IHS Markit Add-In for MS Excel® User Guide

Version 6.3 | March 2022

Introduction

The IHS Markit Add-In for Microsoft Excel®, hereinafter referred to as the 'Excel Add-In', offers functions that deliver live streaming IHS Markit data retrieved via HTTPS protocol to MS Excel workbooks in your local environment.

The Excel Add-In is the foundation through which you can create powerful Excel workbooks that allow you to view and interpret IHS Markit data in the context of your workflow.

This document provides a step-by-step guide to installing, accessing, and using the functions in the Excel Add-In.

System requirements

The system requirements for the Excel Add-In are:

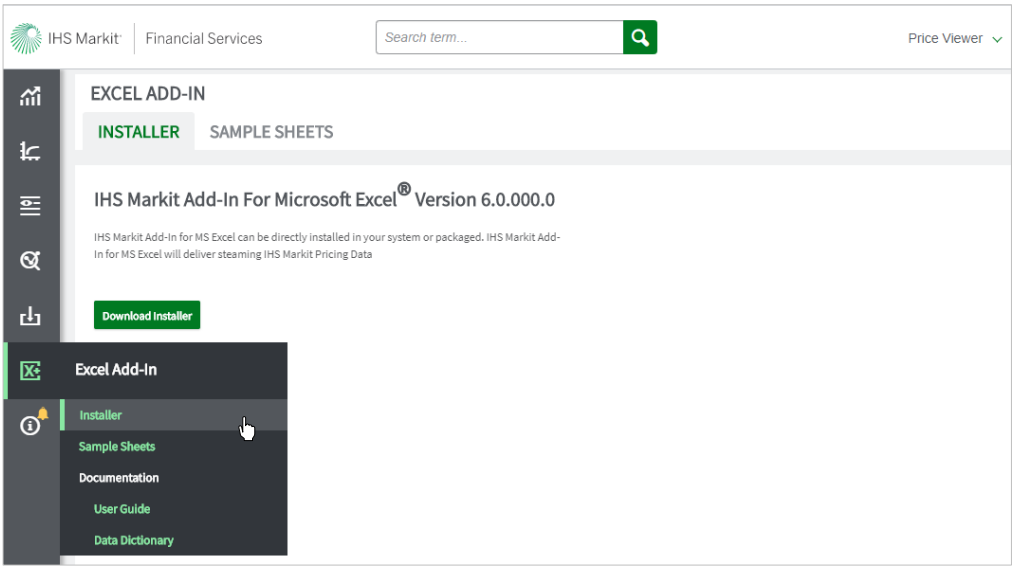
- MS Windows 7 or newer; 64-bit or 32-bit
- MS Office 2010 or newer; 64-bit or 32-bit
- MS Internet Explorer 11 or newer
- .NET Framework 4.5.2 or above
- Active internet connection that can connect to IHS Markit servers
- CPU: Intel(R) i3 or above, Haswell or later
- RAM: At least 4GB of RAM
- Disk: At least 1GB of free space

Installing the Excel Add-In

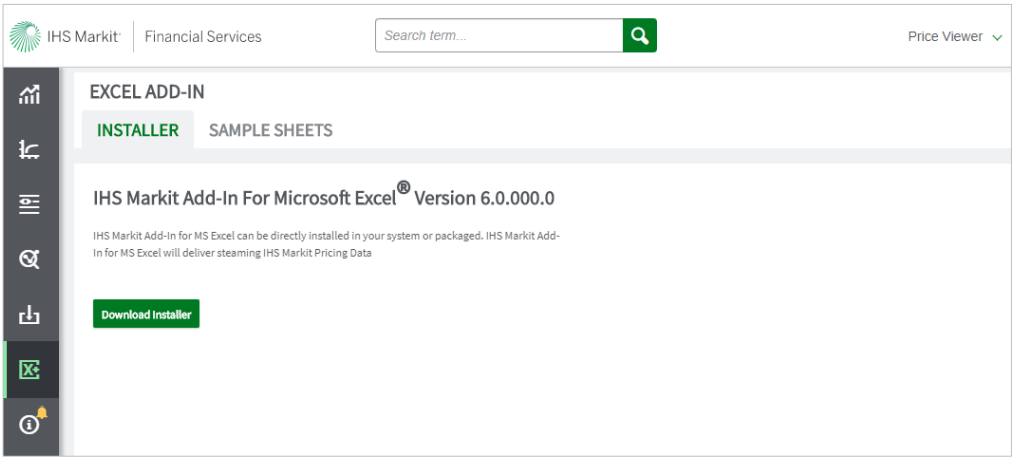
To install the Excel Add-In, the first step is to download the Excel Add-In installer from the Price Viewer Excel Add-In page as follows:

> Log in to **Price Viewer**.

> Select **Installer** from the **Excel Add-In** menu on the main navigation bar at left, as shown in the example below.



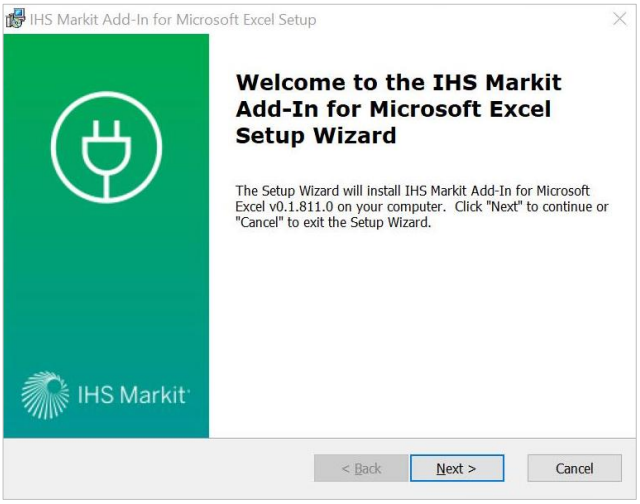
The Excel Add-In Installer page opens, as shown below.



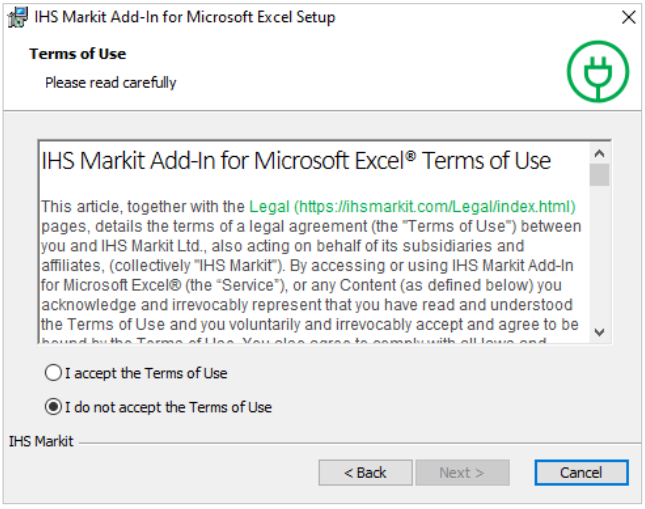
> Click **Download Installer**. The .msi file is saved to your local directory.

> Navigate to and click or double-click the **.msi** installation file to start the Setup Wizard.

The Setup Wizard welcome pop-up window opens, as shown below.

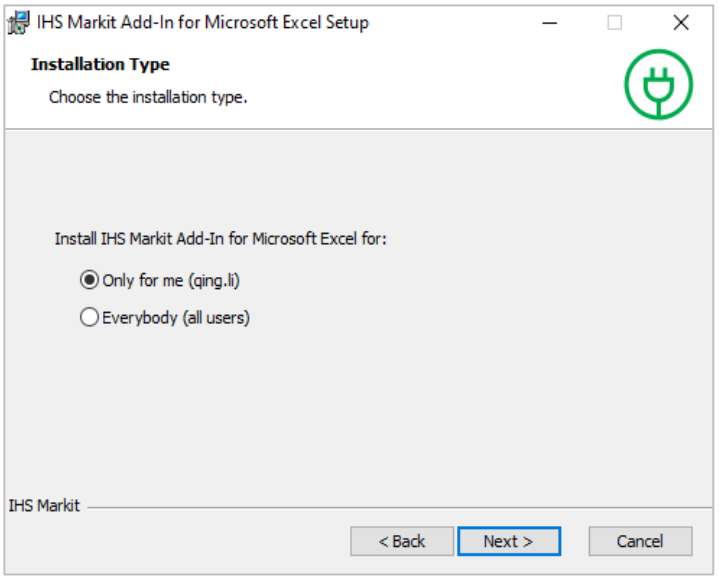


> Click **Next** to move to the Terms of Use step.



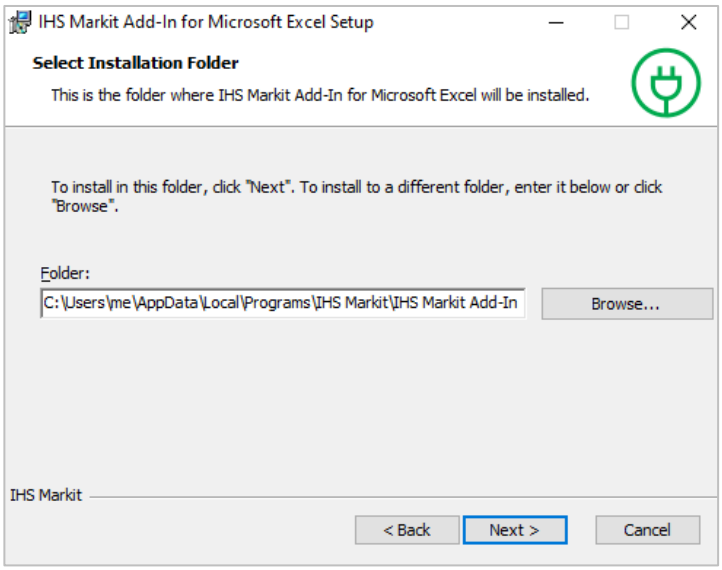
> Select the **I accept the Terms of Use** option to continue with the installation.

> Click **Next** to continue to the Installation Type step, as shown below.



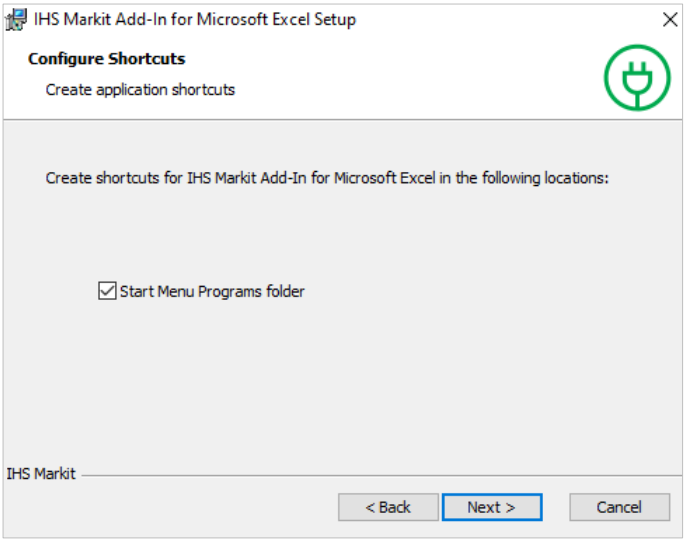
> Choose **Only for me** to install only for yourself, or **Everyone (all users)** to install for all user accounts on this computer.

> Click **Next** to continue to the Installation Folder step, as shown below.



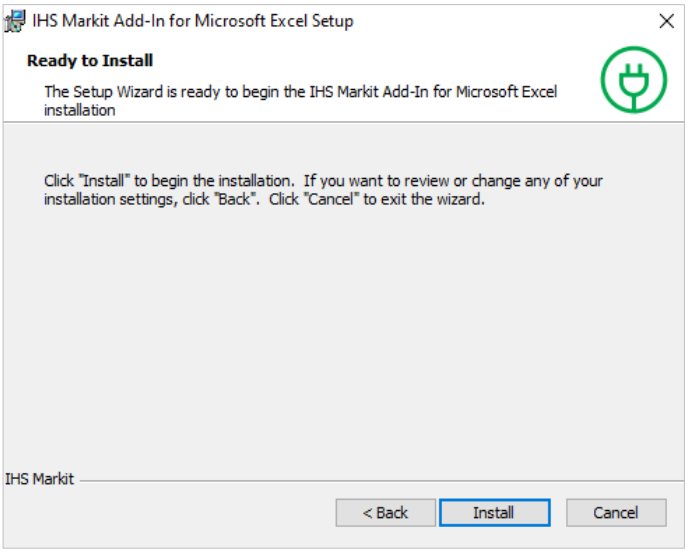
> Keep the default folder entered in the **Folder** field, or enter or click Browse and choose a new installation folder.

> Click **Next** to continue to the Configure Shortcuts step, as shown below.



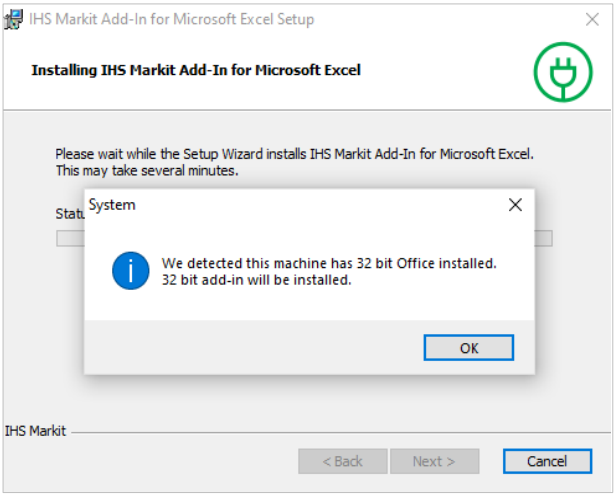
> Select the **Start Menu Programs folder** checkbox to add the Excel Add-In to your MS Windows Start menu or deselect it to not add it to your Start menu.

> Click **Next** to continue to the Ready to Install step, as shown below.

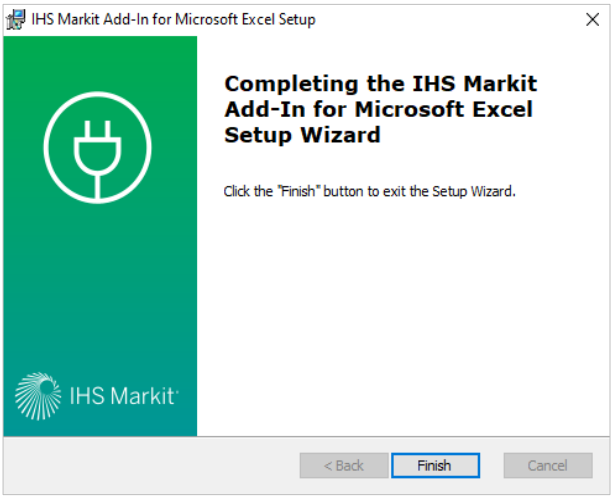


> Click **Install** to start the installation.

Note that the installer may first find your version of MS Office and display a message similar to the below.

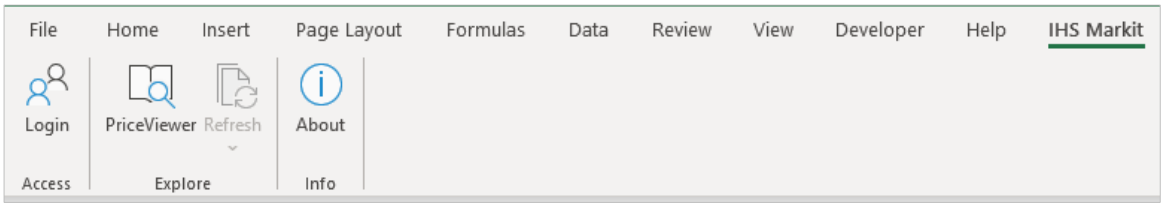


> Click **OK** to continue to move to the final step of the installation.



> Click **Finish** to complete the installation and close the Setup window.

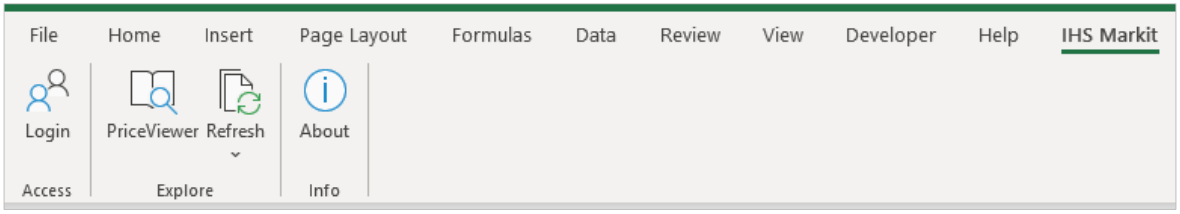
Once you successfully install the Excel Add-In, open any Excel workbook and the IHS Markit tab should display in the top ribbon of the MS Excel application window, as shown in the below example.



Note: You can run the Excel Add-In version 6 in parallel with the previous version 5 and lower.

Using the Excel Add-In ‘IHS Markit’ menu

Once you have installed the Excel Add-In, the **IHS Markit** option displays at the end of the top ribbon of your MS Excel application window. The IHS Markit menu includes the options shown at left in the below example.



The following sections describe how to use each option.

