Introduction to Bloomberg

70-428 Financial Statements Analysis

Agenda
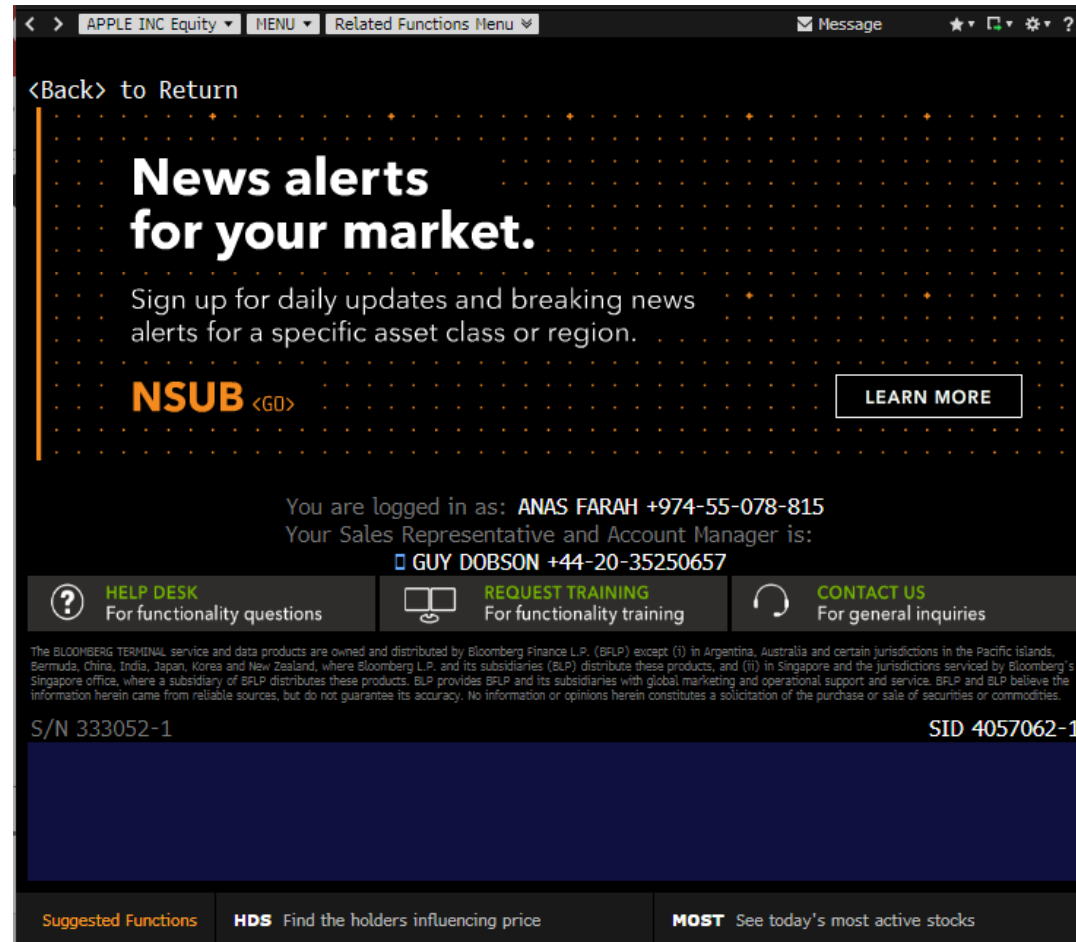
What we will be covering today

- Bloomberg overview and navigation

- How to use **DES, CF, CN, FA, GP** and **HCP** functions

- **Different methods of exporting data to Excel**

- Other useful functions: **IPO, MA, EQS, ECST**

- How to find help and documentation on how to use an unfamiliar function

Bloomberg Overview & Navigation

Bloomberg key terms: Functions, Securities (data), Menus

Source: Bloomberg

Bloomberg Overview & Navigation

Bloomberg key terms: Functions, Securities (data), Menus

Tool bar

The tool bar allows you to see current and previously loaded securities and functions and display show function menus

Command bar

Command bar allows you to search for securities and run **function shortcuts**

Function Area
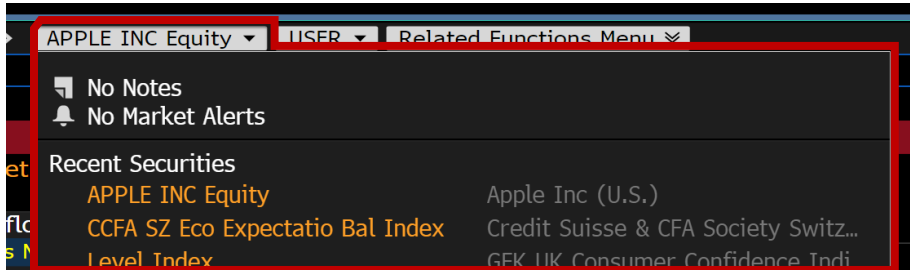
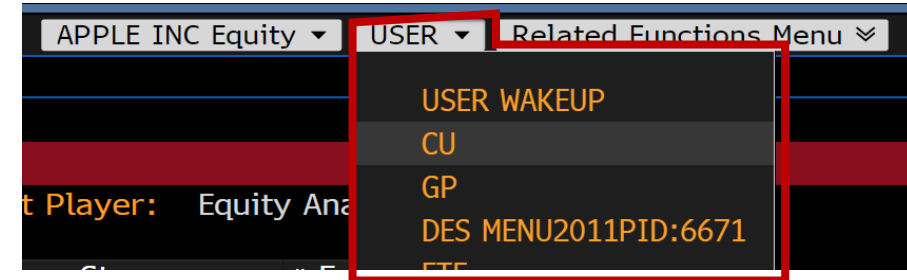The result of your searches and functions gets displayed in the function area

Source: Bloomberg
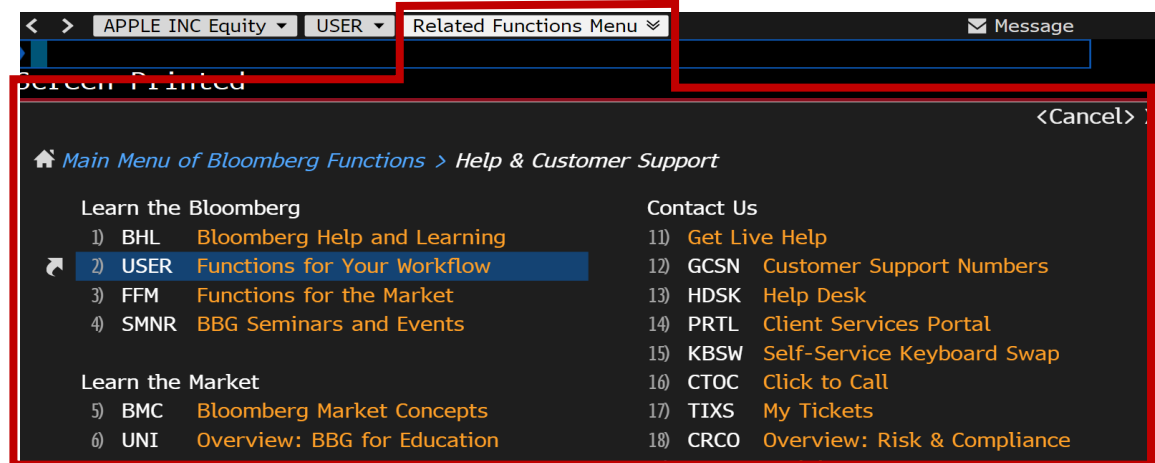
Bloomberg Overview & Navigation

Bloomberg key terms: Functions, Securities (data), Menus

See the current and previous **securities** your searched for

See the current and previous **functions** you used

See the **menu of functions** available for your loaded security

Source: Bloomberg

How to navigate Bloomberg
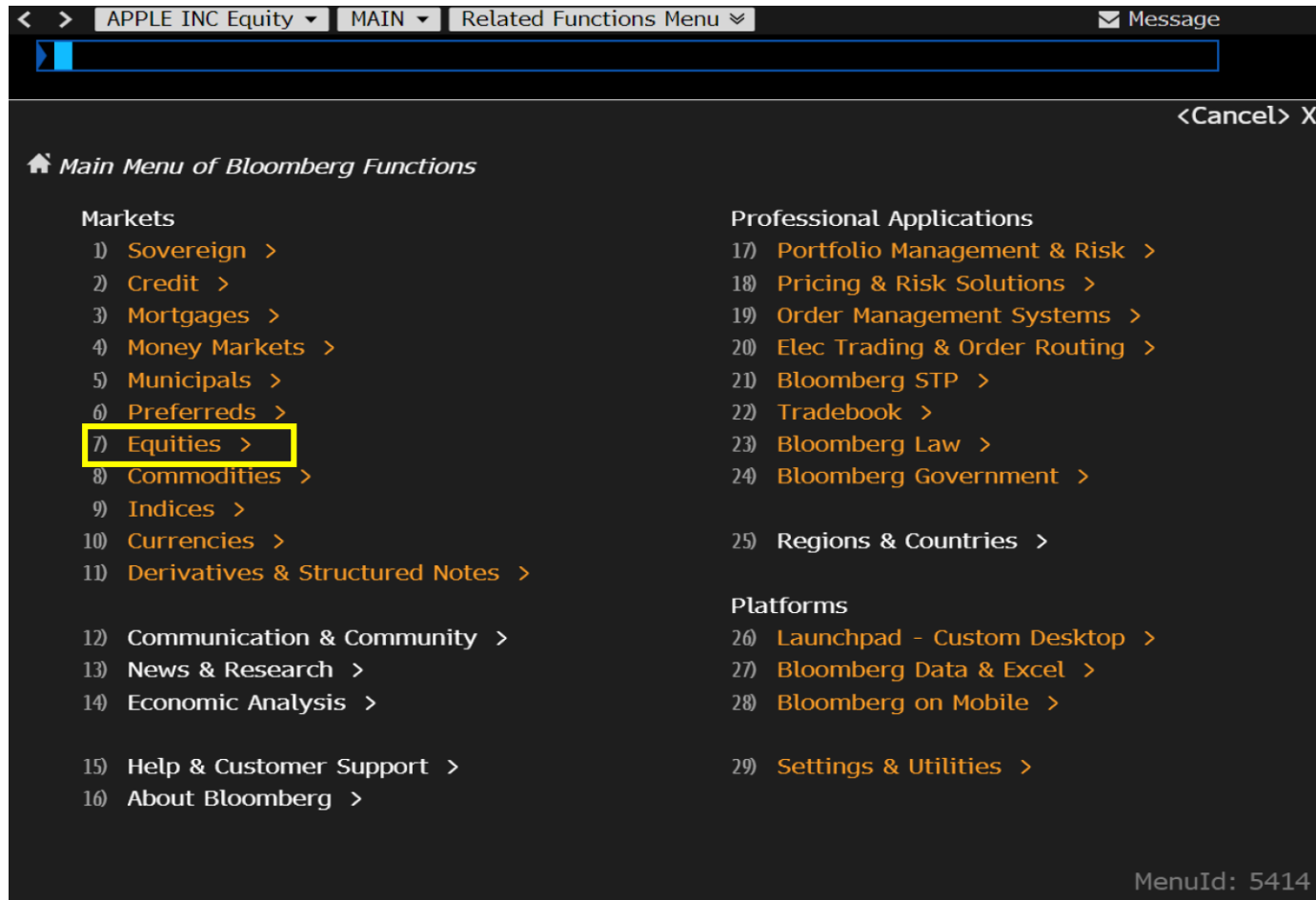
Overview of the **main** function

