

# data-pipelining-with-polygon

December 30, 2025

## 1 Data Pipelining With Polygon

### 1.1 Python Imports

```
[1]: # Standard Library
import datetime
import io
import os
import random
import sys
import time
import warnings

from datetime import datetime, timedelta
from pathlib import Path

# Data Handling
import numpy as np
import pandas as pd

# Data Visualization
import matplotlib.dates as mdates
import matplotlib.pyplot as plt
import matplotlib.ticker as mtick
import seaborn as sns
from matplotlib.ticker import FormatStrFormatter, FuncFormatter, MultipleLocator

# Data Sources
import yfinance as yf

# Statistical Analysis
import statsmodels.api as sm

# Machine Learning
from sklearn.decomposition import PCA
from sklearn.preprocessing import StandardScaler

# Suppress warnings
```

```
warnings.filterwarnings("ignore")
```

## 1.2 Add Directories To Path

```
[2]: # Add the source subdirectory to the system path to allow import config from
      ↵settings.py
current_directory = Path(os.getcwd())
website_base_directory = current_directory.parent.parent.parent
src_directory = website_base_directory / "src"
sys.path.append(str(src_directory)) if str(src_directory) not in sys.path else
      ↵None

# Import settings.py
from settings import config

# Add configured directories from config to path
SOURCE_DIR = config("SOURCE_DIR")
sys.path.append(str(Path(SOURCE_DIR))) if str(Path(SOURCE_DIR)) not in sys.path else
      ↵None

# Add other configured directories
BASE_DIR = config("BASE_DIR")
CONTENT_DIR = config("CONTENT_DIR")
POSTS_DIR = config("POSTS_DIR")
PAGES_DIR = config("PAGES_DIR")
PUBLIC_DIR = config("PUBLIC_DIR")
SOURCE_DIR = config("SOURCE_DIR")
DATA_DIR = config("DATA_DIR")
DATA_MANUAL_DIR = config("DATA_MANUAL_DIR")

# Print system path
for i, path in enumerate(sys.path):
    print(f"{i}: {path}")
```

```
0: /usr/lib/python313.zip
1: /usr/lib/python3.13
2: /usr/lib/python3.13/lib-dynload
3:
4: /home/jared/python-virtual-envs/general_313/lib/python3.13/site-packages
5:
/home/jared/Cloud_Storage/Dropbox/Websites/jaredszajkowski.github.io_congo/src
```

## 1.3 Track Index Dependencies

```
[3]: # Create file to track markdown dependencies
dep_file = Path("index_dep.txt")
dep_file.write_text("")
```

[3]: 0

## 1.4 Python Functions

```
[4]: from export_track_md_deps import export_track_md_deps
from polygon_fetch_full_history import polygon_fetch_full_history
from polygon_pull_data import polygon_pull_data
```

## 1.5 Function Usage

### 1.5.1 Polygon Fetch Full History

```
[5]: from load_api_keys import load_api_keys
from polygon import RESTClient

# Load API keys from the environment
api_keys = load_api_keys()

# Get the environment variable for where data is stored
DATA_DIR = config("DATA_DIR")

# Open client connection
client = RESTClient(api_key=api_keys["POLYGON_KEY"])

# Create an empty DataFrame
df = pd.DataFrame({
    'Date': pd.Series(dtype="datetime64[ns]"),
    'open': pd.Series(dtype="float64"),
    'high': pd.Series(dtype="float64"),
    'low': pd.Series(dtype="float64"),
    'close': pd.Series(dtype="float64"),
    'volume': pd.Series(dtype="float64"),
    'vwap': pd.Series(dtype="float64"),
    'transactions': pd.Series(dtype="int64"),
    'otc': pd.Series(dtype="object")
})

# Example usage - minute
df = polygon_fetch_full_history(
    client=client,
    ticker="AMZN",
    timespan="day",
    multiplier=1,
    adjusted=True,
    existing_history_df=df,
    current_start=datetime(2025, 1, 1),
    free_tier=True,
```

```
    verbose=True,  
)  
)
```

Pulling day data for 2025-01-01 00:00:00 thru 2025-06-30 00:00:00 for AMZN...

