investment guide

Release 1.0.0

jj

Jan 21, 2022

CONTENTS

CHAPTER

ONE

ABOUT

Investing in emerging markets is not as straightforward as one might think. The only way is up? Not really…

Emerging markets can be compared to America before 1900. (idea : Mark Faber)

A lot of boom and bust, and signs of globalisation. English investors withdrawing money for other purposes.

After reading quite a few books on investing, I have become convinced that the stock exchange can generate a return, but not all the time.

I think there are seasons. So you seed and harvest, but in the correct season.

Most small time investors like myself end up in losing money,

This book is automatically generated from Jupyter notebooks that capture realtime (up to date) data from the internet.

The purpose is not a weatherforcast but a season-detection, which could support investment decisions.

CHAPTER

TWO

EM INDONESIA

2.1 relationship between currency rate - inflation - stockexchange

an attempt to use free available data sources, and to investigate if there is any predictive aspect to this

- The parameter that is lacking, is politics. (howto to quantify this?)
- Currency as a parameter is examined
- futures in the bond market, currency default swaps, spread ….

$$\alpha\beta\gamma\Delta\Gamma$$

```
2022-01-05
```

```
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↪http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common https://sdw-wsrest.ecb.
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```

Hmmm, the response is in XML. Not impossible, but also not the easiest format to work within Pandas. Fortunately, the ECB's API lets us get the data in CSV format by specifying it in the header of the request.

```
<Response [200]>
```

```
'KEY,FREQ,CURRENCY,CURRENCY_DENOM,EXR_TYPE,EXR_SUFFIX,TIME_PERIOD,OBS_VALUE,
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```

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↪,A,,,,,,,,,2,,DE2,,Indonesian rupiah/Euro,"ECB reference exchange rate,␣
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↪IDR,EUR,SP00,A,2015-12-03,14733.44,A,,,,P1D,,A,,,,,,,,,2,,DE2,,Indonesian␣
↪rupiah/Euro,"ECB reference exchange rate, Indonesian rupiah/Euro, 2:15 pm␣
↪(C.E.T.)",IDR,0rnEXR.D.IDR.EUR.SP00.A,D,IDR,EUR,SP00,A,2015-12-04,15094.88,
↪A,,,,P1D,,A,,,,,,,,,2,,DE2,,Indonesian rupiah/Eur'
```

The columns we need are 'TIME_PERIOD' for the dates and 'OBS_VALUE' for the prices. Let's also do a sanity check on the prices in 'OBS_VALUE'.

```
count     1562.000000
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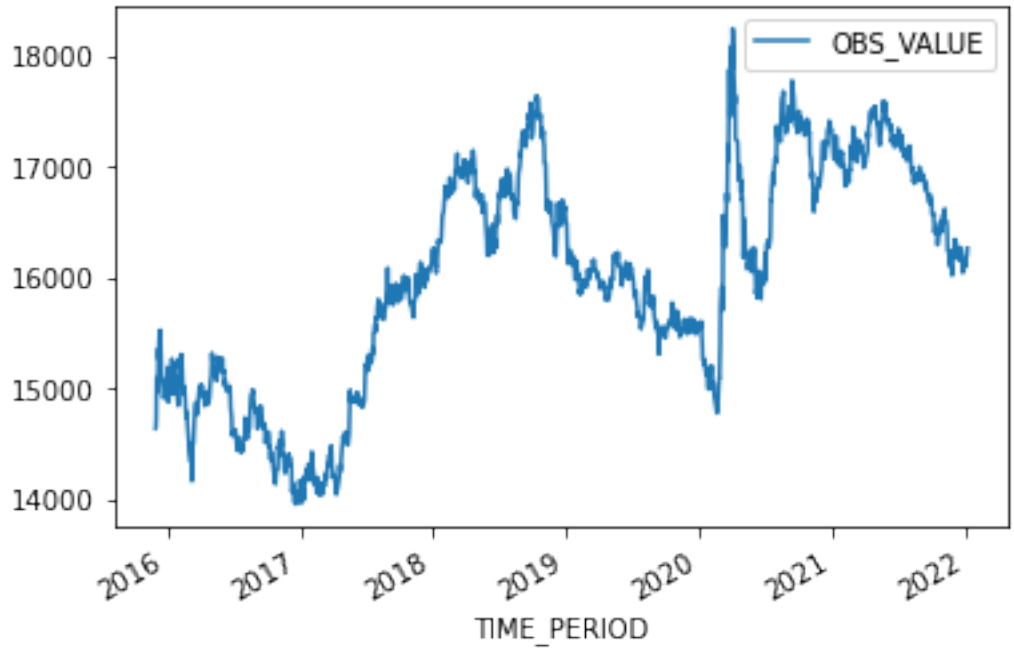
std       1005.163041
min      13959.270000
25%      15147.605000
50%      16040.725000
75%      16875.982500
max      18239.610000
Name: OBS_VALUE, dtype: float64
```

the spike is the FX - market is 2021-12-20 where you get 20.0434 Lira for 1 Euro.