In the command bar, type **MAIN** and press enter. You will reach the **MAIN** menu of Bloomberg. The **MAIN** menu is the root menu in Bloomberg. All of Bloomberg functions, markets and tools can be accessed starting from this menu.
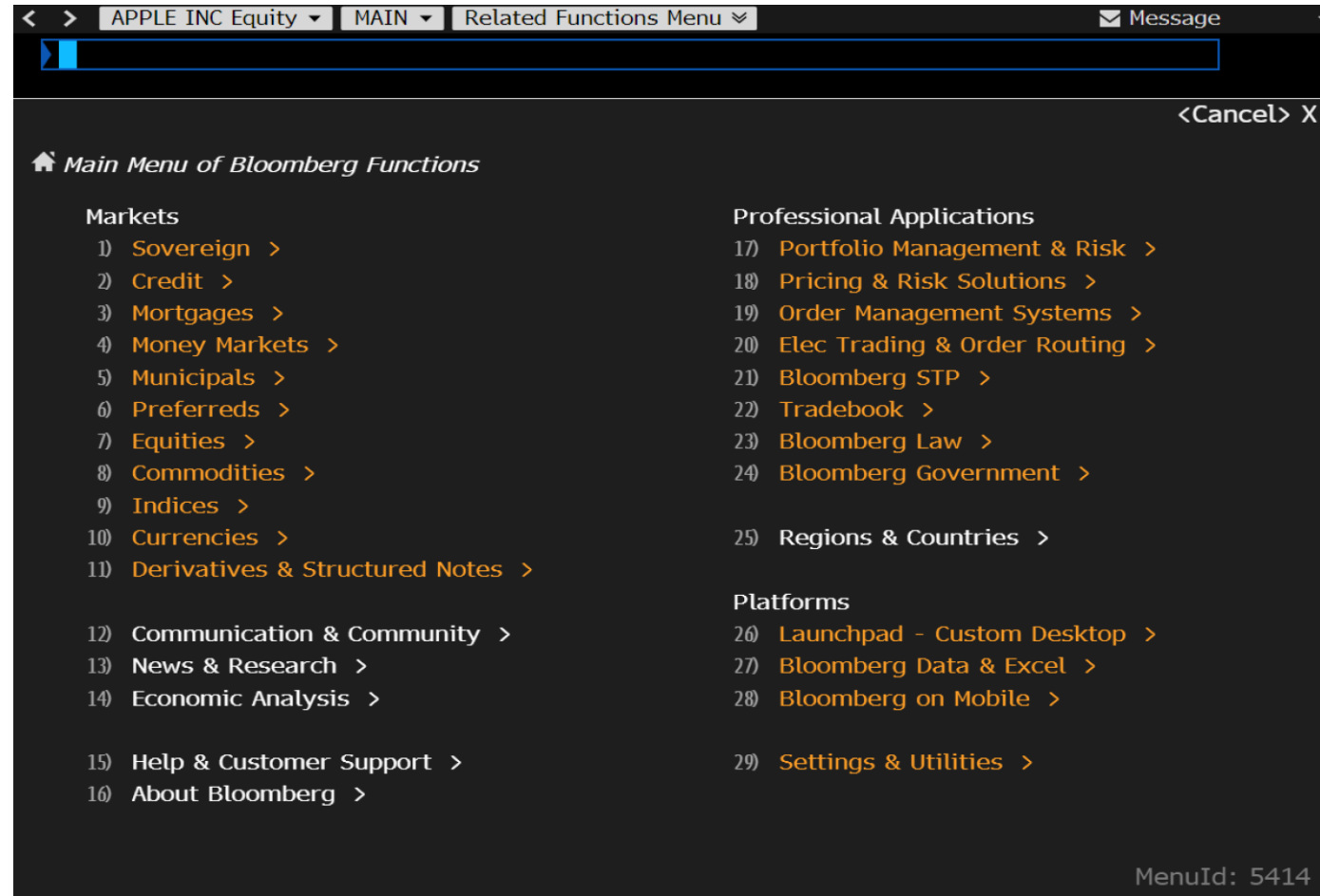
Source: Bloomberg
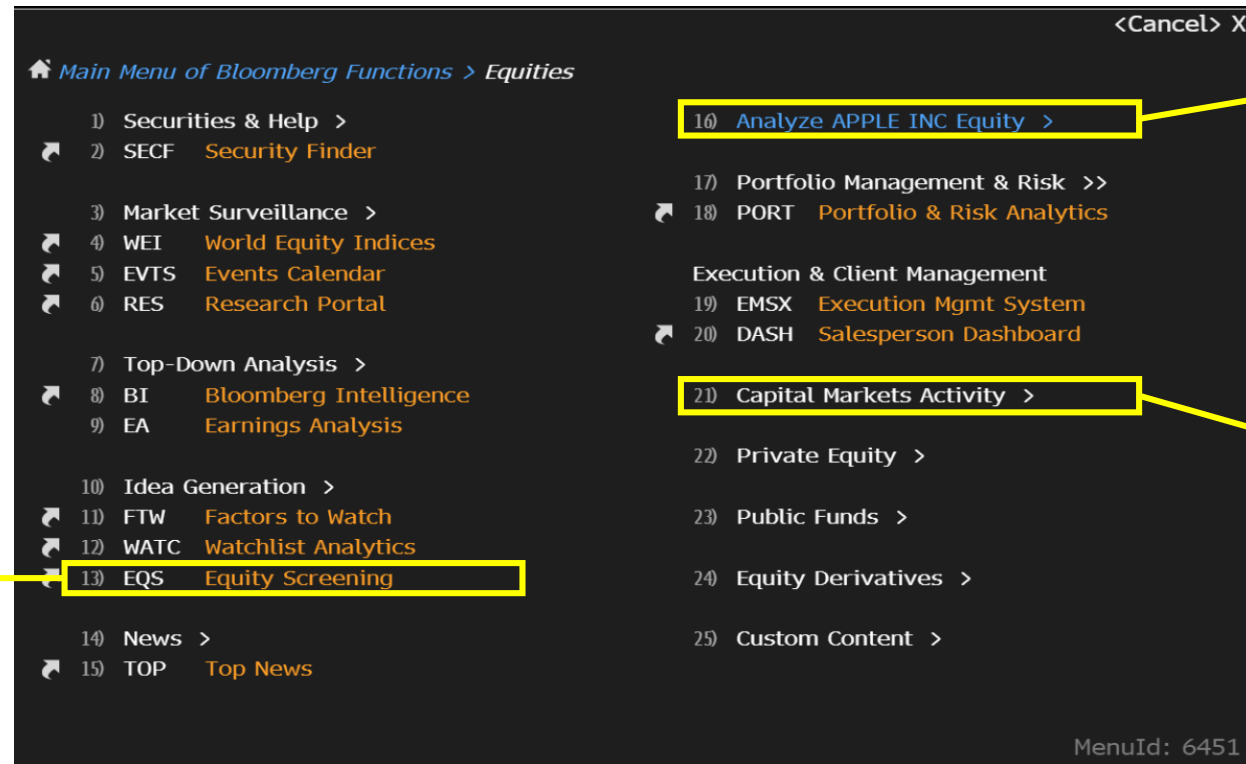
Bloomberg Markets

Your courses place focus on equities

Source: Bloomberg

Equities Overview

Within the Equities Menu, you will spend most of your time analyzing a single stock

Analyze Security is our main focus.

Capital Markets has two useful functions for finding comparable transactions (for valuation assignments): **IPO** and **MA**.

In some courses you will need to screen for equities that meet a certain set of criteria. **EQS** comes in handy for that task.

