 25553 end_index 25565 start_price 45.43 end_price 48.36

ticker is WMK start_index 25611 end_index 25623 start_price 51.55 end_price 51.79

ticker is WMK start_index 25680 end_index 25692

start_price 56.51 end_price 61.2 ticker is WMK start_index 25770 end_index 25782 start_price 59.08 end_price 59.65 ticker is WMK start_index 25809 end_index 25821 start price 57.79 end price 53.88 ticker is WMK start_index 25872 end_index 25884 start price 44.49 end price 45.05 ticker is WMK start_index 25934 end_index 25946 start_price 34.0 end_price 38.22 ticker is WMK start_index 26021 end_index 26033 start_price 38.37 end_price 40.24 ticker is WMK start_index 26060 end_index 26072 start_price 48.03 end_price 53.51 ticker is WMK start_index 26122 end_index 26134 start_price 48.66 end_price 48.59 ticker is WMK start_index 26187 end_index 26199 start_price 46.46 end_price 47.37 ticker is WMK start_index 26271 end_index 26283 start_price 40.5 end_price 40.81 ticker is WMK start index 26310 end index 26322 start_price 38.77 end_price 38.46 ticker is WMK start index 26371 end index 26383 start_price 37.6 end_price 39.22 ticker is WMK start_index 26434 end_index 26446 start_price 38.87 end_price 39.19 ticker is WMK start_index 26522 end_index 26534 start_price 36.39 end_price 38.64 ticker is WMK start_index 26561 end_index 26573 start_price 54.64 end_price 55.98 ticker is WMK start_index 26623 end_index 26635 start_price 51.17 end_price 50.27 ticker is WMK start_index 26688 end_index 26700 start_price 46.35 end_price 48.67 ticker is WMK start_index 26773 end_index 26785 start price 58.85 end price 57.51 ticker is WMK start_index 26812 end_index 26824 start_price 52.64 end_price 52.2 appending WMK ticker is ACI start_index 25 end_index 38 start_price 14.83 end_price 15.04 ticker is ACI start_index 80 end_index 93 start_price 15.22 end_price 15.49 ticker is ACI start_index 137 end_index 150 start_price 17.1 end_price 17.08 ticker is ACI start_index 209 end_index 222 start_price 18.11 end_price 19.19 appending ACI ticker is ARDNA start_index 330 end_index 343

start_price 82.6 end_price 89.05 ticker is ARDNA start_index 394 end_index 407 start_price 95.88 end_price 107.5 ticker is ARDNA start_index 478 end_index 491 start price 98.31 end price 99.85 ticker is ARDNA start_index 519 end_index 532 start_price 98.65 end_price 105.15 ticker is ARDNA start_index 583 end_index 596 start_price 132.78 end_price 134.22 ticker is ARDNA start_index 647 end_index 660 start_price 129.85 end_price 128.4 appending ARDNA ticker is ASAI start_index 754 end_index 767 start_price 14.81 end_price 16.02 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3101 start_price 17.35 end_price 17.4 ticker is FWMHQ start_index 3122 end_index 3135 start price 20.73 end price 23.77 ticker is FWMHQ start_index 3166 end_index 3179 start price 25.83 end price 24.69 ticker is FWMHQ start_index 3230 end_index 3243 start_price 25.46 end_price 18.25 ticker is FWMHQ start_index 3291 end_index 3304 start_price 11.14 end_price 7.64 ticker is FWMHQ start_index 3368 end_index 3381 start_price 6.75 end_price 7.14 ticker is FWMHQ start_index 3417 end_index 3430 start_price 5.74 end_price 4.57 ticker is FWMHQ start_index 3481 end_index 3494 start_price 2.59 end_price 3.83 ticker is FWMHQ start_index 3542 end_index 3555 start_price 5.02 end_price 5.75 ticker is FWMHQ start index 3617 end index 3630 start_price 4.63 end_price 3.84 ticker is FWMHQ start_index 3666 end_index 3679 start_price 3.02 end_price 2.28 ticker is FWMHQ start_index 3727 end_index 3740 start_price 1.71 end_price 1.08 ticker is FWMHQ start_index 3794 end_index 3807 start_price 0.499 end_price 0.308 appending FWMHQ ticker is GO start_index 3900 end_index 3913 start_price 28.51 end_price 32.72 ticker is GO start_index 3936 end_index 3949 start_price 37.54 end_price 41.82 ticker is GO start_index 3972 end_index 3985

start_price 33.01 end_price 32.75 ticker is GO start_index 4000 end_index 4013 start_price 31.0 end_price 33.13 ticker is GO start_index 4050 end_index 4063 start price 35.43 end price 31.54 ticker is GO start_index 4091 end_index 4104 start_price 33.2 end_price 33.99 ticker is GO start_index 4124 end_index 4137 start_price 36.67 end_price 36.81 ticker is GO start_index 4187 end_index 4200 start_price 44.33 end_price 41.78 ticker is GO start_index 4251 end_index 4264 start_price 41.21 end_price 37.84 ticker is GO start_index 4326 end_index 4339 start_price 35.91 end_price 35.41 ticker is GO start_index 4376 end_index 4389 start_price 40.54 end_price 34.07 appending GO ticker is HTSI start_index 4491 end_index 4504 start price 41.53 end price 39.25 ticker is HTSI start_index 4562 end_index 4575 start_price 36.17 end_price 38.68 ticker is HTSI start_index 4614 end_index 4627 start_price 36.95 end_price 42.46 ticker is HTSI start_index 4676 end_index 4689 start_price 45.29 end_price 47.03 ticker is HTSI start_index 4740 end_index 4753 start_price 49.2 end_price 49.19 ticker is HTSI start_index 4820 end_index 4833 start_price 49.38 end_price 49.35 appending HTSI ticker is IFMK start_index 4953 end_index 4966 start_price 11.99 end_price 13.65 ticker is IFMK start_index 4984 end_index 4997 start price 12.81 end price 12.18 ticker is IFMK start_index 5049 end_index 5062 start_price 11.13 end_price 11.001 ticker is IFMK start_index 5111 end_index 5124 start_price 11.92 end_price 9.85 ticker is IFMK start_index 5205 end_index 5218 start_price 5.5 end_price 4.289 ticker is IFMK start_index 5236 end_index 5249 start_price 3.8 end_price 3.3 ticker is IFMK start_index 5301 end_index 5314 start_price 1.4 end_price 1.09 ticker is IFMK start_index 5362 end_index 5375 start_price 1.07 end_price 1.57 ticker is IFMK start_index 5455 end_index 5468

```
start_price 1.2 end_price 1.71
ticker is IFMK start_index 5487 end_index 5500
start_price 2.27 end_price 1.815
ticker is IFMK start_index 5552 end_index 5565
start price 0.375 end price 0.3779999999999995
ticker is IFMK start_index 5614 end_index 5627
start_price 0.4220000000000004 end_price 0.46
ticker is IFMK start_index 5739 end_index 5752
start_price 0.939000000000001 end_price 0.938
ticker is IFMK start_index 5744 end_index 5757
start_price 0.9 end_price 0.88
ticker is IFMK start_index 5810 end_index 5823
start_price 0.859000000000001 end_price 0.794
ticker is IFMK start_index 5830 end_index 5843
ticker is IFMK start_index 5870 end_index 5883
start_price 1.95 end_price 1.51
appending IFMK
ticker is IMKTA start_index 6035 end_index 6048
start price 16.36 end price 16.21
ticker is IMKTA start_index 6135 end_index 6148
start price 17.2 end price 17.06
ticker is IMKTA start_index 6164 end_index 6177
start_price 19.3 end_price 20.33
ticker is IMKTA start_index 6226 end_index 6239
start_price 21.46 end_price 22.07
ticker is IMKTA start_index 6288 end_index 6301
start_price 25.69 end_price 25.9
ticker is IMKTA start_index 6378 end_index 6391
start_price 24.41 end_price 27.1
ticker is IMKTA start_index 6413 end_index 6426
start_price 24.02 end_price 23.53
ticker is IMKTA start_index 6476 end_index 6489
start_price 26.07 end_price 26.71
ticker is IMKTA start index 6541 end index 6554
start_price 24.47 end_price 25.08
ticker is IMKTA start_index 6632 end_index 6645
start_price 32.08 end_price 40.735
ticker is IMKTA start_index 6666 end_index 6679
start_price 44.06 end_price 43.37
ticker is IMKTA start_index 6728 end_index 6741
start_price 40.87 end_price 50.32
ticker is IMKTA start_index 6790 end_index 6803
start_price 49.9 end_price 53.66
ticker is IMKTA start_index 6880 end_index 6893
start_price 53.84 end_price 43.75
ticker is IMKTA start_index 6917 end_index 6930
start_price 36.2 end_price 36.26
```

```
ticker is IMKTA start_index 6980 end_index 6993
start_price 36.73 end_price 36.48
ticker is IMKTA start_index 7042 end_index 7055
start_price 36.86 end_price 36.97
ticker is IMKTA start index 7137 end index 7150
start_price 48.05 end_price 48.9
ticker is IMKTA start index 7167 end index 7180
start_price 45.25 end_price 46.8
ticker is IMKTA start_index 7230 end_index 7243
start_price 45.85 end_price 37.85
ticker is IMKTA start_index 7293 end_index 7306
start_price 29.5 end_price 26.15
ticker is IMKTA start_index 7381 end_index 7394
start_price 27.7 end_price 34.7
ticker is IMKTA start_index 7424 end_index 7437
start_price 30.55 end_price 32.6
ticker is IMKTA start_index 7486 end_index 7499
start_price 30.95 end_price 30.2
ticker is IMKTA start_index 7550 end_index 7563
start price 29.55 end price 36.6
ticker is IMKTA start_index 7633 end_index 7646
start_price 28.1 end_price 27.62
ticker is IMKTA start_index 7674 end_index 7687
start_price 28.96 end_price 30.5
ticker is IMKTA start_index 7736 end_index 7749
start_price 27.45 end_price 31.12
ticker is IMKTA start_index 7800 end_index 7813
start_price 31.75 end_price 38.39
ticker is IMKTA start_index 7886 end_index 7899
start_price 43.48 end_price 47.73
ticker is IMKTA start_index 7925 end_index 7938
start_price 42.76 end_price 33.29
ticker is IMKTA start_index 7988 end_index 8001
start_price 37.61 end_price 40.95
ticker is IMKTA start index 8051 end index 8064
start_price 39.9 end_price 42.13
ticker is IMKTA start_index 8137 end_index 8150
start_price 37.41 end_price 40.74
ticker is IMKTA start_index 8176 end_index 8189
start_price 47.26 end_price 51.37
ticker is IMKTA start_index 8238 end_index 8251
start_price 62.74 end_price 62.05
appending IMKTA
ticker is KR start_index 8385 end_index 8398
start_price 11.905 end_price 11.845
ticker is KR start_index 8442 end_index 8455
start_price 13.325 end_price 12.84
ticker is KR start_index 8517 end_index 8530
```

start_price 16.27 end_price 16.88 ticker is KR start_index 8579 end_index 8592 start_price 17.355 end_price 19.22 ticker is KR start_index 8639 end_index 8652 start price 20.24 end price 20.345 ticker is KR start_index 8696 end_index 8709 start_price 19.995 end_price 19.64 ticker is KR start_index 8769 end_index 8782 start_price 21.825 end_price 22.14 ticker is KR start_index 8832 end_index 8845 start_price 24.715 end_price 24.8 ticker is KR start_index 8890 end_index 8903 start_price 26.015 end_price 26.63 ticker is KR start_index 8949 end_index 8962 start_price 30.765 end_price 31.54 ticker is KR start_index 9020 end_index 9033 start_price 38.62 end_price 35.92 ticker is KR start_index 9083 end_index 9096 start_price 36.335 end_price 38.72 ticker is KR start index 9141 end index 9154 start_price 36.66 end_price 38.0 ticker is KR start_index 9202 end_index 9215 start_price 42.43 end_price 42.05 ticker is KR start_index 9270 end_index 9283 start_price 38.06 end_price 37.07 ticker is KR start_index 9334 end_index 9347 start_price 36.62 end_price 36.71 ticker is KR start_index 9392 end_index 9405 start_price 30.79 end_price 29.37 ticker is KR start_index 9451 end_index 9464 start_price 34.22 end_price 34.51 ticker is KR start_index 9522 end_index 9535 start_price 28.93 end_price 29.97 ticker is KR start_index 9585 end_index 9598 start price 22.61 end price 23.01 ticker is KR start_index 9641 end_index 9654 start_price 21.26 end_price 20.56 ticker is KR start_index 9700 end_index 9713 start_price 26.53 end_price 27.71 ticker is KR start_index 9777 end_index 9790 start_price 23.28 end_price 24.18 ticker is KR start_index 9839 end_index 9852 start_price 28.43 end_price 28.14 ticker is KR start_index 9899 end_index 9912 start_price 29.61 end_price 26.74 ticker is KR start_index 9957 end_index 9970 start_price 28.92 end_price 27.92 ticker is KR start_index 10028 end_index 10041 start_price 24.48 end_price 25.78 ticker is KR start_index 10089 end_index 10102 start_price 21.39 end_price 21.64 ticker is KR start_index 10149 end_index 10162 start price 25.72 end price 23.84 ticker is KR start_index 10208 end_index 10221 start_price 28.31 end_price 28.8 ticker is KR start_index 10280 end_index 10293 start_price 30.12 end_price 31.93 ticker is KR start_index 10340 end_index 10353 start_price 32.78 end_price 33.77 ticker is KR start_index 10400 end_index 10413 start_price 33.46 end_price 34.29 ticker is KR start_index 10459 end_index 10472 start_price 31.3 end_price 32.13 ticker is KR start_index 10530 end_index 10543 start_price 37.95 end_price 37.11 appending KR ticker is NGVC start_index 10745 end_index 10758 start price 19.38 end price 19.98 ticker is NGVC start_index 10747 end_index 10760 start_price 19.59 end_price 19.09 ticker is NGVC start_index 10777 end_index 10790 start_price 20.32 end_price 22.66 ticker is NGVC start_index 10845 end_index 10858 start_price 25.03 end_price 28.79 ticker is NGVC start_index 10907 end_index 10920 start_price 35.4 end_price 37.66 ticker is NGVC start_index 10996 end_index 11009 start_price 37.94 end_price 42.45 ticker is NGVC start_index 11028 end_index 11041 start_price 33.51 end_price 40.19 ticker is NGVC start_index 11091 end_index 11104 start_price 35.6 end_price 23.12 ticker is NGVC start index 11154 end index 11167 start_price 23.88 end_price 18.7 ticker is NGVC start_index 11247 end_index 11260 start_price 25.45 end_price 26.82 ticker is NGVC start_index 11279 end_index 11292 start_price 28.06 end_price 30.25 ticker is NGVC start_index 11347 end_index 11360 start_price 26.87 end_price 24.89 ticker is NGVC start_index 11405 end_index 11418 start_price 22.29 end_price 24.88 ticker is NGVC start_index 11498 end_index 11511 start_price 20.11 end_price 20.89 ticker is NGVC start_index 11530 end_index 11543 start_price 20.67 end_price 18.98

```
ticker is NGVC start_index 11598 end_index 11611
start_price 13.09 end_price 13.37
ticker is NGVC start_index 11656 end_index 11669
start_price 13.49 end_price 12.21
ticker is NGVC start index 11749 end index 11762
start_price 11.69 end_price 12.24
ticker is NGVC start index 11786 end index 11799
start_price 12.54 end_price 12.4
ticker is NGVC start_index 11849 end_index 11862
start_price 10.7 end_price 9.79
ticker is NGVC start_index 11912 end_index 11925
start_price 8.61 end_price 6.17
ticker is NGVC start_index 12000 end_index 12013
start_price 8.3 end_price 8.99
ticker is NGVC start_index 12037 end_index 12050
start_price 8.6 end_price 6.87
ticker is NGVC start_index 12100 end_index 12113
start_price 7.19 end_price 10.63
ticker is NGVC start_index 12163 end_index 12176
start price 12.54 end price 18.78
ticker is NGVC start_index 12250 end_index 12263
start price 17.5 end price 15.42
ticker is NGVC start_index 12292 end_index 12305
start_price 14.0 end_price 14.17
ticker is NGVC start_index 12350 end_index 12363
start_price 12.16 end_price 11.5
ticker is NGVC start_index 12413 end_index 12426
start_price 9.17 end_price 9.56
ticker is NGVC start_index 12501 end_index 12514
start_price 9.32 end_price 10.21
ticker is NGVC start_index 12543 end_index 12556
start_price 9.35 end_price 7.57
ticker is NGVC start_index 12606 end_index 12619
start_price 10.72 end_price 14.86
ticker is NGVC start index 12669 end index 12682
start_price 16.06 end_price 13.42
ticker is NGVC start_index 12757 end_index 12770
start_price 13.8 end_price 13.59
ticker is NGVC start_index 12794 end_index 12807
start_price 16.18 end_price 14.51
ticker is NGVC start_index 12857 end_index 12870
start_price 16.08 end_price 11.7
appending NGVC
ticker is QKLS start_index 12979 end_index 12992
start_price 8.08 end_price 6.8
ticker is QKLS start_index 13042 end_index 13055
start_price 5.12 end_price 6.56
ticker is QKLS start_index 13144 end_index 13157
```

```
start_price 5.98 end_price 3.54
ticker is QKLS start_index 13165 end_index 13178
start_price 3.43 end_price 4.15
ticker is QKLS start_index 13229 end_index 13242
start price 6.2 end price 4.24
ticker is QKLS start_index 13294 end_index 13307
start_price 4.55 end_price 4.2
ticker is QKLS start_index 13390 end_index 13403
start_price 4.33 end_price 4.15
ticker is QKLS start_index 13418 end_index 13431
start_price 3.71 end_price 3.65
ticker is QKLS start_index 13481 end_index 13494
start_price 3.37 end_price 3.35
ticker is QKLS start_index 13546 end_index 13559
start_price 2.31 end_price 1.97
ticker is QKLS start_index 13648 end_index 13661
start_price 3.15 end_price 2.76
ticker is QKLS start_index 13670 end_index 13683
start_price 3.1 end_price 2.2
ticker is QKLS start index 13734 end index 13747
start_price 1.64 end_price 1.27
ticker is QKLS start_index 13798 end_index 13811
start_price 0.9 end_price 0.86
ticker is QKLS start_index 13900 end_index 13913
start_price 0.66 end_price 0.71
appending QKLS
ticker is RNDY start_index 15282 end_index 15295
start_price 7.71 end_price 7.48
ticker is RNDY start_index 15345 end_index 15358
start_price 4.24 end_price 4.75
ticker is RNDY start_index 15433 end_index 15446
start_price 6.74 end_price 7.0
ticker is RNDY start_index 15467 end_index 15480
start_price 7.33 end_price 7.55
ticker is RNDY start index 15530 end index 15543
start_price 8.57 end_price 8.77
ticker is RNDY start_index 15594 end_index 15607
start_price 9.15 end_price 8.49
ticker is RNDY start_index 15674 end_index 15687
start_price 6.08 end_price 6.18
ticker is RNDY start_index 15716 end_index 15729
start_price 6.65 end_price 5.17
ticker is RNDY start_index 15779 end_index 15792
start_price 4.78 end_price 3.85
ticker is RNDY start_index 15843 end_index 15856
start_price 3.45 end_price 4.17
ticker is RNDY start_index 15930 end_index 15943
start_price 4.48 end_price 4.89
```

ticker is RNDY start_index 15972 end_index 15985 start_price 4.65 end_price 3.39

ticker is RNDY start_index 16035 end_index 16048 start_price 2.46 end_price 2.4

ticker is RNDY start_index 16100 end_index 16113 start_price 3.57 end_price 3.59 appending RNDY

ticker is SFM start_index 16141 end_index 16154 start_price 38.59 end_price 38.21

ticker is SFM start_index 16194 end_index 16207 start_price 48.04 end_price 37.52

ticker is SFM start_index 16201 end_index 16214 start_price 43.05 end_price 37.58

ticker is SFM start_index 16269 end_index 16282 start_price 36.85 end_price 37.83

ticker is SFM start_index 16281 end_index 16294 start_price 37.95 end_price 38.12

ticker is SFM start_index 16317 end_index 16330 start_price 31.09 end_price 27.12

ticker is SFM start_index 16381 end_index 16394 start_price 31.75 end_price 30.59

ticker is SFM start_index 16445 end_index 16458 start_price 30.69 end_price 31.91

ticker is SFM start_index 16520 end_index 16533 start_price 37.09 end_price 34.52

ticker is SFM start_index 16569 end_index 16582 start_price 31.06 end_price 29.74

ticker is SFM start_index 16632 end_index 16645 start_price 24.03 end_price 19.59

ticker is SFM start_index 16696 end_index 16709 start_price 19.88 end_price 23.6

ticker is SFM start_index 16771 end_index 16784 start_price 25.21 end_price 28.06

ticker is SFM start_index 16820 end_index 16833 start_price 27.38 end_price 24.48

ticker is SFM start_index 16883 end_index 16896 start_price 23.25 end_price 22.97

ticker is SFM start_index 16947 end_index 16960 start_price 22.57 end_price 21.68

ticker is SFM start_index 17022 end_index 17035 start_price 19.0 end_price 17.94

ticker is SFM start_index 17071 end_index 17084 start_price 22.75 end_price 24.04

ticker is SFM start_index 17134 end_index 17147 start_price 23.98 end_price 23.87

ticker is SFM start_index 17198 end_index 17211 start_price 18.87 end_price 21.31

ticker is SFM start_index 17273 end_index 17286

start_price 26.12 end_price 25.14 ticker is SFM start_index 17322 end_index 17335 start_price 24.39 end_price 21.96 ticker is SFM start_index 17385 end_index 17398 start price 21.2 end price 24.54 ticker is SFM start_index 17449 end_index 17462 start_price 26.89 end_price 27.61 ticker is SFM start_index 17523 end_index 17536 start_price 24.14 end_price 22.22 ticker is SFM start_index 17572 end_index 17585 start_price 21.29 end_price 20.74 ticker is SFM start_index 17635 end_index 17648 start_price 16.93 end_price 18.02 ticker is SFM start_index 17699 end_index 17712 start_price 18.75 end_price 19.94 ticker is SFM start_index 17774 end_index 17787 start_price 15.86 end_price 16.47 ticker is SFM start_index 17826 end_index 17839 start_price 21.76 end_price 24.51 ticker is SFM start index 17885 end index 17898 start_price 27.02 end_price 24.5 ticker is SFM start index 17949 end index 17962 start_price 20.4 end_price 20.41 ticker is SFM start_index 18030 end_index 18043 start_price 21.48 end_price 24.81 ticker is SFM start_index 18079 end_index 18092 start_price 25.87 end_price 25.57 appending SFM ticker is SFS start_index 18209 end_index 18222 start_price 15.49 end_price 15.96 ticker is SFS start_index 18296 end_index 18309 start_price 18.4 end_price 18.87 ticker is SFS start_index 18320 end_index 18333 start_price 17.87 end_price 17.01 ticker is SFS start index 18379 end index 18392 start_price 17.79 end_price 16.59 ticker is SFS start_index 18458 end_index 18471 start_price 14.6 end_price 17.67 ticker is SFS start_index 18541 end_index 18554 start_price 15.8 end_price 15.98 ticker is SFS start_index 18576 end_index 18589 start_price 16.03 end_price 15.74 ticker is SFS start_index 18636 end_index 18649 start_price 15.03 end_price 13.62 ticker is SFS start_index 18714 end_index 18727 start_price 13.45 end_price 13.3 ticker is SFS start_index 18795 end_index 18808 start_price 11.55 end_price 11.8

ticker is SFS start_index 18828 end_index 18841 start_price 11.65 end_price 13.5 ticker is SFS start_index 18885 end_index 18898 start_price 8.1 end_price 7.55 ticker is SFS start index 18965 end index 18978 start_price 7.25 end_price 8.8 ticker is SFS start index 19046 end index 19059 start_price 6.0 end_price 5.6 ticker is SFS start_index 19079 end_index 19092 start_price 5.3 end_price 4.7 ticker is SFS start_index 19137 end_index 19150 start_price 5.5 end_price 6.75 ticker is SFS start_index 19216 end_index 19229 start_price 4.95 end_price 5.71 ticker is SFS start_index 19296 end_index 19309 start_price 5.26 end_price 5.11 ticker is SFS start_index 19330 end_index 19343 start_price 6.52 end_price 6.53 appending SFS ticker is SWY start index 19378 end index 19391 start_price 15.26 end_price 16.3 ticker is SWY start_index 19437 end_index 19450 start_price 15.67 end_price 16.71 ticker is SWY start_index 19525 end_index 19538 start_price 22.76 end_price 24.38 ticker is SWY start_index 19569 end_index 19582 start_price 23.51 end_price 25.01 ticker is SWY start_index 19628 end_index 19641 start_price 25.57 end_price 25.05 ticker is SWY start_index 19687 end_index 19700 start_price 32.74 end_price 35.16 ticker is SWY start_index 19777 end_index 19790 start_price 37.13 end_price 38.39 ticker is SWY start_index 19821 end_index 19834 start price 34.08 end price 34.45 ticker is SWY start_index 19878 end_index 19891 start_price 34.82 end_price 34.55 ticker is SWY start_index 19938 end_index 19951 start_price 33.97 end_price 34.86 appending SWY ticker is TFM start_index 20057 end_index 20070 start_price 58.34 end_price 58.62 ticker is TFM start_index 20119 end_index 20132 start_price 50.7 end_price 48.81 ticker is TFM start_index 20194 end_index 20207 start_price 42.7 end_price 40.46 ticker is TFM start_index 20243 end_index 20256 start_price 50.26 end_price 49.77

ticker is TFM start_index 20307 end_index 20320 start_price 49.7 end_price 48.13 ticker is TFM start_index 20364 end_index 20377 start_price 39.97 end_price 40.02 ticker is TFM start index 20442 end index 20455 start_price 34.18 end_price 35.77 ticker is TFM start index 20493 end index 20506 start_price 32.95 end_price 34.19 ticker is TFM start_index 20557 end_index 20570 start_price 33.73 end_price 34.98 ticker is TFM start_index 20621 end_index 20634 start_price 39.53 end_price 40.8 ticker is TFM start_index 20694 end_index 20707 start_price 41.09 end_price 41.0 ticker is TFM start_index 20740 end_index 20753 start_price 32.43 end_price 32.34 ticker is TFM start_index 20804 end_index 20817 start_price 19.91 end_price 24.24 ticker is TFM start_index 20870 end_index 20883 start price 23.98 end price 23.76 ticker is TFM start_index 20947 end_index 20960 start_price 28.47 end_price 28.44 appending TFM ticker is VLGEA start_index 21041 end_index 21054 start_price 34.06 end_price 37.74 ticker is VLGEA start_index 21079 end_index 21092 start_price 37.11 end_price 32.41 ticker is VLGEA start_index 21140 end_index 21153 start_price 34.1 end_price 33.75 ticker is VLGEA start_index 21203 end_index 21216 start_price 36.37 end_price 32.94 ticker is VLGEA start_index 21290 end_index 21303 start_price 34.85 end_price 35.93 ticker is VLGEA start_index 21330 end_index 21343 start price 38.45 end price 31.45 ticker is VLGEA start_index 21390 end_index 21403 start_price 27.32 end_price 28.39 ticker is VLGEA start_index 21454 end_index 21467 start_price 22.89 end_price 23.72 ticker is VLGEA start_index 21542 end_index 21555 start_price 23.46 end_price 24.72 ticker is VLGEA start_index 21581 end_index 21594 start_price 24.04 end_price 24.84 ticker is VLGEA start_index 21642 end_index 21655 start_price 27.66 end_price 29.49 ticker is VLGEA start_index 21705 end_index 21718 start_price 32.29 end_price 31.33 ticker is VLGEA start_index 21793 end_index 21806

```
start_price 25.39 end_price 24.37
ticker is VLGEA start_index 21833 end_index 21846
start_price 25.61 end_price 26.27
ticker is VLGEA start_index 21893 end_index 21906
start price 26.41 end price 24.48
ticker is VLGEA start_index 21957 end_index 21970
start_price 27.37 end_price 28.86
ticker is VLGEA start_index 22049 end_index 22062
start_price 31.72 end_price 30.02
ticker is VLGEA start_index 22088 end_index 22101
start_price 35.63 end_price 31.88
ticker is VLGEA start_index 22150 end_index 22163
start_price 27.06 end_price 26.16
ticker is VLGEA start_index 22212 end_index 22225
start_price 25.07 end_price 25.23
ticker is VLGEA start_index 22301 end_index 22314
start_price 24.9 end_price 23.71
ticker is VLGEA start_index 22338 end_index 22351
start_price 25.44 end_price 23.4
ticker is VLGEA start index 22401 end index 22414
start_price 24.07 end_price 25.74
ticker is VLGEA start_index 22464 end_index 22477
start_price 28.29 end_price 30.21
ticker is VLGEA start_index 22552 end_index 22565
start_price 24.9 end_price 25.24
ticker is VLGEA start_index 22590 end_index 22603
start_price 25.44 end_price 24.51
ticker is VLGEA start_index 22650 end_index 22663
start_price 31.5 end_price 27.81
ticker is VLGEA start_index 22712 end_index 22725
start_price 26.18 end_price 24.83
ticker is VLGEA start_index 22802 end_index 22815
start_price 26.27 end_price 25.79
ticker is VLGEA start_index 22841 end_index 22854
start price 25.79 end price 23.57
ticker is VLGEA start_index 22902 end_index 22915
start_price 21.35 end_price 21.92
ticker is VLGEA start_index 22965 end_index 22978
start_price 25.46 end_price 25.38
ticker is VLGEA start_index 23053 end_index 23066
start_price 24.32 end_price 23.4
ticker is VLGEA start_index 23092 end_index 23105
start_price 23.13 end_price 21.84
ticker is VLGEA start_index 23153 end_index 23166
start_price 23.88 end_price 24.44
appending VLGEA
ticker is WFM start_index 23312 end_index 23325
start_price 46.455 end_price 47.97
```

ticker is WFM start_index 23387 end_index 23400 start_price 46.7119999999999 end_price 45.33 ticker is WFM start_index 23449 end_index 23462 start_price 42.465 end_price 42.895 ticker is WFM start index 23508 end index 23521 start_price 51.02 end_price 50.42 ticker is WFM start index 23566 end index 23579 start_price 55.9 end_price 51.86 ticker is WFM start_index 23640 end_index 23653 start_price 56.48 end_price 56.18 ticker is WFM start_index 23700 end_index 23713 start_price 52.35 end_price 54.26 ticker is WFM start_index 23759 end_index 23772 start_price 38.76 end_price 38.38 ticker is WFM start_index 23817 end_index 23830 start_price 37.35 end_price 38.495 ticker is WFM start_index 23891 end_index 23904 start_price 47.69 end_price 47.4 ticker is WFM start_index 23956 end_index 23969 start price 56.73 end price 53.92 ticker is WFM start_index 24010 end_index 24023 start_price 42.9 end_price 41.05 ticker is WFM start_index 24068 end_index 24081 start_price 34.84 end_price 31.59 ticker is WFM start_index 24137 end_index 24150 start_price 29.91 end_price 29.98 ticker is WFM start_index 24207 end_index 24220 start_price 30.86 end_price 33.31 ticker is WFM start_index 24261 end_index 24274 start_price 30.51 end_price 33.94 ticker is WFM start_index 24319 end_index 24332 start_price 30.39 end_price 30.56 ticker is WFM start_index 24393 end_index 24406 start_price 30.94 end_price 31.03 ticker is WFM start index 24453 end index 24466 start_price 30.72 end_price 29.47 ticker is WFM start_index 24517 end_index 24530 start_price 36.15 end_price 34.92 ticker is WFM start_index 24570 end_index 24583 start_price 41.84 end_price 41.71 appending WFM ticker is WMK start_index 24614 end_index 24627 start_price 43.27 end_price 42.41 ticker is WMK start_index 24676 end_index 24689 start_price 40.38 end_price 38.22 ticker is WMK start_index 24761 end_index 24774 start_price 41.02 end_price 40.44 ticker is WMK start_index 24800 end_index 24813 start_price 42.49 end_price 42.69 ticker is WMK start_index 24863 end_index 24876 start_price 50.81 end_price 48.49 ticker is WMK start_index 24927 end_index 24940 start price 49.21 end price 49.68 ticker is WMK start_index 25013 end_index 25026 start_price 49.49 end_price 50.07 ticker is WMK start_index 25051 end_index 25064 start_price 45.2 end_price 45.72 ticker is WMK start_index 25114 end_index 25127 start_price 43.43 end_price 42.64 ticker is WMK start_index 25178 end_index 25191 start_price 44.63 end_price 44.68 ticker is WMK start_index 25264 end_index 25277 start_price 50.36 end_price 49.76 ticker is WMK start_index 25298 end_index 25311 start_price 44.35 end_price 43.56 ticker is WMK start_index 25363 end_index 25376 start_price 42.01 end_price 42.37 ticker is WMK start index 25497 end index 25510 start_price 38.92 end_price 41.96 ticker is WMK start_index 25520 end_index 25533 start_price 43.38 end_price 44.91 ticker is WMK start_index 25553 end_index 25566 start_price 45.43 end_price 48.12 ticker is WMK start_index 25611 end_index 25624 start_price 51.55 end_price 51.72 ticker is WMK start_index 25680 end_index 25693 start_price 56.51 end_price 60.75 ticker is WMK start_index 25770 end_index 25783 start_price 59.08 end_price 58.88 ticker is WMK start_index 25809 end_index 25822 start_price 57.79 end_price 52.44 ticker is WMK start_index 25872 end_index 25885 start price 44.49 end price 44.33 ticker is WMK start_index 25934 end_index 25947 start_price 34.0 end_price 37.36 ticker is WMK start_index 26021 end_index 26034 start_price 38.37 end_price 41.67 ticker is WMK start_index 26060 end_index 26073 start_price 48.03 end_price 53.0 ticker is WMK start_index 26122 end_index 26135 start_price 48.66 end_price 48.85 ticker is WMK start_index 26187 end_index 26200 start_price 46.46 end_price 47.66 ticker is WMK start_index 26271 end_index 26284 start_price 40.5 end_price 40.83 ticker is WMK start_index 26310 end_index 26323 start_price 38.77 end_price 37.98 ticker is WMK start_index 26371 end_index 26384 start_price 37.6 end_price 39.21 ticker is WMK start_index 26434 end_index 26447 start price 38.87 end price 38.9 ticker is WMK start_index 26522 end_index 26535 start price 36.39 end price 40.09 ticker is WMK start_index 26561 end_index 26574 start_price 54.64 end_price 53.67 ticker is WMK start_index 26623 end_index 26636 start_price 51.17 end_price 49.89 ticker is WMK start_index 26688 end_index 26701 start_price 46.35 end_price 49.13 ticker is WMK start_index 26773 end_index 26786 start_price 58.85 end_price 57.61 ticker is WMK start_index 26812 end_index 26825 start_price 52.64 end_price 51.69 appending WMK ticker is ACI start_index 25 end_index 39 start price 14.83 end price 14.9 ticker is ACI start_index 80 end_index 94 start_price 15.22 end_price 14.8 ticker is ACI start_index 137 end_index 151 start_price 17.1 end_price 16.48 ticker is ACI start_index 209 end_index 223 start_price 18.11 end_price 19.51 appending ACI ticker is ARDNA start_index 330 end_index 344 start_price 82.6 end_price 89.35 ticker is ARDNA start_index 394 end_index 408 start_price 95.88 end_price 112.57 ticker is ARDNA start_index 478 end_index 492 start_price 98.31 end_price 101.09 ticker is ARDNA start_index 519 end_index 533 start price 98.65 end price 106.15 ticker is ARDNA start_index 583 end_index 597 start price 132.78 end price 131.58 ticker is ARDNA start_index 647 end_index 661 start_price 129.85 end_price 126.8 appending ARDNA ticker is ASAI start_index 754 end_index 768 start_price 14.81 end_price 16.07 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3102 start_price 17.35 end_price 17.97 ticker is FWMHQ start_index 3122 end_index 3136 start_price 20.73 end_price 23.75

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ticker is FWMHQ start_index 3166 end_index 3180
start_price 25.83 end_price 23.42
ticker is FWMHQ start_index 3230 end_index 3244
start_price 25.46 end_price 18.47
ticker is FWMHQ start_index 3291 end_index 3305
start_price 11.14 end_price 7.92
ticker is FWMHQ start index 3368 end index 3382
start_price 6.75 end_price 7.17
ticker is FWMHQ start_index 3417 end_index 3431
start_price 5.74 end_price 4.59
ticker is FWMHQ start_index 3481 end_index 3495
start_price 2.59 end_price 3.83
ticker is FWMHQ start_index 3542 end_index 3556
start_price 5.02 end_price 5.69
ticker is FWMHQ start_index 3617 end_index 3631
start_price 4.63 end_price 3.93
ticker is FWMHQ start_index 3666 end_index 3680
start_price 3.02 end_price 2.25
ticker is FWMHQ start_index 3727 end_index 3741
start price 1.71 end price 1.04
ticker is FWMHQ start_index 3794 end_index 3808
start_price 0.499 end_price 0.318
appending FWMHQ
ticker is GO start_index 3900 end_index 3914
start_price 28.51 end_price 33.13
ticker is GO start_index 3936 end_index 3950
start_price 37.54 end_price 40.45
ticker is GO start_index 3972 end_index 3986
start_price 33.01 end_price 31.76
ticker is GO start_index 4000 end_index 4014
start_price 31.0 end_price 32.75
ticker is GO start_index 4050 end_index 4064
start_price 35.43 end_price 32.2
ticker is GO start_index 4091 end_index 4105
start price 33.2 end price 33.82
ticker is GO start_index 4124 end_index 4138
start_price 36.67 end_price 36.03
ticker is GO start_index 4187 end_index 4201
start_price 44.33 end_price 41.13
ticker is GO start_index 4251 end_index 4265
start_price 41.21 end_price 38.62
ticker is GO start_index 4326 end_index 4340
start_price 35.91 end_price 36.26
ticker is GO start_index 4376 end_index 4390
start_price 40.54 end_price 34.22
appending GO
ticker is HTSI start_index 4491 end_index 4505
start_price 41.53 end_price 39.6
```

```
ticker is HTSI start_index 4562 end_index 4576
start_price 36.17 end_price 38.73
ticker is HTSI start_index 4614 end_index 4628
start_price 36.95 end_price 42.76
ticker is HTSI start index 4676 end index 4690
start_price 45.29 end_price 47.63
ticker is HTSI start index 4740 end index 4754
start_price 49.2 end_price 49.15
ticker is HTSI start_index 4820 end_index 4834
start_price 49.38 end_price 49.33
appending HTSI
ticker is IFMK start_index 4953 end_index 4967
start_price 11.99 end_price 13.25
ticker is IFMK start_index 4984 end_index 4998
start_price 12.81 end_price 12.412
ticker is IFMK start_index 5049 end_index 5063
start_price 11.13 end_price 11.47
ticker is IFMK start_index 5111 end_index 5125
start_price 11.92 end_price 8.85
ticker is IFMK start index 5205 end index 5219
start_price 5.5 end_price 4.02
ticker is IFMK start_index 5236 end_index 5250
start_price 3.8 end_price 3.42
ticker is IFMK start_index 5301 end_index 5315
start_price 1.4 end_price 1.0
ticker is IFMK start_index 5362 end_index 5376
start_price 1.07 end_price 1.57
ticker is IFMK start_index 5455 end_index 5469
start_price 1.2 end_price 1.71
ticker is IFMK start_index 5487 end_index 5501
start_price 2.27 end_price 1.86
ticker is IFMK start_index 5552 end_index 5566
start_price 0.375 end_price 0.402999999999997
ticker is IFMK start_index 5614 end_index 5628
ticker is IFMK start_index 5739 end_index 5753
ticker is IFMK start_index 5744 end_index 5758
start_price 0.9 end_price 0.88
ticker is IFMK start_index 5810 end_index 5824
start_price 0.859000000000001 end_price 0.8
ticker is IFMK start_index 5830 end_index 5844
start_price 0.822000000000001 end_price 0.96
ticker is IFMK start_index 5870 end_index 5884
start_price 1.95 end_price 1.65
appending IFMK
ticker is IMKTA start_index 6035 end_index 6049
start_price 16.36 end_price 16.24
```

ticker is IMKTA start_index 6135 end_index 6149 start_price 17.2 end_price 17.29 ticker is IMKTA start_index 6164 end_index 6178 start_price 19.3 end_price 20.45 ticker is IMKTA start index 6226 end index 6240 start_price 21.46 end_price 23.31 ticker is IMKTA start index 6288 end index 6302 start_price 25.69 end_price 25.49 ticker is IMKTA start_index 6378 end_index 6392 start_price 24.41 end_price 26.84 ticker is IMKTA start_index 6413 end_index 6427 start_price 24.02 end_price 23.32 ticker is IMKTA start_index 6476 end_index 6490 start_price 26.07 end_price 27.31 ticker is IMKTA start_index 6541 end_index 6555 start_price 24.47 end_price 25.26 ticker is IMKTA start_index 6632 end_index 6646 start_price 32.08 end_price 39.86 ticker is IMKTA start_index 6666 end_index 6680 start price 44.06 end price 42.95 ticker is IMKTA start_index 6728 end_index 6742 start_price 40.87 end_price 49.47 ticker is IMKTA start_index 6790 end_index 6804 start_price 49.9 end_price 52.89 ticker is IMKTA start_index 6880 end_index 6894 start_price 53.84 end_price 43.69 ticker is IMKTA start_index 6917 end_index 6931 start_price 36.2 end_price 36.2 ticker is IMKTA start_index 6980 end_index 6994 start_price 36.73 end_price 37.78 ticker is IMKTA start_index 7042 end_index 7056 start_price 36.86 end_price 37.59 ticker is IMKTA start_index 7137 end_index 7151 start_price 48.05 end_price 48.0 ticker is IMKTA start index 7167 end index 7181 start_price 45.25 end_price 47.15 ticker is IMKTA start_index 7230 end_index 7244 start_price 45.85 end_price 37.85 ticker is IMKTA start_index 7293 end_index 7307 start_price 29.5 end_price 24.95 ticker is IMKTA start_index 7381 end_index 7395 start_price 27.7 end_price 36.35 ticker is IMKTA start_index 7424 end_index 7438 start_price 30.55 end_price 32.2 ticker is IMKTA start_index 7486 end_index 7500 start_price 30.95 end_price 29.7 ticker is IMKTA start_index 7550 end_index 7564 start_price 29.55 end_price 36.55

ticker is IMKTA start_index 7633 end_index 7647 start_price 28.1 end_price 26.41 ticker is IMKTA start_index 7674 end_index 7688 start_price 28.96 end_price 31.0 ticker is IMKTA start index 7736 end index 7750 start_price 27.45 end_price 31.39 ticker is IMKTA start index 7800 end index 7814 start_price 31.75 end_price 37.75 ticker is IMKTA start_index 7886 end_index 7900 start_price 43.48 end_price 48.6 ticker is IMKTA start_index 7925 end_index 7939 start_price 42.76 end_price 32.78 ticker is IMKTA start_index 7988 end_index 8002 start_price 37.61 end_price 43.09 ticker is IMKTA start_index 8051 end_index 8065 start_price 39.9 end_price 41.85 ticker is IMKTA start_index 8137 end_index 8151 start_price 37.41 end_price 42.05 ticker is IMKTA start_index 8176 end_index 8190 start price 47.26 end price 51.8 ticker is IMKTA start_index 8238 end_index 8252 start price 62.74 end price 61.57 appending IMKTA ticker is KR start_index 8385 end_index 8399 start_price 11.905 end_price 11.885 ticker is KR start_index 8442 end_index 8456 start_price 13.325 end_price 13.01 ticker is KR start_index 8517 end_index 8531 start_price 16.27 end_price 16.855 ticker is KR start_index 8579 end_index 8593 start_price 17.355 end_price 19.245 ticker is KR start_index 8639 end_index 8653 start_price 20.24 end_price 20.855 ticker is KR start_index 8696 end_index 8710 start price 19.995 end price 19.55 ticker is KR start_index 8769 end_index 8783 start_price 21.825 end_price 22.355 ticker is KR start_index 8832 end_index 8846 start_price 24.715 end_price 24.74 ticker is KR start_index 8890 end_index 8904 start_price 26.015 end_price 26.96 ticker is KR start_index 8949 end_index 8963 start_price 30.765 end_price 31.54 ticker is KR start_index 9020 end_index 9034 start_price 38.62 end_price 35.64 ticker is KR start_index 9083 end_index 9097 start_price 36.335 end_price 39.17 ticker is KR start_index 9141 end_index 9155

start_price 36.66 end_price 38.03 ticker is KR start_index 9202 end_index 9216 start_price 42.43 end_price 41.07 ticker is KR start_index 9270 end_index 9284 start price 38.06 end price 36.91 ticker is KR start_index 9334 end_index 9348 start_price 36.62 end_price 36.34 ticker is KR start_index 9392 end_index 9406 start_price 30.79 end_price 29.0 ticker is KR start_index 9451 end_index 9465 start_price 34.22 end_price 33.72 ticker is KR start_index 9522 end_index 9536 start_price 28.93 end_price 30.0 ticker is KR start_index 9585 end_index 9599 start_price 22.61 end_price 22.87 ticker is KR start_index 9641 end_index 9655 start_price 21.26 end_price 20.53 ticker is KR start_index 9700 end_index 9714 start_price 26.53 end_price 27.65 ticker is KR start_index 9777 end_index 9791 start_price 23.28 end_price 24.12 ticker is KR start_index 9839 end_index 9853 start_price 28.43 end_price 28.12 ticker is KR start_index 9899 end_index 9913 start_price 29.61 end_price 26.92 ticker is KR start_index 9957 end_index 9971 start_price 28.92 end_price 28.46 ticker is KR start_index 10028 end_index 10042 start_price 24.48 end_price 25.5 ticker is KR start_index 10089 end_index 10103 start_price 21.39 end_price 21.66 ticker is KR start_index 10149 end_index 10163 start_price 25.72 end_price 24.25 ticker is KR start_index 10208 end_index 10222 start price 28.31 end price 28.59 ticker is KR start_index 10280 end_index 10294 start_price 30.12 end_price 32.17 ticker is KR start_index 10340 end_index 10354 start_price 32.78 end_price 33.73 ticker is KR start_index 10400 end_index 10414 start_price 33.46 end_price 34.45 ticker is KR start_index 10459 end_index 10473 start_price 31.3 end_price 31.9 ticker is KR start_index 10530 end_index 10544 start_price 37.95 end_price 37.43 appending KR ticker is NGVC start_index 10745 end_index 10759 start_price 19.38 end_price 19.68

ticker is NGVC start_index 10747 end_index 10761 start_price 19.59 end_price 17.99 ticker is NGVC start_index 10777 end_index 10791 start_price 20.32 end_price 21.27 ticker is NGVC start index 10845 end index 10859 start_price 25.03 end_price 28.62 ticker is NGVC start index 10907 end index 10921 start_price 35.4 end_price 38.54 ticker is NGVC start_index 10996 end_index 11010 start_price 37.94 end_price 41.74 ticker is NGVC start_index 11028 end_index 11042 start_price 33.51 end_price 40.04 ticker is NGVC start_index 11091 end_index 11105 start_price 35.6 end_price 22.2 ticker is NGVC start_index 11154 end_index 11168 start_price 23.88 end_price 18.55 ticker is NGVC start_index 11247 end_index 11261 start_price 25.45 end_price 28.17 ticker is NGVC start_index 11279 end_index 11293 start_price 28.06 end_price 30.56 ticker is NGVC start_index 11347 end_index 11361 start_price 26.87 end_price 24.5 ticker is NGVC start_index 11405 end_index 11419 start_price 22.29 end_price 24.33 ticker is NGVC start_index 11498 end_index 11512 start_price 20.11 end_price 20.75 ticker is NGVC start_index 11530 end_index 11544 start_price 20.67 end_price 19.32 ticker is NGVC start_index 11598 end_index 11612 start_price 13.09 end_price 13.51 ticker is NGVC start_index 11656 end_index 11670 start_price 13.49 end_price 12.18 ticker is NGVC start_index 11749 end_index 11763 start_price 11.69 end_price 12.12 ticker is NGVC start index 11786 end index 11800 start_price 12.54 end_price 12.42 ticker is NGVC start_index 11849 end_index 11863 start_price 10.7 end_price 9.69 ticker is NGVC start_index 11912 end_index 11926 start_price 8.61 end_price 6.13 ticker is NGVC start_index 12000 end_index 12014 start_price 8.3 end_price 8.92 ticker is NGVC start_index 12037 end_index 12051 start_price 8.6 end_price 6.99 ticker is NGVC start_index 12100 end_index 12114 start_price 7.19 end_price 10.45 ticker is NGVC start_index 12163 end_index 12177 start_price 12.54 end_price 18.64

```
ticker is NGVC start_index 12250 end_index 12264
start_price 17.5 end_price 16.11
ticker is NGVC start_index 12292 end_index 12306
start_price 14.0 end_price 14.01
ticker is NGVC start index 12350 end index 12364
start_price 12.16 end_price 11.48
ticker is NGVC start index 12413 end index 12427
start_price 9.17 end_price 9.42
ticker is NGVC start_index 12501 end_index 12515
start_price 9.32 end_price 10.21
ticker is NGVC start_index 12543 end_index 12557
start_price 9.35 end_price 7.34
ticker is NGVC start_index 12606 end_index 12620
start_price 10.72 end_price 15.25
ticker is NGVC start_index 12669 end_index 12683
start_price 16.06 end_price 13.4
ticker is NGVC start_index 12757 end_index 12771
start_price 13.8 end_price 13.73
ticker is NGVC start_index 12794 end_index 12808
start price 16.18 end price 14.46
ticker is NGVC start_index 12857 end_index 12871
start price 16.08 end price 11.77
appending NGVC
ticker is QKLS start_index 12979 end_index 12993
start_price 8.08 end_price 6.32
ticker is QKLS start_index 13042 end_index 13056
start_price 5.12 end_price 6.8
ticker is QKLS start_index 13144 end_index 13158
start_price 5.98 end_price 3.25
ticker is QKLS start_index 13165 end_index 13179
start_price 3.43 end_price 4.15
ticker is QKLS start_index 13229 end_index 13243
start_price 6.2 end_price 4.36
ticker is QKLS start_index 13294 end_index 13308
start price 4.55 end price 4.22
ticker is QKLS start_index 13390 end_index 13404
start_price 4.33 end_price 4.01
ticker is QKLS start_index 13418 end_index 13432
start_price 3.71 end_price 3.65
ticker is QKLS start_index 13481 end_index 13495
start_price 3.37 end_price 3.35
ticker is QKLS start_index 13546 end_index 13560
start_price 2.31 end_price 2.04
ticker is QKLS start_index 13648 end_index 13662
start_price 3.15 end_price 2.41
ticker is QKLS start_index 13670 end_index 13684
start_price 3.1 end_price 2.24
ticker is QKLS start_index 13734 end_index 13748
```

