



Excel Add-in
User's Manual



INTRODUCTION

WELCOME!

Thank you for choosing to use Fastmarkets' Excel Add-in! As part of Fastmarkets' data platform strategy, we will provide customers with richer, more flexible mechanisms to securely access our data. This tool will allow you to pull our pricing data directly into Excel, thereby enabling you to embed our prices into your workflow.

This users' guide will help you get the most out of Fastmarkets' Excel Add-in to support your business needs. Please refer to the accompanying Installation & Technical Instructions Guide to install and log in for the first time to Fastmarkets' Excel Add-in.

If after reading these instructions you have further questions about how to use Fastmarkets' Excel Add-in, please contact your Account Manager.

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For more information on Fastmarkets' products and services, please use the following links.

Pricing data: https://www.fastmarkets.com/what-we-do/pricing-data

Pricing notices: https://www.metalbulletin.com/prices/pricing-notices.html

➤ Methodology: https://www.fastmarkets.com/about-us/methodology



THE EXCEL FUNCTIONS

Fastmarkets' Excel Add-in enables you to easily obtain rich data around the commodities you follow. The table below summarizes the functions and pricing data now available to you.

Name of function	Short description
GetFieldsData()	Fetches all available data fields for a symbol
GetReferenceData()	Fetches all available symbols
GetLatestPriceData()	Fetches the latest price for a symbol
GetPriceDataHistory()	Fetches historical prices between two dates
GetPriceData()	Fetches the price of a symbol for a given date

Let's explore the functions individually to see how you can make Fastmarkets' Excel Add-in work best for you.

GET REFERENCE DATA

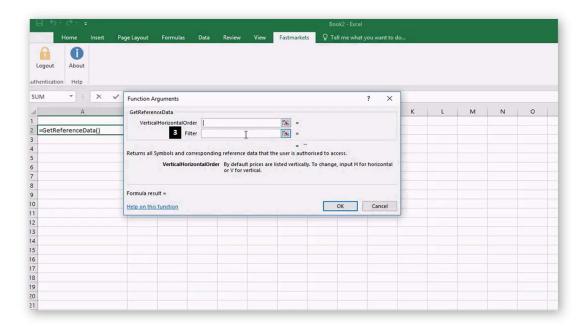
The GetReferenceData() function enables you to view a list of prices, symbols and data to which you're entitled in your data package. **Remember, each Fastmarkets price has a symbol – an alphanumeric code, unique to that price.** The table below provides a summary of this function.

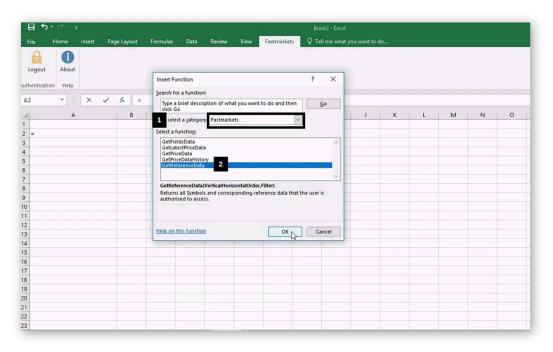
Function summary	The GetReferenceData function fetches all symbols and corresponding reference data that the user is authorized to access. There is no maximum number of prices that can be queried at one time.
Input parameters	VerticalHorizontalOrder; Filter
Output for the function	Inserts fields of data for each price, including Symbol, Product, Description, Location, Currency, Unit of measure and Incoterm.
Example	=GetReferenceData("V","steel")



Get the list of prices and their symbols

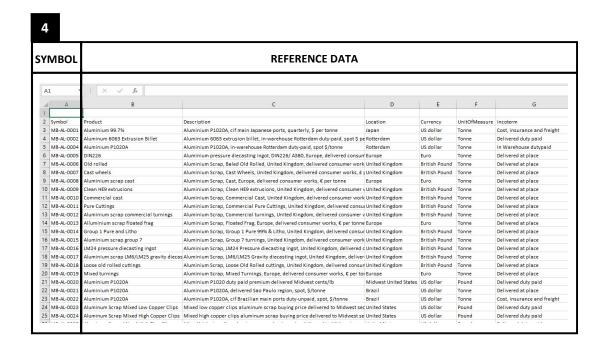
- 1. Select a cell where you want the prices to be displayed (for example, A2)
- 2. Click on the "function wizard" icon (f_x). Choose the "Fastmarkets" category, select the "GetReferenceData" function and click OK.
- 3. To display the full list of symbols and prices available for the data package you have chosen, leave the parameters blank and click OK. If you wish to filter the list so that you only see, say, aluminium symbols and prices, type "aluminium" in the "Filter" field.







