

data-pipelining-with-polygon

January 26, 2026

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-venv-p313/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 massive 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,
)

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

```

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 50272419.0
121 2025-12-19 05:00:00 226.760 229.125 225.58 227.35 85544374.0
122 2025-12-22 05:00:00 228.610 229.480 226.71 228.43 32261329.0
123 2025-12-23 05:00:00 229.055 232.445 228.73 232.14 29230233.0
124 2025-12-24 05:00:00 232.130 232.950 231.33 232.38 11420543.0

```

```

      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

```

```

..      ...      ...
120 226.8047      511173 None

```

121	227.4217	474053	None
122	228.1120	466788	None
123	231.3567	435724	None
124	232.3354	193852	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	50272419.0	
242	2025-12-19 05:00:00	226.760	229.125	225.58	227.35	85544374.0	
243	2025-12-22 05:00:00	228.610	229.480	226.71	228.43	32261329.0	
244	2025-12-23 05:00:00	229.055	232.445	228.73	232.14	29230233.0	
245	2025-12-24 05:00:00	232.130	232.950	231.33	232.38	11420543.0	

	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	226.8047	511173	None
242	227.4217	474053	None
243	228.1120	466788	None
244	231.3567	435724	None
245	232.3354	193852	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	\
0	2025-12-23 05:00:00	229.055	232.445	228.73	232.14	29230233.0	
1	2025-12-24 05:00:00	232.130	232.950	231.33	232.38	11420543.0	
2	2025-12-26 05:00:00	232.035	232.990	231.18	232.52	15994726.0	
3	2025-12-29 05:00:00	231.940	232.600	230.77	232.07	19797909.0	
4	2025-12-30 05:00:00	231.205	232.770	230.20	232.53	21910453.0	
5	2025-12-31 05:00:00	232.905	232.990	230.12	230.82	24383749.0	
6	2026-01-02 05:00:00	231.340	235.458	224.70	226.50	51456229.0	

7	2026-01-05	05:00:00	228.840	234.000	227.18	233.06	49733348.0
8	2026-01-06	05:00:00	232.100	243.180	232.07	240.93	53764677.0
9	2026-01-07	05:00:00	239.610	245.290	239.52	241.56	42236531.0
10	2026-01-08	05:00:00	243.060	246.410	241.88	246.29	39509844.0
11	2026-01-09	05:00:00	244.568	247.860	242.24	247.38	34559961.0
12	2026-01-12	05:00:00	246.730	248.940	245.96	246.47	35867770.0
13	2026-01-13	05:00:00	246.530	247.660	240.25	242.60	38371778.0
14	2026-01-14	05:00:00	241.150	241.280	236.22	236.65	41410578.0
15	2026-01-15	05:00:00	239.310	240.650	236.63	238.18	43003571.0
16	2026-01-16	05:00:00	239.085	239.570	236.41	239.12	45888283.0
17	2026-01-20	05:00:00	233.760	235.090	229.34	231.00	47737854.0
18	2026-01-21	05:00:00	231.085	232.300	226.88	231.31	47276090.0
19	2026-01-22	05:00:00	234.045	235.720	230.90	234.34	31913325.0
20	2026-01-23	05:00:00	234.955	240.450	234.57	239.16	33778478.0

	vwap	transactions	otc
0	231.3567	435724	None
1	232.3354	193852	None
2	232.4647	278360	None
3	231.8925	352880	None
4	231.7815	322423	None
5	231.2767	322950	None
6	228.0134	750788	None
7	232.1786	678867	None
8	239.6475	767759	None
9	242.9662	623031	None
10	245.1880	537907	None
11	246.0666	487691	None
12	247.2996	520852	None
13	243.3866	559247	None
14	237.6446	582230	None
15	238.3037	567069	None
16	238.4963	424842	None
17	231.9376	749010	None
18	230.2750	654920	None
19	234.0045	447829	None
20	238.6065	482481	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	
..	...	...	...	...	...		
260	2026-01-16 05:00:00	239.085	239.570	236.41	239.12	45888283.0	
261	2026-01-20 05:00:00	233.760	235.090	229.34	231.00	47737854.0	
262	2026-01-21 05:00:00	231.085	232.300	226.88	231.31	47276090.0	

263	2026-01-22	05:00:00	234.045	235.720	230.90	234.34	31913325.0
264	2026-01-23	05:00:00	234.955	240.450	234.57	239.16	33778478.0

	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
..	...	...	...
260	238.4963	424842	None
261	231.9376	749010	None
262	230.2750	654920	None
263	234.0045	447829	None
264	238.6065	482481	None