Login / Logout

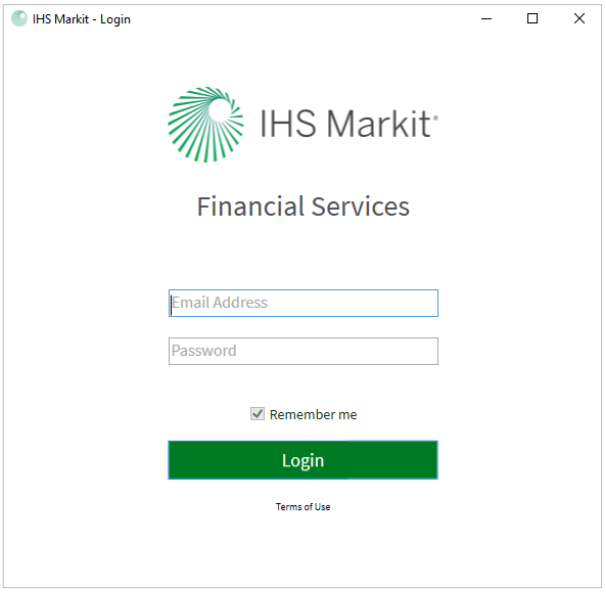
To access live streaming IHS Markit data in your local environment, you must first log in. Your login connection remains active until you log out.

To log in to the IHS Markit Add-In for Excel service:

> Open Excel.

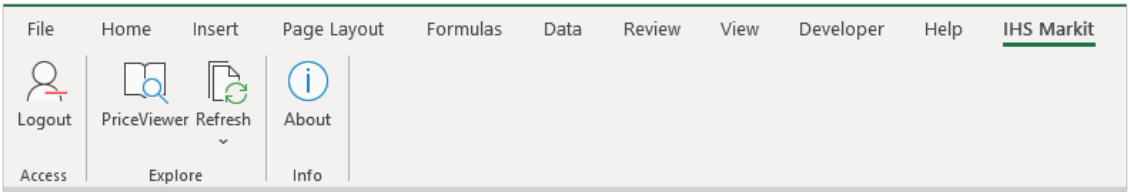
> Click **Login** on the IHS Markit ribbon (as shown on the previous page).

If the Excel Add-In detects an IHS Markit formula in the current workbook, the IHS Markit Login window, as shown below, opens.



> Enter your email address and password in the indicated fields, and then click **Login** to log in to the Excel Add-In service.

Once you are successfully logged in, note that the Logout option replaces the Login option, as shown in the example below at left.



To log out of the IHS Markit Add-In for Excel service:

> Click **Logout** on the IHS Markit menu (as shown at left above). Your current connection to IHS Markit is disconnected and live IHS Markit data no longer streams to your workbooks.

Note that after you log out, the data you already streamed remains in your current workbook (i.e., you will not lose that data). Log in again to start streaming live data again.

Price Viewer

Price Viewer is an IHS Markit web platform for financial market data and analytics encompassing many IHS Markit data products.

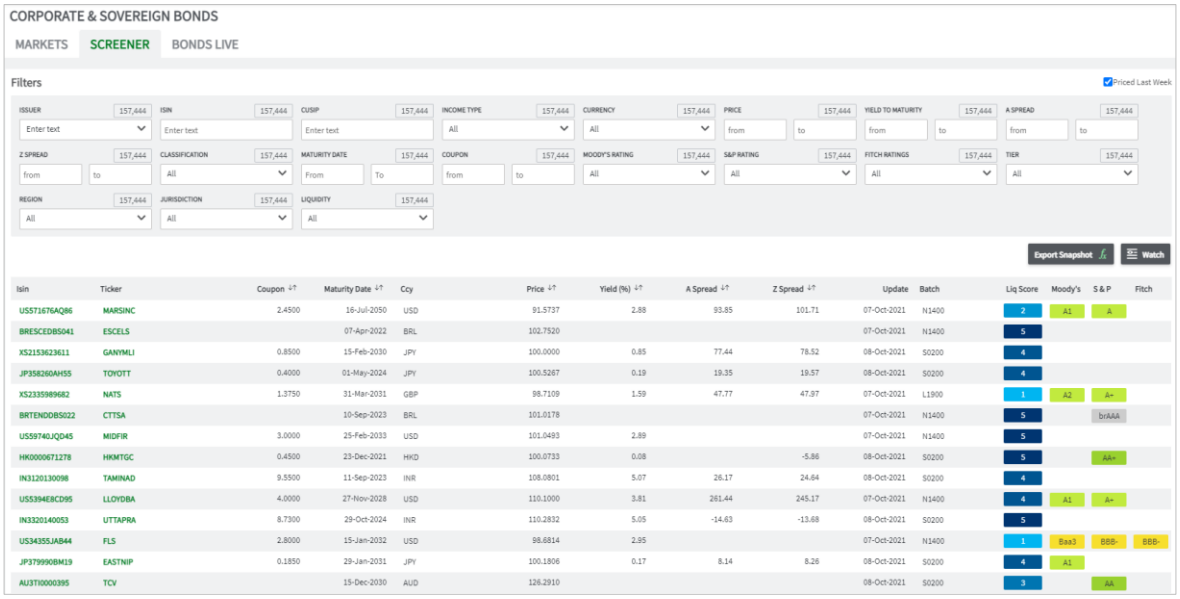
This section describes only the Excel Add-In related features of Price Viewer including:

- Use screeners and watchlists to find and export lists of instruments and related pricing data to your workbooks using the Excel Add-In service
- Download sample sheets pre-created for the Excel Add-In
- Download the Data Dictionary for the IHS Markit data products available in the Excel Add-In

NOTE: For a complete reference with step-by-step instructions for using Price Viewer, see the *Price Viewer User Guide*.

Using Export Snapshot from Price Viewer Screeners

Price Viewer Screeners display all priced instruments for the selected market with the latest pricing data. Below is an example of the Corporate & Sovereign Bonds market screener.

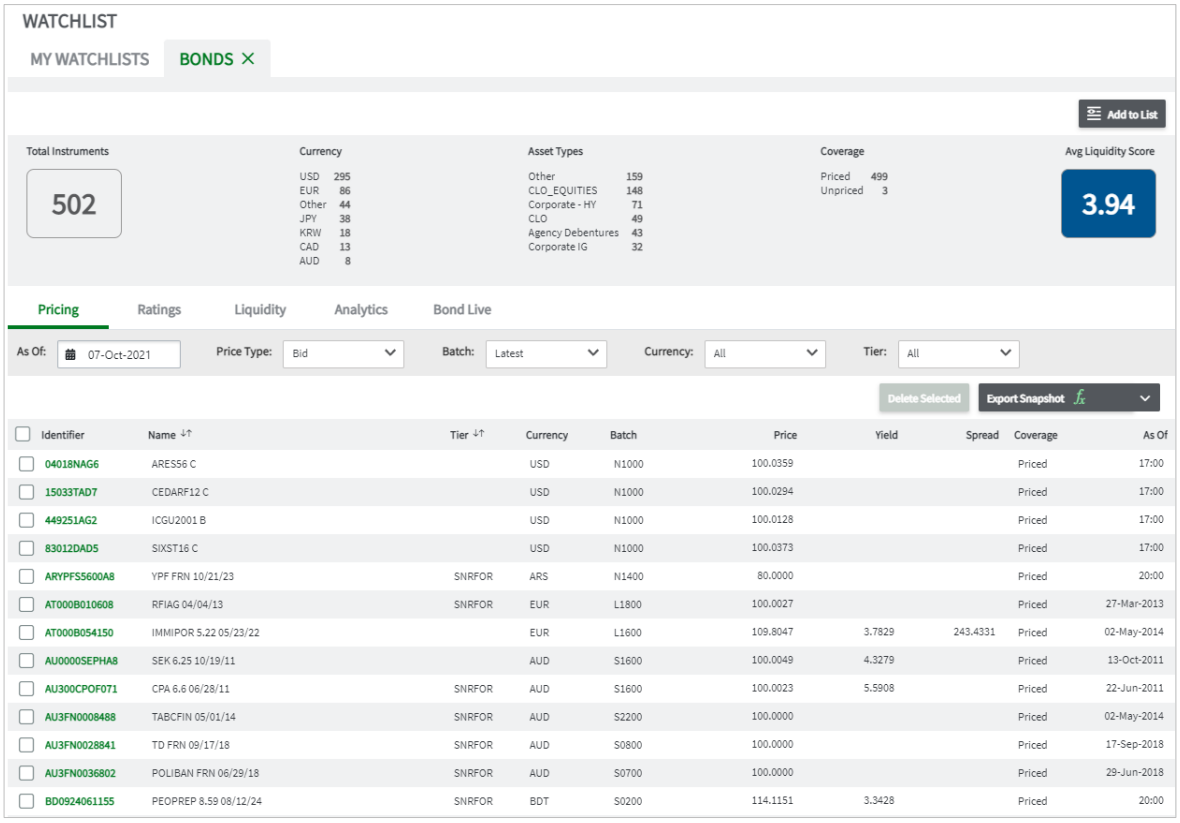


Use the filters at the top of the page to find the instruments you want, and then click Export Snapshot to export all fields in the current results dataset to an MS Excel workbook with formulas.

Note: You can export up to a maximum of 2000 instruments at one time.

Using Export Snapshot from Price Viewer Watchlists

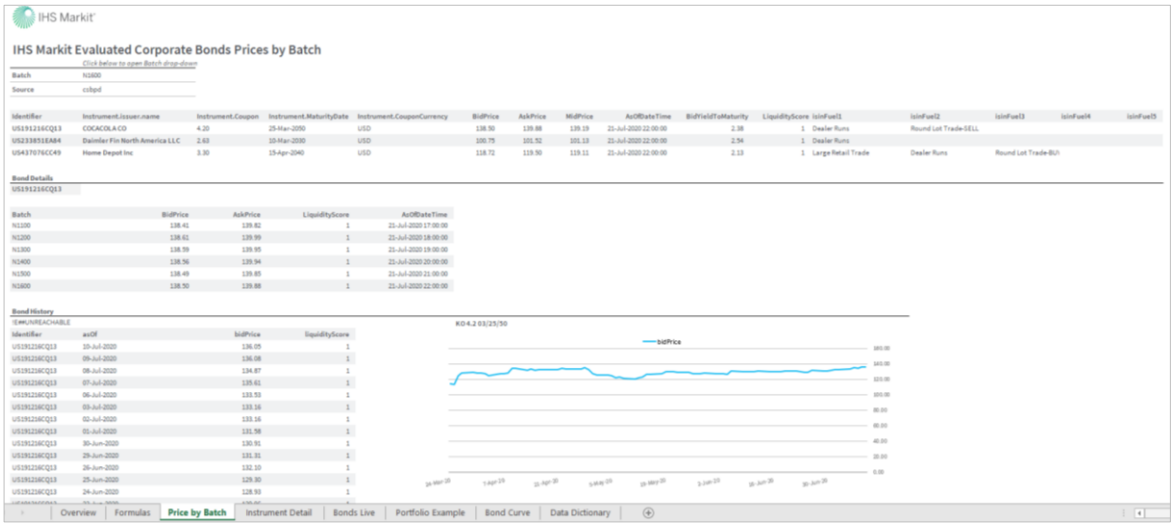
Use Price Viewer Watchlists to create a collection of instruments with pricing data. See the example watchlist with selected bond instruments below.



Use  to export all fields on the current tab to an MS Excel workbook with formulas.

Downloading Excel Add-In Sample Sheets

Sample sheets are ready-to-use IHS Markit Add-In for MS Excel workbooks with dynamic data tables and charts created using formulas. See the below example of the Evaluated Corporate Bond Pricing Data sample sheet.

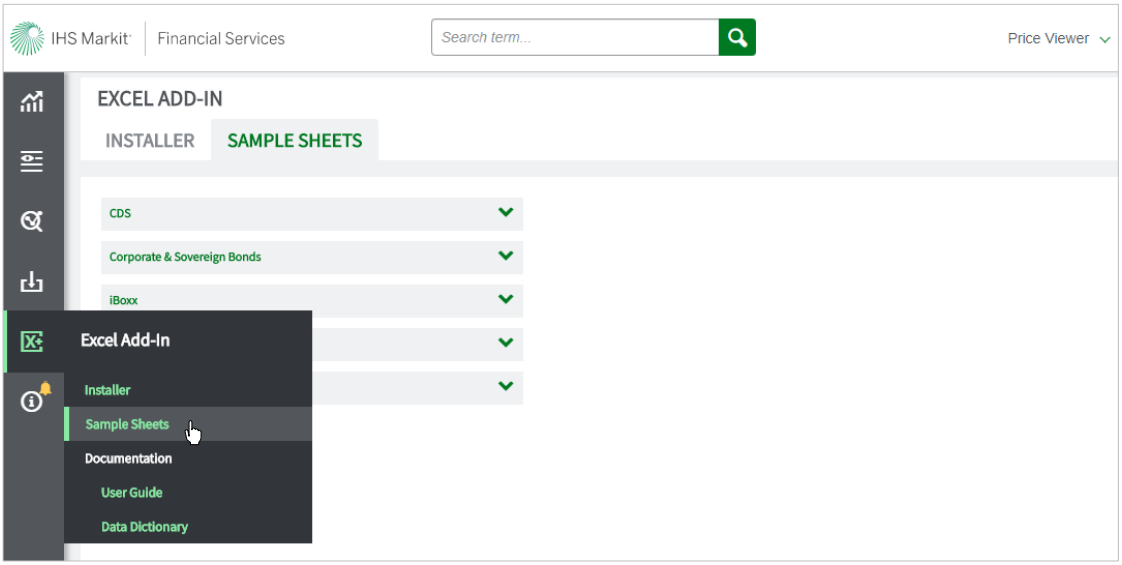


Currently, the Excel Add-In provides sample sheets for Parsing and pricing data for these markets:

- CDS Single Names
- Corporate & Sovereign Bonds
- Municipal Bonds
- Securitized Products
- iBoxx Indices

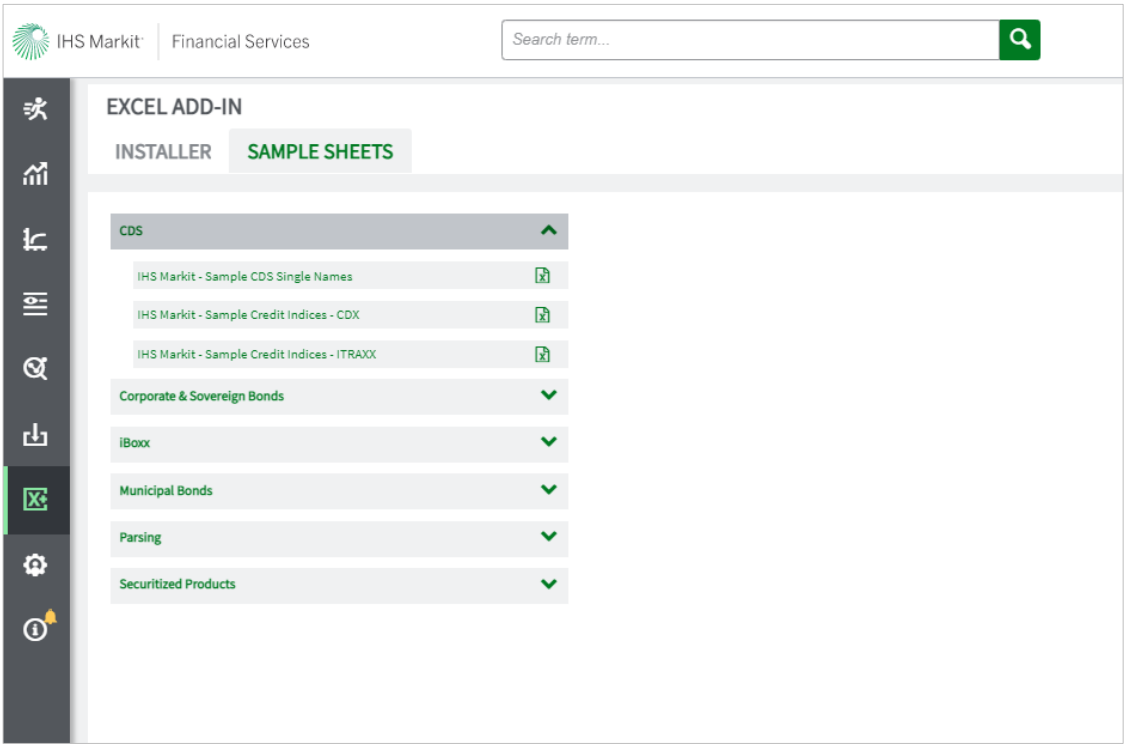
To download sample sheets in Price Viewer:

> Open the Excel Add-In menu from the main navigation bar and click **Sample Sheets**.



The Excel Add-In Sample Sheets page with your subscribed IHS Markit products opens.

> Click the arrow to the right of a product to expand the list of sample sheets available for that dataset, as shown for CDS in the example below.



> Click (or anywhere on the gray bar) to select and download the selected sheet. Repeat for each sample sheet you want to download.

> To use a sample sheet, open it in the MS Excel with the Excel Add-In installed and be sure you are already logged in – or log in.