```
<AxesSubplot:xlabel='TIME_PERIOD'>
```



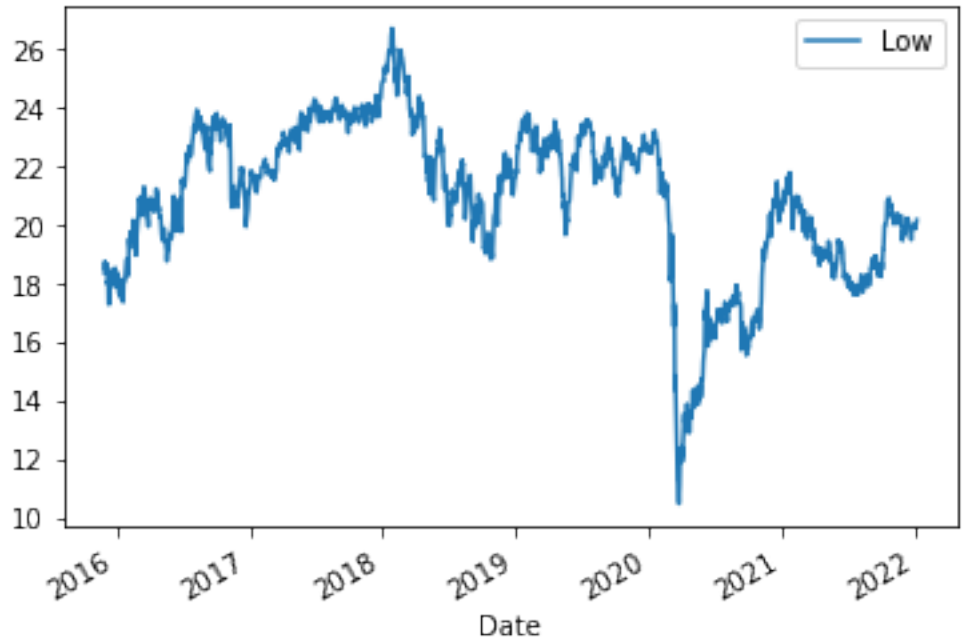
Indonesian Rupiah against EURO - data taken from ECB

watch the 2020 spike in exchange ratio, which I think is an outflow of capital to US/Europe

Now we import data from the Indonesian stock exchange, IDX - VanEck Vectors Indonesia Index ETF

```
[**********100%**********]  1 of 1 completed
```

```
<AxesSubplot:xlabel='Date'>
```



graph is IDX - VanEck Vectors Indonesia Index ETF

```
[**********100%**********]  1 of 1 completed
```

```
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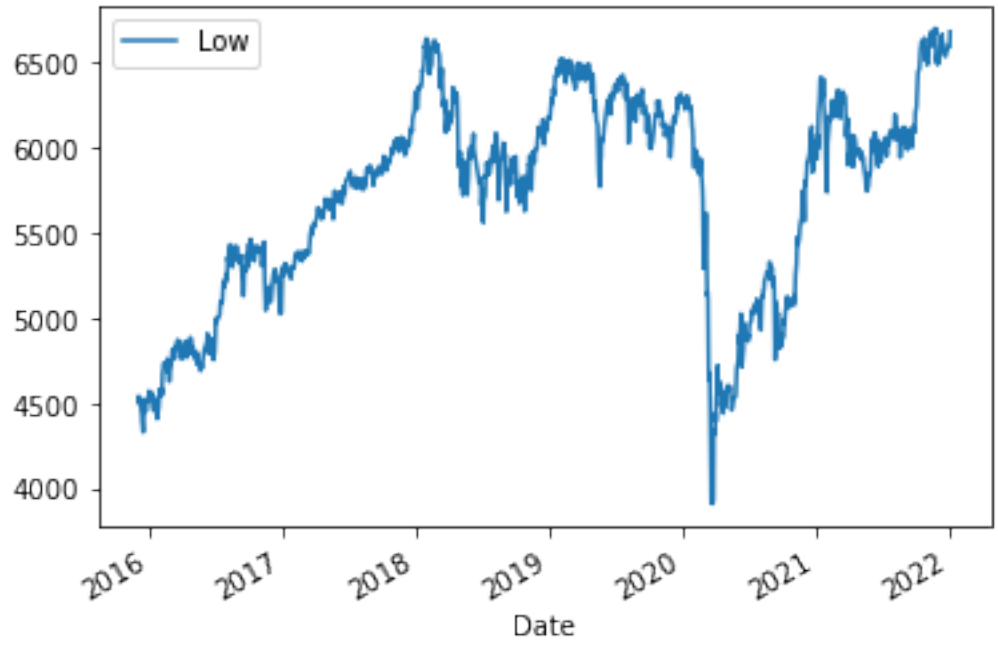
```



jakarta stock exchange in Rupiah