Source: Bloomberg

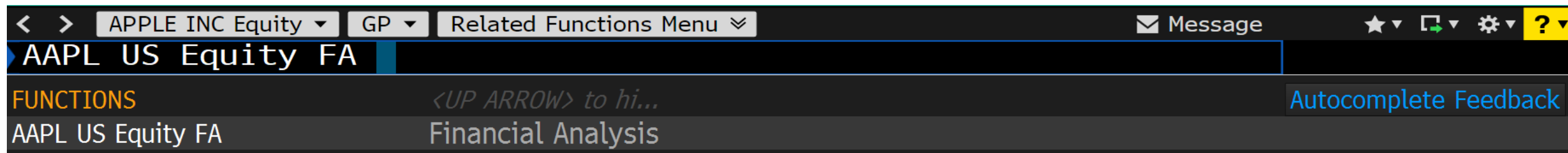# Analyze Security Overview

We will focus on the ones highlighted below
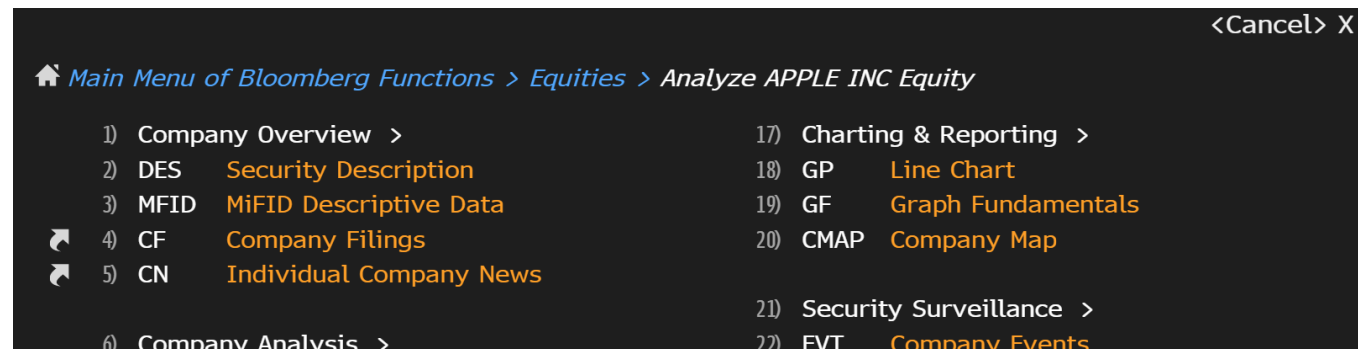

Source: Bloomberg

Using the command bar

How to use the command bar in conjunction with MENUs to run searches

To run a function directly from the command bar, search for a security followed by the function. In the case above the **security is AAPL US Equity** and the **function is FA**

‹ ›	APPLE INC Equity ▼	GP ▼	Related Functions Menu ⌄	✉ Message	★▼ ⤷▼ ⚙▼ ?▼

AAPL US Equity FA

FUNCTIONS	*<UP ARROW> to hi...*	Autocomplete Feedback
AAPL US Equity FA	Financial Analysis	

Alternatively, just search for a security and then a function menu will show up. You can chose functions from the menu directly.

<Cancel> X

🏠 *Main Menu of Bloomberg Functions > Equities > Analyze APPLE INC Equity*

1)	Company Overview >		17)	Charting & Reporting >	
2)	DES	Security Description	18)	GP	Line Chart
3)	MFID	MiFID Descriptive Data	19)	GF	Graph Fundamentals
4)	CF	Company Filings	20)	CMAP	Company Map
5)	CN	Individual Company News			
			21)	Security Surveillance >	
6)	Company Analysis >		22)	EVT	Company Events

Source: Bloomberg

Bloomberg **DES** Function

DES allows you to see a snapshot of your loaded security
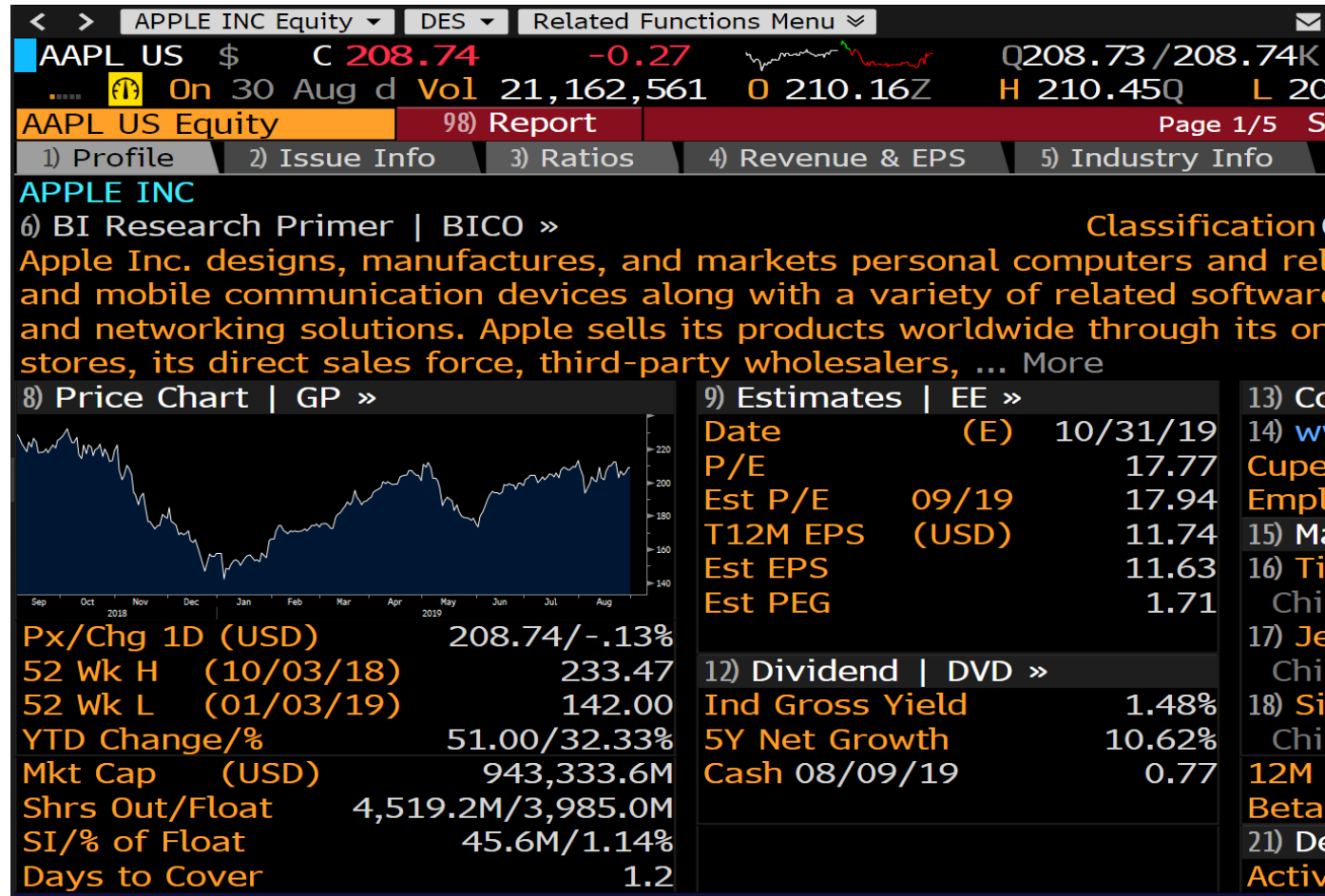
Company's business model and segments

1 Year Share Price Chart

Stock Performance Statistics, Short Interest, Market Cap etc

‹ ›	APPLE INC Equity ▾	DES ▾	Related Functions Menu ⌄	✉

AAPL US $ C **208.74** −0.27 Q208.73/208.74K

On 30 Aug d Vol 21,162,561 O 210.16Z H 210.45Q L 20

AAPL US Equity | 98) Report | Page 1/5

1) Profile | 2) Issue Info | 3) Ratios | 4) Revenue & EPS | 5) Industry Info

APPLE INC

6) BI Research Primer | BICO » Classification

Apple Inc. designs, manufactures, and markets personal computers and rel
and mobile communication devices along with a variety of related softwar
and networking solutions. Apple sells its products worldwide through its o
stores, its direct sales force, third-party wholesalers, ... More

8) Price Chart | GP »

Px/Chg 1D (USD)   208.74/−.13%
52 Wk H   (10/03/18)   233.47
52 Wk L   (01/03/19)   142.00
YTD Change/%   51.00/32.33%
Mkt Cap   (USD)   943,333.6M
Shrs Out/Float   4,519.2M/3,985.0M
SI/% of Float   45.6M/1.14%
Days to Cover   1.2

9) Estimates | EE »

Date (E)		10/31/19
P/E		17.77
Est P/E	09/19	17.94
T12M EPS	(USD)	11.74
Est EPS		11.63
Est PEG		1.71

12) Dividend | DVD »

Ind Gross Yield	1.48%
5Y Net Growth	10.62%
Cash 08/09/19	0.77

13) Co
14) w
Cupe
Empl
15) Ma
16) Ti
Chi
17) Je
Chi
18) Si
Chi
12M
Beta
21) De
Activ

Analyst estimates such as forecast EPS and Forward P/E

Source: Bloomberg

Bloomberg **CF** function

How to find a company's 10-K and 10-Q fillings

Select Filings in the **Document Types**

Search for 10-K, 10-Q from in the **Filings Filters**

Source: Bloomberg

Bloomberg **CN** function

How to find company related news

CN allows you to see the news related to your loaded security. The feature is self explanatory. You can edit news sources and dates to narrow down your news results. The function is often useful when you need to know the news sentiment, product announcements, competitive and legal threats...

Source: Bloomberg

Bloomberg **FA** function

How to load a company's financial statements and financial ratios

Click on **I/S, B/S, C/F** or **Ratios** to access financial statements and ratios respectively

Source: Bloomberg

Bloomberg **FA** function

How to load a company's financial statements and financial ratios

Select between adjusted, GAAP or As Reported to display financials:

- **Adjusted:** Financials follow a preset Bloomberg template. Certain line items will differ from the original statements.
- **GAAP:** Financials following GAAP accounting rules.
- **As Reported:** Financials as reported in the 10-K an 10-Q
- **Adj %:** Common size adjusted financial statements

Source: Bloomberg

Bloomberg **FA** function

How to load a company's financial statements and financial ratios

Notice how in the **As Reported Income Statement**, Revenue is split into Product and Service. These two new lines items were added following an adjustment Apple made in Q1-2019 as its Services Revenues were becoming more significant and are missing from the **Adjusted Income Statement**

Source: Bloomberg

Bloomberg **FA** function

How to load a company's financial statements and financial ratios

Click on the ratios button to display the ratios you're interested in: Profitability, Liquidity, Growth, DuPont analysis ratios etc.