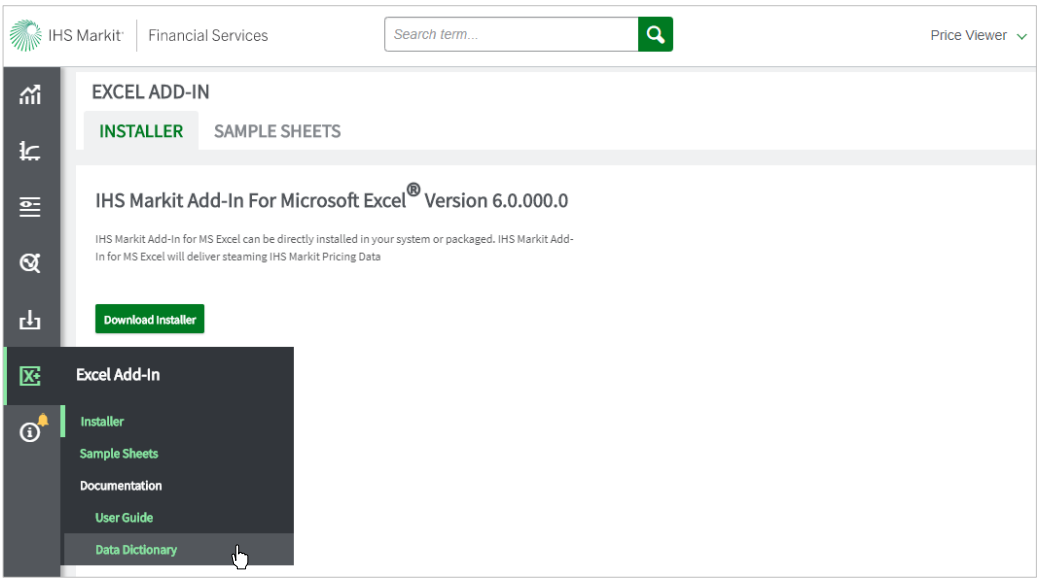
Downloading the Excel Add-In Data Dictionary

The *IHS Markit Add-In for Excel Data Dictionary* provides the names for the namespace, entities, fields, along with descriptions, for all supported datasets in the latest version of the Excel Add-In.

Note also that each sample sheet already includes the relevant data dictionary for the product dataset covered by the sample sheet.

To download the full data dictionary from Price Viewer:

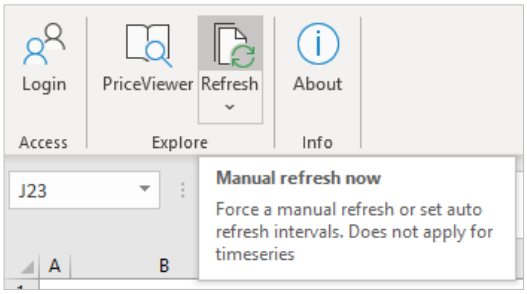
> Open the Excel Add-In menu from the main navigation bar, as shown below at left, and then click **Data Dictionary**.



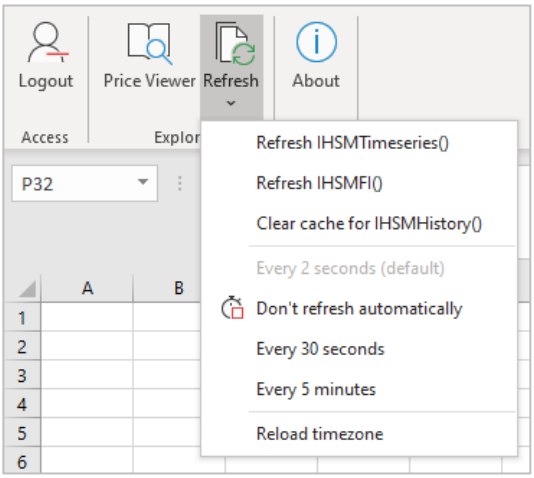
The dictionary downloads to your environment, and you can choose to open and/or save it to your preferred location.

Refresh

Use the **Refresh** option to refresh all formulas (except IHSMTimeseries and IHSMFI formulas) in all open workbooks.



The Refresh dropdown menu includes six options, as shown below. All options apply to all open workbooks.



The table below describes each of the Refresh menu options.

Option	Description
Refresh IHSMTimeseries()	Refresh all IHSMTimeseries formulas
Refresh IHSMFI()	Refresh all IHSMFI formulas
Clear cache for IHSMHistory()	Clear your local cache of all IHSMHistory formulas with offset
Every 2 seconds (default)	Set automatic refresh frequency to every two seconds. Two seconds is the default frequency. If you change the frequency to every 30 seconds or every 5 minutes and close all workbooks or log out, it resets the frequency back to every 2 seconds the next time you access a workbook or log back in
Don't refresh automatically	Pause automatic refresh
Every 30 seconds	Set automatic refresh frequency to every 30 seconds

Option	Description
Every 5 minutes	Set automatic refresh frequency to every 5 minutes
Reload timezone	Reload the system time zone

About

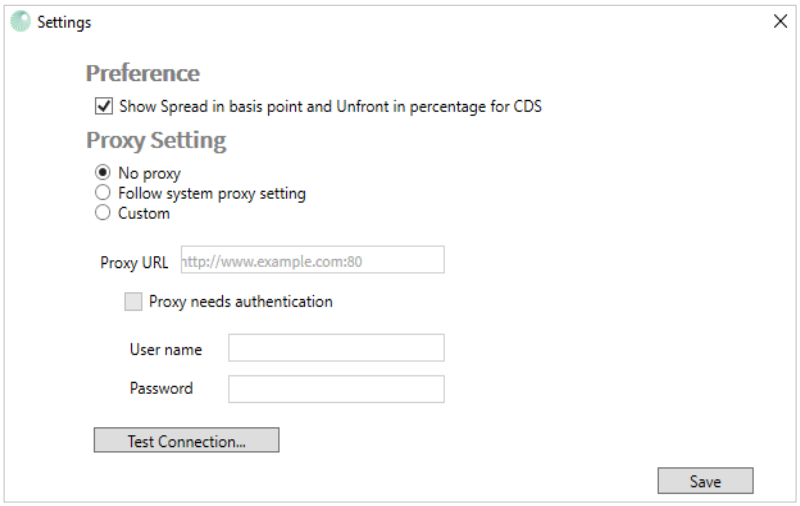
The About window, as shown in the below example, provides helpful information, such as the version number and the log in account name, along with various options for the Excel Add-In.

The table below describes the About options.

Option	Description
User Guide	Download this *IHS Markit Add-In for MS Excel User Guide.*
Terms of Use	Open the Terms of Use window with the *IHS Markit Add-In for Microsoft Excel Terms of Use*.
Contact Us	Open the IHS Markit contact page where you can select contact options based on your country or region.
Settings	Open the Settings window where you can choose your proxy and preference settings. See the following page for more information.
Diagnostic	Test Connectivity and Enable Verbose Logging in case of issues. See the following page for more information.
Update	Validate that your installed version of the *IHS Markit Add-In for Microsoft Excel* is the latest version. If it is not the latest version, you can choose to update it. See page 17 for more information.

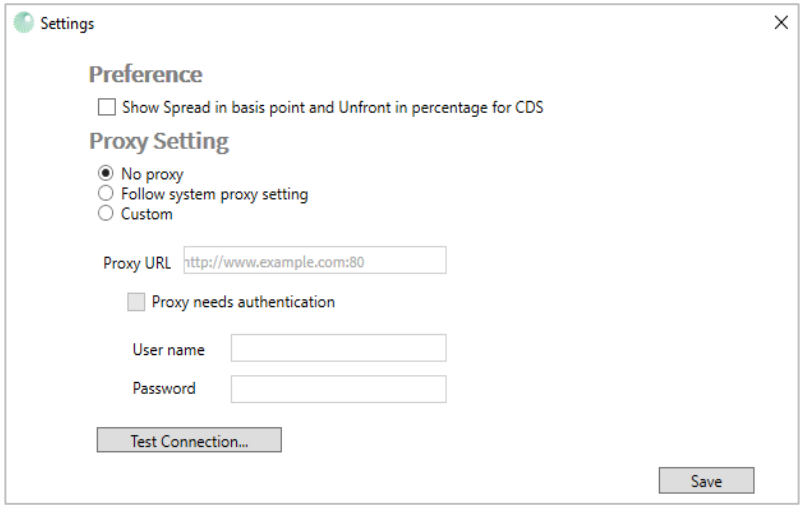
Using Preference Setting

Use the Preference option to choose the format of Spread and Upfront values for CDS instruments shown in the IHS Markit Add-In for MS Excel. To format all Spread values in basis points and all Upfront values as percentages.



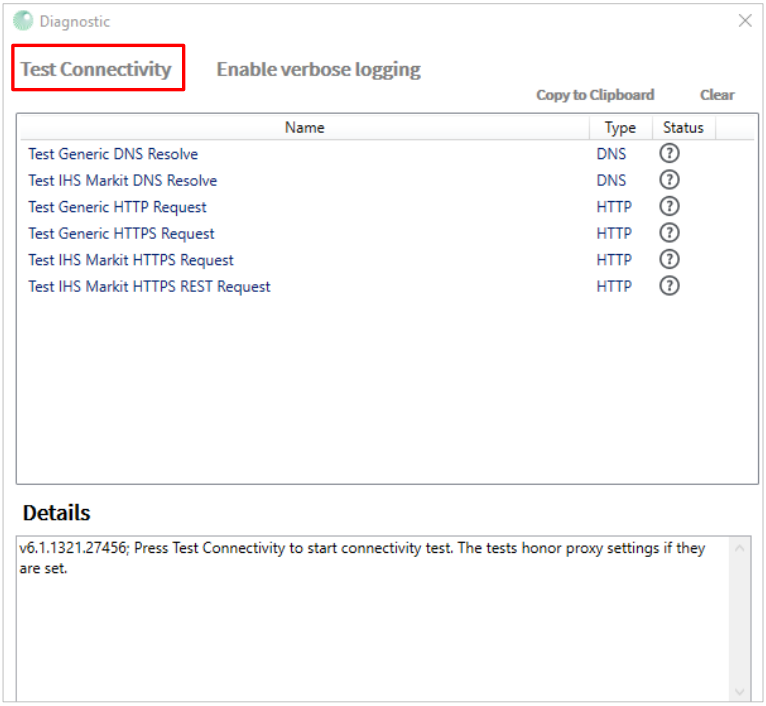
Using Proxy Setting

Generally, no proxy is required to install or use the IHS Markit Add-In for MS Excel; however, if your setup requires the use of a proxy to connect to the IHS Markit server, use this option to configure the settings.



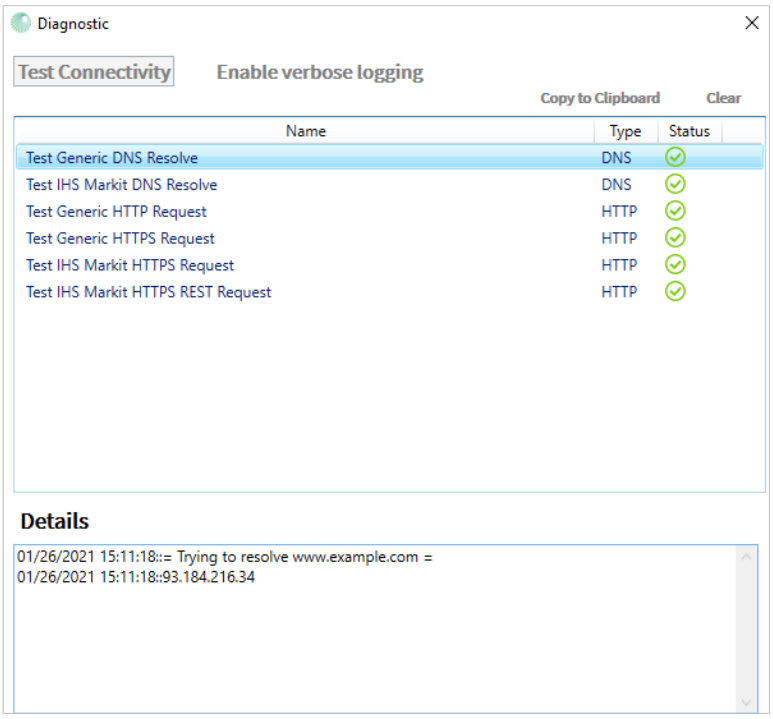
Testing Connectivity

> Open the About window and click **Diagnostic**, then click **Test Connectivity**.



The Excel Add-In runs through all test steps and shows the test result in the **Status** column.

> Click the step name to see more details of the test result in the **Details** window, as shown in example below.



> Click **Copy to Clipboard** to copy the details of all test results.

> Click **Clear** to clear all test results.

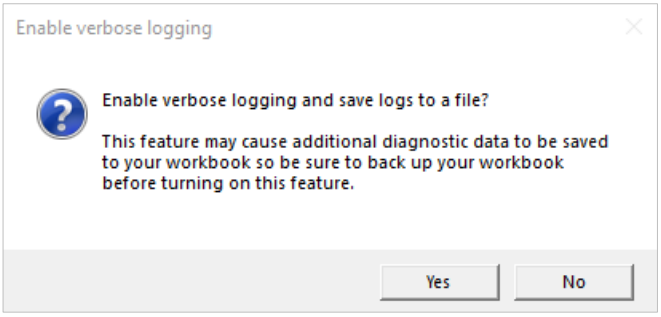
For an explanation of each type of test and actions to take if a test fails, see *Connectivity Problems* in the *Troubleshooting* section on page 49.

Enabling Verbose Logging

Enable Verbose Logging to assess the health of your Excel Add-In installation and generate and save a log file to share with IHS Markit support if you request assistance.

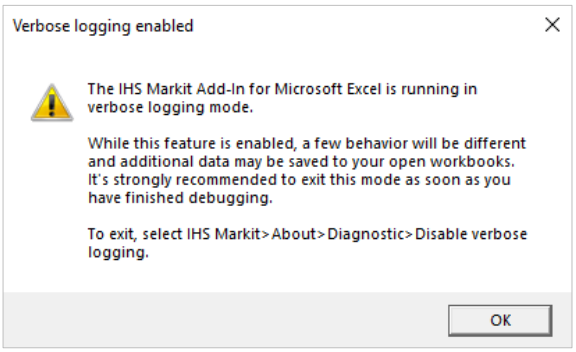
To enable Verbose Logging:

> Open the About window and click **Diagnostic**, and then click **Enable Verbose Logging**. The below message displays.



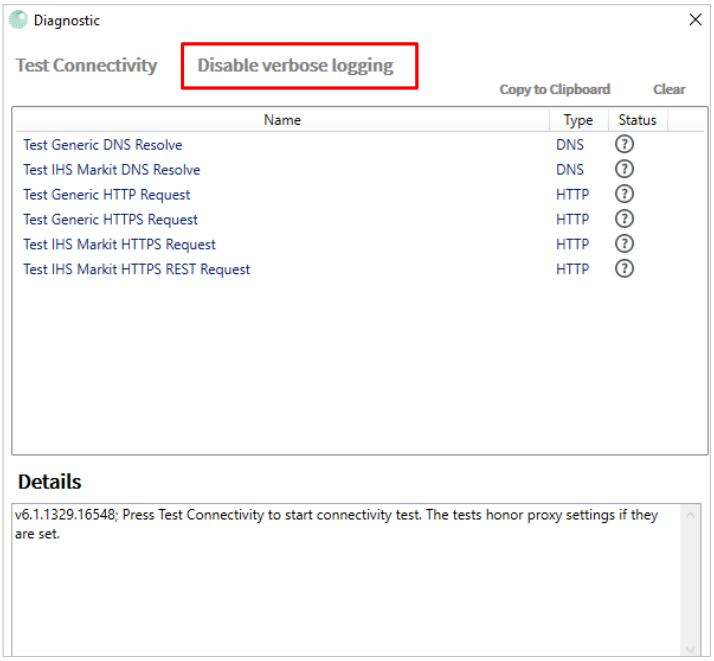
> Click **Yes** to confirm that you want to enable Verbose Logging, or click **No** to cancel and not enable Verbose Logging.

If you choose to enable Verbose Logging, the below message displays.

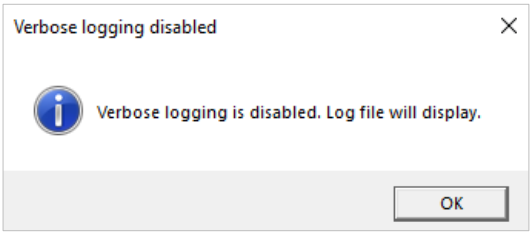


> Click **OK** to close the message. Note that when it closes, Verbose Logging mode continues to run in the background.

> To stop Verbose Logging mode, open the About window, click **Diagnostic**, and then click **Disable Verbose Logging**.



The following confirmation message displays.



> Click **OK** to confirm.

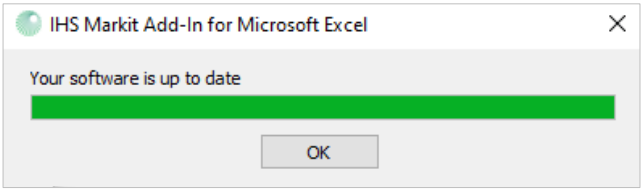
Verbose Logging is disabled, and the log file opens in Notepad.