4. The list of all available prices will be inserted in the sheet. The first column contains the symbol unique to each price. The remaining columns contain the corresponding reference data (name, description, location, currency, unit of measure and incoterm).



GET FIELDS DATA

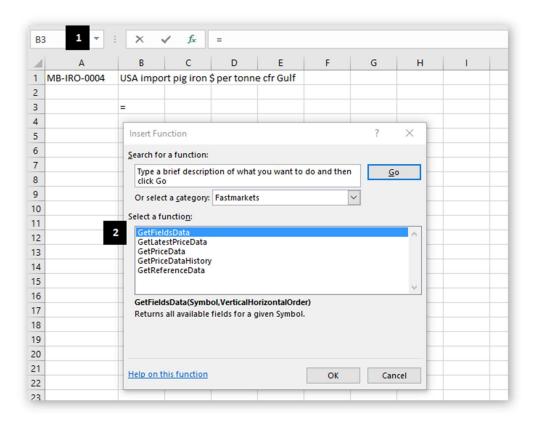
The GetFieldsData() function can be used to identify the fields that are available for each symbol. **Each Fastmarkets price has a symbol – an alphanumeric code, unique to that price.** The table below provides a summary of this function.

Function summary	The GetFieldsData function may be used to fetch
	the data fields that are available for a given
	symbol. The number of available fields depends
	on the type of price. For example, exchange
	prices (to be introduced in later phases) will have
	different price fields from physical prices.
Input parameters	Symbol; VerticalHorizontalOrder
Output for the function	Inserts an array displaying the available data
	fields. The fields available for physical prices are:
	Low, High, Mid, Location, Currency,
	UnitOfMeasurement, Incoterm and
	AssessmentDate.
Example	GetFieldsData("FM-AL-0002","V")



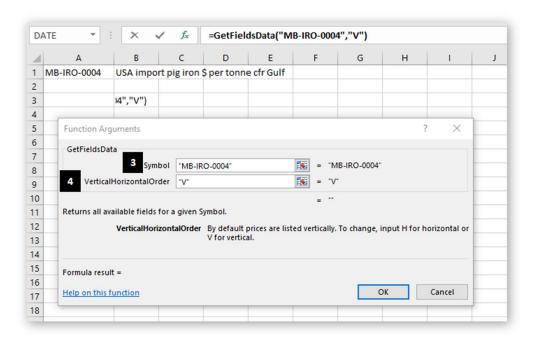
Get the data fields available for a particular price

- 1. Select the cell where you want the data fields to be inserted (for example, B3).
- 2. Click on the "function wizard" icon (f), choose the "Fastmarkets" category, select the "GetFieldsData" function and click OK.

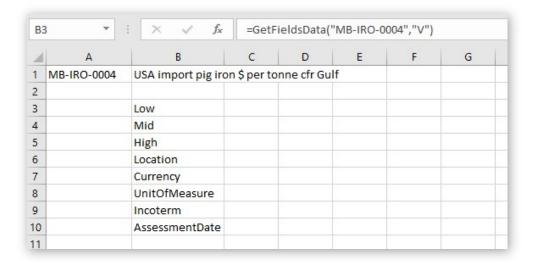


- 3. Enter the symbol. For this example, we're using MB-IRO-0004.
- 4. For the "VerticalHorizontalOrder" field, enter "V" if you want the data fields to appear vertically or "H" if you want the data fields to appear horizontally. Then click OK.

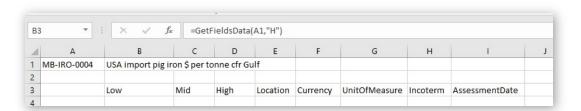




The data fields available for the symbol will appear in the spreadsheet as shown below.



The screenshot below shows how the data fields would appear horizontally if "H" were typed into the "VerticalHorizontalOrder" field referenced in step 4.





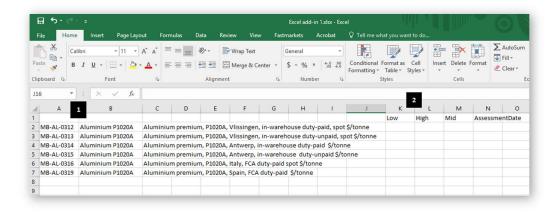
GET LATEST PRICE DATA

The GetLatestPriceData() function enables you to view the latest price information for symbols you select. The table below provides a summary of this function.

