S&P GlobalMarket Intelligence

MI Office Reference Guide

Getting Started

After installed properly MI Office launches automatically within Microsoft Excel and you will see an MI Office tab in the Excel Ribbon.

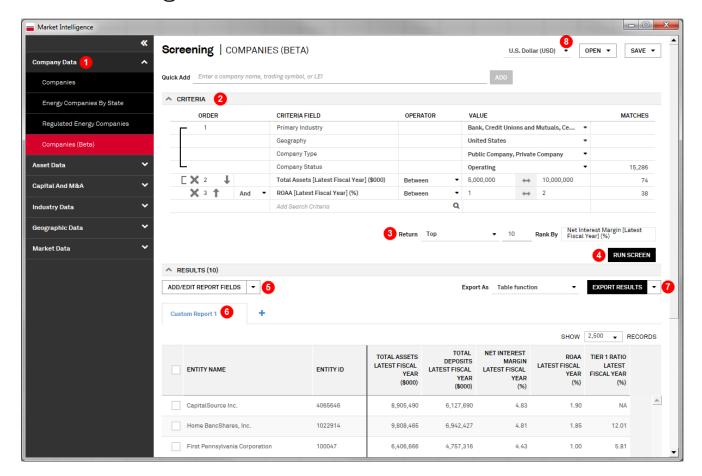


- 1. Refresh data of your S&P Global Market Intelligence models and adjust your refresh options between automatic and manual. Automatically refreshes MI Office functions each time an action is executed in Excel while manual refreshes require the user to click 'Refresh' to get new data.
- 2. Launch the Data Wizard to create an S&P Global Market Intelligence model using multiple entities and fields. Use the Field Selector to add fields to an existing model in Excel.
- 3. Quickly find and export refreshable data into a new or existing model using the Formula Builder, designed for fast access to S&P Global Market Intelligence's vast data.
- 4. Access ratio components and source tagging detail linked to the source documents for select data points in your S&P Global Market Intelligence model using the Audit Data capability.
- 5. Easily access the Excel Template Library that contains over 300 pre-built templates to meet your data analysis needs.
- 6. Embed Queries allows you to share your saved queries within an Excel file so others may use them. Convert Formulas will convert legacy SNL functions to values within a file, or convert the single SNLTable function into several single-cell SNLData functions within a file.
- 7. Stream a personalized news feed while working on your S&P Global Market Intelligence models using the NewsWire app.
- 8. Adjust the default Settings to customize your MI Office experience. Use Help and Market Intelligence's web platform to find additional information on available content and functionality.

Using the Data Wizard

Below explains the different components of the Data Wizard, which is S&P Global Market Intelligence's Excel interface for pulling data.

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- 1. Conveniently grouped data sets to easily drill down to the type of data desired.
- The Criteria section allows for quick and advanced screening of results to build out your models. Add Search Criteria puts all of the additional data points S&P Global Market Intelligence covers for the data set at the user's fingertips to screen on using common operators like greater/less than, between, or in.
- 3. Users have the option of ranking top or bottom results by a selected field.
- 4. Run Screen will return all results in the Results section that meet the screening criteria chosen in the Criteria section.
- 5. Quickly build your S&P Global Market Intelligence model by adding fields to your results via Add/Edit Report Fields. This will open the Field Selector showcasing all additional data points S&P Global Market Intelligence covers within the data set.
- 6. The results grid gives users a preview of their S&P Global Market Intelligence model before exporting. The grid allows sorting, highlighting and selecting of rows, and most will link entities to their accompanying web profile.
- 7. When you have all of the data desired, you can Export to Excel as a single "Table" function, multiple single-cell functions, as plain values, or as a set of only the entities. You can also choose an orientation of the export, including entities going down a column and fields across a row, or entities across a row and fields down a column.

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8. Users can also save or open their models as a Screen, which includes all selections within the Criteria section, or a Project, which includes both the selections within the Criteria and any fields added within the Results.