Using Update

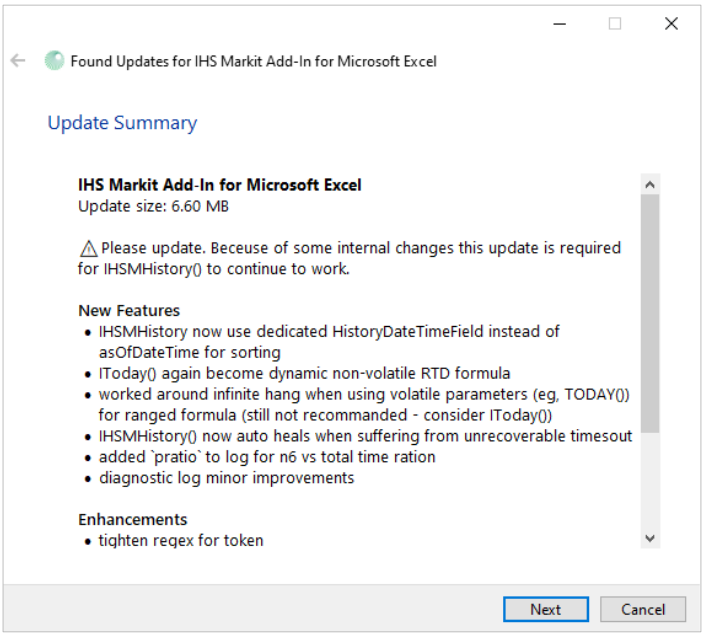
The update option checks if your Excel Add-In version is the latest version.

> On the About window, click **Update**. The update feature checks your current installed version against the latest version.

If your version is up-to-date, the below confirmation message displays. Click **OK**.

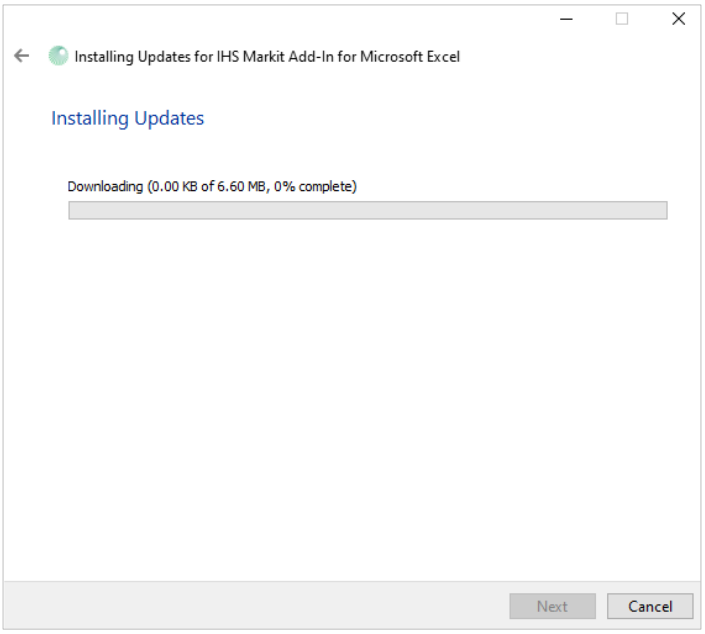


If your version is not up-to-date, a summary with new features in the newer version displays, as shown in the below example.



> Click **Next** to start installing the latest version, or click **Cancel** if you do not want to install it now.

If you choose to install the latest version, the below update progress window opens, as shown below.



When the download is successful, the setup wizard opens. Follow the prompts to complete the update.

Using Excel Add-In functions

This section provides detailed instructions for how to use each of the custom IHS Markit functions, as summarized in the below table.

Function	Returns
IHSM	Latest value for one instrument
IHSMHistory	Historical value for one instrument
IHSMTimeseries	Timeseries for all fields and all instruments specified
IHSMConstituents	All constituents for one index with all specified fields
IHSMCurve	Full curve with all available fields for one instrument
IHSMFI	Prices for Fixed Income (FI) asset types of Corporate Bonds, Municipal Bonds, and Securitized Products instruments
IToday	Current date with time of 23:59:59

Arguments: namespace, fields, and identifiers

All functions have three mandatory arguments:

- **namespace** – A data product available on the IHS Markit Fixed Income Pricing and Reference Data central data platform. For example, *CSBPD* is the namespace for Corporate & Sovereign Bonds Pricing Data and *BRD* is the namespace for Bond Reference Data. See *Appendix 1. Valid product* namespaces on page 52 for a list of all supported namespaces supported by the current version of the Excel Add-In.
- **field(s)** – The fields in the central data platform; all fields are described in the data dictionary. The platform uses the hierarchy of namespace/entity/field. To use a field in a formula for a specified namespace, include the path ***entity.field***. See the *IHS Markit Add-In for MS Excel Data Dictionary* for all field names for each data source in the current version.
- **identifier(s)** – Specific instrument identifiers, e.g., CUSIPs, ISINs, or LXIDs. The Identifier argument tells the formula the instrument to look up. Different asset types have different identifiers. For example, for a bond instrument, the identifier can be ISIN or CUSIP. For a CDS single name instrument, the identifier is a mnemonic composed of ticker, tier, currency, doc clause, tenor, and coupon. The below table defines the identifiers for each asset type.

Asset type	Identifier
Corporate & Sovereign Bonds	ISIN or CUSIP
Municipal Bonds	ISIN or CUSIP
Securitized Products	ISIN or CUSIP
Securitized Products Indices	Index RED ID
Money Markets	ISIN or CUISP or IHSM Code
CDS Single Names	Mnemonic: Ticker\Tier\Ccy\DocClause\Tenor\Coupon
CDS Sector Curves	Mnemonic: Sector\Region\Tier\Rating\Tenor
Credit Indices	Index Ticker or Mnemonic: Ticker\Series\Version\Tenor
Credit Index Tranches	Mnemonic: Ticker\Series\Version\Tenor\Attach\Detach
Credit Index Options	Mnemonic: Ticker\Series\Version\Expiry\Strike
iBoxx Indices	Index: TRI ISIN or CPI ISIN Bond: ISIN or CUSIP
Loans	LXID or CUSIP
PMI	Mnemonic: PMI\Geography\Concept\Sub-concept\Short name\Seasonal adjustment

IHSM

The IHSM function returns the latest value for one instrument.

Syntax

=IHSM(**identifier, field, namespace**, batch, kvPairs)

Argument name	Required or Optional	Description
identifier	Required	Instrument identifier
field	Required	Field name from the data dictionary
namespace	Required	Namespace name from the data dictionary
batch	Optional (default is the latest)	Batch for the indicated namespace
kvPairs	Optional (default is empty)	Key value pairs, e.g., workflowType:Calculation

Example 1: Using a simple IHSM formula

This formula returns the latest bid price for Corporate Bond instrument US31359MFE84.

Example 2: Using a batch argument

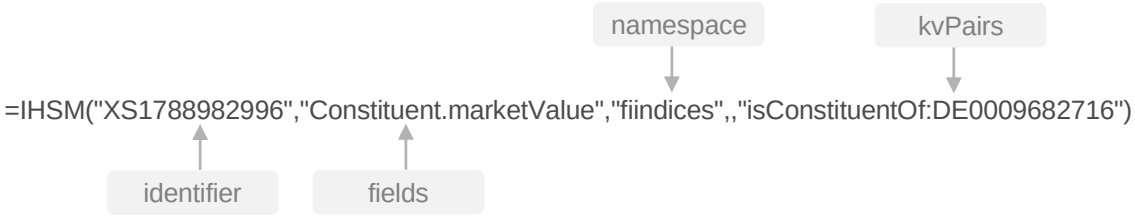
This formula returns the bid price from the latest L1600 batch of Corporate Bond instrument US31359MFE84.

TIP *In this formula, since 'price' is the default entity for the CSBPD namespace, skip the entity name 'price' and use only 'bidPrice' for the field argument.*

Each namespace has a default entity. To include a field from the default entity, you can omit the entity name and include only the field name in the argument.

The IHS Markit Add-In for MS Excel Data Dictionary provides the default entity for each namespace.

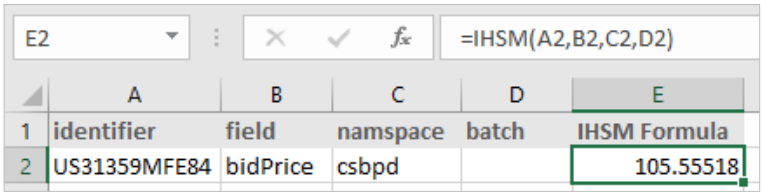
Example 3: Using kvPairs argument



This formula returns the latest market value of the constituent bond XS1788982996 from the iBoxx index DE0009682716.

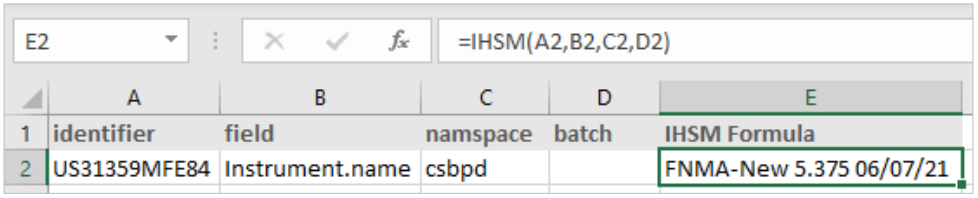
See the *Key Value Pairs* section on page 41 for the description of key value pairs with more examples.

Example 4: Referring to cells for function arguments



	A	B	C	D	E
1	identifier	field	namspace	batch	IHSM Formula
2	US31359MFE84	bidPrice	csbpd		105.55518

Example 5: Using instrument entity



	A	B	C	D	E
1	identifier	field	namspace	batch	IHSM Formula
2	US31359MFE84	Instrument.name	csbpd		FNMA-New 5.375 06/07/21

IHSMHistory

The IHSMHistory function returns one historical value for one instrument.

Syntax

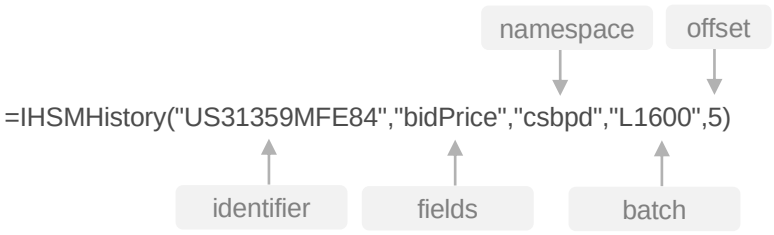
= IHSMHistory(**identifier, field, namespace**, batch, offset, kvPairs)

Argument name	Required or Optional	Description
identifier	Required	Instrument identifier
field	Required	Field name from the data dictionary
namespace	Required	Namespace name from the data dictionary
batch	Optional (default is the latest)	Batch for the indicated namespace
offset/date	Optional (default value is 0)	Offset or date For example: Offset=0 provides the latest historical value Offset=5 provides the 5th latest historical value
kvPairs	Optional (default is empty)	Key value pairs, e.g., workflowType:Calculation

Limitation

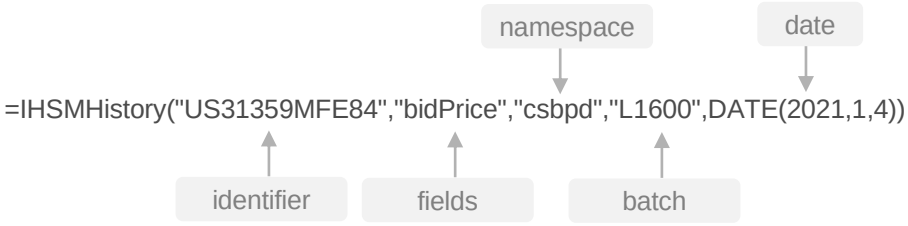
Criteria	limit
Offset range	0 to 500
Date range	1990-01-01 to today

Example 1: Using a IHSMHistory formula with offset



This formula returns the fifth latest bid price from L1600 batch for Corporate Bond instrument US31359MFE84.

Example 2: Using a IHSMHistory formula with date



This formula returns the bid price from 4 Jan 2021 L1600 batch for Corporate Bond instrument US31359MFE84.

Example 3: Skip the batch argument when querying for live price

This formula returns the second latest live price for Corporate Bond instrument US31359MFE84.

Example 4: Using a continuous offset to return a series of live streaming prices

SUM | =IHSMHistory($A2,D$1,$B2,,$C2)

	A	B	C	D	E	F
1	Identifier	namespace	offset	asOfDateTime	bidPrice	
2	US31359MFE84	csbpi	0	=IHSMHistory($A2,D$1,$B2,,$C2)		
3	US31359MFE84	csbpi	1	3:32:13 PM	104.6581791	
4	US31359MFE84	csbpi	2	3:25:23 PM	104.6578747	
5	US31359MFE84	csbpi	3	3:22:21 PM	104.6589314	
6	US31359MFE84	csbpi	4	3:19:00 PM	104.6578747	
7	US31359MFE84	csbpi	5	3:13:29 PM	104.6569354	
8	US31359MFE84	csbpi	6	3:13:16 PM	104.6578747	
9	US31359MFE84	csbpi	7	3:12:00 PM	104.6589314	
10	US31359MFE84	csbpi	8	3:07:05 PM	104.6608101	
11	US31359MFE84	csbpi	9	3:05:40 PM	104.6598708	
12	US31359MFE84	csbpi	10	3:04:19 PM	104.6589314	

IHSMTimeseries

The IHSMTimeseries function returns a range of cells with a timeseries for all fields and all instruments specified.

Syntax

= IHSMTimeseries(**identifiers, fields, namespace**, batch, **start, end**, ascending, limit, noHeader, kvPairs)

Argument name	Required or Optional	Description
identifier	Required	Instrument identifier
field	Required	Field name from the data dictionary
namespace	Required	Namespace name from the data dictionary
batch	Optional (default is latest)	Batch for the indicated namespace
start	Required	Start date of the timeseries
end	Required	End date of the timeseries
ascending	Optional (default is FALSE)	FALSE sorts data in descending order TRUE sorts data in ascending order
limit	Optional (default is 10 000)	Number of rows to return
noHeader	Optional (default is FALSE)	FALSE provides data with headers TRUE provides data without headers
kvPairs	Optional (default is empty)	Key value pairs, e.g., workflowType:Calculation
hLayout	Optional (default is FALSE)	For multiple instrument identifiers, when hLayout is set to true, the instruments are shown horizontally in the result

Limitations

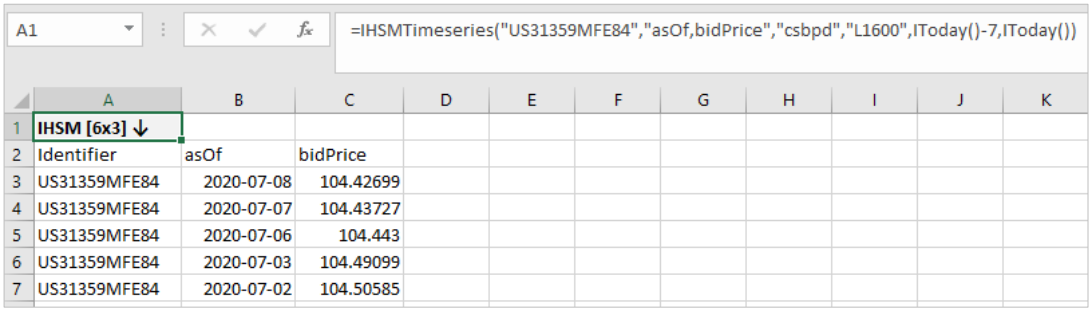
Criteria	limit
Maximum number of instruments	50
Maximum number of fields	50
Maximum date range	20 years
Maximum (instruments x fields x days)	500,000
Maximum number of rows	100,000

Example 1: Using a simple IHSMTimeseries formula

This formula returns, in the area below the formula, asOf and bidPrice of L1600 batch for Corporate Bond instrument US31359MFE84, for the period of the last 7 days.

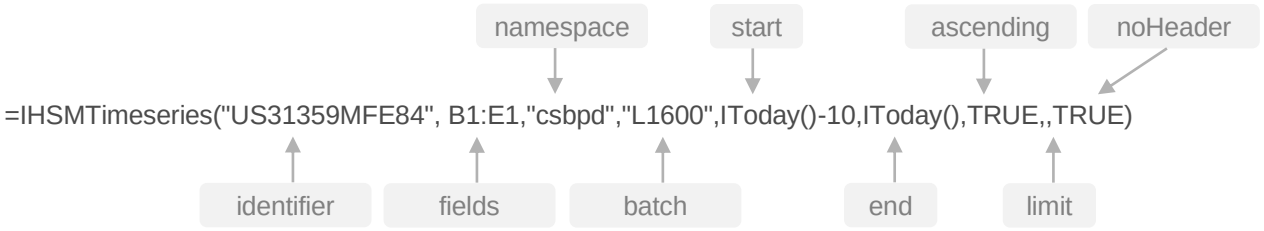
Because *ascending*, *limit,* and *noHeader* arguments are defaulted, the result sorts from the newest to the oldest, all rows are kept, and headers are kept.

In the formula cell, IHSM[6x3] indicates that the result is a 6X3 array with 6 rows and 3 columns, including headers.