AAPL US Equity	96) Actions ▾	97) Export ▾	98) Settings			Financial Analysis

| 39) ADJ | Apple Inc | | | ASC 842 ❓ | Periods 15 Quarters ▾ | Cur FRC (USD) ▾ |

| 1) Key Stats | 2) I/S | 3) B/S | 4) C/F | 5) Ratios | 6) Segments | 7) Addl | 8) ESG | 9) Custom |

11) Profitability	12) Growth	13) Credit	14) Credit Ex Operating Leases	15) Liquidity	16) Working Capital	17) Yield Analysis

In Millions of USD except Per Share	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2
3 Months Ending	12/26/2015	03/26/2016	06/25/2016	09/24/2016	12/31/2016	04/01/2017
Returns						
Return on Common Equity	42.71	39.06	37.90	36.90	34.69	34.57
Return on Assets	19.36	17.89	16.52	14.93	14.48	14.29
Return on Capital	30.99	26.85	24.89	23.45	22.61	21.29
Return on Invested Capital	29.83	25.77	23.79	20.08	21.35	19.91
Margins						
▸ Gross Margin	40.10	39.40	38.02	38.02	38.51	38.93
EBITDA Margin	35.75	32.57	29.82	30.54	33.63	31.06
Operating Margin	31.86	27.67	23.86	25.10	29.81	26.65
Incremental Operating Margin	–	-57.57	-54.89	-61.56	–	4.70
Pretax Margin	32.39	27.97	24.72	26.01	30.86	27.76
Income before XO Margin	24.20	20.80	18.41	19.24	22.83	20.85
Net Income Margin	24.20	20.80	18.41	19.24	22.83	20.85
Net Income to Common Margin	24.20	20.80	18.41	19.24	22.83	20.85
Additional						
Effective Tax Rate	25.28	25.64	25.53	26.04	26.01	24.89
Dvd Payout Ratio	15.78	27.38	39.98	34.07	17.00	27.09
Sustainable Growth Rate	35.97	28.37	22.75	24.33	28.80	25.21

<< < > >>

Bloomberg **FA** function

How to Export Financial Statements/Ratios to Excel

Source: Bloomberg

Bloomberg **FA** function

How to display sequential and year over year change in financial statements figures
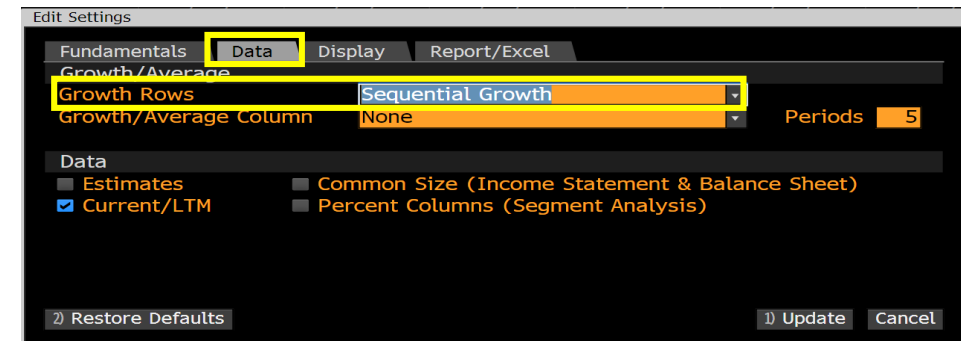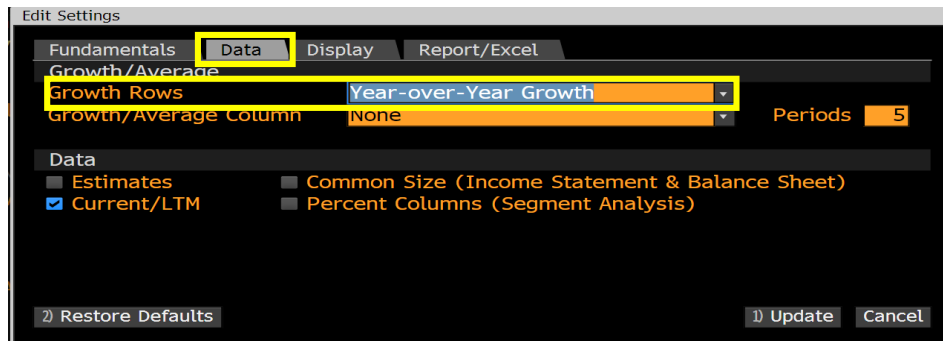
1 — Click on settings
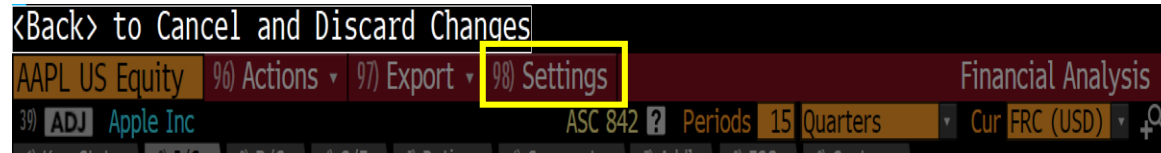
2 — From Data, Chose Year over Year or Sequential growth

3 — The table updates with item lines for YoY or sequential change

Source: Bloomberg

Bloomberg **GP** function

How to graph a company's stock price

The chart on the right is the standard graph you get when you run the **GP** function. The 1 year daily price is plotted on the top (shaded blue), the bottom graphs show the volume and a moving average of the volume.

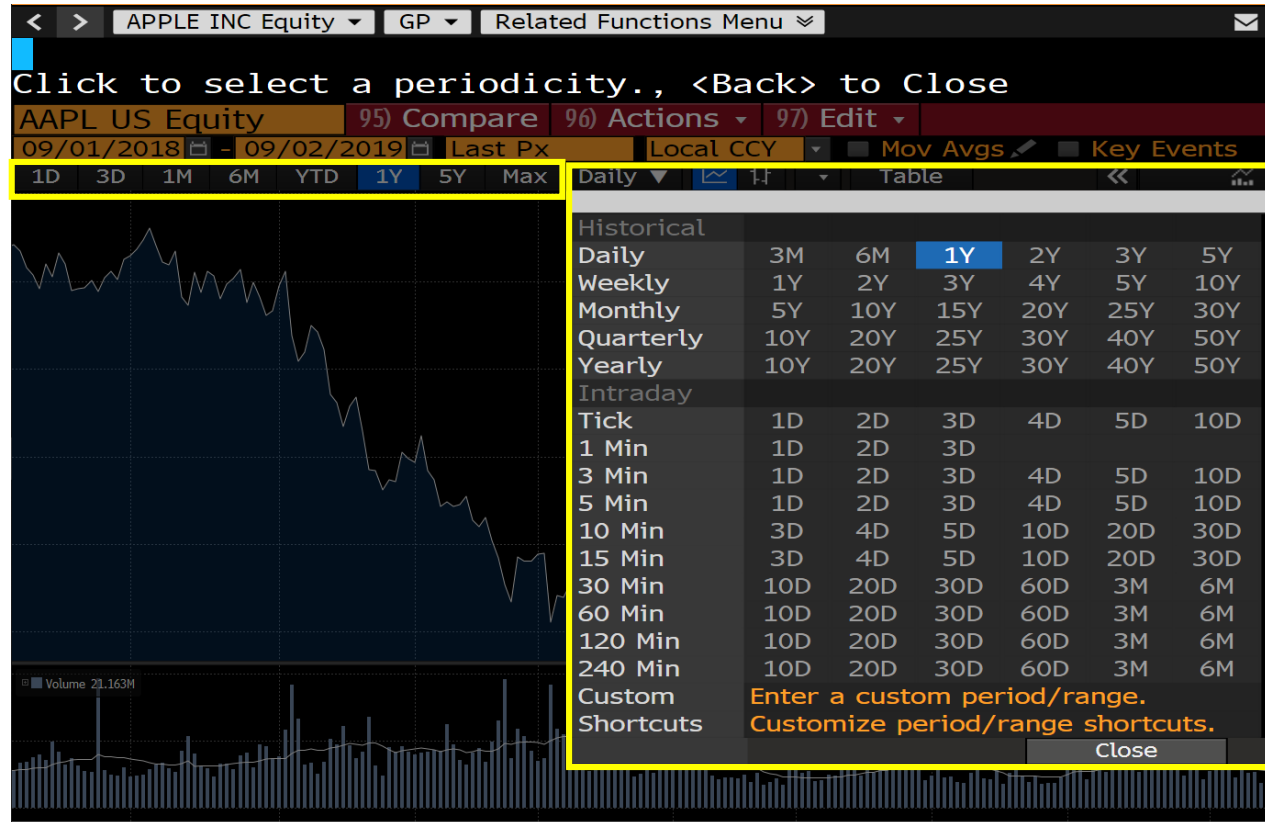Next we will see how we can customize this chart.

Source: Bloomberg

Bloomberg **GP** function

How to change the range and frequency of your chart

You can change the historical range of your data to 1 day, 1M, 6M, YTD etc.
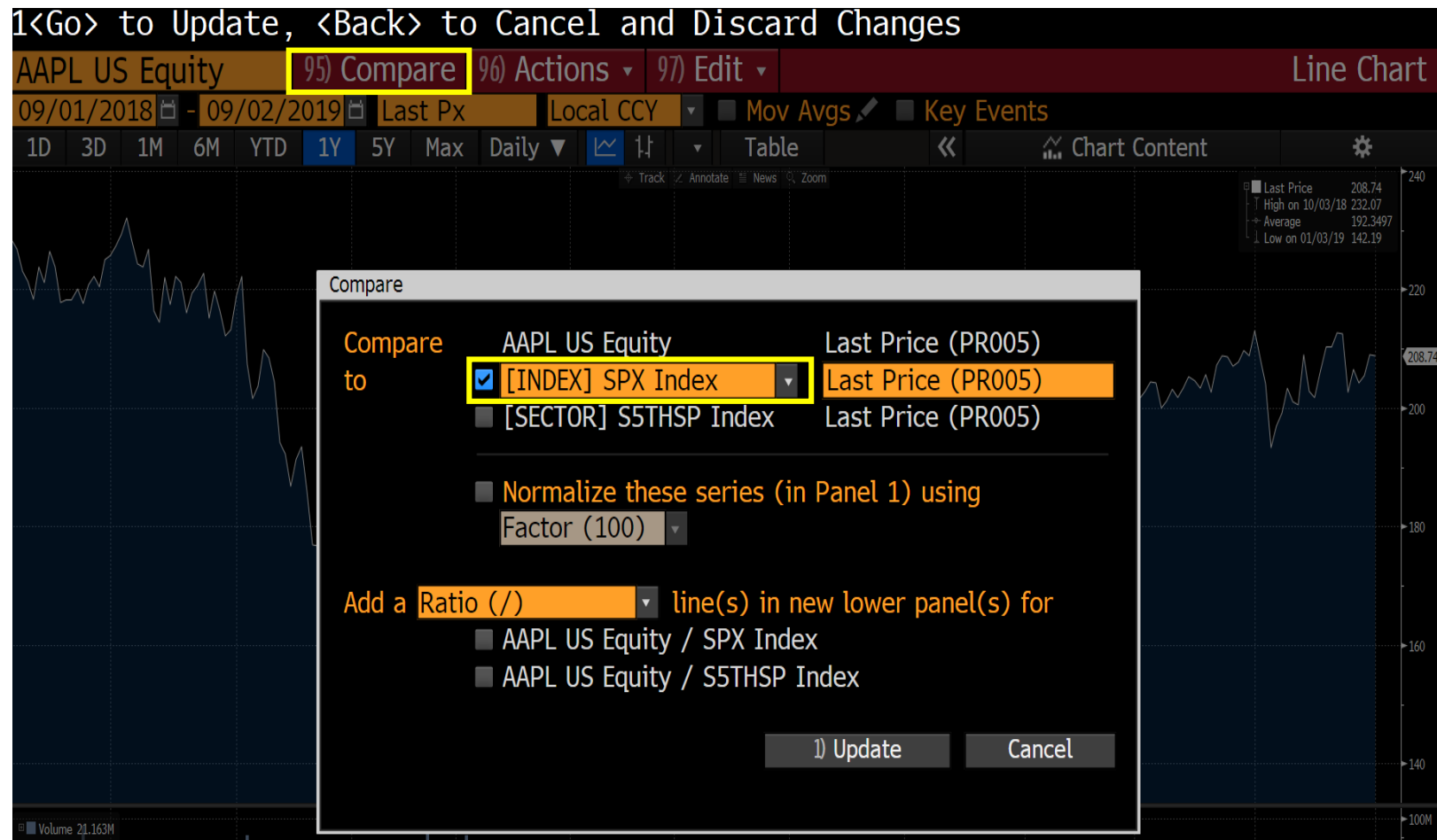