S&P Global Market Intelligence Excel Add-in Functions

Below is a list of the most popular MI Office functions, including formulas and tips on best uses:

SPGTable = spgtable(entity ID range, field ID range, secondary key range, "options")

- The ideal function to use when retrieving large amounts of data in Companies (Beta) and Transactions (Beta).
- Most commonly used for building comp sheets and peer analysis reports or to present data in a standard grid format.

SPG = spgdata(entity ID, field ID, secondary key, tertiary key, "options:")

- Allows you to pull a specific data value into a single cell in Companies (Beta) and Transactions (Beta).
- Primarily used when building a single company briefing book template.

SPGScreen = spgscreen("saved screen name", field ID range)

• Allows you to use previously saved custom screens to drive your templates with dynamic entity lists in Companies (Beta) and Transactions (Beta).

Legacy SNL Office functions:

SNLTable =snltable(data set, SNL ID range, field ID range, secondary key range, "options")

- The ideal function to use when retrieving large amounts of data.
- Most commonly used for building comp sheets and peer analysis reports or to present data in a standard grid format.

SNLData =snldata(data set, SNL ID, field ID, secondary key, tertiary key, "options:")

- Allows you to pull a specific data value into a single cell.
- Primarily used when building a single company briefing book template.

SNLQuery = snlquery("query name", field ID range)

• Allows you to use previously saved custom screens to drive your templates with dynamic entity lists.

SNL Market Data =snl("markets.field", entity, start date/as of date, end date, "options:")

• Gives you a flexible and powerful tool to pull historical market data for a single company, index, or interest rate for a single day or a time series.

SNLPrice = snlprice(input range, starting date, ending date, frequency, "options:")

- Pulls historic and intraday prices and market data for SNL covered equities (trading symbolstickers and indexes) and interest rates.
- Useful in generating custom charts for pitch books, peer comps and investor presentations.

SNL Group = snl("group.statistic", data set, entity keys, field IDs, secondary keys/periods, "options:")

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- Create statistical calculations for a group of companies or deals in a single row or column without having to retrieve data for each entity in your group and without using Excel formulas to calculate the statistics.
- For more information about the group function refer to the online Help document.

SNL Energy Commodities =snl("data set.field", entity, start date/as of date, end date, "options:")

• Allows you to pull <u>forward curve</u>, <u>historical data</u> and <u>watchlist</u> energy commodities data. For more information about these SNL functions refer to our online Help document on this topic.

SNL Operational Available Capacity = snl("opcap.fieldname", location ID, begin date, end date, cycle, frequency, "options:")

• Gives you the ability to pull historical data for receipt and delivery points across multiple pipelines for a single day or a time series. For more information about this function refer to our online Help document on this topic.

Need help translating S&P Global Market Intelligence functions?

The following definitions will help decode the above formulas:

Data set — a numerical code that identifies a specific SNL data set. See the table below that shows the data set codes used in SNL functions.

Entity ID — a unique identifier # assigned to every company, offering, M&A deal, branch, property, energy power plant or M&C asset. This number can be easily found in the Data Wizard. For traded companies, the ticker can be used in place of the Entity ID.

Field ID — a unique # for every data field in MI Office. This number can be found in the DataWizard, Field Selector or MI Office Field List (located on the Help page).

Secondary Key — for End of Period (EOP) financial fields, this is the period end date stated in MI Office format. See table on the right for date formats. For nonEOP fields, this can be a number (i.e., length of time for pricing fields) or text (position for officer info).

Tertiary Key — an optional key for EOP financial fields. Use zero (0) for Originally Reported data and one (1) for Current/Restated data.

Starting Date/Ending Date — start and end date for a range of historical stock prices to retrieve.