[265 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"),
    output_type="markdown",
)
```

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	133.01	129.3300	132.21	46269781.0
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0
..	...	...	...	...	...	...
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0

	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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 rows x 9 columns]

Last date in existing data: 2026-01-23 05:00:00

Number of rows in existing data: 625

Forcing check of existing data...

Pulling day data for 2024-01-26 00:00:00 thru 2024-07-24 00:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume \
0	2024-01-29 05:00:00	159.34	161.29	158.900	161.26	45270385.0
1	2024-01-30 05:00:00	160.70	161.73	158.490	159.00	45207430.0
2	2024-01-31 05:00:00	157.00	159.01	154.810	155.20	50284371.0
3	2024-02-01 05:00:00	155.87	159.76	155.620	159.28	76542419.0
4	2024-02-02 05:00:00	169.19	172.50	167.330	171.81	117218313.0
..	...	...	...	...	...	...

118	2024-07-18	04:00:00	189.59	189.68	181.448	183.75	51043626.0
119	2024-07-19	04:00:00	181.14	184.93	180.110	183.13	43081829.0
120	2024-07-22	04:00:00	185.00	185.06	182.480	182.55	39931923.0
121	2024-07-23	04:00:00	184.10	189.39	183.560	186.41	47537670.0
122	2024-07-24	04:00:00	183.20	185.45	180.410	180.83	41532360.0

	vwap	transactions	otc
0	160.2769	447373	None
1	159.4989	458714	None
2	156.2692	532783	None
3	160.6891	742980	None
4	170.9357	1134751	None
..	...	...	...
118	184.4092	672039	None
119	182.8750	482540	None
120	183.3798	448824	None
121	187.1186	489929	None
122	182.2157	506965	None

[123 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.01	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0	
..	...	...	...	...	...	...	
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0	
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0	
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0	
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0	
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0	

	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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 rows x 9 columns]

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

Pulling day data for 2024-07-23 04:00:00 thru 2025-01-19 04:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	\
0	2024-07-23 04:00:00	184.10	189.3900	183.56	186.41	47537670.0	
1	2024-07-24 04:00:00	183.20	185.4500	180.41	180.83	41532360.0	
2	2024-07-25 04:00:00	182.91	183.8958	176.80	179.85	44464163.0	
3	2024-07-26 04:00:00	180.39	183.1900	180.24	182.50	29505964.0	
4	2024-07-29 04:00:00	183.84	184.7500	182.38	183.20	33270123.0	
..	...	...	...	...	...	...	
119	2025-01-13 05:00:00	218.06	219.4000	216.47	218.46	27262655.0	
120	2025-01-14 05:00:00	220.44	221.8200	216.20	217.76	24711650.0	
121	2025-01-15 05:00:00	222.83	223.5700	220.75	223.35	31291257.0	
122	2025-01-16 05:00:00	224.42	224.6500	220.31	220.66	24757276.0	
123	2025-01-17 05:00:00	225.84	226.5100	223.08	225.94	42370123.0	

	vwap	transactions	otc
0	187.1186	489929	None
1	182.2157	506965	None
2	180.8787	548308	None
3	181.9844	375650	None
4	183.4509	350828	None
..	...	...	...
119	218.1426	373519	None
120	218.6245	332022	None
121	222.6690	353985	None
122	221.8942	313323	None
123	225.3927	385914	None

[124 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.01	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0	
..	...	...	...	...	...	...	
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0	
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0	
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0	
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0	
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0	

	vwap	transactions	otc
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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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 rows x 9 columns]

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

Pulling day data for 2025-01-16 05:00:00 thru 2025-07-15 05:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume \
0	2025-01-16 05:00:00	224.42	224.6500	220.310	220.66	24757276.0
1	2025-01-17 05:00:00	225.84	226.5100	223.080	225.94	42370123.0
2	2025-01-21 05:00:00	228.90	231.7800	226.940	230.71	39951456.0
3	2025-01-22 05:00:00	232.02	235.4400	231.190	235.01	41448217.0
4	2025-01-23 05:00:00	234.10	235.5200	231.510	235.42	26404364.0
..	...	...	...	...	...	...
118	2025-07-09 04:00:00	221.07	224.2900	220.470	222.54	38155121.0
119	2025-07-10 04:00:00	221.55	222.7900	219.700	222.26	30370591.0
120	2025-07-11 04:00:00	223.58	226.6799	222.370	225.02	50518307.0
121	2025-07-14 04:00:00	225.07	226.6600	224.240	225.69	35702597.0
122	2025-07-15 04:00:00	226.20	227.2700	225.455	226.35	34907294.0

	vwap	transactions	otc
0	221.8942	313323	None
1	225.3927	385914	None
2	230.0901	552447	None
3	234.0950	512233	None
4	234.2435	365153	None
..	...	...	...