```
[**********100%**********]  1 of 1 completed
```

```
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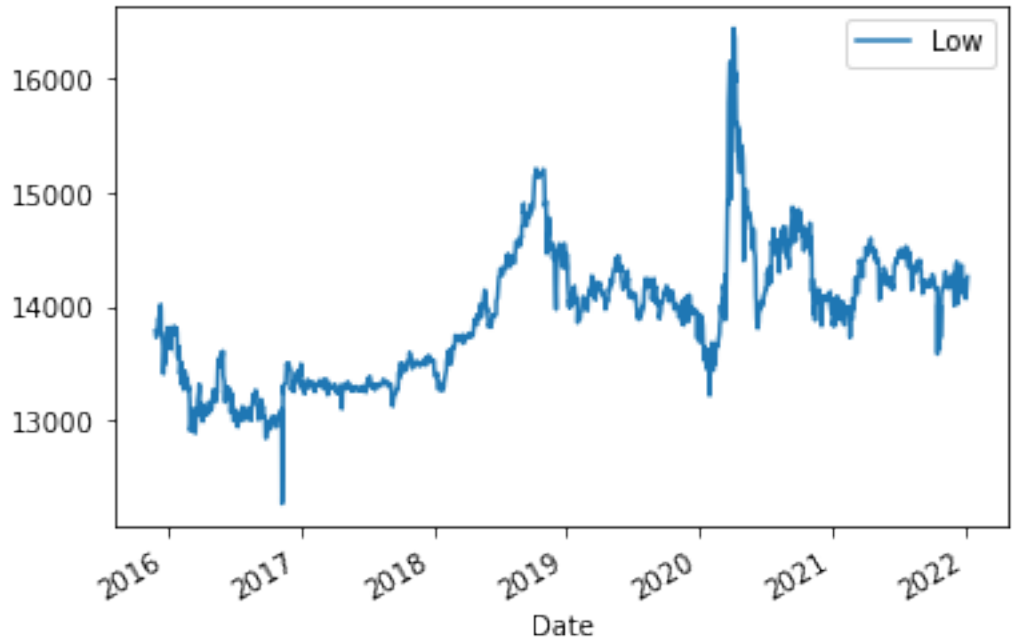
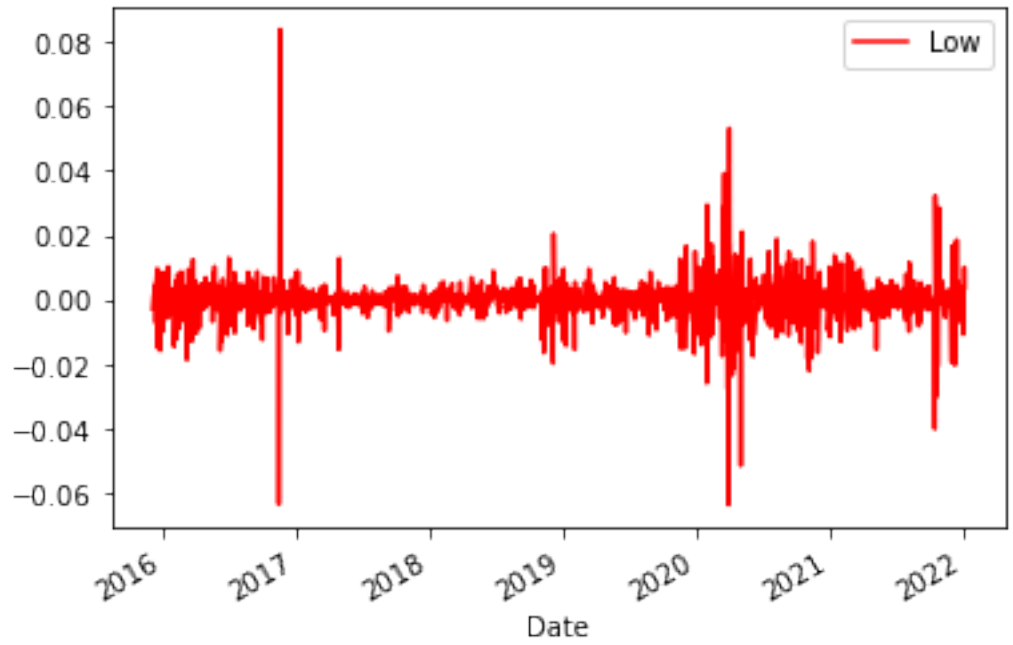
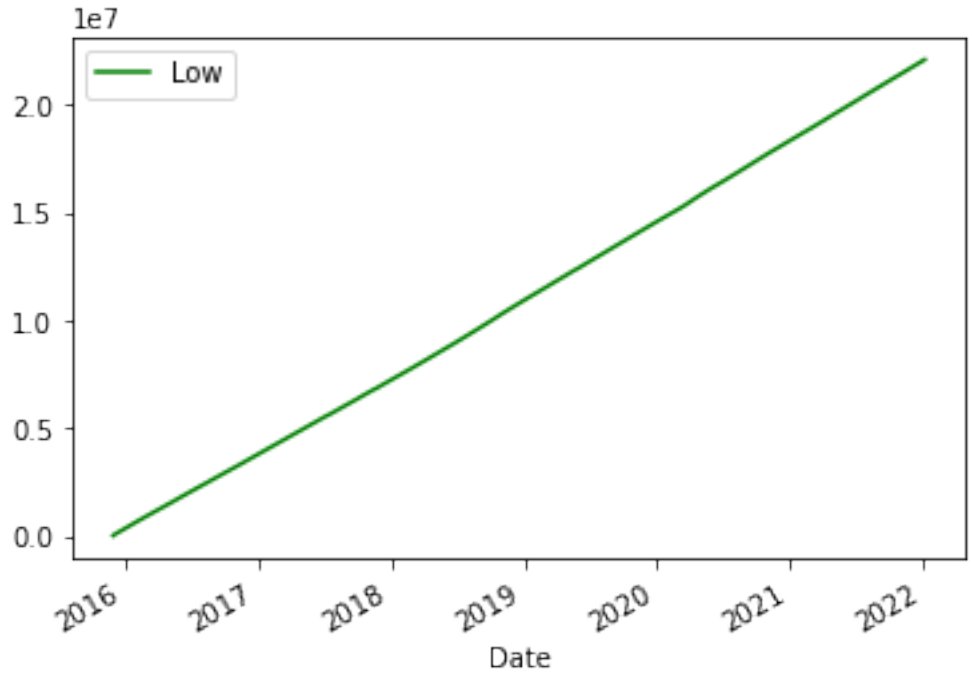
```



this is the indonesian rupiah against the dollar



this is the indonesian rupiah against the dollar daily change percentage