New data:

```
          Date      open     high      low    close   volume \
0  2025-01-02 05:00:00  222.030  225.150  218.190  220.22  33956579.0
1  2025-01-03 05:00:00  222.505  225.360  221.620  224.19  27515606.0
2  2025-01-06 05:00:00  226.780  228.835  224.840  227.61  31849831.0
3  2025-01-07 05:00:00  227.900  228.381  221.460  222.11  28084164.0
4  2025-01-08 05:00:00  223.185  223.520  220.200  222.13  25033292.0
..
117 2025-06-24 04:00:00  212.135  214.340  211.045  212.77  38378757.0
118 2025-06-25 04:00:00  214.615  216.030  211.110  211.99  31755698.0
119 2025-06-26 04:00:00  213.120  218.035  212.010  217.12  50480814.0
120 2025-06-27 04:00:00  219.920  223.300  216.740  223.30  119217138.0
121 2025-06-30 04:00:00  223.520  223.820  219.120  219.39  58887780.0
```

```
      vwap  transactions    otc
0  221.2745        449631  None
1  223.7050        346976  None
2  227.0921        410686  None
3  223.4033        379570  None
4  222.0414        325539  None
..
117 213.1129        459901  None
118 212.8066        417565  None
119 216.0944        572822  None
120 221.7267        750603  None
121 220.6316        673189  None
```

[122 rows x 9 columns]

Combined data:

```
          Date      open     high      low    close   volume \
0  2025-01-02 05:00:00  222.030  225.150  218.190  220.22  33956579.0
1  2025-01-03 05:00:00  222.505  225.360  221.620  224.19  27515606.0
2  2025-01-06 05:00:00  226.780  228.835  224.840  227.61  31849831.0
3  2025-01-07 05:00:00  227.900  228.381  221.460  222.11  28084164.0
4  2025-01-08 05:00:00  223.185  223.520  220.200  222.13  25033292.0
..
117 2025-06-24 04:00:00  212.135  214.340  211.045  212.77  38378757.0
118 2025-06-25 04:00:00  214.615  216.030  211.110  211.99  31755698.0
119 2025-06-26 04:00:00  213.120  218.035  212.010  217.12  50480814.0
120 2025-06-27 04:00:00  219.920  223.300  216.740  223.30  119217138.0
121 2025-06-30 04:00:00  223.520  223.820  219.120  219.39  58887780.0
```

	vwap	transactions	otc
0	221.2745	449631	None
1	223.7050	346976	None
2	227.0921	410686	None
3	223.4033	379570	None
4	222.0414	325539	None
..	..	.. ..	
117	213.1129	459901	None
118	212.8066	417565	None
119	216.0944	572822	None
120	221.7267	750603	None
121	220.6316	673189	None

[122 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2025-06-29 04:00:00 thru 2025-12-26 04:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2025-06-30 04:00:00	223.520	223.820	219.12	219.39	58887780.0	
1	2025-07-01 04:00:00	219.500	221.875	217.93	220.46	39256830.0	
2	2025-07-02 04:00:00	219.730	221.600	219.06	219.92	30894178.0	
3	2025-07-03 04:00:00	221.820	224.010	221.36	223.41	29632353.0	
4	2025-07-07 04:00:00	223.000	224.290	222.37	223.47	36604139.0	
..	..	.. ..	.. ..	.. ..	.. ..	.. ..	
120	2025-12-18 05:00:00	225.705	229.225	224.41	226.76	50267599.0	
121	2025-12-19 05:00:00	226.760	229.125	225.58	227.35	85539391.0	
122	2025-12-22 05:00:00	228.610	229.480	226.71	228.43	32189837.0	
123	2025-12-23 05:00:00	229.055	232.445	228.73	232.14	29230205.0	
124	2025-12-24 05:00:00	232.130	232.950	231.33	232.38	11392602.0	

	vwap	transactions	otc
0	220.6316	673189	None
1	220.1508	544150	None
2	220.2103	429633	None
3	222.8867	364422	None
4	223.4121	513469	None
..	..	.. ..	
120	226.8046	510971	None
121	227.4216	473871	None
122	228.1121	465884	None
123	231.3567	435723	None
124	232.3350	193487	None