Function summary	The GetLatestPriceData function fetches the latest price for a symbol. It can be used to get fields such as Low, Mid and Currency. Because the function applies to an individual cell, it gives the user control over the layout of their workbook. Once the table is laid out, the formula may be dragged or copied to populate all cells.
Input parameters	Symbol; Field
Output for the function	The result is inserted in a single cell; it represents the most recent price data. For example, if a price is updated every Monday and the user requests a price for Tuesday, Wednesday, Thursday or Friday, the function returns Monday's price.
Example	=GetLatestPriceData("MB-AL-0312","Low")

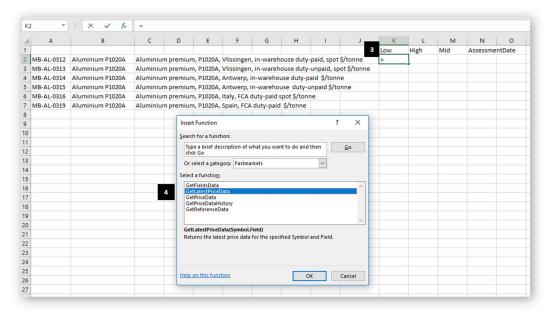
View the latest price data for one or more symbols

- 1. Copy the symbols for which you want to get the latest prices and paste them into a new sheet. For this example, we've chosen six aluminium premiums.
- Fill in the column headers with the required price fields. Fastmarkets' Excel Add-in currently supports the following fields: Low, High, Mid, Location, Currency, UnitOfMeasure, Incoterm and AssessmentDate (there are no spaces in the multipleword fields). For this example, we've chosen Low, High, Mid and AssessmentDate.

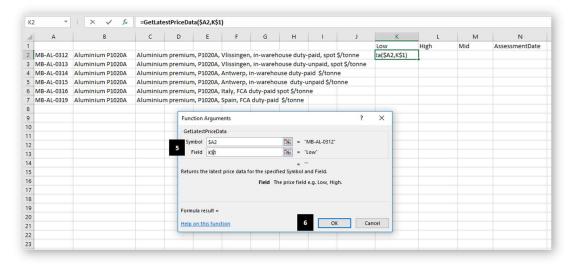




- 3. Select the cell where you want the first price to be inserted (for example, K2).
- 4. Click on the "function wizard" icon (f_x). Choose the "Fastmarkets" category and select the "GetLatestPriceData" function.

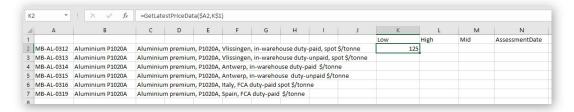


- 5. Fill in the parameters as shown below:
 - > **Symbol:** Type the cell reference where the first price symbol (for example, MB-AL-O312) has been inserted. Apply \$ sign to the column where you'd like the first result to appear (for example, type \$K2). This will allow you to copy the formula over to other fields.
 - Field: Type the cell reference where the first price field has been inserted (for example, "Low"). Apply \$ sign to the row (for example, type C\$1). This will allow you to copy the formula over to other cells.
- 6. Click OK.





The latest low price has now been inserted into cell K2 (see screenshot below).



7. Copy the formula over to get the information for all of the data fields you're seeking (see screenshot below). You can either grab the little square in the corner of the cell with the function in it and drag it across and down to highlight your entire table; or you can copy and paste the cell with the function in it into your entire table. Because you applied the \$ sign in the formula, all retrieved data will point to one of the price symbols in column A and to one of the fields in row 1.



Refreshing the latest pricing data

Depending on your Excel settings, your pricing data may update automatically. If your Excel is set to update calculations automatically, you may simply refresh the data. To change this setting, go to Options → Formulas → Calculation options and change Workbook Calculation from Automatic to Manual. If Workbook Calculation is set to manual, the keystrokes are as follows:

- > F2 and Enter to update a specific cell
- Ctrl + Alt + F9 to update the entire spreadsheet



GET PRICE DATA HISTORY

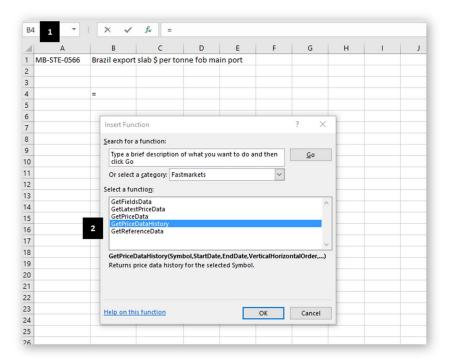
The GetPriceDataHistory() function enables you to view historical prices for a symbol. The table below provides a summary of this function.