```
start_price 1.64 end_price 1.1
ticker is QKLS start_index 13798 end_index 13812
start_price 0.9 end_price 0.82
ticker is QKLS start_index 13900 end_index 13914
start price 0.66 end price 0.53
appending QKLS
ticker is RNDY start index 15282 end index 15296
start_price 7.71 end_price 7.73
ticker is RNDY start_index 15345 end_index 15359
start_price 4.24 end_price 4.94
ticker is RNDY start_index 15433 end_index 15447
start_price 6.74 end_price 6.97
ticker is RNDY start_index 15467 end_index 15481
start_price 7.33 end_price 7.59
ticker is RNDY start_index 15530 end_index 15544
start_price 8.57 end_price 8.77
ticker is RNDY start_index 15594 end_index 15608
start_price 9.15 end_price 8.64
ticker is RNDY start_index 15674 end_index 15688
start price 6.08 end price 6.17
ticker is RNDY start_index 15716 end_index 15730
start price 6.65 end price 5.16
ticker is RNDY start_index 15779 end_index 15793
start_price 4.78 end_price 3.77
ticker is RNDY start_index 15843 end_index 15857
start_price 3.45 end_price 4.21
ticker is RNDY start_index 15930 end_index 15944
start_price 4.48 end_price 4.93
ticker is RNDY start_index 15972 end_index 15986
start_price 4.65 end_price 3.36
ticker is RNDY start_index 16035 end_index 16049
start_price 2.46 end_price 2.45
ticker is RNDY start_index 16100 end_index 16114
start_price 3.57 end_price 3.59
appending RNDY
ticker is SFM start_index 16141 end_index 16155
start price 38.59 end price 38.62
ticker is SFM start_index 16194 end_index 16208
start_price 48.04 end_price 38.0
ticker is SFM start_index 16201 end_index 16215
start_price 43.05 end_price 37.85
ticker is SFM start_index 16269 end_index 16283
start_price 36.85 end_price 37.16
ticker is SFM start_index 16281 end_index 16295
start_price 37.95 end_price 38.23
ticker is SFM start_index 16317 end_index 16331
start_price 31.09 end_price 27.495
ticker is SFM start_index 16381 end_index 16395
```

start_price 31.75 end_price 30.68 ticker is SFM start_index 16445 end_index 16459 start_price 30.69 end_price 32.01 ticker is SFM start_index 16520 end_index 16534 start price 37.09 end price 34.67 ticker is SFM start_index 16569 end_index 16583 start_price 31.06 end_price 29.705 ticker is SFM start_index 16632 end_index 16646 start_price 24.03 end_price 19.87 ticker is SFM start_index 16696 end_index 16710 start_price 19.88 end_price 24.26 ticker is SFM start_index 16771 end_index 16785 start_price 25.21 end_price 28.29 ticker is SFM start_index 16820 end_index 16834 start_price 27.38 end_price 24.32 ticker is SFM start_index 16883 end_index 16897 start_price 23.25 end_price 23.17 ticker is SFM start_index 16947 end_index 16961 start_price 22.57 end_price 21.64 ticker is SFM start index 17022 end index 17036 start_price 19.0 end_price 18.5 ticker is SFM start_index 17071 end_index 17085 start_price 22.75 end_price 23.45 ticker is SFM start_index 17134 end_index 17148 start_price 23.98 end_price 23.95 ticker is SFM start_index 17198 end_index 17212 start_price 18.87 end_price 21.67 ticker is SFM start_index 17273 end_index 17287 start_price 26.12 end_price 25.27 ticker is SFM start_index 17322 end_index 17336 start_price 24.39 end_price 21.9 ticker is SFM start_index 17385 end_index 17399 start_price 21.2 end_price 24.26 ticker is SFM start_index 17449 end_index 17463 start price 26.89 end price 27.93 ticker is SFM start_index 17523 end_index 17537 start_price 24.14 end_price 21.95 ticker is SFM start_index 17572 end_index 17586 start_price 21.29 end_price 20.86 ticker is SFM start_index 17635 end_index 17649 start_price 16.93 end_price 17.75 ticker is SFM start_index 17699 end_index 17713 start_price 18.75 end_price 19.78 ticker is SFM start_index 17774 end_index 17788 start_price 15.86 end_price 16.72 ticker is SFM start_index 17826 end_index 17840 start_price 21.76 end_price 24.29 ticker is SFM start_index 17885 end_index 17899 start_price 27.02 end_price 24.35 ticker is SFM start_index 17949 end_index 17963 start_price 20.4 end_price 20.35 ticker is SFM start_index 18030 end_index 18044 start price 21.48 end price 24.42 ticker is SFM start_index 18079 end_index 18093 start price 25.87 end price 25.69 appending SFM ticker is SFS start_index 18209 end_index 18223 start_price 15.49 end_price 15.96 ticker is SFS start_index 18296 end_index 18310 start_price 18.4 end_price 18.98 ticker is SFS start_index 18320 end_index 18334 start_price 17.87 end_price 16.99 ticker is SFS start_index 18379 end_index 18393 start_price 17.79 end_price 16.56 ticker is SFS start_index 18458 end_index 18472 start_price 14.6 end_price 17.57 ticker is SFS start_index 18541 end_index 18555 start price 15.8 end price 15.76 ticker is SFS start_index 18576 end_index 18590 start price 16.03 end price 15.61 ticker is SFS start_index 18636 end_index 18650 start_price 15.03 end_price 13.37 ticker is SFS start_index 18714 end_index 18728 start_price 13.45 end_price 13.45 ticker is SFS start_index 18795 end_index 18809 start_price 11.55 end_price 11.75 ticker is SFS start_index 18828 end_index 18842 start_price 11.65 end_price 13.25 ticker is SFS start_index 18885 end_index 18899 start_price 8.1 end_price 7.75 ticker is SFS start_index 18965 end_index 18979 start_price 7.25 end_price 8.8 ticker is SFS start index 19046 end index 19060 start_price 6.0 end_price 5.35 ticker is SFS start_index 19079 end_index 19093 start_price 5.3 end_price 4.75 ticker is SFS start_index 19137 end_index 19151 start_price 5.5 end_price 6.8 ticker is SFS start_index 19216 end_index 19230 start_price 4.95 end_price 5.88 ticker is SFS start_index 19296 end_index 19310 start_price 5.26 end_price 5.05 ticker is SFS start_index 19330 end_index 19344 start_price 6.52 end_price 6.55 appending SFS ticker is SWY start_index 19378 end_index 19392 start_price 15.26 end_price 15.99 ticker is SWY start_index 19437 end_index 19451 start_price 15.67 end_price 17.0 ticker is SWY start_index 19525 end_index 19539 start price 22.76 end price 24.91 ticker is SWY start_index 19569 end_index 19583 start_price 23.51 end_price 25.15 ticker is SWY start_index 19628 end_index 19642 start_price 25.57 end_price 25.06 ticker is SWY start_index 19687 end_index 19701 start_price 32.74 end_price 35.11 ticker is SWY start_index 19777 end_index 19791 start_price 37.13 end_price 38.31 ticker is SWY start_index 19821 end_index 19835 start_price 34.08 end_price 34.34 ticker is SWY start_index 19878 end_index 19892 start_price 34.82 end_price 34.51 ticker is SWY start_index 19938 end_index 19952 start_price 33.97 end_price 34.76 appending SWY ticker is TFM start_index 20057 end_index 20071 start price 58.34 end price 58.03 ticker is TFM start_index 20119 end_index 20133 start_price 50.7 end_price 47.55 ticker is TFM start_index 20194 end_index 20208 start_price 42.7 end_price 40.39 ticker is TFM start_index 20243 end_index 20257 start_price 50.26 end_price 50.34 ticker is TFM start_index 20307 end_index 20321 start_price 49.7 end_price 47.282 ticker is TFM start_index 20364 end_index 20378 start_price 39.97 end_price 39.67 ticker is TFM start_index 20442 end_index 20456 start_price 34.18 end_price 36.11 ticker is TFM start index 20493 end index 20507 start_price 32.95 end_price 34.17 ticker is TFM start_index 20557 end_index 20571 start_price 33.73 end_price 34.58 ticker is TFM start_index 20621 end_index 20635 start_price 39.53 end_price 41.4 ticker is TFM start_index 20694 end_index 20708 start_price 41.09 end_price 41.47 ticker is TFM start_index 20740 end_index 20754 start_price 32.43 end_price 32.12 ticker is TFM start_index 20804 end_index 20818 start_price 19.91 end_price 24.37 ticker is TFM start_index 20870 end_index 20884 start_price 23.98 end_price 24.03

ticker is TFM start_index 20947 end_index 20961 start_price 28.47 end_price 28.43 appending TFM ticker is VLGEA start_index 21041 end_index 21055 start price 34.06 end price 36.97 ticker is VLGEA start_index 21079 end_index 21093 start_price 37.11 end_price 32.42 ticker is VLGEA start_index 21140 end_index 21154 start_price 34.1 end_price 33.83 ticker is VLGEA start_index 21203 end_index 21217 start_price 36.37 end_price 33.09 ticker is VLGEA start_index 21290 end_index 21304 start_price 34.85 end_price 35.61 ticker is VLGEA start_index 21330 end_index 21344 start_price 38.45 end_price 31.99 ticker is VLGEA start_index 21390 end_index 21404 start_price 27.32 end_price 26.95 ticker is VLGEA start_index 21454 end_index 21468 start_price 22.89 end_price 23.89 ticker is VLGEA start index 21542 end index 21556 start_price 23.46 end_price 24.34 ticker is VLGEA start_index 21581 end_index 21595 start_price 24.04 end_price 25.07 ticker is VLGEA start_index 21642 end_index 21656 start_price 27.66 end_price 30.54 ticker is VLGEA start_index 21705 end_index 21719 start_price 32.29 end_price 31.95 ticker is VLGEA start_index 21793 end_index 21807 start_price 25.39 end_price 24.51 ticker is VLGEA start_index 21833 end_index 21847 start_price 25.61 end_price 26.42 ticker is VLGEA start_index 21893 end_index 21907 start_price 26.41 end_price 24.3 ticker is VLGEA start_index 21957 end_index 21971 start price 27.37 end price 28.92 ticker is VLGEA start_index 22049 end_index 22063 start_price 31.72 end_price 29.9 ticker is VLGEA start_index 22088 end_index 22102 start_price 35.63 end_price 31.74 ticker is VLGEA start_index 22150 end_index 22164 start_price 27.06 end_price 25.98 ticker is VLGEA start_index 22212 end_index 22226 start_price 25.07 end_price 25.81 ticker is VLGEA start_index 22301 end_index 22315 start_price 24.9 end_price 23.99 ticker is VLGEA start_index 22338 end_index 22352 start_price 25.44 end_price 23.31 ticker is VLGEA start_index 22401 end_index 22415

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start_price 24.07 end_price 26.03
ticker is VLGEA start_index 22464 end_index 22478
start_price 28.29 end_price 30.23
ticker is VLGEA start_index 22552 end_index 22566
start price 24.9 end price 25.87
ticker is VLGEA start_index 22590 end_index 22604
start_price 25.44 end_price 25.37
ticker is VLGEA start_index 22650 end_index 22664
start_price 31.5 end_price 27.84
ticker is VLGEA start_index 22712 end_index 22726
start_price 26.18 end_price 26.57
ticker is VLGEA start_index 22802 end_index 22816
start_price 26.27 end_price 25.76
ticker is VLGEA start_index 22841 end_index 22855
start_price 25.79 end_price 23.6
ticker is VLGEA start_index 22902 end_index 22916
start_price 21.35 end_price 22.88
ticker is VLGEA start_index 22965 end_index 22979
start_price 25.46 end_price 25.54
ticker is VLGEA start index 23053 end index 23067
start_price 24.32 end_price 23.05
ticker is VLGEA start_index 23092 end_index 23106
start_price 23.13 end_price 21.64
ticker is VLGEA start_index 23153 end_index 23167
start_price 23.88 end_price 23.91
appending VLGEA
ticker is WFM start_index 23312 end_index 23326
start_price 46.455 end_price 48.5
ticker is WFM start_index 23387 end_index 23401
start_price 46.7119999999999 end_price 45.885
ticker is WFM start_index 23449 end_index 23463
start_price 42.465 end_price 44.005
ticker is WFM start_index 23508 end_index 23522
start_price 51.02 end_price 50.88
ticker is WFM start index 23566 end index 23580
start_price 55.9 end_price 51.48
ticker is WFM start_index 23640 end_index 23654
start_price 56.48 end_price 55.9
ticker is WFM start_index 23700 end_index 23714
start_price 52.35 end_price 55.48
ticker is WFM start_index 23759 end_index 23773
start_price 38.76 end_price 40.08
ticker is WFM start_index 23817 end_index 23831
start_price 37.35 end_price 39.8
ticker is WFM start_index 23891 end_index 23905
start_price 47.69 end_price 47.7
ticker is WFM start_index 23956 end_index 23970
start_price 56.73 end_price 53.8
```

ticker is WFM start_index 24010 end_index 24024 start_price 42.9 end_price 40.6

ticker is WFM start_index 24068 end_index 24082 start_price 34.84 end_price 32.4

ticker is WFM start_index 24137 end_index 24151 start_price 29.91 end_price 29.96

ticker is WFM start_index 24207 end_index 24221 start_price 30.86 end_price 33.37

ticker is WFM start_index 24261 end_index 24275 start_price 30.51 end_price 34.32

ticker is WFM start_index 24319 end_index 24333 start_price 30.39 end_price 31.11

ticker is WFM start_index 24393 end_index 24407 start_price 30.94 end_price 31.7

ticker is WFM start_index 24453 end_index 24467 start_price 30.72 end_price 29.36

ticker is WFM start_index 24517 end_index 24531 start_price 36.15 end_price 35.44

ticker is WFM start_index 24570 end_index 24584 start_price 41.84 end_price 41.68 appending WFM

ticker is WMK start_index 24614 end_index 24628 start_price 43.27 end_price 42.77

ticker is WMK start_index 24676 end_index 24690 start_price 40.38 end_price 38.45

ticker is WMK start_index 24761 end_index 24775 start_price 41.02 end_price 40.36

ticker is WMK start_index 24800 end_index 24814 start_price 42.49 end_price 42.14

ticker is WMK start_index 24863 end_index 24877 start_price 50.81 end_price 47.47

ticker is WMK start_index 24927 end_index 24941 start_price 49.21 end_price 49.96

ticker is WMK start_index 25013 end_index 25027 start price 49.49 end price 50.13

ticker is WMK start_index 25051 end_index 25065 start_price 45.2 end_price 46.63

ticker is WMK start_index 25114 end_index 25128 start_price 43.43 end_price 43.07

ticker is WMK start_index 25178 end_index 25192 start_price 44.63 end_price 45.17

ticker is WMK start_index 25264 end_index 25278 start_price 50.36 end_price 50.19

ticker is WMK start_index 25298 end_index 25312 start_price 44.35 end_price 43.5

ticker is WMK start_index 25363 end_index 25377 start_price 42.01 end_price 41.73

ticker is WMK start_index 25497 end_index 25511

start_price 38.92 end_price 41.76 ticker is WMK start_index 25520 end_index 25534 start_price 43.38 end_price 43.96 ticker is WMK start_index 25553 end_index 25567 start price 45.43 end price 49.19 ticker is WMK start_index 25611 end_index 25625 start_price 51.55 end_price 51.1 ticker is WMK start_index 25680 end_index 25694 start_price 56.51 end_price 60.01 ticker is WMK start_index 25770 end_index 25784 start_price 59.08 end_price 59.22 ticker is WMK start_index 25809 end_index 25823 start_price 57.79 end_price 51.62 ticker is WMK start_index 25872 end_index 25886 start_price 44.49 end_price 43.91 ticker is WMK start_index 25934 end_index 25948 start_price 34.0 end_price 38.25 ticker is WMK start_index 26021 end_index 26035 start_price 38.37 end_price 42.86 ticker is WMK start index 26060 end index 26074 start_price 48.03 end_price 54.8 ticker is WMK start_index 26122 end_index 26136 start_price 48.66 end_price 48.01 ticker is WMK start_index 26187 end_index 26201 start_price 46.46 end_price 48.12 ticker is WMK start_index 26271 end_index 26285 start_price 40.5 end_price 40.54 ticker is WMK start_index 26310 end_index 26324 start_price 38.77 end_price 38.45 ticker is WMK start_index 26371 end_index 26385 start_price 37.6 end_price 38.57 ticker is WMK start_index 26434 end_index 26448 start_price 38.87 end_price 39.39 ticker is WMK start_index 26522 end_index 26536 start price 36.39 end price 41.66 ticker is WMK start_index 26561 end_index 26575 start_price 54.64 end_price 56.21 ticker is WMK start_index 26623 end_index 26637 start_price 51.17 end_price 49.84 ticker is WMK start_index 26688 end_index 26702 start_price 46.35 end_price 48.69 ticker is WMK start_index 26773 end_index 26787 start_price 58.85 end_price 58.79 ticker is WMK start_index 26812 end_index 26826 start_price 52.64 end_price 50.19 appending WMK ticker is ACI start_index 25 end_index 40 start_price 14.83 end_price 14.57

ticker is ACI start_index 80 end_index 95 start_price 15.22 end_price 14.99 ticker is ACI start_index 137 end_index 152 start_price 17.1 end_price 16.55 ticker is ACI start index 209 end index 224 start_price 18.11 end_price 19.38 appending ACI ticker is ARDNA start_index 330 end_index 345 start_price 82.6 end_price 88.2 ticker is ARDNA start_index 394 end_index 409 start_price 95.88 end_price 111.23 ticker is ARDNA start_index 478 end_index 493 start_price 98.31 end_price 100.15 ticker is ARDNA start_index 519 end_index 534 start_price 98.65 end_price 105.3 ticker is ARDNA start_index 583 end_index 598 start_price 132.78 end_price 131.52 ticker is ARDNA start_index 647 end_index 662 start_price 129.85 end_price 129.37 appending ARDNA ticker is ASAI start_index 754 end_index 769 start price 14.81 end price 15.45 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3103 start_price 17.35 end_price 18.5 ticker is FWMHQ start_index 3122 end_index 3137 start_price 20.73 end_price 23.18 ticker is FWMHQ start_index 3166 end_index 3181 start_price 25.83 end_price 22.97 ticker is FWMHQ start_index 3230 end_index 3245 start_price 25.46 end_price 18.47 ticker is FWMHQ start_index 3291 end_index 3306 start_price 11.14 end_price 7.94 ticker is FWMHQ start index 3368 end index 3383 start_price 6.75 end_price 6.97 ticker is FWMHQ start_index 3417 end_index 3432 start_price 5.74 end_price 4.55 ticker is FWMHQ start_index 3481 end_index 3496 start_price 2.59 end_price 3.86 ticker is FWMHQ start_index 3542 end_index 3557 start_price 5.02 end_price 5.68 ticker is FWMHQ start_index 3617 end_index 3632 start_price 4.63 end_price 3.97 ticker is FWMHQ start_index 3666 end_index 3681 start_price 3.02 end_price 2.23 ticker is FWMHQ start_index 3727 end_index 3742 start_price 1.71 end_price 1.08

ticker is FWMHQ start_index 3794 end_index 3809 start_price 0.499 end_price 0.3 appending FWMHQ ticker is GO start_index 3900 end_index 3915 start price 28.51 end price 33.81 ticker is GO start_index 3936 end_index 3951 start_price 37.54 end_price 40.3 ticker is GO start_index 3972 end_index 3987 start_price 33.01 end_price 30.94 ticker is GO start_index 4000 end_index 4015 start_price 31.0 end_price 33.29 ticker is GO start_index 4050 end_index 4065 start_price 35.43 end_price 32.91 ticker is GO start_index 4091 end_index 4106 start_price 33.2 end_price 33.65 ticker is GO start_index 4124 end_index 4139 start_price 36.67 end_price 36.31 ticker is GO start_index 4187 end_index 4202 start_price 44.33 end_price 41.13 ticker is GO start_index 4251 end_index 4266 start_price 41.21 end_price 37.8 ticker is GO start_index 4326 end_index 4341 start_price 35.91 end_price 36.78 ticker is GO start_index 4376 end_index 4391 start_price 40.54 end_price 34.41 appending GO ticker is HTSI start_index 4491 end_index 4506 start_price 41.53 end_price 39.61 ticker is HTSI start_index 4562 end_index 4577 start_price 36.17 end_price 37.7 ticker is HTSI start_index 4614 end_index 4629 start_price 36.95 end_price 43.0 ticker is HTSI start_index 4676 end_index 4691 start_price 45.29 end_price 48.32 ticker is HTSI start index 4740 end index 4755 start_price 49.2 end_price 49.13 ticker is HTSI start index 4820 end index 4835 start_price 49.38 end_price 49.31 appending HTSI ticker is IFMK start_index 4953 end_index 4968 start_price 11.99 end_price 13.0 ticker is IFMK start_index 4984 end_index 4999 start_price 12.81 end_price 12.488 ticker is IFMK start_index 5049 end_index 5064 start_price 11.13 end_price 11.139000000000001 ticker is IFMK start_index 5111 end_index 5126 start_price 11.92 end_price 8.62 ticker is IFMK start_index 5205 end_index 5220

```
start_price 5.5 end_price 4.169
ticker is IFMK start_index 5236 end_index 5251
start_price 3.8 end_price 3.53
ticker is IFMK start_index 5301 end_index 5316
start price 1.4 end price 1.01
ticker is IFMK start_index 5362 end_index 5377
start_price 1.07 end_price 1.54
ticker is IFMK start_index 5455 end_index 5470
start_price 1.2 end_price 1.83
ticker is IFMK start_index 5487 end_index 5502
start_price 2.27 end_price 1.9
ticker is IFMK start_index 5552 end_index 5567
start_price 0.375 end_price 0.374
ticker is IFMK start_index 5614 end_index 5629
start_price 0.4220000000000004 end_price 0.67
ticker is IFMK start_index 5739 end_index 5754
start_price 0.93900000000001 end_price 0.92
ticker is IFMK start_index 5744 end_index 5759
start_price 0.9 end_price 0.874000000000001
ticker is IFMK start index 5810 end index 5825
start_price 0.859000000000001 end_price 0.78
ticker is IFMK start_index 5830 end_index 5845
ticker is IFMK start index 5870 end index 5885
start_price 1.95 end_price 1.63
appending IFMK
ticker is IMKTA start_index 6035 end_index 6050
start_price 16.36 end_price 16.07
ticker is IMKTA start_index 6135 end_index 6150
start_price 17.2 end_price 16.95
ticker is IMKTA start_index 6164 end_index 6179
start_price 19.3 end_price 20.56
ticker is IMKTA start_index 6226 end_index 6241
start_price 21.46 end_price 23.12
ticker is IMKTA start index 6288 end index 6303
start_price 25.69 end_price 25.3
ticker is IMKTA start_index 6378 end_index 6393
start_price 24.41 end_price 26.73
ticker is IMKTA start_index 6413 end_index 6428
start_price 24.02 end_price 23.35
ticker is IMKTA start_index 6476 end_index 6491
start_price 26.07 end_price 27.7
ticker is IMKTA start_index 6541 end_index 6556
start_price 24.47 end_price 25.12
ticker is IMKTA start_index 6632 end_index 6647
start_price 32.08 end_price 40.31
ticker is IMKTA start_index 6666 end_index 6681
start_price 44.06 end_price 43.83
```

ticker is IMKTA start_index 6728 end_index 6743 start_price 40.87 end_price 50.22 ticker is IMKTA start_index 6790 end_index 6805 start_price 49.9 end_price 49.6 ticker is IMKTA start_index 6880 end_index 6895 start_price 53.84 end_price 44.08 ticker is IMKTA start index 6917 end index 6932 start_price 36.2 end_price 36.54 ticker is IMKTA start_index 6980 end_index 6995 start_price 36.73 end_price 37.18 ticker is IMKTA start_index 7042 end_index 7057 start_price 36.86 end_price 37.64 ticker is IMKTA start_index 7137 end_index 7152 start_price 48.05 end_price 48.45 ticker is IMKTA start_index 7167 end_index 7182 start_price 45.25 end_price 47.45 ticker is IMKTA start_index 7230 end_index 7245 start_price 45.85 end_price 38.1 ticker is IMKTA start_index 7293 end_index 7308 start price 29.5 end price 24.5 ticker is IMKTA start_index 7381 end_index 7396 start_price 27.7 end_price 35.15 ticker is IMKTA start_index 7424 end_index 7439 start_price 30.55 end_price 33.05 ticker is IMKTA start_index 7486 end_index 7501 start_price 30.95 end_price 29.8 ticker is IMKTA start_index 7550 end_index 7565 start_price 29.55 end_price 35.35 ticker is IMKTA start_index 7633 end_index 7648 start_price 28.1 end_price 26.51 ticker is IMKTA start_index 7674 end_index 7689 start_price 28.96 end_price 31.12 ticker is IMKTA start_index 7736 end_index 7751 start_price 27.45 end_price 31.41 ticker is IMKTA start index 7800 end index 7815 start_price 31.75 end_price 38.89 ticker is IMKTA start_index 7886 end_index 7901 start_price 43.48 end_price 47.51 ticker is IMKTA start_index 7925 end_index 7940 start_price 42.76 end_price 33.34 ticker is IMKTA start_index 7988 end_index 8003 start_price 37.61 end_price 42.23 ticker is IMKTA start_index 8051 end_index 8066 start_price 39.9 end_price 41.2

ticker is IMKTA start_index 8137 end_index 8152

ticker is IMKTA start_index 8176 end_index 8191

start_price 37.41 end_price 42.02

start_price 47.26 end_price 52.11

ticker is IMKTA start_index 8238 end_index 8253 start_price 62.74 end_price 60.36 appending IMKTA ticker is KR start_index 8385 end_index 8400 start price 11.905 end price 11.91 ticker is KR start_index 8442 end_index 8457 start_price 13.325 end_price 13.185 ticker is KR start_index 8517 end_index 8532 start_price 16.27 end_price 17.105 ticker is KR start_index 8579 end_index 8594 start_price 17.355 end_price 19.405 ticker is KR start_index 8639 end_index 8654 start_price 20.24 end_price 20.81 ticker is KR start_index 8696 end_index 8711 start_price 19.995 end_price 19.38 ticker is KR start_index 8769 end_index 8784 start_price 21.825 end_price 22.6 ticker is KR start_index 8832 end_index 8847 start_price 24.715 end_price 25.085 ticker is KR start index 8890 end index 8905 start_price 26.015 end_price 26.455 ticker is KR start_index 8949 end_index 8964 start_price 30.765 end_price 32.495 ticker is KR start_index 9020 end_index 9035 start_price 38.62 end_price 35.915 ticker is KR start_index 9083 end_index 9098 start_price 36.335 end_price 38.96 ticker is KR start_index 9141 end_index 9156 start_price 36.66 end_price 38.2 ticker is KR start_index 9202 end_index 9217 start_price 42.43 end_price 40.8 ticker is KR start_index 9270 end_index 9285 start_price 38.06 end_price 36.68 ticker is KR start_index 9334 end_index 9349 start price 36.62 end price 36.21 ticker is KR start_index 9392 end_index 9407 start_price 30.79 end_price 29.05 ticker is KR start_index 9451 end_index 9466 start_price 34.22 end_price 33.24 ticker is KR start_index 9522 end_index 9537 start_price 28.93 end_price 29.82 ticker is KR start_index 9585 end_index 9600 start_price 22.61 end_price 22.55 ticker is KR start_index 9641 end_index 9656 start_price 21.26 end_price 20.7 ticker is KR start_index 9700 end_index 9715 start_price 26.53 end_price 27.45 ticker is KR start_index 9777 end_index 9792

start_price 23.28 end_price 24.79 ticker is KR start_index 9839 end_index 9854 start_price 28.43 end_price 28.14 ticker is KR start_index 9899 end_index 9914 start price 29.61 end price 27.5 ticker is KR start_index 9957 end_index 9972 start_price 28.92 end_price 28.05 ticker is KR start_index 10028 end_index 10043 start_price 24.48 end_price 25.22 ticker is KR start_index 10089 end_index 10104 start_price 21.39 end_price 21.69 ticker is KR start_index 10149 end_index 10164 start_price 25.72 end_price 24.1 ticker is KR start_index 10208 end_index 10223 start_price 28.31 end_price 28.42 ticker is KR start_index 10280 end_index 10295 start_price 30.12 end_price 32.31 ticker is KR start_index 10340 end_index 10355 start_price 32.78 end_price 33.85 ticker is KR start_index 10400 end_index 10415 start_price 33.46 end_price 34.63 ticker is KR start_index 10459 end_index 10474 start_price 31.3 end_price 32.21 ticker is KR start_index 10530 end_index 10545 start_price 37.95 end_price 37.76 appending KR ticker is NGVC start_index 10745 end_index 10760 start_price 19.38 end_price 19.09 ticker is NGVC start_index 10747 end_index 10762 start_price 19.59 end_price 17.85 ticker is NGVC start_index 10777 end_index 10792 start_price 20.32 end_price 21.46 ticker is NGVC start_index 10845 end_index 10860 start_price 25.03 end_price 28.61 ticker is NGVC start index 10907 end index 10922 start_price 35.4 end_price 36.0 ticker is NGVC start_index 10996 end_index 11011 start_price 37.94 end_price 41.99 ticker is NGVC start_index 11028 end_index 11043 start_price 33.51 end_price 40.19 ticker is NGVC start_index 11091 end_index 11106 start_price 35.6 end_price 20.77 ticker is NGVC start_index 11154 end_index 11169 start_price 23.88 end_price 18.42 ticker is NGVC start_index 11247 end_index 11262 start_price 25.45 end_price 26.62 ticker is NGVC start_index 11279 end_index 11294 start_price 28.06 end_price 30.38

```
ticker is NGVC start_index 11347 end_index 11362
start_price 26.87 end_price 24.25
ticker is NGVC start_index 11405 end_index 11420
start_price 22.29 end_price 24.22
ticker is NGVC start index 11498 end index 11513
start_price 20.11 end_price 20.37
ticker is NGVC start index 11530 end index 11545
start_price 20.67 end_price 19.37
ticker is NGVC start_index 11598 end_index 11613
start_price 13.09 end_price 13.55
ticker is NGVC start_index 11656 end_index 11671
start_price 13.49 end_price 11.66
ticker is NGVC start_index 11749 end_index 11764
start_price 11.69 end_price 12.0
ticker is NGVC start_index 11786 end_index 11801
start_price 12.54 end_price 12.39
ticker is NGVC start_index 11849 end_index 11864
start_price 10.7 end_price 9.7
ticker is NGVC start_index 11912 end_index 11927
start price 8.61 end price 6.37
ticker is NGVC start_index 12000 end_index 12015
start_price 8.3 end_price 8.95
ticker is NGVC start_index 12037 end_index 12052
start_price 8.6 end_price 7.0
ticker is NGVC start_index 12100 end_index 12115
start_price 7.19 end_price 10.5
ticker is NGVC start_index 12163 end_index 12178
start_price 12.54 end_price 18.86
ticker is NGVC start_index 12250 end_index 12265
start_price 17.5 end_price 15.84
ticker is NGVC start_index 12292 end_index 12307
start_price 14.0 end_price 14.2
ticker is NGVC start_index 12350 end_index 12365
start_price 12.16 end_price 11.22
ticker is NGVC start index 12413 end index 12428
start_price 9.17 end_price 9.32
ticker is NGVC start_index 12501 end_index 12516
start_price 9.32 end_price 10.19
ticker is NGVC start_index 12543 end_index 12558
start_price 9.35 end_price 7.31
ticker is NGVC start_index 12606 end_index 12621
start_price 10.72 end_price 14.42
ticker is NGVC start_index 12669 end_index 12684
start_price 16.06 end_price 13.33
ticker is NGVC start_index 12757 end_index 12772
start_price 13.8 end_price 13.74
ticker is NGVC start_index 12794 end_index 12809
start_price 16.18 end_price 14.08
```

ticker is NGVC start_index 12857 end_index 12872 start_price 16.08 end_price 11.84 appending NGVC ticker is QKLS start_index 12979 end_index 12994 start price 8.08 end price 6.88 ticker is QKLS start_index 13042 end_index 13057 start price 5.12 end price 6.64 ticker is QKLS start_index 13144 end_index 13159 start_price 5.98 end_price 3.3 ticker is QKLS start_index 13165 end_index 13180 start_price 3.43 end_price 4.15 ticker is QKLS start_index 13229 end_index 13244 start_price 6.2 end_price 4.31 ticker is QKLS start_index 13294 end_index 13309 start_price 4.55 end_price 4.1 ticker is QKLS start_index 13390 end_index 13405 start_price 4.33 end_price 3.76 ticker is QKLS start_index 13418 end_index 13433 start_price 3.71 end_price 3.51 ticker is QKLS start index 13481 end index 13496 start_price 3.37 end_price 3.07 ticker is QKLS start index 13546 end index 13561 start_price 2.31 end_price 2.04 ticker is QKLS start_index 13648 end_index 13663 start_price 3.15 end_price 2.45 ticker is QKLS start_index 13670 end_index 13685 start_price 3.1 end_price 2.23 ticker is QKLS start_index 13734 end_index 13749 start_price 1.64 end_price 1.25 ticker is QKLS start_index 13798 end_index 13813 start_price 0.9 end_price 0.85 ticker is QKLS start_index 13900 end_index 13915 start_price 0.66 end_price 0.56 appending QKLS ticker is RNDY start index 15282 end index 15297 start_price 7.71 end_price 7.49 ticker is RNDY start_index 15345 end_index 15360 start_price 4.24 end_price 4.95 ticker is RNDY start_index 15433 end_index 15448 start_price 6.74 end_price 6.9 ticker is RNDY start_index 15467 end_index 15482 start_price 7.33 end_price 7.59 ticker is RNDY start_index 15530 end_index 15545 start_price 8.57 end_price 8.75 ticker is RNDY start_index 15594 end_index 15609 start_price 9.15 end_price 8.71 ticker is RNDY start_index 15674 end_index 15689 start_price 6.08 end_price 6.65

```
ticker is RNDY start_index 15716 end_index 15731
start_price 6.65 end_price 5.24
ticker is RNDY start_index 15779 end_index 15794
start_price 4.78 end_price 3.81
ticker is RNDY start index 15843 end index 15858
start_price 3.45 end_price 4.04
ticker is RNDY start index 15930 end index 15945
start_price 4.48 end_price 5.13
ticker is RNDY start_index 15972 end_index 15987
start_price 4.65 end_price 3.37
ticker is RNDY start_index 16035 end_index 16050
start_price 2.46 end_price 2.39
ticker is RNDY start_index 16100 end_index 16115
start_price 3.57 end_price 3.58
appending RNDY
ticker is SFM start_index 16141 end_index 16156
start_price 38.59 end_price 38.89
ticker is SFM start_index 16194 end_index 16209
start_price 48.04 end_price 38.1
ticker is SFM start index 16201 end index 16216
start_price 43.05 end_price 37.49
ticker is SFM start index 16269 end index 16284
start_price 36.85 end_price 37.31
ticker is SFM start_index 16281 end_index 16296
start_price 37.95 end_price 36.68
ticker is SFM start_index 16317 end_index 16332
start_price 31.09 end_price 27.35
ticker is SFM start_index 16381 end_index 16396
start_price 31.75 end_price 30.9
ticker is SFM start_index 16445 end_index 16460
start_price 30.69 end_price 31.74
ticker is SFM start_index 16520 end_index 16535
start_price 37.09 end_price 34.59
ticker is SFM start_index 16569 end_index 16584
start price 31.06 end price 29.21
ticker is SFM start_index 16632 end_index 16647
start_price 24.03 end_price 19.81
ticker is SFM start_index 16696 end_index 16711
start_price 19.88 end_price 24.83
ticker is SFM start_index 16771 end_index 16786
start_price 25.21 end_price 28.46
ticker is SFM start_index 16820 end_index 16835
start_price 27.38 end_price 24.92
ticker is SFM start_index 16883 end_index 16898
start_price 23.25 end_price 23.26
ticker is SFM start_index 16947 end_index 16962
start_price 22.57 end_price 21.61
ticker is SFM start_index 17022 end_index 17037
```

start_price 19.0 end_price 18.81 ticker is SFM start_index 17071 end_index 17086 start_price 22.75 end_price 23.52 ticker is SFM start_index 17134 end_index 17149 start price 23.98 end price 23.75 ticker is SFM start_index 17198 end_index 17213 start_price 18.87 end_price 22.05 ticker is SFM start_index 17273 end_index 17288 start_price 26.12 end_price 24.34 ticker is SFM start_index 17322 end_index 17337 start_price 24.39 end_price 21.78 ticker is SFM start_index 17385 end_index 17400 start_price 21.2 end_price 24.45 ticker is SFM start_index 17449 end_index 17464 start_price 26.89 end_price 26.82 ticker is SFM start_index 17523 end_index 17538 start_price 24.14 end_price 22.28 ticker is SFM start_index 17572 end_index 17587 start_price 21.29 end_price 20.54 ticker is SFM start index 17635 end index 17650 start_price 16.93 end_price 17.82 ticker is SFM start_index 17699 end_index 17714 start_price 18.75 end_price 19.63 ticker is SFM start_index 17774 end_index 17789 start_price 15.86 end_price 16.07 ticker is SFM start_index 17826 end_index 17841 start_price 21.76 end_price 24.44 ticker is SFM start_index 17885 end_index 17900 start_price 27.02 end_price 24.13 ticker is SFM start_index 17949 end_index 17964 start_price 20.4 end_price 20.32 ticker is SFM start_index 18030 end_index 18045 start_price 21.48 end_price 24.25 ticker is SFM start_index 18079 end_index 18094 start price 25.87 end price 25.76 appending SFM ticker is SFS start_index 18209 end_index 18224 start_price 15.49 end_price 15.85 ticker is SFS start_index 18296 end_index 18311 start_price 18.4 end_price 18.5 ticker is SFS start_index 18320 end_index 18335 start_price 17.87 end_price 17.23 ticker is SFS start_index 18379 end_index 18394 start_price 17.79 end_price 16.51 ticker is SFS start_index 18458 end_index 18473 start_price 14.6 end_price 17.05 ticker is SFS start_index 18541 end_index 18556 start_price 15.8 end_price 15.78

ticker is SFS start_index 18576 end_index 18591 start_price 16.03 end_price 15.77 ticker is SFS start_index 18636 end_index 18651 start_price 15.03 end_price 13.11 ticker is SFS start index 18714 end index 18729 start_price 13.45 end_price 13.4 ticker is SFS start index 18795 end index 18810 start_price 11.55 end_price 11.9 ticker is SFS start_index 18828 end_index 18843 start_price 11.65 end_price 12.95 ticker is SFS start_index 18885 end_index 18900 start_price 8.1 end_price 7.35 ticker is SFS start_index 18965 end_index 18980 start_price 7.25 end_price 8.75 ticker is SFS start_index 19046 end_index 19061 start_price 6.0 end_price 5.3 ticker is SFS start_index 19079 end_index 19094 start_price 5.3 end_price 4.7 ticker is SFS start_index 19137 end_index 19152 start price 5.5 end price 6.65 ticker is SFS start_index 19216 end_index 19231 start price 4.95 end price 5.82 ticker is SFS start_index 19296 end_index 19311 start_price 5.26 end_price 5.16 ticker is SFS start_index 19330 end_index 19345 start_price 6.52 end_price 6.54 appending SFS ticker is SWY start_index 19378 end_index 19393 start_price 15.26 end_price 16.12 ticker is SWY start_index 19437 end_index 19452 start_price 15.67 end_price 16.3 ticker is SWY start_index 19525 end_index 19540 start_price 22.76 end_price 24.84 ticker is SWY start_index 19569 end_index 19584 start price 23.51 end price 24.36 ticker is SWY start_index 19628 end_index 19643 start price 25.57 end price 25.73 ticker is SWY start_index 19687 end_index 19702 start_price 32.74 end_price 35.37 ticker is SWY start_index 19777 end_index 19792 start_price 37.13 end_price 38.45 ticker is SWY start_index 19821 end_index 19836 start_price 34.08 end_price 34.34 ticker is SWY start_index 19878 end_index 19893

start_price 34.82 end_price 34.64

start_price 33.97 end_price 34.79

appending SWY

ticker is SWY start_index 19938 end_index 19953

ticker is TFM start_index 20057 end_index 20072 start_price 58.34 end_price 57.4 ticker is TFM start_index 20119 end_index 20134 start_price 50.7 end_price 48.18 ticker is TFM start index 20194 end index 20209 start_price 42.7 end_price 39.72 ticker is TFM start index 20243 end index 20258 start_price 50.26 end_price 50.98 ticker is TFM start_index 20307 end_index 20322 start_price 49.7 end_price 47.72 ticker is TFM start_index 20364 end_index 20379 start_price 39.97 end_price 39.38 ticker is TFM start_index 20442 end_index 20457 start_price 34.18 end_price 35.74 ticker is TFM start_index 20493 end_index 20508 start_price 32.95 end_price 33.84 ticker is TFM start_index 20557 end_index 20572 start_price 33.73 end_price 34.94 ticker is TFM start_index 20621 end_index 20636 start price 39.53 end price 41.76 ticker is TFM start_index 20694 end_index 20709 start price 41.09 end price 41.4 ticker is TFM start_index 20740 end_index 20755 start_price 32.43 end_price 31.8 ticker is TFM start_index 20804 end_index 20819 start_price 19.91 end_price 24.61 ticker is TFM start_index 20870 end_index 20885 start_price 23.98 end_price 23.61 ticker is TFM start_index 20947 end_index 20962 start_price 28.47 end_price 28.43 appending TFM ticker is VLGEA start_index 21041 end_index 21056 start_price 34.06 end_price 36.67 ticker is VLGEA start_index 21079 end_index 21094 start price 37.11 end price 31.65 ticker is VLGEA start_index 21140 end_index 21155 start_price 34.1 end_price 33.96 ticker is VLGEA start_index 21203 end_index 21218 start_price 36.37 end_price 33.25 ticker is VLGEA start_index 21290 end_index 21305 start_price 34.85 end_price 36.49 ticker is VLGEA start_index 21330 end_index 21345 start_price 38.45 end_price 32.43 ticker is VLGEA start_index 21390 end_index 21405 start_price 27.32 end_price 26.85 ticker is VLGEA start_index 21454 end_index 21469 start_price 22.89 end_price 23.21 ticker is VLGEA start_index 21542 end_index 21557

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start_price 23.46 end_price 24.88
ticker is VLGEA start_index 21581 end_index 21596
start_price 24.04 end_price 25.79
ticker is VLGEA start_index 21642 end_index 21657
start price 27.66 end price 31.2
ticker is VLGEA start_index 21705 end_index 21720
start_price 32.29 end_price 31.81
ticker is VLGEA start_index 21793 end_index 21808
start_price 25.39 end_price 24.45
ticker is VLGEA start_index 21833 end_index 21848
start_price 25.61 end_price 27.45
ticker is VLGEA start_index 21893 end_index 21908
start_price 26.41 end_price 23.98
ticker is VLGEA start_index 21957 end_index 21972
start_price 27.37 end_price 28.71
ticker is VLGEA start_index 22049 end_index 22064
start_price 31.72 end_price 30.13
ticker is VLGEA start_index 22088 end_index 22103
start_price 35.63 end_price 31.73
ticker is VLGEA start index 22150 end index 22165
start_price 27.06 end_price 26.14
ticker is VLGEA start_index 22212 end_index 22227
start_price 25.07 end_price 25.54
ticker is VLGEA start_index 22301 end_index 22316
start_price 24.9 end_price 23.81
ticker is VLGEA start_index 22338 end_index 22353
start_price 25.44 end_price 23.13
ticker is VLGEA start_index 22401 end_index 22416
start_price 24.07 end_price 26.3
ticker is VLGEA start_index 22464 end_index 22479
start_price 28.29 end_price 29.97
ticker is VLGEA start_index 22552 end_index 22567
start_price 24.9 end_price 24.64
ticker is VLGEA start_index 22590 end_index 22605
start price 25.44 end price 25.17
ticker is VLGEA start_index 22650 end_index 22665
start_price 31.5 end_price 27.86
ticker is VLGEA start_index 22712 end_index 22727
start_price 26.18 end_price 25.99
ticker is VLGEA start_index 22802 end_index 22817
start_price 26.27 end_price 26.18
ticker is VLGEA start_index 22841 end_index 22856
start_price 25.79 end_price 23.73
ticker is VLGEA start_index 22902 end_index 22917
start_price 21.35 end_price 21.76
ticker is VLGEA start_index 22965 end_index 22980
start_price 25.46 end_price 25.79
ticker is VLGEA start_index 23053 end_index 23068
```

start_price 24.32 end_price 22.65 ticker is VLGEA start_index 23092 end_index 23107 start_price 23.13 end_price 21.56 ticker is VLGEA start_index 23153 end_index 23168 start price 23.88 end price 24.17 appending VLGEA ticker is WFM start index 23312 end index 23327 start_price 46.455 end_price 47.54 ticker is WFM start_index 23387 end_index 23402 start_price 46.7119999999999 end_price 45.305 ticker is WFM start_index 23449 end_index 23464 start_price 42.465 end_price 44.29 ticker is WFM start_index 23508 end_index 23523 start_price 51.02 end_price 51.51 ticker is WFM start_index 23566 end_index 23581 start_price 55.9 end_price 52.47 ticker is WFM start_index 23640 end_index 23655 start_price 56.48 end_price 56.01 ticker is WFM start_index 23700 end_index 23715 start price 52.35 end price 53.83 ticker is WFM start_index 23759 end_index 23774 start price 38.76 end price 40.93 ticker is WFM start_index 23817 end_index 23832 start_price 37.35 end_price 39.185 ticker is WFM start_index 23891 end_index 23906 start_price 47.69 end_price 48.32 ticker is WFM start_index 23956 end_index 23971 start_price 56.73 end_price 53.62 ticker is WFM start_index 24010 end_index 24025 start_price 42.9 end_price 40.18 ticker is WFM start_index 24068 end_index 24083 start_price 34.84 end_price 33.14 ticker is WFM start_index 24137 end_index 24152 start_price 29.91 end_price 29.52 ticker is WFM start index 24207 end index 24222 start_price 30.86 end_price 32.92 ticker is WFM start_index 24261 end_index 24276 start_price 30.51 end_price 34.07 ticker is WFM start_index 24319 end_index 24334 start_price 30.39 end_price 31.0 ticker is WFM start_index 24393 end_index 24408 start_price 30.94 end_price 32.04 ticker is WFM start_index 24453 end_index 24468 start_price 30.72 end_price 29.28 ticker is WFM start_index 24517 end_index 24532 start_price 36.15 end_price 35.73 ticker is WFM start_index 24570 end_index 24585 start_price 41.84 end_price 41.98

appending WFM

ticker is WMK start_index 24614 end_index 24629

 $start_price 43.27 end_price 42.91$

ticker is WMK start_index 24676 end_index 24691 start price 40.38 end price 38.94

ticker is WMK start_index 24761 end_index 24776 start_price 41.02 end_price 40.42

ticker is WMK start_index 24800 end_index 24815 start_price 42.49 end_price 41.22

ticker is WMK start_index 24863 end_index 24878 start_price 50.81 end_price 47.31

ticker is WMK start_index 24927 end_index 24942 start_price 49.21 end_price 51.27

ticker is WMK start_index 25013 end_index 25028 start_price 49.49 end_price 49.65

ticker is WMK start_index 25051 end_index 25066
start_price 45.2 end_price 47.61

ticker is WMK start_index 25114 end_index 25129 start_price 43.43 end_price 43.09

ticker is WMK start_index 25178 end_index 25193 start_price 44.63 end_price 46.01

ticker is WMK start_index 25264 end_index 25279 start_price 50.36 end_price 50.16

ticker is WMK start_index 25298 end_index 25313 start_price 44.35 end_price 43.46

ticker is WMK start_index 25363 end_index 25378 start_price 42.01 end_price 40.16

ticker is WMK start_index 25497 end_index 25512 start_price 38.92 end_price 42.58

ticker is WMK start_index 25520 end_index 25535 start_price 43.38 end_price 44.21

ticker is WMK start_index 25553 end_index 25568 start_price 45.43 end_price 49.33

ticker is WMK start_index 25611 end_index 25626 start price 51.55 end price 50.56

ticker is WMK start_index 25680 end_index 25695 start price 56.51 end price 56.32

ticker is WMK start_index 25770 end_index 25785 start_price 59.08 end_price 59.35

ticker is WMK start_index 25809 end_index 25824 start_price 57.79 end_price 53.13

ticker is WMK start_index 25872 end_index 25887 start_price 44.49 end_price 43.96

ticker is WMK start_index 25934 end_index 25949 start_price 34.0 end_price 39.54

ticker is WMK start_index 26021 end_index 26036 start_price 38.37 end_price 42.9

ticker is WMK start_index 26060 end_index 26075

start_price 48.03 end_price 54.53 ticker is WMK start_index 26122 end_index 26137 start_price 48.66 end_price 47.56 ticker is WMK start_index 26187 end_index 26202 start price 46.46 end price 47.41 ticker is WMK start_index 26271 end_index 26286 start price 40.5 end price 40.82 ticker is WMK start_index 26310 end_index 26325 start_price 38.77 end_price 37.95 ticker is WMK start_index 26371 end_index 26386 start_price 37.6 end_price 39.16 ticker is WMK start_index 26434 end_index 26449 start_price 38.87 end_price 39.05 ticker is WMK start_index 26522 end_index 26537 start_price 36.39 end_price 42.77 ticker is WMK start_index 26561 end_index 26576 start_price 54.64 end_price 55.86 ticker is WMK start_index 26623 end_index 26638 start_price 51.17 end_price 49.6 ticker is WMK start index 26688 end index 26703 start_price 46.35 end_price 47.6 ticker is WMK start index 26773 end index 26788 start_price 58.85 end_price 56.52 ticker is WMK start_index 26812 end_index 26827 start_price 52.64 end_price 50.32 appending WMK ticker is ACI start_index 25 end_index 41 start_price 14.83 end_price 14.59 ticker is ACI start_index 80 end_index 96 start_price 15.22 end_price 14.98 ticker is ACI start_index 137 end_index 153 start_price 17.1 end_price 16.71 ticker is ACI start_index 209 end_index 225 start_price 18.11 end_price 18.69 appending ACI ticker is ARDNA start_index 330 end_index 346 start price 82.6 end price 89.0 ticker is ARDNA start_index 394 end_index 410 start_price 95.88 end_price 111.99 ticker is ARDNA start_index 478 end_index 494 start_price 98.31 end_price 100.15 ticker is ARDNA start_index 519 end_index 535 start_price 98.65 end_price 107.54 ticker is ARDNA start_index 583 end_index 599 start_price 132.78 end_price 134.6 ticker is ARDNA start_index 647 end_index 663 start_price 129.85 end_price 129.99 appending ARDNA

ticker is ASAI start_index 754 end_index 770 start_price 14.81 end_price 15.73 appending ASAI appending CBD ticker is FWMHQ start index 3088 end index 3104 start_price 17.35 end_price 18.2 ticker is FWMHQ start index 3122 end index 3138 start_price 20.73 end_price 23.97 ticker is FWMHQ start_index 3166 end_index 3182 start_price 25.83 end_price 22.53 ticker is FWMHQ start_index 3230 end_index 3246 start_price 25.46 end_price 18.99 ticker is FWMHQ start_index 3291 end_index 3307 start_price 11.14 end_price 7.8 ticker is FWMHQ start_index 3368 end_index 3384 start_price 6.75 end_price 6.79 ticker is FWMHQ start_index 3417 end_index 3433 start_price 5.74 end_price 4.51 ticker is FWMHQ start_index 3481 end_index 3497 start price 2.59 end price 3.71 ticker is FWMHQ start_index 3542 end_index 3558 start price 5.02 end price 5.57 ticker is FWMHQ start_index 3617 end_index 3633 start_price 4.63 end_price 4.04 ticker is FWMHQ start_index 3666 end_index 3682 start_price 3.02 end_price 2.37 ticker is FWMHQ start_index 3727 end_index 3743 start_price 1.71 end_price 1.08 ticker is FWMHQ start_index 3794 end_index 3810 start_price 0.499 end_price 0.301 appending FWMHQ ticker is GO start_index 3900 end_index 3916 start_price 28.51 end_price 35.38 ticker is GO start_index 3936 end_index 3952 start price 37.54 end price 40.06 ticker is GO start_index 3972 end_index 3988 start_price 33.01 end_price 31.15 ticker is GO start_index 4000 end_index 4016 start_price 31.0 end_price 32.5 ticker is GO start_index 4050 end_index 4066 start_price 35.43 end_price 32.11 ticker is GO start_index 4091 end_index 4107 start_price 33.2 end_price 34.79 ticker is GO start_index 4124 end_index 4140 start_price 36.67 end_price 36.41 ticker is GO start_index 4187 end_index 4203 start_price 44.33 end_price 42.23 ticker is GO start_index 4251 end_index 4267

start_price 41.21 end_price 37.62 ticker is GO start_index 4326 end_index 4342 start_price 35.91 end_price 36.7 ticker is GO start_index 4376 end_index 4392 start price 40.54 end price 34.43 appending GO ticker is HTSI start index 4491 end index 4507 start_price 41.53 end_price 39.26 ticker is HTSI start_index 4562 end_index 4578 start_price 36.17 end_price 37.32 ticker is HTSI start_index 4614 end_index 4630 start_price 36.95 end_price 43.72 ticker is HTSI start_index 4676 end_index 4692 start_price 45.29 end_price 47.69 ticker is HTSI start_index 4740 end_index 4756 start_price 49.2 end_price 49.19 ticker is HTSI start_index 4820 end_index 4836 start_price 49.38 end_price 49.37 appending HTSI ticker is IFMK start index 4953 end index 4969 start_price 11.99 end_price 13.537 ticker is IFMK start_index 4984 end_index 5000 start_price 12.81 end_price 12.92 ticker is IFMK start_index 5049 end_index 5065 start_price 11.13 end_price 11.06 ticker is IFMK start_index 5111 end_index 5127 start_price 11.92 end_price 8.29 ticker is IFMK start_index 5205 end_index 5221 start_price 5.5 end_price 3.929 ticker is IFMK start_index 5236 end_index 5252 start_price 3.8 end_price 3.24 ticker is IFMK start_index 5301 end_index 5317 start_price 1.4 end_price 1.0 ticker is IFMK start_index 5362 end_index 5378 start price 1.07 end price 1.47 ticker is IFMK start_index 5455 end_index 5471 start_price 1.2 end_price 2.0 ticker is IFMK start_index 5487 end_index 5503 start_price 2.27 end_price 2.02 ticker is IFMK start_index 5552 end_index 5568 start_price 0.375 end_price 0.368 ticker is IFMK start_index 5614 end_index 5630 start_price 0.4220000000000004 end_price 0.753 ticker is IFMK start_index 5739 end_index 5755 start_price 0.93900000000001 end_price 0.91 ticker is IFMK start_index 5744 end_index 5760 start_price 0.9 end_price 0.855 ticker is IFMK start_index 5810 end_index 5826

start_price 0.859000000000001 end_price 0.77 ticker is IFMK start_index 5830 end_index 5846 start_price 0.822000000000001 end_price 0.95 ticker is IFMK start_index 5870 end_index 5886 start price 1.95 end price 1.77 appending IFMK ticker is IMKTA start index 6035 end index 6051 start_price 16.36 end_price 16.19 ticker is IMKTA start_index 6135 end_index 6151 start_price 17.2 end_price 17.03 ticker is IMKTA start_index 6164 end_index 6180 start_price 19.3 end_price 20.57 ticker is IMKTA start_index 6226 end_index 6242 start_price 21.46 end_price 23.31 ticker is IMKTA start_index 6288 end_index 6304 start_price 25.69 end_price 24.63 ticker is IMKTA start_index 6378 end_index 6394 start_price 24.41 end_price 26.81 ticker is IMKTA start_index 6413 end_index 6429 start price 24.02 end price 23.43 ticker is IMKTA start_index 6476 end_index 6492 start price 26.07 end price 27.65 ticker is IMKTA start_index 6541 end_index 6557 start_price 24.47 end_price 24.73 ticker is IMKTA start_index 6632 end_index 6648 start_price 32.08 end_price 42.12 ticker is IMKTA start_index 6666 end_index 6682 start_price 44.06 end_price 43.24 ticker is IMKTA start_index 6728 end_index 6744 start_price 40.87 end_price 49.89 ticker is IMKTA start_index 6790 end_index 6806 start_price 49.9 end_price 49.35 ticker is IMKTA start_index 6880 end_index 6896 start_price 53.84 end_price 38.35 ticker is IMKTA start index 6917 end index 6933 start_price 36.2 end_price 36.09 ticker is IMKTA start_index 6980 end_index 6996 start_price 36.73 end_price 37.44 ticker is IMKTA start_index 7042 end_index 7058 start_price 36.86 end_price 38.89 ticker is IMKTA start_index 7137 end_index 7153 start_price 48.05 end_price 49.35 ticker is IMKTA start_index 7167 end_index 7183 start_price 45.25 end_price 47.65 ticker is IMKTA start_index 7230 end_index 7246 start_price 45.85 end_price 37.95 ticker is IMKTA start_index 7293 end_index 7309 start_price 29.5 end_price 24.0

ticker is IMKTA start_index 7381 end_index 7397 start_price 27.7 end_price 35.4 ticker is IMKTA start_index 7424 end_index 7440 start_price 30.55 end_price 33.1 ticker is IMKTA start index 7486 end index 7502 start_price 30.95 end_price 28.7 ticker is IMKTA start index 7550 end index 7566 start_price 29.55 end_price 35.95 ticker is IMKTA start_index 7633 end_index 7649 start_price 28.1 end_price 27.22 ticker is IMKTA start_index 7674 end_index 7690 start_price 28.96 end_price 31.37 ticker is IMKTA start_index 7736 end_index 7752 start_price 27.45 end_price 30.92 ticker is IMKTA start_index 7800 end_index 7816 start_price 31.75 end_price 38.65 ticker is IMKTA start_index 7886 end_index 7902 start_price 43.48 end_price 46.47 ticker is IMKTA start_index 7925 end_index 7941 start price 42.76 end price 35.77 ticker is IMKTA start_index 7988 end_index 8004 start price 37.61 end price 42.61 ticker is IMKTA start_index 8051 end_index 8067 start_price 39.9 end_price 41.43 ticker is IMKTA start_index 8137 end_index 8153 start_price 37.41 end_price 42.26 ticker is IMKTA start_index 8176 end_index 8192 start_price 47.26 end_price 51.96 ticker is IMKTA start_index 8238 end_index 8254 start_price 62.74 end_price 61.01 appending IMKTA ticker is KR start_index 8385 end_index 8401 start_price 11.905 end_price 11.77 ticker is KR start_index 8442 end_index 8458 start price 13.325 end price 13.195 ticker is KR start_index 8517 end_index 8533 start_price 16.27 end_price 17.335 ticker is KR start_index 8579 end_index 8595 start_price 17.355 end_price 19.525 ticker is KR start_index 8639 end_index 8655 start_price 20.24 end_price 20.505 ticker is KR start_index 8696 end_index 8712 start_price 19.995 end_price 19.5 ticker is KR start_index 8769 end_index 8785 start_price 21.825 end_price 22.725 ticker is KR start_index 8832 end_index 8848 start_price 24.715 end_price 25.085 ticker is KR start_index 8890 end_index 8906

start_price 26.015 end_price 26.7 ticker is KR start_index 8949 end_index 8965 start_price 30.765 end_price 33.1 ticker is KR start_index 9020 end_index 9036 start price 38.62 end price 35.195 ticker is KR start_index 9083 end_index 9099 start_price 36.335 end_price 39.01 ticker is KR start_index 9141 end_index 9157 start_price 36.66 end_price 37.44 ticker is KR start_index 9202 end_index 9218 start_price 42.43 end_price 41.28 ticker is KR start_index 9270 end_index 9286 start_price 38.06 end_price 36.23 ticker is KR start_index 9334 end_index 9350 start_price 36.62 end_price 36.4 ticker is KR start_index 9392 end_index 9408 start_price 30.79 end_price 30.11 ticker is KR start_index 9451 end_index 9467 start_price 34.22 end_price 33.21 ticker is KR start index 9522 end index 9538 start_price 28.93 end_price 29.95 ticker is KR start_index 9585 end_index 9601 start_price 22.61 end_price 22.94 ticker is KR start_index 9641 end_index 9657 start_price 21.26 end_price 20.63 ticker is KR start_index 9700 end_index 9716 start_price 26.53 end_price 28.3 ticker is KR start_index 9777 end_index 9793 start_price 23.28 end_price 25.38 ticker is KR start_index 9839 end_index 9855 start_price 28.43 end_price 28.29 ticker is KR start_index 9899 end_index 9915 start_price 29.61 end_price 27.2 ticker is KR start_index 9957 end_index 9973 start price 28.92 end price 28.48 ticker is KR start_index 10028 end_index 10044 start_price 24.48 end_price 25.57 ticker is KR start_index 10089 end_index 10105 start_price 21.39 end_price 20.86 ticker is KR start_index 10149 end_index 10165 start_price 25.72 end_price 24.31 ticker is KR start_index 10208 end_index 10224 start_price 28.31 end_price 28.44 ticker is KR start_index 10280 end_index 10296 start_price 30.12 end_price 32.88 ticker is KR start_index 10340 end_index 10356 start_price 32.78 end_price 34.15 ticker is KR start_index 10400 end_index 10416 start_price 33.46 end_price 34.8 ticker is KR start_index 10459 end_index 10475 start_price 31.3 end_price 31.82 ticker is KR start_index 10530 end_index 10546 start price 37.95 end price 37.91 appending KR ticker is NGVC start index 10745 end index 10761 start_price 19.38 end_price 17.99 ticker is NGVC start_index 10747 end_index 10763 start_price 19.59 end_price 17.77 ticker is NGVC start_index 10777 end_index 10793 start_price 20.32 end_price 21.56 ticker is NGVC start_index 10845 end_index 10861 start_price 25.03 end_price 28.35 ticker is NGVC start_index 10907 end_index 10923 start_price 35.4 end_price 36.39 ticker is NGVC start_index 10996 end_index 11012 start_price 37.94 end_price 42.04 ticker is NGVC start_index 11028 end_index 11044 start price 33.51 end price 39.83 ticker is NGVC start_index 11091 end_index 11107 start_price 35.6 end_price 21.09 ticker is NGVC start_index 11154 end_index 11170 start_price 23.88 end_price 18.29 ticker is NGVC start_index 11247 end_index 11263 start_price 25.45 end_price 26.77 ticker is NGVC start_index 11279 end_index 11295 start_price 28.06 end_price 30.09 ticker is NGVC start_index 11347 end_index 11363 start_price 26.87 end_price 24.21 ticker is NGVC start_index 11405 end_index 11421 start_price 22.29 end_price 23.85 ticker is NGVC start_index 11498 end_index 11514 start_price 20.11 end_price 20.2 ticker is NGVC start index 11530 end index 11546 start_price 20.67 end_price 19.26 ticker is NGVC start index 11598 end index 11614 start_price 13.09 end_price 13.63 ticker is NGVC start_index 11656 end_index 11672 start_price 13.49 end_price 11.72 ticker is NGVC start_index 11749 end_index 11765 start_price 11.69 end_price 11.89 ticker is NGVC start_index 11786 end_index 11802 start_price 12.54 end_price 12.46 ticker is NGVC start_index 11849 end_index 11865 start_price 10.7 end_price 9.76 ticker is NGVC start_index 11912 end_index 11928 start_price 8.61 end_price 5.94