[125 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2025-01-02 05:00:00	222.030	225.150	218.19	220.22	33956579.0	
1	2025-01-03 05:00:00	222.505	225.360	221.62	224.19	27515606.0	
2	2025-01-06 05:00:00	226.780	228.835	224.84	227.61	31849831.0	
3	2025-01-07 05:00:00	227.900	228.381	221.46	222.11	28084164.0	
4	2025-01-08 05:00:00	223.185	223.520	220.20	222.13	25033292.0	
..	..	..	..	..	..	..	
241	2025-12-18 05:00:00	225.705	229.225	224.41	226.76	50267599.0	
242	2025-12-19 05:00:00	226.760	229.125	225.58	227.35	85539391.0	
243	2025-12-22 05:00:00	228.610	229.480	226.71	228.43	32189837.0	
244	2025-12-23 05:00:00	229.055	232.445	228.73	232.14	29230205.0	
245	2025-12-24 05:00:00	232.130	232.950	231.33	232.38	11392602.0	

	vwap	transactions	otc
0	221.2745	449631	None
1	223.7050	346976	None
2	227.0921	410686	None
3	223.4033	379570	None
4	222.0414	325539	None
..	..	..	
241	226.8046	510971	None
242	227.4216	473871	None
243	228.1121	465884	None
244	231.3567	435723	None
245	232.3350	193487	None

[246 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2025-12-23 05:00:00 thru 2026-06-21 05:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	vwap	\
0	2025-12-23 05:00:00	229.055	232.445	228.73	232.14	29230205.0	231.3567	
1	2025-12-24 05:00:00	232.130	232.950	231.33	232.38	11392602.0	232.3350	
2	2025-12-26 05:00:00	232.035	232.990	231.18	232.52	15945174.0	232.4646	
3	2025-12-29 05:00:00	231.940	232.600	230.77	232.07	19791422.0	231.8925	

	transactions	otc
0	435723	None
1	193487	None
2	277601	None
3	352623	None

Combined data:

	Date	open	high	low	close	volume	\
0	2025-01-02 05:00:00	222.030	225.150	218.19	220.22	33956579.0	
1	2025-01-03 05:00:00	222.505	225.360	221.62	224.19	27515606.0	

```

2 2025-01-06 05:00:00 226.780 228.835 224.84 227.61 31849831.0
3 2025-01-07 05:00:00 227.900 228.381 221.46 222.11 28084164.0
4 2025-01-08 05:00:00 223.185 223.520 220.20 222.13 25033292.0
..
243 2025-12-22 05:00:00 228.610 229.480 226.71 228.43 32189837.0
244 2025-12-23 05:00:00 229.055 232.445 228.73 232.14 29230205.0
245 2025-12-24 05:00:00 232.130 232.950 231.33 232.38 11392602.0
246 2025-12-26 05:00:00 232.035 232.990 231.18 232.52 15945174.0
247 2025-12-29 05:00:00 231.940 232.600 230.77 232.07 19791422.0

      vwap  transactions   otc
0    221.2745        449631  None
1    223.7050        346976  None
2    227.0921        410686  None
3    223.4033        379570  None
4    222.0414        325539  None
..
243  228.1121        465884  None
244  231.3567        435723  None
245  232.3350        193487  None
246  232.4646        277601  None
247  231.8925        352623  None

```

[248 rows x 9 columns]

```
[6]: # Copy this <!-- INSERT_polygon_fetch_full_history_HERE --> to index_temp.md
export_track_md_deps(dep_file=dep_file, md_filename="polygon_fetch_full_history.
˓→md", content=df.head().to_markdown(floatfmt=".5f"))
```

Exported and tracked: polygon\_fetch\_full\_history.md

### 1.5.2 Polygon Pull Data

```
[7]: current_year = datetime.now().year
current_month = datetime.now().month
current_day = datetime.now().day

# Example usage - daily
df = polygon_pull_data(
    base_directory=DATA_DIR,
    ticker="AMZN",
    source="Polygon",
    asset_class="Equities",
    start_date=datetime(current_year - 2, current_month, current_day),
    timespan="day",
    multiplier=1,
    adjusted=True,
    force_existing_check=True,
```

```

        free_tier=True,
        verbose=True,
        excel_export=True,
        pickle_export=True,
        output_confirmation=True,
    )

time.sleep(12) # Sleep for 2 seconds to avoid hitting rate limits

```

File found...updating the AMZN day data.

Existing data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.010	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.870	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.690	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.230	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.840	126.4100	128.91	90855736.0	
..	..	..	..	..	..	..	
601	2025-12-18 05:00:00	225.705	229.225	224.4100	226.76	50267599.0	
602	2025-12-19 05:00:00	226.760	229.125	225.5800	227.35	85539391.0	
603	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	
604	2025-12-23 05:00:00	229.055	232.445	228.7300	232.14	29230205.0	
605	2025-12-24 05:00:00	232.130	232.950	231.3300	232.38	11392602.0	

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None
..	..	.. ..	
601	226.8046	510971	None
602	227.4216	473871	None
603	228.1121	465884	None
604	231.3567	435723	None
605	232.3350	193487	None

[606 rows x 9 columns]

Last date in existing data: 2025-12-24 05:00:00

Number of rows in existing data: 606

Forcing check of existing data...