Function summary	The GetPriceDataHistory function can be used to fetch the price history for a given symbol. The user can specify the start and end date, horizontal or vertical layout and ascending or descending dates.
Input parameters	Symbol; StartDate; EndDate; VerticalHorizontalOrder; AscendingDescending; Field1 Field 8
Output for the function	Inserts a series table displaying historical dates and corresponding price fields. The function displays weekdays from StartDate to EndDate. If there is no updated price for a given day, the function rolls the last available price forward. For example, if a price is updated every Monday, for Tuesday, Wednesday, Thursday and Friday, the function should return Monday's price.
Example	=GetPriceDataHistory("MB-AL-0001", "7/25/2014", "2/27/2018", "V", "A", "Low", Mid", "High", "Location", "Currency", "UnitOfMeasure", "AssessmentDate")

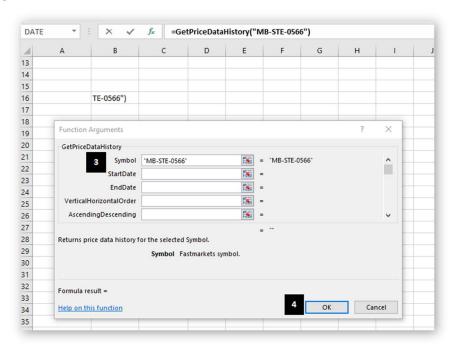
View the price history for a particular symbol

- 1. Select the cell where you want the price history to be inserted (for example, B4).
- 2. Click on the "function wizard" icon (f_x), choose the "Fastmarkets" category, select the "GetPriceDataHistory" function and click OK.

Fastmarkets

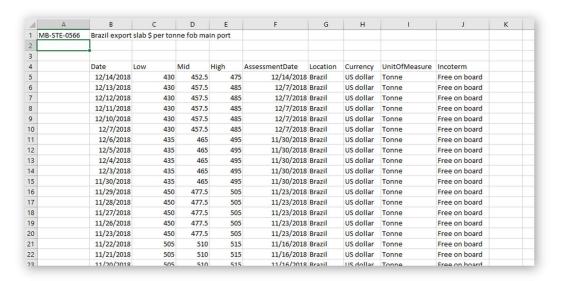


- 3. Fill in the Symbol field ONLY. This is the quickest way to get the full price history. You can fill in the StartDate and EndDate fields if you wish to narrow the price history to a specific range. Please note, the date format (mm/dd/yyyy versus dd/mm/yyyy) will be recognized based on your location. For example purposes only, we're using "MB-STE-0566."
- 4. Click OK.





The price data history has now been inserted into the sheet.

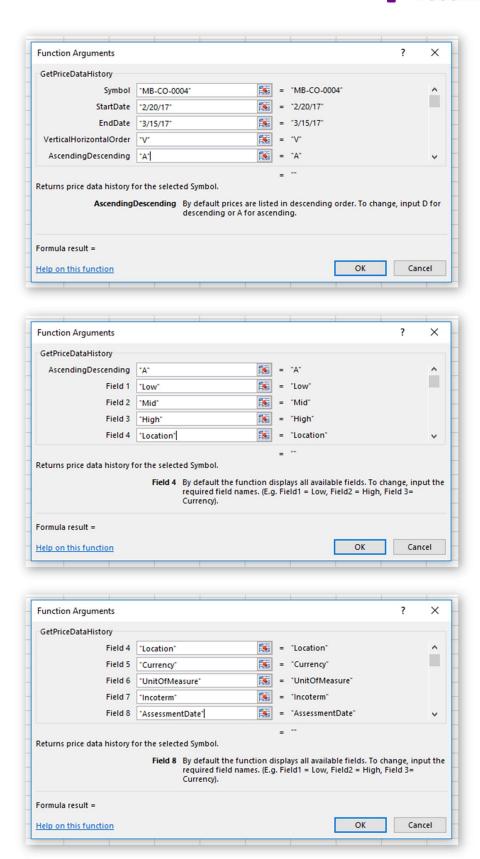


Customizing the price history display

The function also allows you to customize the way the price history is displayed in your spreadsheet. The following steps describe the process.