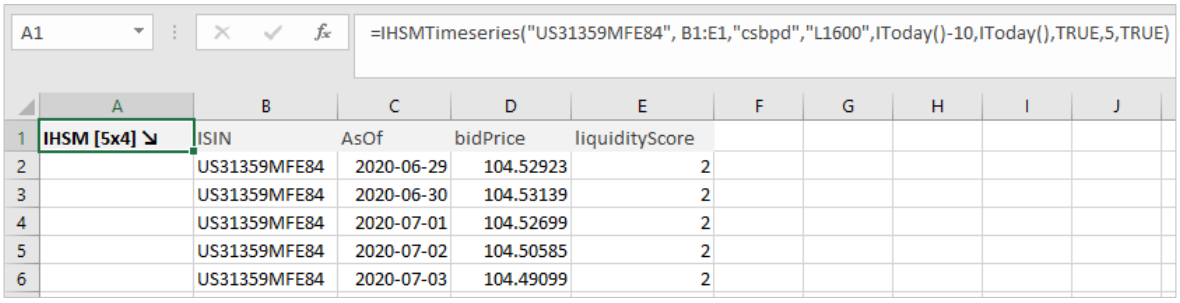
	A	B	C	D	E	F	G	H	I	J	K
1	IHSM [6x3] ↓										
2	Identifier	asOf	bidPrice								
3	US31359MFE84	2020-07-08	104.42699								
4	US31359MFE84	2020-07-07	104.43727								
5	US31359MFE84	2020-07-06	104.443								
6	US31359MFE84	2020-07-03	104.49099								
7	US31359MFE84	2020-07-02	104.50585								

Example 2: Using *ascending* and *noHeader* arguments



This formula returns, in the area to the lower right of the formula, fields in B1:E1 area of L1600 batch for Corporate Bond instrument US31359MFE84, for the period of the last 10 days. It sorts the results from the oldest to the newest, and does not return column headers or row headers.

In the formula cell, IHSM[5x4] indicates that the result is a 5X4 array with 5 rows and 4 columns.



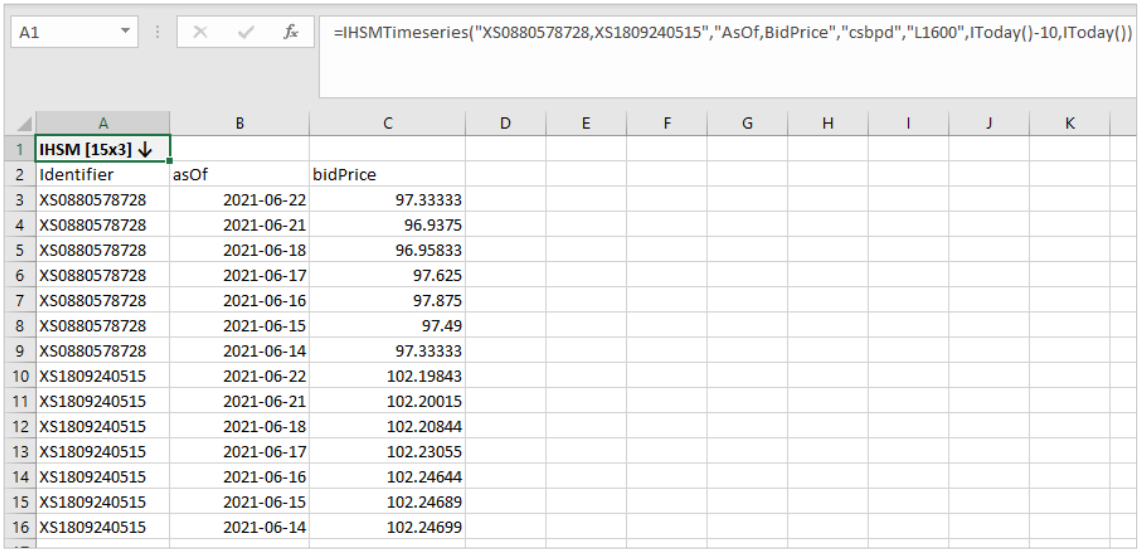
	A	B	C	D	E
1	IHSM [5x4] ↘	ISIN	AsOf	bidPrice	liquidityScore
2		US31359MFE84	2020-06-29	104.52923	2
3		US31359MFE84	2020-06-30	104.53139	2
4		US31359MFE84	2020-07-01	104.52699	2
5		US31359MFE84	2020-07-02	104.50585	2
6		US31359MFE84	2020-07-03	104.49099	2

TIP *Since the default value for the limit argument is 10,000, to generate a timeseries for a large time range, e.g., 20 years, use a value for the limit argument that is larger than the number of rows you would like to return.*

Example 3: Using multiple instruments

This formula returns, in the area below the formula, asOf and bidPrice of L1600 batch for Corporate Bond instruments XS0439763979 and XS1809240515 for the period of the last 10 days. It sorts the result from the newest to the oldest, and returns field names as column headers and instrument identifiers as row headers.

In the formula cell, IHSM[15x3] indicates that the result is a 15X3 array with 15 rows and 3 columns.



	A	B	C
1	IHSM [15x3] ↓		
2	Identifier	asOf	bidPrice
3	XS0880578728	2021-06-22	97.33333
4	XS0880578728	2021-06-21	96.9375
5	XS0880578728	2021-06-18	96.95833
6	XS0880578728	2021-06-17	97.625
7	XS0880578728	2021-06-16	97.875
8	XS0880578728	2021-06-15	97.49
9	XS0880578728	2021-06-14	97.33333
10	XS1809240515	2021-06-22	102.19843
11	XS1809240515	2021-06-21	102.20015
12	XS1809240515	2021-06-18	102.20844
13	XS1809240515	2021-06-17	102.23055
14	XS1809240515	2021-06-16	102.24644
15	XS1809240515	2021-06-15	102.24689
16	XS1809240515	2021-06-14	102.24699

Example 4: Using hLayout for multiple instruments

This formula returns, in the area below the formula, the bidPrice of L1600 batch for Corporate Bond instruments XS0880578728 and XS1809240515 for the period of the last 10 days. It sorts the result from the newest to the oldest, and returns both instrument identifiers and field names as column headers.

With hLayout=true, the results are shown horizontally by instrument. Instrument identifiers are shown as column headers above the field names.

In the formula cell, IHSM[9x3] indicates that the result is a 9X3 array with 9 rows and 3 columns.

A1 =IHSMTimeseries("XS0880578728,XS1809240515","BidPrice","csbpd","L1600",IToday()-10,IToday(),,,,,TRUE)

	A	B	C	D	E	F	G	H	I	J	K	L
1	IHSM [9x3] ↓											
2		XS0880578728	XS1809240515									
3	asOf	bidPrice	bidPrice									
4	2021-06-22	97.33333	102.19843									
5	2021-06-21	96.9375	102.20015									
6	2021-06-18	96.95833	102.20844									
7	2021-06-17	97.625	102.23055									
8	2021-06-16	97.875	102.24644									
9	2021-06-15	97.49	102.24689									
10	2021-06-14	97.33333	102.24699									

TIP *Using hLayout=true, asOf is always returned as the first column in the result set, so you do not need to include asOf in the field argument.*

IHSMConstituents

The IHSMConstituents function returns a range of cells with all constituents for one index and all specified fields.

Syntax

=IHSMConstituents(**identifier,fields,namespace**,asOf,batch,tenor,sortBy,ascending,limit,noHeader, kvPairs)

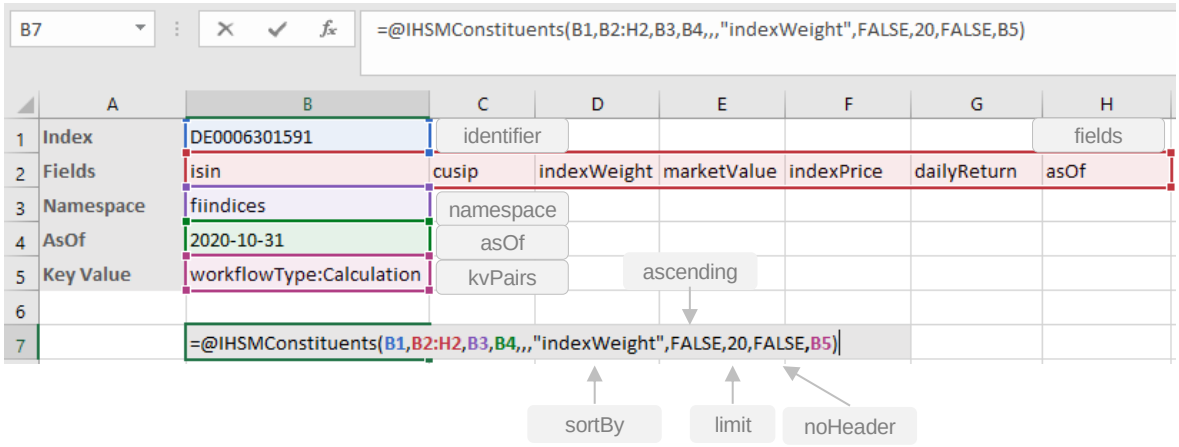
Argument name	Required or Optional	Description
identifier	Required	Instrument identifier
field	Required	Field name from data dictionary; valid fields must show **Is applicable for IHSMConstituents**=Yes in the data dictionary
namespace	Required	Namespace name from data dictionary; valid namespaces are **cipd** and **fiindices**
asOf	Optional (default is latest)	As of date for index constituents
batch	Optional (default is latest)	Batch for indicated namespace
tenor	Optional (default is 5Y)	Tenor for the CDS single name curves
sortBy	Optional (default is no sort)	Indicates field by which to sort the results
ascending	Optional (default is FALSE)	FALSE sorts data in descending order TRUE sorts data in ascending order
limit	Optional (default is no limit)	Number of rows to return
noHeader	Optional (default is FALSE)	FALSE provides data with headers TRUE provides data without headers
kvPairs	Optional (default is empty)	Key value pairs, e.g., workflowType:Calculation

Limitations

Criteria	limit
Maximum number of rows	8,000

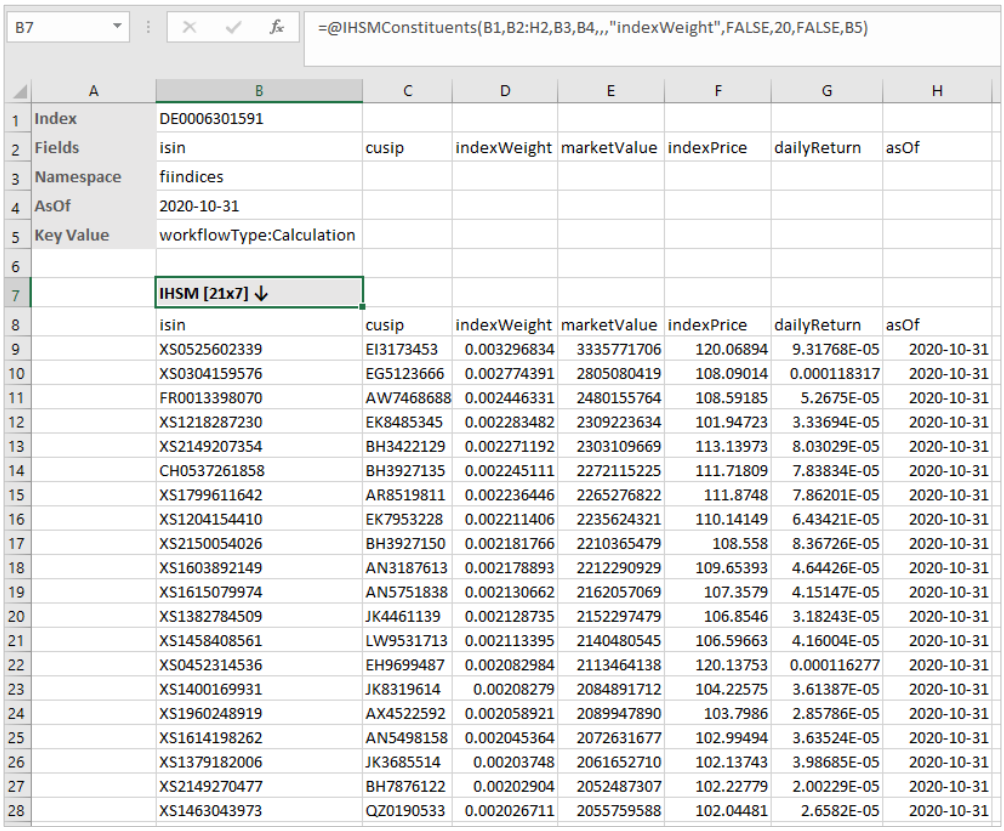
For indices with more than 8,000 constituents, this formula does not return results; instead, it displays this error message: !Limit exceeded. Index has more than 8,000 constituents.

Example 1: iBoxx index constituents



This formula returns queried fields for the date of 31 October 2020 for all constituents for iBoxx index DE0006301591, with workflowType of “Calculation”. It sorts the results by indexWeight in ascending order, keeps only the first 20 rows, and keeps column headers and row headers.

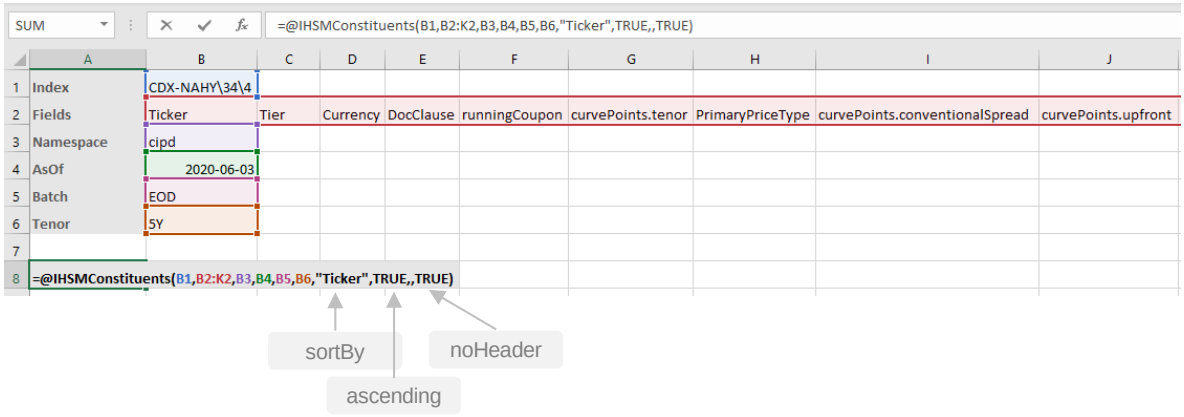
In the formula cell, IHSM[21x7] indicates that the result is a 21X7 array with 21 rows and 7 columns.



	A	B	C	D	E	F	G	H
1	Index	DE0006301591						
2	Fields	isin	cusip	indexWeight	marketValue	indexPrice	dailyReturn	asOf
3	Namespace	fiindices						
4	AsOf	2020-10-31						
5	Key Value	workflowType:Calculation						
6								
7		IHSM [21x7] ↓						
8		isin	cusip	indexWeight	marketValue	indexPrice	dailyReturn	asOf
9		XS0525602339	EI3173453	0.003296834	3335771706	120.06894	9.31768E-05	2020-10-31
10		XS0304159576	EG5123666	0.002774391	2805080419	108.09014	0.000118317	2020-10-31
11		FR0013398070	AW7468688	0.002446331	2480155764	108.59185	5.2675E-05	2020-10-31
12		XS1218287230	EK8485345	0.002283482	2309223634	101.94723	3.33694E-05	2020-10-31
13		XS2149207354	BH3422129	0.002271192	2303109669	113.13973	8.03029E-05	2020-10-31
14		CH0537261858	BH3927135	0.002245111	2272115225	111.71809	7.83834E-05	2020-10-31
15		XS1799611642	AR8519811	0.002236446	2265276822	111.8748	7.86201E-05	2020-10-31
16		XS1204154410	EK7953228	0.002211406	2235624321	110.14149	6.43421E-05	2020-10-31
17		XS2150054026	BH3927150	0.002181766	2210365479	108.558	8.36726E-05	2020-10-31
18		XS1603892149	AN3187613	0.002178893	2212290929	109.65393	4.64426E-05	2020-10-31
19		XS1615079974	AN5751838	0.002130662	2162057069	107.3579	4.15147E-05	2020-10-31
20		XS1382784509	JK4461139	0.002128735	2152297479	106.8546	3.18243E-05	2020-10-31
21		XS1458408561	LW9531713	0.002113395	2140480545	106.59663	4.16004E-05	2020-10-31
22		XS0452314536	EH9699487	0.002082984	2113464138	120.13753	0.000116277	2020-10-31
23		XS1400169931	JK8319614	0.00208279	2084891712	104.22575	3.61387E-05	2020-10-31
24		XS1960248919	AX4522592	0.002058921	2089947890	103.7986	2.85786E-05	2020-10-31
25		XS1614198262	AN5498158	0.002045364	2072631677	102.99494	3.63524E-05	2020-10-31
26		XS1379182006	JK3685514	0.00203748	2061652710	102.13743	3.98685E-05	2020-10-31
27		XS2149270477	BH7876122	0.00202904	2052487307	102.22779	2.00229E-05	2020-10-31
28		XS1463043973	QZ0190533	0.002026711	2055759588	102.04481	2.6582E-05	2020-10-31

See the *Key Value Pairs* section on page 41 for the description of key value pairs including more examples.

Example 2: Credit index constituents



This formula returns values of 5Y tenor of queried fields for all constituents of credit index CDX-NAHY series 34 version 4 for the date of 3 June 2020. It sorts the result by Ticker in ascending order, keeps all rows, and does not return headers.

In the formula cell, IHSM[101x10] indicates that the result is a 101x10 array with 101 rows and 10 columns.