```
---------------------------------------------------------------------------

TypeError                                 Traceback (most recent call last)

/tmp/ipykernel_11872/3973843293.py in <module>
      9 dftcurstokfil.tail()
     10 #dfcurstock.tail()
---> 11 dftcurstokfil.plot()


~/anaconda3/lib/python3.8/site-packages/pandas/plotting/_core.py in __call__(self,␣
↪*args, **kwargs)
    970                     data.columns = label_name
    971
--> 972         return plot_backend.plot(data, kind=kind, **kwargs)
    973
    974     __call__.__doc__ = __doc__


~/anaconda3/lib/python3.8/site-packages/pandas/plotting/_matplotlib/__init__.py in␣
↪plot(data, kind, **kwargs)
     69             kwargs["ax"] = getattr(ax, "left_ax", ax)
     70     plot_obj = PLOT_CLASSES[kind](data, **kwargs)
---> 71     plot_obj.generate()
     72     plot_obj.draw()
     73     return plot_obj.result


~/anaconda3/lib/python3.8/site-packages/pandas/plotting/_matplotlib/core.py in␣
↪generate(self)
    284     def generate(self):
    285         self._args_adjust()
--> 286         self._compute_plot_data()
```

(continues on next page)

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```
    287         self._setup_subplots()
    288         self._make_plot()


~/anaconda3/lib/python3.8/site-packages/pandas/plotting/_matplotlib/core.py in _
↪compute_plot_data(self)
    451         # no non-numeric frames or series allowed
    452         if is_empty:
--> 453             raise TypeError("no numeric data to plot")
    454
    455         self.data = numeric_data.apply(self._convert_to_ndarray)


TypeError: no numeric data to plot
```

in this graph there is a correlation between exchange rate and stock index, this begs the question if in the case of the indonesian stock exchange, we can use a significant change in currency rate as a signal to quit?

In order to get a clear idea, let's examine the 2020 covid crisis.

CHAPTER

THREE

EM RUSSIA

3.1 relationship between currency rate - inflation - stockexchange

an attempt to use free available data sources, and to investigate if there is any predictive aspect to this

- The parameter that is lacking, is politics. (howto to quantify this?)
- Russia has been fighting inflation

$$\alpha\beta\gamma\Delta\Gamma$$

```
this report is valid till :  2022-01-14
```