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Data Set Group	Data Set Number	Data Set Name		
Company Data				
	1	Companies		
	2	Regulated Depositories (U.S.)		
	9	Specialty Financial Services (U.S.)		
	246806	Insurance Product Filings (U.S.)		
	287	Insurance Statutory Financials (U.S.)		
	113573	Reinsurance Relationships (U.S.)		
	16	Energy Companies by State		
	11	Regulated Energy Companies		
	19	Wireline Regulatory (ARMIS)		
	266637	Companies (Beta)		
Asset Data				
	17	Branches (U.S.)		
	113882	Insurance Investment Holdings (U.S.)		
	233518	Insurance Investment Transactions (U.S.)		
	18	Coal Mines		
1	126278	Monthly Fuel Deliveries		
	12	Power Plants		
	14	Power Plant Units		
	262880	Transmission Projects		
	20	Media & Communications Assets		
	113572	Television Networks		
	243327	Metals & Mining Projects		
	246673	Metals & Mining Drill Results		
	246626	Metals & Mining Claims		
	261002	Metals & Mining Capital Costs		
	3	Real Estate Properties		
Capital & M&A		I		
	113555	Broadcast M&A		
	10	Capital Issues		
	4	Capital Structure		
	5	Mergers & Acquisitions		
	275259	Transactions (Beta)		
Industry Data	2 42227	In		
	246807	Natural Gas Index of Customers		
	241019	Operationally Available Capacity		
	227318	Regional Energy Markets		
	238101	Utility Rate Cases		
Coographia Data	113743	M&C Industry & Projections		
Geographic Data	227520	I O bis latallian		
-	227539 259821	Geographic Intelligence Commercial Properties (U.S.)		
-	259821 267576	C&I Liens/ UCC Filings (U.S.)		
-	261463	Marketing List: Businesses (U.S.)		
	261463 261460	Marketing List: Businesses (U.S.)		
Market Data	201400	ividineting List. business Contacts (U.S.)		
INIGI NEL DALA		Pricing Data		
1	-	Forward Commodity View		
1		Historical Commodity View		
	261505	ISO Capacity Auction Results		
I	201303	100 Capacity Auction Results		

Date Formats

The following are date codes used in SPG functions like SPGTable, SPGScreen, and single cell SPG Functions.

SPG Function Date Formats			
Format	Description	Example	
FQqyyyy	Specific fiscal quarter	FQ12017	
FYyyyy	Specific fiscal year	FY2016	
FHhyyyy	Specific fiscal interim period	FH12016	
YTDqyyyy	Specific YTD	YTD22017	
LTMqyyyy	Specific LTM	LTM22017	
CQqyyyy	Specific calendar quarter	CQ12017	
FQ0	Latest fiscal Quarter	FQ0	
FY0	Lastest fiscal Year	FY0	
FH0	Latest fiscal interim period	FH0	
YTD	Year to date	YTD	
LTM	Last twelve months	LTM	

By subtracting [n] from a latest period, dates can be made relative to the FQ, FY, FH, CQ, YTD, or LTM. Examples: FY-1, FQ-2.

The following are date codes used in SNL functions like SNLData, SNLConvert, SNLDefinition and SNLTable

SNL Function Date Formats			
Format	Description	Example	
yyyyQq	Specific quarter	2013Q2	
yyyyY	Specific year	2012Y	
yyyyH1/H2	Specific interim period	2014H1	
yyyyTq	Specific YTD	2012T2	
yyyyLq	Specific LTM	2013L3	
MRQ	Most recent quarter	MRQ	
MRY	Most recent year	MRY	
MRH	Most recent interim period	MRH	
YTD	Year to date	YTD	
LTM	Last twelve months	LTM	

By adding brackets, dates can be made relative to the MRQ, MRY, MRH, LTM or YTD. Examples: [MRQ-1], [MRH-2].

S&P Global Market Intelligence Support and Training

Our support desk is staffed 24/7. Contact Support: +1.888.275.2822, or support.mi@spglobal.com. For more details on MI Office, please refer to the MI Office Help Page.