A8 =@IHSMConstituents(B1,B2:K2,B3,B4,B5,B6,"Ticker",TRUE,,TRUE)

	A	B	C	D	E	F	G	H	I	J	K
1	Index	CDX-NAHY\34\4									
2	Fields	Ticker	Tier	Currency	DocClause	runningCoupon	curvePoints.tenor	PrimaryPriceType	curvePoints.conventionalSpread	curvePoints.upfront	asOf
3	Namespace	cipd									
4	AsOf	2020-06-03									
5	Batch	EOD									
6	Tenor	5Y									
7											
8	IHSM [101x10] ↘	Ticker	Tier	Currency	DocClause	Coupon	Tenor	PrimaryPriceType	ConventionalSpread	Upfront	AsOf
9		AES	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0169	-0.15663834	2020-06-03
10		AKS-Corp	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.0515	0.00625	2020-06-03
11		AMD	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0043	-0.22777735	2020-06-03
12		AMERAIAI	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.2719	0.43916667	2020-06-03
13		AMKR	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0099	-0.19520474	2020-06-03
14		ARAMSER	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0206	-0.13683297	2020-06-03
15		ASHLLLC	SNRFOR	USD	XR14	0.01	5Y	ConvSpread	0.0078	-0.01095571	2020-06-03
16		AVBDGT	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.0964	0.16077051	2020-06-03
17		AVP	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0428	-0.03079386	2020-06-03
18		AXL-Inc	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.0548	0.01929589	2020-06-03
19		BAUSHEA	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0203	-0.13853627	2020-06-03
20		BLL	SNRFOR	USD	XR14	0.01	5Y	ConvSpread	0.0076	-0.01192447	2020-06-03
21		BOMBINC	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.1595	0.30426256	2020-06-03
22		BYD	SUBLT2	USD	XR14	0.05	5Y	ConvSpread	0.0321	-0.08228877	2020-06-03
23		BZH	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0311	-0.08427575	2020-06-03
24		CALIRES	SNRFOR	USD	XR14	0.05	5Y	Upfront		0.97833333	2020-06-03
25		CHK	SNRFOR	USD	XR14	0.05	5Y	Upfront		0.9448739	2020-06-03
26		CHTR-CCOH	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0112	-0.18813511	2020-06-03
27		CIT	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0249	-0.11476505	2020-06-03
28		CLEVINC	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.1029	0.17888701	2020-06-03
29		CLINKI	SNRFOR	USD	XR14	0.01	5Y	ConvSpread	0.0326	0.10005449	2020-06-03
30		CPN	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0184	-0.1483386	2020-06-03
31		CVSHLD	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0139	-0.17286349	2020-06-03
32		CYH	SNRFOR	USD	XR14	0.05	5Y	Upfront	0.2492	0.42	2020-06-03
33		DAVITIN	SNRFOR	USD	XR14	0.05	5Y	ConvSpread	0.0086	-0.20262704	2020-06-03

IHSMFI

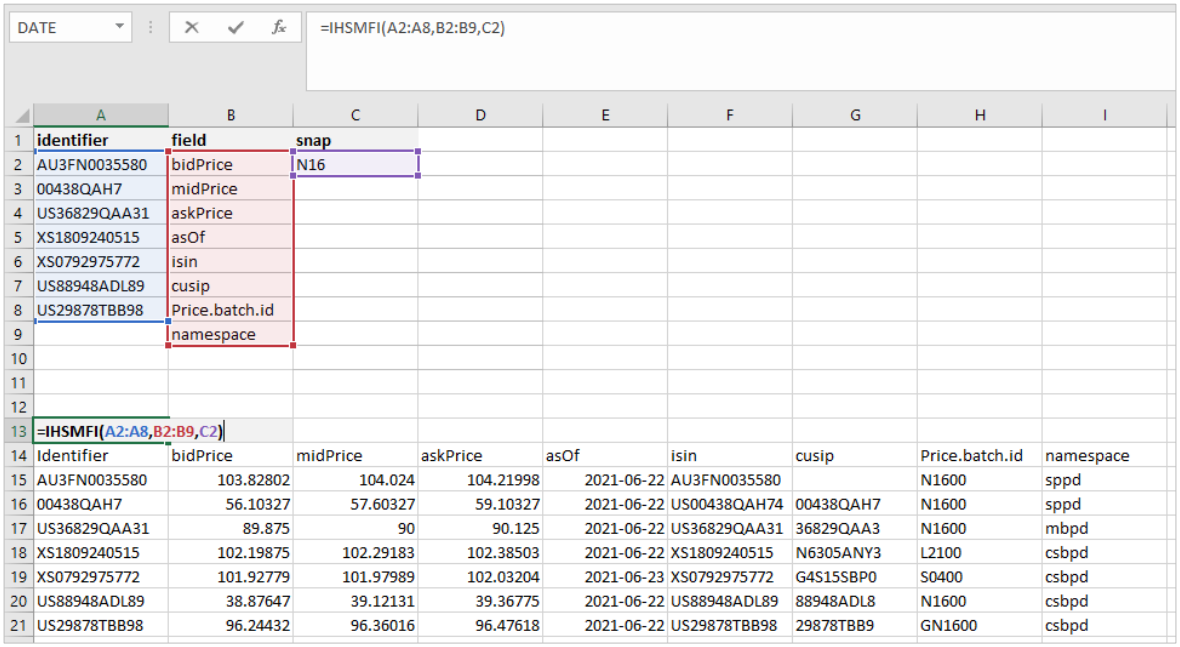
The IHSMFI function returns prices for a list of fixing income instruments with mixed asset types, including Corporate Bonds, Municipal Bonds, and Securitized Products.

Syntax

=IHSMFI(**identifiers, fields, snap**, date)

Argument name	Required or Optional	Description
identifiers	Required	Instrument identifiers: ISIN or CUSIP
fields	Required	Field names from the following three data dictionaries: csbpd – Corporate & Sovereign Bonds Pricing Data mbpd – Municipal Bonds Pricing Data sppd – Securitized Products Pricing Data
snap	Required	Publish time for which you want the data in ET (i.e., New York time), e.g., N16 is 4:00 pm ET
date	Optional (default is empty)	Date for querying historical values

Example 1: Using IHSMFI for the latest prices

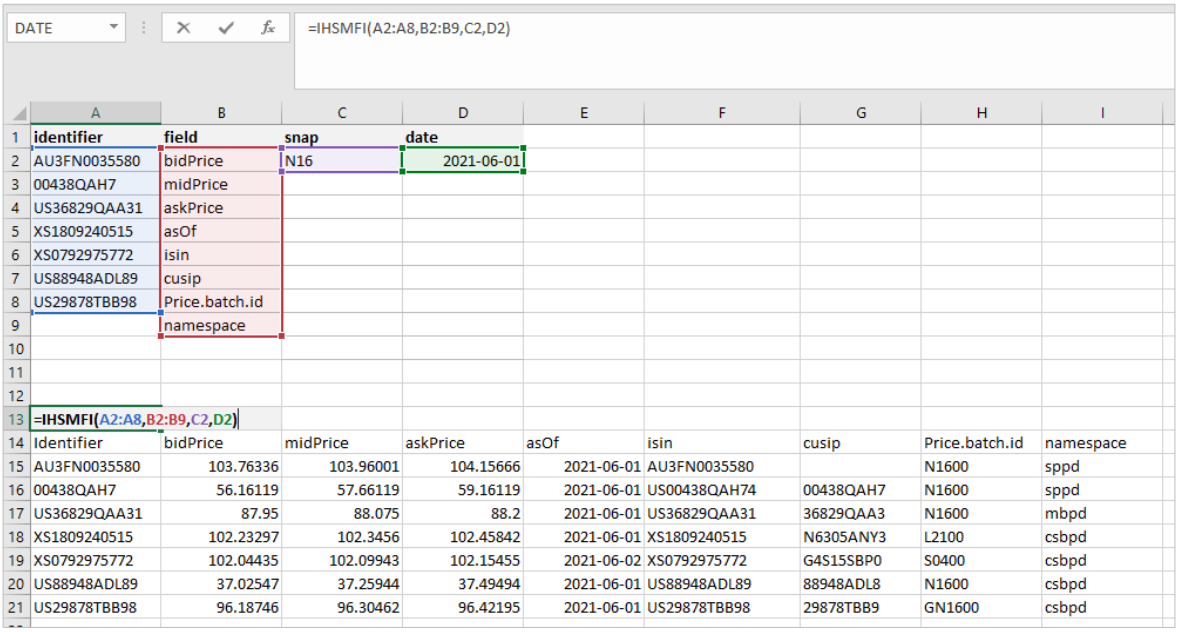


	A	B	C	D	E	F	G	H	I
1	**identifier**	**field**	**snap**						
2	AU3FN0035580	bidPrice	N16						
3	00438QAH7	midPrice							
4	US36829QAA31	askPrice							
5	XS1809240515	asOf							
6	XS0792975772	isin							
7	US88948ADL89	cusip							
8	US29878TBB98	Price.batch.id							
9		namespace							
10									
11									
12									
13	=IHSMFI(A2:A8,B2:B9,C2)								
14	Identifier	bidPrice	midPrice	askPrice	asOf	isin	cusip	Price.batch.id	namespace
15	AU3FN0035580	103.82802	104.024	104.21998	2021-06-22	AU3FN0035580		N1600	sppd
16	00438QAH7	56.10327	57.60327	59.10327	2021-06-22	US00438QAH74	00438QAH7	N1600	sppd
17	US36829QAA31	89.875	90	90.125	2021-06-22	US36829QAA31	36829QAA3	N1600	mbpd
18	XS1809240515	102.19875	102.29183	102.38503	2021-06-22	XS1809240515	N6305ANY3	L2100	csbpd
19	XS0792975772	101.92779	101.97989	102.03204	2021-06-23	XS0792975772	G4S15SBP0	S0400	csbpd
20	US88948ADL89	38.87647	39.12131	39.36775	2021-06-22	US88948ADL89	88948ADL8	N1600	csbpd
21	US29878TBB98	96.24432	96.36016	96.47618	2021-06-22	US29878TBB98	29878TBB9	GN1600	csbpd

This formula returns the latest value for the list of fixed income instruments in N16 snap at 4:00 pm ET (i.e., New York time).

TIP *Use the special field "namespace" to show the dataset name for the instrument.*

Example 2: Using IHSMFI for the historical prices



	A	B	C	D	E	F	G	H	I
1	identifier	field	snap	date					
2	AU3FN0035580	bidPrice	N16	2021-06-01					
3	00438QAH7	midPrice							
4	US36829QAA31	askPrice							
5	XS1809240515	asOf							
6	XS0792975772	isin							
7	US88948ADL89	cusip							
8	US29878TBB98	Price.batch.id							
9		namespace							
10									
11									
12									
13	=IHSMFI(A2:A8,B2:B9,C2,D2)								
14	Identifier	bidPrice	midPrice	askPrice	asOf	isin	cusip	Price.batch.id	namespace
15	AU3FN0035580	103.76336	103.96001	104.15666	2021-06-01	AU3FN0035580		N1600	sppd
16	00438QAH7	56.16119	57.66119	59.16119	2021-06-01	US00438QAH74	00438QAH7	N1600	sppd
17	US36829QAA31	87.95	88.075	88.2	2021-06-01	US36829QAA31	36829QAA3	N1600	mbpd
18	XS1809240515	102.23297	102.3456	102.45842	2021-06-01	XS1809240515	N6305ANY3	L2100	csbpd
19	XS0792975772	102.04435	102.09943	102.15455	2021-06-02	XS0792975772	G4S15SBP0	S0400	csbpd
20	US88948ADL89	37.02547	37.25944	37.49494	2021-06-01	US88948ADL89	88948ADL8	N1600	csbpd
21	US29878TBB98	96.18746	96.30462	96.42195	2021-06-01	US29878TBB98	29878TBB9	GN1600	csbpd

This formula returns the historical values on 1 June 2021 for the list of fixed income instruments in the N16 snap at 4:00 pm ET (i.e., New York time).

TIP *Use the special field "namespace" to show the dataset name for the instrument.*

IHSMCurve

The IHSMCurve function returns to a range of cells the full curve with all available fields.

Syntax

=IHSMCurve(**identifier, field, namespace**, batch)

Argument name	Required or Optional	Description
identifier	Required	Instrument identifier
field	Required	Field name from the data dictionary; type curvePoint, e.g., curve.curvePoints from cdspd namespace
namespace	Required	Namespace name from the data dictionary
batch	Optional (default is latest)	Batch from the indicated namespace
kvPairs	Optional (default is empty)	Key value pairs, e.g., workflowType:Calculation

Example 1: Using a simple IHSMCurve formula

=IHSMCurve("US31359MFE84","price.curve.askPoints","csbpd")

identifier field namespace

This formula returns the full curve with all available ask fields for corporate bond instrument US31359MFE84.

In the formula cell, IHSM[17x4] indicates that the result is a 17x4 array with 17 rows and 4 columns.

A1 =@IHSMCurve("US31359MFE84","price.curve.askPoints","csbpd")

	A	B	C	D	E	F	G	H	I
1	IHSM [17x4] ↓								
2	aSpread	date	period	zSpread					
3	33.95799	2021-01-09	6M	33.90802					
4	35.22331	2021-07-09	1Y	35.17287					
5	34.11349	2022-07-09	2Y	34.06756					
6	31.78984	2023-07-09	3Y	31.75195					
7	28.86356	2024-07-09	4Y	28.84012					
8	27.72784	2025-07-09	5Y	27.7143					
9	30.46478	2026-07-09	6Y	30.46014					
10	32.95813	2027-07-09	7Y	32.96688					
11	34.73732	2028-07-09	8Y	34.76499					
12	35.83579	2029-07-09	9Y	35.88392					
13	40.8692	2030-07-09	10Y	40.94476					
14	50.65925	2035-07-09	15Y	50.8773					
15	59.35867	2040-07-09	20Y	59.65288					
16	71.77048	2045-07-09	25Y	71.94867					
17	79.65355	2050-07-09	30Y	79.61272					
18	81.52643	2060-07-09	40Y	81.0563					

IToday

The IToday function returns current date at 23:59:59 and is a non-volatile date time generator.

Syntax

=IToday()

Examples

Formula	Result
=IToday()	Today's date at 23:59:59
=IToday()-1	Yesterday's date at 23:59:59

Key value pairs

The Key Value Pairs (kvPairs) is a placeholder for custom arguments. Using kvPairs, the Excel Add-In supports custom arguments without changing the entire function syntax.

A key value pair is composed of a key and a value. The key is like a field name and value is the value for that field. For example: “isConstituentOf” is a key, and the index ISIN “DE0009682716” is the value for that key. “isConstituentOf:DE0009682716” is a key value pair.

Syntax

Express the key value pair in this format: “key:value”

For multiple key value pairs, use comma or semicolon as the separator: “key1:value1, key2:value2”

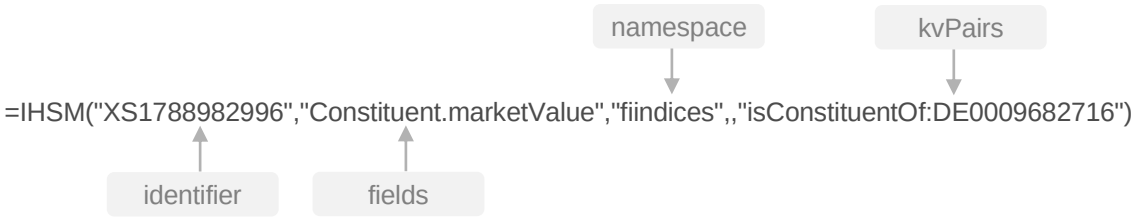
This version of the Excel Add-In supports the following key value pairs:

Key	Value	Description
IsConstituentOf	iBoxx Index TRI ISIN	Indicates the index context for retrieving data for an iBoxx constituent bond
WorkflowType	iBoxx data workflow type Possible values: Calculation or Rebalancing	Indicates the iBoxx data workflow type
SourceShortName	Parsing sourceShortName	Short Name of the quoting dealer
MinConfidence	Integer 1 to 10	Parsing minimum confidence level
MaxConfidence	Integer 1 to 10	Parsing Maximum confidence level

Functions that support key value pairs

- IHSM
- IHSMHistory
- IHSMTimeseries
- IHSMConstituents

Example 1: Using *isConstituentOf*

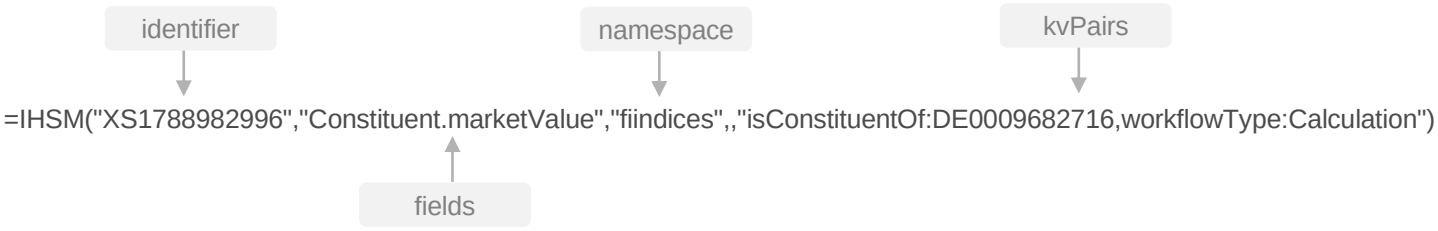


This formula returns the latest marketValue of the constituent bond XS1788982996 for the iBoxx index DE0009682716.