Pulling day data for 2023-12-30 00:00:00 thru 2024-06-27 00:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2024-01-02 05:00:00	151.540	152.380	148.39	149.93	47339424.0	
1	2024-01-03 05:00:00	149.200	151.050	148.33	148.47	49425495.0	

2	2024-01-04	05:00:00	145.590	147.380	144.05	144.57	56039807.0
3	2024-01-05	05:00:00	144.690	146.590	144.53	145.24	45153147.0
4	2024-01-08	05:00:00	146.740	149.400	146.15	149.10	46757053.0
..	..	..	..	..	..	..	..
118	2024-06-21	04:00:00	187.800	189.275	185.86	189.08	72931754.0
119	2024-06-24	04:00:00	189.330	191.000	185.33	185.57	50610379.0
120	2024-06-25	04:00:00	186.810	188.840	185.42	186.34	45898475.0
121	2024-06-26	04:00:00	186.920	194.800	186.26	193.61	65103893.0
122	2024-06-27	04:00:00	195.005	199.840	194.20	197.85	74397491.0

	vwap	transactions	otc
0	149.8527	476433	None
1	149.4058	416955	None
2	145.4160	541342	None
3	145.4513	380386	None
4	148.3238	410733	None
..	..	..	..
118	188.1272	435848	None
119	187.2457	535367	None
120	186.9520	382085	None
121	192.1117	649554	None
122	197.3191	721971	None

[123 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28	04:00:00	129.690	133.010	129.3300	132.21	46269781.0
1	2023-07-31	04:00:00	133.200	133.870	132.3800	133.68	41901516.0
2	2023-08-01	04:00:00	133.550	133.690	131.6199	131.69	42250989.0
3	2023-08-02	04:00:00	130.154	130.230	126.8200	128.21	50988614.0
4	2023-08-03	04:00:00	127.480	129.840	126.4100	128.91	90855736.0
..	..	..	..	..	..	..	..
601	2025-12-18	05:00:00	225.705	229.225	224.4100	226.76	50267599.0
602	2025-12-19	05:00:00	226.760	229.125	225.5800	227.35	85539391.0
603	2025-12-22	05:00:00	228.610	229.480	226.7100	228.43	32189837.0
604	2025-12-23	05:00:00	229.055	232.445	228.7300	232.14	29230205.0
605	2025-12-24	05:00:00	232.130	232.950	231.3300	232.38	11392602.0

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None
..	..	..	..
601	226.8046	510971	None
602	227.4216	473871	None
603	228.1121	465884	None

```

604 231.3567      435723  None
605 232.3350      193487  None

```

[606 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2024-06-26 04:00:00 thru 2024-12-23 04:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2024-06-26 04:00:00	186.920	194.8000	186.26	193.61	65103893.0	
1	2024-06-27 04:00:00	195.005	199.8400	194.20	197.85	74397491.0	
2	2024-06-28 04:00:00	197.730	198.8500	192.50	193.25	76930192.0	
3	2024-07-01 04:00:00	193.490	198.2957	192.82	197.20	41192011.0	
4	2024-07-02 04:00:00	197.280	200.4300	195.93	200.00	45600013.0	
..	..	..	..	..	..	..	
120	2024-12-16 05:00:00	230.230	233.0000	228.01	232.93	37552096.0	
121	2024-12-17 05:00:00	232.390	232.7300	227.85	231.15	35948131.0	
122	2024-12-18 05:00:00	230.770	231.3999	220.11	220.52	43281443.0	
123	2024-12-19 05:00:00	224.910	226.0900	222.92	223.29	39918739.0	
124	2024-12-20 05:00:00	219.840	226.2100	218.73	224.92	88279184.0	

	vwap	transactions	otc
0	192.1117	649554	None
1	197.3191	721971	None
2	194.6710	605538	None
3	196.1129	501335	None
4	198.7859	485437	None
..	..	..	
120	231.5484	430659	None
121	230.7897	433266	None
122	225.2441	529103	None
123	224.0262	466361	None
124	223.9497	456278	None