You can select the frequency of your data to Daily, Weekly, Monthly etc.

Source: Bloomberg

Bloomberg **GP** function

Adding additional securities to your chart/graph

One way to add an additional security to your graph is through the compare button on your graph page. In this case, we are adding S&P 500 index to the chart.

Bloomberg **GP** function

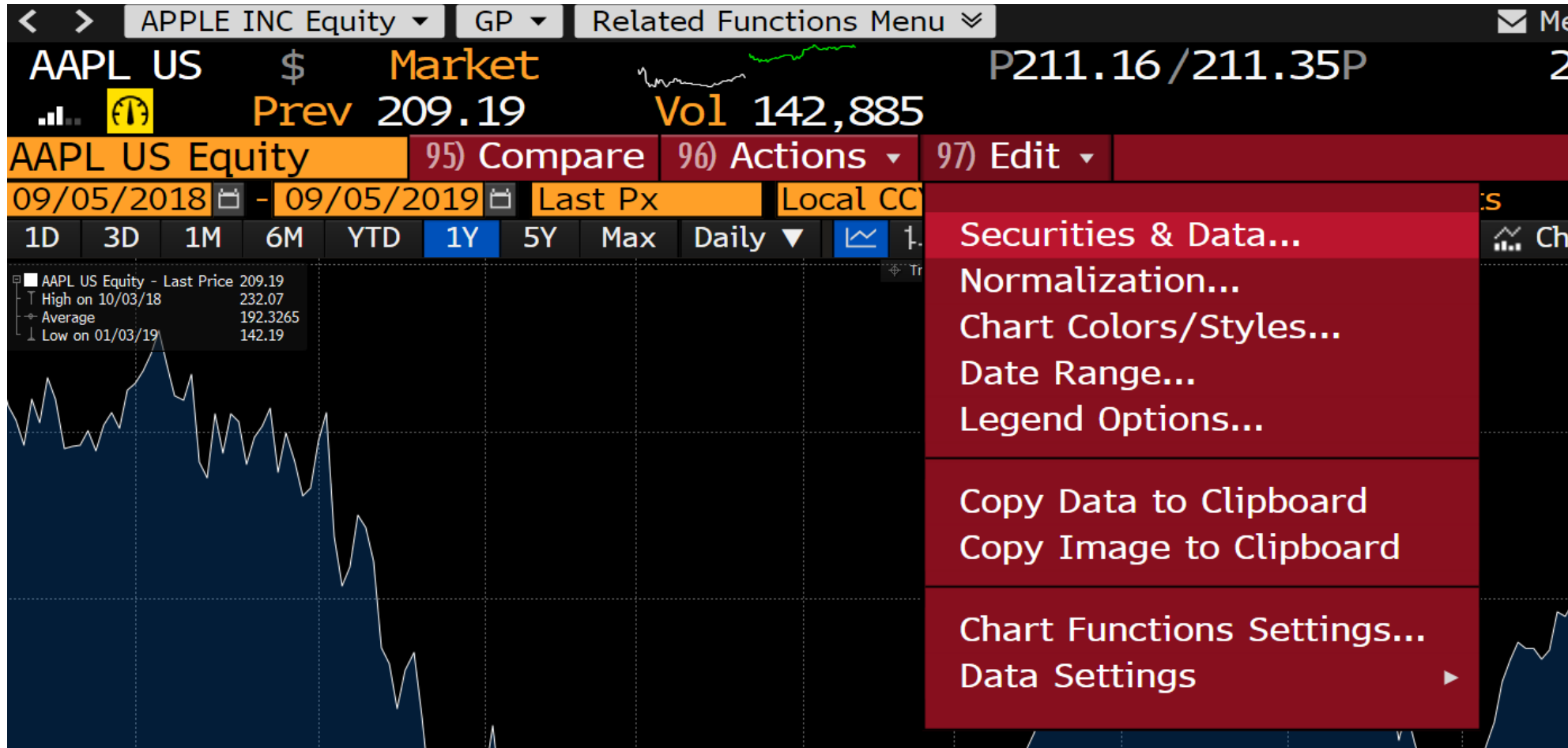## Adding additional securities to your chart/graph

A second way to add securities to your chart is through the Chart Content button. Click on the chart content button and add as many securities as you wish to your graph.

Source: Bloomberg

Bloomberg **GP** Function – Editing charts

Click on the edit button to access the graph editing menu

Source: Bloomberg

Bloomberg **GP** Function – Editing charts

Editing line color, style, thickness, shading and axis

Editing line axis

21) Securities & Data	22) Normalization	23) Color/Style	24) Date Range	25) Legend

11) Add Series ▼ ☑ Link Same Securities ☐ Show Price as Yield ☐ Link Same Fields | Local CUR ▼

	Pan...	Axis	Security	Data Series	Multi	Spread	Security	Data Series	Multi	
✎	1 ▼	R2 ▼	AAPL US Equity	Last Px	1	None ▼			1	⊗
✎	1 ▼	R1 ▼	NVDA US Equity	Last Px	1	None ▼			1	⊗

The rest...

21) Securities & Data	22) Normalization	23) Color/Style	24) Date Range	25) Legend

	Data Series	Color	Type	Style	Width	Marker	H/L
	Panel 1						
✎	AAPL US Equity	⬜	Line ▼	Shaded ▼	1 ▼	None ▼	☐
✎	NVDA US Equity	🟩	Line ▼	Solid ▼	1 ▼	None ▼	☐

Source: Bloomberg

Bloomberg **GP** Function – Rebasing Charts

How to rebase a ticker/chart to 100

Think of rebasing in this way. If you
had $100 invested in a security at the beginning
the period how much would you have at the end of
the period. Notice how in our
Example, if you bought $100 of Apple and $100 of
NASDAQ 1 year ago, you would have ~$91 of Apple
and $92 of NASDAQ today.

Source: Bloomberg

Bloomberg **GP** Function – Normalizing Charts

How to display the % change of a ticker/chart
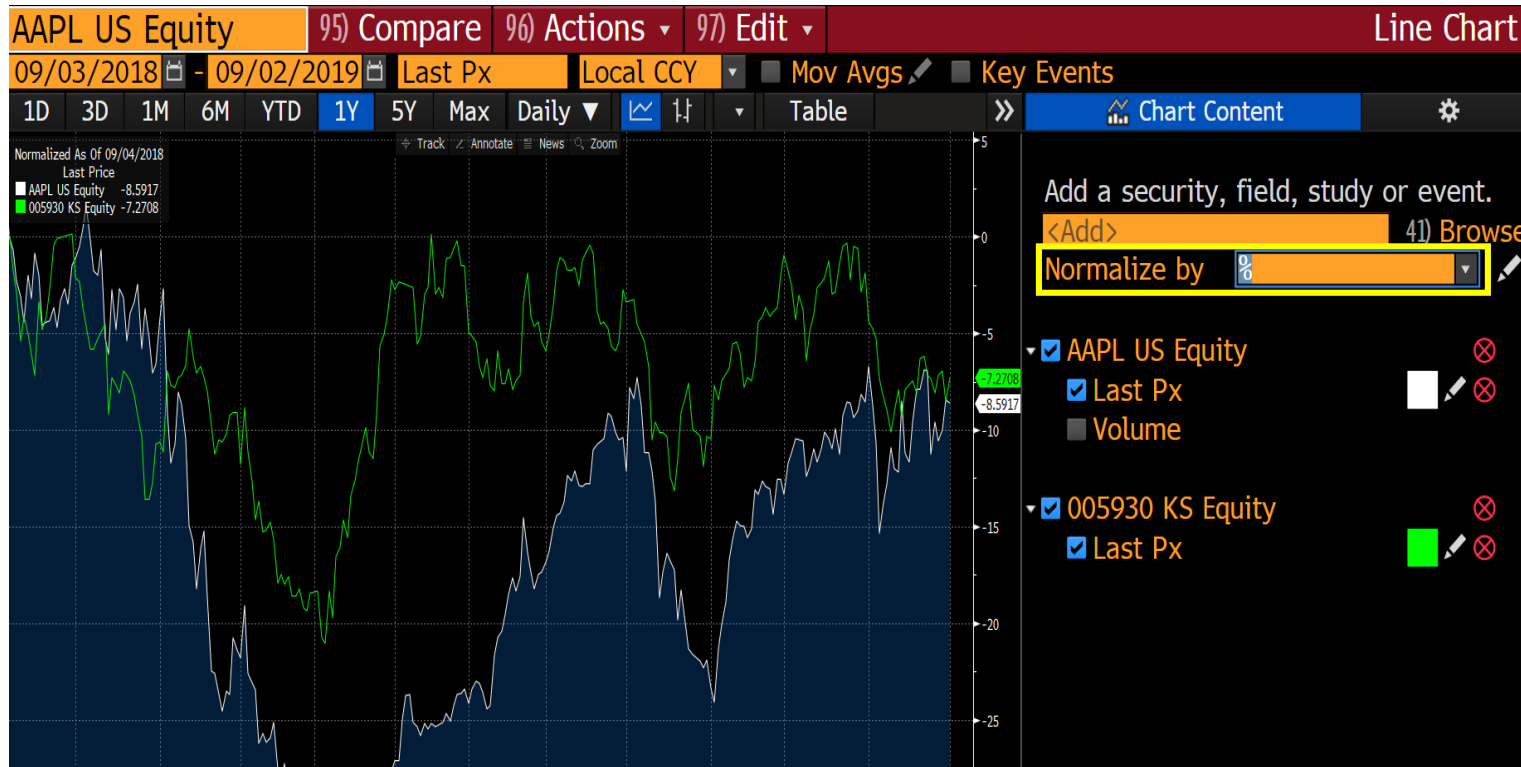
Source: Bloomberg