```
ticker is NGVC start_index 12000 end_index 12016
start_price 8.3 end_price 8.93
ticker is NGVC start_index 12037 end_index 12053
start_price 8.6 end_price 6.96
ticker is NGVC start index 12100 end index 12116
start_price 7.19 end_price 10.56
ticker is NGVC start index 12163 end index 12179
start_price 12.54 end_price 19.26
ticker is NGVC start_index 12250 end_index 12266
start_price 17.5 end_price 15.72
ticker is NGVC start_index 12292 end_index 12308
start_price 14.0 end_price 14.26
ticker is NGVC start_index 12350 end_index 12366
start_price 12.16 end_price 10.74
ticker is NGVC start_index 12413 end_index 12429
start_price 9.17 end_price 9.79
ticker is NGVC start_index 12501 end_index 12517
start_price 9.32 end_price 10.07
ticker is NGVC start_index 12543 end_index 12559
start price 9.35 end price 6.9
ticker is NGVC start_index 12606 end_index 12622
start price 10.72 end price 14.4
ticker is NGVC start_index 12669 end_index 12685
start_price 16.06 end_price 13.37
ticker is NGVC start_index 12757 end_index 12773
start_price 13.8 end_price 14.07
ticker is NGVC start_index 12794 end_index 12810
start_price 16.18 end_price 14.08
ticker is NGVC start_index 12857 end_index 12873
start_price 16.08 end_price 11.94
appending NGVC
ticker is QKLS start_index 12979 end_index 12995
start_price 8.08 end_price 6.56
ticker is QKLS start_index 13042 end_index 13058
start price 5.12 end price 6.8
ticker is QKLS start_index 13144 end_index 13160
start_price 5.98 end_price 3.36
ticker is QKLS start_index 13165 end_index 13181
start_price 3.43 end_price 4.15
ticker is QKLS start_index 13229 end_index 13245
start_price 6.2 end_price 4.48
ticker is QKLS start_index 13294 end_index 13310
start_price 4.55 end_price 4.3
ticker is QKLS start_index 13390 end_index 13406
start_price 4.33 end_price 3.96
ticker is QKLS start_index 13418 end_index 13434
start_price 3.71 end_price 3.52
ticker is QKLS start_index 13481 end_index 13497
```

```
start_price 3.37 end_price 3.19
ticker is QKLS start_index 13546 end_index 13562
start_price 2.31 end_price 1.73
ticker is QKLS start_index 13648 end_index 13664
start price 3.15 end price 2.33
ticker is QKLS start_index 13670 end_index 13686
start_price 3.1 end_price 2.32
ticker is QKLS start_index 13734 end_index 13750
start_price 1.64 end_price 1.26
ticker is QKLS start_index 13798 end_index 13814
start_price 0.9 end_price 0.84
ticker is QKLS start_index 13900 end_index 13916
start_price 0.66 end_price 0.43
appending QKLS
ticker is RNDY start_index 15282 end_index 15298
start_price 7.71 end_price 7.42
ticker is RNDY start_index 15345 end_index 15361
start_price 4.24 end_price 4.81
ticker is RNDY start_index 15433 end_index 15449
start price 6.74 end price 6.52
ticker is RNDY start_index 15467 end_index 15483
start_price 7.33 end_price 7.58
ticker is RNDY start_index 15530 end_index 15546
start_price 8.57 end_price 8.44
ticker is RNDY start_index 15594 end_index 15610
start_price 9.15 end_price 8.49
ticker is RNDY start_index 15674 end_index 15690
start_price 6.08 end_price 6.74
ticker is RNDY start_index 15716 end_index 15732
start_price 6.65 end_price 5.27
ticker is RNDY start_index 15779 end_index 15795
start_price 4.78 end_price 3.74
ticker is RNDY start_index 15843 end_index 15859
start_price 3.45 end_price 4.12
ticker is RNDY start index 15930 end index 15946
start_price 4.48 end_price 5.73
ticker is RNDY start_index 15972 end_index 15988
start_price 4.65 end_price 3.28
ticker is RNDY start_index 16035 end_index 16051
start_price 2.46 end_price 2.56
ticker is RNDY start_index 16100 end_index 16116
start_price 3.57 end_price 3.6
appending RNDY
ticker is SFM start_index 16141 end_index 16157
start_price 38.59 end_price 39.43
ticker is SFM start_index 16194 end_index 16210
start_price 48.04 end_price 37.84
ticker is SFM start_index 16201 end_index 16217
```

start_price 43.05 end_price 36.6 ticker is SFM start_index 16269 end_index 16285 start_price 36.85 end_price 37.13 ticker is SFM start_index 16281 end_index 16297 start price 37.95 end price 35.42 ticker is SFM start_index 16317 end_index 16333 start_price 31.09 end_price 27.04 ticker is SFM start_index 16381 end_index 16397 start_price 31.75 end_price 31.005 ticker is SFM start_index 16445 end_index 16461 start_price 30.69 end_price 31.79 ticker is SFM start_index 16520 end_index 16536 start_price 37.09 end_price 33.96 ticker is SFM start_index 16569 end_index 16585 start_price 31.06 end_price 29.99 ticker is SFM start_index 16632 end_index 16648 start_price 24.03 end_price 20.6 ticker is SFM start_index 16696 end_index 16712 start_price 19.88 end_price 24.63 ticker is SFM start index 16771 end index 16787 start_price 25.21 end_price 28.85 ticker is SFM start_index 16820 end_index 16836 start_price 27.38 end_price 25.16 ticker is SFM start_index 16883 end_index 16899 start_price 23.25 end_price 23.22 ticker is SFM start_index 16947 end_index 16963 start_price 22.57 end_price 21.52 ticker is SFM start_index 17022 end_index 17038 start_price 19.0 end_price 20.88 ticker is SFM start_index 17071 end_index 17087 start_price 22.75 end_price 23.77 ticker is SFM start_index 17134 end_index 17150 start_price 23.98 end_price 22.1 ticker is SFM start_index 17198 end_index 17214 start price 18.87 end price 21.76 ticker is SFM start_index 17273 end_index 17289 start_price 26.12 end_price 24.17 ticker is SFM start_index 17322 end_index 17338 start_price 24.39 end_price 21.83 ticker is SFM start_index 17385 end_index 17401 start_price 21.2 end_price 24.75 ticker is SFM start_index 17449 end_index 17465 start_price 26.89 end_price 27.42 ticker is SFM start_index 17523 end_index 17539 start_price 24.14 end_price 22.31 ticker is SFM start_index 17572 end_index 17588 start_price 21.29 end_price 20.45 ticker is SFM start_index 17635 end_index 17651 start_price 16.93 end_price 17.98 ticker is SFM start_index 17699 end_index 17715 start_price 18.75 end_price 19.46 ticker is SFM start_index 17774 end_index 17790 start price 15.86 end price 13.32 ticker is SFM start_index 17826 end_index 17842 start_price 21.76 end_price 24.82 ticker is SFM start_index 17885 end_index 17901 start_price 27.02 end_price 24.19 ticker is SFM start_index 17949 end_index 17965 start_price 20.4 end_price 19.73 ticker is SFM start_index 18030 end_index 18046 start_price 21.48 end_price 24.05 ticker is SFM start_index 18079 end_index 18095 start_price 25.87 end_price 26.06 appending SFM ticker is SFS start_index 18209 end_index 18225 start_price 15.49 end_price 15.36 ticker is SFS start_index 18296 end_index 18312 start price 18.4 end price 18.25 ticker is SFS start_index 18320 end_index 18336 start_price 17.87 end_price 17.27 ticker is SFS start_index 18379 end_index 18395 start_price 17.79 end_price 16.43 ticker is SFS start_index 18458 end_index 18474 start_price 14.6 end_price 17.29 ticker is SFS start_index 18541 end_index 18557 start_price 15.8 end_price 15.66 ticker is SFS start_index 18576 end_index 18592 start_price 16.03 end_price 15.51 ticker is SFS start_index 18636 end_index 18652 start_price 15.03 end_price 13.17 ticker is SFS start_index 18714 end_index 18730 start_price 13.45 end_price 13.4 ticker is SFS start index 18795 end index 18811 start_price 11.55 end_price 11.9 ticker is SFS start_index 18828 end_index 18844 start_price 11.65 end_price 13.15 ticker is SFS start_index 18885 end_index 18901 start_price 8.1 end_price 7.25 ticker is SFS start_index 18965 end_index 18981 start_price 7.25 end_price 8.95 ticker is SFS start_index 19046 end_index 19062 start_price 6.0 end_price 5.25 ticker is SFS start_index 19079 end_index 19095 start_price 5.3 end_price 4.75 ticker is SFS start_index 19137 end_index 19153 start_price 5.5 end_price 6.95

ticker is SFS start_index 19216 end_index 19232 start_price 4.95 end_price 5.8 ticker is SFS start_index 19296 end_index 19312 start_price 5.26 end_price 5.34 ticker is SFS start_index 19330 end_index 19346 start_price 6.52 end_price 6.55 appending SFS ticker is SWY start_index 19378 end_index 19394 start_price 15.26 end_price 16.13 ticker is SWY start_index 19437 end_index 19453 start_price 15.67 end_price 16.41

ticker is SWY start_index 19525 end_index 19541 start_price 22.76 end_price 24.89

ticker is SWY start_index 19569 end_index 19585 start_price 23.51 end_price 24.31

ticker is SWY start_index 19628 end_index 19644 start_price 25.57 end_price 25.74

ticker is SWY start_index 19687 end_index 19703 start_price 32.74 end_price 34.25

ticker is SWY start_index 19777 end_index 19793 start_price 37.13 end_price 38.38

ticker is SWY start_index 19821 end_index 19837 start_price 34.08 end_price 34.37

ticker is SWY start_index 19878 end_index 19894 start_price 34.82 end_price 34.42

ticker is SWY start_index 19938 end_index 19954 start_price 33.97 end_price 34.97 appending SWY

ticker is TFM start_index 20057 end_index 20073 start_price 58.34 end_price 59.01

ticker is TFM start_index 20119 end_index 20135 start_price 50.7 end_price 47.65

ticker is TFM start_index 20194 end_index 20210 start_price 42.7 end_price 39.26

ticker is TFM start_index 20243 end_index 20259 start_price 50.26 end_price 50.84

ticker is TFM start_index 20307 end_index 20323 start_price 49.7 end_price 47.59

ticker is TFM start_index 20364 end_index 20380 start_price 39.97 end_price 40.39

ticker is TFM start_index 20442 end_index 20458 start_price 34.18 end_price 34.8

ticker is TFM start_index 20493 end_index 20509 start_price 32.95 end_price 34.15

ticker is TFM start_index 20557 end_index 20573 start_price 33.73 end_price 34.33

ticker is TFM start_index 20621 end_index 20637 start_price 39.53 end_price 41.42

```
ticker is TFM start_index 20694 end_index 20710
start_price 41.09 end_price 40.09
ticker is TFM start_index 20740 end_index 20756
start_price 32.43 end_price 31.89
ticker is TFM start index 20804 end index 20820
start_price 19.91 end_price 23.74
ticker is TFM start index 20870 end index 20886
start_price 23.98 end_price 24.24
ticker is TFM start_index 20947 end_index 20963
start_price 28.47 end_price 28.595
appending TFM
ticker is VLGEA start_index 21041 end_index 21057
start_price 34.06 end_price 36.86
ticker is VLGEA start_index 21079 end_index 21095
start_price 37.11 end_price 31.8
ticker is VLGEA start_index 21140 end_index 21156
start_price 34.1 end_price 33.85
ticker is VLGEA start_index 21203 end_index 21219
start_price 36.37 end_price 33.05
ticker is VLGEA start index 21290 end index 21306
start_price 34.85 end_price 37.84
ticker is VLGEA start_index 21330 end_index 21346
start_price 38.45 end_price 31.78
ticker is VLGEA start_index 21390 end_index 21406
start_price 27.32 end_price 26.74
ticker is VLGEA start_index 21454 end_index 21470
start_price 22.89 end_price 23.72
ticker is VLGEA start_index 21542 end_index 21558
start_price 23.46 end_price 25.95
ticker is VLGEA start_index 21581 end_index 21597
start_price 24.04 end_price 26.25
ticker is VLGEA start_index 21642 end_index 21658
start_price 27.66 end_price 30.98
ticker is VLGEA start_index 21705 end_index 21721
start price 32.29 end price 31.53
ticker is VLGEA start_index 21793 end_index 21809
start_price 25.39 end_price 25.8
ticker is VLGEA start_index 21833 end_index 21849
start_price 25.61 end_price 27.0
ticker is VLGEA start_index 21893 end_index 21909
start_price 26.41 end_price 23.54
ticker is VLGEA start_index 21957 end_index 21973
start_price 27.37 end_price 29.28
ticker is VLGEA start_index 22049 end_index 22065
start_price 31.72 end_price 30.84
ticker is VLGEA start_index 22088 end_index 22104
start_price 35.63 end_price 31.63
ticker is VLGEA start_index 22150 end_index 22166
```

```
start_price 27.06 end_price 26.45
ticker is VLGEA start_index 22212 end_index 22228
start_price 25.07 end_price 26.12
ticker is VLGEA start_index 22301 end_index 22317
start price 24.9 end price 24.22
ticker is VLGEA start_index 22338 end_index 22354
start_price 25.44 end_price 23.15
ticker is VLGEA start_index 22401 end_index 22417
start_price 24.07 end_price 26.37
ticker is VLGEA start_index 22464 end_index 22480
start_price 28.29 end_price 29.51
ticker is VLGEA start_index 22552 end_index 22568
start_price 24.9 end_price 25.15
ticker is VLGEA start_index 22590 end_index 22606
start_price 25.44 end_price 26.58
ticker is VLGEA start_index 22650 end_index 22666
start_price 31.5 end_price 27.88
ticker is VLGEA start_index 22712 end_index 22728
start_price 26.18 end_price 26.83
ticker is VLGEA start index 22802 end index 22818
start_price 26.27 end_price 26.5
ticker is VLGEA start_index 22841 end_index 22857
start_price 25.79 end_price 23.7
ticker is VLGEA start_index 22902 end_index 22918
start_price 21.35 end_price 23.0
ticker is VLGEA start_index 22965 end_index 22981
start_price 25.46 end_price 26.02
ticker is VLGEA start_index 23053 end_index 23069
start_price 24.32 end_price 23.06
ticker is VLGEA start_index 23092 end_index 23108
start_price 23.13 end_price 21.79
ticker is VLGEA start_index 23153 end_index 23169
start_price 23.88 end_price 24.64
appending VLGEA
ticker is WFM start index 23312 end index 23328
start_price 46.455 end_price 48.515
ticker is WFM start_index 23387 end_index 23403
start_price 46.7119999999999 end_price 44.61
ticker is WFM start_index 23449 end_index 23465
start_price 42.465 end_price 43.53
ticker is WFM start_index 23508 end_index 23524
start_price 51.02 end_price 52.05
ticker is WFM start_index 23566 end_index 23582
start_price 55.9 end_price 52.75
ticker is WFM start_index 23640 end_index 23656
start_price 56.48 end_price 56.09
ticker is WFM start_index 23700 end_index 23716
start_price 52.35 end_price 53.93
```

ticker is WFM start_index 23759 end_index 23775 start_price 38.76 end_price 41.14

ticker is WFM start_index 23817 end_index 23833 start_price 37.35 end_price 39.14

ticker is WFM start_index 23891 end_index 23907 start_price 47.69 end_price 48.54

ticker is WFM start_index 23956 end_index 23972 start_price 56.73 end_price 53.97

ticker is WFM start_index 24010 end_index 24026
start_price 42.9 end_price 39.995

ticker is WFM start_index 24068 end_index 24084 start_price 34.84 end_price 32.85

ticker is WFM start_index 24137 end_index 24153 start_price 29.91 end_price 30.69

ticker is WFM start_index 24207 end_index 24223 start_price 30.86 end_price 33.42

ticker is WFM start_index 24261 end_index 24277 start_price 30.51 end_price 34.91

ticker is WFM start_index 24319 end_index 24335 start_price 30.39 end_price 30.73

ticker is WFM start_index 24393 end_index 24409 start_price 30.94 end_price 31.04

ticker is WFM start_index 24453 end_index 24469 start_price 30.72 end_price 29.19

ticker is WFM start_index 24517 end_index 24533 start_price 36.15 end_price 35.32

ticker is WFM start_index 24570 end_index 24586 start_price 41.84 end_price 41.99 appending WFM

ticker is WMK start_index 24614 end_index 24630 start_price 43.27 end_price 42.45

ticker is WMK start_index 24676 end_index 24692 start_price 40.38 end_price 39.11

ticker is WMK start_index 24761 end_index 24777 start price 41.02 end price 40.25

ticker is WMK start_index 24800 end_index 24816 start_price 42.49 end_price 40.91

ticker is WMK start_index 24863 end_index 24879 start_price 50.81 end_price 47.82

ticker is WMK start_index 24927 end_index 24943 start_price 49.21 end_price 51.03

ticker is WMK start_index 25013 end_index 25029 start_price 49.49 end_price 48.75

ticker is WMK start_index 25051 end_index 25067 start_price 45.2 end_price 47.37

ticker is WMK start_index 25114 end_index 25130 start_price 43.43 end_price 43.09

ticker is WMK start_index 25178 end_index 25194

start_price 44.63 end_price 46.12 ticker is WMK start_index 25264 end_index 25280 start_price 50.36 end_price 49.7 ticker is WMK start_index 25298 end_index 25314 start price 44.35 end price 43.5 ticker is WMK start_index 25363 end_index 25379 start_price 42.01 end_price 39.65 ticker is WMK start_index 25497 end_index 25513 start_price 38.92 end_price 42.26 ticker is WMK start_index 25520 end_index 25536 start_price 43.38 end_price 43.74 ticker is WMK start_index 25553 end_index 25569 start_price 45.43 end_price 49.6 ticker is WMK start_index 25611 end_index 25627 start_price 51.55 end_price 51.05 ticker is WMK start_index 25680 end_index 25696 start_price 56.51 end_price 57.26 ticker is WMK start_index 25770 end_index 25786 start_price 59.08 end_price 59.68 ticker is WMK start index 25809 end index 25825 start_price 57.79 end_price 52.79 ticker is WMK start_index 25872 end_index 25888 start_price 44.49 end_price 44.21 ticker is WMK start_index 25934 end_index 25950 start_price 34.0 end_price 40.84 ticker is WMK start_index 26021 end_index 26037 start_price 38.37 end_price 43.39 ticker is WMK start_index 26060 end_index 26076 start_price 48.03 end_price 55.2 ticker is WMK start_index 26122 end_index 26138 start_price 48.66 end_price 46.47 ticker is WMK start_index 26187 end_index 26203 start_price 46.46 end_price 45.8 ticker is WMK start_index 26271 end_index 26287 start price 40.5 end price 41.33 ticker is WMK start_index 26310 end_index 26326 start_price 38.77 end_price 37.8 ticker is WMK start_index 26371 end_index 26387 start_price 37.6 end_price 38.5 ticker is WMK start_index 26434 end_index 26450 start_price 38.87 end_price 39.86 ticker is WMK start_index 26522 end_index 26538 start_price 36.39 end_price 43.55 ticker is WMK start_index 26561 end_index 26577 start_price 54.64 end_price 55.73 ticker is WMK start_index 26623 end_index 26639 start_price 51.17 end_price 49.54 ticker is WMK start_index 26688 end_index 26704 start_price 46.35 end_price 47.87 ticker is WMK start_index 26773 end_index 26789 start_price 58.85 end_price 56.88 ticker is WMK start_index 26812 end_index 26828 start_price 52.64 end_price 49.81 appending WMK ticker is ACI start_index 25 end_index 42 start_price 14.83 end_price 14.7 ticker is ACI start_index 80 end_index 97 start_price 15.22 end_price 15.13 ticker is ACI start_index 137 end_index 154 start_price 17.1 end_price 16.93 ticker is ACI start_index 209 end_index 226 start_price 18.11 end_price 18.73 appending ACI ticker is ARDNA start_index 330 end_index 347 start_price 82.6 end_price 90.29 ticker is ARDNA start_index 394 end_index 411 start_price 95.88 end_price 98.0 ticker is ARDNA start index 478 end index 495 start_price 98.31 end_price 100.01 ticker is ARDNA start index 519 end index 536 start_price 98.65 end_price 106.56 ticker is ARDNA start_index 583 end_index 600 start_price 132.78 end_price 132.7 ticker is ARDNA start_index 647 end_index 664 start_price 129.85 end_price 127.04 appending ARDNA ticker is ASAI start_index 754 end_index 771 start_price 14.81 end_price 16.14 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3105 start_price 17.35 end_price 18.3 ticker is FWMHQ start index 3122 end index 3139 start_price 20.73 end_price 24.17 ticker is FWMHQ start_index 3166 end_index 3183 start_price 25.83 end_price 23.18 ticker is FWMHQ start_index 3230 end_index 3247 start_price 25.46 end_price 18.51 ticker is FWMHQ start_index 3291 end_index 3308 start_price 11.14 end_price 7.74 ticker is FWMHQ start_index 3368 end_index 3385 start_price 6.75 end_price 6.6 ticker is FWMHQ start_index 3417 end_index 3434 start_price 5.74 end_price 4.49 ticker is FWMHQ start_index 3481 end_index 3498 start_price 2.59 end_price 3.44

ticker is FWMHQ start_index 3542 end_index 3559 start_price 5.02 end_price 5.54 ticker is FWMHQ start_index 3617 end_index 3634 start_price 4.63 end_price 4.09 ticker is FWMHQ start index 3666 end index 3683 start_price 3.02 end_price 2.4 ticker is FWMHQ start index 3727 end index 3744 start_price 1.71 end_price 1.01 ticker is FWMHQ start_index 3794 end_index 3811 start_price 0.499 end_price 0.305 appending FWMHQ ticker is GO start_index 3900 end_index 3917 start_price 28.51 end_price 34.81 ticker is GO start_index 3936 end_index 3953 start_price 37.54 end_price 40.08 ticker is GO start_index 3972 end_index 3989 start_price 33.01 end_price 31.51 ticker is GO start_index 4000 end_index 4017 start_price 31.0 end_price 31.48 ticker is GO start index 4050 end index 4067 start_price 35.43 end_price 32.02 ticker is GO start_index 4091 end_index 4108 start_price 33.2 end_price 35.61 ticker is GO start_index 4124 end_index 4141 start_price 36.67 end_price 35.58 ticker is GO start_index 4187 end_index 4204 start_price 44.33 end_price 42.02 ticker is GO start_index 4251 end_index 4268 start_price 41.21 end_price 37.27 ticker is GO start_index 4326 end_index 4343 start_price 35.91 end_price 36.03 ticker is GO start_index 4376 end_index 4393 start_price 40.54 end_price 33.55 appending GO ticker is HTSI start index 4491 end index 4508 start_price 41.53 end_price 39.07 ticker is HTSI start_index 4562 end_index 4579 start_price 36.17 end_price 37.09 ticker is HTSI start_index 4614 end_index 4631 start_price 36.95 end_price 43.2 ticker is HTSI start_index 4676 end_index 4693 start_price 45.29 end_price 47.0 ticker is HTSI start_index 4740 end_index 4757 start_price 49.2 end_price 49.15 ticker is HTSI start_index 4820 end_index 4837 start_price 49.38 end_price 49.36 appending HTSI ticker is IFMK start_index 4953 end_index 4970

```
start_price 11.99 end_price 13.35
ticker is IFMK start_index 4984 end_index 5001
start_price 12.81 end_price 12.88
ticker is IFMK start_index 5049 end_index 5066
start price 11.13 end price 11.46
ticker is IFMK start_index 5111 end_index 5128
start_price 11.92 end_price 8.884
ticker is IFMK start_index 5205 end_index 5222
start_price 5.5 end_price 3.99
ticker is IFMK start_index 5236 end_index 5253
start_price 3.8 end_price 3.23
ticker is IFMK start_index 5301 end_index 5318
start_price 1.4 end_price 1.01
ticker is IFMK start_index 5362 end_index 5379
start_price 1.07 end_price 1.5
ticker is IFMK start_index 5455 end_index 5472
start_price 1.2 end_price 2.08
ticker is IFMK start_index 5487 end_index 5504
start_price 2.27 end_price 1.97
ticker is IFMK start index 5552 end index 5569
start_price 0.375 end_price 0.384
ticker is IFMK start_index 5614 end_index 5631
start_price 0.4220000000000004 end_price 0.76
ticker is IFMK start_index 5739 end_index 5756
start_price 0.939000000000001 end_price 0.91
ticker is IFMK start_index 5744 end_index 5761
start_price 0.9 end_price 0.86
ticker is IFMK start_index 5810 end_index 5827
ticker is IFMK start_index 5830 end_index 5847
start_price 0.822000000000001 end_price 0.902
ticker is IFMK start_index 5870 end_index 5887
start_price 1.95 end_price 1.67
appending IFMK
ticker is IMKTA start index 6035 end index 6052
start_price 16.36 end_price 15.97
ticker is IMKTA start_index 6135 end_index 6152
start_price 17.2 end_price 17.34
ticker is IMKTA start_index 6164 end_index 6181
start_price 19.3 end_price 20.73
ticker is IMKTA start_index 6226 end_index 6243
start_price 21.46 end_price 22.02
ticker is IMKTA start_index 6288 end_index 6305
start_price 25.69 end_price 24.8
ticker is IMKTA start_index 6378 end_index 6395
start_price 24.41 end_price 27.48
ticker is IMKTA start_index 6413 end_index 6430
start_price 24.02 end_price 23.56
```

ticker is IMKTA start_index 6476 end_index 6493 start_price 26.07 end_price 27.31 ticker is IMKTA start_index 6541 end_index 6558 start_price 24.47 end_price 25.24 ticker is IMKTA start index 6632 end index 6649 start_price 32.08 end_price 42.51 ticker is IMKTA start index 6666 end index 6683 start_price 44.06 end_price 47.18 ticker is IMKTA start_index 6728 end_index 6745 start_price 40.87 end_price 48.88 ticker is IMKTA start_index 6790 end_index 6807 start_price 49.9 end_price 51.79 ticker is IMKTA start_index 6880 end_index 6897 start_price 53.84 end_price 39.49 ticker is IMKTA start_index 6917 end_index 6934 start_price 36.2 end_price 33.73 ticker is IMKTA start_index 6980 end_index 6997 start_price 36.73 end_price 38.32 ticker is IMKTA start_index 7042 end_index 7059 start price 36.86 end price 38.12 ticker is IMKTA start_index 7137 end_index 7154 start price 48.05 end price 48.4 ticker is IMKTA start_index 7167 end_index 7184 start_price 45.25 end_price 48.2 ticker is IMKTA start_index 7230 end_index 7247 start_price 45.85 end_price 38.0 ticker is IMKTA start_index 7293 end_index 7310 start_price 29.5 end_price 23.15 ticker is IMKTA start_index 7381 end_index 7398 start_price 27.7 end_price 34.6 ticker is IMKTA start_index 7424 end_index 7441 start_price 30.55 end_price 33.25 ticker is IMKTA start_index 7486 end_index 7503 start_price 30.95 end_price 28.8 ticker is IMKTA start index 7550 end index 7567 start_price 29.55 end_price 35.95 ticker is IMKTA start_index 7633 end_index 7650 start_price 28.1 end_price 27.78 ticker is IMKTA start_index 7674 end_index 7691 start_price 28.96 end_price 30.64 ticker is IMKTA start_index 7736 end_index 7753 start_price 27.45 end_price 29.81 ticker is IMKTA start_index 7800 end_index 7817 start_price 31.75 end_price 38.88 ticker is IMKTA start_index 7886 end_index 7903 start_price 43.48 end_price 46.13 ticker is IMKTA start_index 7925 end_index 7942 start_price 42.76 end_price 37.69

ticker is IMKTA start_index 7988 end_index 8005 start_price 37.61 end_price 41.98 ticker is IMKTA start_index 8051 end_index 8068 start_price 39.9 end_price 40.25 ticker is IMKTA start_index 8137 end_index 8154 start_price 37.41 end_price 42.66 ticker is IMKTA start index 8176 end index 8193 start_price 47.26 end_price 54.75 ticker is IMKTA start_index 8238 end_index 8255 start_price 62.74 end_price 60.74 appending IMKTA ticker is KR start_index 8385 end_index 8402 start_price 11.905 end_price 11.65 ticker is KR start_index 8442 end_index 8459 start_price 13.325 end_price 13.23 ticker is KR start_index 8517 end_index 8534 start_price 16.27 end_price 17.295 ticker is KR start_index 8579 end_index 8596 start_price 17.355 end_price 19.465 ticker is KR start index 8639 end index 8656 start_price 20.24 end_price 20.935 ticker is KR start_index 8696 end_index 8713 start_price 19.995 end_price 19.475 ticker is KR start_index 8769 end_index 8786 start_price 21.825 end_price 22.675 ticker is KR start_index 8832 end_index 8849 start_price 24.715 end_price 25.5 ticker is KR start_index 8890 end_index 8907 start_price 26.015 end_price 26.17 ticker is KR start_index 8949 end_index 8966 start_price 30.765 end_price 32.92 ticker is KR start_index 9020 end_index 9037 start_price 38.62 end_price 35.465 ticker is KR start_index 9083 end_index 9100 start price 36.335 end price 38.67 ticker is KR start_index 9141 end_index 9158 start_price 36.66 end_price 36.33 ticker is KR start_index 9202 end_index 9219 start_price 42.43 end_price 41.24 ticker is KR start_index 9270 end_index 9287 start_price 38.06 end_price 36.95 ticker is KR start_index 9334 end_index 9351 start_price 36.62 end_price 35.96 ticker is KR start_index 9392 end_index 9409 start_price 30.79 end_price 31.19 ticker is KR start_index 9451 end_index 9468 start_price 34.22 end_price 33.11 ticker is KR start_index 9522 end_index 9539

start_price 28.93 end_price 29.71 ticker is KR start_index 9585 end_index 9602 start_price 22.61 end_price 23.26 ticker is KR start_index 9641 end_index 9658 start price 21.26 end price 20.29 ticker is KR start_index 9700 end_index 9717 start_price 26.53 end_price 27.85 ticker is KR start_index 9777 end_index 9794 start_price 23.28 end_price 25.63 ticker is KR start_index 9839 end_index 9856 start_price 28.43 end_price 27.96 ticker is KR start_index 9899 end_index 9916 start_price 29.61 end_price 27.29 ticker is KR start_index 9957 end_index 9974 start_price 28.92 end_price 28.43 ticker is KR start_index 10028 end_index 10045 start_price 24.48 end_price 25.77 ticker is KR start_index 10089 end_index 10106 start_price 21.39 end_price 20.82 ticker is KR start_index 10149 end_index 10166 start_price 25.72 end_price 24.51 ticker is KR start_index 10208 end_index 10225 start_price 28.31 end_price 28.36 ticker is KR start_index 10280 end_index 10297 start_price 30.12 end_price 32.96 ticker is KR start_index 10340 end_index 10357 start_price 32.78 end_price 34.79 ticker is KR start_index 10400 end_index 10417 start_price 33.46 end_price 33.84 ticker is KR start_index 10459 end_index 10476 start_price 31.3 end_price 31.63 ticker is KR start_index 10530 end_index 10547 start_price 37.95 end_price 37.43 appending KR ticker is NGVC start index 10745 end index 10762 start_price 19.38 end_price 17.85 ticker is NGVC start_index 10747 end_index 10764 start_price 19.59 end_price 17.69 ticker is NGVC start_index 10777 end_index 10794 start_price 20.32 end_price 21.13 ticker is NGVC start_index 10845 end_index 10862 start_price 25.03 end_price 27.22 ticker is NGVC start_index 10907 end_index 10924 start_price 35.4 end_price 37.85 ticker is NGVC start_index 10996 end_index 11013 start_price 37.94 end_price 42.5 ticker is NGVC start_index 11028 end_index 11045 start_price 33.51 end_price 39.46

```
ticker is NGVC start_index 11091 end_index 11108
start_price 35.6 end_price 21.35
ticker is NGVC start_index 11154 end_index 11171
start_price 23.88 end_price 19.03
ticker is NGVC start index 11247 end index 11264
start_price 25.45 end_price 25.49
ticker is NGVC start index 11279 end index 11296
start_price 28.06 end_price 29.79
ticker is NGVC start_index 11347 end_index 11364
start_price 26.87 end_price 25.03
ticker is NGVC start_index 11405 end_index 11422
start_price 22.29 end_price 23.64
ticker is NGVC start_index 11498 end_index 11515
start_price 20.11 end_price 20.16
ticker is NGVC start_index 11530 end_index 11547
start_price 20.67 end_price 19.12
ticker is NGVC start_index 11598 end_index 11615
start_price 13.09 end_price 13.37
ticker is NGVC start_index 11656 end_index 11673
start_price 13.49 end_price 11.78
ticker is NGVC start_index 11749 end_index 11766
start_price 11.69 end_price 11.99
ticker is NGVC start_index 11786 end_index 11803
start_price 12.54 end_price 12.55
ticker is NGVC start_index 11849 end_index 11866
start_price 10.7 end_price 9.81
ticker is NGVC start_index 11912 end_index 11929
start_price 8.61 end_price 6.2
ticker is NGVC start_index 12000 end_index 12017
start_price 8.3 end_price 8.91
ticker is NGVC start_index 12037 end_index 12054
start_price 8.6 end_price 7.35
ticker is NGVC start_index 12100 end_index 12117
start_price 7.19 end_price 10.71
ticker is NGVC start index 12163 end index 12180
start_price 12.54 end_price 19.42
ticker is NGVC start_index 12250 end_index 12267
start_price 17.5 end_price 15.33
ticker is NGVC start_index 12292 end_index 12309
start_price 14.0 end_price 14.03
ticker is NGVC start_index 12350 end_index 12367
start_price 12.16 end_price 10.96
ticker is NGVC start_index 12413 end_index 12430
start_price 9.17 end_price 9.63
ticker is NGVC start_index 12501 end_index 12518
start_price 9.32 end_price 9.97
ticker is NGVC start_index 12543 end_index 12560
start_price 9.35 end_price 7.49
```

```
ticker is NGVC start_index 12606 end_index 12623
start_price 10.72 end_price 14.17
ticker is NGVC start_index 12669 end_index 12686
start_price 16.06 end_price 12.11
ticker is NGVC start index 12757 end index 12774
start_price 13.8 end_price 14.2
ticker is NGVC start index 12794 end index 12811
start_price 16.18 end_price 14.68
ticker is NGVC start_index 12857 end_index 12874
start_price 16.08 end_price 11.99
appending NGVC
ticker is QKLS start_index 12979 end_index 12996
start_price 8.08 end_price 6.56
ticker is QKLS start_index 13042 end_index 13059
start_price 5.12 end_price 6.8
ticker is QKLS start_index 13144 end_index 13161
start_price 5.98 end_price 3.36
ticker is QKLS start_index 13165 end_index 13182
start_price 3.43 end_price 3.98
ticker is QKLS start index 13229 end index 13246
start_price 6.2 end_price 4.5
ticker is QKLS start_index 13294 end_index 13311
start_price 4.55 end_price 4.1
ticker is QKLS start_index 13390 end_index 13407
start_price 4.33 end_price 3.8
ticker is QKLS start_index 13418 end_index 13435
start_price 3.71 end_price 3.5
ticker is QKLS start_index 13481 end_index 13498
start_price 3.37 end_price 3.17
ticker is QKLS start_index 13546 end_index 13563
start_price 2.31 end_price 1.56
ticker is QKLS start_index 13648 end_index 13665
start_price 3.15 end_price 2.7
ticker is QKLS start_index 13670 end_index 13687
start price 3.1 end price 2.35
ticker is QKLS start_index 13734 end_index 13751
start_price 1.64 end_price 1.26
ticker is QKLS start_index 13798 end_index 13815
start_price 0.9 end_price 0.82
ticker is QKLS start_index 13900 end_index 13917
start_price 0.66 end_price 0.39
appending QKLS
ticker is RNDY start_index 15282 end_index 15299
start_price 7.71 end_price 7.05
ticker is RNDY start_index 15345 end_index 15362
start_price 4.24 end_price 4.84
ticker is RNDY start_index 15433 end_index 15450
start_price 6.74 end_price 6.51
```

```
ticker is RNDY start_index 15467 end_index 15484
start_price 7.33 end_price 7.62
ticker is RNDY start_index 15530 end_index 15547
start_price 8.57 end_price 8.5
ticker is RNDY start index 15594 end index 15611
start_price 9.15 end_price 9.06
ticker is RNDY start index 15674 end index 15691
start_price 6.08 end_price 6.88
ticker is RNDY start_index 15716 end_index 15733
start_price 6.65 end_price 5.37
ticker is RNDY start_index 15779 end_index 15796
start_price 4.78 end_price 3.63
ticker is RNDY start_index 15843 end_index 15860
start_price 3.45 end_price 4.03
ticker is RNDY start_index 15930 end_index 15947
start_price 4.48 end_price 5.93
ticker is RNDY start_index 15972 end_index 15989
start_price 4.65 end_price 3.35
ticker is RNDY start_index 16035 end_index 16052
start price 2.46 end price 2.65
ticker is RNDY start_index 16100 end_index 16117
start_price 3.57 end_price 3.58
appending RNDY
ticker is SFM start_index 16141 end_index 16158
start_price 38.59 end_price 39.56
ticker is SFM start_index 16194 end_index 16211
start_price 48.04 end_price 38.2
ticker is SFM start_index 16201 end_index 16218
start_price 43.05 end_price 36.89
ticker is SFM start_index 16269 end_index 16286
start_price 36.85 end_price 36.96
ticker is SFM start_index 16281 end_index 16298
start_price 37.95 end_price 36.56
ticker is SFM start_index 16317 end_index 16334
start price 31.09 end price 27.1
ticker is SFM start_index 16381 end_index 16398
start_price 31.75 end_price 30.94
ticker is SFM start_index 16445 end_index 16462
start_price 30.69 end_price 32.0
ticker is SFM start_index 16520 end_index 16537
start_price 37.09 end_price 33.99
ticker is SFM start_index 16569 end_index 16586
start_price 31.06 end_price 30.46
ticker is SFM start_index 16632 end_index 16649
start_price 24.03 end_price 20.44
ticker is SFM start_index 16696 end_index 16713
start_price 19.88 end_price 24.13
ticker is SFM start_index 16771 end_index 16788
```

start_price 25.21 end_price 29.75 ticker is SFM start_index 16820 end_index 16837 start_price 27.38 end_price 24.85 ticker is SFM start_index 16883 end_index 16900 start price 23.25 end price 23.0 ticker is SFM start_index 16947 end_index 16964 start_price 22.57 end_price 21.15 ticker is SFM start_index 17022 end_index 17039 start_price 19.0 end_price 22.02 ticker is SFM start_index 17071 end_index 17088 start_price 22.75 end_price 23.96 ticker is SFM start_index 17134 end_index 17151 start_price 23.98 end_price 21.84 ticker is SFM start_index 17198 end_index 17215 start_price 18.87 end_price 22.09 ticker is SFM start_index 17273 end_index 17290 start_price 26.12 end_price 24.48 ticker is SFM start_index 17322 end_index 17339 start_price 24.39 end_price 21.85 ticker is SFM start index 17385 end index 17402 start_price 21.2 end_price 25.0 ticker is SFM start_index 17449 end_index 17466 start_price 26.89 end_price 26.44 ticker is SFM start_index 17523 end_index 17540 start_price 24.14 end_price 22.39 ticker is SFM start_index 17572 end_index 17589 start_price 21.29 end_price 20.55 ticker is SFM start_index 17635 end_index 17652 start_price 16.93 end_price 17.92 ticker is SFM start_index 17699 end_index 17716 start_price 18.75 end_price 19.66 ticker is SFM start_index 17774 end_index 17791 start_price 15.86 end_price 14.55 ticker is SFM start_index 17826 end_index 17843 start price 21.76 end price 24.76 ticker is SFM start_index 17885 end_index 17902 start_price 27.02 end_price 24.32 ticker is SFM start_index 17949 end_index 17966 start_price 20.4 end_price 20.28 ticker is SFM start_index 18030 end_index 18047 start_price 21.48 end_price 24.03 ticker is SFM start_index 18079 end_index 18096 start_price 25.87 end_price 26.6 appending SFM ticker is SFS start_index 18209 end_index 18226 start_price 15.49 end_price 15.45 ticker is SFS start_index 18296 end_index 18313 start_price 18.4 end_price 18.31

ticker is SFS start_index 18320 end_index 18337 start_price 17.87 end_price 17.16

ticker is SFS start_index 18379 end_index 18396 start_price 17.79 end_price 16.81

ticker is SFS start_index 18458 end_index 18475 start_price 14.6 end_price 17.3

ticker is SFS start_index 18541 end_index 18558 start_price 15.8 end_price 15.44

ticker is SFS start_index 18576 end_index 18593 start_price 16.03 end_price 15.66

ticker is SFS start_index 18636 end_index 18653 start_price 15.03 end_price 13.07

ticker is SFS start_index 18714 end_index 18731 start_price 13.45 end_price 12.95

ticker is SFS start_index 18795 end_index 18812 start_price 11.55 end_price 12.35

ticker is SFS start_index 18828 end_index 18845 start_price 11.65 end_price 13.05

ticker is SFS start_index 18885 end_index 18902 start price 8.1 end price 7.2

ticker is SFS start_index 18965 end_index 18982 start price 7.25 end price 8.65

ticker is SFS start_index 19046 end_index 19063 start_price 6.0 end_price 5.2

ticker is SFS start_index 19079 end_index 19096

start_price 5.3 end_price 4.8

ticker is SFS start_index 19137 end_index 19154 start_price 5.5 end_price 7.05

ticker is SFS start_index 19216 end_index 19233 start_price 4.95 end_price 5.74

ticker is SFS start_index 19296 end_index 19313 start_price 5.26 end_price 5.2

ticker is SFS start_index 19330 end_index 19347 start_price 6.52 end_price 6.52

appending SFS

ticker is SWY start_index 19378 end_index 19395 start_price 15.26 end_price 16.02

ticker is SWY start_index 19437 end_index 19454 start_price 15.67 end_price 16.6

ticker is SWY start_index 19525 end_index 19542 start_price 22.76 end_price 25.27

ticker is SWY start_index 19569 end_index 19586 start_price 23.51 end_price 23.39

ticker is SWY start_index 19628 end_index 19645 start_price 25.57 end_price 26.31

ticker is SWY start_index 19687 end_index 19704 start_price 32.74 end_price 34.03

ticker is SWY start_index 19777 end_index 19794

start_price 37.13 end_price 38.07 ticker is SWY start_index 19821 end_index 19838 start_price 34.08 end_price 34.3 ticker is SWY start_index 19878 end_index 19895 start price 34.82 end price 34.53 ticker is SWY start_index 19938 end_index 19955 start_price 33.97 end_price 34.88 appending SWY ticker is TFM start_index 20057 end_index 20074 start_price 58.34 end_price 59.93 ticker is TFM start_index 20119 end_index 20136 start_price 50.7 end_price 48.09 ticker is TFM start_index 20194 end_index 20211 start_price 42.7 end_price 39.58 ticker is TFM start_index 20243 end_index 20260 start_price 50.26 end_price 49.72 ticker is TFM start_index 20307 end_index 20324 start_price 49.7 end_price 47.31 ticker is TFM start_index 20364 end_index 20381 start price 39.97 end price 40.56 ticker is TFM start_index 20442 end_index 20459 start price 34.18 end price 35.87 ticker is TFM start_index 20493 end_index 20510 start_price 32.95 end_price 33.8 ticker is TFM start_index 20557 end_index 20574 start_price 33.73 end_price 34.97 ticker is TFM start_index 20621 end_index 20638 start_price 39.53 end_price 41.6 ticker is TFM start_index 20694 end_index 20711 start_price 41.09 end_price 38.29 ticker is TFM start_index 20740 end_index 20757 start_price 32.43 end_price 32.03 ticker is TFM start_index 20804 end_index 20821 start_price 19.91 end_price 24.23 ticker is TFM start index 20870 end index 20887 start_price 23.98 end_price 23.87 ticker is TFM start index 20947 end index 20964 start_price 28.47 end_price 28.48 appending TFM ticker is VLGEA start_index 21041 end_index 21058 start_price 34.06 end_price 35.8 ticker is VLGEA start_index 21079 end_index 21096 start_price 37.11 end_price 31.89 ticker is VLGEA start_index 21140 end_index 21157 start_price 34.1 end_price 33.69 ticker is VLGEA start_index 21203 end_index 21220 start_price 36.37 end_price 33.51 ticker is VLGEA start_index 21290 end_index 21307

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start_price 34.85 end_price 36.93
ticker is VLGEA start_index 21330 end_index 21347
start_price 38.45 end_price 31.28
ticker is VLGEA start_index 21390 end_index 21407
start price 27.32 end price 26.32
ticker is VLGEA start_index 21454 end_index 21471
start_price 22.89 end_price 23.7
ticker is VLGEA start_index 21542 end_index 21559
start_price 23.46 end_price 27.49
ticker is VLGEA start_index 21581 end_index 21598
start_price 24.04 end_price 26.89
ticker is VLGEA start_index 21642 end_index 21659
start_price 27.66 end_price 31.5
ticker is VLGEA start_index 21705 end_index 21722
start_price 32.29 end_price 32.44
ticker is VLGEA start_index 21793 end_index 21810
start_price 25.39 end_price 25.16
ticker is VLGEA start_index 21833 end_index 21850
start_price 25.61 end_price 26.68
ticker is VLGEA start index 21893 end index 21910
start_price 26.41 end_price 23.78
ticker is VLGEA start_index 21957 end_index 21974
start_price 27.37 end_price 29.24
ticker is VLGEA start_index 22049 end_index 22066
start_price 31.72 end_price 30.69
ticker is VLGEA start_index 22088 end_index 22105
start_price 35.63 end_price 30.9
ticker is VLGEA start_index 22150 end_index 22167
start_price 27.06 end_price 26.5
ticker is VLGEA start_index 22212 end_index 22229
start_price 25.07 end_price 26.19
ticker is VLGEA start_index 22301 end_index 22318
start_price 24.9 end_price 23.9
ticker is VLGEA start_index 22338 end_index 22355
start price 25.44 end price 23.41
ticker is VLGEA start_index 22401 end_index 22418
start_price 24.07 end_price 26.21
ticker is VLGEA start_index 22464 end_index 22481
start_price 28.29 end_price 29.46
ticker is VLGEA start_index 22552 end_index 22569
start_price 24.9 end_price 25.545
ticker is VLGEA start_index 22590 end_index 22607
start_price 25.44 end_price 26.74
ticker is VLGEA start_index 22650 end_index 22667
start_price 31.5 end_price 27.82
ticker is VLGEA start_index 22712 end_index 22729
start_price 26.18 end_price 26.48
ticker is VLGEA start_index 22802 end_index 22819
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start_price 26.27 end_price 26.73 ticker is VLGEA start_index 22841 end_index 22858 start_price 25.79 end_price 23.69 ticker is VLGEA start_index 22902 end_index 22919 start price 21.35 end price 22.06 ticker is VLGEA start_index 22965 end_index 22982 start price 25.46 end price 27.09 ticker is VLGEA start_index 23053 end_index 23070 start_price 24.32 end_price 22.65 ticker is VLGEA start_index 23092 end_index 23109 start_price 23.13 end_price 22.09 ticker is VLGEA start_index 23153 end_index 23170 start_price 23.88 end_price 24.61 appending VLGEA ticker is WFM start_index 23312 end_index 23329 start_price 46.455 end_price 48.41 ticker is WFM start_index 23387 end_index 23404 start_price 46.7119999999999 end_price 44.27 ticker is WFM start_index 23449 end_index 23466 start price 42.465 end price 43.215 ticker is WFM start_index 23508 end_index 23525 start price 51.02 end price 51.25 ticker is WFM start_index 23566 end_index 23583 start_price 55.9 end_price 53.31 ticker is WFM start_index 23640 end_index 23657 start_price 56.48 end_price 57.31 ticker is WFM start_index 23700 end_index 23717 start_price 52.35 end_price 54.54 ticker is WFM start_index 23759 end_index 23776 start_price 38.76 end_price 41.865 ticker is WFM start_index 23817 end_index 23834 start_price 37.35 end_price 39.09 ticker is WFM start_index 23891 end_index 23908 start_price 47.69 end_price 47.88 ticker is WFM start index 23956 end index 23973 start_price 56.73 end_price 53.27 ticker is WFM start_index 24010 end_index 24027 start_price 42.9 end_price 40.28 ticker is WFM start_index 24068 end_index 24085 start_price 34.84 end_price 32.76 ticker is WFM start_index 24137 end_index 24154 start_price 29.91 end_price 30.2 ticker is WFM start_index 24207 end_index 24224 start_price 30.86 end_price 33.27 ticker is WFM start_index 24261 end_index 24278 start_price 30.51 end_price 35.17 ticker is WFM start_index 24319 end_index 24336 start_price 30.39 end_price 30.69

ticker is WFM start_index 24393 end_index 24410 start_price 30.94 end_price 31.39

ticker is WFM start_index 24453 end_index 24470 start_price 30.72 end_price 28.95

ticker is WFM start_index 24517 end_index 24534 start_price 36.15 end_price 35.62

ticker is WFM start_index 24570 end_index 24587 start_price 41.84 end_price 41.99 appending WFM

ticker is WMK start_index 24614 end_index 24631 start_price 43.27 end_price 42.15

ticker is WMK start_index 24676 end_index 24693 start_price 40.38 end_price 38.52

ticker is WMK start_index 24761 end_index 24778 start_price 41.02 end_price 40.58

ticker is WMK start_index 24800 end_index 24817 start_price 42.49 end_price 42.19

ticker is WMK start_index 24863 end_index 24880 start_price 50.81 end_price 46.98

ticker is WMK start_index 24927 end_index 24944 start_price 49.21 end_price 52.6

ticker is WMK start_index 25013 end_index 25030 start_price 49.49 end_price 48.91

ticker is WMK start_index 25051 end_index 25068 start_price 45.2 end_price 43.44

ticker is WMK start_index 25114 end_index 25131 start_price 43.43 end_price 42.95

ticker is WMK start_index 25178 end_index 25195 start_price 44.63 end_price 45.28

ticker is WMK start_index 25264 end_index 25281 start_price 50.36 end_price 49.26

ticker is WMK start_index 25298 end_index 25315 start_price 44.35 end_price 43.36

ticker is WMK start_index 25363 end_index 25380 start price 42.01 end price 41.29

ticker is WMK start_index 25497 end_index 25514 start_price 38.92 end_price 42.33

ticker is WMK start_index 25520 end_index 25537 start_price 43.38 end_price 44.52

ticker is WMK start_index 25553 end_index 25570 start_price 45.43 end_price 50.62

ticker is WMK start_index 25611 end_index 25628 start_price 51.55 end_price 50.88

ticker is WMK start_index 25680 end_index 25697 start_price 56.51 end_price 57.66

ticker is WMK start_index 25770 end_index 25787 start_price 59.08 end_price 60.73

ticker is WMK start_index 25809 end_index 25826

start_price 57.79 end_price 52.08 ticker is WMK start_index 25872 end_index 25889 start_price 44.49 end_price 44.17 ticker is WMK start_index 25934 end_index 25951 start price 34.0 end price 41.17 ticker is WMK start_index 26021 end_index 26038 start_price 38.37 end_price 42.92 ticker is WMK start_index 26060 end_index 26077 start_price 48.03 end_price 56.71 ticker is WMK start_index 26122 end_index 26139 start_price 48.66 end_price 46.37 ticker is WMK start_index 26187 end_index 26204 start_price 46.46 end_price 46.07 ticker is WMK start_index 26271 end_index 26288 start_price 40.5 end_price 41.79 ticker is WMK start_index 26310 end_index 26327 start_price 38.77 end_price 37.29 ticker is WMK start_index 26371 end_index 26388 start_price 37.6 end_price 38.27 ticker is WMK start index 26434 end index 26451 start_price 38.87 end_price 38.68 ticker is WMK start_index 26522 end_index 26539 start_price 36.39 end_price 44.74 ticker is WMK start_index 26561 end_index 26578 start_price 54.64 end_price 55.42 ticker is WMK start_index 26623 end_index 26640 start_price 51.17 end_price 49.6 ticker is WMK start_index 26688 end_index 26705 start_price 46.35 end_price 47.63 ticker is WMK start_index 26773 end_index 26790 start_price 58.85 end_price 57.66 ticker is WMK start_index 26812 end_index 26829 start_price 52.64 end_price 50.88 appending WMK ticker is ACI start index 25 end index 43 start_price 14.83 end_price 14.66 ticker is ACI start_index 80 end_index 98 start_price 15.22 end_price 15.15 ticker is ACI start_index 137 end_index 155 start_price 17.1 end_price 16.84 ticker is ACI start_index 209 end_index 227 start_price 18.11 end_price 18.75 appending ACI ticker is ARDNA start_index 330 end_index 348 start_price 82.6 end_price 88.25 ticker is ARDNA start_index 394 end_index 412 start_price 95.88 end_price 99.74 ticker is ARDNA start_index 478 end_index 496

start_price 98.31 end_price 100.8 ticker is ARDNA start_index 519 end_index 537 start_price 98.65 end_price 106.95 ticker is ARDNA start_index 583 end_index 601 start price 132.78 end price 133.8 ticker is ARDNA start_index 647 end_index 665 start_price 129.85 end_price 126.37 appending ARDNA ticker is ASAI start_index 754 end_index 772 start_price 14.81 end_price 16.68 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3106 start_price 17.35 end_price 18.4 ticker is FWMHQ start_index 3122 end_index 3140 start_price 20.73 end_price 24.77 ticker is FWMHQ start_index 3166 end_index 3184 start_price 25.83 end_price 23.13 ticker is FWMHQ start_index 3230 end_index 3248 start price 25.46 end price 18.05 ticker is FWMHQ start index 3291 end index 3309 start price 11.14 end price 8.08 ticker is FWMHQ start_index 3368 end_index 3386 start_price 6.75 end_price 6.57 ticker is FWMHQ start_index 3417 end_index 3435 start_price 5.74 end_price 4.34 ticker is FWMHQ start_index 3481 end_index 3499 start_price 2.59 end_price 3.33 ticker is FWMHQ start_index 3542 end_index 3560 start_price 5.02 end_price 5.18 ticker is FWMHQ start_index 3617 end_index 3635 start_price 4.63 end_price 4.18 ticker is FWMHQ start_index 3666 end_index 3684 start_price 3.02 end_price 2.39 ticker is FWMHQ start index 3727 end index 3745 start_price 1.71 end_price 0.99 ticker is FWMHQ start_index 3794 end_index 3812 start_price 0.499 end_price 0.35 appending FWMHQ ticker is GO start_index 3900 end_index 3918 start_price 28.51 end_price 35.45 ticker is GO start_index 3936 end_index 3954 start_price 37.54 end_price 39.74 ticker is GO start_index 3972 end_index 3990 start_price 33.01 end_price 30.9 ticker is GO start_index 4000 end_index 4018 start_price 31.0 end_price 32.45 ticker is GO start_index 4050 end_index 4068

start_price 35.43 end_price 32.36 ticker is GO start_index 4091 end_index 4109 start_price 33.2 end_price 34.94 ticker is GO start_index 4124 end_index 4142 start price 36.67 end price 34.63 ticker is GO start_index 4187 end_index 4205 start_price 44.33 end_price 39.77 ticker is GO start_index 4251 end_index 4269 start_price 41.21 end_price 37.5 ticker is GO start_index 4326 end_index 4344 start_price 35.91 end_price 36.47 ticker is GO start_index 4376 end_index 4394 start_price 40.54 end_price 33.48 appending GO ticker is HTSI start_index 4491 end_index 4509 start_price 41.53 end_price 39.94 ticker is HTSI start_index 4562 end_index 4580 start_price 36.17 end_price 38.17 ticker is HTSI start_index 4614 end_index 4632 start price 36.95 end price 43.06 ticker is HTSI start_index 4676 end_index 4694 start price 45.29 end price 47.34 ticker is HTSI start_index 4740 end_index 4758 start_price 49.2 end_price 49.14 ticker is HTSI start_index 4820 end_index 4838 start_price 49.38 end_price 49.35 appending HTSI ticker is IFMK start_index 4953 end_index 4971 start_price 11.99 end_price 13.98 ticker is IFMK start_index 4984 end_index 5002 start_price 12.81 end_price 12.84 ticker is IFMK start_index 5049 end_index 5067 start_price 11.13 end_price 11.24 ticker is IFMK start_index 5111 end_index 5129 start price 11.92 end price 8.85 ticker is IFMK start_index 5205 end_index 5223 start_price 5.5 end_price 3.95 ticker is IFMK start_index 5236 end_index 5254 start_price 3.8 end_price 3.32 ticker is IFMK start_index 5301 end_index 5319 start_price 1.4 end_price 1.0 ticker is IFMK start_index 5362 end_index 5380 start_price 1.07 end_price 1.39 ticker is IFMK start_index 5455 end_index 5473 start_price 1.2 end_price 1.94 ticker is IFMK start_index 5487 end_index 5505 start_price 2.27 end_price 1.955 ticker is IFMK start_index 5552 end_index 5570 start_price 0.375 end_price 0.375 ticker is IFMK start_index 5614 end_index 5632 start_price 0.4220000000000004 end_price 0.85 ticker is IFMK start_index 5739 end_index 5757 start price 0.93900000000001 end price 0.88 ticker is IFMK start_index 5744 end_index 5762 start_price 0.9 end_price 0.841 ticker is IFMK start_index 5810 end_index 5828 start_price 0.859000000000001 end_price 0.815 ticker is IFMK start_index 5830 end_index 5848 start_price 0.822000000000001 end_price 0.905 ticker is IFMK start_index 5870 end_index 5888 start_price 1.95 end_price 1.64 appending IFMK ticker is IMKTA start_index 6035 end_index 6053 start_price 16.36 end_price 15.95 ticker is IMKTA start_index 6135 end_index 6153 start_price 17.2 end_price 17.71 ticker is IMKTA start_index 6164 end_index 6182 start price 19.3 end price 20.75 ticker is IMKTA start_index 6226 end_index 6244 start price 21.46 end price 21.73 ticker is IMKTA start_index 6288 end_index 6306 start_price 25.69 end_price 25.01 ticker is IMKTA start_index 6378 end_index 6396 start_price 24.41 end_price 26.78 ticker is IMKTA start_index 6413 end_index 6431 start_price 24.02 end_price 23.48 ticker is IMKTA start_index 6476 end_index 6494 start_price 26.07 end_price 26.22 ticker is IMKTA start_index 6541 end_index 6559 start_price 24.47 end_price 25.62 ticker is IMKTA start_index 6632 end_index 6650 start_price 32.08 end_price 41.89 ticker is IMKTA start index 6666 end index 6684 start_price 44.06 end_price 45.81 ticker is IMKTA start_index 6728 end_index 6746 start_price 40.87 end_price 48.38 ticker is IMKTA start_index 6790 end_index 6808 start_price 49.9 end_price 50.87 ticker is IMKTA start_index 6880 end_index 6898 start_price 53.84 end_price 38.66 ticker is IMKTA start_index 6917 end_index 6935 start_price 36.2 end_price 34.05 ticker is IMKTA start_index 6980 end_index 6998 start_price 36.73 end_price 37.28 ticker is IMKTA start_index 7042 end_index 7060 start_price 36.86 end_price 37.54

ticker is IMKTA start_index 7137 end_index 7155 start_price 48.05 end_price 47.65 ticker is IMKTA start_index 7167 end_index 7185 start_price 45.25 end_price 47.9 ticker is IMKTA start_index 7230 end_index 7248 start_price 45.85 end_price 37.0 ticker is IMKTA start index 7293 end index 7311 start_price 29.5 end_price 24.25 ticker is IMKTA start_index 7381 end_index 7399 start_price 27.7 end_price 36.5 ticker is IMKTA start_index 7424 end_index 7442 start_price 30.55 end_price 34.05 ticker is IMKTA start_index 7486 end_index 7504 start_price 30.95 end_price 29.15 ticker is IMKTA start_index 7550 end_index 7568 start_price 29.55 end_price 34.5 ticker is IMKTA start_index 7633 end_index 7651 start_price 28.1 end_price 28.17 ticker is IMKTA start_index 7674 end_index 7692 start price 28.96 end price 30.71 ticker is IMKTA start_index 7736 end_index 7754 start price 27.45 end price 29.86 ticker is IMKTA start_index 7800 end_index 7818 start_price 31.75 end_price 39.17 ticker is IMKTA start_index 7886 end_index 7904 start_price 43.48 end_price 46.38 ticker is IMKTA start_index 7925 end_index 7943 start_price 42.76 end_price 36.95 ticker is IMKTA start_index 7988 end_index 8006 start_price 37.61 end_price 42.9 ticker is IMKTA start_index 8051 end_index 8069 start_price 39.9 end_price 40.4 ticker is IMKTA start_index 8137 end_index 8155 start_price 37.41 end_price 42.76 ticker is IMKTA start index 8176 end index 8194 start_price 47.26 end_price 55.27 ticker is IMKTA start_index 8238 end_index 8256 start_price 62.74 end_price 61.94 appending IMKTA ticker is KR start_index 8385 end_index 8403 start_price 11.905 end_price 11.66 ticker is KR start_index 8442 end_index 8460 start_price 13.325 end_price 12.91 ticker is KR start_index 8517 end_index 8535 start_price 16.27 end_price 17.165 ticker is KR start_index 8579 end_index 8597 start_price 17.355 end_price 19.565 ticker is KR start_index 8639 end_index 8657

start_price 20.24 end_price 21.105 ticker is KR start_index 8696 end_index 8714 start_price 19.995 end_price 19.68 ticker is KR start_index 8769 end_index 8787 start price 21.825 end price 22.575 ticker is KR start_index 8832 end_index 8850 start_price 24.715 end_price 25.355 ticker is KR start_index 8890 end_index 8908 start_price 26.015 end_price 25.61 ticker is KR start_index 8949 end_index 8967 start_price 30.765 end_price 33.0 ticker is KR start_index 9020 end_index 9038 start_price 38.62 end_price 35.85 ticker is KR start_index 9083 end_index 9101 start_price 36.335 end_price 38.36 ticker is KR start_index 9141 end_index 9159 start_price 36.66 end_price 37.07 ticker is KR start_index 9202 end_index 9220 start_price 42.43 end_price 39.2 ticker is KR start index 9270 end index 9288 start_price 38.06 end_price 36.47 ticker is KR start_index 9334 end_index 9352 start_price 36.62 end_price 35.98 ticker is KR start_index 9392 end_index 9410 start_price 30.79 end_price 31.13 ticker is KR start_index 9451 end_index 9469 start_price 34.22 end_price 32.92 ticker is KR start_index 9522 end_index 9540 start_price 28.93 end_price 29.95 ticker is KR start_index 9585 end_index 9603 start_price 22.61 end_price 23.26 ticker is KR start_index 9641 end_index 9659 start_price 21.26 end_price 20.53 ticker is KR start_index 9700 end_index 9718 start price 26.53 end price 26.98 ticker is KR start_index 9777 end_index 9795 start_price 23.28 end_price 25.63 ticker is KR start_index 9839 end_index 9857 start_price 28.43 end_price 28.28 ticker is KR start_index 9899 end_index 9917 start_price 29.61 end_price 27.36 ticker is KR start_index 9957 end_index 9975 start_price 28.92 end_price 28.3 ticker is KR start_index 10028 end_index 10046 start_price 24.48 end_price 25.0 ticker is KR start_index 10089 end_index 10107 start_price 21.39 end_price 21.24 ticker is KR start_index 10149 end_index 10167 start_price 25.72 end_price 24.43 ticker is KR start_index 10208 end_index 10226 start_price 28.31 end_price 28.42 ticker is KR start_index 10280 end_index 10298 start price 30.12 end price 33.28 ticker is KR start_index 10340 end_index 10358 start_price 32.78 end_price 35.16 ticker is KR start_index 10400 end_index 10418 start_price 33.46 end_price 33.98 ticker is KR start_index 10459 end_index 10477 start_price 31.3 end_price 31.76 ticker is KR start_index 10530 end_index 10548 start_price 37.95 end_price 37.35 appending KR ticker is NGVC start_index 10745 end_index 10763 start_price 19.38 end_price 17.77 ticker is NGVC start_index 10747 end_index 10765 start_price 19.59 end_price 17.88 ticker is NGVC start_index 10777 end_index 10795 start price 20.32 end price 21.0 ticker is NGVC start_index 10845 end_index 10863 start price 25.03 end price 26.76 ticker is NGVC start_index 10907 end_index 10925 start_price 35.4 end_price 38.55 ticker is NGVC start_index 10996 end_index 11014 start_price 37.94 end_price 42.54 ticker is NGVC start_index 11028 end_index 11046 start_price 33.51 end_price 39.92 ticker is NGVC start_index 11091 end_index 11109 start_price 35.6 end_price 21.69 ticker is NGVC start_index 11154 end_index 11172 start_price 23.88 end_price 18.93 ticker is NGVC start_index 11247 end_index 11265 start_price 25.45 end_price 26.33 ticker is NGVC start index 11279 end index 11297 start_price 28.06 end_price 29.62 ticker is NGVC start index 11347 end index 11365 start_price 26.87 end_price 25.0 ticker is NGVC start_index 11405 end_index 11423 start_price 22.29 end_price 22.95 ticker is NGVC start_index 11498 end_index 11516 start_price 20.11 end_price 20.08 ticker is NGVC start_index 11530 end_index 11548 start_price 20.67 end_price 19.26 ticker is NGVC start_index 11598 end_index 11616 start_price 13.09 end_price 13.25 ticker is NGVC start_index 11656 end_index 11674 start_price 13.49 end_price 12.03

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ticker is NGVC start_index 11749 end_index 11767
start_price 11.69 end_price 12.13
ticker is NGVC start_index 11786 end_index 11804
start_price 12.54 end_price 12.07
ticker is NGVC start index 11849 end index 11867
start_price 10.7 end_price 10.08
ticker is NGVC start index 11912 end index 11930
start_price 8.61 end_price 6.05
ticker is NGVC start_index 12000 end_index 12018
start_price 8.3 end_price 8.87
ticker is NGVC start_index 12037 end_index 12055
start_price 8.6 end_price 7.16
ticker is NGVC start_index 12100 end_index 12118
start_price 7.19 end_price 10.3
ticker is NGVC start_index 12163 end_index 12181
start_price 12.54 end_price 18.39
ticker is NGVC start_index 12250 end_index 12268
start_price 17.5 end_price 15.69
ticker is NGVC start_index 12292 end_index 12310
start price 14.0 end price 14.05
ticker is NGVC start_index 12350 end_index 12368
start_price 12.16 end_price 10.88
ticker is NGVC start_index 12413 end_index 12431
start_price 9.17 end_price 9.95
ticker is NGVC start_index 12501 end_index 12519
start_price 9.32 end_price 9.87
ticker is NGVC start_index 12543 end_index 12561
start_price 9.35 end_price 7.28
ticker is NGVC start_index 12606 end_index 12624
start_price 10.72 end_price 14.44
ticker is NGVC start_index 12669 end_index 12687
start_price 16.06 end_price 11.72
ticker is NGVC start_index 12757 end_index 12775
start_price 13.8 end_price 14.65
ticker is NGVC start index 12794 end index 12812
start_price 16.18 end_price 14.56
ticker is NGVC start index 12857 end index 12875
start_price 16.08 end_price 12.04
appending NGVC
ticker is QKLS start_index 12979 end_index 12997
start_price 8.08 end_price 6.24
ticker is QKLS start_index 13042 end_index 13060
start_price 5.12 end_price 6.4
ticker is QKLS start_index 13144 end_index 13162
start_price 5.98 end_price 3.2
ticker is QKLS start_index 13165 end_index 13183
start_price 3.43 end_price 3.98
ticker is QKLS start_index 13229 end_index 13247
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start_price 6.2 end_price 4.52
ticker is QKLS start_index 13294 end_index 13312
start_price 4.55 end_price 4.28
ticker is QKLS start_index 13390 end_index 13408
start price 4.33 end price 3.56
ticker is QKLS start_index 13418 end_index 13436
start price 3.71 end price 3.65
ticker is QKLS start_index 13481 end_index 13499
start_price 3.37 end_price 3.26
ticker is QKLS start_index 13546 end_index 13564
start_price 2.31 end_price 1.43
ticker is QKLS start_index 13648 end_index 13666
start_price 3.15 end_price 2.36
ticker is QKLS start_index 13670 end_index 13688
start_price 3.1 end_price 2.5
ticker is QKLS start_index 13734 end_index 13752
start_price 1.64 end_price 1.26
ticker is QKLS start_index 13798 end_index 13816
start_price 0.9 end_price 0.83
ticker is QKLS start index 13900 end index 13918
start_price 0.66 end_price 0.38
appending QKLS
ticker is RNDY start_index 15282 end_index 15300
start_price 7.71 end_price 7.2
ticker is RNDY start_index 15345 end_index 15363
start_price 4.24 end_price 4.81
ticker is RNDY start_index 15433 end_index 15451
start_price 6.74 end_price 6.45
ticker is RNDY start_index 15467 end_index 15485
start_price 7.33 end_price 7.47
ticker is RNDY start_index 15530 end_index 15548
start_price 8.57 end_price 8.47
ticker is RNDY start_index 15594 end_index 15612
start_price 9.15 end_price 9.26
ticker is RNDY start index 15674 end index 15692
start_price 6.08 end_price 7.02
ticker is RNDY start_index 15716 end_index 15734
start_price 6.65 end_price 5.28
ticker is RNDY start_index 15779 end_index 15797
start_price 4.78 end_price 3.74
ticker is RNDY start_index 15843 end_index 15861
start_price 3.45 end_price 3.88
ticker is RNDY start_index 15930 end_index 15948
start_price 4.48 end_price 5.59
ticker is RNDY start_index 15972 end_index 15990
start_price 4.65 end_price 3.25
ticker is RNDY start_index 16035 end_index 16053
start_price 2.46 end_price 2.65
```