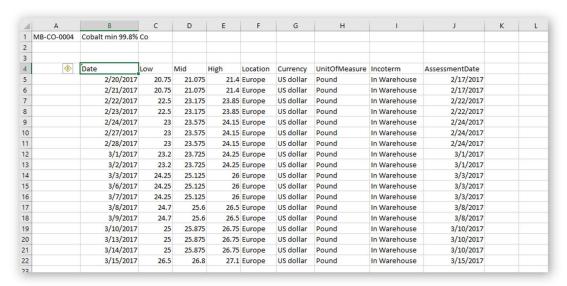
- 1. Select the cell where you want the price history to be inserted (for example, B4).
- 2. Click on the "function wizard" icon (f_x), choose the "Fastmarkets" category, select the "GetPriceDataHistory" function and click OK just as you did before.
- 3. Fill in the parameters as below:
 - > **Symbol:** "MB-CO-0004" (this symbol is being used for example purposes only)
 - > StartDate: "2/20/17" (February 20, 2017)
 - > EndDate: "3/15/17" (March 15, 2017)
 - VerticalHorizontalOrder: "V"
 - > AscendingDescending: "A"
 - > Field1: "Low"
 - > Field2: "Mid"
 - > Field3: "High"
 - > Field4: "Location"
 - Field5: "Currency"
 - Field6: "UnitOfMeasure"
 - > Field7: "Incoterm"
 - Field8: "AssessmentDate"

The following three screenshots show all of the parameters entered into the function arguments as outlined above.





4. Once you have finished populating the fields, click OK. The historical price table will flow into the sheet according to the specified parameters, as shown below.



Historic pricing data: frequently asked questions

1. What is the longest time series I can download?

All historical pricing data is available in Fastmarkets' Excel Add-in. The length of the history will vary depending on when the price was launched.

- 2. Can I choose between daily/weekly/monthly average prices?
 Only actual prices are available in the current version of Fastmarkets' Excel Add-in.
- 3. How can I see if a price was corrected?

In case of a price correction, the function returns the latest available version of the price (the latest corrected value). Corrected prices are not highlighted in the current release of Fastmarkets' Excel Add-in.

- 4. Are non-assessment days excluded/included from the time series?
 If there is no updated price for a given day, the function rolls the last available price forward.
- 5. Are holiday calendars taken into account when displaying price history?

 No. In the current release, Fastmarkets' Excel Add-in displays all weekdays between the start and end dates of the period.



GET PRICE DATA

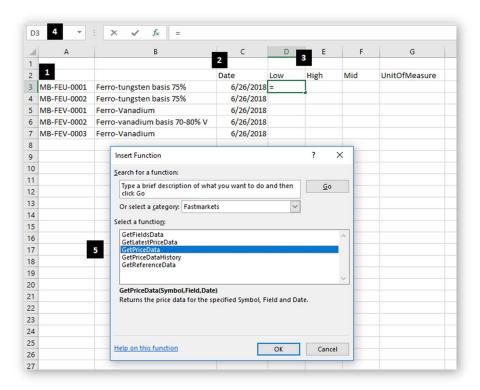
The GetPriceData() function enables you to view the price for one or more symbols as of a given date. The table below provides a summary of this function.

Function summary	The GetPriceData function fetches the price for a symbol <u>as of a given date</u> . It can be used to get the High, Mid and Currency fields, among others. Because the function applies to an individual cell, it gives the user control over the layout of their workbook. Once the table is laid out, the formula may be dragged or copied to fill other cells.
Input parameters	Symbol; Field; Date
Output for the function	Inserts a single field (for instance, High, Low, Mid, Currency) into the selected cell that represents the most recent price data as of the given date. The Excel Add-in rolls the last available price forward. For example, if a price is updated every Monday and the user requests the latest price on Tuesday, Wednesday, Thursday or Friday, the function returns Monday's price.
Example	=GetPriceData("MB-AL-0001", "Low","07/02/2018")

Get the price(s) for a specific date

- 1. Copy and paste the required symbol(s) into a new sheet. For this example, we're using symbols "MB-FEU-0001," MB-FEU-0002," "MB-FEV-0001," "MB-FEV-0002" and "MB-FEV-0003."
- 2. Insert the date for which you want to display the price(s). For this example, we're using June 26, 2018.
- 3. Fill in the column headers with the required price fields. Fastmarkets' Excel Add-in currently supports the following fields: Low, High, Mid, Location, Currency, UnitOfMeasure, Incoterm and AssessmentDate (there are no spaces in the multipleword fields). For this example, we're using Low, High, Mid and UnitOfMeasure.
- 4. Select the cell where you want the first price to be inserted (for this example, D3).
- 5. Click on the "function wizard" icon (f_x), choose the "Fastmarkets" category and select the "GetPriceData" function. Then click OK.