Russian rubel against EURO - data taken from ECB

Now we import data from the Indonesian stock exchange, IDX - VanEck Vectors Indonesia Index ETF

```
[**********100%**********]  1 of 1 completed
```

```
<AxesSubplot:xlabel='Date'>
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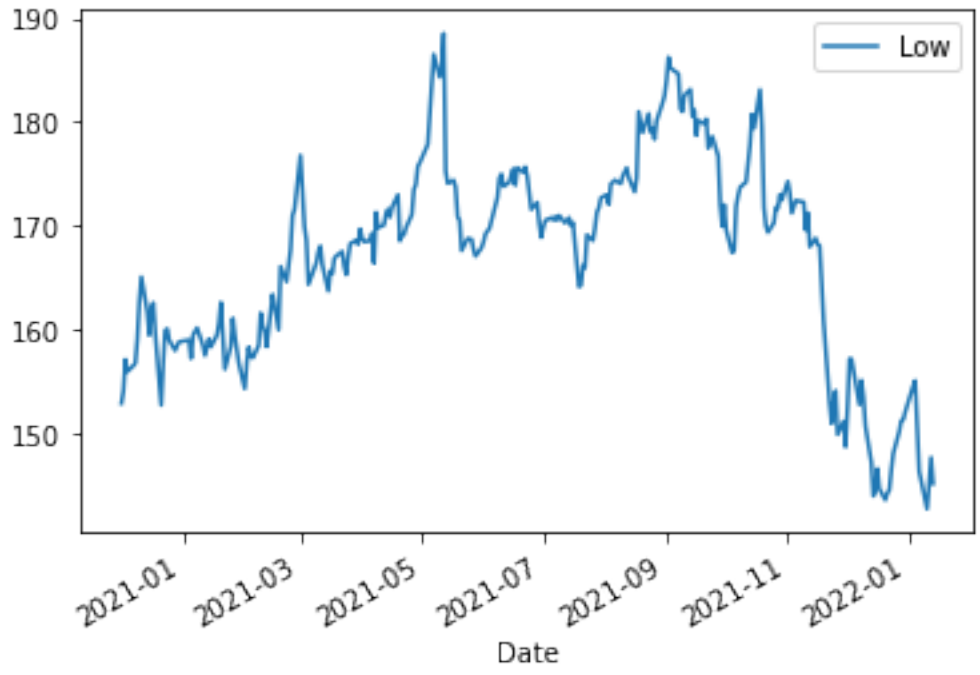
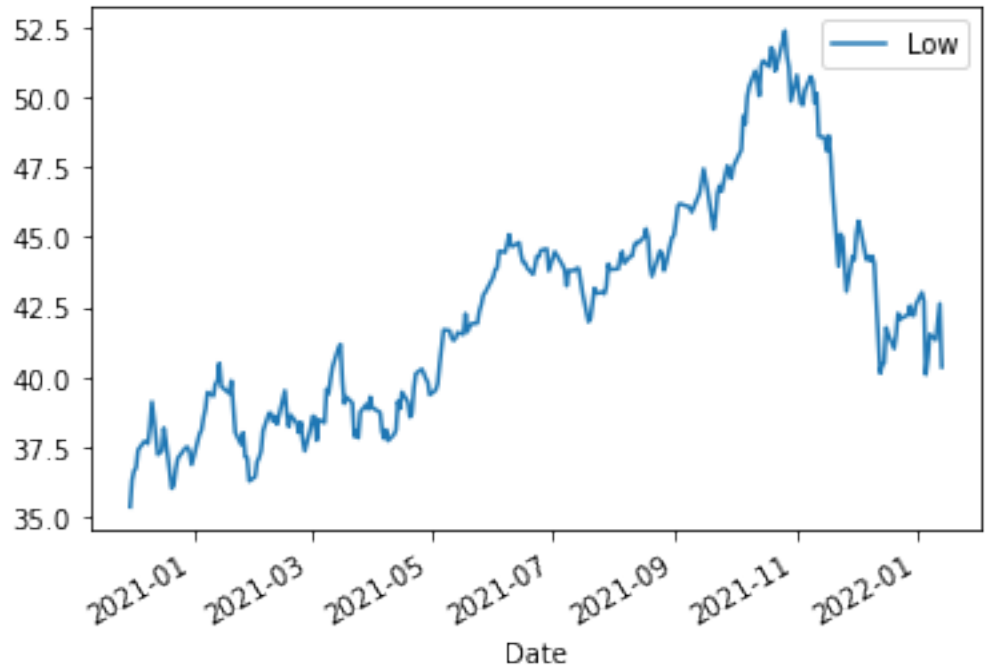


Public Joint-Stock Company Moscow Exchange MICEX-RTS (MOEX.ME) MCX - MCX Real Time Price. Currency in RUB

is there a way to get a headstart in information about currency : libor rate, cds . . . ?

```
[**********100%**********]  1 of 1 completed
```

```
<AxesSubplot:xlabel='Date'>
```

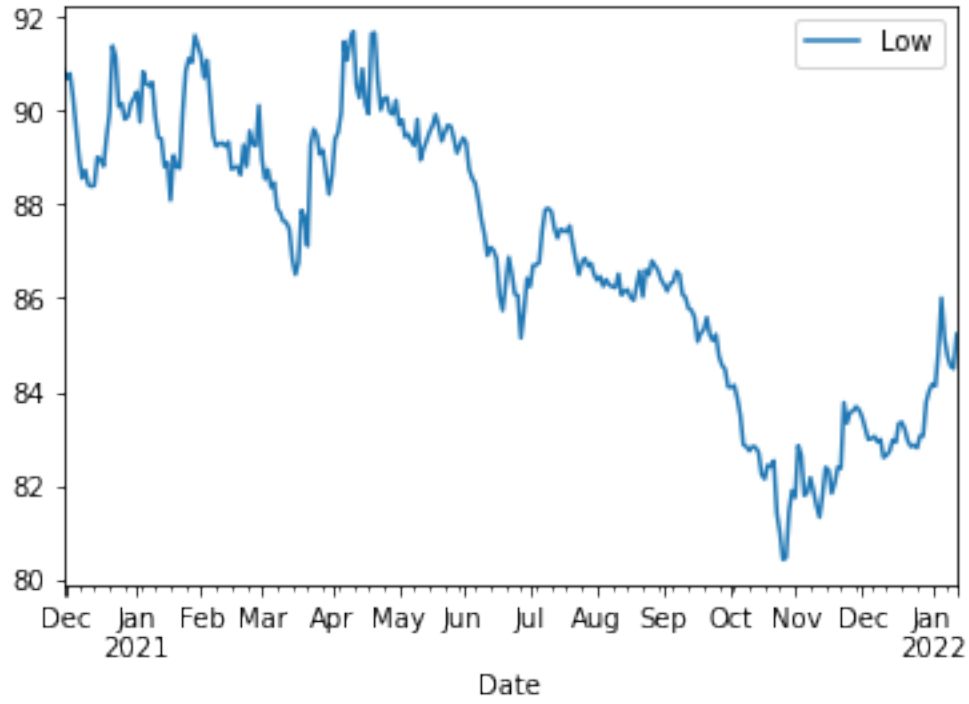


this is an ETF on russian companies

- Gazprom PJSC GAZP 14.29%
- Sberbank of Russia PJSC SBER 13.11%
- PJSC Lukoil LKOH 11.75%
- Mining and Metallurgical Company NORILSK NICKEL PJSC GMKN 5.58%
- NOVATEK PJSC GDR NVTK 4.97%
- Yandex NV Shs Class-A- YNDX 4.74%
- TCS Group Holding PLC GDR Repr Class -A- Reg-S TCS 4.54%
- Tatneft PJSC TATN 4.10%
- Rosneft Oil Co ROSN 3.33%
- Polyus PJSC PLZL 3.06%