Example 2: Using *workflowType*

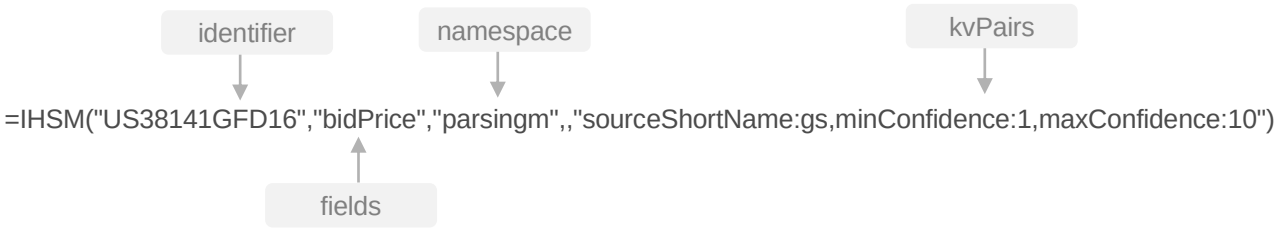
This formula returns the latest marketValue of the iBoxx index DE0009682716, with workflowType of “Calculation”.

Example 3: Using multiple key value pairs



This formula returns the latest marketValue of the constituent bond XS1788982996 for the iBoxx index DE0009682716, with workflowType of “Calculation”.

Example 4: Using multiple key value pairs



This formula returns the latest quoted bid price from Goldman Sachs for bond US38141GFD16, with the parsing confidence level between 5 and 8.

Using Excel Add-In functions for Parsing data

This section provides detailed instructions for how to use the Parsing data functions for the Excel Add-In.

Parsing namespace

Use ParsingM as the namespace to retrieve Parsing data via the Excel Add-In formulas in real time.

Parsing asset types and identifiers

Unlike other datasets, Parsing data covers many asset types. To create formulas for Parsing data, the valid identifiers are based on the asset type of the instrument. The table below shows the valid identifiers per asset type (or instrument type).

Asset type	Identifiers
GSAC Bonds	ISIN or CUSIP
Municipal Bonds	ISIN or CUSIP
Securitized Products	ISIN or CUSIP
Money Markets	ISIN or CUSIP
CDS Single Names	Mnemonic: Ticker\Tier\Ccy\DocClause\Tenor\Coupon
Credit Indices	Mnemonic: Ticker\Series\Version\Tenor
Securitized Products Indices	Mnemonic: Ticker\Series\Version\
Loans	LXID

Valid Parsing functions and examples

In this version of the Excel Add-in, the following functions can be used to retrieve Parsing data:

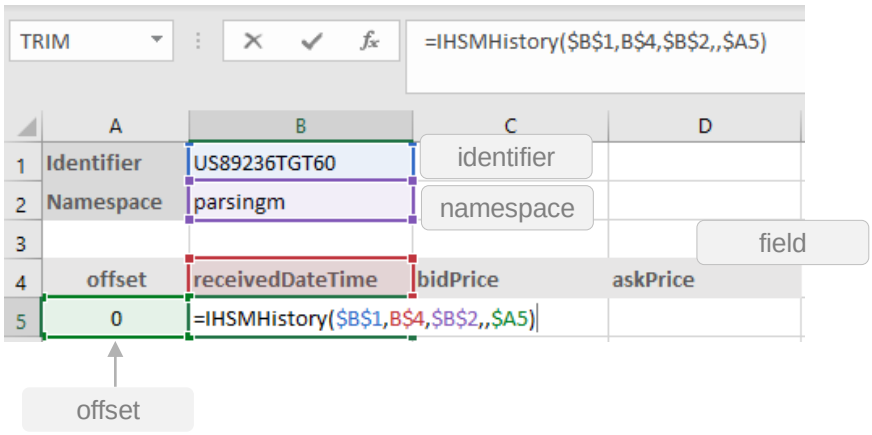
- IHSM
- IHSMHistory

Example 1: Using IHSM function to retrieve the latest quote

=IHSM("US38141GFD16","askPrice","parsingm")

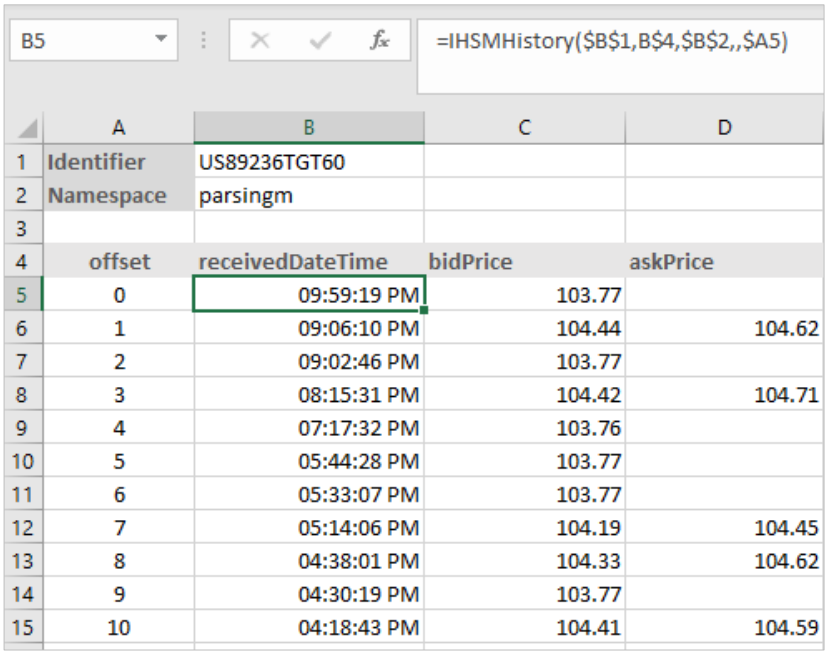
This formula returns the ask price for the latest quote for corporate bond instrument US31359MFE84 in your Parsing environment.

Example 2: Using IHSMHistory function to retrieve the last 10 quotes



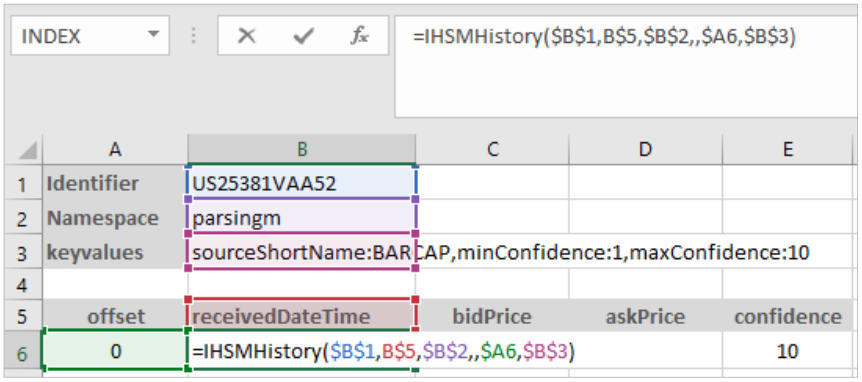
The formula in the example above returns the received date time for the latest quote for the corporate bond instrument US31359MFE84 in your Parsing environment.

Use a range of continuous integer for offset argument, as shown in the example below (cell A5 to A15), to return the received date time for the last 10 quotes. You can also use it to return the bid price and ask price for the last 10 quotes for this instrument in your Parsing environment.



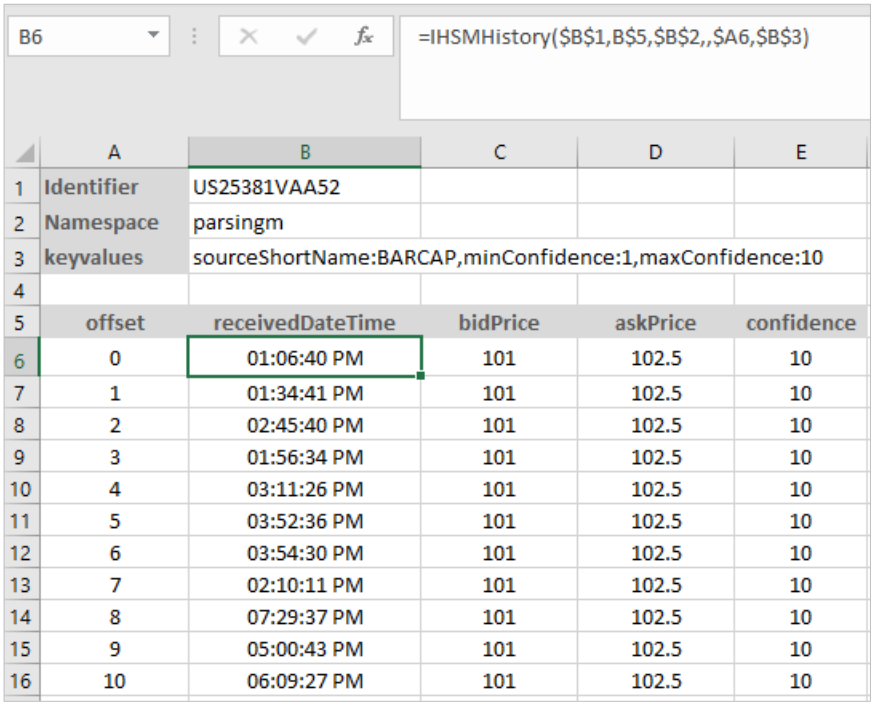
	A	B	C	D
1	Identifier	US89236TGT60		
2	Namespace	parsingm		
3				
4	offset	receivedDateTime	bidPrice	askPrice
5	0	09:59:19 PM	103.77	
6	1	09:06:10 PM	104.44	104.62
7	2	09:02:46 PM	103.77	
8	3	08:15:31 PM	104.42	104.71
9	4	07:17:32 PM	103.76	
10	5	05:44:28 PM	103.77	
11	6	05:33:07 PM	103.77	
12	7	05:14:06 PM	104.19	104.45
13	8	04:38:01 PM	104.33	104.62
14	9	04:30:19 PM	103.77	
15	10	04:18:43 PM	104.41	104.59

Example 3: Using IHSMHistory function with key value pairs



The formula in the example above returns the received date time for the latest quote from BARCAP, with confidence range from 1 to 10, for the corporate bond instrument US25381VAA52 in your Parsing environment.

Use a range of continuous integer for offset argument, as shown in the example below (cell A6 to A16), to return data for the last 10 quotes from one dealer, within certain confidence range, in your Parsing environment.



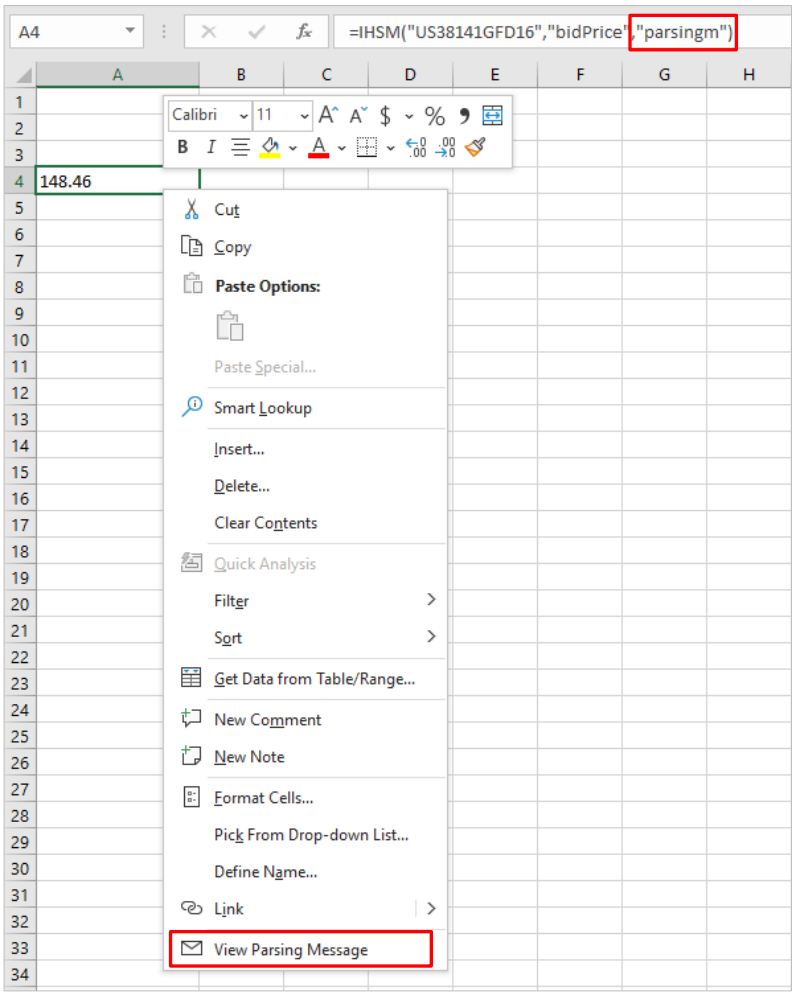
	A	B	C	D	E
1	Identifier	US25381VAA52			
2	Namespace	parsingm			
3	keyvalues	sourceShortName:BARCAP,minConfidence:1,maxConfidence:10			
4					
5	offset	receivedDateTime	bidPrice	askPrice	confidence
6	0	01:06:40 PM	101	102.5	10
7	1	01:34:41 PM	101	102.5	10
8	2	02:45:40 PM	101	102.5	10
9	3	01:56:34 PM	101	102.5	10
10	4	03:11:26 PM	101	102.5	10
11	5	03:52:36 PM	101	102.5	10
12	6	03:54:30 PM	101	102.5	10
13	7	02:10:11 PM	101	102.5	10
14	8	07:29:37 PM	101	102.5	10
15	9	05:00:43 PM	101	102.5	10
16	10	06:09:27 PM	101	102.5	10

View Parsing Message

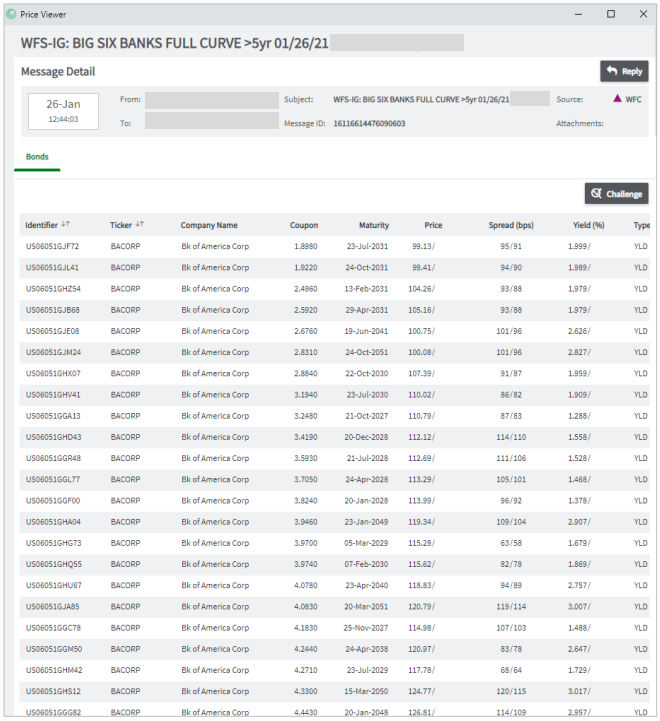
The View Parsing Message option is available for the following two functions:

- IHSM
- IHSMHistory

For cells that contain a **IHSM** or **IHSMHistory** formula with namespace of **parsingm**, the **View Parsing Message** option shows in the context menu, as shown in the example below.

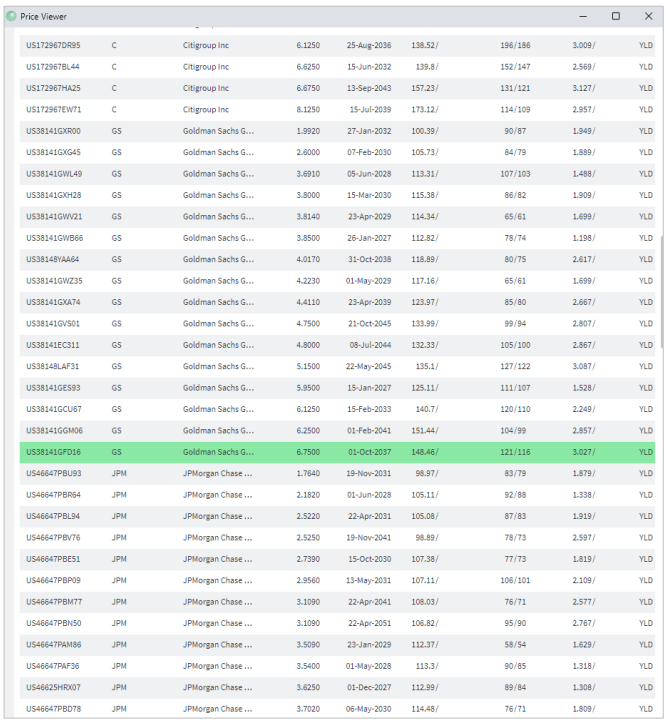


Click **View Parsing Message** to open the source Parsing message in a pop-op window showing all parsed quotes from that message, as shown in the example below.