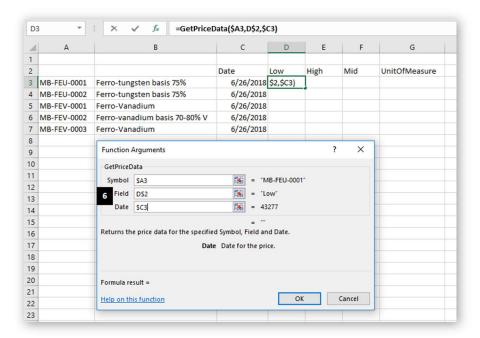




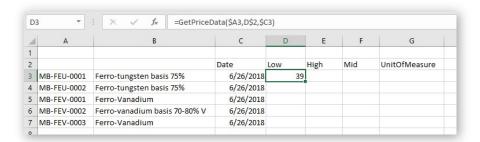
6. Fill in the parameters as below:

- > **Symbol:** Click on the cell where the first price symbol has been inserted (in this example, A3). Apply the \$ sign to the column (\$A3). This will allow you to copy the formula to other cells.
- Field: Click on the cell where the first price field "Low" has been inserted (in this example, D2). Apply the \$ sign to the row (D\$2). This will allow you to copy the formula to other cells.
- ➤ Date: Click on the cell where the date has been inserted (in this example, C3). Apply the \$ sign to the row (\$C3). This will allow you to copy the formula to other cells.

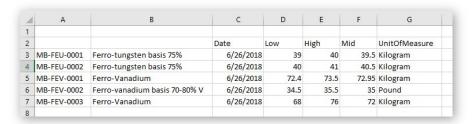




7. Click OK. The low price for the first symbol – MB-FEU-0001 – will appear in cell D3, as shown in the screenshot below.



8. Copy the formula over to get the information for all of the data fields you're seeking (see screenshot below). You can either grab the little square in the corner of the cell with the function in it and drag it across and down to highlight your entire table; or you can copy and paste the cell with the function in it into your entire table. Because you applied the \$ sign in the formula, all retrieved data will point to one of the price symbols in column A and to one of the fields in row 2.





APPENDIX: ERROR MESSAGES

The table below summarizes the error messages that may appear for Excel Add-in users, along with description/examples. All of these error messages are cell-based – they indicate an error with the formula entered in the given cell.

ERROR MESSAGE	DESCRIPTION / EXAMPLE
#N/A Symbol not found	An invalid symbol was entered in the formula (for example, MB-AL-0000000001).
#N/A Invalid field: (field name)	An invalid field was entered in the formula. For example, the user enters the following: =GetPriceData("MB-AL-0001","Open","07/03/2018"), which specifies the field "Open" that is not among the supported fields for physical prices. In this example, the error message will display: #N/A Invalid field: Open.
#N/A Invalid parameter: (parameter name)	A parameter is missing in the formula. For example, the user tries to create the GetPriceData function without specifying the date. In this instance, the error message will display: #N/A Invalid parameter: Date.
#N/A Invalid parameter: VerticalHorizontalOrder	An invalid value was entered for the VerticalHorizontalOrder parameter (something other than "H" or "V").
#N/A Invalid parameter: AscendingDescending	An invalid value was entered for the AscendingDescending parameter (something other than "D" or "A").
#N/A Invalid parameter: End Date	An invalid End Date parameter was entered (for example, the user specified an End Date that comes before the Start Date).
#N/A Invalid parameter: Filter	An invalid Filter was entered in the GetReferenceData() function that doesn't return any results.
#N/A Log in required	You are not logged in.
#N/A Not authorized	You are not authorized to see the given price.
#N/A Update required	The user's version is below the minimum supported version.
#N/A Timeout	A network error occurred.
#N/A Server error	A server error occurred.
#N/A No data	No prices are available for the requested symbol.
#N/A N/A	Any other error case that is not covered above.