ticker is RNDY start_index 16100 end_index 16118 start_price 3.57 end_price 3.58 appending RNDY

ticker is SFM start_index 16141 end_index 16159 start price 38.59 end price 40.56

ticker is SFM start_index 16194 end_index 16212 start_price 48.04 end_price 38.3

ticker is SFM start_index 16201 end_index 16219 start_price 43.05 end_price 36.56

ticker is SFM start_index 16269 end_index 16287 start_price 36.85 end_price 35.94

ticker is SFM start_index 16281 end_index 16299 start_price 37.95 end_price 36.87

ticker is SFM start_index 16317 end_index 16335 start_price 31.09 end_price 26.8

ticker is SFM start_index 16381 end_index 16399 start_price 31.75 end_price 30.87

ticker is SFM start_index 16445 end_index 16463 start_price 30.69 end_price 31.79

ticker is SFM start_index 16520 end_index 16538 start_price 37.09 end_price 33.02

ticker is SFM start_index 16569 end_index 16587 start_price 31.06 end_price 29.99

ticker is SFM start_index 16632 end_index 16650

start_price 24.03 end_price 20.37
ticker is SFM start_index 16696 end_index 16714

start_price 19.88 end_price 24.7
ticker is SFM start_index 16771 end_index 16789

start_price 25.21 end_price 29.47
ticker is SFM start_index 16820 end_index 16838

start_price 27.38 end_price 24.76
ticker is SFM start_index 16883 end_index 16901

start_price 23.25 end_price 22.95

ticker is SFM start_index 16947 end_index 16965 start_price 22.57 end_price 20.48

ticker is SFM start_index 17022 end_index 17040 start_price 19.0 end_price 21.825

ticker is SFM start_index 17071 end_index 17089 start_price 22.75 end_price 23.85

ticker is SFM start_index 17134 end_index 17152 start_price 23.98 end_price 19.72

ticker is SFM start_index 17198 end_index 17216 start_price 18.87 end_price 22.52

ticker is SFM start_index 17273 end_index 17291 start_price 26.12 end_price 24.38

ticker is SFM start_index 17322 end_index 17340 start_price 24.39 end_price 21.57

ticker is SFM start_index 17385 end_index 17403

start_price 21.2 end_price 25.12 ticker is SFM start_index 17449 end_index 17467 start_price 26.89 end_price 26.7 ticker is SFM start_index 17523 end_index 17541 start price 24.14 end price 22.53 ticker is SFM start_index 17572 end_index 17590 start_price 21.29 end_price 20.56 ticker is SFM start_index 17635 end_index 17653 start_price 16.93 end_price 18.04 ticker is SFM start_index 17699 end_index 17717 start_price 18.75 end_price 19.42 ticker is SFM start_index 17774 end_index 17792 start_price 15.86 end_price 16.36 ticker is SFM start_index 17826 end_index 17844 start_price 21.76 end_price 25.13 ticker is SFM start_index 17885 end_index 17903 start_price 27.02 end_price 23.48 ticker is SFM start_index 17949 end_index 17967 start_price 20.4 end_price 20.035 ticker is SFM start index 18030 end index 18048 start_price 21.48 end_price 25.18 ticker is SFM start index 18079 end index 18097 start_price 25.87 end_price 26.6 appending SFM ticker is SFS start_index 18209 end_index 18227 start_price 15.49 end_price 15.08 ticker is SFS start_index 18296 end_index 18314 start_price 18.4 end_price 18.25 ticker is SFS start_index 18320 end_index 18338 start_price 17.87 end_price 17.07 ticker is SFS start_index 18379 end_index 18397 start_price 17.79 end_price 17.28 ticker is SFS start_index 18458 end_index 18476 start_price 14.6 end_price 17.32 ticker is SFS start index 18541 end index 18559 start_price 15.8 end_price 15.2 ticker is SFS start_index 18576 end_index 18594 start_price 16.03 end_price 15.7 ticker is SFS start_index 18636 end_index 18654 start_price 15.03 end_price 12.99 ticker is SFS start_index 18714 end_index 18732 start_price 13.45 end_price 13.2 ticker is SFS start_index 18795 end_index 18813 start_price 11.55 end_price 12.2 ticker is SFS start_index 18828 end_index 18846 start_price 11.65 end_price 13.05 ticker is SFS start_index 18885 end_index 18903 start_price 8.1 end_price 7.55

ticker is SFS start_index 18965 end_index 18983 start_price 7.25 end_price 8.4

ticker is SFS start_index 19046 end_index 19064 start_price 6.0 end_price 5.3

ticker is SFS start_index 19079 end_index 19097 start_price 5.3 end_price 4.85

ticker is SFS start_index 19137 end_index 19155 start_price 5.5 end_price 7.1

ticker is SFS start_index 19216 end_index 19234 start_price 4.95 end_price 5.83

ticker is SFS start_index 19296 end_index 19314 start_price 5.26 end_price 5.27

ticker is SFS start_index 19330 end_index 19348 start_price 6.52 end_price 6.58 appending SFS

ticker is SWY start_index 19378 end_index 19396 start_price 15.26 end_price 16.06

ticker is SWY start_index 19437 end_index 19455 start_price 15.67 end_price 16.66

ticker is SWY start_index 19525 end_index 19543 start_price 22.76 end_price 25.33

ticker is SWY start_index 19569 end_index 19587 start_price 23.51 end_price 23.39

ticker is SWY start_index 19628 end_index 19646 start_price 25.57 end_price 26.66

ticker is SWY start_index 19687 end_index 19705 start_price 32.74 end_price 33.02

ticker is SWY start_index 19777 end_index 19795 start_price 37.13 end_price 38.01

ticker is SWY start_index 19821 end_index 19839 start_price 34.08 end_price 34.24

ticker is SWY start_index 19878 end_index 19896 start_price 34.82 end_price 34.65

ticker is SWY start_index 19938 end_index 19956 start_price 33.97 end_price 34.87

appending SWY

ticker is TFM start_index 20057 end_index 20075 start_price 58.34 end_price 58.71

ticker is TFM start_index 20119 end_index 20137 start_price 50.7 end_price 48.0

ticker is TFM start_index 20194 end_index 20212 start_price 42.7 end_price 40.64

ticker is TFM start_index 20243 end_index 20261 start_price 50.26 end_price 48.46

ticker is TFM start_index 20307 end_index 20325 start_price 49.7 end_price 47.51

ticker is TFM start_index 20364 end_index 20382 start_price 39.97 end_price 40.41

```
ticker is TFM start_index 20442 end_index 20460
start_price 34.18 end_price 34.93
ticker is TFM start_index 20493 end_index 20511
start_price 32.95 end_price 33.62
ticker is TFM start index 20557 end index 20575
start_price 33.73 end_price 35.08
ticker is TFM start index 20621 end index 20639
start_price 39.53 end_price 41.36
ticker is TFM start_index 20694 end_index 20712
start_price 41.09 end_price 38.52
ticker is TFM start_index 20740 end_index 20758
start_price 32.43 end_price 32.25
ticker is TFM start_index 20804 end_index 20822
start_price 19.91 end_price 24.26
ticker is TFM start_index 20870 end_index 20888
start_price 23.98 end_price 23.85
ticker is TFM start_index 20947 end_index 20965
start_price 28.47 end_price 28.5
appending TFM
ticker is VLGEA start index 21041 end index 21059
start_price 34.06 end_price 36.29
ticker is VLGEA start_index 21079 end_index 21097
start_price 37.11 end_price 32.86
ticker is VLGEA start_index 21140 end_index 21158
start_price 34.1 end_price 33.24
ticker is VLGEA start_index 21203 end_index 21221
start_price 36.37 end_price 33.09
ticker is VLGEA start_index 21290 end_index 21308
start_price 34.85 end_price 36.66
ticker is VLGEA start_index 21330 end_index 21348
start_price 38.45 end_price 31.23
ticker is VLGEA start_index 21390 end_index 21408
start_price 27.32 end_price 26.5
ticker is VLGEA start_index 21454 end_index 21472
start price 22.89 end price 24.01
ticker is VLGEA start_index 21542 end_index 21560
start_price 23.46 end_price 27.75
ticker is VLGEA start_index 21581 end_index 21599
start_price 24.04 end_price 26.5
ticker is VLGEA start_index 21642 end_index 21660
start_price 27.66 end_price 31.25
ticker is VLGEA start_index 21705 end_index 21723
start_price 32.29 end_price 32.65
ticker is VLGEA start_index 21793 end_index 21811
start_price 25.39 end_price 25.06
ticker is VLGEA start_index 21833 end_index 21851
start_price 25.61 end_price 26.78
ticker is VLGEA start_index 21893 end_index 21911
```

```
start_price 26.41 end_price 23.97
ticker is VLGEA start_index 21957 end_index 21975
start_price 27.37 end_price 29.12
ticker is VLGEA start_index 22049 end_index 22067
start price 31.72 end price 30.56
ticker is VLGEA start_index 22088 end_index 22106
start_price 35.63 end_price 30.31
ticker is VLGEA start_index 22150 end_index 22168
start_price 27.06 end_price 26.31
ticker is VLGEA start_index 22212 end_index 22230
start_price 25.07 end_price 25.92
ticker is VLGEA start_index 22301 end_index 22319
start_price 24.9 end_price 24.09
ticker is VLGEA start_index 22338 end_index 22356
start_price 25.44 end_price 22.93
ticker is VLGEA start_index 22401 end_index 22419
start_price 24.07 end_price 25.75
ticker is VLGEA start_index 22464 end_index 22482
start_price 28.29 end_price 29.43
ticker is VLGEA start index 22552 end index 22570
start_price 24.9 end_price 25.39
ticker is VLGEA start_index 22590 end_index 22608
start_price 25.44 end_price 27.26
ticker is VLGEA start_index 22650 end_index 22668
start_price 31.5 end_price 27.33
ticker is VLGEA start_index 22712 end_index 22730
start_price 26.18 end_price 27.03
ticker is VLGEA start_index 22802 end_index 22820
start_price 26.27 end_price 26.15
ticker is VLGEA start_index 22841 end_index 22859
start_price 25.79 end_price 23.2
ticker is VLGEA start_index 22902 end_index 22920
start_price 21.35 end_price 23.04
ticker is VLGEA start_index 22965 end_index 22983
start price 25.46 end price 27.63
ticker is VLGEA start_index 23053 end_index 23071
start_price 24.32 end_price 22.66
ticker is VLGEA start_index 23092 end_index 23110
start_price 23.13 end_price 22.17
ticker is VLGEA start_index 23153 end_index 23171
start_price 23.88 end_price 24.6
appending VLGEA
ticker is WFM start_index 23312 end_index 23330
start_price 46.455 end_price 48.395
ticker is WFM start_index 23387 end_index 23405
start_price 46.7119999999999 end_price 44.92
ticker is WFM start_index 23449 end_index 23467
start_price 42.465 end_price 42.78
```

ticker is WFM start_index 23508 end_index 23526 start_price 51.02 end_price 50.72

ticker is WFM start_index 23566 end_index 23584 start_price 55.9 end_price 53.81

ticker is WFM start_index 23640 end_index 23658 start_price 56.48 end_price 57.56

ticker is WFM start_index 23700 end_index 23718 start_price 52.35 end_price 54.65

ticker is WFM start_index 23759 end_index 23777 start_price 38.76 end_price 42.1

ticker is WFM start_index 23817 end_index 23835 start_price 37.35 end_price 39.045

ticker is WFM start_index 23891 end_index 23909 start_price 47.69 end_price 48.555

ticker is WFM start_index 23956 end_index 23974 start_price 56.73 end_price 52.7

ticker is WFM start_index 24010 end_index 24028 start_price 42.9 end_price 40.73

ticker is WFM start_index 24068 end_index 24086 start_price 34.84 end_price 32.13

ticker is WFM start_index 24137 end_index 24155 start_price 29.91 end_price 30.69

ticker is WFM start_index 24207 end_index 24225 start_price 30.86 end_price 32.93

ticker is WFM start_index 24261 end_index 24279 start_price 30.51 end_price 35.15

ticker is WFM start_index 24319 end_index 24337 start_price 30.39 end_price 30.84

ticker is WFM start_index 24393 end_index 24411 start_price 30.94 end_price 31.21

ticker is WFM start_index 24453 end_index 24471 start_price 30.72 end_price 28.86

ticker is WFM start_index 24517 end_index 24535 start_price 36.15 end_price 35.45

ticker is WFM start_index 24570 end_index 24587 start_price 41.84 end_price 41.99 appending WFM

ticker is WMK start_index 24614 end_index 24632 start_price 43.27 end_price 42.5

ticker is WMK start_index 24676 end_index 24694 start_price 40.38 end_price 39.25

ticker is WMK start_index 24761 end_index 24779 start_price 41.02 end_price 39.77

ticker is WMK start_index 24800 end_index 24818 start_price 42.49 end_price 41.7

ticker is WMK start_index 24863 end_index 24881 start_price 50.81 end_price 46.56

ticker is WMK start_index 24927 end_index 24945

start_price 49.21 end_price 53.27 ticker is WMK start_index 25013 end_index 25031 start_price 49.49 end_price 48.41 ticker is WMK start_index 25051 end_index 25069 start price 45.2 end price 43.25 ticker is WMK start_index 25114 end_index 25132 start_price 43.43 end_price 42.8 ticker is WMK start_index 25178 end_index 25196 start_price 44.63 end_price 45.67 ticker is WMK start_index 25264 end_index 25282 start_price 50.36 end_price 49.14 ticker is WMK start_index 25298 end_index 25316 start_price 44.35 end_price 44.11 ticker is WMK start_index 25363 end_index 25381 start_price 42.01 end_price 40.58 ticker is WMK start_index 25497 end_index 25515 start_price 38.92 end_price 41.42 ticker is WMK start_index 25520 end_index 25538 start_price 43.38 end_price 45.8 ticker is WMK start index 25553 end index 25571 start_price 45.43 end_price 50.17 ticker is WMK start_index 25611 end_index 25629 start_price 51.55 end_price 51.78 ticker is WMK start_index 25680 end_index 25698 start_price 56.51 end_price 57.17 ticker is WMK start_index 25770 end_index 25788 start_price 59.08 end_price 61.46 ticker is WMK start_index 25809 end_index 25827 start_price 57.79 end_price 51.19 ticker is WMK start_index 25872 end_index 25890 start_price 44.49 end_price 43.94 ticker is WMK start_index 25934 end_index 25952 start_price 34.0 end_price 41.81 ticker is WMK start_index 26021 end_index 26039 start price 38.37 end price 43.04 ticker is WMK start_index 26060 end_index 26078 start_price 48.03 end_price 54.86 ticker is WMK start_index 26122 end_index 26140 start_price 48.66 end_price 46.59 ticker is WMK start_index 26187 end_index 26205 start_price 46.46 end_price 45.14 ticker is WMK start_index 26271 end_index 26289 start_price 40.5 end_price 40.98 ticker is WMK start_index 26310 end_index 26328 start_price 38.77 end_price 37.75 ticker is WMK start_index 26371 end_index 26389 start_price 37.6 end_price 38.85 ticker is WMK start_index 26434 end_index 26452 start_price 38.87 end_price 38.85 ticker is WMK start_index 26522 end_index 26540 start_price 36.39 end_price 45.58 ticker is WMK start_index 26561 end_index 26579 start price 54.64 end price 54.98 ticker is WMK start_index 26623 end_index 26641 start price 51.17 end price 49.25 ticker is WMK start_index 26688 end_index 26706 start_price 46.35 end_price 47.5 ticker is WMK start_index 26773 end_index 26791 start_price 58.85 end_price 56.06 ticker is WMK start_index 26812 end_index 26830 start_price 52.64 end_price 50.91 appending WMK ticker is ACI start_index 25 end_index 44 start_price 14.83 end_price 14.36 ticker is ACI start_index 80 end_index 99 start_price 15.22 end_price 15.61 ticker is ACI start_index 137 end_index 156 start price 17.1 end price 16.75 ticker is ACI start_index 209 end_index 228 start price 18.11 end price 19.02 appending ACI ticker is ARDNA start_index 330 end_index 349 start_price 82.6 end_price 90.11 ticker is ARDNA start_index 394 end_index 413 start_price 95.88 end_price 95.82 ticker is ARDNA start_index 478 end_index 497 start_price 98.31 end_price 99.0 ticker is ARDNA start_index 519 end_index 538 start_price 98.65 end_price 106.16 ticker is ARDNA start_index 583 end_index 602 start_price 132.78 end_price 134.0 ticker is ARDNA start_index 647 end_index 666 start_price 129.85 end_price 125.98 appending ARDNA ticker is ASAI start index 754 end index 773 start_price 14.81 end_price 16.46 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3107 start_price 17.35 end_price 18.64 ticker is FWMHQ start_index 3122 end_index 3141 start_price 20.73 end_price 26.72 ticker is FWMHQ start_index 3166 end_index 3185 start_price 25.83 end_price 23.24 ticker is FWMHQ start_index 3230 end_index 3249 start_price 25.46 end_price 17.33

ticker is FWMHQ start_index 3291 end_index 3310 start_price 11.14 end_price 8.07 ticker is FWMHQ start_index 3368 end_index 3387 start_price 6.75 end_price 6.5 ticker is FWMHQ start index 3417 end index 3436 start_price 5.74 end_price 4.23 ticker is FWMHQ start index 3481 end index 3500 start_price 2.59 end_price 3.28 ticker is FWMHQ start_index 3542 end_index 3561 start_price 5.02 end_price 5.19 ticker is FWMHQ start_index 3617 end_index 3636 start_price 4.63 end_price 4.02 ticker is FWMHQ start_index 3666 end_index 3685 start_price 3.02 end_price 2.25 ticker is FWMHQ start_index 3727 end_index 3746 start_price 1.71 end_price 0.95 ticker is FWMHQ start_index 3794 end_index 3813 start_price 0.499 end_price 0.297 appending FWMHQ ticker is GO start index 3900 end index 3919 start_price 28.51 end_price 35.87 ticker is GO start_index 3936 end_index 3955 start_price 37.54 end_price 37.03 ticker is GO start_index 3972 end_index 3991 start_price 33.01 end_price 31.38 ticker is GO start_index 4000 end_index 4019 start_price 31.0 end_price 32.29 ticker is GO start_index 4050 end_index 4069 start_price 35.43 end_price 31.65 ticker is GO start_index 4091 end_index 4110 start_price 33.2 end_price 35.11 ticker is GO start_index 4124 end_index 4143 start_price 36.67 end_price 33.04 ticker is GO start_index 4187 end_index 4206 start price 44.33 end price 38.86 ticker is GO start_index 4251 end_index 4270 start_price 41.21 end_price 37.78 ticker is GO start_index 4326 end_index 4345 start_price 35.91 end_price 37.06 ticker is GO start_index 4376 end_index 4395 start_price 40.54 end_price 34.0 appending GO ticker is HTSI start_index 4491 end_index 4510 start_price 41.53 end_price 40.04 ticker is HTSI start_index 4562 end_index 4581 start_price 36.17 end_price 38.6 ticker is HTSI start_index 4614 end_index 4633 start_price 36.95 end_price 43.07

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ticker is HTSI start_index 4676 end_index 4695
start_price 45.29 end_price 46.43
ticker is HTSI start_index 4740 end_index 4759
start_price 49.2 end_price 49.05
ticker is HTSI start index 4820 end index 4839
start_price 49.38 end_price 49.37
appending HTSI
ticker is IFMK start_index 4953 end_index 4972
start_price 11.99 end_price 14.05
ticker is IFMK start_index 4984 end_index 5003
start_price 12.81 end_price 13.1
ticker is IFMK start_index 5049 end_index 5068
start_price 11.13 end_price 11.15
ticker is IFMK start_index 5111 end_index 5130
start_price 11.92 end_price 6.69
ticker is IFMK start_index 5205 end_index 5224
start_price 5.5 end_price 4.043
ticker is IFMK start_index 5236 end_index 5255
start_price 3.8 end_price 3.29
ticker is IFMK start index 5301 end index 5320
start_price 1.4 end_price 0.95
ticker is IFMK start_index 5362 end_index 5381
start_price 1.07 end_price 1.38
ticker is IFMK start_index 5455 end_index 5474
start_price 1.2 end_price 2.0
ticker is IFMK start_index 5487 end_index 5506
start_price 2.27 end_price 1.89
ticker is IFMK start_index 5552 end_index 5571
start_price 0.375 end_price 0.382
ticker is IFMK start_index 5614 end_index 5633
start_price 0.4220000000000004 end_price 0.86
ticker is IFMK start_index 5739 end_index 5758
start_price 0.93900000000001 end_price 0.88
ticker is IFMK start_index 5744 end_index 5763
start price 0.9 end price 0.82
ticker is IFMK start_index 5810 end_index 5829
start price 0.859000000000001 end price 0.9
ticker is IFMK start_index 5830 end_index 5849
ticker is IFMK start_index 5870 end_index 5889
start_price 1.95 end_price 1.6
appending IFMK
ticker is IMKTA start_index 6035 end_index 6054
start_price 16.36 end_price 15.98
ticker is IMKTA start_index 6135 end_index 6154
start_price 17.2 end_price 17.88
ticker is IMKTA start_index 6164 end_index 6183
start_price 19.3 end_price 21.0
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ticker is IMKTA start_index 6226 end_index 6245
start_price 21.46 end_price 22.03
ticker is IMKTA start_index 6288 end_index 6307
start_price 25.69 end_price 24.99
ticker is IMKTA start_index 6378 end_index 6397
start_price 24.41 end_price 26.89
ticker is IMKTA start index 6413 end index 6432
start_price 24.02 end_price 23.5
ticker is IMKTA start_index 6476 end_index 6495
start_price 26.07 end_price 26.17
ticker is IMKTA start_index 6541 end_index 6560
start_price 24.47 end_price 25.8
ticker is IMKTA start_index 6632 end_index 6651
start_price 32.08 end_price 44.11
ticker is IMKTA start_index 6666 end_index 6685
start_price 44.06 end_price 46.38
ticker is IMKTA start_index 6728 end_index 6747
start_price 40.87 end_price 49.08
ticker is IMKTA start_index 6790 end_index 6809
start price 49.9 end price 50.28
ticker is IMKTA start_index 6880 end_index 6899
start_price 53.84 end_price 37.23
ticker is IMKTA start_index 6917 end_index 6936
start_price 36.2 end_price 34.74
ticker is IMKTA start_index 6980 end_index 6999
start_price 36.73 end_price 38.45
ticker is IMKTA start_index 7042 end_index 7061
start_price 36.86 end_price 37.75
ticker is IMKTA start_index 7137 end_index 7156
start_price 48.05 end_price 48.15
ticker is IMKTA start_index 7167 end_index 7186
start_price 45.25 end_price 46.85
ticker is IMKTA start_index 7230 end_index 7249
start_price 45.85 end_price 36.45
ticker is IMKTA start index 7293 end index 7312
start_price 29.5 end_price 21.9
ticker is IMKTA start_index 7381 end_index 7400
start_price 27.7 end_price 35.65
ticker is IMKTA start_index 7424 end_index 7443
start_price 30.55 end_price 33.75
ticker is IMKTA start_index 7486 end_index 7505
start_price 30.95 end_price 28.85
ticker is IMKTA start_index 7550 end_index 7569
start_price 29.55 end_price 34.15
ticker is IMKTA start_index 7633 end_index 7652
start_price 28.1 end_price 28.7
ticker is IMKTA start_index 7674 end_index 7693
start_price 28.96 end_price 29.83
```

ticker is IMKTA start_index 7736 end_index 7755 start_price 27.45 end_price 30.7 ticker is IMKTA start_index 7800 end_index 7819 start_price 31.75 end_price 39.63 ticker is IMKTA start index 7886 end index 7905 start_price 43.48 end_price 47.18 ticker is IMKTA start index 7925 end index 7944 start_price 42.76 end_price 38.24 ticker is IMKTA start_index 7988 end_index 8007 start_price 37.61 end_price 43.77 ticker is IMKTA start_index 8051 end_index 8070 start_price 39.9 end_price 39.96 ticker is IMKTA start_index 8137 end_index 8156 start_price 37.41 end_price 42.74 ticker is IMKTA start_index 8176 end_index 8195 start_price 47.26 end_price 57.23 ticker is IMKTA start_index 8238 end_index 8257 start_price 62.74 end_price 62.53 appending IMKTA ticker is KR start index 8385 end index 8404 start_price 11.905 end_price 11.655 ticker is KR start_index 8442 end_index 8461 start_price 13.325 end_price 12.64 ticker is KR start_index 8517 end_index 8536 start_price 16.27 end_price 17.14 ticker is KR start_index 8579 end_index 8598 start_price 17.355 end_price 19.84 ticker is KR start_index 8639 end_index 8658 start_price 20.24 end_price 21.19 ticker is KR start_index 8696 end_index 8715 start_price 19.995 end_price 19.73 ticker is KR start_index 8769 end_index 8788 start_price 21.825 end_price 22.77 ticker is KR start_index 8832 end_index 8851 start price 24.715 end price 25.065 ticker is KR start_index 8890 end_index 8909 start_price 26.015 end_price 25.825 ticker is KR start_index 8949 end_index 8968 start_price 30.765 end_price 33.0 ticker is KR start_index 9020 end_index 9039 start_price 38.62 end_price 35.275 ticker is KR start_index 9083 end_index 9102 start_price 36.335 end_price 38.2 ticker is KR start_index 9141 end_index 9160 start_price 36.66 end_price 37.51 ticker is KR start_index 9202 end_index 9221 start_price 42.43 end_price 39.03 ticker is KR start_index 9270 end_index 9289

start_price 38.06 end_price 35.58 ticker is KR start_index 9334 end_index 9353 start_price 36.62 end_price 35.79 ticker is KR start_index 9392 end_index 9411 start price 30.79 end price 31.27 ticker is KR start_index 9451 end_index 9470 start_price 34.22 end_price 33.19 ticker is KR start_index 9522 end_index 9541 start_price 28.93 end_price 30.14 ticker is KR start_index 9585 end_index 9604 start_price 22.61 end_price 23.23 ticker is KR start_index 9641 end_index 9660 start_price 21.26 end_price 20.78 ticker is KR start_index 9700 end_index 9719 start_price 26.53 end_price 27.32 ticker is KR start_index 9777 end_index 9796 start_price 23.28 end_price 25.52 ticker is KR start_index 9839 end_index 9858 start_price 28.43 end_price 28.64 ticker is KR start_index 9899 end_index 9918 start_price 29.61 end_price 27.56 ticker is KR start_index 9957 end_index 9976 start_price 28.92 end_price 28.62 ticker is KR start_index 10028 end_index 10047 start_price 24.48 end_price 25.57 ticker is KR start_index 10089 end_index 10108 start_price 21.39 end_price 21.14 ticker is KR start_index 10149 end_index 10168 start_price 25.72 end_price 23.94 ticker is KR start_index 10208 end_index 10227 start_price 28.31 end_price 28.84 ticker is KR start_index 10280 end_index 10299 start_price 30.12 end_price 32.36 ticker is KR start_index 10340 end_index 10359 start price 32.78 end price 35.13 ticker is KR start_index 10400 end_index 10419 start_price 33.46 end_price 34.07 ticker is KR start_index 10459 end_index 10478 start_price 31.3 end_price 31.52 ticker is KR start_index 10530 end_index 10549 start_price 37.95 end_price 36.54 appending KR ticker is NGVC start_index 10745 end_index 10764 start_price 19.38 end_price 17.69 ticker is NGVC start_index 10747 end_index 10766 start_price 19.59 end_price 18.31 ticker is NGVC start_index 10777 end_index 10796 start_price 20.32 end_price 20.99

```
ticker is NGVC start_index 10845 end_index 10864
start_price 25.03 end_price 26.0
ticker is NGVC start_index 10907 end_index 10926
start_price 35.4 end_price 38.96
ticker is NGVC start index 10996 end index 11015
start_price 37.94 end_price 42.14
ticker is NGVC start index 11028 end index 11047
start_price 33.51 end_price 40.52
ticker is NGVC start_index 11091 end_index 11110
start_price 35.6 end_price 20.61
ticker is NGVC start_index 11154 end_index 11173
start_price 23.88 end_price 18.89
ticker is NGVC start_index 11247 end_index 11266
start_price 25.45 end_price 26.08
ticker is NGVC start_index 11279 end_index 11298
start_price 28.06 end_price 29.37
ticker is NGVC start_index 11347 end_index 11366
start_price 26.87 end_price 24.87
ticker is NGVC start_index 11405 end_index 11424
start price 22.29 end price 23.07
ticker is NGVC start_index 11498 end_index 11517
start_price 20.11 end_price 19.86
ticker is NGVC start_index 11530 end_index 11549
start_price 20.67 end_price 19.64
ticker is NGVC start_index 11598 end_index 11617
start_price 13.09 end_price 13.75
ticker is NGVC start_index 11656 end_index 11675
start_price 13.49 end_price 11.93
ticker is NGVC start_index 11749 end_index 11768
start_price 11.69 end_price 12.17
ticker is NGVC start_index 11786 end_index 11805
start_price 12.54 end_price 12.11
ticker is NGVC start_index 11849 end_index 11868
start_price 10.7 end_price 9.91
ticker is NGVC start index 11912 end index 11931
start_price 8.61 end_price 5.88
ticker is NGVC start_index 12000 end_index 12019
start_price 8.3 end_price 8.67
ticker is NGVC start_index 12037 end_index 12056
start_price 8.6 end_price 6.95
ticker is NGVC start_index 12100 end_index 12119
start_price 7.19 end_price 10.25
ticker is NGVC start_index 12163 end_index 12182
start_price 12.54 end_price 18.64
ticker is NGVC start_index 12250 end_index 12269
start_price 17.5 end_price 15.39
ticker is NGVC start_index 12292 end_index 12311
start_price 14.0 end_price 13.13
```

```
ticker is NGVC start_index 12350 end_index 12369
start_price 12.16 end_price 10.3
ticker is NGVC start_index 12413 end_index 12432
start_price 9.17 end_price 9.7
ticker is NGVC start index 12501 end index 12520
start_price 9.32 end_price 9.84
ticker is NGVC start index 12543 end index 12562
start_price 9.35 end_price 7.3
ticker is NGVC start_index 12606 end_index 12625
start_price 10.72 end_price 14.46
ticker is NGVC start_index 12669 end_index 12688
start_price 16.06 end_price 11.59
ticker is NGVC start_index 12757 end_index 12776
start_price 13.8 end_price 14.16
ticker is NGVC start_index 12794 end_index 12813
start_price 16.18 end_price 15.12
ticker is NGVC start_index 12857 end_index 12876
start_price 16.08 end_price 12.0
appending NGVC
ticker is QKLS start index 12979 end index 12998
start_price 8.08 end_price 6.24
ticker is QKLS start index 13042 end index 13061
start_price 5.12 end_price 6.8
ticker is QKLS start_index 13144 end_index 13163
start_price 5.98 end_price 3.0
ticker is QKLS start_index 13165 end_index 13184
start_price 3.43 end_price 3.75
ticker is QKLS start_index 13229 end_index 13248
start_price 6.2 end_price 4.79
ticker is QKLS start_index 13294 end_index 13313
start_price 4.55 end_price 4.28
ticker is QKLS start_index 13390 end_index 13409
start_price 4.33 end_price 3.4
ticker is QKLS start_index 13418 end_index 13437
start price 3.71 end price 3.54
ticker is QKLS start_index 13481 end_index 13500
start_price 3.37 end_price 3.09
ticker is QKLS start_index 13546 end_index 13565
start_price 2.31 end_price 1.61
ticker is QKLS start_index 13648 end_index 13667
start_price 3.15 end_price 2.54
ticker is QKLS start_index 13670 end_index 13689
start_price 3.1 end_price 2.39
ticker is QKLS start_index 13734 end_index 13753
start_price 1.64 end_price 1.22
ticker is QKLS start_index 13798 end_index 13817
start_price 0.9 end_price 0.84
ticker is QKLS start_index 13900 end_index 13919
```

```
start_price 0.66 end_price 0.35
appending QKLS
ticker is RNDY start_index 15282 end_index 15301
start_price 7.71 end_price 7.38
ticker is RNDY start index 15345 end index 15364
start_price 4.24 end_price 4.88
ticker is RNDY start index 15433 end index 15452
start_price 6.74 end_price 6.37
ticker is RNDY start_index 15467 end_index 15486
start_price 7.33 end_price 7.49
ticker is RNDY start_index 15530 end_index 15549
start_price 8.57 end_price 8.49
ticker is RNDY start_index 15594 end_index 15613
start_price 9.15 end_price 8.94
ticker is RNDY start_index 15674 end_index 15693
start_price 6.08 end_price 7.03
ticker is RNDY start_index 15716 end_index 15735
start_price 6.65 end_price 5.08
ticker is RNDY start_index 15779 end_index 15798
start price 4.78 end price 3.69
ticker is RNDY start_index 15843 end_index 15862
start price 3.45 end price 3.93
ticker is RNDY start_index 15930 end_index 15949
start_price 4.48 end_price 5.71
ticker is RNDY start_index 15972 end_index 15991
start_price 4.65 end_price 3.26
ticker is RNDY start_index 16035 end_index 16054
start_price 2.46 end_price 2.64
ticker is RNDY start_index 16100 end_index 16119
start_price 3.57 end_price 3.58
appending RNDY
ticker is SFM start_index 16141 end_index 16160
start_price 38.59 end_price 41.86
ticker is SFM start_index 16194 end_index 16213
start price 48.04 end price 38.3
ticker is SFM start_index 16201 end_index 16220
start price 43.05 end price 36.29
ticker is SFM start_index 16269 end_index 16288
start_price 36.85 end_price 35.49
ticker is SFM start_index 16281 end_index 16300
start_price 37.95 end_price 35.61
ticker is SFM start_index 16317 end_index 16336
start_price 31.09 end_price 27.21
ticker is SFM start_index 16381 end_index 16400
start_price 31.75 end_price 30.34
ticker is SFM start_index 16445 end_index 16464
start_price 30.69 end_price 31.08
ticker is SFM start_index 16520 end_index 16539
```

start_price 37.09 end_price 33.15 ticker is SFM start_index 16569 end_index 16588 start_price 31.06 end_price 29.195 ticker is SFM start_index 16632 end_index 16651 start price 24.03 end price 20.13 ticker is SFM start_index 16696 end_index 16715 start_price 19.88 end_price 24.26 ticker is SFM start_index 16771 end_index 16790 start_price 25.21 end_price 29.51 ticker is SFM start_index 16820 end_index 16839 start_price 27.38 end_price 25.38 ticker is SFM start_index 16883 end_index 16902 start_price 23.25 end_price 22.81 ticker is SFM start_index 16947 end_index 16966 start_price 22.57 end_price 20.01 ticker is SFM start_index 17022 end_index 17041 start_price 19.0 end_price 22.46 ticker is SFM start_index 17071 end_index 17090 start_price 22.75 end_price 23.96 ticker is SFM start index 17134 end index 17153 start_price 23.98 end_price 19.77 ticker is SFM start_index 17198 end_index 17217 start_price 18.87 end_price 23.07 ticker is SFM start_index 17273 end_index 17292 start_price 26.12 end_price 24.51 ticker is SFM start_index 17322 end_index 17341 start_price 24.39 end_price 21.89 ticker is SFM start_index 17385 end_index 17404 start_price 21.2 end_price 25.33 ticker is SFM start_index 17449 end_index 17468 start_price 26.89 end_price 26.63 ticker is SFM start_index 17523 end_index 17542 start_price 24.14 end_price 22.14 ticker is SFM start_index 17572 end_index 17591 start price 21.29 end price 20.29 ticker is SFM start_index 17635 end_index 17654 start_price 16.93 end_price 17.55 ticker is SFM start_index 17699 end_index 17718 start_price 18.75 end_price 19.23 ticker is SFM start_index 17774 end_index 17793 start_price 15.86 end_price 18.93 ticker is SFM start_index 17826 end_index 17845 start_price 21.76 end_price 25.48 ticker is SFM start_index 17885 end_index 17904 start_price 27.02 end_price 23.98 ticker is SFM start_index 17949 end_index 17968 start_price 20.4 end_price 20.83 ticker is SFM start_index 18030 end_index 18049

start_price 21.48 end_price 25.87 ticker is SFM start_index 18079 end_index 18098 start_price 25.87 end_price 27.39 appending SFM ticker is SFS start index 18209 end index 18228 start_price 15.49 end_price 15.57 ticker is SFS start index 18296 end index 18315 start_price 18.4 end_price 18.57 ticker is SFS start_index 18320 end_index 18339 start_price 17.87 end_price 16.97 ticker is SFS start_index 18379 end_index 18398 start_price 17.79 end_price 17.27 ticker is SFS start_index 18458 end_index 18477 start_price 14.6 end_price 17.42 ticker is SFS start_index 18541 end_index 18560 start_price 15.8 end_price 14.49 ticker is SFS start_index 18576 end_index 18595 start_price 16.03 end_price 15.87 ticker is SFS start_index 18636 end_index 18655 start price 15.03 end price 13.0 ticker is SFS start_index 18714 end_index 18733 start_price 13.45 end_price 13.05 ticker is SFS start_index 18795 end_index 18814 start_price 11.55 end_price 12.0 ticker is SFS start_index 18828 end_index 18847 start_price 11.65 end_price 13.1 ticker is SFS start_index 18885 end_index 18904 start_price 8.1 end_price 7.25 ticker is SFS start_index 18965 end_index 18984 start_price 7.25 end_price 8.5 ticker is SFS start_index 19046 end_index 19065 start_price 6.0 end_price 5.25 ticker is SFS start_index 19079 end_index 19098 start_price 5.3 end_price 4.85 ticker is SFS start index 19137 end index 19156 start_price 5.5 end_price 7.1 ticker is SFS start_index 19216 end_index 19235 start_price 4.95 end_price 5.8 ticker is SFS start_index 19296 end_index 19315 start_price 5.26 end_price 5.32 ticker is SFS start_index 19330 end_index 19349 start_price 6.52 end_price 6.5 appending SFS ticker is SWY start_index 19378 end_index 19397 start_price 15.26 end_price 15.83 ticker is SWY start_index 19437 end_index 19456 start_price 15.67 end_price 16.28 ticker is SWY start_index 19525 end_index 19544 start_price 22.76 end_price 25.75 ticker is SWY start_index 19569 end_index 19588 start_price 23.51 end_price 23.18 ticker is SWY start_index 19628 end_index 19647 start price 25.57 end price 26.75 ticker is SWY start_index 19687 end_index 19706 start_price 32.74 end_price 32.89 ticker is SWY start_index 19777 end_index 19796 start_price 37.13 end_price 37.95 ticker is SWY start_index 19821 end_index 19840 start_price 34.08 end_price 34.21 ticker is SWY start_index 19878 end_index 19897 start_price 34.82 end_price 34.6 ticker is SWY start_index 19938 end_index 19957 start_price 33.97 end_price 34.89 appending SWY ticker is TFM start_index 20057 end_index 20076 start_price 58.34 end_price 59.16 ticker is TFM start_index 20119 end_index 20138 start price 50.7 end price 48.2 ticker is TFM start_index 20194 end_index 20213 start_price 42.7 end_price 40.83 ticker is TFM start_index 20243 end_index 20262 start_price 50.26 end_price 48.91 ticker is TFM start_index 20307 end_index 20326 start_price 49.7 end_price 47.79 ticker is TFM start_index 20364 end_index 20383 start_price 39.97 end_price 40.04 ticker is TFM start_index 20442 end_index 20461 start_price 34.18 end_price 34.36 ticker is TFM start_index 20493 end_index 20512 start_price 32.95 end_price 33.47 ticker is TFM start_index 20557 end_index 20576 start_price 33.73 end_price 34.93 ticker is TFM start index 20621 end index 20640 start_price 39.53 end_price 41.2 ticker is TFM start_index 20694 end_index 20713 start_price 41.09 end_price 37.92 ticker is TFM start_index 20740 end_index 20759 start_price 32.43 end_price 32.26 ticker is TFM start_index 20804 end_index 20823 start_price 19.91 end_price 23.18 ticker is TFM start_index 20870 end_index 20889 start_price 23.98 end_price 23.69 ticker is TFM start_index 20947 end_index 20966 start_price 28.47 end_price 28.5 appending TFM ticker is VLGEA start_index 21041 end_index 21060