Bloomberg **HCP** Function

How to find a company's historical stock price and percentage change

HCP displays a table of the historical daily, weekly etc. stock price along with corresponding net and percentage changes.

| APPLE INC Equity ▾ | HCP ▾ | Related Functions Menu ⌄ | ✉ Message | ★ 🗗▾ ⚙▾ ?▾ |

| AAPL US | $ | C **208.74** | **-0.27** | | Q208.73 /208.74K | 447x3 |

| On 30 Aug d | Vol 21,162,561 | O 210.16Z | H 210.45Q | L 207.20D | Val 4.41B |

| AAPL US Equity | 96) Export | 97) Settings | Historical Price with % Chg |

Apple Inc					High	232.07	on	10/03/18
Range	09/04/2018 -	08/30/2019	Period	Daily	Low	142.19	on	01/03/19
Market	Last Price	Volume	Currency	USD	Average	192.3497		32,795,385
View	Price with % Chg				Net Chg	-19.62		-8.59% 🔍

	Date	Last Price	Net Change	% Change	Volume	Net Change	% Change
Fr	08/30/19	208.74	-.27	-0.13%	21,162,561	+154,909	+0.74%
Th	08/29/19	209.01	+3.48	+1.69%	21,007,652	+5,050,020	+31.65%
We	08/28/19	205.53	+1.37	+0.67%	15,957,632	-9,939,712	-38.38%
Tu	08/27/19	204.16	-2.33	-1.13%	25,897,344	-168,786	-0.65%
Mo	08/26/19	206.49	+3.85	+1.90%	26,066,130	-20,816,713	-44.40%
Fr	08/23/19	202.64	-9.82	-4.62%	46,882,843	+24,615,024	+110.54%
Th	08/22/19	212.46	-.18	-0.08%	22,267,819	+703,072	+3.26%
We	08/21/19	212.64	+2.28	+1.08%	21,564,747	-5,354,782	-19.89%
Tu	08/20/19	210.36	+.01	+0.00%	26,919,529	+2,487,614	+10.18%
Mo	08/19/19	210.35	+3.85	+1.86%	24,431,915	-4,381,709	-15.21%
Fr	08/16/19	206.50	+4.76	+2.36%	28,813,624	+930,261	+3.34%
Th	08/15/19	201.74	-1.01	-0.50%	27,883,363	-8,664,080	-23.71%
We	08/14/19	202.75	-6.22	-2.98%	36,547,443	-10,992,343	-23.12%
Tu	08/13/19	208.97	+8.49	+4.23%	47,539,786	+25,057,897	+111.46%
Mo	08/12/19	200.48	-.51	-0.25%	22,481,889	-2,137,857	-8.68%
Fr	08/09/19	200.99	-2.44	-1.20%	24,619,746	-2,389,777	-8.85%
Th	08/08/19	203.43	+4.39	+2.21%	27,009,523	-6,354,877	-19.05%
We	08/07/19	199.04	+2.04	+1.04%	33,364,400	-2,460,387	-6.87%

Bloomberg **HCP** Function

How to export a security's historical price data to Excel

To export the data to excel click on the export button on top

Source: Bloomberg

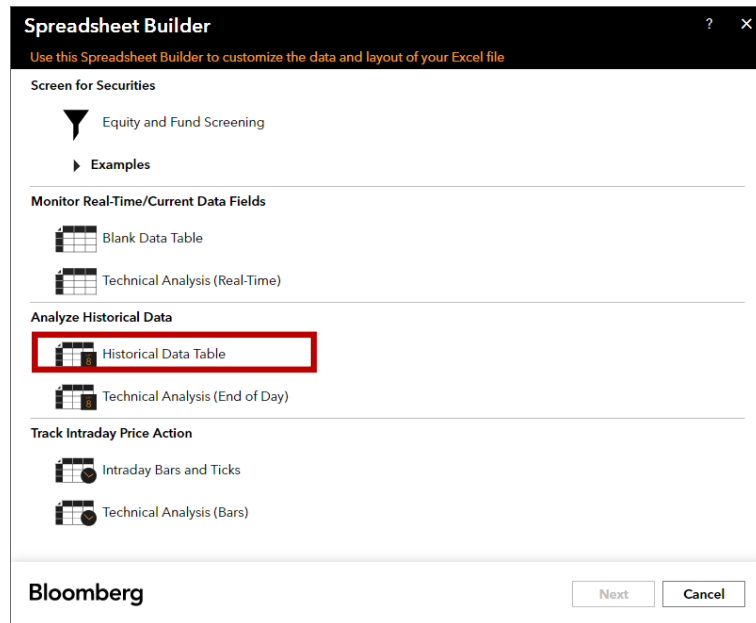# How to copy your data from Bloomberg to Excel

How to use Bloomberg's Excel Ribbon to download data directly into Excel
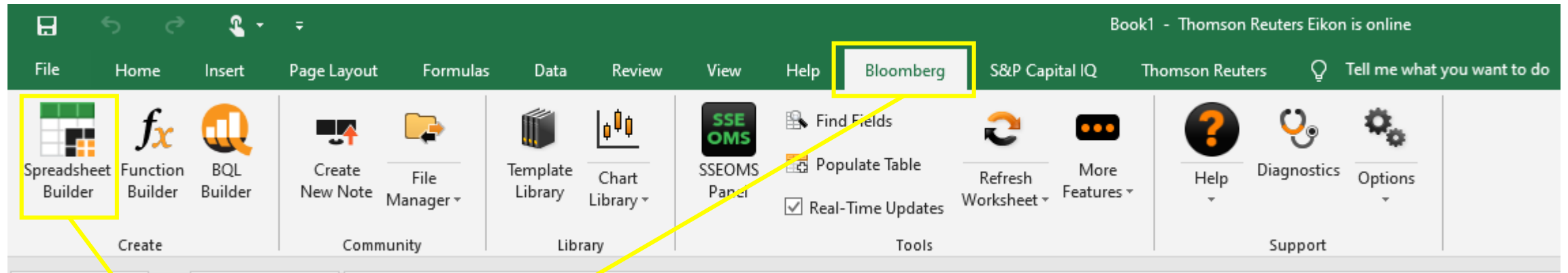
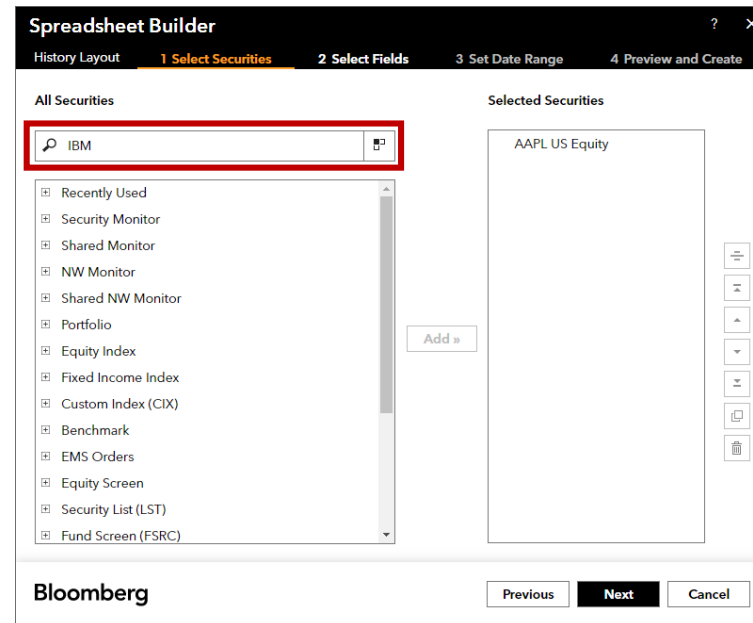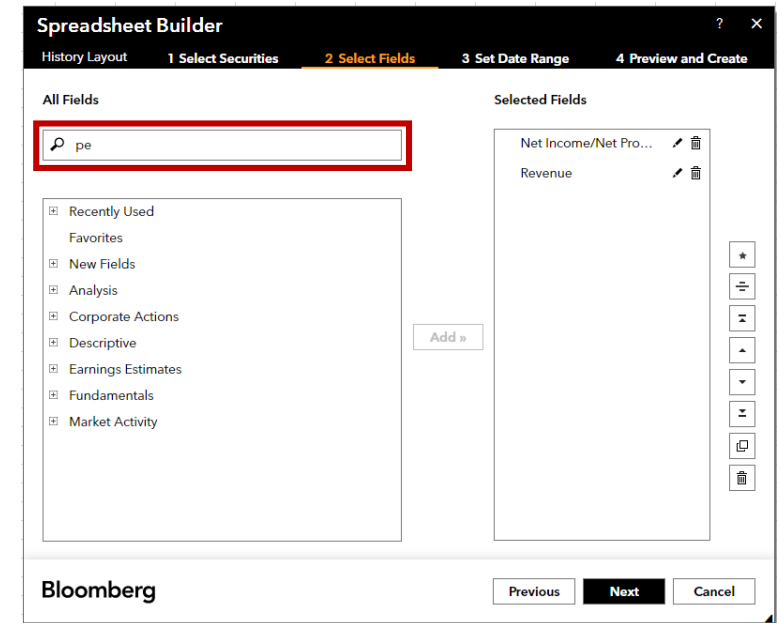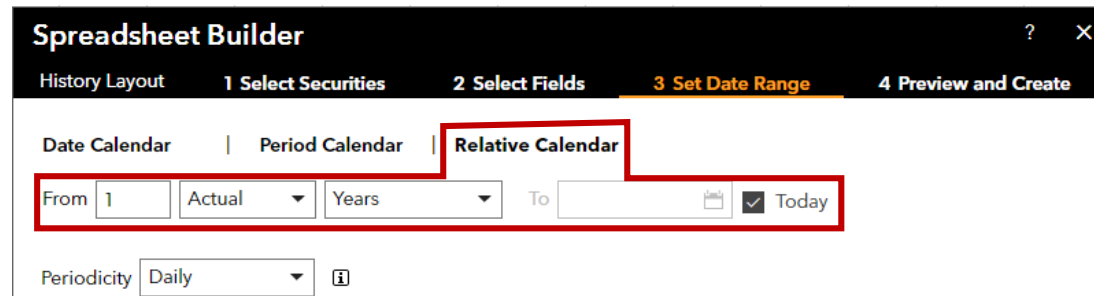Select the Bloomberg Ribbon on Excel and then click on **Spreadsheet Builder**