```
[**********100%**********]  1 of 1 completed
```

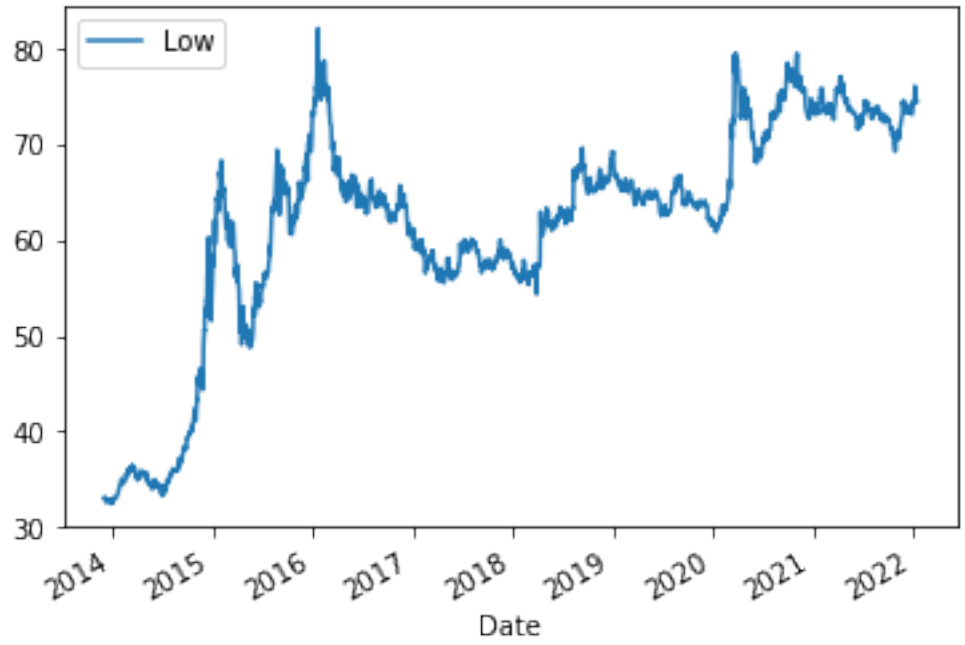
```
<AxesSubplot:xlabel='Date'>
```



this is russian rubel against the euro

```
[**********100%**********]  1 of 1 completed
```

```
<AxesSubplot:xlabel='Date'>
```



this is the russian rubel against the dollar

CHAPTER

FOUR

EM TURKEY

4.1 relationship between currency rate - inflation - stockexchange

Turkey is right now (22/01/22) not the place to invest, but it is really interesting because a lot is happening.

I'm particularly interested in the relation between currency (Forex) and stock market.

From september 5th (8.5) till december 19th (16.70) the Turkish Lira dropped almost half in value. An intervention of the Turkish national bank (selling of reserves) got the Lira back up till (13).

A report from EMFI predicts an inversion of the yield curve and an inflation of (70%)!! for 2022. "SELL" is the advice to bondowners ....

$$\beta\Gamma$$

```
2022-01-21
```

```
<Response [200]>
https://sdw-wsrest.ecb.europa.eu/service/data/EXR/D.TRY.EUR.SP00.A?startPeriod=2021-
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```

```
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↪generic" xsi:schemaLocation="http://www.sdmx.org/resources/sdmxml/schemas/v2_1/
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↪http://www.sdmx.org/resources/sdmxml/schemas/v2_1/common https://sdw-wsrest.ecb.
↪europa.eu:443/vocabulary/sdmx/2_1/SDMXCommon.xsd http://www.sdmx.org/resources/
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```

Hmmm, the response is in XML. Not impossible, but also not the easiest format to work within Pandas. Fortunately, the ECB's API lets us get the data in CSV format by specifying it in the header of the request.