```
start_price 34.06 end_price 36.99
ticker is VLGEA start_index 21079 end_index 21098
start_price 37.11 end_price 34.81
ticker is VLGEA start_index 21140 end_index 21159
start price 34.1 end price 32.74
ticker is VLGEA start_index 21203 end_index 21222
start price 36.37 end price 33.87
ticker is VLGEA start_index 21290 end_index 21309
start_price 34.85 end_price 36.33
ticker is VLGEA start_index 21330 end_index 21349
start_price 38.45 end_price 31.01
ticker is VLGEA start_index 21390 end_index 21409
start_price 27.32 end_price 26.5
ticker is VLGEA start_index 21454 end_index 21473
start_price 22.89 end_price 23.63
ticker is VLGEA start_index 21542 end_index 21561
start_price 23.46 end_price 25.53
ticker is VLGEA start_index 21581 end_index 21600
start_price 24.04 end_price 26.47
ticker is VLGEA start index 21642 end index 21661
start_price 27.66 end_price 31.33
ticker is VLGEA start_index 21705 end_index 21724
start_price 32.29 end_price 32.17
ticker is VLGEA start_index 21793 end_index 21812
start_price 25.39 end_price 26.22
ticker is VLGEA start_index 21833 end_index 21852
start_price 25.61 end_price 26.54
ticker is VLGEA start_index 21893 end_index 21912
start_price 26.41 end_price 24.2
ticker is VLGEA start_index 21957 end_index 21976
start_price 27.37 end_price 29.19
ticker is VLGEA start_index 22049 end_index 22068
start_price 31.72 end_price 30.62
ticker is VLGEA start_index 22088 end_index 22107
start price 35.63 end price 30.51
ticker is VLGEA start_index 22150 end_index 22169
start_price 27.06 end_price 26.1
ticker is VLGEA start_index 22212 end_index 22231
start_price 25.07 end_price 25.87
ticker is VLGEA start_index 22301 end_index 22320
start_price 24.9 end_price 23.67
ticker is VLGEA start_index 22338 end_index 22357
start_price 25.44 end_price 23.24
ticker is VLGEA start_index 22401 end_index 22420
start_price 24.07 end_price 26.51
ticker is VLGEA start_index 22464 end_index 22483
start_price 28.29 end_price 29.4
ticker is VLGEA start_index 22552 end_index 22571
```

start_price 24.9 end_price 24.35 ticker is VLGEA start_index 22590 end_index 22609 start_price 25.44 end_price 25.99 ticker is VLGEA start_index 22650 end_index 22669 start price 31.5 end price 26.86 ticker is VLGEA start_index 22712 end_index 22731 start_price 26.18 end_price 26.51 ticker is VLGEA start_index 22802 end_index 22821 start_price 26.27 end_price 26.73 ticker is VLGEA start_index 22841 end_index 22860 start_price 25.79 end_price 23.04 ticker is VLGEA start_index 22902 end_index 22921 start_price 21.35 end_price 24.58 ticker is VLGEA start_index 22965 end_index 22984 start_price 25.46 end_price 27.72 ticker is VLGEA start_index 23053 end_index 23072 start_price 24.32 end_price 23.0 ticker is VLGEA start_index 23092 end_index 23111 start_price 23.13 end_price 22.15 ticker is VLGEA start index 23153 end index 23172 start_price 23.88 end_price 25.3 appending VLGEA ticker is WFM start_index 23312 end_index 23331 start_price 46.455 end_price 48.5 ticker is WFM start_index 23387 end_index 23406 start_price 46.7119999999999 end_price 45.855 ticker is WFM start_index 23449 end_index 23468 start_price 42.465 end_price 43.145 ticker is WFM start_index 23508 end_index 23527 start_price 51.02 end_price 51.35 ticker is WFM start_index 23566 end_index 23585 start_price 55.9 end_price 54.19 ticker is WFM start_index 23640 end_index 23659 start_price 56.48 end_price 58.75 ticker is WFM start index 23700 end index 23719 start_price 52.35 end_price 53.94 ticker is WFM start_index 23759 end_index 23778 start_price 38.76 end_price 42.69 ticker is WFM start_index 23817 end_index 23836 start_price 37.35 end_price 39.125 ticker is WFM start_index 23891 end_index 23910 start_price 47.69 end_price 48.96 ticker is WFM start_index 23956 end_index 23975 start_price 56.73 end_price 51.6 ticker is WFM start_index 24010 end_index 24029 start_price 42.9 end_price 40.575 ticker is WFM start_index 24068 end_index 24087 start_price 34.84 end_price 32.275

ticker is WFM start_index 24137 end_index 24156 start_price 29.91 end_price 31.33

ticker is WFM start_index 24207 end_index 24226 start_price 30.86 end_price 32.12

ticker is WFM start_index 24261 end_index 24280 start_price 30.51 end_price 34.78

ticker is WFM start_index 24319 end_index 24338 start_price 30.39 end_price 30.38

ticker is WFM start_index 24393 end_index 24412 start_price 30.94 end_price 31.68

ticker is WFM start_index 24453 end_index 24472 start_price 30.72 end_price 28.89

ticker is WFM start_index 24517 end_index 24536 start_price 36.15 end_price 33.06

ticker is WFM start_index 24570 end_index 24587 start_price 41.84 end_price 41.99 appending WFM

ticker is WMK start_index 24614 end_index 24633 start_price 43.27 end_price 42.38

ticker is WMK start_index 24676 end_index 24695 start_price 40.38 end_price 38.95

ticker is WMK start_index 24761 end_index 24780 start_price 41.02 end_price 40.34

ticker is WMK start_index 24800 end_index 24819 start_price 42.49 end_price 41.69

ticker is WMK start_index 24863 end_index 24882 start_price 50.81 end_price 46.43

ticker is WMK start_index 24927 end_index 24946 start_price 49.21 end_price 52.04

ticker is WMK start_index 25013 end_index 25032 start_price 49.49 end_price 48.95

ticker is WMK start_index 25051 end_index 25070
start_price 45.2 end_price 43.46

ticker is WMK start_index 25114 end_index 25133 start price 43.43 end price 42.48

ticker is WMK start_index 25178 end_index 25197 start price 44.63 end price 44.92

ticker is WMK start_index 25264 end_index 25283 start_price 50.36 end_price 48.91

ticker is WMK start_index 25298 end_index 25317 start_price 44.35 end_price 43.57

ticker is WMK start_index 25363 end_index 25382 start_price 42.01 end_price 40.51

ticker is WMK start_index 25497 end_index 25516 start_price 38.92 end_price 42.48

ticker is WMK start_index 25520 end_index 25539 start_price 43.38 end_price 45.35

ticker is WMK start_index 25553 end_index 25572

start_price 45.43 end_price 51.57 ticker is WMK start_index 25611 end_index 25630 start_price 51.55 end_price 51.75 ticker is WMK start_index 25680 end_index 25699 start price 56.51 end price 55.7 ticker is WMK start_index 25770 end_index 25789 start_price 59.08 end_price 61.27 ticker is WMK start_index 25809 end_index 25828 start_price 57.79 end_price 51.9 ticker is WMK start_index 25872 end_index 25891 start_price 44.49 end_price 44.42 ticker is WMK start_index 25934 end_index 25953 start_price 34.0 end_price 42.69 ticker is WMK start_index 26021 end_index 26040 start_price 38.37 end_price 43.24 ticker is WMK start_index 26060 end_index 26079 start_price 48.03 end_price 53.73 ticker is WMK start_index 26122 end_index 26141 start_price 48.66 end_price 46.1 ticker is WMK start index 26187 end index 26206 start_price 46.46 end_price 45.63 ticker is WMK start index 26271 end index 26290 start_price 40.5 end_price 40.85 ticker is WMK start_index 26310 end_index 26329 start_price 38.77 end_price 37.45 ticker is WMK start_index 26371 end_index 26390 start_price 37.6 end_price 38.23 ticker is WMK start_index 26434 end_index 26453 start_price 38.87 end_price 39.83 ticker is WMK start_index 26522 end_index 26541 start_price 36.39 end_price 45.8 ticker is WMK start_index 26561 end_index 26580 start_price 54.64 end_price 54.33 ticker is WMK start_index 26623 end_index 26642 start price 51.17 end price 49.23 ticker is WMK start_index 26688 end_index 26707 start_price 46.35 end_price 46.79 ticker is WMK start_index 26773 end_index 26792 start_price 58.85 end_price 55.24 ticker is WMK start_index 26812 end_index 26831 start_price 52.64 end_price 50.48 appending WMK ticker is ACI start_index 25 end_index 45 start_price 14.83 end_price 13.79 ticker is ACI start_index 80 end_index 100 start_price 15.22 end_price 15.73 ticker is ACI start_index 137 end_index 157 start_price 17.1 end_price 16.62

ticker is ACI start_index 209 end_index 229 start_price 18.11 end_price 18.8 appending ACI ticker is ARDNA start_index 330 end_index 350 start price 82.6 end price 89.01 ticker is ARDNA start_index 394 end_index 414 start price 95.88 end price 89.83 ticker is ARDNA start_index 478 end_index 498 start_price 98.31 end_price 100.42 ticker is ARDNA start_index 519 end_index 539 start_price 98.65 end_price 107.0 ticker is ARDNA start_index 583 end_index 603 start_price 132.78 end_price 133.82 ticker is ARDNA start_index 647 end_index 667 start_price 129.85 end_price 125.2 appending ARDNA ticker is ASAI start_index 754 end_index 774 start_price 14.81 end_price 16.62 appending ASAI appending CBD ticker is FWMHQ start_index 3088 end_index 3108 start price 17.35 end price 18.46 ticker is FWMHQ start_index 3122 end_index 3142 start_price 20.73 end_price 27.26 ticker is FWMHQ start_index 3166 end_index 3186 start_price 25.83 end_price 22.76 ticker is FWMHQ start_index 3230 end_index 3250 start_price 25.46 end_price 16.39 ticker is FWMHQ start_index 3291 end_index 3311 start_price 11.14 end_price 7.96 ticker is FWMHQ start_index 3368 end_index 3388 start_price 6.75 end_price 6.57 ticker is FWMHQ start_index 3417 end_index 3437 start_price 5.74 end_price 4.14 ticker is FWMHQ start index 3481 end index 3501 start_price 2.59 end_price 3.11 ticker is FWMHQ start index 3542 end index 3562 start_price 5.02 end_price 5.35 ticker is FWMHQ start_index 3617 end_index 3637 start_price 4.63 end_price 3.97 ticker is FWMHQ start_index 3666 end_index 3686 start_price 3.02 end_price 2.27 ticker is FWMHQ start_index 3727 end_index 3747 start_price 1.71 end_price 0.8540000000000001 ticker is FWMHQ start_index 3794 end_index 3814 start_price 0.499 end_price 0.40700000000000003 appending FWMHQ ticker is GO start_index 3900 end_index 3920

start_price 28.51 end_price 37.65 ticker is GO start_index 3936 end_index 3956 start_price 37.54 end_price 35.21 ticker is GO start_index 3972 end_index 3992 start price 33.01 end price 31.98 ticker is GO start_index 4000 end_index 4020 start_price 31.0 end_price 31.78 ticker is GO start_index 4050 end_index 4070 start_price 35.43 end_price 31.32 ticker is GO start_index 4091 end_index 4111 start_price 33.2 end_price 35.15 ticker is GO start_index 4124 end_index 4144 start_price 36.67 end_price 32.72 ticker is GO start_index 4187 end_index 4207 start_price 44.33 end_price 40.04 ticker is GO start_index 4251 end_index 4271 start_price 41.21 end_price 38.27 ticker is GO start_index 4326 end_index 4346 start_price 35.91 end_price 37.4 ticker is GO start index 4376 end index 4396 start_price 40.54 end_price 33.75 appending GO ticker is HTSI start_index 4491 end_index 4511 start_price 41.53 end_price 41.54 ticker is HTSI start_index 4562 end_index 4582 start_price 36.17 end_price 38.74 ticker is HTSI start_index 4614 end_index 4634 start_price 36.95 end_price 43.14 ticker is HTSI start_index 4676 end_index 4696 start_price 45.29 end_price 45.78 ticker is HTSI start_index 4740 end_index 4760 start_price 49.2 end_price 49.08 ticker is HTSI start_index 4820 end_index 4840 start_price 49.38 end_price 49.37 appending HTSI ticker is IFMK start_index 4953 end_index 4973 start_price 11.99 end_price 13.964 ticker is IFMK start_index 4984 end_index 5004 start_price 12.81 end_price 13.15 ticker is IFMK start_index 5049 end_index 5069 start_price 11.13 end_price 11.378 ticker is IFMK start_index 5111 end_index 5131 start_price 11.92 end_price 6.28 ticker is IFMK start_index 5205 end_index 5225 start_price 5.5 end_price 3.95 ticker is IFMK start_index 5236 end_index 5256 start_price 3.8 end_price 3.1 ticker is IFMK start_index 5301 end_index 5321

```
start_price 1.4 end_price 0.99
ticker is IFMK start_index 5362 end_index 5382
start_price 1.07 end_price 1.28
ticker is IFMK start_index 5455 end_index 5475
start price 1.2 end price 2.05
ticker is IFMK start_index 5487 end_index 5507
start_price 2.27 end_price 1.96
ticker is IFMK start_index 5552 end_index 5572
start_price 0.375 end_price 0.375
ticker is IFMK start_index 5614 end_index 5634
start_price 0.4220000000000004 end_price 1.15
ticker is IFMK start_index 5739 end_index 5759
start_price 0.939000000000001 end_price 0.874000000000001
ticker is IFMK start_index 5744 end_index 5764
start_price 0.9 end_price 0.82
ticker is IFMK start_index 5810 end_index 5830
start_price 0.859000000000001 end_price 0.822000000000001
ticker is IFMK start_index 5830 end_index 5850
start_price 0.822000000000001 end_price 1.1
ticker is IFMK start index 5870 end index 5890
start_price 1.95 end_price 1.63
appending IFMK
ticker is IMKTA start_index 6035 end_index 6055
start_price 16.36 end_price 16.03
ticker is IMKTA start_index 6135 end_index 6155
start_price 17.2 end_price 17.88
ticker is IMKTA start_index 6164 end_index 6184
start_price 19.3 end_price 20.89
ticker is IMKTA start_index 6226 end_index 6246
start_price 21.46 end_price 21.92
ticker is IMKTA start_index 6288 end_index 6308
start_price 25.69 end_price 27.89
ticker is IMKTA start_index 6378 end_index 6398
start_price 24.41 end_price 26.88
ticker is IMKTA start index 6413 end index 6433
start_price 24.02 end_price 24.07
ticker is IMKTA start_index 6476 end_index 6496
start_price 26.07 end_price 25.69
ticker is IMKTA start_index 6541 end_index 6561
start_price 24.47 end_price 25.36
ticker is IMKTA start_index 6632 end_index 6652
start_price 32.08 end_price 44.42
ticker is IMKTA start_index 6666 end_index 6686
start_price 44.06 end_price 48.29
ticker is IMKTA start_index 6728 end_index 6748
start_price 40.87 end_price 50.83
ticker is IMKTA start_index 6790 end_index 6810
start_price 49.9 end_price 49.7
```

ticker is IMKTA start_index 6880 end_index 6900 start_price 53.84 end_price 37.71 ticker is IMKTA start_index 6917 end_index 6937 start_price 36.2 end_price 32.14 ticker is IMKTA start_index 6980 end_index 7000 start_price 36.73 end_price 38.5 ticker is IMKTA start index 7042 end index 7062 start_price 36.86 end_price 37.94 ticker is IMKTA start_index 7137 end_index 7157 start_price 48.05 end_price 48.3 ticker is IMKTA start_index 7167 end_index 7187 start_price 45.25 end_price 46.45 ticker is IMKTA start_index 7230 end_index 7250 start_price 45.85 end_price 36.6 ticker is IMKTA start_index 7293 end_index 7313 start_price 29.5 end_price 20.9 ticker is IMKTA start_index 7381 end_index 7401 start_price 27.7 end_price 35.15 ticker is IMKTA start_index 7424 end_index 7444 start price 30.55 end price 32.6 ticker is IMKTA start_index 7486 end_index 7506 start_price 30.95 end_price 28.45 ticker is IMKTA start_index 7550 end_index 7570 start_price 29.55 end_price 33.9 ticker is IMKTA start_index 7633 end_index 7653 start_price 28.1 end_price 29.54 ticker is IMKTA start_index 7674 end_index 7694 start_price 28.96 end_price 29.85 ticker is IMKTA start_index 7736 end_index 7756 start_price 27.45 end_price 29.88 ticker is IMKTA start_index 7800 end_index 7820 start_price 31.75 end_price 39.88 ticker is IMKTA start_index 7886 end_index 7906 start_price 43.48 end_price 46.9 ticker is IMKTA start index 7925 end index 7945 start_price 42.76 end_price 38.82 ticker is IMKTA start_index 7988 end_index 8008 start_price 37.61 end_price 42.46 ticker is IMKTA start_index 8051 end_index 8071 start_price 39.9 end_price 40.64 ticker is IMKTA start_index 8137 end_index 8157 start_price 37.41 end_price 42.82 ticker is IMKTA start_index 8176 end_index 8196 start_price 47.26 end_price 58.16 ticker is IMKTA start_index 8238 end_index 8258 start_price 62.74 end_price 63.24 appending IMKTA ticker is KR start_index 8385 end_index 8405

start_price 11.905 end_price 11.715 ticker is KR start_index 8442 end_index 8462 start_price 13.325 end_price 12.775 ticker is KR start_index 8517 end_index 8537 start price 16.27 end price 17.225 ticker is KR start_index 8579 end_index 8599 start_price 17.355 end_price 19.825 ticker is KR start_index 8639 end_index 8659 start_price 20.24 end_price 21.125 ticker is KR start_index 8696 end_index 8716 start_price 19.995 end_price 19.305 ticker is KR start_index 8769 end_index 8789 start_price 21.825 end_price 22.775 ticker is KR start_index 8832 end_index 8852 start_price 24.715 end_price 25.13 ticker is KR start_index 8890 end_index 8910 start_price 26.015 end_price 26.425 ticker is KR start_index 8949 end_index 8969 start_price 30.765 end_price 32.875 ticker is KR start index 9020 end index 9040 start_price 38.62 end_price 34.71 ticker is KR start_index 9083 end_index 9103 start_price 36.335 end_price 38.72 ticker is KR start_index 9141 end_index 9161 start_price 36.66 end_price 37.83 ticker is KR start_index 9202 end_index 9222 start_price 42.43 end_price 38.49 ticker is KR start_index 9270 end_index 9290 start_price 38.06 end_price 36.77 ticker is KR start_index 9334 end_index 9354 start_price 36.62 end_price 36.42 ticker is KR start_index 9392 end_index 9412 start_price 30.79 end_price 30.83 ticker is KR start_index 9451 end_index 9471 start price 34.22 end price 33.07 ticker is KR start_index 9522 end_index 9542 start_price 28.93 end_price 29.84 ticker is KR start_index 9585 end_index 9605 start_price 22.61 end_price 23.68 ticker is KR start_index 9641 end_index 9661 start_price 21.26 end_price 21.0 ticker is KR start_index 9700 end_index 9720 start_price 26.53 end_price 27.97 ticker is KR start_index 9777 end_index 9797 start_price 23.28 end_price 25.19 ticker is KR start_index 9839 end_index 9859 start_price 28.43 end_price 28.7 ticker is KR start_index 9899 end_index 9919 start_price 29.61 end_price 27.98 ticker is KR start_index 9957 end_index 9977 start_price 28.92 end_price 28.7 ticker is KR start_index 10028 end_index 10048 start price 24.48 end price 25.78 ticker is KR start_index 10089 end_index 10109 start_price 21.39 end_price 21.48 ticker is KR start_index 10149 end_index 10169 start_price 25.72 end_price 24.11 ticker is KR start_index 10208 end_index 10228 start_price 28.31 end_price 28.29 ticker is KR start_index 10280 end_index 10300 start_price 30.12 end_price 31.52 ticker is KR start_index 10340 end_index 10360 start_price 32.78 end_price 34.71 ticker is KR start_index 10400 end_index 10420 start_price 33.46 end_price 33.88 ticker is KR start_index 10459 end_index 10479 start_price 31.3 end_price 31.99 ticker is KR start index 10530 end index 10550 start_price 37.95 end_price 36.77 appending KR ticker is NGVC start_index 10745 end_index 10765 start_price 19.38 end_price 17.88 ticker is NGVC start_index 10747 end_index 10767 start_price 19.59 end_price 18.64 ticker is NGVC start_index 10777 end_index 10797 start_price 20.32 end_price 20.7 ticker is NGVC start_index 10845 end_index 10865 start_price 25.03 end_price 26.74 ticker is NGVC start_index 10907 end_index 10927 start_price 35.4 end_price 37.88 ticker is NGVC start_index 10996 end_index 11016 start_price 37.94 end_price 42.71 ticker is NGVC start index 11028 end index 11048 start_price 33.51 end_price 41.01 ticker is NGVC start_index 11091 end_index 11111 start_price 35.6 end_price 20.71 ticker is NGVC start_index 11154 end_index 11174 start_price 23.88 end_price 18.69 ticker is NGVC start_index 11247 end_index 11267 start_price 25.45 end_price 25.88 ticker is NGVC start_index 11279 end_index 11299 start_price 28.06 end_price 29.77 ticker is NGVC start_index 11347 end_index 11367 start_price 26.87 end_price 24.22 ticker is NGVC start_index 11405 end_index 11425 start_price 22.29 end_price 23.14

```
ticker is NGVC start_index 11498 end_index 11518
start_price 20.11 end_price 20.42
ticker is NGVC start_index 11530 end_index 11550
start_price 20.67 end_price 20.05
ticker is NGVC start index 11598 end index 11618
start_price 13.09 end_price 13.63
ticker is NGVC start index 11656 end index 11676
start_price 13.49 end_price 12.38
ticker is NGVC start_index 11749 end_index 11769
start_price 11.69 end_price 12.26
ticker is NGVC start_index 11786 end_index 11806
start_price 12.54 end_price 12.0
ticker is NGVC start_index 11849 end_index 11869
start_price 10.7 end_price 10.09
ticker is NGVC start_index 11912 end_index 11932
start_price 8.61 end_price 5.7
ticker is NGVC start_index 12000 end_index 12020
start_price 8.3 end_price 8.51
ticker is NGVC start_index 12037 end_index 12057
start price 8.6 end price 7.01
ticker is NGVC start_index 12100 end_index 12120
start price 7.19 end price 10.28
ticker is NGVC start_index 12163 end_index 12183
start_price 12.54 end_price 18.39
ticker is NGVC start_index 12250 end_index 12270
start_price 17.5 end_price 15.72
ticker is NGVC start_index 12292 end_index 12312
start_price 14.0 end_price 12.86
ticker is NGVC start_index 12350 end_index 12370
start_price 12.16 end_price 10.31
ticker is NGVC start_index 12413 end_index 12433
start_price 9.17 end_price 9.9
ticker is NGVC start_index 12501 end_index 12521
start_price 9.32 end_price 9.77
ticker is NGVC start index 12543 end index 12563
start_price 9.35 end_price 7.43
ticker is NGVC start index 12606 end index 12626
start_price 10.72 end_price 14.18
ticker is NGVC start_index 12669 end_index 12689
start_price 16.06 end_price 11.51
ticker is NGVC start_index 12757 end_index 12777
start_price 13.8 end_price 14.2
ticker is NGVC start_index 12794 end_index 12814
start_price 16.18 end_price 14.98
ticker is NGVC start_index 12857 end_index 12877
start_price 16.08 end_price 11.62
appending NGVC
ticker is QKLS start_index 12979 end_index 12999
```

```
start_price 8.08 end_price 6.4
ticker is QKLS start_index 13042 end_index 13062
start_price 5.12 end_price 6.4
ticker is QKLS start_index 13144 end_index 13164
start price 5.98 end price 3.33
ticker is QKLS start_index 13165 end_index 13185
start_price 3.43 end_price 3.38
ticker is QKLS start_index 13229 end_index 13249
start_price 6.2 end_price 5.11
ticker is QKLS start_index 13294 end_index 13314
start_price 4.55 end_price 4.1
ticker is QKLS start_index 13390 end_index 13410
start_price 4.33 end_price 3.8
ticker is QKLS start_index 13418 end_index 13438
start_price 3.71 end_price 3.47
ticker is QKLS start_index 13481 end_index 13501
start_price 3.37 end_price 3.14
ticker is QKLS start_index 13546 end_index 13566
start_price 2.31 end_price 1.61
ticker is QKLS start index 13648 end index 13668
start_price 3.15 end_price 2.38
ticker is QKLS start_index 13670 end_index 13690
start_price 3.1 end_price 2.35
ticker is QKLS start_index 13734 end_index 13754
start_price 1.64 end_price 1.26
ticker is QKLS start_index 13798 end_index 13818
start_price 0.9 end_price 0.79
ticker is QKLS start_index 13900 end_index 13920
start_price 0.66 end_price 0.29
appending QKLS
ticker is RNDY start_index 15282 end_index 15302
start_price 7.71 end_price 7.48
ticker is RNDY start_index 15345 end_index 15365
start_price 4.24 end_price 4.57
ticker is RNDY start index 15433 end index 15453
start_price 6.74 end_price 6.43
ticker is RNDY start_index 15467 end_index 15487
start_price 7.33 end_price 7.48
ticker is RNDY start_index 15530 end_index 15550
start_price 8.57 end_price 8.51
ticker is RNDY start_index 15594 end_index 15614
start_price 9.15 end_price 8.96
ticker is RNDY start_index 15674 end_index 15694
start_price 6.08 end_price 6.88
ticker is RNDY start_index 15716 end_index 15736
start_price 6.65 end_price 5.12
ticker is RNDY start_index 15779 end_index 15799
start_price 4.78 end_price 3.53
```

ticker is RNDY start_index 15843 end_index 15863 start_price 3.45 end_price 4.05 ticker is RNDY start_index 15930 end_index 15950 start_price 4.48 end_price 5.68 ticker is RNDY start index 15972 end index 15992 start_price 4.65 end_price 3.4 ticker is RNDY start index 16035 end index 16055 start_price 2.46 end_price 2.71 ticker is RNDY start_index 16100 end_index 16120 start_price 3.57 end_price 3.6 appending RNDY ticker is SFM start_index 16141 end_index 16161 start_price 38.59 end_price 42.99 ticker is SFM start_index 16194 end_index 16214 start_price 48.04 end_price 37.58 ticker is SFM start_index 16201 end_index 16221 start_price 43.05 end_price 36.01 ticker is SFM start_index 16269 end_index 16289 start_price 36.85 end_price 35.28 ticker is SFM start index 16281 end index 16301 start_price 37.95 end_price 34.63 ticker is SFM start_index 16317 end_index 16337 start_price 31.09 end_price 27.61 ticker is SFM start_index 16381 end_index 16401 start_price 31.75 end_price 30.82 ticker is SFM start_index 16445 end_index 16465 start_price 30.69 end_price 31.19 ticker is SFM start_index 16520 end_index 16540 start_price 37.09 end_price 33.27 ticker is SFM start_index 16569 end_index 16589 start_price 31.06 end_price 29.18 ticker is SFM start_index 16632 end_index 16652 start_price 24.03 end_price 20.37 ticker is SFM start_index 16696 end_index 16716 start price 19.88 end price 24.99 ticker is SFM start_index 16771 end_index 16791 start_price 25.21 end_price 28.74 ticker is SFM start_index 16820 end_index 16840 start_price 27.38 end_price 24.9 ticker is SFM start_index 16883 end_index 16903 start_price 23.25 end_price 22.53 ticker is SFM start_index 16947 end_index 16967 start_price 22.57 end_price 20.34 ticker is SFM start_index 17022 end_index 17042 start_price 19.0 end_price 22.77 ticker is SFM start_index 17071 end_index 17091 start_price 22.75 end_price 24.42 ticker is SFM start_index 17134 end_index 17154

start_price 23.98 end_price 20.33 ticker is SFM start_index 17198 end_index 17218 start_price 18.87 end_price 23.38 ticker is SFM start_index 17273 end_index 17293 start price 26.12 end price 24.42 ticker is SFM start_index 17322 end_index 17342 start_price 24.39 end_price 21.7 ticker is SFM start_index 17385 end_index 17405 start_price 21.2 end_price 25.19 ticker is SFM start_index 17449 end_index 17469 start_price 26.89 end_price 27.03 ticker is SFM start_index 17523 end_index 17543 start_price 24.14 end_price 22.06 ticker is SFM start_index 17572 end_index 17592 start_price 21.29 end_price 20.04 ticker is SFM start_index 17635 end_index 17655 start_price 16.93 end_price 17.83 ticker is SFM start_index 17699 end_index 17719 start_price 18.75 end_price 19.45 ticker is SFM start index 17774 end index 17794 start_price 15.86 end_price 17.69 ticker is SFM start_index 17826 end_index 17846 start_price 21.76 end_price 25.77 ticker is SFM start_index 17885 end_index 17905 start_price 27.02 end_price 24.31 ticker is SFM start_index 17949 end_index 17969 start_price 20.4 end_price 20.78 ticker is SFM start_index 18030 end_index 18050 start_price 21.48 end_price 25.28 ticker is SFM start_index 18079 end_index 18099 start_price 25.87 end_price 27.56 appending SFM ticker is SFS start_index 18209 end_index 18229 start_price 15.49 end_price 15.54 ticker is SFS start index 18296 end index 18316 start_price 18.4 end_price 18.08 ticker is SFS start_index 18320 end_index 18340 start_price 17.87 end_price 16.92 ticker is SFS start_index 18379 end_index 18399 start_price 17.79 end_price 16.96 ticker is SFS start_index 18458 end_index 18478 start_price 14.6 end_price 17.84 ticker is SFS start_index 18541 end_index 18561 start_price 15.8 end_price 15.04 ticker is SFS start_index 18576 end_index 18596 start_price 16.03 end_price 16.13 ticker is SFS start_index 18636 end_index 18656 start_price 15.03 end_price 13.0

ticker is SFS start_index 18714 end_index 18734 start_price 13.45 end_price 13.2

ticker is SFS start_index 18795 end_index 18815 start_price 11.55 end_price 12.05

ticker is SFS start_index 18828 end_index 18848 start_price 11.65 end_price 13.75

ticker is SFS start_index 18885 end_index 18905 start_price 8.1 end_price 7.25

ticker is SFS start_index 18965 end_index 18985 start_price 7.25 end_price 8.3

ticker is SFS start_index 19046 end_index 19066 start_price 6.0 end_price 5.2

ticker is SFS start_index 19079 end_index 19099 start_price 5.3 end_price 4.6

ticker is SFS start_index 19137 end_index 19157 start_price 5.5 end_price 7.2

ticker is SFS start_index 19216 end_index 19236 start_price 4.95 end_price 5.61

ticker is SFS start_index 19296 end_index 19316 start price 5.26 end price 5.33

ticker is SFS start_index 19330 end_index 19350 start_price 6.52 end_price 6.51

appending SFS

ticker is SWY start_index 19378 end_index 19398 start_price 15.26 end_price 16.04

ticker is SWY start_index 19437 end_index 19457 start_price 15.67 end_price 16.06

ticker is SWY start_index 19525 end_index 19545 start_price 22.76 end_price 25.93

ticker is SWY start_index 19569 end_index 19589 start_price 23.51 end_price 23.39

ticker is SWY start_index 19628 end_index 19648 start_price 25.57 end_price 26.56

ticker is SWY start_index 19687 end_index 19707 start price 32.74 end price 33.71

ticker is SWY start_index 19777 end_index 19797 start_price 37.13 end_price 37.92

ticker is SWY start_index 19821 end_index 19841 start_price 34.08 end_price 34.23

ticker is SWY start_index 19878 end_index 19898 start_price 34.82 end_price 34.62

ticker is SWY start_index 19938 end_index 19958 start_price 33.97 end_price 34.9

appending SWY

ticker is TFM start_index 20057 end_index 20077 start_price 58.34 end_price 59.74

ticker is TFM start_index 20119 end_index 20139 start_price 50.7 end_price 46.7

ticker is TFM start_index 20194 end_index 20214 start_price 42.7 end_price 40.58 ticker is TFM start_index 20243 end_index 20263 start_price 50.26 end_price 50.6 ticker is TFM start index 20307 end index 20327 start_price 49.7 end_price 48.0 ticker is TFM start index 20364 end index 20384 start_price 39.97 end_price 40.55 ticker is TFM start_index 20442 end_index 20462 start_price 34.18 end_price 34.36 ticker is TFM start_index 20493 end_index 20513 start_price 32.95 end_price 33.71 ticker is TFM start_index 20557 end_index 20577 start_price 33.73 end_price 35.55 ticker is TFM start_index 20621 end_index 20641 start_price 39.53 end_price 41.09 ticker is TFM start_index 20694 end_index 20714 start_price 41.09 end_price 37.99 ticker is TFM start_index 20740 end_index 20760 start price 32.43 end price 32.22 ticker is TFM start_index 20804 end_index 20824 start price 19.91 end price 23.29 ticker is TFM start_index 20870 end_index 20890 start_price 23.98 end_price 23.6 ticker is TFM start_index 20947 end_index 20967 start_price 28.47 end_price 28.48 appending TFM ticker is VLGEA start_index 21041 end_index 21061 start_price 34.06 end_price 34.84 ticker is VLGEA start_index 21079 end_index 21099 start_price 37.11 end_price 33.68 ticker is VLGEA start_index 21140 end_index 21160 start_price 34.1 end_price 32.43 ticker is VLGEA start_index 21203 end_index 21223 start price 36.37 end price 33.67 ticker is VLGEA start_index 21290 end_index 21310 start_price 34.85 end_price 35.89 ticker is VLGEA start_index 21330 end_index 21350 start_price 38.45 end_price 30.77 ticker is VLGEA start_index 21390 end_index 21410 start_price 27.32 end_price 26.4 ticker is VLGEA start_index 21454 end_index 21474 start_price 22.89 end_price 24.0 ticker is VLGEA start_index 21542 end_index 21562 start_price 23.46 end_price 25.94 ticker is VLGEA start_index 21581 end_index 21601 start_price 24.04 end_price 27.37 ticker is VLGEA start_index 21642 end_index 21662

```
start_price 27.66 end_price 31.44
ticker is VLGEA start_index 21705 end_index 21725
start_price 32.29 end_price 31.69
ticker is VLGEA start_index 21793 end_index 21813
start price 25.39 end price 25.51
ticker is VLGEA start_index 21833 end_index 21853
start_price 25.61 end_price 26.35
ticker is VLGEA start_index 21893 end_index 21913
start_price 26.41 end_price 24.4
ticker is VLGEA start_index 21957 end_index 21977
start_price 27.37 end_price 28.72
ticker is VLGEA start_index 22049 end_index 22069
start_price 31.72 end_price 30.6
ticker is VLGEA start_index 22088 end_index 22108
start_price 35.63 end_price 30.0
ticker is VLGEA start_index 22150 end_index 22170
start_price 27.06 end_price 26.04
ticker is VLGEA start_index 22212 end_index 22232
start_price 25.07 end_price 25.18
ticker is VLGEA start index 22301 end index 22321
start_price 24.9 end_price 23.51
ticker is VLGEA start_index 22338 end_index 22358
start_price 25.44 end_price 22.98
ticker is VLGEA start_index 22401 end_index 22421
start_price 24.07 end_price 26.6
ticker is VLGEA start_index 22464 end_index 22484
start_price 28.29 end_price 29.88
ticker is VLGEA start_index 22552 end_index 22572
start_price 24.9 end_price 27.87
ticker is VLGEA start_index 22590 end_index 22610
start_price 25.44 end_price 26.84
ticker is VLGEA start_index 22650 end_index 22670
start_price 31.5 end_price 26.87
ticker is VLGEA start_index 22712 end_index 22732
start price 26.18 end price 26.09
ticker is VLGEA start_index 22802 end_index 22822
start_price 26.27 end_price 26.58
ticker is VLGEA start_index 22841 end_index 22861
start_price 25.79 end_price 23.05
ticker is VLGEA start_index 22902 end_index 22922
start_price 21.35 end_price 23.45
ticker is VLGEA start_index 22965 end_index 22985
start_price 25.46 end_price 26.76
ticker is VLGEA start_index 23053 end_index 23073
start_price 24.32 end_price 22.84
ticker is VLGEA start_index 23092 end_index 23112
start_price 23.13 end_price 22.06
ticker is VLGEA start_index 23153 end_index 23173
```

start_price 23.88 end_price 23.57
appending VLGEA

ticker is WFM start_index 23312 end_index 23332 start_price 46.455 end_price 48.52

ticker is WFM start_index 23387 end_index 23407

start_price 46.711999999999996 end_price 45.62
ticker is WFM start_index 23449 end_index 23469
start_price 42.465 end_price 43.13

ticker is WFM start_index 23508 end_index 23528 start_price 51.02 end_price 51.38

ticker is WFM start_index 23566 end_index 23586 start_price 55.9 end_price 54.52

ticker is WFM start_index 23640 end_index 23660 start_price 56.48 end_price 59.27

ticker is WFM start_index 23700 end_index 23720 start_price 52.35 end_price 54.28

ticker is WFM start_index 23759 end_index 23779 start_price 38.76 end_price 42.12

ticker is WFM start_index 23817 end_index 23837 start price 37.35 end price 39.52

ticker is WFM start_index 23891 end_index 23911 start price 47.69 end price 48.8

ticker is WFM start_index 23956 end_index 23976 start_price 56.73 end_price 52.15

ticker is WFM start_index 24010 end_index 24030 start_price 42.9 end_price 40.37

ticker is WFM start_index 24068 end_index 24088 start_price 34.84 end_price 32.36

ticker is WFM start_index 24137 end_index 24157 start_price 29.91 end_price 34.02

ticker is WFM start_index 24207 end_index 24227 start_price 30.86 end_price 32.14

ticker is WFM start_index 24261 end_index 24281 start_price 30.51 end_price 34.31

ticker is WFM start_index 24319 end_index 24339 start_price 30.39 end_price 30.56

ticker is WFM start_index 24393 end_index 24413 start_price 30.94 end_price 32.29

ticker is WFM start_index 24453 end_index 24473 start_price 30.72 end_price 29.47

ticker is WFM start_index 24517 end_index 24537 start_price 36.15 end_price 42.68

ticker is WFM start_index 24570 end_index 24587 start_price 41.84 end_price 41.99

appending WFM

ticker is WMK start_index 24614 end_index 24634 start_price 43.27 end_price 42.4

ticker is WMK start_index 24676 end_index 24696

start_price 40.38 end_price 38.84 ticker is WMK start_index 24761 end_index 24781 start_price 41.02 end_price 40.33 ticker is WMK start_index 24800 end_index 24820 start price 42.49 end price 42.22 ticker is WMK start_index 24863 end_index 24883 start_price 50.81 end_price 46.77 ticker is WMK start_index 24927 end_index 24947 start_price 49.21 end_price 52.57 ticker is WMK start_index 25013 end_index 25033 start_price 49.49 end_price 48.11 ticker is WMK start_index 25051 end_index 25071 start_price 45.2 end_price 44.64 ticker is WMK start_index 25114 end_index 25134 start_price 43.43 end_price 42.55 ticker is WMK start_index 25178 end_index 25198 start_price 44.63 end_price 44.87 ticker is WMK start_index 25264 end_index 25284 start_price 50.36 end_price 48.62 ticker is WMK start index 25298 end index 25318 start_price 44.35 end_price 43.17 ticker is WMK start_index 25363 end_index 25383 start_price 42.01 end_price 40.65 ticker is WMK start_index 25497 end_index 25517 start_price 38.92 end_price 42.69 ticker is WMK start_index 25520 end_index 25540 start_price 43.38 end_price 46.16 ticker is WMK start_index 25553 end_index 25573 start_price 45.43 end_price 52.09 ticker is WMK start_index 25611 end_index 25631 start_price 51.55 end_price 51.86 ticker is WMK start_index 25680 end_index 25700 start_price 56.51 end_price 55.76 ticker is WMK start_index 25770 end_index 25790 start price 59.08 end price 60.72 ticker is WMK start_index 25809 end_index 25829 start_price 57.79 end_price 52.61 ticker is WMK start_index 25872 end_index 25892 start_price 44.49 end_price 44.3 ticker is WMK start_index 25934 end_index 25954 start_price 34.0 end_price 41.68 ticker is WMK start_index 26021 end_index 26041 start_price 38.37 end_price 43.78 ticker is WMK start_index 26060 end_index 26080 start_price 48.03 end_price 54.31 ticker is WMK start_index 26122 end_index 26142 start_price 48.66 end_price 43.71 ticker is WMK start_index 26187 end_index 26207

```
start_price 40.5 end_price 41.24
     ticker is WMK start_index 26310 end_index 26330
     start price 38.77 end price 37.47
     ticker is WMK start_index 26371 end_index 26391
     start price 37.6 end price 38.0
     ticker is WMK start_index 26434 end_index 26454
     start_price 38.87 end_price 39.38
     ticker is WMK start_index 26522 end_index 26542
     start_price 36.39 end_price 43.58
     ticker is WMK start_index 26561 end_index 26581
     start_price 54.64 end_price 52.85
     ticker is WMK start_index 26623 end_index 26643
     start_price 51.17 end_price 48.58
     ticker is WMK start_index 26688 end_index 26708
     start_price 46.35 end_price 46.94
     ticker is WMK start_index 26773 end_index 26793
     start_price 58.85 end_price 54.91
     ticker is WMK start index 26812 end index 26832
     start_price 52.64 end_price 51.55
     appending WMK
[80]: d values[19].head()
[80]:
        ticker
                           cum_ret19
                                      cum_ret_cont19
                     date
      0
           ACI 2020-06-26
                                 NaN
                                                  NaN
      1
           ACI 2020-06-29
                                 NaN
                                                  NaN
      2
           ACI 2020-06-30
                                 NaN
                                                  NaN
      3
           ACI 2020-07-01
                                 NaN
                                                  NaN
      4
           ACI 2020-07-02
                                 NaN
                                                  NaN
[81]: for i in d_values:
          df_sic_peers = pd.merge(df_sic_peers, i, on=["ticker", "date"], how="left")
[82]: df_sic_peers.head()
[82]:
        ticker dimension calendardate
                                             date reportperiod lastupdated \
                                                    2021-03-27 2021-05-06
      0
           WMK
                           2021-03-31 2021-05-06
                     ARQ
      1
           WMK
                     ARQ
                           2020-12-31 2021-03-11
                                                    2020-12-26 2021-05-06
      2
           WMK
                     ARQ
                           2020-09-30 2020-11-05
                                                    2020-09-26 2021-05-06
      3
           WMK
                     ARQ
                           2020-06-30 2020-08-05
                                                    2020-06-27 2021-05-06
      4
           WMK
                     ARQ
                           2020-03-31 2020-05-07
                                                    2020-03-28 2021-05-06
                                  assetsavg
            accoci
                          assets
                                                  assetsc ...
                                                              cum_ret16 \
      0 2512000.0 1.784923e+09
                                        {\tt NaN}
                                             586996000.0
                                                              -0.053761
      1 3286000.0 1.820421e+09
                                        NaN
                                             626202000.0
                                                              -0.033475
      2 2959000.0 1.756733e+09
                                        NaN
                                             586745000.0 ...
                                                               0.032794
```

start_price 46.46 end_price 45.9

ticker is WMK start_index 26271 end_index 26291

```
1.716364e+09
      4 1569000.0
                                           NaN
                                                551734000.0
                                                                  0.019949
         cum_ret_cont16
                          cum_ret17
                                      cum_ret_cont17
                                                        cum_ret18
                                                                   cum_ret_cont18
      0
               -0.055261
                          -0.033435
                                            -0.034006
                                                        -0.032865
                                                                         -0.033417
      1
               -0.034048
                          -0.020221
                                            -0.020428
                                                       -0.047409
                                                                         -0.048569
      2
                0.032268
                            0.027616
                                             0.027242
                                                         0.024811
                                                                          0.024508
      3
               -0.032373
                          -0.030682
                                            -0.031163
                                                       -0.037522
                                                                         -0.038244
      4
                0.019752
                            0.014275
                                             0.014174
                                                         0.006223
                                                                          0.006203
                                                  cum ret cont20
         cum ret19
                    cum ret cont19
                                      cum ret20
         -0.041033
                          -0.041899
                                      -0.020707
                                                        -0.020924
         -0.061342
                           -0.063305
                                      -0.066950
                                                        -0.069296
      2
          0.009493
                            0.009448
                                       0.012729
                                                         0.012649
         -0.037913
      3
                           -0.038650
                                      -0.050616
                                                        -0.051941
        -0.005673
                           -0.005690
                                      -0.032760
                                                        -0.033309
      [5 rows x 154 columns]
[83]: df.head()
[83]:
        ticker
                      date
                              open
                                     high
                                              low
                                                   close
                                                               volume
                                                                        closeadj
                                                                                   \
           ACI 2020-06-26
                             15.50
                                    16.50
                                                   15.45
      0
                                            15.31
                                                           37216510.0
                                                                          15.185
      1
           ACI 2020-06-29
                             15.89
                                    16.01
                                            15.50
                                                   15.57
                                                            7349059.0
                                                                          15.303
      2
                             15.57
                                    15.90
                                                   15.77
           ACI 2020-06-30
                                            15.45
                                                            5030640.0
                                                                          15.500
      3
           ACI 2020-07-01
                             15.79
                                    15.89
                                            15.55
                                                   15.76
                                                            3400498.0
                                                                          15.490
           ACI 2020-07-02
                             15.82
                                    15.89
                                            15.60
                                                   15.81
                                                            7190929.0
                                                                          15.539
         closeunadj lastupdated x ... taxassets taxexp taxliabilities tbvps
      0
               15.45
                        2021-04-26
                                                     NaN
                                                                      NaN
                                                                            NaN
                                              NaN
      1
               15.57
                        2021-04-26
                                              NaN
                                                     NaN
                                                                      NaN
                                                                            NaN
      2
               15.77
                        2021-04-26
                                              NaN
                                                     NaN
                                                                      NaN
                                                                            NaN
      3
               15.76
                        2021-04-26
                                              NaN
                                                     NaN
                                                                      NaN
                                                                            NaN
      4
               15.81
                        2021-04-26
                                              NaN
                                                     NaN
                                                                      NaN
                                                                            NaN
        workingcapital
                         datekey
                                   daily_ret
                                               mean_ret_model
                                                                daily_ret_cont
      0
                    NaN
                              NaT
                                          NaN
                                                           NaN
                                                                            NaN
                    NaN
                                    0.007767
      1
                                                           NaN
                                                                       0.007737
                              NaT
      2
                    NaN
                              NaT
                                    0.012845
                                                           NaN
                                                                       0.012763
      3
                    NaN
                              NaT
                                   -0.000634
                                                           NaN
                                                                      -0.000634
      4
                    NaN
                              NaT
                                    0.003173
                                                           NaN
                                                                       0.003168
         mean_ret_model_cont
      0
                           NaN
      1
                          NaN
      2
                          NaN
      3
                          NaN
```

NaN

578379000.0 ... -0.031855

2598000.0 1.739130e+09

4 NaN

```
[5 rows x 125 columns]
```

```
[84]: df sic peers = pd.merge(
         df_sic_peers,
         df[["ticker", "date", "mean ret model", "mean ret model cont"]],
         on=["ticker", "date"],
         how="left",
     )
[85]: df_sic_peers.sort_values(by=["ticker", "date"], ascending=[True, True],__
      →inplace=True)
[86]: len(df_sic_peers["ticker"].unique())
[86]: 19
[87]: df sic peers["ticker"].unique()
[87]: array(['ACI', 'ARDNA', 'ASAI', 'FWMHQ', 'GO', 'HTSI', 'IFMK', 'IMKTA',
             'KR', 'NGVC', 'QKLS', 'RNDY', 'SFM', 'SFS', 'SWY', 'TFM', 'VLGEA',
             'WFM', 'WMK'], dtype=object)
[88]: df_sic_peers.to_csv("df_fin_all_windows.csv", index=False)
[89]: df[["ticker", "date", "open", "high", "close"]][df["ticker"] == "NGVC"]
[89]:
                                      high close
           ticker
                        date
                               open
     10649
             NGVC 2012-07-25 18.00 18.77 17.86
     10650
             NGVC 2012-07-26 18.95 19.25 19.25
     10651
             NGVC 2012-07-27 19.69 20.25 19.90
     10652
             NGVC 2012-07-30 20.15 20.25 20.00
     10653
             NGVC 2012-07-31 20.26 20.36 20.28
            NGVC 2021-09-09 11.45 11.55 11.39
     12945
     12946
             NGVC 2021-09-10 11.25 11.27 10.87
     12947
             NGVC 2021-09-13 10.97 10.99 10.63
     12948
             NGVC 2021-09-14 10.64 10.64 10.33
     12949
             NGVC 2021-09-15 10.27 10.27 10.14
     [2301 rows x 5 columns]
[90]: df[["ticker", "date", "open", "high", "close"]][df["ticker"] == "ACI"]
[90]:
         ticker
                      date
                                      high close
                              open
            ACI 2020-06-26 15.500
                                    16.500 15.45
     0
            ACI 2020-06-29 15.890
     1
                                   16.010 15.57
```

```
3
                                              15.76
             ACI 2020-07-01
                              15.790
                                      15.890
      4
             ACI 2020-07-02
                              15.820
                                      15.890
                                              15.81
      . .
                                        •••
             ACI 2021-09-09
                              31.990
                                      32.830
                                              32.17
      303
      304
             ACI 2021-09-10
                              32.080
                                      32.108
                                              30.03
      305
                              30.350
                                      31.400
                                              30.45
             ACI 2021-09-13
      306
             ACI 2021-09-14
                              30.690
                                      30.800
                                              29.63
      307
             ACI 2021-09-15
                              29.655
                                      31.000
                                              30.78
      [308 rows x 5 columns]
[91]: df[["ticker", "date", "open", "high", "close"]][df["ticker"] == "NGVC"]
[91]:
            ticker
                          date
                                 open
                                        high close
      10649
              NGVC 2012-07-25
                                18.00
                                       18.77
                                              17.86
      10650
              NGVC 2012-07-26
                                18.95
                                       19.25
                                              19.25
      10651
              NGVC 2012-07-27
                                19.69
                                       20.25
                                              19.90
      10652
              NGVC 2012-07-30 20.15
                                       20.25
                                              20.00
      10653
                                20.26
              NGVC 2012-07-31
                                       20.36
                                              20.28
              NGVC 2021-09-09
                                11.45
                                      11.55
      12945
                                              11.39
      12946
              NGVC 2021-09-10
                                11.25
                                       11.27
                                              10.87
      12947
              NGVC 2021-09-13
                                10.97
                                       10.99
                                              10.63
      12948
              NGVC 2021-09-14
                                10.64
                                       10.64
                                              10.33
      12949
              NGVC 2021-09-15
                               10.27
                                      10.27
                                              10.14
      [2301 rows x 5 columns]
      df_sic_peers.iloc[10:25]
[92]:
[92]:
          ticker dimension calendardate
                                               date reportperiod lastupdated \
      374
             ACI
                        ARQ
                              2020-06-30 2020-08-04
                                                       2020-06-20
                                                                   2021-04-28
      373
             ACI
                        ARQ
                              2020-09-30 2020-10-21
                                                       2020-09-12
                                                                   2021-04-28
      372
             ACI
                       ARQ
                              2020-12-31 2021-01-13
                                                       2020-12-05
                                                                   2021-04-28
             ACI
      371
                       ARQ
                              2021-03-31 2021-04-28
                                                       2021-02-27
                                                                   2021-04-28
          ARDNA
      370
                        ARQ
                              2012-06-30 2012-08-03
                                                                   2019-06-12
                                                       2012-06-30
      369
           ARDNA
                        ARQ
                              2012-09-30 2012-11-06
                                                       2012-09-29
                                                                   2019-06-12
      368
           ARDNA
                        ARQ
                              2012-12-31 2013-03-11
                                                       2012-12-29
                                                                   2019-06-12
      367
           ARDNA
                        ARQ
                              2013-03-31 2013-05-08
                                                       2013-03-30
                                                                   2019-06-12
      366
           ARDNA
                        ARQ
                              2013-06-30 2013-08-08
                                                       2013-06-29
                                                                   2019-06-12
      365
           ARDNA
                        ARQ
                              2013-09-30 2013-11-07
                                                       2013-09-28
                                                                   2019-06-12
      364
            ASAI
                        ARQ
                              2019-12-31 2021-01-25
                                                       2019-12-31
                                                                   2021-04-29
      363
            ASAI
                        ARQ
                              2020-12-31 2021-04-29
                                                       2020-12-31
                                                                   2021-04-29
      362 FWMHQ
                              2012-12-31 2013-04-17
                        ARQ
                                                       2012-12-30
                                                                   2019-06-07
      361
           FWMHQ
                        ARQ
                              2013-03-31 2013-06-06
                                                       2013-03-31
                                                                   2019-06-07
                              2013-06-30 2013-08-08
      360
           FWMHQ
                        ARQ
                                                       2013-06-30
                                                                   2019-06-07
```

15.900

15.77

2

ACI 2020-06-30 15.570

```
cum_ret17
           accoci
                                   assetsavg
                                                    assetsc
                          assets
374 -116800000.0
                    2.598780e+10
                                         NaN
                                               7.132800e+09
                                                                 -0.008766
373 -106400000.0
                   2.646960e+10
                                         NaN
                                               7.578600e+09
                                                                  -0.005913
372 -105900000.0
                                                                  -0.009942
                   2.631930e+10
                                         NaN
                                               7.444200e+09
371
      63500000.0
                   2.659800e+10
                                               6.988000e+09
                                                                   0.034235
                                         NaN
370
         -9000.0
                   1.398360e+08
                                         NaN
                                               9.679200e+07
                                                                   0.093099
369
           1000.0
                   1.464960e+08
                                         NaN
                                               1.030900e+08
                                                                   0.022111
368
           1000.0
                   9.004700e+07
                                         NaN
                                               4.731200e+07
                                                                   0.017292
367
                   9.680800e+07
                                               5.357600e+07
                                                                   0.080182
        -10000.0
                                         NaN
366
          -5000.0
                   9.747900e+07
                                         NaN
                                               5.212900e+07
                                                                  -0.000603
365
         -1000.0
                   1.060340e+08
                                         NaN
                                               5.502000e+07
                                                                  -0.021640
364
     162000000.0
                   3.590500e+10
                                         NaN
                                               1.228200e+10
                                                                        NaN
363
              0.0
                   1.882100e+10
                                         NaN
                                               8.349000e+09
                                                                   0.089804
362
              0.0
                   3.391780e+08
                                         NaN
                                               7.501500e+07
                                                                        NaN
361
              0.0
                   3.385010e+08
                                         NaN
                                               6.628100e+07
                                                                   0.165943
360
              0.0
                   3.848910e+08
                                         NaN
                                               1.127570e+08
                                                                 -0.102594
     cum_ret_cont17
                       cum_ret18
                                   cum_ret_cont18
                                                    cum_ret19
                                                                 cum_ret_cont19
374
           -0.008805
                       -0.011463
                                        -0.011529
                                                    -0.031693
                                                                      -0.032206
373
           -0.005931
                       -0.004599
                                        -0.004610
                                                     0.025624
                                                                       0.025301
372
           -0.009991
                       -0.015205
                                        -0.015321
                                                    -0.020468
                                                                      -0.020680
371
            0.033662
                        0.035340
                                         0.034729
                                                                       0.049027
                                                     0.050248
370
            0.089017
                        0.068402
                                         0.066164
                                                     0.090920
                                                                       0.087021
                        0.040259
369
            0.021870
                                         0.039469
                                                    -0.000626
                                                                      -0.000626
368
            0.017144
                        0.025328
                                         0.025013
                                                     0.007019
                                                                       0.006994
                                         0.080783
                                                     0.076128
                                                                       0.073369
367
            0.077130
                        0.084136
           -0.000603
                        0.007682
366
                                         0.007653
                                                     0.009188
                                                                       0.009146
365
           -0.021878
                       -0.026800
                                        -0.027166
                                                     -0.029804
                                                                      -0.030257
364
                 NaN
                             NaN
                                               NaN
                                                           NaN
                                                                             NaN
363
            0.085998
                                         0.118908
                                                                       0.105631
                        0.126266
                                                     0.111411
362
                 NaN
                             NaN
                                               NaN
                                                           NaN
                                                                             NaN
361
            0.153530
                        0.194887
                                         0.178051
                                                     0.288953
                                                                       0.253830
360
           -0.108247
                       -0.104530
                                        -0.110406
                                                    -0.100271
                                                                      -0.105662
     cum_ret20
                 cum_ret_cont20
                                   mean_ret_model
                                                    mean_ret_model_cont
374
     -0.070128
                       -0.072708
                                               NaN
                                                                      NaN
      0.033509
                        0.032959
                                               NaN
                                                                      NaN
373
372
     -0.028070
                       -0.028472
                                               NaN
                                                                      NaN
                                               NaN
                                                                      NaN
371
      0.038100
                        0.037393
370
      0.077603
                        0.074739
                                               NaN
                                                                      NaN
369
     -0.063100
                       -0.065178
                                               NaN
                                                                      NaN
368
      0.021463
                        0.021236
                                               NaN
                                                                      NaN
367
      0.084643
                        0.081251
                                               NaN
                                                                      NaN
                                         0.001841
                                                                0.001614
366
      0.007833
                        0.007802
     -0.035811
365
                       -0.036467
                                         0.001439
                                                                0.001223
364
            NaN
                             NaN
                                               NaN
                                                                      NaN
```

NaN	NaN	0.115304	0.122215	363
-0.001676	0.001698	NaN	NaN	362
NaN	NaN	0.273838	0.315002	361
NaN	NaN	-0.126532	-0.118854	360

[15 rows x 156 columns]