[125 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.010	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.870	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.690	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.230	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.840	126.4100	128.91	90855736.0	
..	..	..	..	..	..	..	
601	2025-12-18 05:00:00	225.705	229.225	224.4100	226.76	50267599.0	
602	2025-12-19 05:00:00	226.760	229.125	225.5800	227.35	85539391.0	
603	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	

604	2025-12-23	05:00:00	229.055	232.445	228.7300	232.14	29230205.0
605	2025-12-24	05:00:00	232.130	232.950	231.3300	232.38	11392602.0

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None
..	..	..	..
601	226.8046	510971	None
602	227.4216	473871	None
603	228.1121	465884	None
604	231.3567	435723	None
605	232.3350	193487	None

[606 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2024-12-19 05:00:00 thru 2025-06-17 05:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2024-12-19 05:00:00	224.910	226.09	222.9200	223.29	39918739.0	
1	2024-12-20 05:00:00	219.840	226.21	218.7300	224.92	88279184.0	
2	2024-12-23 05:00:00	225.010	226.88	223.9000	225.06	28070007.0	
3	2024-12-24 05:00:00	226.940	229.14	226.1300	229.05	15007497.0	
4	2024-12-26 05:00:00	228.500	228.50	226.6706	227.05	16174500.0	
..	..	..	..	..	..	..	
117	2025-06-11 04:00:00	217.410	218.40	212.8900	213.20	39325981.0	
118	2025-06-12 04:00:00	211.780	213.58	211.3300	213.24	27639991.0	
119	2025-06-13 04:00:00	209.960	214.05	209.6200	212.10	29337763.0	
120	2025-06-16 04:00:00	212.310	217.06	211.6000	216.10	33284158.0	
121	2025-06-17 04:00:00	215.195	217.41	214.5600	214.82	32086262.0	

	vwap	transactions	otc
0	224.0262	466361	None
1	223.9497	456278	None
2	225.2708	321899	None
3	228.3619	203039	None
4	227.6146	262085	None
..	..	..	..
117	214.8840	503640	None
118	212.8655	364940	None
119	211.9129	443361	None
120	215.1622	457829	None
121	215.7332	431316	None

[122 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.010	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.870	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.690	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.230	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.840	126.4100	128.91	90855736.0	
..	..	..	..	..	..	..	\
601	2025-12-18 05:00:00	225.705	229.225	224.4100	226.76	50267599.0	
602	2025-12-19 05:00:00	226.760	229.125	225.5800	227.35	85539391.0	
603	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	
604	2025-12-23 05:00:00	229.055	232.445	228.7300	232.14	29230205.0	
605	2025-12-24 05:00:00	232.130	232.950	231.3300	232.38	11392602.0	

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None
..	..	.. ..	
601	226.8046	510971	None
602	227.4216	473871	None
603	228.1121	465884	None
604	231.3567	435723	None
605	232.3350	193487	None

[606 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2025-06-16 04:00:00 thru 2025-12-13 04:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2025-06-16 04:00:00	212.310	217.06	211.6000	216.10	33284158.0	
1	2025-06-17 04:00:00	215.195	217.41	214.5600	214.82	32086262.0	
2	2025-06-18 04:00:00	215.090	217.96	212.3400	212.52	44360509.0	
3	2025-06-20 04:00:00	214.680	214.89	208.2709	209.69	75350733.0	
4	2025-06-23 04:00:00	209.790	210.39	207.3101	208.47	37311725.0	
..	..	.. ..	.. ..	.. ..	.. ..	.. ..	\
121	2025-12-08 05:00:00	229.590	230.83	226.2700	226.89	35019072.0	
122	2025-12-09 05:00:00	226.840	228.57	225.1100	227.92	25840496.0	
123	2025-12-10 05:00:00	228.805	232.42	228.4600	231.78	38790432.0	
124	2025-12-11 05:00:00	230.710	232.11	228.6901	230.28	28248522.0	
125	2025-12-12 05:00:00	229.870	230.08	225.1200	226.19	35636939.0	

	vwap	transactions	otc
0	215.1622	457829	None
1	215.7332	431316	None
2	214.6135	475101	None
3	210.6230	591675	None
4	208.9130	513937	None
..	..	.. ..	
121	227.6878	510441	None
122	227.7138	371664	None
123	231.2702	501584	None
124	230.0536	426422	None
125	226.8227	553245	None