Source: Bloomberg

How to copy your data from Bloomberg to Excel

How to use Bloomberg's Excel Ribbon to download data directly into Excel

1 After your click on **spreadsheet builder,** chose **Historical Data Table**

2 Search for the securities you want to download from the search bar.

3 Search for or select the fields (i.e.: Net Income, PE etc.) you want to download from the search bar.

Source: Bloomberg

How to copy your data from Bloomberg to Excel

How to use Bloomberg's Excel Ribbon to download data directly into Excel

The date calendar allows you to chose specific beginning and ending dates as a range for your data, along with the frequency of the data: Daily, Monthly, Quarterly etc.
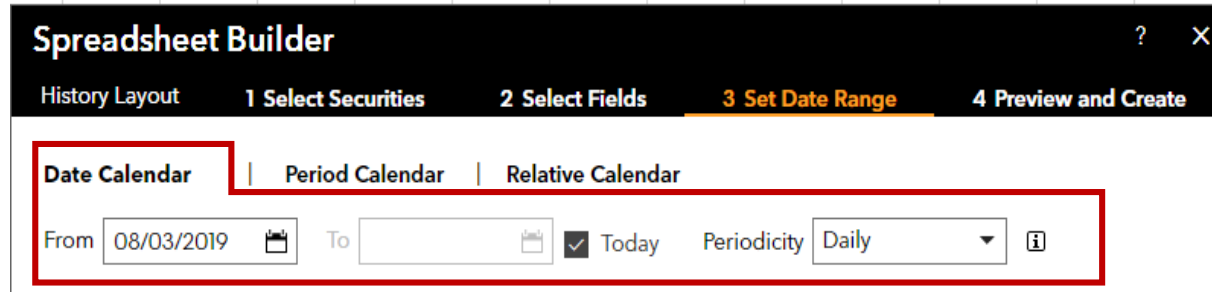
Control your data range and frequency

4

Relative calendar allows you to chose a number of periods (Quarters, Days, Years etc.) to display

Period calendar allows to provide a fiscal/calendar standard quarters/half years beginning and ending periods for you data range.
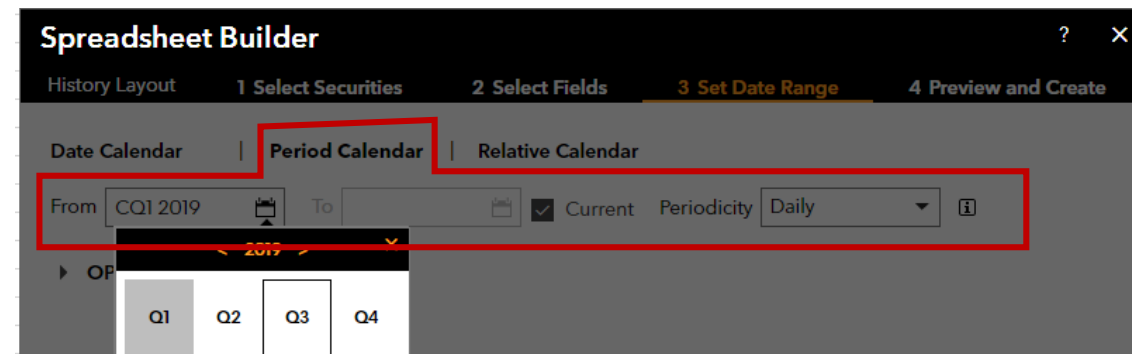
Source: Bloomberg

How to copy your data from Bloomberg to Excel

How to use Bloomberg's Excel Ribbon to download data directly into Excel

5 The preview window gives you control on the end result of your data dump allowing you to select the cell where you want to dump your data, transpose axes, display field names, display a single sheet per security if you're downloading data for multiple securities etc.

Source: Bloomberg

How to copy your data from Bloomberg to Excel

How to use Bloomberg's Excel Ribbon to download data directly into Excel

6 Your Bloomberg API query formula loads and displays the data you requested in Excel.

	A	B	C	D
1	Start Date	-1AY		
2	End Date			
3				
4		AAPL US Equity		
5		Net Income/Net Profit (Losses)	Revenue	
6	Dates	NET_INCOME	SALES_REV_TURN	
7	9/28/2018	14125	62900	
8	12/28/2018	19965	84310	
9	3/29/2019	11561	58015	
10	6/28/2019	10044	53809	
11				
12				
13				

Source: Bloomberg

How to copy your data from Bloomberg to Excel

How to find Excel Fields for your data

Hover over the field you're interested in and a pop out will display the field name and Excel Field ID that you can use in the Selected Fields Page on the Spreadsheet Builder.

Another way to get field ids is to right click on the item you're interested in, chose Definition and you will get a pop out with the Excel Field ID.

Source: Bloomberg

How to copy data from Bloomberg to Excel – Method 2

Using the navigation Data Navigation to get data into Excel

1. On the Bloomberg Ribbon, click on Data Navigation.
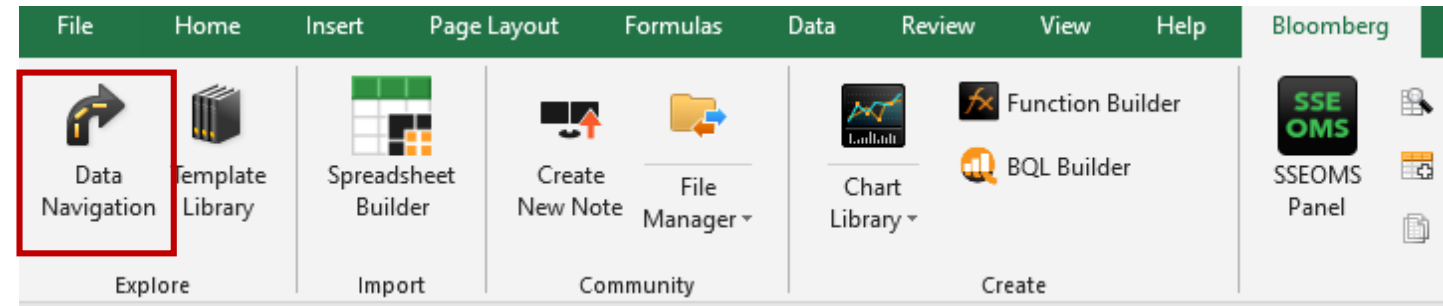
2. A data navigation side bar shows Up.
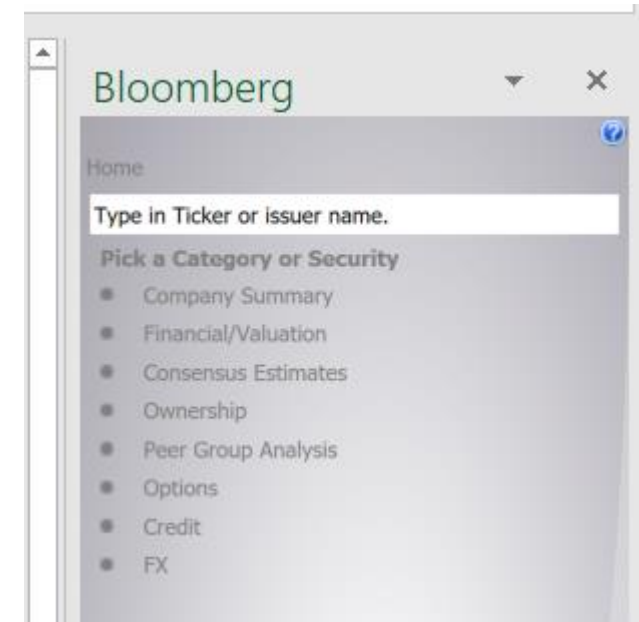
Source: Bloomberg

How to copy data from Bloomberg to Excel – Method 2

Using the navigation Data Navigation to get data into Excel

Search and select a security for which you want data. Navigate to the category of data you want: Summary, Financial (IS/BS/CF) etc. In our this case, we pick the **Financial/Valuation** category and chose **Income Statement**

Source: Bloomberg

How to copy data from Bloomberg to Excel – Method 2

Using the navigation Data Navigation to get data into Excel

Click on the highlighted icon to change period range, currency, frequency of the data etc.

Source: Bloomberg

How to copy data from Bloomberg to Excel – Method 2

Using the navigation Data Navigation to get data into Excel

Click and hold the highlighted icon and drag the selection to your cell of choice and release and your data will be loaded into the worksheet.