```
[93]: df = pd.read_csv("df_fin_all_windows.csv")
```

[94]: df.info(verbose=True)

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 385 entries, 0 to 384

Data columns (total 156 columns):

Data	columns (total	156 columns):
#	Column	Dtype
0	ticker	object
1	dimension	object
2	calendardate	object
3	date	object
4	reportperiod	object
5	lastupdated	object
6	accoci	float64
7	assets	float64
8	assetsavg	float64
9	assetsc	float64
10	assetsnc	float64
11	${\tt assetturnover}$	float64
12	bvps	float64
13	capex	float64
14	cashneq	float64
15	cashnequsd	float64
16	cor	float64
17	consolinc	float64
18	currentratio	float64
19	de	float64
20	debt	float64
21	debtc	float64
22	debtnc	float64
23	debtusd	float64
24	deferredrev	float64
25	depamor	float64
26	deposits	float64
27	divyield	float64
28	dps	float64
29	ebit	float64
30	ebitda	float64
31	ebitdamargin	float64

32	ebitdausd	float64
33	ebitusd	float64
34	ebt	float64
35	eps	float64
36	epsdil	float64
37	epsusd	float64
38	equity	float64
39	equityavg	float64
40	equityusd	float64
41	ev	float64
42	evebit	float64
43	evebitda	float64
44	fcf	float64
45	fcfps	float64
46	fxusd	float64
47	gp	float64
48	grossmargin	float64
49	intangibles	float64
50	intexp	float64
51	invcap	float64
52	invcapavg	float64
53	inventory	float64
54	investments	float64
55	investmentsc	float64
56	investmentsnc	float64
57	liabilities	float64
58	liabilitiesc	float64
59	liabilitiesnc	float64
60	marketcap	float64
61	ncf	float64
62	ncfbus	float64
63	ncfcommon	float64
64	ncfdebt	float64
65	ncfdiv	float64
66	ncff	float64
67	ncfi	float64
68	ncfinv	float64
69	ncfo	float64
70	ncfx	float64
71	netinc	float64
72	netinccmn	float64
73	netinccmnusd	float64
74	netincdis	float64
75	netincui	float64
76	netmargin	float64
77	opex	float64
78	opinc	float64
79	payables	float64
, ,	Pajabiob	1100004

80	payoutratio	float64
81	pb	float64
82	pe	float64
83	pe1	float64
84	ppnenet	float64
85	prefdivis	float64
86	price	float64
87	ps	float64
88	ps1	float64
89	receivables	float64
90	retearn	float64
91	revenue	float64
92	revenueusd	float64
93	rnd	float64
94	roa	float64
95	roe	float64
96	roic	float64
97	ros	float64
98	sbcomp	float64
99	sgna	float64
100	sharefactor	float64
101	sharesbas	float64
102	shareswa	float64
103	shareswadil	float64
104	sps	float64
105	tangibles	float64
106	taxassets	float64
107	taxexp	float64
108	taxliabilities	float64
109	tbvps	float64
110	workingcapital	float64
111	datekey	object
	cum_ret0	float64
	cum_ret_cont0	float64
	cum_ret1	float64
	cum_ret_cont1	float64
	cum_ret2	float64
	cum_ret_cont2	float64
	cum_ret3	float64
119	-	float64
120		float64
121	-	float64
122		float64
123	-	float64
124		float64
	cum_ret_cont6	float64
	cum_ret7	float64
	cum_ret_cont7	float64
121	cam_rec_conc,	110at04

```
128 cum_ret8
                                 float64
      129 cum_ret_cont8
                                 float64
      130 cum_ret9
                                 float64
      131 cum_ret_cont9
                                 float64
      132 cum ret10
                                 float64
      133 cum_ret_cont10
                                 float64
      134 cum ret11
                                 float64
      135 cum_ret_cont11
                                 float64
      136 cum ret12
                                 float64
      137 cum_ret_cont12
                                 float64
      138 cum_ret13
                                 float64
      139 cum_ret_cont13
                                 float64
      140 cum_ret14
                                 float64
      141 cum_ret_cont14
                                 float64
      142 cum_ret15
                                 float64
      143 cum_ret_cont15
                                 float64
      144 cum_ret16
                                 float64
      145 cum_ret_cont16
                                 float64
      146 cum_ret17
                                 float64
      147 cum ret cont17
                                 float64
      148 cum_ret18
                                 float64
      149 cum ret cont18
                                 float64
      150 cum ret19
                                 float64
      151 cum_ret_cont19
                                 float64
      152 cum_ret20
                                 float64
      153 cum_ret_cont20
                                 float64
      154 mean_ret_model
                                 float64
      155 mean_ret_model_cont
                                 float64
     dtypes: float64(149), object(7)
     memory usage: 469.3+ KB
[95]: df.head()
        ticker dimension calendardate
                                               date reportperiod lastupdated
                                         2018-05-11
      0
           ACI
                            2018-03-31
                                                      2018-02-24
                                                                   2021-04-28
                      ARQ
      1
           ACI
                            2018-06-30
                                         2018-07-25
                                                      2018-06-16
                                                                   2021-04-28
                      ARQ
      2
           ACI
                      ARQ
                            2018-09-30
                                         2018-10-18
                                                      2018-09-08
                                                                   2021-04-28
      3
           ACI
                      ARQ
                            2018-12-31
                                         2019-01-15
                                                      2018-12-01
                                                                   2021-04-28
      4
           ACI
                      ARQ
                            2019-03-31
                                         2019-04-24
                                                      2019-02-23
                                                                   2021-04-28
                                                                   cum_ret17
              accoci
                                     assetsavg
                             assets
                                                      assetsc
      0
        191100000.0
                      2.181230e+10
                                            NaN
                                                 6.148600e+09
                                                                          NaN
        197000000.0
      1
                       2.182020e+10
                                                 6.488900e+09
                                                                         NaN
                                            NaN
      2 192200000.0
                                                                         NaN
                       2.181680e+10
                                            NaN
                                                 6.845700e+09
      3
         192100000.0
                       2.098170e+10
                                                 6.112600e+09
                                                                         NaN
                                            NaN
```

[95]:

91300000.0

2.077660e+10

NaN

6.250000e+09

NaN

```
0
                    NaN
                                NaN
                                                 NaN
                                                            NaN
                                                                             NaN
      1
                     NaN
                                NaN
                                                 NaN
                                                            NaN
                                                                             NaN
      2
                     NaN
                                                                             NaN
                                NaN
                                                 NaN
                                                            NaN
      3
                     NaN
                                NaN
                                                 NaN
                                                            NaN
                                                                             NaN
                    NaN
                                                                             NaN
      4
                                NaN
                                                 NaN
                                                            NaN
         cum_ret20
                    cum_ret_cont20
                                     mean_ret_model
                                                      mean_ret_model_cont
      0
               NaN
                                                                       NaN
                                NaN
                                                 NaN
      1
               NaN
                                NaN
                                                 NaN
                                                                       NaN
      2
               NaN
                                NaN
                                                 NaN
                                                                       NaN
      3
               NaN
                                NaN
                                                 NaN
                                                                       NaN
               NaN
                                NaN
                                                 NaN
                                                                       NaN
      [5 rows x 156 columns]
[96]: df.sort_values(by=["ticker", "date"], ascending=[True, True], inplace=True)
[97]: df[
          Г
              "ticker",
               "date",
              "datekey".
               "revenue",
               "netinc",
              "shareswa",
              "eps",
              "ebitda",
              "dps",
              "fcf",
              "roic".
              "gp",
               "opinc",
              "ros",
              "assetturnover",
              "payoutratio",
              "pe1",
               "pb",
               "divyield",
      [df["ticker"] == "NGVC"].head()
[97]:
          ticker
                         date
                                  datekey
                                                revenue
                                                            netinc
                                                                       shareswa
                                                                                    eps \
      146
            NGVC 2012-07-20
                               2012-07-20
                                             86706603.0 2200793.0 21913920.0 0.101
      147
            NGVC 2012-12-13
                               2012-12-13
                                             89932891.0
                                                          972615.0 23746976.0
                                                                                 0.041
      148
                                                          972615.0
            NGVC
                  2012-12-17
                               2012-12-17
                                             89932891.0
                                                                     23746976.0
                                                                                 0.041
      149
            NGVC 2013-01-31 2013-01-31
                                             95831348.0 2221400.0 22372184.0 0.100
```

cum_ret_cont18

cum_ret19

cum_ret_cont19 \

cum_ret_cont17

cum_ret18

```
NGVC 2013-05-09 2013-05-09 106484819.0 3217198.0 22393993.0 0.140
       150
               ebitda
                       dps
                                   fcf
                                        roic
                                                               opinc
                                                                      ros
                                                       gp
       146
                  NaN
                       0.0
                                   NaN
                                         NaN
                                              25399631.0
                                                           3983068.0
                                                                       NaN
       147 4385436.0
                       0.0 -4572491.0
                                              26374097.0
                                                           1574726.0
                                         NaN
                                                                       NaN
       148 4385436.0 0.0 -4572491.0
                                         NaN
                                              26374097.0
                                                           1574726.0
                                                                       NaN
       149 6799986.0 0.0 -6483240.0
                                         NaN
                                              27836848.0
                                                           3789151.0
                                                                      NaN
       150 8760760.0 0.0 -488398.0
                                         {\tt NaN}
                                              31816721.0 5516010.0
                                                                      NaN
                                                     pb divyield
            assetturnover payoutratio
                                            pe1
       146
                      NaN
                                    0.0
                                             NaN
                                                    NaN
                                                              NaN
       147
                      NaN
                                    0.0 66.567
                                                  6.124
                                                              0.0
       148
                      NaN
                                    0.0 65.300
                                                 6.008
                                                              0.0
       149
                      NaN
                                    0.0
                                             {\tt NaN}
                                                 6.121
                                                              0.0
       150
                                    0.0 66.142 7.179
                      NaN
                                                              0.0
 [98]: df["revps"] = df["revenue"] / df["shareswa"]
       df["fcfps"] = df["fcf"] / df["shareswa"]
 [99]: df["month"] = df["calendardate"].apply(lambda x: x[5:7])
       df["14_calendardate"] = df.groupby("ticker")["calendardate"].apply(lambda x: x.
        \rightarrowshift(4))
[100]: df["14_month"] = df["14_calendardate"].apply(
           lambda x: x[5:7] if type(x) != float else np.nan
[101]: df[["ticker", "calendardate", "14_calendardate", "month", "14_month"]]
           ticker calendardate 14 calendardate month 14 month
[101]:
       0
              ACI
                    2018-03-31
                                             NaN
                                                    03
                                                            NaN
              ACI
       1
                    2018-06-30
                                             NaN
                                                    06
                                                            NaN
       2
              ACI
                    2018-09-30
                                             NaN
                                                    09
                                                            NaN
       3
              ACI
                    2018-12-31
                                             NaN
                                                    12
                                                            NaN
                                     2018-03-31
       4
              ACI
                    2019-03-31
                                                    03
                                                             03
       380
                                                             03
              WMK
                    2020-03-31
                                                    03
                                     2019-03-31
       381
              WMK
                    2020-06-30
                                     2019-06-30
                                                    06
                                                             06
       382
              WMK
                    2020-09-30
                                     2019-09-30
                                                    09
                                                             09
       383
              WMK
                    2020-12-31
                                     2019-12-31
                                                    12
                                                             12
       384
              WMK
                    2021-03-31
                                     2020-03-31
                                                    03
                                                             03
       [385 rows x 5 columns]
[102]: df["diff"] = df.apply(
           lambda x: x["month"] == x["l4_month"] if type(x["l4_month"]) != float else_
        →True,
```

```
axis=1,
[103]: df[["ticker", "calendardate", "l4_calendardate", "month", "l4_month", "diff"]]
           ticker calendardate 14_calendardate month 14_month diff
[103]:
              ACI
                    2018-03-31
                                            NaN
                                                    03
                                                                 True
       0
              ACI
       1
                    2018-06-30
                                             NaN
                                                    06
                                                            NaN
                                                                 True
       2
              ACI
                    2018-09-30
                                             NaN
                                                    09
                                                            NaN
                                                                True
       3
              ACI
                    2018-12-31
                                            NaN
                                                            NaN
                                                                 True
                                                    12
              ACI
                    2019-03-31
                                     2018-03-31
                                                             03 True
       4
                                                    03
       380
                    2020-03-31
                                     2019-03-31
                                                    03
                                                             03
                                                                 True
              WMK
       381
              WMK
                    2020-06-30
                                     2019-06-30
                                                    06
                                                             06 True
       382
              WMK
                    2020-09-30
                                     2019-09-30
                                                    09
                                                             09 True
                                                             12 True
       383
              WMK
                    2020-12-31
                                     2019-12-31
                                                    12
       384
              WMK
                    2021-03-31
                                     2020-03-31
                                                    03
                                                             03 True
       [385 rows x 6 columns]
[104]: (df["diff"] == False).sum()
[104]: 21
[105]: len(df)
[105]: 385
[106]: df.iloc[8:10]
         ticker dimension calendardate
                                                date reportperiod lastupdated \
[106]:
       8
            ACI
                       ARQ
                             2020-03-31 2020-05-13
                                                       2020-02-29
                                                                   2021-04-28
       9
            ACI
                       ARQ
                             2020-03-31 2020-06-18
                                                       2020-02-29
                                                                   2021-04-28
                                                       assetsc ... cum_ret_cont19 \
               accoci
                              assets assetsavg
       8 -118500000.0 2.473510e+10
                                            NaN
                                                 5.731300e+09
                                                                               NaN
       9 -118500000.0 2.473510e+10
                                            {\tt NaN}
                                                 5.731300e+09 ...
                                                                               NaN
          cum_ret20 cum_ret_cont20 mean_ret_model mean_ret_model_cont
                                                                                 revps \
       8
                {\tt NaN}
                                 NaN
                                                  NaN
                                                                             26.645907
                                                                        {\tt NaN}
       9
                NaN
                                 NaN
                                                  NaN
                                                                        NaN
                                                                             26.642734
          month 14 calendardate 14 month
                                               diff
       8
             03
                       2019-03-31
                                         03
                                               True
             03
                       2019-06-30
                                         06 False
       [2 rows x 161 columns]
```

[107]: df.iloc[8:10].info(verbose=True)

<class 'pandas.core.frame.DataFrame'>
Int64Index: 2 entries, 8 to 9

Data columns (total 161 columns):

Data	columns	(total	161	columns):
#	Column			Dtype
0	ticker			object
1	dimension	n		object
2	calendar	date		object
3	date			object
4	reportpe	riod		object
5	lastupda ⁻	ted		object
6	accoci			float64
7	assets			float64
8	assetsav	g		float64
9	assetsc			float64
10	${\tt assetsnc}$			float64
11	assettur	nover		float64
12	bvps			float64
13	capex			float64
14	cashneq			float64
15	cashnequa	sd		float64
16	cor			float64
17	consolin	С		float64
18	currentra	atio		float64
19	de			float64
20	debt			float64
21	debtc			float64
22	debtnc			float64
23	debtusd			float64
24	deferred	rev		float64
25	depamor			float64
26	${\tt deposits}$			float64
27	divyield			float64
28	dps			float64
29	ebit			float64
30	ebitda			float64
31	ebitdama	rgin		float64
32	ebitdaus	d		float64
33	ebitusd			float64
34	ebt			float64
35	eps			float64
36	epsdil			float64
37	epsusd			float64
38	equity			float64
39	equityav	g		float64
40	equityus	d		float64

41	ev	float64
42	evebit	float64
43	evebitda	float64
44	fcf	float64
45	fcfps	float64
46	fxusd	float64
47	gp	float64
48	grossmargin	float64
49	intangibles	float64
50	intexp	float64
51	invcap	float64
52	invcapavg	float64
53	inventory	float64
54	investments	float64
55	investmentsc	float64
56	investmentsnc	float64
57	liabilities	float64
58	liabilitiesc	float64
59	liabilitiesnc	float64
60	marketcap	float64
61	ncf	float64
62	ncfbus	float64
63	ncfcommon	float64
64	ncfdebt	float64
65	ncfdiv	float64
66	ncff	float64
67	ncfi	float64
68	ncfinv	float64
69	ncfo	float64
70	ncfx	float64
71	netinc	float64
72	netincomn	float64
73	netinccmnusd	float64
74	netincdis	float64
7 4 75	netincais	float64
76		float64
	netmargin	float64
77 70	opex	
78 70	opinc	float64
79	payables	float64
80	payoutratio	float64
81	pb	float64
82	pe	float64
83	pe1	float64
84	ppnenet	float64
85	prefdivis	float64
86	price	float64
87	ps	float64
88	ps1	float64

89	receivables	float64
90	retearn	float64
91	revenue	float64
92	revenueusd	float64
93	rnd	float64
94	roa	float64
95	roe	float64
96	roic	float64
97	ros	float64
98	sbcomp	float64
99	sgna	float64
100	sharefactor	float64
101	sharesbas	float64
102	shareswa	float64
103	shareswadil	float64
104	sps	float64
105	•	float64
106	taxassets	float64
107	taxexp	float64
108	taxliabilities	float64
109		float64
110	workingcapital	float64
111	datekey	object
112	cum_ret0	float64
113	_	float64
	cum_ret1	float64
115		float64
116		float64
	cum_ret2	float64
	cum_ret_cont2	float64
118	-	float64
119		
120	cum_ret4	float64
121	cum_ret_cont4	float64
	cum_ret5	float64
	cum_ret_cont5	float64
	cum_ret6	float64
125		float64
126	_	float64
127		float64
128	cum_ret8	float64
129		float64
130	cum_ret9	float64
131	cum_ret_cont9	float64
132	cum_ret10	float64
133	cum_ret_cont10	float64
134	cum_ret11	float64
135	cum_ret_cont11	float64
136	cum_ret12	float64

```
138 cum_ret13
                                 float64
       139 cum_ret_cont13
                                 float64
       140 cum_ret14
                                 float64
       141 cum ret cont14
                                 float64
       142 cum_ret15
                                 float64
       143 cum ret cont15
                                 float64
       144 cum_ret16
                                 float64
       145 cum_ret_cont16
                                 float64
       146 cum_ret17
                                 float64
                                 float64
       147 cum_ret_cont17
       148 cum_ret18
                                 float64
                                 float64
       149 cum_ret_cont18
                                 float64
       150 cum_ret19
       151 cum_ret_cont19
                                 float64
       152 cum_ret20
                                 float64
       153 cum_ret_cont20
                                 float64
       154 mean_ret_model
                                 float64
       155 mean_ret_model_cont float64
       156 revps
                                 float64
       157 month
                                 object
       158 14 calendardate
                                 object
       159 14_month
                                 object
       160 diff
                                 bool
      dtypes: bool(1), float64(150), object(10)
      memory usage: 2.5+ KB
[108]: type(df["accoci"].iloc[9]) == np.float64
[108]: True
[109]: df_temp = df.iloc[8:10].copy()
[110]: for i in df_temp.columns:
           if df_temp[i].dtypes == np.float64:
               print("##########")
               print("difference is", df_temp[i] - df_temp[i].shift(1))
      ###############
      difference is 8
                         NaN
           0.0
      Name: accoci, dtype: float64
      ##############
      difference is 8
                         NaN
           0.0
      Name: assets, dtype: float64
      ################
      difference is 8
                        NaN
```

137 cum_ret_cont12

float64

Name: assetsavg, dtype: float64

###############

difference is 8 NaN

9 0.0

Name: assetsc, dtype: float64

##############

difference is 8 NaN

9 0.0

Name: assetsnc, dtype: float64

###############

difference is 8 NaN

9 NaN

Name: assetturnover, dtype: float64

###############

difference is 8 NaN

9 0.0

Name: bvps, dtype: float64

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difference is 8 NaN

9 0.0

Name: capex, dtype: float64

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difference is 8 NaN

9 0.0

Name: cashneq, dtype: float64

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difference is 8 NaN

9 0.0

Name: cashnequsd, dtype: float64

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difference is 8 NaN

9 0.0

Name: cor, dtype: float64

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difference is 8 NaN

9 0.0

Name: consolinc, dtype: float64

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difference is 8 NaN

9 0.0

Name: currentratio, dtype: float64

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difference is 8 NaN

9 0.0

Name: de, dtype: float64

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Name: debt, dtype: float64

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difference is 8 NaN

9 0.0

Name: debtc, dtype: float64

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difference is 8 NaN

9 0.0

Name: debtnc, dtype: float64

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difference is 8 NaN

9 0.0

Name: debtusd, dtype: float64

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difference is 8 NaN

9 0.0

Name: deferredrev, dtype: float64

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difference is 8 NaN

9 0.0

Name: depamor, dtype: float64

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difference is 8 NaN

9 0.0

Name: deposits, dtype: float64

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difference is 8 NaN

9 NaN

Name: divyield, dtype: float64

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difference is 8 NaN

9 0.0

Name: dps, dtype: float64

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difference is 8 NaN

9 0.0

Name: ebit, dtype: float64

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9 0.0

Name: ebitda, dtype: float64

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9 0.0

Name: ebitdamargin, dtype: float64

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Name: ebitdausd, dtype: float64

###############

difference is 8 NaN

9 0.0

Name: ebitusd, dtype: float64

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difference is 8 NaN

9 0.0

Name: ebt, dtype: float64

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difference is 8 NaN

9 NaN

Name: eps, dtype: float64

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Name: epsdil, dtype: float64

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difference is 8 NaN

9 NaN

Name: epsusd, dtype: float64

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difference is 8 NaN

9 0.0

Name: equity, dtype: float64

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difference is 8 NaN

9 NaN

Name: equityavg, dtype: float64

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difference is 8 NaN

9 0.0

Name: equityusd, dtype: float64

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difference is 8 NaN

9 NaN

Name: ev, dtype: float64

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difference is 8 NaN

9 NaN

Name: evebit, dtype: float64

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difference is 8 NaN

9 NaN

Name: evebitda, dtype: float64

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Name: fcf, dtype: float64

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difference is 8 NaN

9 -0.000033

Name: fcfps, dtype: float64

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difference is 8 NaN

9 0.0

Name: fxusd, dtype: float64

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difference is 8 NaN

9 0.0

Name: gp, dtype: float64

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difference is 8 NaN

9 0.0

Name: grossmargin, dtype: float64

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difference is 8 NaN

9 0.0

Name: intangibles, dtype: float64

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9 0.0

Name: intexp, dtype: float64

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difference is 8 NaN

9 0.0

Name: invcap, dtype: float64

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9 NaN

Name: invcapavg, dtype: float64

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difference is 8 NaN

9 0.0

Name: inventory, dtype: float64

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difference is 8 NaN

9 0.0

Name: investments, dtype: float64

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Name: investmentsc, dtype: float64

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Name: investmentsnc, dtype: float64

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difference is 8 NaN

9 0.0

Name: liabilities, dtype: float64

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difference is 8 NaN

9 0.0

Name: liabilitiesc, dtype: float64

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difference is 8 NaN

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Name: liabilitiesnc, dtype: float64

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difference is 8 NaN

9 NaN

Name: marketcap, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncf, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfbus, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfcommon, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfdebt, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfdiv, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncff, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfi, dtype: float64

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Name: ncfinv, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfo, dtype: float64

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difference is 8 NaN

9 0.0

Name: ncfx, dtype: float64

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difference is 8 NaN

9 0.0

Name: netinc, dtype: float64

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difference is 8 NaN

9 0.0

Name: netinccmn, dtype: float64

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difference is 8 NaN

9 0.0

Name: netinccmnusd, dtype: float64

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difference is 8 NaN

9 0.0

Name: netincdis, dtype: float64

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difference is 8 NaN

9 0.0

Name: netincnci, dtype: float64

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difference is 8 NaN

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Name: netmargin, dtype: float64

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Name: opex, dtype: float64

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difference is 8 NaN

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Name: opinc, dtype: float64

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difference is 8 NaN

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Name: payables, dtype: float64

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Name: payoutratio, dtype: float64

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difference is 8 NaN

9 NaN

Name: pb, dtype: float64

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difference is 8 NaN

9 NaN

Name: pe, dtype: float64

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difference is 8 NaN

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Name: pe1, dtype: float64

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difference is 8 NaN

9 0.0

Name: ppnenet, dtype: float64

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difference is 8 NaN

9 0.0

Name: prefdivis, dtype: float64

###############

difference is 8 NaN

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Name: price, dtype: float64

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Name: ps, dtype: float64

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difference is 8 NaN

9 NaN

Name: ps1, dtype: float64

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difference is 8 NaN

9 0.0

Name: receivables, dtype: float64

#################

difference is 8 NaN

9 0.0

Name: retearn, dtype: float64

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difference is 8 NaN

9 0.0

Name: revenue, dtype: float64

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Name: revenueusd, dtype: float64

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difference is 8 NaN

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Name: rnd, dtype: float64

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Name: roa, dtype: float64

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Name: roic, dtype: float64

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difference is 8 NaN

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Name: ros, dtype: float64

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Name: sbcomp, dtype: float64

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Name: sgna, dtype: float64

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difference is 8 NaN

9 0.0

Name: sharefactor, dtype: float64

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difference is 8 NaN

9 -101611736.0

Name: sharesbas, dtype: float64

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difference is 8 NaN

9 69000.0

Name: shareswa, dtype: float64

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difference is 8 NaN

9 NaN

Name: shareswadil, dtype: float64

###############

9 -0.003

Name: sps, dtype: float64

###############

difference is 8 NaN

9 0.0

Name: tangibles, dtype: float64

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difference is 8 NaN

9 0.0

Name: taxassets, dtype: float64

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difference is 8 NaN

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Name: taxexp, dtype: float64

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difference is 8 NaN

9 0.0

Name: taxliabilities, dtype: float64

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difference is 8 NaN

9 -0.005

Name: tbvps, dtype: float64

###############

difference is 8 NaN

9 0.0

Name: workingcapital, dtype: float64

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difference is 8 NaN

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Name: cum_ret0, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont0, dtype: float64

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difference is 8 NaN

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Name: cum_ret1, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont1, dtype: float64

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Name: cum_ret2, dtype: float64

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Name: cum_ret_cont2, dtype: float64

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Name: cum_ret3, dtype: float64

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Name: cum_ret_cont3, dtype: float64

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Name: cum_ret4, dtype: float64

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Name: cum_ret_cont4, dtype: float64

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Name: cum_ret5, dtype: float64

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Name: cum_ret_cont5, dtype: float64

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Name: cum_ret6, dtype: float64

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Name: cum_ret_cont6, dtype: float64

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Name: cum_ret7, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont7, dtype: float64

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difference is 8 NaN

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Name: cum_ret8, dtype: float64

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Name: cum_ret_cont8, dtype: float64

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difference is 8 NaN

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Name: cum_ret9, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont9, dtype: float64

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Name: cum_ret10, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont10, dtype: float64

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Name: cum_ret11, dtype: float64

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Name: cum_ret_cont11, dtype: float64

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Name: cum_ret12, dtype: float64

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Name: cum_ret_cont12, dtype: float64

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Name: cum_ret13, dtype: float64

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Name: cum_ret_cont13, dtype: float64

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Name: cum_ret14, dtype: float64

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Name: cum_ret_cont14, dtype: float64

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difference is 8 NaN

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Name: cum_ret15, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont15, dtype: float64

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difference is 8 NaN

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Name: cum_ret16, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont16, dtype: float64

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Name: cum_ret17, dtype: float64

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Name: cum_ret_cont17, dtype: float64

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difference is 8 NaN

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Name: cum_ret18, dtype: float64

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difference is 8 NaN

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Name: cum_ret_cont18, dtype: float64

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difference is 8 NaN

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Name: cum_ret19, dtype: float64

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difference is 8 NaN

9 NaN

Name: cum_ret_cont19, dtype: float64

##############

difference is 8 NaN

9 NaN

Name: cum_ret20, dtype: float64

##############

```
Name: cum_ret_cont20, dtype: float64
      ################
      difference is 8
                        NaN
          NaN
      Name: mean_ret_model, dtype: float64
      ###############
      difference is 8
                        NaN
      Name: mean_ret_model_cont, dtype: float64
      ###############
      difference is 8
                              NaN
          -0.003173
      Name: revps, dtype: float64
[111]: df_temp.head()
[111]: ticker dimension calendardate
                                              date reportperiod lastupdated \
                            2020-03-31 2020-05-13
                                                      2020-02-29
                                                                  2021-04-28
            ACI
                      ARQ
                            2020-03-31 2020-06-18
                                                      2020-02-29
       9
            ACI
                      ARQ
                                                                  2021-04-28
               accoci
                                                      assetsc ...
                                                                  cum_ret_cont19 \
                             assets assetsavg
       8 -118500000.0 2.473510e+10
                                           {\tt NaN}
                                                5.731300e+09
                                                                             NaN
       9 -118500000.0 2.473510e+10
                                           NaN 5.731300e+09 ...
                                                                             NaN
          cum_ret20 cum_ret_cont20
                                     mean_ret_model mean_ret_model_cont
                                                                               revps \
       8
                NaN
                                NaN
                                                 NaN
                                                                           26.645907
                                                                      NaN
       9
                NaN
                                NaN
                                                {\tt NaN}
                                                                      NaN
                                                                           26.642734
          month 14_calendardate 14_month
                                             diff
       8
             03
                      2019-03-31
                                        03
                                             True
       9
             03
                      2019-06-30
                                        06 False
       [2 rows x 161 columns]
[112]: del df_temp
[113]: df_temp = df.iloc[38:40].copy()
[114]: df_temp
          ticker dimension calendardate
                                               date reportperiod lastupdated accoci
       38
              GO
                       ARQ
                             2019-09-30 2019-11-12
                                                       2019-09-28 2021-05-12
                                                                                  0.0
       39
              GO
                       ARQ
                             2019-09-30 2020-01-27
                                                       2019-09-28 2021-05-12
                                                                                  0.0
                                        assetsc ... cum_ret_cont19 cum_ret20
                 assets
                         assetsavg
                                                          0.040770
                                                                      0.025161
       38
          2.134846e+09
                               NaN
                                    277991000.0 ...
                                    277991000.0 ...
       39 2.134846e+09
                               NaN
                                                         -0.112821 -0.116003
```

```
cum_ret_cont20 mean_ret_model mean_ret_model_cont
                                                                   revps month \
       38
                 0.024850
                                      {\tt NaN}
                                                            NaN 7.38627
                                                                             09
                -0.123302
                                      NaN
                                                            NaN 7.38627
       39
                                                                             09
           14_calendardate 14_month
                                       diff
                                 NaN
                                       True
       38
                       NaN
                2019-03-31
                                  03 False
       39
       [2 rows x 161 columns]
[115]: for i in df_temp.columns:
           if df_temp[i].dtypes == np.float64:
               print("##########")
               print("difference is", df_temp[i] - df_temp[i].shift(1))
      ###############
      difference is 38
                          NaN
      39
            0.0
      Name: accoci, dtype: float64
      ##############
      difference is 38
                          NaN
            0.0
      Name: assets, dtype: float64
      ###############
      difference is 38
                         NaN
           NaN
      39
      Name: assetsavg, dtype: float64
      ###############
      difference is 38
                          NaN
      Name: assetsc, dtype: float64
      ###############
      difference is 38
                          NaN
            0.0
      Name: assetsnc, dtype: float64
      ################
      difference is 38
                         NaN
      Name: assetturnover, dtype: float64
      ###############
      difference is 38
                          NaN
      39
            0.0
      Name: bvps, dtype: float64
      ###############
      difference is 38
                          NaN
      39
            0.0
      Name: capex, dtype: float64
```

difference is 38 NaN

39 0.0

Name: cashneq, dtype: float64

###############

difference is 38 NaN

39 0.0

Name: cashnequsd, dtype: float64

###############

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39 0.0

Name: cor, dtype: float64

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difference is 38 NaN

39 0.0

Name: consolinc, dtype: float64

##############

difference is 38 NaN

39 0.0

Name: currentratio, dtype: float64

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39 0.0

Name: de, dtype: float64

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difference is 38 NaN

39 0.0

Name: debt, dtype: float64

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39 0.0

Name: debtc, dtype: float64

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difference is 38 NaN

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Name: debtnc, dtype: float64

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difference is 38 NaN

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Name: debtusd, dtype: float64

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difference is 38 NaN

39 0.0

Name: deferredrev, dtype: float64

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difference is 38 NaN

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Name: depamor, dtype: float64

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Name: deposits, dtype: float64

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Name: divyield, dtype: float64

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Name: dps, dtype: float64

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Name: ebit, dtype: float64

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Name: ebitda, dtype: float64

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Name: ebitdamargin, dtype: float64

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Name: ebitdausd, dtype: float64

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difference is 38 NaN

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Name: ebitusd, dtype: float64

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Name: ebt, dtype: float64

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Name: eps, dtype: float64

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Name: epsdil, dtype: float64

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39 0.0

Name: epsusd, dtype: float64

difference is 38 NaN

39 0.0

Name: equity, dtype: float64

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difference is 38 NaN

39 NaN

Name: equityavg, dtype: float64

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difference is 38 NaN

39 0.0

Name: equityusd, dtype: float64

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difference is 38 NaN

39 235565449.0

Name: ev, dtype: float64

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difference is 38 NaN

39 NaN

Name: evebit, dtype: float64

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39 NaN

Name: evebitda, dtype: float64

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difference is 38 NaN

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Name: fcf, dtype: float64

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difference is 38 NaN

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Name: fcfps, dtype: float64

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Name: fxusd, dtype: float64

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Name: gp, dtype: float64

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39 0.0

Name: grossmargin, dtype: float64

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Name: intangibles, dtype: float64

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Name: intexp, dtype: float64

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Name: invcap, dtype: float64

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Name: invcapavg, dtype: float64

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Name: inventory, dtype: float64

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Name: investments, dtype: float64

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Name: investmentsnc, dtype: float64

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Name: liabilities, dtype: float64

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difference is 38 NaN

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Name: liabilitiesc, dtype: float64

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difference is 38 NaN

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Name: liabilitiesnc, dtype: float64

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difference is 38 NaN

39 235565449.0

Name: marketcap, dtype: float64

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Name: ncf, dtype: float64

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Name: ncfbus, dtype: float64

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Name: ncfdebt, dtype: float64

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Name: ncfdiv, dtype: float64

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Name: ncfi, dtype: float64

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Name: ncfinv, dtype: float64

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difference is 38 NaN

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Name: ncfo, dtype: float64

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Name: ncfx, dtype: float64

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difference is 38 NaN

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Name: netinc, dtype: float64

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difference is 38 NaN

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Name: netinccmn, dtype: float64

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difference is 38 NaN

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Name: netinccmnusd, dtype: float64

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Name: netincdis, dtype: float64

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difference is 38 NaN

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Name: netincnci, dtype: float64

###############

difference is 38 NaN

39 0.0

Name: netmargin, dtype: float64

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Name: opex, dtype: float64

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Name: opinc, dtype: float64

###############

difference is 38 NaN

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Name: payables, dtype: float64

###############

difference is 38 NaN

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Name: payoutratio, dtype: float64

##############

difference is 38 NaN

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Name: pb, dtype: float64

###############

difference is 38 NaN

39 NaN

Name: pe, dtype: float64

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difference is 38 NaN

39 NaN

Name: pe1, dtype: float64

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difference is 38 NaN

39 0.0

Name: ppnenet, dtype: float64

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difference is 38 NaN

39 0.0

Name: prefdivis, dtype: float64

difference is 38 NaN

39 2.65

Name: price, dtype: float64

###############

difference is 38 NaN

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Name: ps, dtype: float64

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difference is 38 NaN

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Name: ps1, dtype: float64

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Name: receivables, dtype: float64

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Name: retearn, dtype: float64

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Name: revenue, dtype: float64

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Name: revenueusd, dtype: float64

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Name: sbcomp, dtype: float64

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Name: sgna, dtype: float64

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Name: sharefactor, dtype: float64

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Name: sharesbas, dtype: float64

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Name: shareswa, dtype: float64

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Name: sps, dtype: float64

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Name: tangibles, dtype: float64

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Name: taxassets, dtype: float64

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Name: taxexp, dtype: float64

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Name: taxliabilities, dtype: float64

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Name: tbvps, dtype: float64

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Name: workingcapital, dtype: float64

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Name: cum_ret0, dtype: float64

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difference is 38 NaN

39 0.0

Name: cum_ret_cont0, dtype: float64

##############

difference is 38 NaN

39 -0.056693

Name: cum_ret1, dtype: float64

##############

difference is 38 NaN

39 -0.055418

Name: cum_ret_cont1, dtype: float64

###############

difference is 38 NaN

39 -0.073183

Name: cum_ret2, dtype: float64

##############

difference is 38 NaN

39 -0.07455

Name: cum_ret_cont2, dtype: float64

################

difference is 38 NaN

39 -0.074796

Name: cum_ret3, dtype: float64

###############

difference is 38 NaN

39 -0.075611

Name: cum_ret_cont3, dtype: float64

###############

difference is 38 NaN

39 -0.097658

Name: cum_ret4, dtype: float64

##############

difference is 38 NaN

39 -0.100843

Name: cum_ret_cont4, dtype: float64

#############

difference is 38 NaN

39 -0.063021

Name: cum_ret5, dtype: float64

difference is 38 NaN

39 -0.065974

Name: cum_ret_cont5, dtype: float64

##############

difference is 38 NaN

39 -0.065521

Name: cum_ret6, dtype: float64

###############

difference is 38 NaN

39 -0.068544

Name: cum_ret_cont6, dtype: float64

##############

difference is 38 NaN

39 -0.092577

Name: cum_ret7, dtype: float64

##############

difference is 38 NaN

39 -0.097146

Name: cum_ret_cont7, dtype: float64

###############

difference is 38 NaN

39 -0.104391

Name: cum_ret8, dtype: float64

##############

difference is 38 NaN

39 -0.110818

Name: cum_ret_cont8, dtype: float64

################

difference is 38 NaN

39 -0.140479

Name: cum_ret9, dtype: float64

###############

difference is 38 NaN

39 -0.147878

Name: cum_ret_cont9, dtype: float64

###############

difference is 38 NaN

39 -0.151003

Name: cum_ret10, dtype: float64

##############

difference is 38 NaN

39 -0.159398

Name: cum_ret_cont10, dtype: float64

##############

difference is 38 NaN

39 -0.187575

Name: cum_ret11, dtype: float64

difference is 38 NaN

39 -0.195668

Name: cum_ret_cont11, dtype: float64

##############

difference is 38 NaN

39 -0.189511

Name: cum_ret12, dtype: float64

###############

difference is 38 NaN

39 -0.1975

Name: cum_ret_cont12, dtype: float64

###############

difference is 38 NaN

39 -0.178504

Name: cum_ret13, dtype: float64

##############

difference is 38 NaN

39 -0.182754

Name: cum_ret_cont13, dtype: float64

################

difference is 38 NaN

39 -0.147617

Name: cum_ret14, dtype: float64

##############

difference is 38 NaN

39 -0.150508

Name: cum_ret_cont14, dtype: float64

################

difference is 38 NaN

39 -0.144997

Name: cum_ret15, dtype: float64

###############

difference is 38 NaN

39 -0.145052

Name: cum_ret_cont15, dtype: float64

##############

difference is 38 NaN

39 -0.142093

Name: cum_ret16, dtype: float64

##############

difference is 38 NaN

39 -0.145644

Name: cum_ret_cont16, dtype: float64

##############

difference is 38 NaN

39 -0.11173

Name: cum_ret17, dtype: float64

```
-0.116563
      Name: cum_ret_cont17, dtype: float64
      ###############
      difference is 38
                               NaN
          -0.133424
      Name: cum_ret18, dtype: float64
      ###############
      difference is 38
                               NaN
      39
           -0.136349
      Name: cum_ret_cont18, dtype: float64
      ###############
      difference is 38
                               NaN
           -0.148302
      Name: cum_ret19, dtype: float64
      ##############
      difference is 38
                               NaN
      39
          -0.153591
      Name: cum_ret_cont19, dtype: float64
      ###############
      difference is 38
                               NaN
          -0.141165
      Name: cum_ret20, dtype: float64
      ###############
      difference is 38
                               NaN
          -0.148152
      Name: cum_ret_cont20, dtype: float64
      ##############
      difference is 38
                         NaN
      Name: mean_ret_model, dtype: float64
      ##############
      difference is 38
                         NaN
      39
           NaN
      Name: mean_ret_model_cont, dtype: float64
      ##############
      difference is 38
            0.0
      Name: revps, dtype: float64
[116]: del df_temp
[117]: df_temp = df.iloc[52:57].copy()
[118]: df_temp
```

NaN

```
[118]:
          ticker dimension calendardate
                                                date reportperiod lastupdated accoci \
            TFMK
                                                        2016-03-31
                                                                   2021-02-22
                                                                                    0.0
       52
                        ARQ
                              2016-03-31 2016-08-10
       53
            IFMK
                        ARQ
                              2016-03-31 2016-10-19
                                                        2016-03-31
                                                                    2021-02-22
                                                                                    0.0
       54
            IFMK
                        ARQ
                              2016-03-31
                                          2016-11-10
                                                        2016-03-31
                                                                    2021-02-22
                                                                                    0.0
                        ARQ
                              2016-03-31 2016-12-09
                                                        2016-03-31 2021-02-22
       55
            IFMK
                                                                                    0.0
       56
            IFMK
                        ARQ
                              2016-03-31 2016-12-16
                                                        2016-03-31 2021-02-22
                                                                                    0.0
                       assetsavg
               assets
                                      assetsc
                                                   cum_ret_cont19
                                                                   cum_ret20
           28537674.0
       52
                              {\tt NaN}
                                  11040480.0
                                                              NaN
                                                                          NaN
                                                                          NaN
       53
           28537674.0
                              NaN
                                   11040480.0
                                                              NaN
       54
           28537674.0
                                                              NaN
                                                                          NaN
                              {\tt NaN}
                                   11040480.0
       55
           28537674.0
                                   11040480.0
                                                              NaN
                                                                          NaN
                              NaN
           28537674.0
                                   11040480.0
                                                                          NaN
       56
                              NaN
                                                              NaN
           cum_ret_cont20 mean_ret_model
                                            mean_ret_model_cont
                                                                  revps
                                                                          month
       52
                      NaN
                                                                     NaN
                                                                             03
       53
                      NaN
                                       NaN
                                                             NaN
                                                                    NaN
                                                                             03
       54
                      NaN
                                       NaN
                                                             NaN
                                                                    NaN
                                                                             03
       55
                      NaN
                                       NaN
                                                             NaN
                                                                    NaN
                                                                             03
       56
                      NaN
                                       NaN
                                                             NaN
                                                                    NaN
                                                                             03
           14 calendardate
                            14 month
                                       diff
                                  NaN
                                       True
       52
                        NaN
       53
                        NaN
                                  NaN
                                       True
       54
                       NaN
                                  NaN
                                       True
                                  NaN
                                       True
       55
                        NaN
                2016-03-31
                                   03
                                       True
       56
       [5 rows x 161 columns]
[119]: del df temp
[120]: df_temp = df.iloc[71:73]
[121]: df_temp
          ticker dimension calendardate
                                                date reportperiod lastupdated \
[121]:
       71
                              2020-09-30 2020-11-23
                                                        2020-09-30
                                                                    2021-02-22
            IFMK
                        ARQ
       72
            IFMK
                        ARQ
                              2020-09-30 2020-12-22
                                                        2020-09-30 2021-02-22
             accoci
                           assets
                                   assetsavg
                                                  assetsc
                                                              cum ret cont19 \
       71
           255799.0 131438393.0
                                         NaN
                                              31286564.0
                                                                    0.046626
          255799.0
                     131438393.0
                                         NaN
                                              31286564.0 ...
                                                                    0.091765
                      cum_ret_cont20 mean_ret_model mean_ret_model_cont
           cum_ret20
                                                                                 revps
                           -0.044029
                                             0.005795
                                                                   0.002831
       71 -0.043073
                                                                             0.880184
       72
            0.338200
                            0.291325
                                             0.006408
                                                                   0.003449
                                                                              0.880184
```

```
72
              09
                                          12 False
                        2019-12-31
       [2 rows x 161 columns]
[122]: del df_temp
[123]: df[["ticker", "calendardate", "14_calendardate", "month", "14_month", "diff"]].
        →iloc[
           73::
       ]
[123]:
           ticker calendardate 14_calendardate month 14_month
                                                                   diff
                                     2020-03-31
       73
             IFMK
                     2020-12-31
                                                    12
                                                             03
                                                                 False
       74
            IMKTA
                    2012-06-30
                                             NaN
                                                    06
                                                            NaN
                                                                   True
            IMKTA
                                                                   True
       75
                    2012-09-30
                                             NaN
                                                    09
                                                            NaN
       76
            IMKTA
                    2012-12-31
                                             NaN
                                                            NaN
                                                                   True
                                                    12
       77
            IMKTA
                    2013-03-31
                                            NaN
                                                    03
                                                            NaN
                                                                   True
       . .
       380
              WMK
                    2020-03-31
                                     2019-03-31
                                                    03
                                                             03
                                                                   True
                                                                   True
       381
              WMK
                    2020-06-30
                                     2019-06-30
                                                    06
                                                             06
       382
              WMK
                    2020-09-30
                                     2019-09-30
                                                             09
                                                                   True
                                                    09
                                                                   True
       383
              WMK
                    2020-12-31
                                     2019-12-31
                                                    12
                                                             12
       384
              WMK
                    2021-03-31
                                     2020-03-31
                                                    03
                                                             03
                                                                   True
       [312 rows x 6 columns]
[124]: df_temp = df.iloc[147:149]
[125]: df_temp
[125]:
           ticker dimension calendardate
                                                  date reportperiod lastupdated \
       147
             NGVC
                         ARQ
                               2012-09-30
                                           2012-12-13
                                                         2012-09-30
                                                                      2021-05-07
       148
             NGVC
                         ARQ
                               2012-09-30
                                           2012-12-17
                                                         2012-09-30
                                                                      2021-05-07
                                  assetsavg
                                                 assetsc ... cum_ret_cont19 \
            accoci
                          assets
       147 -3696.0
                                             58906723.0
                                                                   -0.091242
                    125661696.0
                                        NaN
       148 -3696.0
                   125661696.0
                                        NaN
                                             58906723.0 ...
                                                                   -0.067572
            cum_ret20
                       cum_ret_cont20 mean_ret_model mean_ret_model_cont
                                                                                 revps \
       147 -0.077399
                             -0.080559
                                                    NaN
                                                                          {\tt NaN}
                                                                              3.78713
       148 -0.048494
                             -0.049709
                                                    NaN
                                                                          NaN 3.78713
            month 14_calendardate 14_month
                                               diff
       147
               09
                                NaN
                                          NaN
                                                True
```

diff

True

09

14_calendardate 14_month

2019-09-30

month

09

71

148 09 NaN NaN True

[2 rows x 161 columns]

```
[126]: del df temp
[127]: df[["ticker", "calendardate", "l4_calendardate", "month", "l4_month", "diff"]].
        →iloc[
           149::
       ]
[127]:
           ticker calendardate 14_calendardate month 14_month
                                                                  diff
       149
             NGVC
                    2012-12-31
                                                   12
                                                            NaN
                                                                  True
                                            NaN
       150
             NGVC
                    2013-03-31
                                     2012-06-30
                                                   03
                                                             06
                                                                False
       151
             NGVC
                    2013-06-30
                                     2012-09-30
                                                   06
                                                             09 False
       152
             NGVC
                    2013-09-30
                                     2012-09-30
                                                   09
                                                             09
                                                                  True
       153
             NGVC
                    2013-12-31
                                     2012-12-31
                                                   12
                                                             12
                                                                  True
                                        ... ...
       . .
              •••
       380
              WMK
                    2020-03-31
                                     2019-03-31
                                                   03
                                                             03
                                                                  True
                                                                  True
       381
              WMK
                    2020-06-30
                                     2019-06-30
                                                   06
                                                             06
       382
              WMK
                    2020-09-30
                                     2019-09-30
                                                   09
                                                             09
                                                                  True
                                                             12
                                                                  True
       383
              WMK
                    2020-12-31
                                     2019-12-31
                                                   12
                                                                  True
       384
              WMK
                    2021-03-31
                                     2020-03-31
                                                   03
                                                             03
       [236 rows x 6 columns]
[128]: df_temp = df.iloc[215:217].copy()
[129]: df_temp
[129]:
                                                 date reportperiod lastupdated \
           ticker dimension calendardate
                                                         2013-09-29
                                                                     2021-05-06
       215
              SFM
                        ARQ
                               2013-09-30
                                           2013-11-07
       216
              SFM
                        ARQ
                               2013-09-30
                                           2013-11-18
                                                         2013-09-29
                                                                     2021-05-06
                                   assetsavg
                                                   assetsc ... cum_ret_cont19
            accoci
                          assets
                    1.181803e+09
                                              239268000.0
                                                                    -0.226584
       215
               0.0
                                         NaN
               0.0 1.181803e+09
       216
                                         NaN
                                              239268000.0 ...
                                                                    -0.170820
            cum ret20 cum ret cont20 mean ret model mean ret model cont
                                                                                  revps \
       215 -0.217735
                             -0.245562
                                                   NaN
                                                                         NaN 4.535955
       216 -0.163531
                             -0.178566
                                                   NaN
                                                                              4.535923
                                                                         {\tt NaN}
            month 14 calendardate 14 month
                                                diff
                                          NaN
                                                True
       215
               09
                                NaN
       216
               09
                        2012-12-31
                                           12 False
       [2 rows x 161 columns]
```

```
[130]: df.iloc[212:217]
[130]:
           ticker dimension calendardate
                                                 date reportperiod lastupdated \
       212
              SFM
                        ARQ
                               2012-12-31
                                           2013-07-22
                                                         2012-12-30
                                                                     2021-05-06
                                                         2013-03-31 2021-05-06
       213
              SFM
                        ARQ
                               2013-03-31
                                           2013-07-29
       214
              SFM
                               2013-06-30
                                           2013-08-23
                                                         2013-06-30 2021-05-06
                        ARQ
       215
              SFM
                               2013-09-30
                                           2013-11-07
                                                         2013-09-29 2021-05-06
                        ARQ
       216
              SFM
                               2013-09-30 2013-11-18
                                                         2013-09-29 2021-05-06
                        ARQ
            accoci
                                                   assetsc
                                                               cum_ret_cont19
                           assets
                                   assetsavg
                   1.103236e+09
       212
               0.0
                                         NaN
                                              203121000.0
                                                                           NaN
       213
               0.0
                    1.145441e+09
                                         NaN
                                              232921000.0
                                                                           NaN
       214
               0.0 1.143735e+09
                                              202382000.0
                                                                     0.081338
                                         NaN
       215
               0.0 1.181803e+09
                                              239268000.0 ...
                                                                    -0.226584
                                         NaN
       216
               0.0 1.181803e+09
                                         {\tt NaN}
                                              239268000.0 ...
                                                                    -0.170820
            cum_ret20 cum_ret_cont20 mean_ret_model mean_ret_model_cont
                                                                                  revps \
       212
                  NaN
                                                    NaN
                                                                                    NaN
                                   {\tt NaN}
                                                                          NaN
       213
                  NaN
                                                    NaN
                                                                               4.554247
                                   NaN
                                                                          NaN
       214
             0.114019
                              0.107974
                                                    NaN
                                                                          \mathtt{NaN}
                                                                               4.941068
                                                                               4.535955
       215 -0.217735
                                                    NaN
                             -0.245562
                                                                          \mathtt{NaN}
       216 -0.163531
                             -0.178566
                                                    NaN
                                                                          NaN 4.535923
            month 14_calendardate 14_month
                                                diff
       212
               12
                                NaN
                                          NaN
                                                True
       213
               03
                                          NaN
                                                True
                                NaN
       214
               06
                                NaN
                                          NaN
                                                True
       215
               09
                                NaN
                                          NaN
                                                True
       216
                         2012-12-31
                                           12 False
               09
       [5 rows x 161 columns]
[131]: del df_temp
[132]: len(df)
[132]: 385
[133]: len(df.groupby(["ticker", "calendardate"], group_keys=False))
[133]: 374
[134]: df_orig = df.copy()
[135]: df.drop_duplicates(subset=["ticker", "calendardate"], keep="first", __
        →inplace=True)
[136]: len(df)
```

19

20

-1000.0

162000000.0

1.060340e+08

3.590500e+10