```
<Response [200]>
```

```
'KEY,FREQ,CURRENCY,CURRENCY_DENOM,EXR_TYPE,EXR_SUFFIX,TIME_PERIOD,OBS_VALUE,
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↪lira (TRL) divided by 1,000,000 is used",,4,,DE2,,Turkish lira/Euro,"ECB␣
↪reference exchange rate, Turkish lira/Euro, 2:15 pm (C.E.T.)",TRY,0rnEXR.
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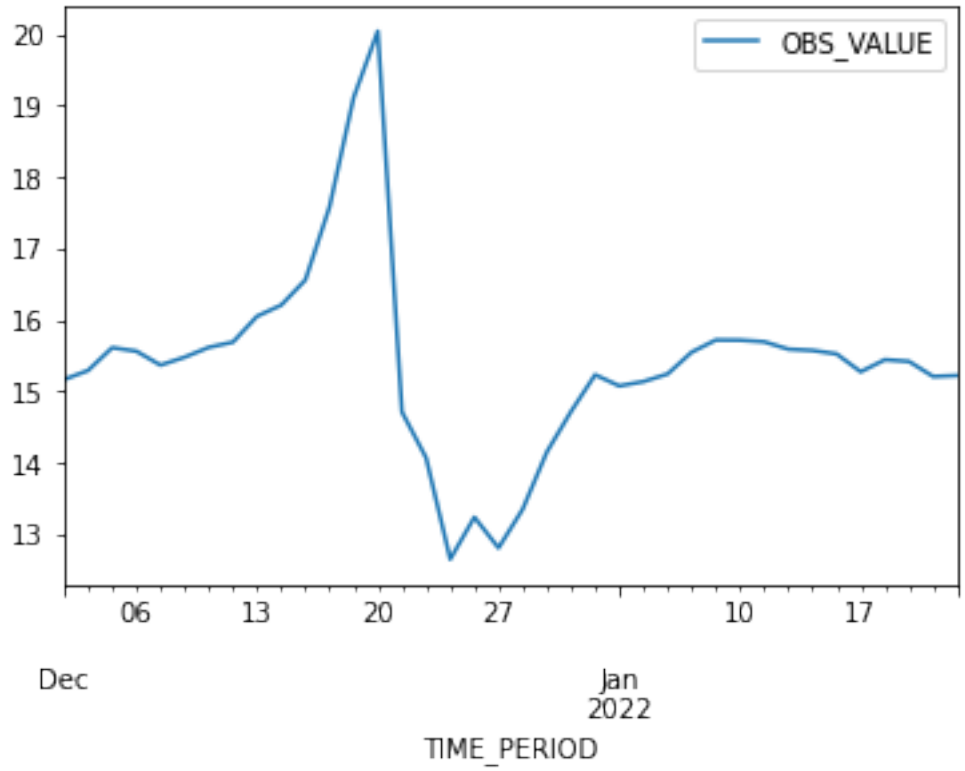
↪15.6131,A,F,,,P1D,,A,,,,,,,,"Before 1st January 2005 Turkish lira (TRL)␣
↪divided by 1,000,000 is used",,4,,DE2,,Turkish li'
```

The columns we need are 'TIME_PERIOD' for the dates and 'OBS_VALUE' for the prices. Let's also do a sanity check on the prices in 'OBS_VALUE'.

```
count    38.000000
mean     15.413537
std       1.384352
min      12.652500
25%      15.145400
50%      15.432700
75%      15.672475
max      20.043400
Name: OBS_VALUE, dtype: float64
```

the spike is the FX - market is 2021-12-20 where you get 20.0434 Lira for 1 Euro.

```
<AxesSubplot:xlabel='TIME_PERIOD'>
```



Turkish lira against EURO - data taken from ECB, you can see a spike at december 20th. Subsequently there is an intervention from the Turkish national bank, supporting the Turkish lira : - statement by president Erdogan - sell of foreign reserves

The new deposit scheme, called byBloomberg a rate increase in disguise, could be short-term gain and longterm pain, as the mechanism basically transfers FX risks from the private sector to the government, with the latter guaranteeing depositor's returns by covering any losses caused by a depreciation in the lira, as long as those losses exceed the bank's interest rates. This in eAect creates a liability for the government, which would come back to bite in case the lira weakens again. To make matters worse, authorities might choose to monetize the obligation, thus putting more pressure on inCation and the lira, creating a vicious cycle that could get out of

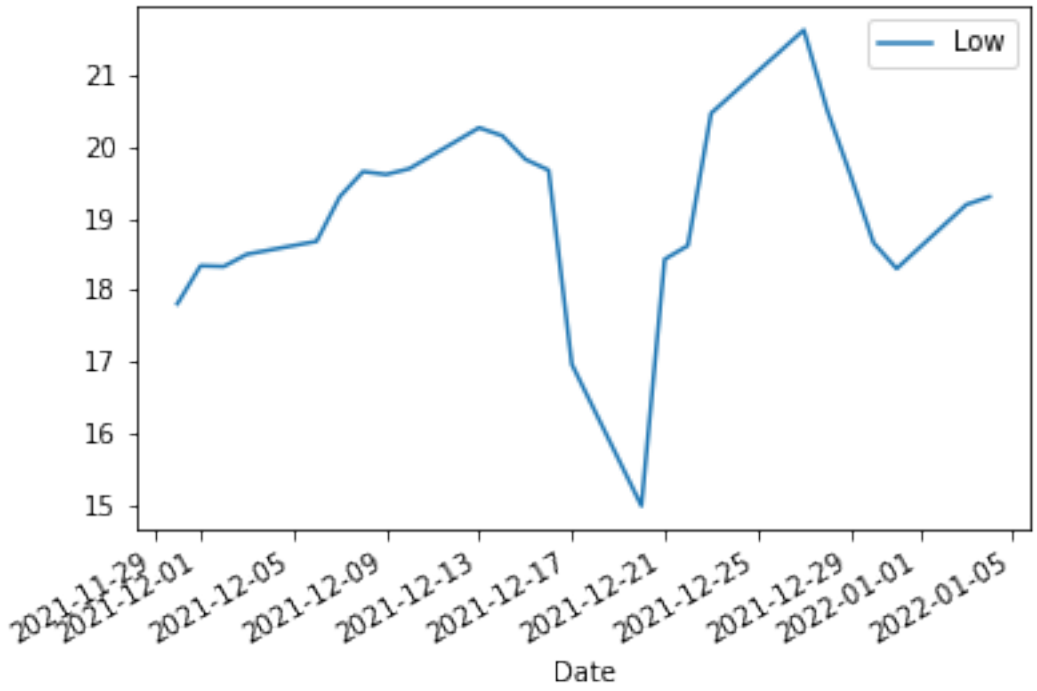
Summarizing, Turkey's outlook includes more inflation, more long-term currency depreciation and no interest rate hikes to correct these moves; on the contrary, it looks like the president will continue to blame everybody and everything else but his beliefs. Brace yourself, Turkey.

Now we import data from the turkish stock exchange, we use the iShares MSCI Turkey.