Source: Bloomberg

Some other useful Bloomberg functions

Bloomberg ECST function

Display country macroeconomic indicators: inflation, GDP growth, interest rates…

Source: Bloomberg

Bloomberg **ECO** function

Display a calendar of announced and upcoming macro indicators for a country

	Date Time	A	M	R	Event	Period	Surv(M)	Actual	Prior	Revised
21)	09/05 14:30				Challenger Job Cuts YoY	Aug	--	--	43.2%	--
22)	09/05 15:15				ADP Employment Change	Aug	148k	--	156k	--
23)	09/05 15:30				Nonfarm Productivity	2Q F	2.2%	--	2.3%	--
24)	09/05 15:30				Unit Labor Costs	2Q F	2.4%	--	2.4%	--
25)	09/05 15:30				Initial Jobless Claims	Aug 31	215k	--	215k	--
26)	09/05 15:30				Continuing Claims	Aug 24	1688k	--	1698k	--
27)	09/05 16:45				Bloomberg Consumer Comfort	Sep 1	--	--	62.5	--
28)	09/05 16:45				Markit US Services PMI	Aug F	50.9	--	50.9	--
29)	09/05 16:45				Markit US Composite PMI	Aug F	--	--	50.9	--
30)	09/05 17:00				Factory Orders	Jul	1.0%	--	0.6%	--
31)	09/05 17:00				Factory Orders Ex Trans	Jul	--	--	0.1%	--
32)	09/05 17:00				Durable Goods Orders	Jul F	2.1%	--	2.1%	--
33)	09/05 17:00				Durables Ex Transportation	Jul F	-0.4%	--	-0.4%	--
34)	09/05 17:00				Cap Goods Orders Nondef Ex...	Jul F	--	--	0.4%	--
35)	09/05 17:00				Cap Goods Ship Nondef Ex Air	Jul F	--	--	-0.7%	--

Source: Bloomberg

Bloomberg **N** function

Display a high level overview of the news and research available on Bloomberg
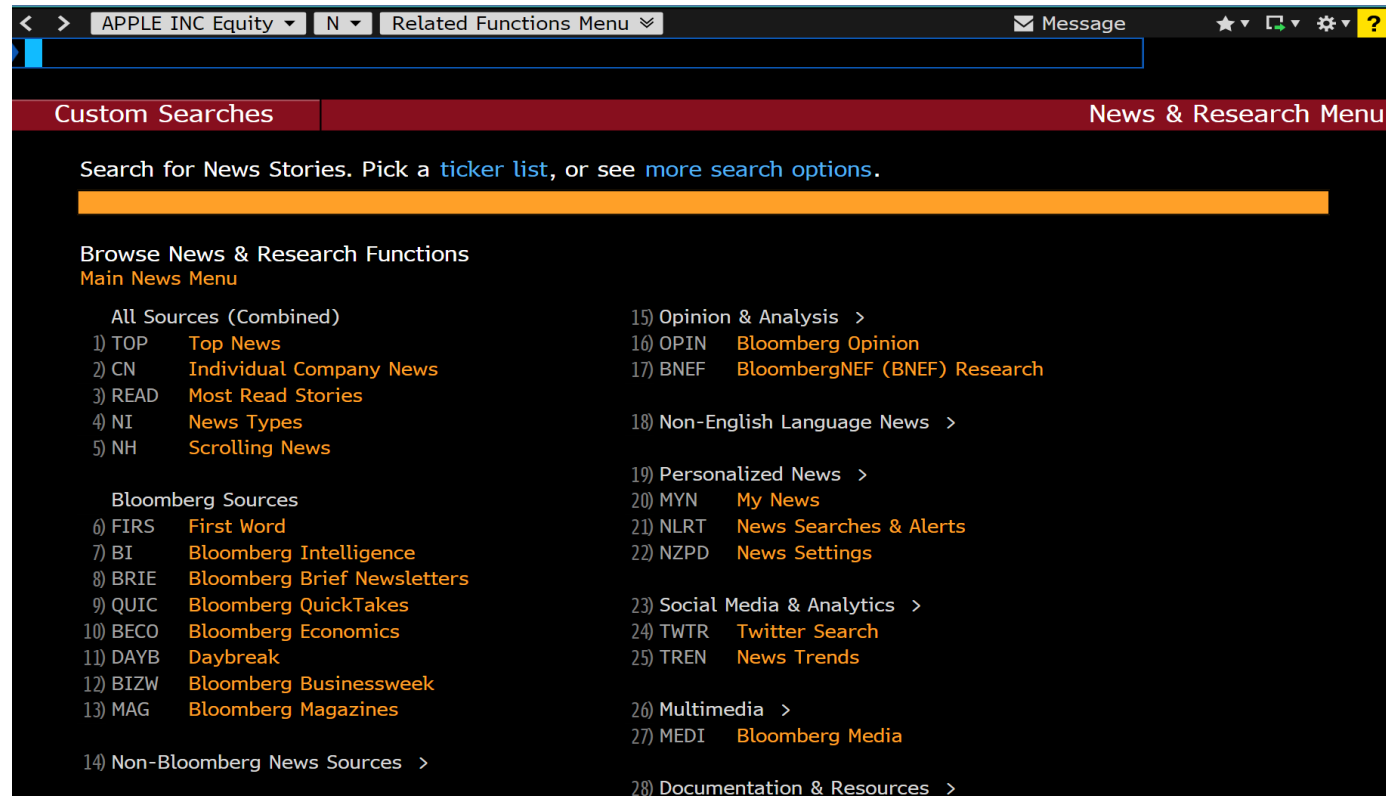
Source: Bloomberg

Bloomberg **TOP** function

Display the top news stories for the day

Source: Bloomberg

Bloomberg **DAYB** function

Displays the most important information to know for the day

Source: Bloomberg

Bloomberg **WSJ** function

Access the Wall Street Journal articles from the terminal

Source: Bloomberg

Bloomberg **BI** function

For finding data and statistics for industries and markets

Source: Bloomberg

Bloomberg **IPO** function

Information on Initial Public Offerings – Useful for precedent transactions/comps

Source: Bloomberg

Bloomberg **MA** function

Information on mergers and acquisition deals activity - Useful for precedent transactions/comps

Source: Bloomberg

Bloomberg **EQS** function

To screen companies that meet certain criteria

Source: Bloomberg

Bloomberg **EVTS** function

Track upcoming company events, earnings calls, earnings releases etc.

Source: Blooomberg

Bloomberg **ETF** function

To find information on ETFs performance, flows, costs etc.

Actions ▾	Export ▾	Settings		Exchange Traded Funds

New Search

Fund Type: All ×   Asset Class: Equity ×   Exchange: United States ×

Aggregates	1W	YTD	1Y
Flow (USD)	874.02M	43.59B	148.52B
Flow/Assets	+.03%	+1.42%	+4.83%

1) Select Criteria

1629 matching funds, 1629 matching tickers

Key Metrics | Cost | Performance | Flow | Liquidity | Allocations | Regulatory Structure

	Ticker		30D Vol	Class Assets↓ (MLN USD)	Fund Assets (MLN USD)	YTD Return	YTD Class Flow (MLN USD)	12M Yield	# of Holdings	Primary Share	Secondar... Listing
	Median		15.47k	85.54	82.77	+12.56%	.01	+1.97%	100		
11)	SPY	US	83.15M	262,271.00	262,271.00	+18.74%	-18,356....	+1.84%	505	Y	N
12)	IVV	US	4.54M	182,933.00	182,933.00	+18.74%	+7,505.98	+1.58%	506	Y	N
13)	VOO	US	3.20M	119,532.00	119,532.00	+18.74%	+12,762....	+1.98%	514	Y	N
14)	VTI	US	2.95M	118,620.00	118,620.00	+18.33%	+7,594.54	+1.84%	3,585	Y	N
15)	QQQ	US	33.74M	73,089.50	73,089.50	+22.58%	-1,263.72	+.79%	103	Y	N
16)	VEA	US	9.62M	71,153.00	71,153.00	+10.83%	+359.66	+2.88%	3,935	Y	N
17)	IEFA	US	8.35M	63,692.00	63,692.00	+11.07%	+7,086.84	+3.25%	2,472	Y	N
18)	VWO	US	12.23M	61,230.90	61,230.90	+8.16%	+2,300.53	+2.68%	4,129	Y	N
19)	EFA	US	28.47M	58,020.20	58,020.20	+11.19%	-9,486.12	+3.15%	1,134	Y	N
20)	IEMG	US	16.35M	53,373.30	53,373.30	+4.55%	+2,759.93	+2.77%	2,363	Y	N
21)	VTV	US	1.11M	48,401.40	48,401.40	+12.93%	+2,094.47	+2.63%	353	Y	N
22)	IJH	US	1.03M	48,159.90	48,159.90	+14.29%	+845.77	+1.53%	400	Y	N
23)	IWF	US	1.29M	45,134.80	45,134.80	+23.14%	-2,034.04	+.79%	526	Y	N
24)	IJR	US	3.82M	42,608.00	42,608.00	+9.35%	+2,068.64	+1.49%	601	Y	N
25)	VUG	US	710.93k	41,764.10	41,764.10	+24.86%	+1,376.48	+1.10%	300	Y	N

ETF List Actions: 2) Screen ETFs | FSRC »   3) Build Scoring Model | FSCO »   4) Search for Investors | IS »

Source: Bloomberg

How to find help and documentation for unfamiliar functions

Knowing how to learn about new functions on your own is important

If you are not familiar with how to use a certain Bloomberg function, your best bet is to read the help page/documentation for that function.

To access help for a function, in the case above for example **EE (Earnings Estimates),** click on the highlighted Question Mark icon on the top-right of your screen. Some functions have **"Take a Tour of"** which is a short highlight of key functionality of that function. For a more comprehensive help and documentation, click on Launch Help Page.

Source: Bloomberg

How to find help and documentation for unfamiliar functions

Knowing how to learn about new functions on your own is important

After clicking on **Launch Help Page**, a launchpad opens with the full documentation on how to use the function.

Source: Bloomberg

A final review

Let's review what we covered today

- Use the top **command bar** to search for **securities**

- To find financial statements/ratios, use the **FA GO** function

- To find company fillings (10-K, 10-Q), use **CF GO** function

- To find historical price and percentage change for a stock use **HCP GO** function

- To graph the price of a security, use **GP GO** function

- Use the **Spreadsheet Builder** menu from Bloomberg Excel API to download fundamentals/prices directly into excel

- If you get lost, use the **related functions menu** from the top bar to navigate within Bloomberg

- Click on the **?** On the top right of the window to find help for a **function**