```
[137]:
       df.head(20)
[137]:
          ticker dimension calendardate
                                                   date reportperiod lastupdated
       0
              ACI
                         ARQ
                               2018-03-31
                                            2018-05-11
                                                           2018-02-24
                                                                        2021-04-28
       1
              ACI
                         ARQ
                                            2018-07-25
                                                           2018-06-16
                                                                        2021-04-28
                               2018-06-30
       2
              ACI
                         ARQ
                               2018-09-30
                                            2018-10-18
                                                           2018-09-08
                                                                        2021-04-28
       3
              ACI
                         ARQ
                               2018-12-31
                                             2019-01-15
                                                           2018-12-01
                                                                        2021-04-28
       4
              ACI
                         ARQ
                               2019-03-31
                                             2019-04-24
                                                           2019-02-23
                                                                        2021-04-28
       5
              ACI
                         ARQ
                               2019-06-30
                                            2019-07-24
                                                           2019-06-15
                                                                        2021-04-28
       6
                         ARQ
              ACI
                               2019-09-30
                                            2019-10-16
                                                                        2021-04-28
                                                           2019-09-07
       7
                         ARQ
              ACI
                               2019-12-31
                                             2020-01-08
                                                           2019-11-30
                                                                        2021-04-28
       8
              ACI
                         ARQ
                               2020-03-31
                                             2020-05-13
                                                           2020-02-29
                                                                        2021-04-28
       10
                         ARQ
                               2020-06-30
                                             2020-08-04
              ACI
                                                           2020-06-20
                                                                        2021-04-28
                         ARQ
       11
              ACI
                               2020-09-30
                                             2020-10-21
                                                           2020-09-12
                                                                        2021-04-28
       12
              ACI
                         ARQ
                               2020-12-31
                                             2021-01-13
                                                           2020-12-05
                                                                        2021-04-28
       13
              ACI
                         ARQ
                               2021-03-31
                                             2021-04-28
                                                           2021-02-27
                                                                        2021-04-28
       14
           ARDNA
                         ARQ
                               2012-06-30
                                             2012-08-03
                                                           2012-06-30
                                                                        2019-06-12
       15
           ARDNA
                         ARQ
                               2012-09-30
                                             2012-11-06
                                                           2012-09-29
                                                                        2019-06-12
       16
           ARDNA
                         ARQ
                               2012-12-31
                                             2013-03-11
                                                           2012-12-29
                                                                        2019-06-12
       17
           ARDNA
                         ARQ
                               2013-03-31
                                            2013-05-08
                                                           2013-03-30
                                                                        2019-06-12
           ARDNA
                         ARQ
       18
                               2013-06-30
                                            2013-08-08
                                                           2013-06-29
                                                                        2019-06-12
       19
           ARDNA
                         ARQ
                               2013-09-30
                                             2013-11-07
                                                           2013-09-28
                                                                        2019-06-12
       20
             ASAI
                         ARQ
                                             2021-01-25
                                                                        2021-04-29
                               2019-12-31
                                                           2019-12-31
                 accoci
                                assets
                                         assetsavg
                                                           assetsc
                                                                        cum_ret_cont19
       0
            191100000.0
                          2.181230e+10
                                                NaN
                                                     6.148600e+09
                                                                                    NaN
       1
            197000000.0
                          2.182020e+10
                                                NaN
                                                     6.488900e+09
                                                                                    NaN
       2
                          2.181680e+10
                                                                                    NaN
            192200000.0
                                                NaN
                                                     6.845700e+09
       3
            192100000.0
                          2.098170e+10
                                                NaN
                                                     6.112600e+09
                                                                                    NaN
       4
                          2.077660e+10
                                                NaN
                                                     6.250000e+09
                                                                                    NaN
             91300000.0
       5
             89400000.0
                          2.498120e+10
                                                NaN
                                                     5.906800e+09
                                                                                    NaN
       6
             80100000.0
                          2.469850e+10
                                                NaN
                                                     5.630600e+09
                                                                                    NaN
       7
             85600000.0
                          2.499160e+10
                                                NaN
                                                     5.979600e+09
                                                                                    NaN
          -118500000.0
                          2.473510e+10
                                                NaN
                                                     5.731300e+09
                                                                                    NaN
          -116800000.0
                          2.598780e+10
                                                NaN
                                                     7.132800e+09
                                                                              -0.032206
          -106400000.0
                          2.646960e+10
                                                NaN
                                                     7.578600e+09
                                                                               0.025301
       12
          -105900000.0
                          2.631930e+10
                                                NaN
                                                     7.444200e+09
                                                                              -0.020680
       13
                          2.659800e+10
                                                     6.988000e+09
             63500000.0
                                                NaN
                                                                               0.049027
                -9000.0
       14
                          1.398360e+08
                                                NaN
                                                     9.679200e+07
                                                                               0.087021
       15
                 1000.0
                          1.464960e+08
                                                NaN
                                                     1.030900e+08
                                                                              -0.000626
       16
                 1000.0
                          9.004700e+07
                                                NaN
                                                     4.731200e+07
                                                                               0.006994
       17
               -10000.0
                          9.680800e+07
                                                NaN
                                                     5.357600e+07
                                                                               0.073369
                          9.747900e+07
                                                     5.212900e+07
       18
                -5000.0
                                                NaN
                                                                               0.009146
```

NaN

NaN

5.502000e+07

1.228200e+10

-0.030257

NaN

	cum_ret20	cum rot cont?0	moon rot model	mean_ret_model_cont	roung	\
^	_	cum_ret_cont20	mean_ret_model		revps	`
0	NaN	NaN	NaN	NaN	NaN	
1	NaN	NaN	NaN	NaN	32.191942	
2	NaN	NaN	NaN	NaN	24.357057	
3	NaN	NaN	NaN	NaN	24.038007	
4	NaN	NaN	NaN	NaN	24.344031	
5	NaN	NaN	NaN	NaN	32.544854	
6	NaN	NaN	NaN	NaN	24.622093	
7	NaN	NaN	NaN	NaN	24.344167	
8	NaN	NaN	NaN	NaN	26.645907	
10	-0.070128	-0.072708	NaN	NaN	40.055634	
11	0.033509	0.032959	NaN	NaN	33.014037	
12	2 -0.028070	-0.028472	NaN	NaN	32.875827	
13	0.038100	0.037393	NaN	NaN	33.687100	
14	0.077603	0.074739	NaN	NaN	35.069684	
15		-0.065178	NaN	NaN	35.216542	
16		0.021236	NaN	NaN	37.760339	
17		0.081251	NaN	NaN	37.009118	
18		0.007802	0.001841	0.001614	36.154673	
19		-0.036467	0.001439	0.001223	36.509606	
20	NaN	NaN	NaN	NaN	NaN	
		711-4 74				

	month	14_calendardate	14_month	diff
0	03	NaN	NaN	True
1	06	NaN	NaN	True
2	09	NaN	NaN	True
3	12	NaN	NaN	True
4	03	2018-03-31	03	True
5	06	2018-06-30	06	True
6	09	2018-09-30	09	True
7	12	2018-12-31	12	True
8	03	2019-03-31	03	True
10	06	2019-09-30	09	False
11	09	2019-12-31	12	False
12	12	2020-03-31	03	False
13	03	2020-03-31	03	True
14	06	NaN	NaN	True
15	09	NaN	NaN	True
16	12	NaN	NaN	True
17	03	NaN	NaN	True
18	06	2012-06-30	06	True
19	09	2012-09-30	09	True
20	12	NaN	NaN	True

[20 rows x 161 columns]

```
[138]: df["month"] = df["calendardate"].apply(lambda x: x[5:7])
       df["14_calendardate"] = df.groupby("ticker")["calendardate"].apply(lambda x: x.
        ⇒shift(4))
[139]: df["14_month"] = df["14_calendardate"].apply(
           lambda x: x[5:7] if type(x) != float else np.nan
       )
[140]: df["diff"] = df.apply(
           lambda x: x["month"] == x["l4_month"] if type(x["l4_month"]) != float else_
        →True,
           axis=1,
[141]: df[["ticker", "calendardate", "l4_calendardate", "month", "l4_month", "diff"]]
[141]:
           ticker calendardate 14_calendardate month 14_month
                                                               diff
              ACI
                    2018-03-31
                                           NaN
                                                  03
                                                                True
       0
              ACI
       1
                    2018-06-30
                                           NaN
                                                  06
                                                           NaN
                                                               True
       2
              ACI
                    2018-09-30
                                           NaN
                                                  09
                                                           NaN True
              ACI
                    2018-12-31
                                                           NaN True
                                           NaN
                                                  12
              ACI
                    2019-03-31
                                    2018-03-31
                                                            03 True
       4
                                                  03
       380
              WMK
                    2020-03-31
                                    2019-03-31
                                                  03
                                                            03 True
                                                            06 True
       381
              WMK
                    2020-06-30
                                    2019-06-30
                                                  06
                                                            09 True
       382
              WMK
                    2020-09-30
                                    2019-09-30
                                                  09
       383
              WMK
                    2020-12-31
                                    2019-12-31
                                                  12
                                                            12 True
       384
              WMK
                    2021-03-31
                                    2020-03-31
                                                  03
                                                            03 True
       [374 rows x 6 columns]
[142]: df["diff"].sum() == len(df)
[142]: False
[143]: (df["diff"] == False).sum()
[143]: 1
[144]: df[df["diff"] == False]
[144]:
          ticker dimension calendardate
                                               date reportperiod lastupdated accoci \
                             2017-12-31 2018-02-14
                                                       2017-12-31 2021-02-22
       60
            IFMK
                       ARQ
                                                                                  0.0
                       assetsavg
                                     assetsc ... cum_ret_cont19
                                                                 cum_ret20 \
               assets
       60 49009898.0
                                                       -0.577604
                                                                 -0.473154
                             NaN 29313593.0
           cum_ret_cont20 mean_ret_model mean_ret_model_cont
                                                                   revps month \
```

60 -0.640848 0.001613 0.000274 2.522179 12

14_calendardate 14_month diff 60 2016-03-31 03 False

[1 rows x 161 columns]

```
[145]: df_orig[df_orig["ticker"] == "IFMK"]
```

[145]:	ticker	dimension	calendardate	date	reportperiod	lastupdated	\
52		ARQ		2016-08-10		-	
53	IFMK	ARQ	2016-03-31	2016-10-19	2016-03-31	2021-02-22	
54	IFMK	ARQ	2016-03-31	2016-11-10	2016-03-31	2021-02-22	
55	IFMK	ARQ	2016-03-31	2016-12-09	2016-03-31	2021-02-22	
56	IFMK	ARQ	2016-03-31	2016-12-16	2016-03-31	2021-02-22	
57	IFMK	ARQ	2017-03-31	2017-06-29	2017-03-31	2021-02-22	
58	IFMK	ARQ	2017-06-30	2017-08-14	2017-06-30	2021-02-22	
59	IFMK	ARQ	2017-09-30	2017-11-14	2017-09-30	2021-02-22	
60	IFMK	ARQ	2017-12-31	2018-02-14	2017-12-31	2021-02-22	
61	IFMK	ARQ	2018-03-31	2018-06-29	2018-03-31	2021-02-22	
62	: IFMK	ARQ	2018-06-30	2018-08-14	2018-06-30	2021-02-22	
63	IFMK	ARQ	2018-09-30	2018-11-14	2018-09-30	2021-02-22	
64	IFMK	ARQ	2018-12-31	2019-02-14	2018-12-31	2021-02-22	
65	IFMK	ARQ	2019-03-31	2019-06-28	2019-03-31	2021-02-22	
66	IFMK	ARQ	2019-06-30	2019-08-14	2019-06-30	2021-02-22	
67	IFMK	ARQ	2019-09-30	2019-11-14	2019-09-30	2021-02-22	
68	IFMK	ARQ	2019-12-31	2020-02-14	2019-12-31	2021-02-22	
69	IFMK	ARQ	2020-03-31	2020-08-13	2020-03-31		
70	IFMK	ARQ	2020-06-30	2020-08-20	2020-06-30	2021-02-22	
71	IFMK	ARQ	2020-09-30	2020-11-23	2020-09-30	2021-02-22	
72		ARQ					
73	IFMK	ARQ	2020-12-31	2021-02-22	2020-12-31	2021-02-22	
	acco		assets assets	-		ret_cont19 \	
52			7674.0	NaN 110404		NaN	
53			7674.0	NaN 110404		NaN	
54			7674.0	NaN 110404		NaN	
55			7674.0	NaN 110404		NaN	
56			7674.0	NaN 110404		NaN	
57			0277.0	NaN 304104		0.158549	
58			3615.0	NaN 316569		0.022386	
59			7970.0	NaN 342255		0.001795	
60			9898.0	NaN 293135		-0.577604	
61			1732.0	NaN 183756		-0.307761	
62			6968.0	NaN 189601		-0.144114	
63			2593.0	NaN 187314		-0.387766	
64	. (5041	1162.0	NaN 211292	63.0 	0.254425	

```
65
          0.0
                47101359.0
                                    NaN
                                          19208627.0
                                                                  0.510826
66
          0.0
               109553000.0
                                    NaN
                                          17610825.0
                                                                 -0.183203
67
          0.0
               104787699.0
                                    NaN
                                          17221726.0
                                                                  0.018495
68
          0.0
               103371975.0
                                    NaN
                                          16939380.0
                                                                  0.711927
          0.0
                                                                 -0.064894
69
                99259161.0
                                    NaN
                                          14034375.0
70
     21560.0
               121348826.0
                                    NaN
                                          24372741.0
                                                                -0.093090
71
    255799.0
                                    NaN
               131438393.0
                                          31286564.0
                                                                  0.046626
72
    255799.0
               131438393.0
                                    NaN
                                          31286564.0
                                                                  0.091765
73
    686815.0
               131621663.0
                                    NaN
                                          32489613.0
                                                                -0.197826
    cum_ret20
                cum_ret_cont20
                                  mean_ret_model
                                                    mean_ret_model_cont
                                                                               revps \
52
           NaN
                             NaN
                                               NaN
                                                                      NaN
                                                                                 NaN
53
           NaN
                             NaN
                                               NaN
                                                                      NaN
                                                                                 NaN
54
           NaN
                             NaN
                                               NaN
                                                                      NaN
                                                                                 NaN
55
           NaN
                             NaN
                                               NaN
                                                                      NaN
                                                                                 NaN
56
           NaN
                             NaN
                                               NaN
                                                                      NaN
                                                                                 NaN
57
     0.164637
                       0.152410
                                               NaN
                                                                      NaN
                                                                                 NaN
     0.026542
                                                                            2.304277
58
                       0.026196
                                               NaN
                                                                      NaN
59
     0.022282
                       0.022038
                                               NaN
                                                                      NaN
                                                                            2.353442
60
    -0.473154
                      -0.640848
                                         0.001613
                                                                0.000274
                                                                            2.522179
                                        -0.001958
                                                               -0.003124
61
    -0.281818
                      -0.331033
                                                                            2.485461
                                                                           2.186142
    -0.184211
                      -0.203599
                                        -0.003527
62
                                                               -0.005912
63
    -0.292857
                      -0.346523
                                        -0.005140
                                                               -0.008867
                                                                            2.058869
64
     0.196262
                       0.179201
                                        -0.006123
                                                               -0.010195
                                                                            1.937805
65
                                        -0.002257
                                                                            2.094834
     0.708333
                       0.535518
                                                               -0.006701
66
    -0.136564
                      -0.146835
                                         0.001372
                                                               -0.002223
                                                                            1.370594
67
     0.000000
                       0.000000
                                        -0.000909
                                                               -0.004722
                                                                            1.191265
68
                                        -0.001089
                                                               -0.004713
     1.725118
                       1.002512
                                                                            1.137293
69
    -0.069223
                      -0.071735
                                         0.001912
                                                               -0.002504
                                                                            1.229547
70
                                                               -0.003795
    -0.088889
                      -0.093090
                                         0.000541
                                                                           0.904427
71
    -0.043073
                      -0.044029
                                         0.005795
                                                                0.002831
                                                                           0.880184
72
     0.338200
                                         0.006408
                                                                0.003449
                                                                            0.880184
                       0.291325
73
    -0.164103
                      -0.179249
                                         0.010688
                                                                0.005858
                                                                           0.847809
            14_calendardate
                               14_month
                                           diff
    month
52
       03
                         NaN
                                    NaN
                                           True
53
       03
                         NaN
                                           True
                                    NaN
54
       03
                         NaN
                                    NaN
                                           True
55
       03
                         NaN
                                    NaN
                                           True
56
                                      03
                                           True
       03
                 2016-03-31
                                           True
57
       03
                  2016-03-31
                                      03
58
       06
                 2016-03-31
                                      03
                                          False
59
       09
                 2016-03-31
                                      03
                                          False
60
       12
                 2016-03-31
                                      0.3
                                          False
       03
                                      03
                                           True
61
                 2017-03-31
62
                                      06
                                           True
       06
                  2017-06-30
63
       09
                 2017-09-30
                                      09
                                           True
```

```
03
                                               True
       65
                        2018-03-31
                                          03
       66
              06
                       2018-06-30
                                          06
                                               True
       67
              09
                       2018-09-30
                                          09
                                               True
       68
              12
                       2018-12-31
                                          12
                                               True
       69
              03
                       2019-03-31
                                          03
                                               True
       70
              06
                       2019-06-30
                                          06
                                               True
       71
              09
                       2019-09-30
                                          09
                                               True
       72
              09
                       2019-12-31
                                          12 False
       73
              12
                       2020-03-31
                                          03 False
       [22 rows x 161 columns]
[146]: df.drop(index=52, axis=0, inplace=True)
[147]: df.reset index(drop=True, inplace=True)
[148]: df["month"] = df["calendardate"].apply(lambda x: x[5:7])
       df["14_calendardate"] = df.groupby("ticker")["calendardate"].apply(lambda x: x.
        →shift(4))
[149]: df["14_month"] = df["14_calendardate"].apply(
           lambda x: x[5:7] if type(x) != float else np.nan
       )
[150]: df["diff"] = df.apply(
           lambda x: x["month"] == x["l4_month"] if type(x["l4_month"]) != float else_\( \)
        →True,
           axis=1,
       )
[151]: df[["ticker", "calendardate", "l4_calendardate", "month", "l4_month", "diff"]]
[151]:
           ticker calendardate 14_calendardate month 14_month diff
              ACI
                    2018-03-31
       0
                                            NaN
                                                    03
                                                            NaN
                                                                 True
              ACI
       1
                    2018-06-30
                                            NaN
                                                    06
                                                            NaN True
       2
              ACI
                    2018-09-30
                                            NaN
                                                    09
                                                            NaN True
       3
              ACI
                    2018-12-31
                                            NaN
                                                    12
                                                            NaN True
       4
              ACI
                    2019-03-31
                                     2018-03-31
                                                    03
                                                             03 True
       368
              WMK
                    2020-03-31
                                     2019-03-31
                                                    03
                                                             03 True
       369
              WMK
                    2020-06-30
                                     2019-06-30
                                                    06
                                                             06 True
       370
              WMK
                    2020-09-30
                                     2019-09-30
                                                    09
                                                             09 True
       371
              WMK
                    2020-12-31
                                     2019-12-31
                                                    12
                                                             12 True
       372
                    2021-03-31
                                     2020-03-31
              WMK
                                                    03
                                                             03 True
```

64

12

[373 rows x 6 columns]

2017-12-31

12

True

```
[152]: df["diff"].sum() == len(df)
[152]: True
[153]: df["d_rev"] = df.groupby("ticker")["revenue"].apply(lambda x: x - x.shift(1))
       df["d_fcf"] = df.groupby("ticker")["fcf"].apply(lambda x: x - x.shift(1))
       df["d_rev_perc"] = df.groupby("ticker")["revenue"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
[154]: df["d_fcf_perc"] = df.groupby("ticker")["fcf"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
       )
[155]: df["d_ni"] = df.groupby("ticker")["netinc"].apply(lambda x: x - x.shift(1))
[156]: df["d_ni_perc"] = df.groupby("ticker")["netinc"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
       )
[157]: df["d_revps"] = df.groupby("ticker")["revps"].apply(lambda x: x - x.shift(1))
       df["d_fcfps"] = df.groupby("ticker")["fcfps"].apply(lambda x: x - x.shift(1))
       df["d_eps"] = df.groupby("ticker")["eps"].apply(lambda x: x - x.shift(1))
       df["d revps perc"] = df.groupby("ticker")["revps"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
       )
[158]: df["d_fcfps_perc"] = df.groupby("ticker")["fcfps"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
       )
[159]: df["d_eps_perc"] = df.groupby("ticker")["eps"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(1))
[160]: df["d_rev_seas"] = df.groupby("ticker")["revenue"].apply(lambda x: x - x.
       \rightarrowshift(4))
       df["d_fcf_seas"] = df.groupby("ticker")["fcf"].apply(lambda x: x - x.shift(4))
       df["d_rev_seas_perc"] = df.groupby("ticker")["revenue"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
       )
[161]: df ["d_fcf_seas_perc"] = df.groupby("ticker")["fcf"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
       )
```

```
[162]: df ["d ni_seas_perc"] = df.groupby("ticker")["netinc"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
       )
[163]: df ["d revps_seas"] = df.groupby("ticker")["revps"].apply(lambda x: x - x.
        ⇒shift(4))
       df["d_fcfps_seas"] = df.groupby("ticker")["fcfps"].apply(lambda x: x - x.
       ⇒shift(4))
       df["d_eps_seas"] = df.groupby("ticker")["eps"].apply(lambda x: x - x.shift(4))
       df["d_revps_seas_perc"] = df.groupby("ticker")["revps"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
[164]: | df ["d_fcfps_seas_perc"] = df.groupby("ticker")["fcfps"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
       )
[165]: df["d_eps_seas_perc"] = df.groupby("ticker")["eps"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
[166]: df["d_ebitda"] = df.groupby("ticker")["ebitda"].apply(lambda x: x - x.shift(1))
       df["d_ebitda_seas"] = df.groupby("ticker")["ebitda"].apply(lambda x: x - x.
        ⇒shift(4))
       df["d_ebitda_perc"] = df.groupby("ticker")["ebitda"].apply(
           lambda x: (x - x.shift(1)) / abs(x.shift(4))
[167]: df ["d ebitda_seas_perc"] = df.groupby("ticker")["ebitda"].apply(
           lambda x: (x - x.shift(4)) / abs(x.shift(4))
[168]: df[
           Γ
               "ticker",
               "date",
               "revenue",
               "d rev",
               "d_rev_seas",
               "fcf",
               "d_fcf",
               "d_fcf_seas",
               "eps",
               "d_eps",
               "d_eps_seas",
       ][df["ticker"] == "NGVC"]
```

```
ticker
[168]:
                          date
                                                    d_rev
                                                            d_rev_seas
                                                                                fcf
                                     revenue
       137
             NGVC
                    2012-07-20
                                  86706603.0
                                                      NaN
                                                                    {\tt NaN}
                                                                                NaN
       138
             NGVC
                    2012-12-13
                                  89932891.0
                                                3226288.0
                                                                    NaN
                                                                         -4572491.0
       139
             NGVC
                    2013-01-31
                                  95831348.0
                                                5898457.0
                                                                         -6483240.0
                                                                    NaN
       140
             NGVC
                    2013-05-09
                                 106484819.0
                                               10653471.0
                                                                   NaN
                                                                          -488398.0
       141
             NGVC
                    2013-08-07
                                 113164186.0
                                                6679367.0
                                                                         -3742572.0
                                                            26457583.0
       142
             NGVC
                    2013-12-12
                                 115174647.0
                                                2010461.0
                                                            25241756.0
                                                                          1728210.0
       143
             NGVC
                    2014-01-30
                                 120580000.0
                                                5405353.0
                                                            24748652.0
                                                                         -2374000.0
       144
             NGVC
                    2014-05-01
                                 130343000.0
                                                9763000.0
                                                            23858181.0
                                                                           169000.0
       145
             NGVC
                    2014-07-31
                                 134036000.0
                                                3693000.0
                                                            20871814.0
                                                                         -1240000.0
       146
             NGVC
                    2014-12-11
                                 135715000.0
                                                1679000.0
                                                            20540353.0
                                                                         -1318000.0
       147
             NGVC
                    2015-01-29
                                 145887000.0
                                               10172000.0
                                                            25307000.0
                                                                          -662000.0
       148
             NGVC
                    2015-05-07
                                 157744000.0
                                               11857000.0
                                                            27401000.0
                                                                          9038000.0
       149
             NGVC
                    2015-07-30
                                                 906000.0
                                 158650000.0
                                                            24614000.0
                                                                         -3949000.0
       150
             NGVC
                    2015-12-10
                                 162397000.0
                                                3747000.0
                                                            26682000.0
                                                                          -161000.0
       151
             NGVC
                    2016-01-28
                                 167786000.0
                                                5389000.0
                                                            21899000.0
                                                                          -675000.0
       152
             NGVC
                    2016-05-05
                                 177395000.0
                                                9609000.0
                                                            19651000.0
                                                                         -4966000.0
       153
             NGVC
                    2016-07-28
                                 179274000.0
                                                1879000.0
                                                            20624000.0 -12917000.0
       154
             NGVC
                    2016-12-08
                                 181044000.0
                                                1770000.0
                                                            18647000.0
                                                                         -6355000.0
       155
             NGVC
                    2017-02-02
                                 183577000.0
                                                2533000.0
                                                            15791000.0
                                                                          3601000.0
       156
             NGVC
                    2017-05-04
                                 192203000.0
                                                8626000.0
                                                            14808000.0
                                                                         -2191000.0
             NGVC
       157
                    2017-08-03
                                 194709000.0
                                                2506000.0
                                                            15435000.0
                                                                           284000.0
       158
             NGVC
                    2017-12-07
                                 198541000.0
                                                3832000.0
                                                            17497000.0
                                                                           656000.0
       159
             NGVC
                    2018-02-01
                                 202480000.0
                                                3939000.0
                                                            18903000.0
                                                                          6085000.0
       160
             NGVC
                    2018-05-03
                                 215911000.0
                                               13431000.0
                                                            23708000.0
                                                                          5128000.0
             NGVC
                    2018-08-02
                                 213130000.0
                                               -2781000.0
       161
                                                            18421000.0
                                                                          2454000.0
       162
             NGVC
                    2018-12-06
                                 217521000.0
                                                4391000.0
                                                            18980000.0
                                                                          5513000.0
       163
             NGVC
                    2019-02-07
                                 221515000.0
                                                3994000.0
                                                            19035000.0
                                                                         -3984000.0
       164
             NGVC
                    2019-05-02
                                 230447000.0
                                                8932000.0
                                                            14536000.0
                                                                          9725000.0
       165
             NGVC
                    2019-08-01
                                 224411000.0
                                               -6036000.0
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                                                                          2570000.0
       166
             NGVC
                    2019-12-05
                                 227209000.0
                                                2798000.0
                                                             9688000.0
                                                                          -123000.0
       167
             NGVC
                    2020-02-06
                                 230030000.0
                                                2821000.0
                                                             8515000.0
                                                                          -502000.0
       168
             NGVC
                    2020-05-07
                                 277524000.0
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                                                            47077000.0
                                                                         35103000.0
       169
             NGVC
                    2020-08-06
                                 265110000.0 -12414000.0
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                                                                          3579000.0
       170
             NGVC
                    2020-12-10
                                 264178000.0
                                                -932000.0
                                                            36969000.0
                                                                          1571000.0
       171
             NGVC
                    2021-02-04
                                 265045000.0
                                                 867000.0
                                                            35015000.0
                                                                          9070000.0
       172
                                 259198000.0
             NGVC
                    2021-05-06
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                                                                          -438000.0
                         d_fcf_seas
                  d_fcf
                                              d_eps
                                                     d_eps_seas
                                         eps
       137
                    NaN
                                      0.101
                                                NaN
                                 NaN
                                                             NaN
       138
                                      0.041 -0.060
                                                             NaN
                    NaN
                                 NaN
       139
                                      0.100
                                             0.059
                                                             NaN
            -1910749.0
                                 NaN
       140
             5994842.0
                                      0.140 0.040
                                                             NaN
                                 NaN
                                      0.130 -0.010
                                                           0.029
       141
            -3254174.0
                                 NaN
                                                           0.059
       142
             5470782.0
                          6300701.0
                                      0.100 -0.030
       143
            -4102210.0
                           4109240.0
                                      0.130
                                             0.030
                                                           0.030
       144
              2543000.0
                            657398.0
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                                             0.050
                                                           0.040
```

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146
                                                      0.040
             -78000.0 -3046210.0 0.140 -0.010
      147
              656000.0
                        1712000.0 0.160 0.020
                                                      0.030
      148
            9700000.0
                        8869000.0 0.240 0.080
                                                      0.060
      149 -12987000.0 -2709000.0 0.190 -0.050
                                                      0.040
      150
            3788000.0
                        1157000.0 0.130 -0.060
                                                     -0.010
                         -13000.0 0.170 0.040
      151
            -514000.0
                                                      0.010
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                                                     -0.080
      153
          -7951000.0
                       -8968000.0 0.120 -0.040
                                                     -0.070
      154
            6562000.0
                       -6194000.0 0.070 -0.050
                                                     -0.060
      155
            9956000.0
                        4276000.0 0.090 0.020
                                                     -0.080
                        2775000.0 0.130 0.040
                                                     -0.030
      156 -5792000.0
      157
            2475000.0 13201000.0 0.030 -0.100
                                                     -0.090
      158
             372000.0
                        7011000.0 0.060 0.030
                                                     -0.010
      159
                        2484000.0 0.230 0.170
            5429000.0
                                                      0.140
      160
            -957000.0
                        7319000.0 0.150 -0.080
                                                      0.020
      161
                        2170000.0 0.090 -0.060
          -2674000.0
                                                      0.060
      162
            3059000.0
                        4857000.0 0.100 0.010
                                                      0.040
      163 -9497000.0 -10069000.0 0.100 0.000
                                                     -0.130
      164 13709000.0
                        4597000.0 0.170 0.070
                                                      0.020
      165
           -7155000.0
                         116000.0 0.090 -0.080
                                                      0.000
          -2693000.0 -5636000.0 0.060 -0.030
      166
                                                     -0.040
      167
            -379000.0
                        3482000.0 0.080 0.020
                                                     -0.020
      168 35605000.0 25378000.0 0.430 0.350
                                                      0.260
                         1009000.0 0.210 -0.220
      169 -31524000.0
                                                      0.120
      170
          -2008000.0
                        1694000.0 0.170 -0.040
                                                      0.110
      171
            7499000.0
                        9572000.0 0.160 -0.010
                                                      0.080
      172 -9508000.0 -35541000.0 0.210 0.050
                                                     -0.220
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           "calendardate",
           "datekey",
           "date",
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           "cum ret1",
           "cum ret2",
           "cum_ret3",
           "cum_ret4",
           "cum_ret5",
           "cum_ret6",
           "cum_ret7",
           "cum_ret8",
           "cum_ret9",
           "cum_ret10",
           "cum_ret11",
           "cum_ret12",
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2502572.0 0.150 -0.030

0.020

145 -1409000.0

```
"cum_ret13",
"cum ret14".
"cum_ret15",
"cum_ret16",
"cum_ret17",
"cum_ret18",
"cum ret19",
"cum_ret20",
"mean_ret_model",
"cum_ret_cont0",
"cum ret cont1",
"cum_ret_cont2",
"cum_ret_cont3",
"cum_ret_cont4",
"cum_ret_cont5",
"cum_ret_cont6",
"cum_ret_cont7",
"cum_ret_cont8",
"cum_ret_cont9",
"cum_ret_cont10",
"cum_ret_cont11",
"cum_ret_cont12",
"cum_ret_cont13",
"cum ret cont14",
"cum_ret_cont15",
"cum_ret_cont16",
"cum_ret_cont17",
"cum_ret_cont18",
"cum_ret_cont19",
"cum_ret_cont20",
"mean_ret_model_cont",
"revenue",
"d_rev",
"d_rev_perc",
"d_rev_seas",
"d_rev_seas_perc",
"revps",
"d_revps",
"d_revps_perc",
"d_revps_seas",
"d_revps_seas_perc",
"fcfps",
"d_fcf",
"d_fcf_perc",
"d_fcf_seas",
"d_fcf_seas_perc",
"d_fcfps",
```

```
"d_fcfps_perc",
            "d_fcfps_seas",
            "d_fcfps_seas_perc",
            "netinc",
            "shareswa",
            "d_ni",
            "d_ni_perc",
            "d_ni_seas_perc",
            "eps",
            "d_eps",
            "d_eps_perc",
            "d_eps_seas",
            "d_eps_seas_perc",
            "ebitda",
            "d_ebitda",
            "d_ebitda_perc",
            "d_ebitda_seas",
            "d_ebitda_seas_perc",
            "dps",
            "fcf",
            "roic",
            "gp",
            "opinc",
            "ros",
            "assetturnover",
            "payoutratio",
            "pe1",
            "pb",
            "divyield",
       ]
[170]: df_tot = df[variables].copy()
[171]: df_tot.head()
[171]:
         ticker calendardate
                                                    date cum_ret0
                                                                     cum_ret1 cum_ret2 \
                                    datekey
       0
             ACI
                   2018-03-31 2018-05-11
                                             2018-05-11
                                                                NaN
                                                                           NaN
                                                                                      NaN
                   2018-06-30 2018-07-25
                                             2018-07-25
       1
             ACI
                                                                {\tt NaN}
                                                                           NaN
                                                                                      NaN
       2
             ACI
                   2018-09-30 2018-10-18
                                             2018-10-18
                                                                {\tt NaN}
                                                                           NaN
                                                                                      NaN
       3
                   2018-12-31
             ACI
                                2019-01-15
                                             2019-01-15
                                                                NaN
                                                                           NaN
                                                                                      NaN
       4
             ACI
                   2019-03-31 2019-04-24
                                             2019-04-24
                                                                NaN
                                                                           NaN
                                                                                      NaN
          cum_ret3 cum_ret4 cum_ret5 ...
                                                       fcf roic
                                                                              gp
                                                                                 \
       0
                {\tt NaN}
                           NaN
                                      NaN ...
                                                       {\tt NaN}
                                                              NaN
                                                                             NaN
                                                                   5.170700e+09
       1
                NaN
                           NaN
                                      NaN ... 599400000.0
                                                              {\tt NaN}
       2
                NaN
                           NaN
                                      {\tt NaN}
                                              470100000.0
                                                                   3.812800e+09
                                                              {\tt NaN}
       3
                                          ... -388000000.0
                NaN
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                                      {\tt NaN}
                                                              {\tt NaN}
                                                                   3.852400e+09
```

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4.058700e+09
       4
               NaN
                          NaN
                                     NaN ...
                                             895800000.0
                                                            NaN
                opinc
                        ros
                             assetturnover
                                             payoutratio
                                                           pe1
                                                                pb
                                                                     divyield
       0
                   NaN
                        NaN
                                        NaN
                                                      NaN
                                                           NaN NaN
                                                                          NaN
          193100000.0
                        NaN
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                                                      NaN
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       1
                                                           NaN NaN
       2
          131400000.0
                        NaN
                                        NaN
                                                      NaN
                                                           NaN NaN
                                                                          NaN
       3
          174400000.0
                        NaN
                                        NaN
                                                      NaN
                                                           NaN NaN
                                                                          NaN
          288400000.0
                        NaN
                                        NaN
                                                      NaN
                                                           NaN NaN
                                                                          NaN
       [5 rows x 93 columns]
[172]: len(df_tot)
[172]: 373
       df_tot[df_tot["ticker"] == "NGVC"]
[173]:
           ticker calendardate
                                     datekey
                                                     date
                                                           cum ret0
                                                                      cum ret1
                                                                                cum ret2
             NGVC
                     2012-06-30
                                 2012-07-20
                                              2012-07-20
                                                                                      NaN
       137
                                                                NaN
                                                                           NaN
       138
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             NGVC
                                                                      0.010827
                     2012-12-31
                                  2013-01-31
                                              2013-01-31
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                     2013-03-31
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                                              2013-05-09
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                                                                0.0
       141
                                                                0.0 -0.027119 -0.013842
             NGVC
                     2013-06-30
                                 2013-08-07
                                              2013-08-07
       142
             NGVC
                                                                      0.021613
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                                  2013-12-12
                                              2013-12-12
                                                                 0.0
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             NGVC
                     2013-12-31
                                  2014-01-30
                                              2014-01-30
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                                                                                0.133095
                                                                0.0 0.025281 -0.349719
       144
             NGVC
                     2014-03-31
                                  2014-05-01
                                              2014-05-01
       145
             NGVC
                     2014-06-30
                                  2014-07-31
                                                                0.0 -0.050251 -0.133585
                                              2014-07-31
       146
             NGVC
                     2014-09-30
                                 2014-12-11
                                              2014-12-11
                                                                0.0 0.033792
                                                                               0.018861
       147
             NGVC
                     2014-12-31
                                  2015-01-29
                                              2015-01-29
                                                                0.0 0.014255
                                                                                0.097648
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             NGVC
                     2015-03-31
                                 2015-05-07
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                                              2015-05-07
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                                 2015-07-30
                                              2015-07-30
                                                                 0.0 -0.034096 0.199641
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             NGVC
                                 2015-12-10
                                                                0.0 0.003481 -0.000995
                     2015-09-30
                                              2015-12-10
       151
             NGVC
                     2015-12-31
                                 2016-01-28
                                              2016-01-28
                                                                     0.002903 -0.128689
       152
             NGVC
                     2016-03-31
                                  2016-05-05
                                              2016-05-05
                                                                0.0 0.010695
                                                                                0.025974
                                                                0.0 -0.025204
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                                 2016-07-28
                                              2016-07-28
                                                                                0.014826
       154
             NGVC
                     2016-09-30
                                 2016-12-08
                                              2016-12-08
                                                                0.0 0.022241
                                                                                0.058169
       155
             NGVC
                     2016-12-31
                                  2017-02-02
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                                              2017-02-02
       156
             NGVC
                     2017-03-31
                                 2017-05-04
                                              2017-05-04
                                                                     0.009346 -0.074766
       157
             NGVC
                     2017-06-30
                                 2017-08-03
                                                                0.0 -0.012776 -0.346109
                                              2017-08-03
       158
             NGVC
                     2017-09-30
                                  2017-12-07
                                              2017-12-07
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       159
             NGVC
                     2017-12-31
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                                              2018-02-01
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                                              2018-08-02
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                     2019-03-31
                                 2019-05-02
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                     2019-06-30
                                  2019-08-01
                                              2019-08-01
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166
      NGVC
             2019-09-30
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                                      2019-12-05
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      NGVC
167
                          2020-02-06
                                      2020-02-06
                                                        0.0 -0.011765 -0.051337
             2019-12-31
168
      NGVC
             2020-03-31
                          2020-05-07
                                       2020-05-07
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      NGVC
             2020-06-30
                          2020-08-06
                                      2020-08-06
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170
      NGVC
                                                        0.0 0.021014 -0.028261
             2020-09-30
                          2020-12-10
                                      2020-12-10
171
      NGVC
             2020-12-31
                          2021-02-04
                                      2021-02-04
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      NGVC
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             2021-03-31
                                      2021-05-06
     cum ret3
               cum ret4
                          cum ret5
                                               fcf
                                                    roic
                                                                   gp
137
          NaN
                     NaN
                               NaN
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                                                           25399631.0
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     0.010836
               0.041796
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    0.151189
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    0.268428
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                          0.376912
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                                        -3984000.0
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    0.083059
                                                          62214000.0
               0.055099 -0.019737
164
                                        9725000.0
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165
    0.282443
               0.171210
                         0.125409
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                                                          58968000.0
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167 -0.049198 -0.050267 -0.053476
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              0.002472 -0.008653
                                        9070000.0
                                                     NaN
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172 -0.222637 -0.253731 -0.277985
                                        -438000.0
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                                    NaN
146
      5616000.0
                   NaN
                                    NaN
                                                 0.000
                                                        43.850
                                                                   5.985
                                                                              0.000
147
       6441000.0
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149
      7234000.0
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                                                                   4.303
                                                                              0.000
150
      5571000.0
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                                    NaN
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                                                        28.028
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      6694000.0
                   NaN
                                                 0.000
                                                        28.397
                                                                   3.904
                                                                              0.000
                                    NaN
152
       6449000.0
                   NaN
                                    NaN
                                                 0.000
                                                        20.354
                                                                   2.416
                                                                              0.000
153
       4015000.0
                                                 0.000
                                                        22.672
                                                                   2.349
                   NaN
                                    NaN
                                                                              0.000
154
       3221000.0
                   NaN
                                    NaN
                                                 0.000
                                                        23.431
                                                                   2.117
                                                                              0.000
155
      4166000.0
                   NaN
                                                 0.000
                                                        29.477
                                                                   2.258
                                                                              0.000
                                    NaN
156
      5515000.0
                   NaN
                                    NaN
                                                 0.000
                                                        26.341
                                                                   1.836
                                                                              0.000
157
       1678000.0
                   NaN
                                    {\tt NaN}
                                                 0.000
                                                        26.562
                                                                   1.437
                                                                              0.000
                                                        27.355
158
      2739000.0
                   NaN
                                    NaN
                                                 0.000
                                                                   1.415
                                                                              0.000
159
       2193000.0
                                                                              0.000
                   NaN
                                    {\tt NaN}
                                                 0.000
                                                        20.067
                                                                   1.456
160
      5646000.0
                   NaN
                                    NaN
                                                 0.000
                                                         14.681
                                                                   1.085
                                                                              0.000
161
                                                        25.377
       3758000.0
                   NaN
                                    NaN
                                                 0.000
                                                                   2.083
                                                                              0.000
162
       3456000.0
                   NaN
                                    NaN
                                                 0.000
                                                        31.509
                                                                   2.741
                                                                              0.000
                                                                              0.000
163
      4036000.0
                   NaN
                                    NaN
                                                 0.000
                                                        31.818
                                                                   2.103
164
       6121000.0
                   NaN
                                    NaN
                                                 0.000
                                                        26.783
                                                                   1.805
                                                                              0.000
165
      3835000.0
                   NaN
                                    NaN
                                                 0.000
                                                         19.957
                                                                   1.327
                                                                              0.000
166
       2774000.0
                   NaN
                                                        21.738
                                                                   1.308
                                                                              0.008
                                    NaN
                                                 1.167
167
      2848000.0
                   NaN
                                    NaN
                                                 0.000
                                                        23.100
                                                                   1.306
                                                                              0.008
168
                                                         16.485
     13257000.0
                   NaN
                                    NaN
                                                 0.163
                                                                   1.463
                                                                              0.013
169
       6686000.0
                   NaN
                                    NaN
                                                 0.333
                                                         20.590
                                                                   2.120
                                                                              0.013
170
      4958000.0
                   NaN
                                    NaN
                                                12.176
                                                        15.831
                                                                   1.837
                                                                              0.162
171
      5202000.0
                   NaN
                                    NaN
                                                12.938
                                                         16.979
                                                                   2.857
                                                                              0.138
172
       6706000.0
                   NaN
                                                 0.333
                                                        21.267
                                                                   2.702
                                                                              0.143
                                    NaN
```

[36 rows x 93 columns]

```
[174]: df_tot.to_excel("Cum_Ret_Rec.xlsx", index=False)

[175]: perc_vars = [
    "ticker",
    "calendardate",
    "datekey",
    "date",
    "cum_ret0",
```

```
"cum_ret1",
"cum_ret2",
"cum_ret3",
"cum_ret4",
"cum_ret5",
"cum_ret6",
"cum ret7",
"cum_ret8",
"cum ret9",
"cum ret10",
"cum ret11",
"cum_ret12",
"cum_ret13",
"cum_ret14",
"cum ret15".
"cum_ret16",
"cum_ret17",
"cum_ret18",
"cum_ret19",
"cum_ret20",
"mean_ret_model",
"cum_ret_cont0",
"cum_ret_cont1",
"cum_ret_cont2",
"cum_ret_cont3",
"cum_ret_cont4",
"cum_ret_cont5",
"cum_ret_cont6",
"cum_ret_cont7",
"cum_ret_cont8",
"cum_ret_cont9",
"cum_ret_cont10",
"cum_ret_cont11",
"cum_ret_cont12",
"cum_ret_cont13",
"cum_ret_cont14",
"cum_ret_cont15",
"cum_ret_cont16",
"cum ret cont17",
"cum_ret_cont18",
"cum_ret_cont19",
"cum_ret_cont20",
"mean_ret_model_cont",
"revenue",
"d_rev",
"d_rev_perc",
"d_rev_seas",
```

```
"d_rev_seas_perc",
            "revps",
            "d_revps",
            "d_revps_perc",
           "d_revps_seas",
           "d_revps_seas_perc",
           "fcfps",
           "d_fcf",
           "d_fcf_perc",
           "d_fcf_seas",
           "d_fcf_seas_perc",
           "d_fcfps",
           "d_fcfps_perc",
           "d_fcfps_seas",
           "d_fcfps_seas_perc",
           "d_ni",
           "d_ni_perc",
            "d_ni_seas_perc",
           "eps",
           "d_eps",
            "d_eps_perc",
           "d_eps_seas",
           "d_eps_seas_perc",
           "ebitda",
            "d ebitda",
           "d ebitda perc",
           "d_ebitda_seas",
           "d_ebitda_seas_perc",
       ]
[176]: df_perc_vars = df[perc_vars].copy()
[177]: len(df_perc_vars)
[177]: 373
[178]: df_perc_vars.replace([np.inf, -np.inf], np.nan, inplace=True)
[179]: df_perc_vars.head(20)
[179]:
          ticker calendardate
                                    datekey
                                                    date
                                                          cum ret0
                                                                     cum_ret1
                                                                                cum ret2 \
              ACI
                    2018-03-31 2018-05-11 2018-05-11
                                                                           NaN
       0
                                                                NaN
                                                                                     NaN
             ACI
       1
                    2018-06-30
                                 2018-07-25 2018-07-25
                                                                {\tt NaN}
                                                                           NaN
                                                                                     NaN
       2
             ACI
                    2018-09-30
                                 2018-10-18 2018-10-18
                                                                {\tt NaN}
                                                                           {\tt NaN}
                                                                                     NaN
       3
             ACI
                    2018-12-31
                                 2019-01-15 2019-01-15
                                                                NaN
                                                                           {\tt NaN}
                                                                                     NaN
       4
             ACI
                    2019-03-31 2019-04-24 2019-04-24
                                                                NaN
                                                                           {\tt NaN}
                                                                                     NaN
       5
             ACI
                    2019-06-30 2019-07-24 2019-07-24
                                                                NaN
                                                                           {\tt NaN}
                                                                                     NaN
```

```
6
      ACI
             2019-09-30
                          2019-10-16
                                        2019-10-16
                                                           NaN
                                                                      NaN
                                                                                  NaN
7
      ACI
             2019-12-31
                           2020-01-08
                                        2020-01-08
                                                           NaN
                                                                      NaN
                                                                                  NaN
8
      ACI
             2020-03-31
                           2020-05-13
                                        2020-05-13
                                                           NaN
                                                                      NaN
                                                                                  NaN
9
      ACI
             2020-06-30
                           2020-08-04
                                        2020-08-04
                                                           0.0
                                                                 0.023601
                                                                            0.043156
10
      ACI
                                                               -0.015769 -0.034166
             2020-09-30
                           2020-10-21
                                        2020-10-21
                                                           0.0
11
      ACI
             2020-12-31
                           2021-01-13
                                        2021-01-13
                                                           0.0
                                                                 0.001170
                                                                            0.021053
12
      ACI
             2021-03-31
                           2021-04-28
                                        2021-04-28
                                                           0.0
                                                                 0.033131
                                                                            0.066262
13
    ARDNA
             2012-06-30
                           2012-08-03
                                        2012-08-03
                                                           0.0
                                                                 0.060654
                                                                            0.071429
    ARDNA
14
             2012-09-30
                           2012-11-06
                                        2012-11-06
                                                           0.0
                                                                 0.005736 -0.001356
15
    ARDNA
             2012-12-31
                           2013-03-11
                                        2013-03-11
                                                           0.0
                                                                 0.032448
                                                                            0.042620
    ARDNA
16
             2013-03-31
                           2013-05-08
                                        2013-05-08
                                                           0.0
                                                                 0.011151
                                                                            0.012063
17
    ARDNA
                           2013-08-08
                                                           0.0
                                                                 0.002410 -0.002862
             2013-06-30
                                        2013-08-08
18
    ARDNA
             2013-09-30
                           2013-11-07
                                        2013-11-07
                                                           0.0 -0.003466
                                                                            0.005006
19
     ASAI
             2019-12-31
                           2021-01-25
                                        2021-01-25
                                                           NaN
                                                                      NaN
                                                                                  NaN
    cum_ret3
               cum_ret4
                           cum_ret5
                                          eps
                                                d_eps
                                                        d_eps_perc
                                                                     d_eps_seas
0
          NaN
                     NaN
                                NaN
                                          NaN
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                                                                NaN
                                                                             NaN
                                      ...
1
          NaN
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4
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5
          NaN
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6
          NaN
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7
          NaN
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                                                                NaN
                                                                             NaN
8
          NaN
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                                NaN
                                          NaN
                                                  NaN
                                                                NaN
                                                                             NaN
9
    0.029670
               0.035064
                          0.036413
                                         1.03
                                                  NaN
                                                                NaN
                                                                             NaN
10
   -0.025624 -0.027595
                         -0.021682
                                         0.52
                                                -0.51
                                                         -0.495146
                                                                             NaN
11
    0.011111
               0.040351
                          0.013450
                                         0.21
                                                -0.31
                                                         -0.596154
                                                                             NaN
                          0.014909
                                                -0.46
12
    0.025400
               0.040861
                                        -0.25
                                                         -2.190476
                                                                             NaN
13
    0.074334
               0.077482
                          0.068039
                                         1.59
                                                  NaN
                                                                NaN
                                                                             NaN
14
    0.001252
               0.027326 -0.001877
                                         1.65
                                                 0.06
                                                          0.037736
                                                                             NaN
15
                          0.012105
                                         1.96
                                                 0.31
    0.041196
               0.052792
                                                          0.187879
                                                                             NaN
16
    0.012063
               0.012063
                          0.018246
                                         1.42
                                                -0.54
                                                         -0.275510
                                                                             NaN
   -0.004368 -0.004820
                         -0.004820
                                         1.58
                                                 0.16
                                                          0.112676
                                                                           -0.01
                         -0.021486
                                                -0.37
    0.001078 -0.001155
                                                                           -0.44
18
                                         1.21
                                                         -0.234177
19
          NaN
                     NaN
                                NaN
                                          NaN
                                                  NaN
                                                                             NaN
                                                                NaN
                              ebitda
                                          d_ebitda
                                                     d_ebitda_perc
                                                                      d_ebitda_seas
    d_eps_seas_perc
0
                                                NaN
                                                                 NaN
                                                                                  NaN
                  NaN
                                 NaN
1
                 NaN
                       7.705000e+08
                                                NaN
                                                                 NaN
                                                                                  NaN
2
                 NaN
                       5.532000e+08
                                      -217300000.0
                                                                 NaN
                                                                                  NaN
3
                 NaN
                       5.948000e+08
                                        41600000.0
                                                                 NaN
                                                                                  NaN
4
                 NaN
                       7.033000e+08
                                       108500000.0
                                                                 NaN
                                                                                  NaN
                                       265200000.0
5
                       9.685000e+08
                                                           0.344192
                                                                         198000000.0
                 NaN
6
                       1.061600e+09
                                        93100000.0
                                                                         508400000.0
                 NaN
                                                           0.168294
7
                  NaN
                       7.367000e+08
                                     -324900000.0
                                                          -0.546234
                                                                         141900000.0
8
                  NaN
                       7.920000e+08
                                        55300000.0
                                                           0.078629
                                                                          88700000.0
```

```
9
                         {\tt NaN}
                               1.605200e+09 813200000.0
                                                                   0.839649
                                                                                 636700000.0
       10
                          NaN
                               1.005900e+09 -599300000.0
                                                                  -0.564525
                                                                                 -55700000.0
       11
                         NaN
                               7.666000e+08 -239300000.0
                                                                  -0.324827
                                                                                  29900000.0
       12
                               4.076000e+08 -359000000.0
                                                                  -0.453283
                         {\tt NaN}
                                                                                -384400000.0
       13
                         {\tt NaN}
                               9.540000e+06
                                                                         NaN
                                                                                          NaN
                                                        NaN
       14
                         {\tt NaN}
                               9.793000e+06
                                                  253000.0
                                                                         NaN
                                                                                          NaN
       15
                               1.115500e+07
                                                 1362000.0
                                                                                          NaN
                         {\tt NaN}
                                                                         NaN
       16
                         {\tt NaN}
                               8.531000e+06
                                                -2624000.0
                                                                         NaN
                                                                                          NaN
       17
                               9.360000e+06
                                                  829000.0
                                                                                   -180000.0
                   -0.006289
                                                                   0.086897
       18
                   -0.266667
                               7.523000e+06
                                                -1837000.0
                                                                  -0.187583
                                                                                  -2270000.0
       19
                          NaN
                                         NaN
                                                        NaN
                                                                         NaN
                                                                                          NaN
            d_ebitda_seas_perc
       0
                             NaN
       1
                             NaN
       2
                             NaN
       3
                             NaN
       4
                             NaN
       5
                       0.256976
       6
                       0.919017
       7
                       0.238568
       8
                       0.126120
       9
                       0.657408
       10
                      -0.052468
       11
                       0.040586
       12
                      -0.485354
       13
                             NaN
       14
                             NaN
       15
                             NaN
       16
                             NaN
       17
                      -0.018868
       18
                      -0.231798
       19
                             NaN
       [20 rows x 80 columns]
[180]: (df_perc_vars["cum_ret0"] == 0).sum()
[180]: 356
[181]: df_perc_vars["cum_ret0"].describe()
[181]: count
                  356.0
       mean
                    0.0
       std
                    0.0
```

min

25%

0.0

0.0

```
50%
                  0.0
       75%
                   0.0
       max
                   0.0
       Name: cum_ret0, dtype: float64
      df_perc_vars = df_perc_vars[df_perc_vars["cum_ret0"] == 0]
[182]:
[183]: len(df_perc_vars)
[183]: 356
[184]: df_perc_vars.head()
[184]:
          ticker calendardate
                                   datekey
                                                   date
                                                          cum_ret0
                                                                    cum_ret1 cum_ret2
                    2020-06-30
             ACI
                                2020-08-04
                                             2020-08-04
                                                               0.0
                                                                    0.023601
                                                                               0.043156
       10
             ACI
                                2020-10-21
                                                               0.0 -0.015769 -0.034166
                    2020-09-30
                                             2020-10-21
       11
             ACI
                    2020-12-31
                                2021-01-13
                                             2021-01-13
                                                               0.0
                                                                    0.001170
                                                                               0.021053
             ACI
       12
                    2021-03-31
                                2021-04-28
                                             2021-04-28
                                                               0.0
                                                                    0.033131
                                                                               0.066262
       13
           ARDNA
                    2012-06-30
                                2012-08-03
                                             2012-08-03
                                                               0.0
                                                                    0.060654
                                                                               0.071429
           cum_ret3 cum_ret4
                                cum_ret5
                                                            d_eps_perc
                                                                        d_eps_seas
                                               eps
                                                    d_eps
           0.029670
                     0.035064
                                0.036413
                                              1.03
                                                      NaN
                                                                   NaN
                                                                                NaN
       10 -0.025624 -0.027595 -0.021682
                                              0.52
                                                    -0.51
                                                             -0.495146
                                                                                NaN
           0.011111
                     0.040351
                                0.013450
                                              0.21
                                                    -0.31
                                                             -0.596154
                                                                                NaN
                                0.014909
          0.025400
                     0.040861
                                           ... -0.25
                                                    -0.46
                                                             -2.190476
                                                                                NaN
           0.074334 0.077482
                                             1.59
                                0.068039
                                                      NaN
                                                                                NaN
                                                                   NaN
                                               d_ebitda d_ebitda_perc
                                                                         d_ebitda_seas
           d_eps_seas_perc
                                    ebitda
       9
                             1.605200e+09 813200000.0
                                                               0.839649
                                                                            636700000.0
                        {\tt NaN}
       10
                        NaN
                             1.005900e+09 -599300000.0
                                                              -0.564525
                                                                            -55700000.0
                             7.666000e+08 -239300000.0
                                                              -0.324827
                                                                             29900000.0
       11
                        NaN
       12
                             4.076000e+08 -359000000.0
                                                              -0.453283
                                                                           -384400000.0
                        {\tt NaN}
       13
                             9.540000e+06
                        NaN
                                                    NaN
                                                                    NaN
                                                                                    NaN
           d_ebitda_seas_perc
       9
                      0.657408
       10
                     -0.052468
       11
                      0.040586
       12
                     -0.485354
       13
                           NaN
       [5 rows x 80 columns]
[185]: df perc vars["d eps seas perc"].describe()
[185]: count
                285.000000
```

mean

-0.980956

```
std
                 11.951798
               -141.000000
      min
       25%
                 -0.260870
       50%
                  0.060606
       75%
                  0.500000
       max
                 12.666667
       Name: d_eps_seas_perc, dtype: float64
[186]: df_perc_vars[
           ["ticker", "calendardate", "datekey", "date", "eps", "d_eps_seas_perc"]
       ].to_excel(
           "c:/users/robso/onedrive/c/investments/2021/ngvc/

→reconciliations_and_results_auditing/d_eps_perc_rec.xlsx",
           index=False,
[187]: df_perc_vars["gn"] = df_perc_vars["d_eps_seas_perc"] >= 0.025
       df_perc_vars["nn"] = (df_perc_vars["d_eps_seas_perc"] < 0.025) & (</pre>
           df_perc_vars["d_eps_seas_perc"] > -0.025
       df_perc_vars["bn"] = df_perc_vars["d_eps_seas_perc"] < -0.025</pre>
[188]: df_perc_vars["cum_ret20"][df_perc_vars["d_eps_seas_perc"] >= 0.025].describe()
       df_perc_vars["cum_ret20"][
           (df_perc_vars["d_eps_seas_perc"] < 0.025)</pre>
           & (df_perc_vars["d_eps_seas_perc"] > -0.025)
       ].describe()
[188]: count
                15.000000
                 0.119108
      mean
       std
                 0.460446
      min
                -0.299591
       25%
                -0.021857
       50%
                 0.014511
       75%
                 0.083147
       max
                 1.725118
       Name: cum_ret20, dtype: float64
[189]: df_perc_vars["cum_ret20"][df_perc_vars["d_eps_seas_perc"] < -0.025].describe()
[189]: count
                122.000000
      mean
                 -0.021853
       std
                  0.148273
      min
                 -0.560606
       25%
                 -0.088767
       50%
                 -0.012309
```

```
75%
                  0.042781
                  0.708333
       max
       Name: cum_ret20, dtype: float64
[190]: def gn bn nn(dataframe, dv, iv, cutoff):
           """This function takes a dataframe, a variable, and a cutoff
           value as inputs, creates the good news, bad news, and
           no news indicator variables and returns summary statistics
           for the cumulative day period return after the announcement. """
           dataframe["gn"] = dataframe[iv] >= cutoff
           dataframe["nn"] = (dataframe[iv] < cutoff) & (dataframe[iv] > -cutoff)
           dataframe["bn"] = dataframe[iv] < -cutoff</pre>
           print(dataframe[dv][dataframe[iv] >= cutoff].describe())
           print(
               dataframe[dv][(dataframe[iv] < cutoff) & (dataframe[iv] > -cutoff)].
        →describe()
           print(dataframe[dv][dataframe[iv] < -cutoff].describe())</pre>
[191]: gn_bn_nn(df_perc_vars, "cum_ret20", "d_eps_seas_perc", 0.33)
      count
               83.000000
                0.028196
      mean
      std
                0.131178
               -0.283313
      min
      25%
               -0.062970
      50%
                0.018627
      75%
                0.127340
      max
                0.466507
      Name: cum_ret20, dtype: float64
      count
               145.000000
                  0.003205
      mean
                  0.194883
      std
      min
                -0.560606
      25%
                -0.058713
      50%
                 0.001299
      75%
                  0.048493
                  1.725118
      max
      Name: cum_ret20, dtype: float64
               57.000000
      count
               -0.024289
      mean
                0.169585
      std
               -0.337979
      min
      25%
               -0.106243
      50%
               -0.020262
      75%
                0.047324
      max
                0.708333
      Name: cum_ret20, dtype: float64
```

```
[192]: df_perc_vars["d_eps_seas_perc"].describe()
[192]: count
                285.000000
      mean
                 -0.980956
       std
                 11.951798
               -141.000000
      min
       25%
                 -0.260870
       50%
                  0.060606
       75%
                  0.500000
       max
                 12.666667
       Name: d_eps_seas_perc, dtype: float64
[193]: len(df_perc_vars.dropna(how="any", subset=["d_eps_seas_perc"]))
[193]: 285
[194]: df_perc_vars.dropna(how="any", subset=["d_eps_seas_perc"], inplace=True)
[195]: len(df_perc_vars)
[195]: 285
[196]: df_perc_vars["d_eps_seas_perc"].describe()
[196]: count
                285.000000
      mean
                 -0.980956
       std
                 11.951798
               -141.000000
      min
      25%
                 -0.260870
       50%
                  0.060606
       75%
                  0.500000
       max
                 12.666667
      Name: d_eps_seas_perc, dtype: float64
[197]: df_dropped = df_perc_vars[
           (df_perc_vars["d_eps_seas_perc"] > 2) | (df_perc_vars["d_eps_seas_perc"] <_\( \)
        →-2)
       ]
[198]: len(df_dropped)
[198]: 22
[199]: | df_perc_vars = df_perc_vars[
           (df_perc_vars["d_eps_seas_perc"] < 2) & (df_perc_vars["d_eps_seas_perc"] >__
        →-2)
       ]
```