```
[**********100%**********]  1 of 1 completed
```

you can see : 2021-12-20 a 15.290000 low, which is same date as currency hike. **hypothesis:** somebody is closely watching exchange rate on spot market and hits "sell-button" on stock-exchange?

```
<AxesSubplot:xlabel='Date'>
```



graph is turkish MSCI index in dollar

```
[**********100%**********]  1 of 1 completed
```

```
<AxesSubplot:xlabel='Date'>
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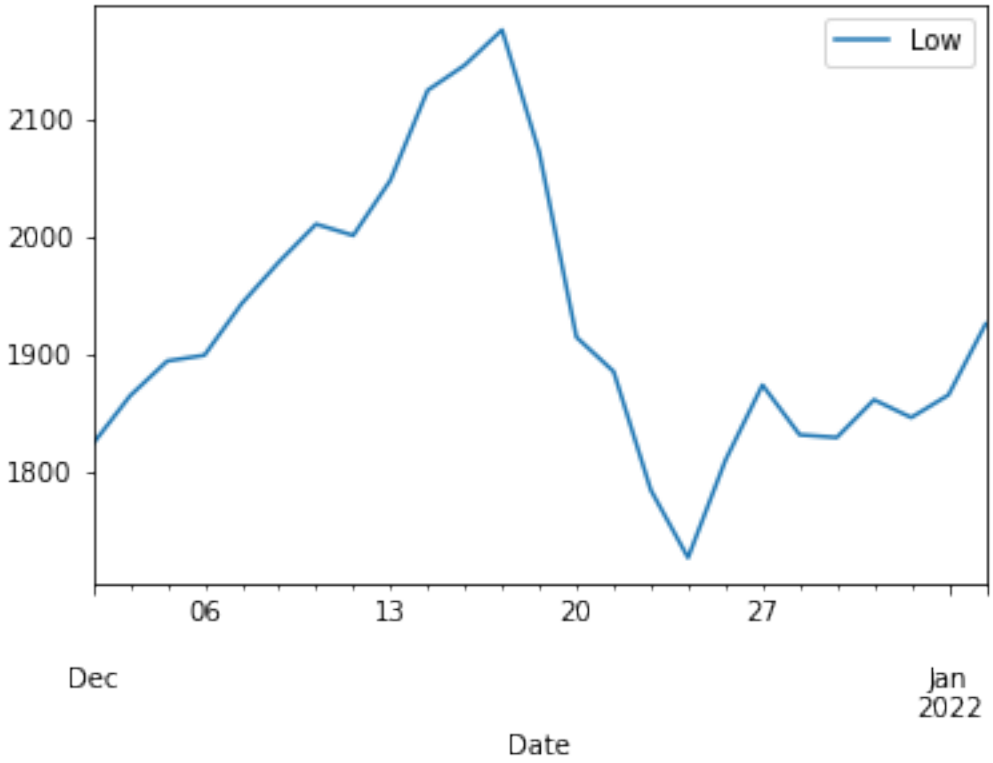

in order to get inflation data (which is probably even higher) a technique “webscraping” is used

```
<Response [200]>
test
```

Credit Default Swaps – different types for CDS on ABS - continued - Fixed Cap: Maximum amount that the protection seller has to pay buyer is the Fixed Rate - Variable Cap: Protection seller has to make up any interest shortfall on the bond up to LIBOR plus the Fixed Rate - No Cap: Protection seller has to make up any interest shortfall on the bond

is there a way to get a headstart in information about currency : libor rate, cds . . . ?