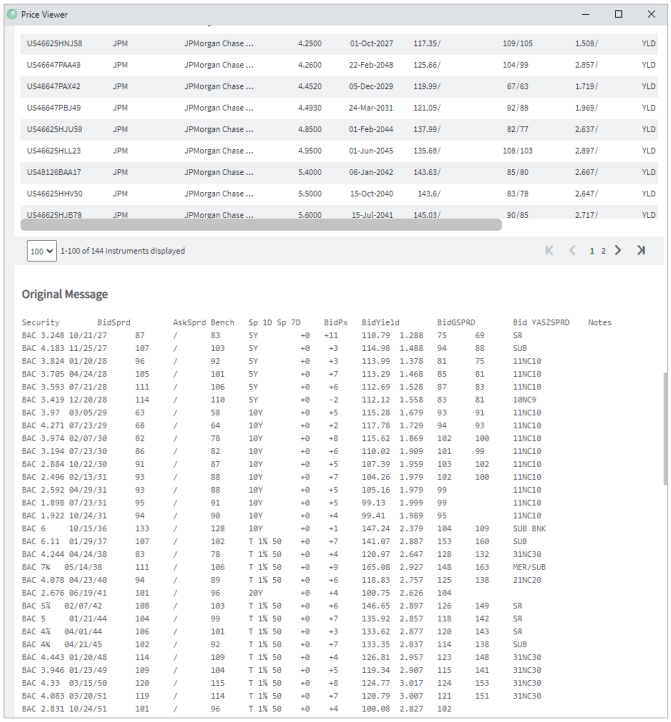
Identifier	Ticker	Company Name	Coupon	Maturity	Price	Spread (bps)	Yield (%)	Type
US06051GJF72	BACORP	Bk of America Corp	1.8980	23-Jul-2031	99.13/	95/91	1.999/	YLD
US06051GJL41	BACORP	Bk of America Corp	1.9220	24-Oct-2031	99.41/	94/90	1.989/	YLD
US06051GHZ54	BACORP	Bk of America Corp	2.4960	13-Feb-2031	104.26/	93/88	1.979/	YLD
US06051GJB88	BACORP	Bk of America Corp	2.5920	29-Apr-2031	105.16/	93/88	1.979/	YLD
US06051GJE08	BACORP	Bk of America Corp	2.6760	19-Jun-2041	100.75/	101/96	2.626/	YLD
US06051GJM24	BACORP	Bk of America Corp	2.8310	24-Oct-2051	100.08/	101/96	2.827/	YLD
US06051GHX07	BACORP	Bk of America Corp	2.8840	22-Oct-2030	107.39/	91/87	1.959/	YLD
US06051GHV41	BACORP	Bk of America Corp	3.1940	23-Jul-2030	110.02/	86/82	1.909/	YLD
US06051GGA13	BACORP	Bk of America Corp	3.2480	21-Oct-2027	110.79/	87/83	1.288/	YLD
US06051GHD43	BACORP	Bk of America Corp	3.4190	20-Dec-2028	112.12/	114/110	1.558/	YLD
US06051GGR48	BACORP	Bk of America Corp	3.5930	21-Jul-2028	112.69/	111/106	1.528/	YLD
US06051GGL77	BACORP	Bk of America Corp	3.7050	24-Apr-2028	113.29/	105/101	1.468/	YLD
US06051GGF00	BACORP	Bk of America Corp	3.8240	20-Jan-2028	113.99/	96/92	1.378/	YLD
US06051GHA04	BACORP	Bk of America Corp	3.9460	23-Jan-2049	119.34/	109/104	2.907/	YLD
US06051GHG73	BACORP	Bk of America Corp	3.9700	05-Mar-2029	115.28/	63/58	1.679/	YLD
US06051GHQ55	BACORP	Bk of America Corp	3.9740	07-Feb-2030	115.62/	82/78	1.869/	YLD
US06051GHU67	BACORP	Bk of America Corp	4.0780	23-Apr-2040	118.83/	94/89	2.757/	YLD
US06051GJA85	BACORP	Bk of America Corp	4.0830	20-Mar-2051	120.79/	119/114	3.007/	YLD
US06051GGC78	BACORP	Bk of America Corp	4.1830	25-Nov-2027	114.98/	107/103	1.488/	YLD
US06051GGM50	BACORP	Bk of America Corp	4.2440	24-Apr-2038	120.97/	83/78	2.647/	YLD
US06051GHM42	BACORP	Bk of America Corp	4.2710	23-Jul-2029	117.78/	68/64	1.729/	YLD
US06051GHS12	BACORP	Bk of America Corp	4.3300	15-Mar-2050	124.77/	120/115	3.017/	YLD
US06051GGG82	BACORP	Bk of America Corp	4.4430	20-Jan-2048	126.81/	114/109	2.957/	YLD

The highlighted row is the quote from which you requested the message, as shown in the example below.

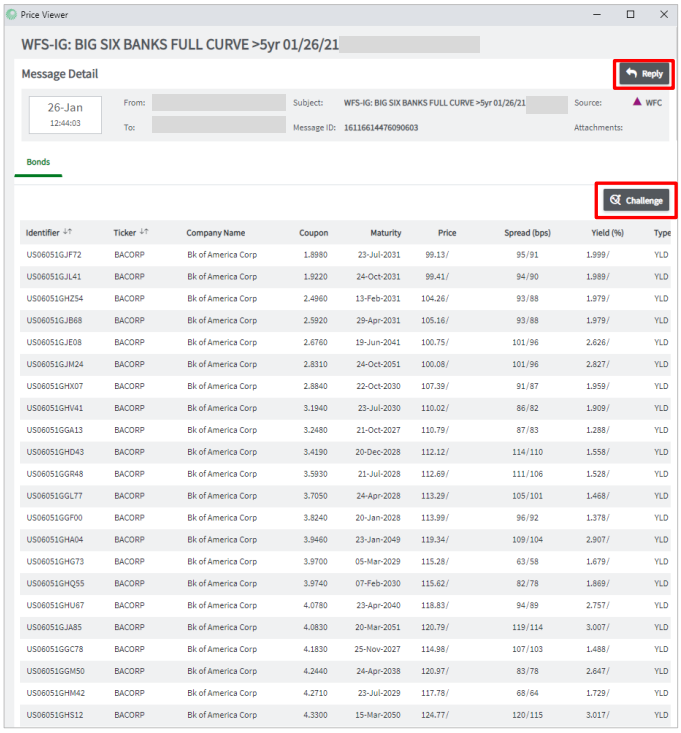


US172967DR95	C	Citigroup Inc	6.1250	25-Aug-2036	138.52/	196/186	3.009/	YLD
US172967BL44	C	Citigroup Inc	6.6250	15-Jun-2032	139.8/	152/147	2.569/	YLD
US172967HA25	C	Citigroup Inc	6.6750	13-Sep-2043	157.23/	131/121	3.127/	YLD
US172967EW71	C	Citigroup Inc	8.1250	15-Jul-2039	173.12/	114/109	2.957/	YLD
US38141GXR00	GS	Goldman Sachs G...	1.9920	27-Jan-2032	100.39/	90/87	1.949/	YLD
US38141GXG45	GS	Goldman Sachs G...	2.6000	07-Feb-2030	105.73/	84/79	1.889/	YLD
US38141GWL49	GS	Goldman Sachs G...	3.6910	05-Jun-2028	113.31/	107/103	1.488/	YLD
US38141GXH28	GS	Goldman Sachs G...	3.8000	15-Mar-2030	115.38/	86/82	1.909/	YLD
US38141GWV21	GS	Goldman Sachs G...	3.8140	23-Apr-2029	114.34/	65/61	1.699/	YLD
US38141GWB66	GS	Goldman Sachs G...	3.8500	26-Jan-2027	112.82/	78/74	1.198/	YLD
US38148YAA64	GS	Goldman Sachs G...	4.0170	31-Oct-2038	118.89/	80/75	2.617/	YLD
US38141GWZ35	GS	Goldman Sachs G...	4.2230	01-May-2029	117.16/	65/61	1.699/	YLD
US38141GXA74	GS	Goldman Sachs G...	4.4110	23-Apr-2039	123.97/	85/80	2.667/	YLD
US38141GVS01	GS	Goldman Sachs G...	4.7500	21-Oct-2045	133.99/	99/94	2.807/	YLD
US38141EC311	GS	Goldman Sachs G...	4.8000	08-Jul-2044	132.33/	105/100	2.867/	YLD
US38148LAF31	GS	Goldman Sachs G...	5.1500	22-May-2045	135.1/	127/122	3.087/	YLD
US38141GES93	GS	Goldman Sachs G...	5.9500	15-Jan-2027	125.11/	111/107	1.528/	YLD
US38141GCU67	GS	Goldman Sachs G...	6.1250	15-Feb-2033	140.7/	120/110	2.249/	YLD
US38141GGM06	GS	Goldman Sachs G...	6.2500	01-Feb-2041	151.44/	104/99	2.857/	YLD
US38141GFD16	GS	Goldman Sachs G...	6.7500	01-Oct-2037	148.46/	121/116	3.027/	YLD
US46647PBU93	JPM	JPMorgan Chase ...	1.7640	19-Nov-2031	98.97/	83/79	1.879/	YLD
US46647PBR64	JPM	JPMorgan Chase ...	2.1820	01-Jun-2028	105.11/	92/88	1.338/	YLD
US46647PBL94	JPM	JPMorgan Chase ...	2.5220	22-Apr-2031	105.08/	87/83	1.919/	YLD
US46647PBV76	JPM	JPMorgan Chase ...	2.5250	19-Nov-2041	98.89/	78/73	2.597/	YLD
US46647PBE51	JPM	JPMorgan Chase ...	2.7390	15-Oct-2030	107.38/	77/73	1.819/	YLD
US46647PBP09	JPM	JPMorgan Chase ...	2.9560	13-May-2031	107.11/	106/101	2.109/	YLD
US46647PBM77	JPM	JPMorgan Chase ...	3.1090	22-Apr-2041	108.03/	76/71	2.577/	YLD
US46647PBN50	JPM	JPMorgan Chase ...	3.1090	22-Apr-2051	106.82/	95/90	2.767/	YLD
US46647PAM86	JPM	JPMorgan Chase ...	3.5090	23-Jan-2029	112.37/	58/54	1.629/	YLD
US46647PAF36	JPM	JPMorgan Chase ...	3.5400	01-May-2028	113.3/	90/85	1.318/	YLD
US46625HRX07	JPM	JPMorgan Chase ...	3.6250	01-Dec-2027	112.99/	89/84	1.308/	YLD
US46647PBD78	JPM	JPMorgan Chase ...	3.7020	06-May-2030	114.48/	76/71	1.809/	YLD

Below the quotes data table is the body of the original message from which the quote was parsed:



On the Parsing Message pop-up window, you can **Reply** to the message sender or submit a Parsing **Challenge**.



For more information about using the Parsing message pop-up, see the *Price Viewer User Guide*.

Troubleshooting

This section provides helpful tips for resolving issues that you may face when installing or using formulas in the Excel Add-In.

Installation issues

The installer does not initiate or does not complete successfully

Capture the error message if any (e.g., take a screenshot of the error message if possible), and contact IHS Markit Support*.

IHS Markit does not show in the MS Excel top ribbon

Contact IHS Markit Support*.

***** See the *Support contacts* section on page 51 for IHS Markit support contact details.

Connectivity issues

If you can not log in or receive the error code **#RETRY** when using Excel Add-In formulas, it is likely that you have a connectivity issue. To test your connectivity, select **About** > **Diagnostic** > **Test Connectivity** and then see the basic information about proxy settings and instructions for testing connectivity in the *About* section starting on page 17.

The table below provides an explanation of each connectivity test, along with suggested action to resolve the issue for any failing test.

Test	Test validation	Failure description	Suggested action
Generic DNS Resolve	www.example.com DNS resolving	MS Excel can not reach the internet	• Check your internet connection • Unblock MS Excel executables for internet access
IHS Markit DNS Resolve	addin.ihsmarkit.com DNS resolving	Excel Add-In server domain can not resolve	• Check your Internet connection • Unblock MS Excel executables for internet access • Unblock domain addin.ihsmarkit.com
Generic HTTP Request	HTTP GET http://www.example.com	MS Excel unable to make HTTP request to the internet	• Check your internet connection • Unblock MS Excel executables for internet access • Check if you need a proxy and that your proxy settings are correct
Generic HTTPS Request	HTTP GET https://www.example.com	MS Excel unable to make HTTPS request to the internet	• Check your internet connection • Unblock MS Excel executables for internet access • Check if you need a proxy and that your proxy settings are correct
IHS Markit HTTPS Request	HTTP GET https://addin.markit.com	Excel Add-In server domain is blocked from TCP access	• Unblock domain addin.ihsmarkit.com • Whitelist the IP addresses for addin.ihsmarkit.com (18.202.216.46 and 3.8.37.46) • Check if you need a proxy and that your proxy settings are correct • If the port is blocked, unblock 443 for this domain or IP address • If protocol-based whitelisting, unblock HTTPS

Test	Test validation	Failure description	Suggested action
IHS Markit HTTPS REST Request	REST POST https://addin.markit.com/v1/ping	Can be due to various issue; see suggested action at right	• This issue is likely due to a strict corporate security policy implementation; contact your technical support team for assistance

See also the *Support contacts* section on page 51 for IHS Markit support contact details.

Formula errors

The table below lists the error codes that you may encounter when using the IHS Markit Excel Add-In formulas and provides an explanation and suggested action.

Error code	Error description	Suggested action
#EMPTY	IHSMHistory formula can not find data for specified date	Try a different date
#MAX	IHSMHistory formula limit is breached	Reduce offset to less than 501
#NotEntitled!	Current user is not entitled to requested dataset (i.e., namespace)	Contact IHS Markit Support*
#OOR	IHSMHistory formula can not find enough historical data, e.g., when offset is 10 but requested data is available for only 5 days	Reduce the offset
#PleaseCheckInput	User input is blocked by input sanitizer (RegEx)	Check if any typos in your formula
#QUY	Deep query is invalid	Contact IHS Markit Support*
#RES	Can not resolve identifier, field, namespace, and/or batch; one or all elements may be incorrect	Check instrument identifier, field name, namespace, and/or batch are all correct
#RETRY	Can not reach the server	Check connectivity
#TIMEOUT [XXX-XXX-XXX]	Timeout from Excel Add-In server	Contact IHS Markit Support*
#UpstreamTimeout	Timeout from IHS Markit Data Delivery platform	Contact IHS Markit Support*

***** See the *Support contacts* section on page 51 for IHS Markit support contact details.

Support contacts

For support, please contact us using the below information.

Support type	Email	Phone
General support of any type	support@ihsmarkit.com	ASIA Singapore - +6569224210 ASIA Japan - +81364020127 Europe - +80062754800 North America - +18777627548
Data Delivery or Excel Add-In specific support requests	data.delivery@ihsmarkit.com	APAC - +65 6922 4211 EMEA - +44 207 064 6399 US - +1 646 679 3021

Appendices

The following appendices provide lists of valid product namespaces, identifiers by asset type, and key value pairs.

Appendix 1. Valid product namespaces for Add-In

IHS Markit product	Namespace
Bond Reference Data	BRD
Corporate & Sovereign Bond Pricing Data	CSBPD
Corporate & Sovereign Bond Live Pricing Data	CSBPI
Municipal Bond Pricing Data	MBPD
Securitized Products Pricing Data	SPPD
Securitized Products Reference Data	SPRD
Securitized Products Index Pricing Data	SPINDICES
Money Market Pricing Data	MMPD
CDS Single Name Pricing Data	CDSPD
CDS Single Name Live Pricing Data	CDSLP
CDS Sector Curve Pricing Data	CDSSC
Credit Indices Pricing Data	CIPD
Credit Index Live Pricing Data	CILP
Credit Index Tranches Pricing Data	CITPD
Credit Index Options Pricing Data	CIOP
Fixed Income Index Pricing Data	FIINDICES
iBoxx Live Prices	IBOXXLIVE
Loan Pricing Data	MLPD
Loan Live Pricing Data	MLLP
Loans Composite Pricing Data	LLP

IHS Markit product	Namespace
Parsing Data	ParsingM
PMI	PMI
Liquidity Navigator	LIQNAV

Appendix 2. Valid identifiers by asset type for Add-In

Asset type	Identifier
Corporate & Sovereign Bonds	ISIN or CUSIP
Municipal Bonds	ISIN or CUSIP
Securitized Products	ISIN or CUSIP
Securitized Products Indices	Index RED ID
Money Markets	ISIN or CUISP or IHSM Code
CDS Single Names	Mnemonic: Ticker\Tier\Ccy\DocClause\Tenor\Coupon
CDS Sector Curves	Mnemonic: Sector\Region\Tier\Rating\Tenor
Credit Indices	Index Ticker or Mnemonic: Ticker\Series\Version\Tenor
Credit Index Tranches	Mnemonic: Ticker\Series\Version\Tenor\Attach\Detach
Credit Index Options	Mnemonic: Ticker\Series\Version\Expiry\Strike
iBoxx Indices	Index: TRI ISIN or CPI ISIN Bond: ISIN or CUSIP
Loans	LXID or CUSIP
PMI	Mnemonic: PMI\Geography\Concept\Sub-concept\Short name\Seasonal adjustment

Appendix 3. Valid key value pairs for Add-In

Key	Value
IsConstituentOf	iBoxx Index TRI ISIN
WorkflowType	iBoxx data workflow type, possible values: Calculation, Rebalancing
SourceShortName	Parsing sourceShortName
MinConfidence	Parsing confidence integer 1 to 10
MaxConfidence	Parsing confidence integer 1 to 10