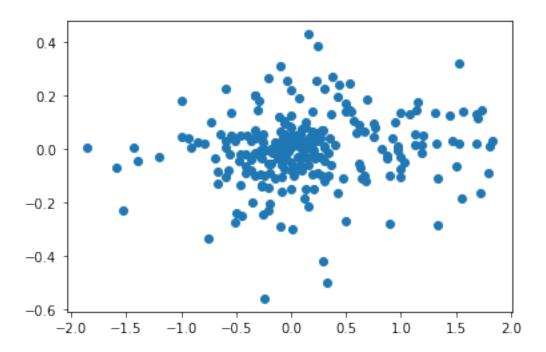
```
[200]: len(df_perc_vars)
[200]: 262
[201]: 285 - 262
[201]: 23
[202]: df_perc_vars[["cum_ret20", "cum_ret5"]].describe()
[202]:
               cum_ret20
                            cum_ret5
             262.000000
                        262.000000
      count
               0.004530
                          -0.004148
      mean
      std
               0.167878
                           0.095311
      min
              -0.560606
                           -0.418838
      25%
              -0.064462
                          -0.034976
      50%
               0.005205
                           0.000511
                           0.037819
      75%
               0.054843
      max
               1.725118
                           0.416045
[203]: df_perc_vars[df_perc_vars["cum_ret20"] == df_perc_vars["cum_ret20"].max()]
[203]:
         ticker calendardate
                                  datekey
                                                 date
                                                       cum_ret0 cum_ret1 cum_ret2 \
            IFMK
                   2019-12-31
                              2020-02-14 2020-02-14
                                                            0.0 -0.00237 -0.016588
      60
          cum_ret3 cum_ret4 cum_ret5 ... d_eps_seas d_eps_seas_perc
                                                                           ebitda \
      60 0.037915 0.018957
                              0.018957 ...
                                                   0.0
                                                                    0.0 819800.0
            d_ebitda d_ebitda_perc d_ebitda_seas d_ebitda_seas_perc
                                         1674349.0
                         -1.430613
      60 -1222529.0
                                                              1.959336 False
             bn
      60 False
      [1 rows x 83 columns]
[204]: df_dropped = df_dropped.append(
          df_perc_vars[df_perc_vars["cum_ret20"] == df_perc_vars["cum_ret20"].max()]
      )
[205]: df dropped
[205]:
          ticker calendardate
                                   datekey
                                                        cum_ret0 cum_ret1 cum_ret2 \
                                                  date
              GO
      39
                   2020-06-30 2020-08-11 2020-08-11
                                                             0.0 -0.037672 -0.033160
      40
              GO
                   2020-09-30 2020-11-10 2020-11-10
                                                             0.0 0.029847 -0.023538
      54
            IFMK
                   2018-06-30
                                2018-08-14 2018-08-14
                                                             0.0 -0.115789 -0.092105
      55
            IFMK
                   2018-09-30 2018-11-14 2018-11-14
                                                             0.0 -0.124286 -0.114286
            IFMK
                    2018-12-31 2019-02-14 2019-02-14
                                                             0.0 0.317757 -0.028037
      56
```

```
57
      IFMK
             2019-03-31
                         2019-06-28
                                      2019-06-28
                                                       0.0 0.041667 0.050000
                                                        0.0 0.001168
69
     IMKTA
             2013-06-30
                         2013-08-06
                                      2013-08-06
                                                                       0.020631
73
     IMKTA
             2014-06-30
                         2014-08-07
                                      2014-08-07
                                                        0.0 0.008173
                                                                       0.017164
87
     IMKTA
             2017-12-31
                          2018-02-08
                                      2018-02-08
                                                       0.0 -0.013093
                                                                       0.045827
99
     IMKTA
             2020-12-31
                         2021-02-04
                                      2021-02-04
                                                       0.0 0.078290
                                                                      0.057131
125
        KR
             2018-06-30
                         2018-06-29
                                      2018-06-29
                                                       0.0 0.000703 -0.007387
      QKLS
             2013-06-30
                         2013-08-14
                                      2013-08-14
                                                       0.0 -0.206452 -0.319355
177
180
      QKLS
             2014-03-31
                         2014-05-15
                                      2014-05-15
                                                       0.0 -0.043127 -0.018868
                         2014-11-14
                                                       0.0 -0.004329 0.051948
182
      QKLS
             2014-09-30
                                      2014-11-14
196
      RNDY
             2014-06-30
                         2014-08-06
                                      2014-08-06
                                                        0.0 0.035565 -0.167364
197
      RNDY
                         2014-11-05
                                      2014-11-05
             2014-09-30
                                                       0.0 0.037681 -0.055072
261
       SWY
             2013-12-31
                         2014-02-26
                                      2014-02-26
                                                       0.0 -0.004579 0.004848
263
       SWY
             2014-06-30
                         2014-07-22
                                      2014-07-22
                                                       0.0 -0.000862 0.000287
276
       TFM
             2014-12-31
                         2015-03-23
                                      2015-03-23
                                                       0.0 -0.008761 -0.008031
     VLGEA
             2013-09-30
                         2013-12-04
286
                                      2013-12-04
                                                       0.0 -0.098570 -0.121456
292
     VLGEA
             2015-03-31
                         2015-06-03
                                      2015-06-03
                                                       0.0 0.014556 -0.018582
362
       WMK
             2018-09-30
                         2018-11-08
                                      2018-11-08
                                                        0.0 0.023031 0.019156
      IFMK
             2019-12-31
                         2020-02-14
                                      2020-02-14
                                                        0.0 -0.002370 -0.016588
60
     cum_ret3 cum_ret4 cum_ret5
                                       d_eps_seas
                                                   d_eps_seas_perc
39
    -0.032709 -0.032709 -0.042184
                                            0.470
                                                           3.133333
    -0.047319 -0.067945 -0.095001
                                            0.300
40
                                                           2.142857
54
    -0.081579 -0.171053 -0.113158
                                           -0.110
                                                          -5.500000
    -0.164286 -0.192857 -0.307143
55
                                           -0.282
                                                        -141.000000
56
     0.037383 -0.065421 -0.074766
                                           -0.090
                                                          -4.500000
57
     0.000000
               0.033333
                        0.066667
                                           -0.250
                                                         -12.500000
69
     0.045932
               0.041650
                         0.065395
                                           -1.180
                                                          -2.107143
73
     0.034328
               0.024520
                         0.018799
                                            1.250
                                                           2.016129
87
     0.000000
               0.018003
                         0.028642
                                            1.590
                                                           2.271429
                         0.088024
99
     0.089505
               0.099873
                                            1.830
                                                           2.033333
125
    0.009497
               0.005980
                         0.024270
                                            2.060
                                                           6.242424
177 -0.267742 -0.209677 -0.235484
                                           -0.963
                                                        -120.375000
180 -0.005391 -0.018868 -0.018868
                                           -2.280
                                                          -8.44444
    0.038961
               0.038961 0.038961
                                           -2.488
                                                          -2.237410
196 -0.192469 -0.230126 -0.244770
                                           -0.880
                                                          -2.933333
197 -0.040580 -0.031884 -0.046377
                                           -5.970
                                                         -74.625000
261
    0.008618
              0.023970 0.040937
                                           12.720
                                                          12.594059
263 0.004021 0.001436 -0.000862
                                            0.380
                                                          12.666667
276 -0.019956 -0.026040 -0.021173
                                            0.370
                                                           9.250000
286 -0.125878 -0.195839 -0.260078
                                           -1.070
                                                          -2.057692
292 -0.036854 -0.090121 -0.076185
                                            0.790
                                                           3.038462
362 0.024322
              0.018080 0.012053
                                            0.370
                                                           2.312500
     0.037915 0.018957 0.018957
                                            0.000
                                                           0.00000
                                    ...
           ebitda
                       d_ebitda
                                 d_ebitda_perc
                                                 d_ebitda_seas
39
     4.624600e+07 1.600100e+07
                                                  3.251700e+07
                                       1.165489
     4.511100e+07 -1.135000e+06
40
                                      -0.030462
                                                  7.852000e+06
```

```
54
    -7.668170e+05 -1.457662e+06
                                      -16.175576
                                                  -8.569320e+05
55
    -3.238020e+06 -2.471203e+06
                                       -3.209446
                                                  -4.007998e+06
56
    -8.545490e+05 2.383471e+06
                                        5.695339
                                                  -1.273044e+06
57
    -2.946845e+06 -2.092296e+06
                                       -3.028604
                                                  -3.637690e+06
69
     1.454628e+07 -3.742107e+07
                                       -0.640288
                                                  -4.389785e+07
73
     5.876306e+07 6.031875e+06
                                       0.414668
                                                   4.421678e+07
87
     6.483203e+07 -5.716780e+06
                                                   4.922594e+06
                                       -0.095424
99
     1.086835e+08 -8.051666e+06
                                      -0.122786
                                                   4.310884e+07
125
    3.575000e+09 2.965000e+09
                                        2.173754
                                                   2.211000e+09
177
     4.642300e+04 -2.630249e+06
                                       -1.469960
                                                  -1.742911e+06
180
    1.024230e+05 4.673772e+06
                                        1.746113
                                                  -2.574249e+06
182 -2.763123e+06 -1.924178e+06
                                      -39.413724
                                                  -2.714303e+06
196 -5.720000e+06 -2.879700e+07
                                       -0.573189
                                                  -5.596000e+07
197 -2.874050e+08 -2.816850e+08
                                       -8.244841
                                                  -3.215700e+08
261
    3.729100e+09 3.372000e+09
                                        4.259189
                                                   2.937400e+09
263
    3.911000e+08 2.803000e+08
                                        0.933400
                                                   9.080000e+07
276
    4.859800e+07 8.529000e+06
                                        0.457638
                                                   2.996100e+07
     1.205000e+07 -5.121000e+06
286
                                       -0.318807
                                                  -4.013000e+06
292
     1.685300e+07 -2.413000e+06
                                       -0.191919
                                                   4.280000e+06
362
    4.209000e+07 -7.426000e+06
                                                   1.387600e+07
                                       -0.263203
     8.198000e+05 -1.222529e+06
60
                                       -1.430613
                                                   1.674349e+06
     d_ebitda_seas_perc
                                            bn
                             gn
                                    nn
39
               2.368490
                           True
                                 False
                                        False
40
                           True
                                 False
                                        False
                0.210741
54
              -9.509316
                          False False
                                          True
                          False False
55
              -5.205341
                                          True
                          False False
56
              -3.041957
                                          True
              -5.265566
57
                          False
                                 False
                                          True
69
              -0.751108
                          False
                                 False
                                          True
73
                                        False
               3.039730
                           True
                                 False
87
                           True
                                 False
                                        False
                0.082167
99
                0.657401
                           True
                                 False
                                        False
125
                1.620968
                           True
                                 False
                                        False
177
              -0.974056
                          False
                                 False
                                          True
180
              -0.961735
                          False
                                 False
                                          True
182
              -55.598177
                          False False
                                          True
196
              -1.113854
                          False
                                 False
                                          True
197
              -9.412264
                         False False
                                          True
                           True False
                                        False
261
                3.710244
                                        False
263
               0.302364
                           True False
276
                1.607609
                           True False
                                        False
286
              -0.249829
                          False
                                 False
                                          True
292
                0.340412
                           True
                                 False
                                        False
362
                0.491813
                           True
                                 False
                                        False
                         False
                                        False
60
                1.959336
                                  True
```

[23 rows x 83 columns]

```
[206]: len(df_dropped)
[206]: 23
[207]: df_perc_vars = df_perc_vars[
           df_perc_vars["cum_ret20"] != df_perc_vars["cum_ret20"].max()
       ]
[208]: len(df_perc_vars)
[208]: 261
[209]: from scipy.stats import ttest_ind
[210]: cat1 = df_perc_vars[df_perc_vars["gn"] == 1]
[211]: cat2 = df_perc_vars[df_perc_vars["bn"] == 1]
[212]: len(cat1)
[212]: 71
[213]: len(cat2)
[213]: 46
[214]: ttest_ind(cat1["cum_ret20"], cat2["cum_ret20"])
[214]: Ttest_indResult(statistic=2.0316639625114292, pvalue=0.044492662846932006)
[215]: | ttest_ind(cat1["cum_ret20"], cat2["cum_ret20"], equal_var=False)
[215]: Ttest_indResult(statistic=2.044818384457192, pvalue=0.04354553005228227)
[216]: plt.scatter(df_perc_vars["d_eps_seas_perc"], df_perc_vars["cum_ret20"])
[216]: <matplotlib.collections.PathCollection at 0x18e0502ed30>
```



```
[217]:
            cum_ret20
                        d_eps_seas_perc
                                                     bn
                                                            nn
                                             gn
             0.007833
                              -0.006289
       17
                                          False
                                                 False
                                                          True
                              -0.266667
       18
            -0.035811
                                          False
                                                          True
                                                 False
       26
            -0.026667
                               0.871795
                                           True
                                                 False
                                                         False
       27
            -0.278746
                               0.895735
                                                         False
                                           True
                                                 False
                              -0.333333
       28
             0.200772
                                          False
                                                  True
                                                         False
       . .
       368
            -0.032760
                               0.867925
                                           True
                                                 False
                                                         False
       369
            -0.050616
                                           True
                                                 False
                                                         False
                               1.026316
       370
             0.012729
                               1.188679
                                           True
                                                 False
                                                         False
            -0.066950
                                          False
                                                 False
       371
                               0.028571
                                                          True
       372
            -0.020707
                              -0.090909
                                          False False
                                                          True
       [261 rows x 5 columns]
[218]: Y = df_perc_vars["cum_ret20"]
       X = df_perc_vars["d_eps_seas_perc"]
       X_model = sm.add_constant(X)
       model = sm.OLS(Y, X_model)
       results = model.fit()
       results.params
       print(results.summary())
```

[217]: df_perc_vars[["cum_ret20", "d_eps_seas_perc", "gn", "bn", "nn"]]

OLS Regression Results

```
______
    Dep. Variable:
                      cum_ret20 R-squared:
                                                     0.016
    Model:
                           OLS Adj. R-squared:
                                                     0.012
    Method:
                   Least Squares F-statistic:
                                                     4.120
                 Tue, 21 Sep 2021 Prob (F-statistic):
    Date:
                                                   0.0434
                       15:43:34 Log-Likelihood:
    Time:
                                                    165.01
    No. Observations:
                           261 AIC:
                                                    -326.0
    Df Residuals:
                           259 BIC:
                                                     -318.9
    Df Model:
                           1
    Covariance Type:
                      nonrobust
    _____
                   coef std err t P>|t| [0.025]
    0.975]
    ______
    const
                -0.0057 0.008 -0.691 0.490 -0.022
    0.010
    d_eps_seas_perc 0.0254 0.012 2.030 0.043 0.001
    0.050
    ______
    Omnibus:
                         28.645 Durbin-Watson:
                                                     1.968
    Prob(Omnibus):
                        0.000 Jarque-Bera (JB):
                                                    77.947
    Skew:
                         -0.459 Prob(JB):
                                                   1.19e-17
    Kurtosis:
                         5.515 Cond. No.
                                                     1.62
    ______
    Notes:
    [1] Standard Errors assume that the covariance matrix of the errors is correctly
    specified.
[219]: model_nocons = sm.OLS(Y, X)
    results = model_nocons.fit()
    results.params
    print(results.summary())
                          OLS Regression Results
    Dep. Variable:
                      cum_ret20 R-squared (uncentered):
    0.014
    Model:
                           OLS Adj. R-squared (uncentered):
    0.010
    Method:
                   Least Squares F-statistic:
    3.717
                 Tue, 21 Sep 2021 Prob (F-statistic):
    Date:
    0.0550
    Time:
                       15:43:36 Log-Likelihood:
```

```
164.77
     No. Observations:
                                 261 AIC:
     -327.5
     Df Residuals:
                                 260
                                    BIC:
     -324.0
     Df Model:
     Covariance Type:
                          nonrobust
                       coef std err t P>|t| [0.025]
     0.975]
     d_eps_seas_perc
                     0.0235 0.012 1.928 0.055
                                                         -0.001
     0.047
     ______
     Omnibus:
                              28.633 Durbin-Watson:
                                                                 1.964
     Prob(Omnibus):
                                                               78.079
                               0.000 Jarque-Bera (JB):
     Skew:
                              -0.458 Prob(JB):
                                                             1.11e-17
     Kurtosis:
                               5.518 Cond. No.
                                                                  1.00
     ______
     [1] R^2 is computed without centering (uncentered) since the model does not
     contain a constant.
     [2] Standard Errors assume that the covariance matrix of the errors is correctly
     specified.
[220]: df_perc_vars["ticker"].unique()
[220]: array(['ARDNA', 'FWMHQ', 'GO', 'HTSI', 'IFMK', 'IMKTA', 'KR', 'NGVC',
           'QKLS', 'RNDY', 'SFM', 'SFS', 'SWY', 'TFM', 'VLGEA', 'WFM', 'WMK'],
          dtype=object)
[221]: X = df_perc_vars["d_eps_seas"]
     X_model = sm.add_constant(X)
     model = sm.OLS(Y, X_model)
     results = model.fit()
     results.params
     print(results.summary())
                            OLS Regression Results
     _____
     Dep. Variable:
                            cum_ret20
                                    R-squared:
                                                                0.002
     Model:
                                 OLS Adj. R-squared:
                                                                -0.002
     Method:
                       Least Squares F-statistic:
                                                                0.4521
```

Tue, 21 Sep 2021 Prob (F-statistic):

15:43:48 Log-Likelihood:

0.502

163.18

Date:

Time:

No. Observations: 261 AIC: -322.4Df Residuals: 259 BIC: -315.2Df Model: 1 Covariance Type: nonrobust ______ coef std err P>|t| [0.025 const -0.0026 0.008 -0.319 0.750 -0.018 0.013 0.0048 0.007 0.672 0.502 -0.009 d_eps_seas 0.019 26.368 Durbin-Watson: Omnibus: 1.946 Prob(Omnibus): 0.000 Jarque-Bera (JB): 69.690 7.36e-16 Skew: -0.423 Prob(JB): Cond. No. 5.386 Kurtosis: 1.17 ______ [1] Standard Errors assume that the covariance matrix of the errors is correctly specified. [222]: model_nocons = sm.OLS(Y, X) results = model_nocons.fit() results.params print(results.summary()) OLS Regression Results ______ Dep. Variable: cum_ret20 R-squared (uncentered): 0.002 Model: OLS Adj. R-squared (uncentered): -0.002Least Squares F-statistic: Method: 0.4175 Tue, 21 Sep 2021 Prob (F-statistic): Date: 0.519 Time: 15:43:49 Log-Likelihood: 163.13 No. Observations: 261 AIC: -324.3Df Residuals: BIC: 260 -320.7Df Model: Covariance Type: nonrobust

t

0.646

P>|t|

0.519

[0.025

-0.009

0.975

0.019

std err

0.007

coef

0.0046

d_eps_seas

Omnibus:	26.413	Durbin-Watson:	1.945
Prob(Omnibus):	0.000	Jarque-Bera (JB):	69.910
Skew:	-0.423	Prob(JB):	6.60e-16
Kurtosis:	5.390	Cond. No.	1.00

Notes:

- [1] R^2 is computed without centering (uncentered) since the model does not contain a constant.
- [2] Standard Errors assume that the covariance matrix of the errors is correctly specified.

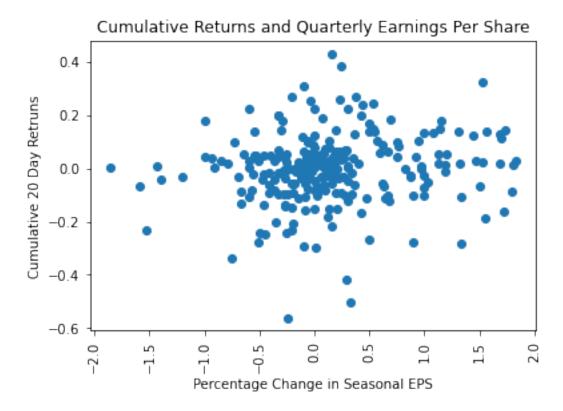
OLS Regression Results

=======================================	=======	=======		=======	=========	:==
Dep. Variable:		cum_ret20	R-squared:		0.016	
Model:		OLS	Adj. R-squa	red:	0.012	
Method:	Leas		F-statistic		3.9	70
Date:		-	Prob (F-sta		0.0637	
Time:	,	-	Log-Likelih		165.	
No. Observations:		261	AIC:	oou.	-326	
Df Residuals:		259	BIC:		-318	
Df Model:		209	DIC.		-310	, . 9
		_				
Covariance Type:		cluster				
=======================================	=======	=======		=======	========	:====
===		_			Fo	
_	coef	std err	Z	P> z	[0.025	
0.975]						
const	-0.0057	0.012	-0.489	0.625	-0.028	
0.017						
d_eps_seas_perc	0.0254	0.013	1.992	0.046	0.000	
0.050						
						:==
Omnibus:		28.645	Durbin-Wats	on:	1.9)68
Prob(Omnibus):		0.000			77.9	
Skew:			Prob(JB):	(02).	1.19e-	
Kurtosis:		5.515	Cond. No.			62
MUI COSIS.		0.015	Colla. No.		1.	UΖ

Notes:

[1] Standard Errors are robust to cluster correlation (cluster)

```
[224]: plt.scatter(df_perc_vars["d_eps_seas_perc"], df_perc_vars["cum_ret20"])
    plt.xticks(rotation="vertical")
    plt.xlabel("Percentage Change in Seasonal EPS")
    plt.ylabel("Cumulative 20 Day Retruns")
    plt.title("Cumulative Returns and Quarterly Earnings Per Share")
    plt.savefig("Cumulative_Returns_20_EPS.pdf", bbox_inches="tight")
```



```
[225]: df_perc_vars.head()
[225]:
         ticker calendardate
                                                      cum ret0 cum ret1 cum ret2 \
                                 datekey
                                                date
      17 ARDNA
                  2013-06-30 2013-08-08
                                         2013-08-08
                                                           0.0 0.002410 -0.002862
      18 ARDNA
                  2013-09-30
                              2013-11-07
                                          2013-11-07
                                                          0.0 -0.003466 0.005006
      26 FWMHQ
                  2014-03-31
                              2014-05-29
                                         2014-05-29
                                                          0.0 -0.016296 -0.087407
      27 FWMHQ
                  2014-06-30
                              2014-08-07
                                          2014-08-07
                                                           0.0 -0.015679 -0.045296
                                                          0.0 0.050193 -0.050193
      28 FWMHQ
                  2014-09-30
                              2014-11-06 2014-11-06
          cum_ret3 cum_ret4 cum_ret5 ... d_eps_seas d_eps_seas_perc
                                                                          ebitda \
                                                            -0.006289 9360000.0
      17 -0.004368 -0.004820 -0.004820 ...
                                               -0.01
```

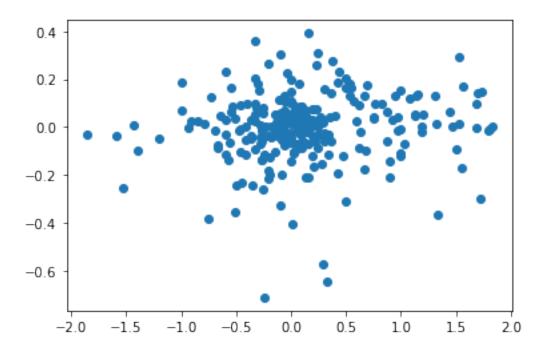
```
18 0.001078 -0.001155 -0.021486 ...
                                                 -0.44
                                                               -0.266667 7523000.0
       26 -0.120000 -0.177778 -0.152593
                                                  1.02
                                                                0.871795 3413000.0
       27 -0.094077 -0.135889 -0.168990
                                                  1.89
                                                                0.895735
                                                                          3006000.0
       28 -0.061776 -0.131274 -0.108108
                                                 -0.10
                                                               -0.333333 -4343000.0
            d_ebitda d_ebitda_perc d_ebitda_seas d_ebitda_seas_perc
                                                                            gn
                                                                                   nn
            829000.0
                           0.086897
                                         -180000.0
                                                              -0.018868 False
       17
                                                                                 True
       18 -1837000.0
                          -0.187583
                                        -2270000.0
                                                              -0.231798 False
                                                                                 True
       26 -2767000.0
                                                                          True False
                          -0.527651
                                        -1831000.0
                                                              -0.349161
       27 -407000.0
                                                                          True False
                          -0.029393
                                        16853000.0
                                                               1.217087
       28 -7349000.0
                        -103.507042
                                        -4414000.0
                                                             -62.169014 False False
              bn
       17
          False
       18
          False
       26
          False
       27
          False
            True
       28
       [5 rows x 83 columns]
[226]: for i in range(0, 21):
           df_perc_vars["expec_ret" + str(i)] = i * df_perc_vars["mean_ret_model_cont"]
[227]: df_perc_vars[["mean_ret_model_cont", "expec_ret0", "expec_ret1", "expec_ret2"]].
        \rightarrowhead(10)
[227]:
           mean_ret_model_cont
                                expec ret0
                                            expec_ret1 expec_ret2
       17
                      0.001614
                                       0.0
                                              0.001614
                                                           0.003229
       18
                                       0.0
                                              0.001223
                      0.001223
                                                           0.002446
       26
                     -0.004436
                                      -0.0
                                             -0.004436
                                                         -0.008872
       27
                     -0.005961
                                      -0.0
                                             -0.005961
                                                          -0.011922
       28
                                      -0.0
                     -0.008917
                                             -0.008917
                                                          -0.017833
       29
                                      -0.0
                                             -0.003277
                                                          -0.006554
                     -0.003277
       30
                                      -0.0
                     -0.000803
                                             -0.000803
                                                          -0.001605
                                      -0.0
       31
                     -0.002671
                                             -0.002671
                                                          -0.005343
       32
                     -0.002391
                                      -0.0
                                             -0.002391
                                                          -0.004783
       33
                                      -0.0
                                             -0.009226
                     -0.009226
                                                          -0.018452
[228]: for i in range(0, 21):
           df_perc_vars["abnor_ret" + str(i)] = (
               df_perc_vars["cum_ret_cont" + str(i)] - df_perc_vars["expec_ret" +

        →str(i)]
           )
[229]: df_dropped[(df_dropped["ticker"] == "IMKTA") & (df_dropped["date"] == "
        →"2018-02-08")]
```

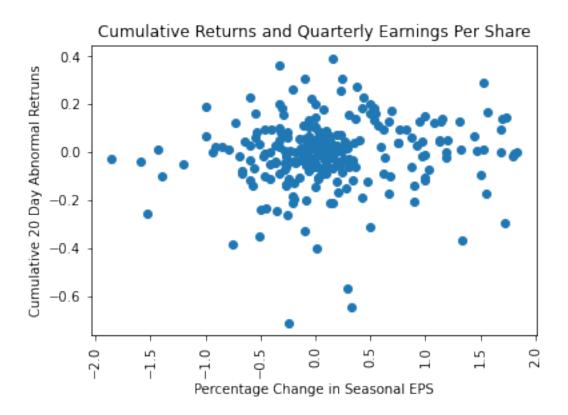
```
datekey
[229]: ticker calendardate
                                              date cum_ret0 cum_ret1 cum_ret2 \
                  2017-12-31 2018-02-08 2018-02-08
                                                         0.0 -0.013093 0.045827
      87 IMKTA
          cum_ret3 cum_ret4 cum_ret5 ... d_eps_seas d_eps_seas_perc \
             0.0 0.018003 0.028642 ...
                                              1.59
                                                            2.271429
      87
              ebitda d_ebitda_perc d_ebitda_seas d_ebitda_seas_perc \
      87 64832029.0 -5716780.0
                                   -0.095424
                                                  4922594.0
                                                                       0.082167
            gn
                   nn
      87 True False False
      [1 rows x 83 columns]
[230]: df_prices[(df_prices["ticker"] == "IMKTA") & (df_prices["date"] ==__
       "2018-02-14")]
                                            low
[230]:
                        date
                               open high
                                                  close
                                                          volume closead; \
            ticker
      19475 IMKTA 2018-02-14 30.75 31.6 30.75 31.425 77844.0
                                                                    29,621
             closeunadj lastupdated
                                     date 2
      19475
                 31.425 2021-04-07 2018-02-14
[231]: df_perc_vars["mean_ret_model"].isnull().sum()
[231]: 3
[232]: df_perc_vars["mean_ret_model_cont"].isnull().sum()
[232]: 3
[233]: len(df_perc_vars)
[233]: 261
[234]: df_perc_vars.dropna(how="any", subset=["mean_ret_model"], inplace=True)
[235]: len(df_perc_vars)
[235]: 258
[236]: | cat1 = df_perc_vars[df_perc_vars["gn"] == 1]
[237]: cat2 = df_perc_vars[df_perc_vars["bn"] == 1]
[238]: ttest_ind(cat1["abnor_ret20"], cat2["abnor_ret20"])
[238]: Ttest indResult(statistic=1.6127080702442742, pvalue=0.10959737303199028)
```

```
[239]: ttest_ind(cat1["abnor_ret20"], cat2["abnor_ret20"], equal_var=False)
[239]: Ttest_indResult(statistic=1.5910600454286385, pvalue=0.1150244150727638)
[240]: gn_bn_nn(df_perc_vars, "abnor_ret20", "d_eps_seas_perc", 0.33)
      count
               69.000000
      mean
                0.024139
      std
                0.135232
      min
               -0.366170
      25%
               -0.058822
      50%
                0.038685
      75%
                0.129780
                0.289793
      max
      Name: abnor_ret20, dtype: float64
               143.000000
      count
                -0.015751
      mean
                 0.144865
      std
      min
                -0.711750
      25%
                -0.057992
      50%
                -0.004628
      75%
                 0.049581
      max
                 0.391570
      Name: abnor_ret20, dtype: float64
               46.000000
      count
               -0.018544
      mean
      std
                0.144613
               -0.382448
      min
      25%
               -0.084645
      50%
               -0.011010
      75%
                0.059323
                0.361297
      max
      Name: abnor_ret20, dtype: float64
[241]: plt.scatter(df_perc_vars["d_eps_seas_perc"], df_perc_vars["abnor_ret20"])
```

[241]: <matplotlib.collections.PathCollection at 0x18e0522fa00>



```
[242]: plt.scatter(df_perc_vars["d_eps_seas_perc"], df_perc_vars["abnor_ret20"])
    plt.xticks(rotation="vertical")
    plt.xlabel("Percentage Change in Seasonal EPS")
    plt.ylabel("Cumulative 20 Day Abnormal Retruns")
    plt.title("Cumulative Returns and Quarterly Earnings Per Share")
    plt.savefig("Cumulative_Abnormal_Returns_20_EPS.pdf", bbox_inches="tight")
```



```
[243]: Y = df_perc_vars["abnor_ret20"]
       X = df_perc_vars["d_eps_seas_perc"]
       X_model = sm.add_constant(X)
       model = sm.OLS(Y, X_model)
       results = model.fit()
       results.params
       print(results.summary())
```

OLS Regression Results

=======================================							
Dep. Variable:	abr	or_ret20	R-squared:		0.01		
Model:		OLS	Adj. R-squa	red:		0.006	
Method:	Least	Squares	F-statistic	:		2.591	
Date:	Tue, 21	e, 21 Sep 2021 Prob (F-statistic):				0.109	
Time:		15:44:47	Log-Likelih	ood:	137		
No. Observations:		258	258 AIC:			-271.4	
Df Residuals:		256	BIC:			-264.3	
Df Model:		1					
Covariance Type:	nonrobust						
=============				========			
===							
	coef	std err	t	P> t	[0.025		
0.975]							

439

	0.0000	0.000	0.040	0.044	0.006
o.009	-0.0086	0.009	-0.949	0.344	-0.026
	0.0224	0.014	1.610	0.109	-0.005
Omnibus:		71.105	 Durbin-Wats	======= on:	2.003
<pre>Prob(Omnibus):</pre>		0.000	Jarque-Bera	(JB):	261.899
Skew:		-1.109	Prob(JB):		1.35e-57
Kurtosis:		7.410	Cond. No.		1.61
Notes:					
[1] Standard Error specified.	rs assume th	nat the co	variance matr	ix of the e	rrors is correct
model_nocons = sm	OLS(Y, X)				
results = model_n	ocons.fit()				
results params					
print(results.sum	mary())				
		OLS R	egression Res	ults	
=======================================			_	=======	
======					
				_	
Dep. Variable:	abn	or_ret20	R-squared (uncentered)	:
Dep. Variable: 0.008	abn	_	-		
Dep. Variable: 0.008 Model:	abn	or_ret20	R-squared (
Dep. Variable: 0.008 Model: 0.004		OLS	Adj. R-squa	red (uncent	
Dep. Variable: 0.008 Model: 0.004 Method:		_	Adj. R-squa	red (uncent	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087	Least	OLS Squares	Adj. R-squa	red (uncent	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date:	Least	OLS Squares	Adj. R-squa	red (uncent	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087	Least Tue, 21	OLS Squares Sep 2021	Adj. R-squa F-statistic Prob (F-sta	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150	Least Tue, 21	OLS Squares Sep 2021	Adj. R-squa	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time:	Least Tue, 21	OLS Squares Sep 2021	Adj. R-squa F-statistic Prob (F-sta	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23	Least Tue, 21	OLS Squares Sep 2021 15:44:51	Adj. R-squa F-statistic Prob (F-sta Log-Likelih	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations:	Least Tue, 21	OLS Squares Sep 2021 15:44:51	Adj. R-squa F-statistic Prob (F-sta Log-Likelih	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC:	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model:	Least	OLS Squares Sep 2021 15:44:51 258 257	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC:	red (uncent: tistic):	
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type:	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 conrobust	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent: tistic): ood:	ered):
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type:	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 conrobust	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent: tistic): ood:	ered):
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type:	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 nonrobust	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent : tistic): ood:	ered):
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type: ====================================	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 nonrobust	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent : tistic): ood:	ered):
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type:	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 conrobust std err	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent: tistic): ood:	ered): ====================================
Dep. Variable: 0.008 Model: 0.004 Method: 2.087 Date: 0.150 Time: 137.23 No. Observations: -272.5 Df Residuals: -268.9 Df Model: Covariance Type: ====================================	Least Tue, 21	OLS Squares Sep 2021 15:44:51 258 257 1 conrobust std err	Adj. R-squa F-statistic Prob (F-sta Log-Likelih AIC: BIC:	red (uncent: tistic): ood:	ered):

0.046

Omnibus:	71.062	Durbin-Watson:	1.996
Prob(Omnibus):	0.000	Jarque-Bera (JB):	261.642
Skew:	-1.108	Prob(JB):	1.53e-57
Kurtosis:	7.407	Cond. No.	1.00

Notes:

- [1] R^2 is computed without centering (uncentered) since the model does not contain a constant.
- [2] Standard Errors assume that the covariance matrix of the errors is correctly specified.

[245]: X = df_perc_vars["d_eps_seas"] X_model = sm.add_constant(X) model = sm.OLS(Y, X_model) results = model.fit() results.params print(results.summary())

OLS Regression Results

=========	======	=========					
Dep. Variable	:	abnor_ret	20	R-squared:			0.004
Model:		01	LS	Adj.	Adj. R-squared:		0.000
Method:		Least Squares		F-sta	atistic:		1.040
Date:	•	Tue, 21 Sep 20	21	Prob	(F-statistic)	:	0.309
Time:		15:44:	53	Log-I	Likelihood:		136.90
No. Observati	ons:	2	58	AIC:			-269.8
Df Residuals:		2	56	BIC:			-262.7
Df Model:			1				
Covariance Ty	pe:	nonrobu	st				
=========		=========	===				
	coef	std err		t	P> t	[0.025	0.975]
const	-0.0064	0.009		 0.721	0.472	-0.024	0.011
d_eps_seas	0.0080	0.008		1.020	0.309		0.023
Omnibus:	======	 66.70	=== 67	Durb	======== in-Watson:		1.995
Prob(Omnibus)	:	0.0	00	Jarqı	ıe-Bera (JB):		229.894
Skew:		-1.0	60	-			1.20e-50
Kurtosis:		7.1	10	Cond	No.		1.18
=========	======	=========					

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

```
[246]: model_nocons = sm.OLS(Y, X)
results = model_nocons.fit()
results.params
print(results.summary())
```

OLS Regression Results

======

Dep. Variable: abnor_ret20 R-squared (uncentered):

0.004

Model: OLS Adj. R-squared (uncentered):

-0.000

Method: Least Squares F-statistic:

0.9157

Date: Tue, 21 Sep 2021 Prob (F-statistic):

0.339

Time: 15:44:55 Log-Likelihood:

136.64

No. Observations: 258 AIC:

-271.3

Df Residuals: 257 BIC:

-267.7

Df Model: 1
Covariance Type: nonrobust

=========	coef	std err	====== t	======================================	[0.025	0.975]
d_eps_seas	0.0075	0.008	0.957	0.339	-0.008	0.023
Omnibus: Prob(Omnibus) Skew: Kurtosis:	:	66.945 0.000 -1.062 7.125	Jarq Prob	in-Watson: ue-Bera (JB): (JB): . No.		1.991 231.331 5.85e-51 1.00

Notes:

- [1] R^2 is computed without centering (uncentered) since the model does not contain a constant.
- [2] Standard Errors assume that the covariance matrix of the errors is correctly specified.

print(results.summary())

OLS Regression Results

		=======				====
Dep. Variable:	ab:	nor_ret20	R-squared:		0.010	
Model:		OLS	Adj. R-squa	red:	0.	.006
Method:	Leas	t Squares	F-statistic	::	3.	. 169
Date:	Tue, 21	Sep 2021	Prob (F-sta	tistic):	0.0940	
Time:		15:45:02	Log-Likelih	ood:	137	7.68
No. Observations:		258	AIC:		-27	71.4
Df Residuals:		256	BIC:		-26	34.3
Df Model:		1				
Covariance Type:		cluster				
===						
	coef	std err	z	P> z	[0.025	
0.975]						
const	-0.0086	0.012	-0.726	0.468	-0.032	
0.015	0.0000	0.012	0.720	0.400	0.002	
d_eps_seas_perc	0.0224	0.013	1.780	0.075	-0.002	
0.047						
		=======================================				
Omnibus:		71.105	Durbin-Wats			.003
Prob(Omnibus):		0.000	1	(JR):	261	
Skew:			Prob(JB):		1.35e-5	
Kurtosis:		7.410	Cond. No.		1	L.61
=======================================				=======		:===

Notes:

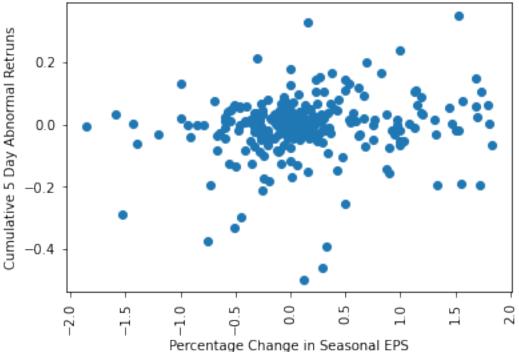
[1] Standard Errors are robust to cluster correlation (cluster)

[248]: gn_bn_nn(df_perc_vars, "abnor_ret5", "d_eps_seas_perc", 0.33)

69.000000 count 0.014145 mean std 0.104123 -0.255446 min 25% -0.033251 50% 0.014094 75% 0.066110 0.350385 maxName: abnor_ret5, dtype: float64 143.000000 count -0.008895 meanstd 0.094537 min -0.496594

```
25%
                -0.031811
      50%
                -0.004687
      75%
                 0.032367
      max
                 0.328359
      Name: abnor_ret5, dtype: float64
      count
               46.000000
               -0.037521
      mean
                0.107802
      std
      min
               -0.372166
      25%
               -0.058875
      50%
               -0.002181
      75%
                0.021864
                0.130720
      max
      Name: abnor_ret5, dtype: float64
[249]: plt.scatter(df_perc_vars["d_eps_seas_perc"], df_perc_vars["abnor_ret5"])
       plt.xticks(rotation="vertical")
       plt.xlabel("Percentage Change in Seasonal EPS")
       plt.ylabel("Cumulative 5 Day Abnormal Retruns")
       plt.title("Cumulative Returns and Quarterly Earnings Per Share")
       plt.savefig("Cumulative_Abnormal_Returns_5_EPS.pdf", bbox_inches="tight")
```





```
[250]: ttest_ind(cat1["abnor_ret5"], cat2["abnor_ret5"])
     ttest_ind(cat1["abnor_ret5"], cat2["abnor_ret5"], equal_var=False)
[250]: Ttest_indResult(statistic=2.5523310592433566, pvalue=0.012307706511390128)
[251]: Y = df_perc_vars["abnor_ret5"]
     X = df_perc_vars["d_eps_seas_perc"]
     X_model = sm.add_constant(X)
     model = sm.OLS(Y, X_model)
     results = model.fit()
     results.params
     print(results.summary())
                          OLS Regression Results
    ______
    Dep. Variable:
                         abnor_ret5
                                   R-squared:
                                                             0.022
    Model:
                              OLS Adj. R-squared:
                                                            0.018
    Method:
                     Least Squares F-statistic:
                                                            5.752
                  Tue, 21 Sep 2021 Prob (F-statistic):
    Date:
                                                           0.0172
    Time:
                           15:45:20 Log-Likelihood:
                                                           229.69
    No. Observations:
                              258 AIC:
                                                           -455.4
    Df Residuals:
                              256 BIC:
                                                            -448.3
    Df Model:
                                1
    Covariance Type: nonrobust
                     coef std err t P>|t| [0.025]
    0.975]
                 -0.0110 0.006 -1.731 0.085 -0.023
    const
    0.002
    d_eps_seas_perc 0.0233 0.010 2.398 0.017
                                                      0.004
    0.042
    ______
    Omnibus:
                           83.999 Durbin-Watson:
                                                             1.813
    Prob(Omnibus):
                            0.000 Jarque-Bera (JB):
                                                          390.959
    Skew:
                            -1.241 Prob(JB):
                                                          1.27e-85
                            8.496 Cond. No.
    Kurtosis:
                                                             1.61
    ______
     [1] Standard Errors assume that the covariance matrix of the errors is correctly
    specified.
[252]: model_nocons = sm.OLS(Y, X)
```

results = model_nocons.fit()

results.params

```
print(results.summary())
                                OLS Regression Results
     ______
                           abnor_ret5 R-squared (uncentered):
     Dep. Variable:
     0.017
     Model:
                                 OLS
                                     Adj. R-squared (uncentered):
     0.013
     Method:
                       Least Squares F-statistic:
     4.315
                      Tue, 21 Sep 2021 Prob (F-statistic):
     Date:
     0.0388
                             15:45:23 Log-Likelihood:
     Time:
     228.19
     No. Observations:
                                 258
                                     AIC:
     -454.4
     Df Residuals:
                                     BIC:
                                 257
     -450.8
     Df Model:
     Covariance Type:
                           nonrobust
                       coef std err t P>|t| [0.025]
     0.975]
     d_eps_seas_perc
                     0.0198 0.010 2.077 0.039
                                                           0.001
     ______
     Omnibus:
                              83.808 Durbin-Watson:
                                                                 1.797
     Prob(Omnibus):
                               0.000 Jarque-Bera (JB):
                                                               394.765
     Skew:
                              -1.234 Prob(JB):
                                                              1.90e-86
     Kurtosis:
                               8.535
                                      Cond. No.
                                                                  1.00
     [1] R^2 is computed without centering (uncentered) since the model does not
     contain a constant.
     [2] Standard Errors assume that the covariance matrix of the errors is correctly
     specified.
[253]: results = model.fit(cov_type="cluster", cov_kwds={"groups":__

→df_perc_vars["ticker"]})
     results.params
     print(results.summary())
```

OLS Regression Results

```
______
    Dep. Variable:
                      abnor_ret5 R-squared:
                                                      0.022
    Model:
                           OLS Adj. R-squared:
                                                      0.018
    Method:
                   Least Squares F-statistic:
                                                     6.596
    Date:
                 Tue, 21 Sep 2021 Prob (F-statistic):
                                                    0.0206
    Time:
                        15:45:25 Log-Likelihood:
                                                    229.69
    No. Observations:
                           258
                              AIC:
                                                     -455.4
    Df Residuals:
                           256 BIC:
                                                     -448.3
    Df Model:
                           1
    Covariance Type:
                        cluster
    _____
                   coef std err z P>|z| [0.025]
    0.975]
    ______
    const
                -0.0110 0.009 -1.226 0.220 -0.029
    0.007
    d_eps_seas_perc 0.0233 0.009 2.568 0.010 0.006
    0.041
    ______
    Omnibus:
                         83.999 Durbin-Watson:
                                                      1.813
    Prob(Omnibus):
                         0.000 Jarque-Bera (JB):
                                                   390.959
    Skew:
                         -1.241 Prob(JB):
                                                   1.27e-85
    Kurtosis:
                         8.496 Cond. No.
                                                      1.61
    ______
    Notes:
    [1] Standard Errors are robust to cluster correlation (cluster)
[254]: model_nocons = sm.OLS(Y, X)
    results = model_nocons.fit(
       cov_type="cluster", cov_kwds={"groups": df_perc_vars["ticker"]}
    results.params
    print(results.summary())
                          OLS Regression Results
    ======
    Dep. Variable: abnor_ret5 R-squared (uncentered):
    0.017
    Model:
                           OLS
                              Adj. R-squared (uncentered):
    0.013
                   Least Squares F-statistic:
    Method:
    5.212
    Date:
                 Tue, 21 Sep 2021 Prob (F-statistic):
```

```
0.0364
Time:
                    15:45:28 Log-Likelihood:
228.19
No. Observations:
                        258 AIC:
-454.4
Df Residuals:
                        257 BIC:
-450.8
Df Model:
Covariance Type:
                     cluster
              coef std err z P>|z| [0.025]
0.975]
d_eps_seas_perc 0.0198 0.009 2.283 0.022 0.003
0.037
______
Omnibus:
                     83.808 Durbin-Watson:
                                                     1.797
                      0.000 Jarque-Bera (JB):
Prob(Omnibus):
                                                  394.765
Skew:
                      -1.234 Prob(JB):
                                                  1.90e-86
                       8.535 Cond. No.
Kurtosis:
                                                     1.00
______
Notes:
[1] R^2 is computed without centering (uncentered) since the model does not
contain a constant.
[2] Standard Errors are robust to cluster correlation (cluster)
```

```
[255]: Y = df_perc_vars["abnor_ret5"]
       X = df_perc_vars["d_eps_seas"]
       X_model = sm.add_constant(X)
       model = sm.OLS(Y, X_model)
       results = model.fit()
       results.params
       print(results.summary())
```

OLS Regression Results

	=======================================		=======================================
Dep. Variable:	abnor_ret5	R-squared:	0.001
Model:	OLS	Adj. R-squared:	-0.003
Method:	Least Squares	F-statistic:	0.2633
Date:	Tue, 21 Sep 2021	Prob (F-statistic):	0.608
Time:	15:45:36	Log-Likelihood:	226.95
No. Observations:	258	AIC:	-449.9
Df Residuals:	256	BIC:	-442.8
Df Model:	1		
Covariance Type:	nonrobust		

=========	========	========		========	========	========
	coef	std err	t	P> t	[0.025	0.975]
const d_eps_seas	-0.0081 0.0028	0.006 0.006	-1.292 0.513	0.198 0.608	-0.021 -0.008	0.004 0.014
Omnibus: Prob(Omnibus Skew:	3):	0.	.000 Jarq	======= in-Watson: ue-Bera (JB (JB):):	1.836 388.618 4.10e-85
Kurtosis:	:=======	8. ========	.551 Cond	. No.	========	1.18

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

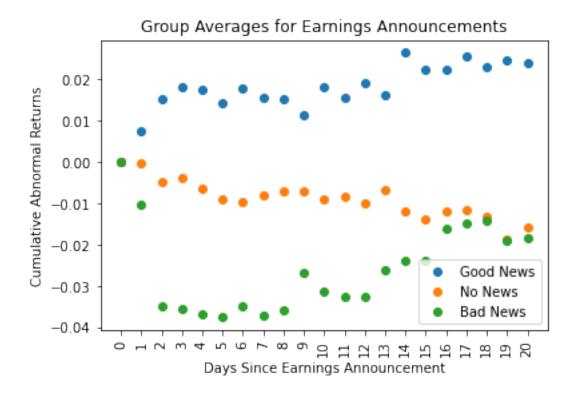
```
[256]: gn_bn_nn(df_perc_vars, "abnor_ret20", "d_eps_seas_perc", 0.33)
```

```
69.000000
count
mean
          0.024139
std
          0.135232
min
         -0.366170
25%
         -0.058822
50%
          0.038685
75%
          0.129780
          0.289793
max
Name: abnor_ret20, dtype: float64
count
         143.000000
          -0.015751
mean
           0.144865
std
          -0.711750
\min
25%
          -0.057992
50%
          -0.004628
75%
           0.049581
           0.391570
Name: abnor_ret20, dtype: float64
count
         46.000000
mean
         -0.018544
std
          0.144613
         -0.382448
min
25%
         -0.084645
50%
         -0.011010
75%
          0.059323
max
          0.361297
Name: abnor_ret20, dtype: float64
```

[257]: time = [] gn_vector = []

```
bn_vector = []
       nn_vector = []
       for i in range (0, 21):
           time.append(i)
       for i in range(0, 21):
           meanzy_gn = df_perc_vars["abnor_ret" + str(i)][df_perc_vars["gn"] == True].
       →mean()
           gn_vector.append(meanzy_gn)
           meanzy_bn = df_perc_vars["abnor_ret" + str(i)][df_perc_vars["bn"] == True].
        →mean()
           bn vector.append(meanzy bn)
           meanzy_nn = df_perc_vars["abnor_ret" + str(i)][df_perc_vars["nn"] == True].
        →mean()
           nn_vector.append(meanzy_nn)
[258]: sum(gn_vector) / len(gn_vector)
[258]: 0.0176210370117001
[259]: sum(nn_vector) / len(nn_vector)
[259]: -0.008920947700953197
[260]: sum(bn_vector) / len(bn_vector)
[260]: -0.025882410568338326
[261]: gn_vector[20]
[261]: 0.024139151911980284
[262]: nn_vector[20]
[262]: -0.015750713304020524
[263]: bn_vector[20]
[263]: -0.018543653274323654
[264]: graphix = pd.DataFrame(
           list(zip(time, gn_vector, bn_vector, nn_vector)),
           columns=["time", "gn", "bn", "nn"],
[265]: graphix
```

```
[265]:
          time
                                 bn
                       gn
             0 0.000000 0.000000 0.000000
      0
      1
             1 0.007636 -0.010430 -0.000251
      2
             2 0.015099 -0.035036 -0.004836
      3
             3 0.018228 -0.035652 -0.003932
      4
             4 0.017537 -0.036874 -0.006459
      5
             5 0.014145 -0.037521 -0.008895
             6 0.017928 -0.034766 -0.009636
      6
      7
             7 0.015612 -0.037246 -0.008194
             8 0.015159 -0.035775 -0.007057
      8
      9
             9 0.011501 -0.026699 -0.006984
      10
             10 0.018029 -0.031370 -0.008850
      11
                0.015612 -0.032687 -0.008448
             11
      12
                0.019017 -0.032710 -0.009835
             12
      13
                0.016275 -0.026164 -0.006774
      14
             14 0.026413 -0.024005 -0.011899
      15
             15
                0.022377 -0.023763 -0.013819
             16 0.022436 -0.016202 -0.011979
      16
      17
             17
                0.025452 -0.014829 -0.011580
      18
             18
                0.022951 -0.014327 -0.013338
      19
                0.024496 -0.018931 -0.018825
             19
      20
             20 0.024139 -0.018544 -0.015751
[266]: plt.scatter(graphix["time"], graphix["gn"], label="Good News")
      plt.scatter(graphix["time"], graphix["nn"], label="No News")
      plt.scatter(graphix["time"], graphix["bn"], label="Bad News")
      plt.xticks(graphix["time"], rotation="vertical")
      plt.xlabel("Days Since Earnings Announcement")
      plt.ylabel("Cumulative Abnormal Returns")
      plt.legend()
      plt.title("Group Averages for Earnings Announcements")
      plt.savefig("Mackinlay_Graph.pdf", bbox_inches="tight")
```



[267]: df_perc_vars.to_excel("abnormal.xlsx", index=False)