118	222.4555	493756	None
119	221.7055	451223	None
120	224.8908	661385	None
121	225.6173	460428	None
122	226.4985	507705	None

[123 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume \
--	------	------	------	-----	-------	----------

0	2023-07-28 04:00:00	129.690	133.01	129.3300	132.21	46269781.0
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0
..	...	...	...	...	...	...
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0

	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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 rows x 9 columns]

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

Pulling day data for 2025-07-14 04:00:00 thru 2026-01-10 04:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume \
0	2025-07-14 04:00:00	225.070	226.66	224.240	225.69	35702597.0
1	2025-07-15 04:00:00	226.200	227.27	225.455	226.35	34907294.0
2	2025-07-16 04:00:00	225.875	226.10	222.180	223.19	39535926.0
3	2025-07-17 04:00:00	223.320	224.50	222.510	223.88	31855831.0
4	2025-07-18 04:00:00	225.140	226.40	222.980	226.13	37833807.0
..	...	...	...	...	...	...
121	2026-01-05 05:00:00	228.840	234.00	227.180	233.06	49733348.0
122	2026-01-06 05:00:00	232.100	243.18	232.070	240.93	53764677.0
123	2026-01-07 05:00:00	239.610	245.29	239.520	241.56	42236531.0
124	2026-01-08 05:00:00	243.060	246.41	241.880	246.29	39509844.0
125	2026-01-09 05:00:00	244.568	247.86	242.240	247.38	34559961.0

	vwap	transactions	otc
0	225.6173	460428	None
1	226.4985	507705	None

2	223.7872	556155	None
3	223.6948	445580	None
4	225.2906	454003	None
..	...	...	...
121	232.1786	678867	None
122	239.6475	767759	None
123	242.9662	623031	None
124	245.1880	537907	None
125	246.0666	487691	None

[126 rows x 9 columns]

Combined data:

	Date	open	high	low	close	volume	\
0	2023-07-28 04:00:00	129.690	133.01	129.3300	132.21	46269781.0	
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0	
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0	
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0	
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0	
..	...	...	...	...	...	...	
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0	
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0	
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0	
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0	
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0	

	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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 rows x 9 columns]

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

Pulling day data for 2026-01-08 05:00:00 thru 2026-07-07 05:00:00 for AMZN...

New data:

	Date	open	high	low	close	volume	vwap	\
0	2026-01-08 05:00:00	243.060	246.41	241.88	246.29	39509844.0	245.1880	
1	2026-01-09 05:00:00	244.568	247.86	242.24	247.38	34559961.0	246.0666	

2	2026-01-12	05:00:00	246.730	248.94	245.96	246.47	35867770.0	247.2996
3	2026-01-13	05:00:00	246.530	247.66	240.25	242.60	38371778.0	243.3866
4	2026-01-14	05:00:00	241.150	241.28	236.22	236.65	41410578.0	237.6446
5	2026-01-15	05:00:00	239.310	240.65	236.63	238.18	43003571.0	238.3037
6	2026-01-16	05:00:00	239.085	239.57	236.41	239.12	45888283.0	238.4963
7	2026-01-20	05:00:00	233.760	235.09	229.34	231.00	47737854.0	231.9376
8	2026-01-21	05:00:00	231.085	232.30	226.88	231.31	47276090.0	230.2750
9	2026-01-22	05:00:00	234.045	235.72	230.90	234.34	31913325.0	234.0045
10	2026-01-23	05:00:00	234.955	240.45	234.57	239.16	33778478.0	238.6065

	transactions	otc
0	537907	None
1	487691	None
2	520852	None
3	559247	None
4	582230	None
5	567069	None
6	424842	None
7	749010	None
8	654920	None
9	447829	None
10	482481	None

Combined data:

	Date	open	high	low	close	volume \
0	2023-07-28 04:00:00	129.690	133.01	129.3300	132.21	46269781.0
1	2023-07-31 04:00:00	133.200	133.87	132.3800	133.68	41901516.0
2	2023-08-01 04:00:00	133.550	133.69	131.6199	131.69	42250989.0
3	2023-08-02 04:00:00	130.154	130.23	126.8200	128.21	50988614.0
4	2023-08-03 04:00:00	127.480	129.84	126.4100	128.91	90855736.0
..	...	...	...	...	...	...
620	2026-01-16 05:00:00	239.085	239.57	236.4100	239.12	45888283.0
621	2026-01-20 05:00:00	233.760	235.09	229.3400	231.00	47737854.0
622	2026-01-21 05:00:00	231.085	232.30	226.8800	231.31	47276090.0
623	2026-01-22 05:00:00	234.045	235.72	230.9000	234.34	31913325.0
624	2026-01-23 05:00:00	234.955	240.45	234.5700	239.16	33778478.0

	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
..	...	...	...
620	238.4963	424842	None
621	231.9376	749010	None
622	230.2750	654920	None
623	234.0045	447829	None
624	238.6065	482481	None

[625 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	\
624	2026-01-23 05:00:00	234.955	240.45	234.57	239.16	33778478.0	

	vwap	transactions	otc
624	238.6065	482481	None

Number of rows after data update: 625

Number of rows added during update: 0

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"),
    output_type="markdown",
)
```

Exported and tracked: polygon_pull_data.md