[126 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.010	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.870	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.690	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.230	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.840	126.4100	128.91	90855736.0	
..	..	..	..	..	..	..	\
601	2025-12-18 05:00:00	225.705	229.225	224.4100	226.76	50267599.0	
602	2025-12-19 05:00:00	226.760	229.125	225.5800	227.35	85539391.0	
603	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	
604	2025-12-23 05:00:00	229.055	232.445	228.7300	232.14	29230205.0	
605	2025-12-24 05:00:00	232.130	232.950	231.3300	232.38	11392602.0	

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None
..	..	.. ..	
601	226.8046	510971	None
602	227.4216	473871	None
603	228.1121	465884	None
604	231.3567	435723	None
605	232.3350	193487	None

[606 rows x 9 columns]

Sleeping for 12 seconds to avoid hitting API rate limits...

Pulling day data for 2025-12-11 05:00:00 thru 2026-06-09 05:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2025-12-11 05:00:00	230.710	232.110	228.6901	230.28	28248522.0	
1	2025-12-12 05:00:00	229.870	230.080	225.1200	226.19	35636939.0	
2	2025-12-15 05:00:00	227.930	227.930	221.5000	222.54	47286085.0	
3	2025-12-16 05:00:00	223.035	223.660	221.1304	222.56	39293678.0	
4	2025-12-17 05:00:00	224.655	225.190	220.9900	221.27	44030569.0	
5	2025-12-18 05:00:00	225.705	229.225	224.4100	226.76	50267599.0	
6	2025-12-19 05:00:00	226.760	229.125	225.5800	227.35	85539391.0	
7	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	
8	2025-12-23 05:00:00	229.055	232.445	228.7300	232.14	29230205.0	
9	2025-12-24 05:00:00	232.130	232.950	231.3300	232.38	11392602.0	
10	2025-12-26 05:00:00	232.035	232.990	231.1800	232.52	15945174.0	
11	2025-12-29 05:00:00	231.940	232.600	230.7700	232.07	19791422.0	

	vwap	transactions	otc
0	230.0536	426422	None
1	226.8227	553245	None
2	223.2278	619103	None
3	222.6031	478274	None
4	222.5990	493509	None
5	226.8046	510971	None
6	227.4216	473871	None
7	228.1121	465884	None
8	231.3567	435723	None
9	232.3350	193487	None
10	232.4646	277601	None
11	231.8925	352623	None

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.010	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.870	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.690	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.230	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.840	126.4100	128.91	90855736.0	
..	..	..	..	..	..	..	
603	2025-12-22 05:00:00	228.610	229.480	226.7100	228.43	32189837.0	
604	2025-12-23 05:00:00	229.055	232.445	228.7300	232.14	29230205.0	
605	2025-12-24 05:00:00	232.130	232.950	231.3300	232.38	11392602.0	
606	2025-12-26 05:00:00	232.035	232.990	231.1800	232.52	15945174.0	
607	2025-12-29 05:00:00	231.940	232.600	230.7700	232.07	19791422.0	

	vwap	transactions	otc
0	131.8837	413438	None
1	133.3410	406644	None
2	132.2470	385743	None
3	128.3973	532942	None
4	131.4941	746639	None

```
..   ..   ..  
603 228.1121      465884  None  
604 231.3567      435723  None  
605 232.3350      193487  None  
606 232.4646      277601  None  
607 231.8925      352623  None
```

[608 rows x 9 columns]

Exporting AMZN day data to Excel...

Exporting AMZN day data to Pickle...

The first and last date of day data for AMZN is:

```
          Date    open    high     low    close    volume     vwap  \  
0 2023-07-28 04:00:00  129.69  133.01  129.33  132.21  46269781.0  131.8837
```

```
  transactions  otc  
0           413438  None
```

```
          Date    open    high     low    close    volume     vwap  \  
607 2025-12-29 05:00:00  231.94  232.6   230.77  232.07  19791422.0  231.8925
```

```
  transactions  otc  
607           352623  None
```

Number of rows after data update: 608

Number of rows added during update: 2

Polygon data complete for AMZN day data.

-----

```
[8]: # Copy this <!-- INSERT_polygon_pull_data_HERE --> to index_temp.md  
export_track_md_deps(dep_file=dep_file, md_filename="polygon_pull_data.md",  
                     content=df.head().to_markdown(floatfmt=".5f"))
```

Exported and tracked: polygon\_pull\_data.md