User guide

2023

Contents

Terminology and definitions

The Registration number is the number designated to a bond issue locally. This number is assigned by the relevant statutory authority.

Customization is a Microsoft Excel component enabling access to additional functions and commands.

Cbonds Sites refers to any of the following Internet Addresses:

- https://cbonds.com/
- https://cbonds.pl/
- https://cbonds.it/
- https://cbonds.de/
- https://cbonds.es/
- https://cbonds.hk/
- https://cbonds.fr/

A CUSIP is a 9-digit alphanumerical code unambiguously identifying North-America financial tools intended for clearing and making transactions. They are widely used in USA and Canada.

An ISIN is a twelve-value alphanumeric code created for the purpose of assigning unique idenftifiers to bonds or shares. Bonds with ISIN RegS are issued for international investors and undergo clearance through the Clearstream, Luxembourg and Euroclear systems. Bonds with the ISIN code144A are private issuances in the USA to be placed for American investors and to undergo clearing through the DTC system.

Introduction

The Cbonds Add-in is a customization tool developed for Microsoft Excel to enable the smooth downloading of bond information, quotes, and indices as well as to calculate profitability and perform graphical analysis of the data.

This user manual describes system requirements and the installation procedure and includes instructions on authentication and customization of the tool.

Preparation

System requirements

The Cbonds Add-in (Office 365) only works on the Office 365 platform (Microsoft 365).

The system requirements for the correct funtion of the add-in are the same as the system requirements for Microsoft 365. For more information, see the official Microsoft website at:

https://www.microsoft.com/en/microsoft-365/microsoft-365-and-office-resources

Starting the add-in

To run the toolperform the following operations sequence:

1. Open Excel (Microsoft 365)
2. Open or create a new spreadsheet
3. Click on the «Cbonds Add-in» icon on the Home tab (Fig. 1)

Fig. 1. «Cbonds Taskpane» icon on the Home tab

The main panel of the add-in will appear in the right handside of the window, where an authorization form and a demo version of the add-in will be presented (Fig. 2).

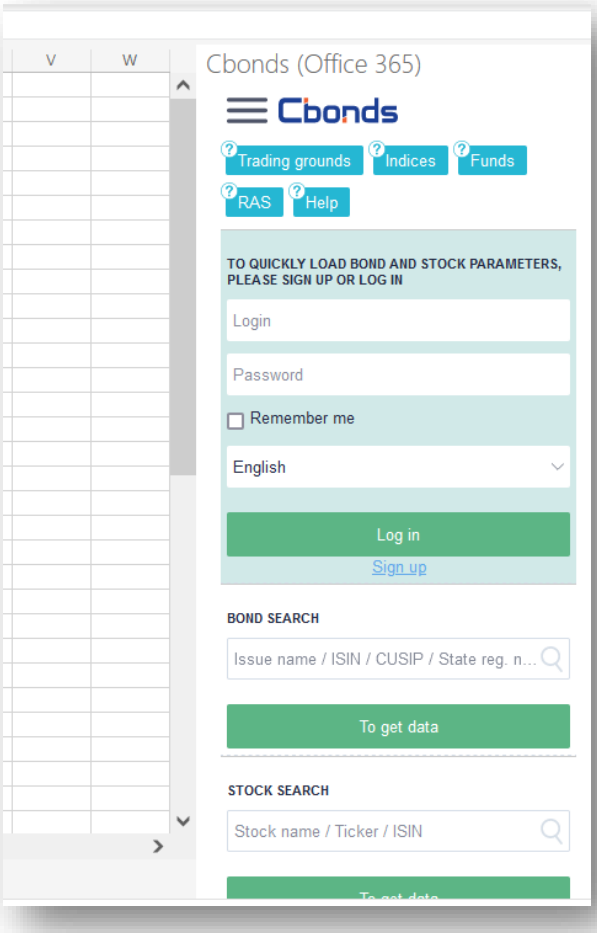


Fig. 2. Add-in main panel

Authorization and getting started

Use your username and password from the Cbonds websites or send an email to pro@cbonds.info to gain access

Fill the dialog box (Fig.3) by entering your email addresand password, and then select the customization language.

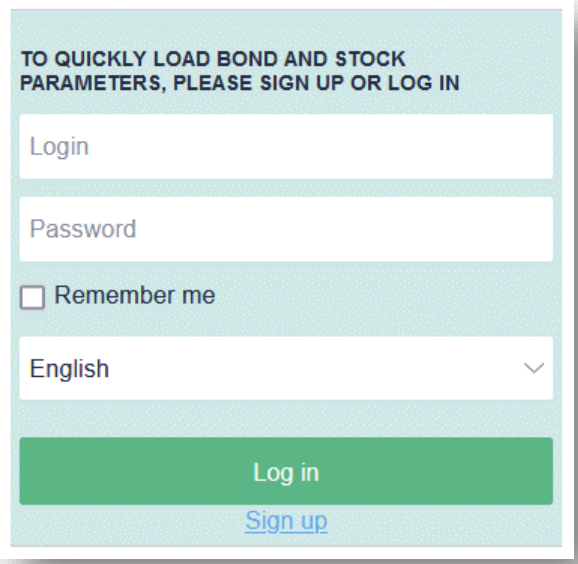


Fig. 3. The login window

The add-in uses the two-step authentication. Upon entering the data you will receive a confirmation code sent to the e-mail address you used to register on Cbonds.which can be changed on your User Profile on the Cbonds site. Enter the code in the pop-up box (Fig.4). The two-step authentication process only needs to be completed once on each device.

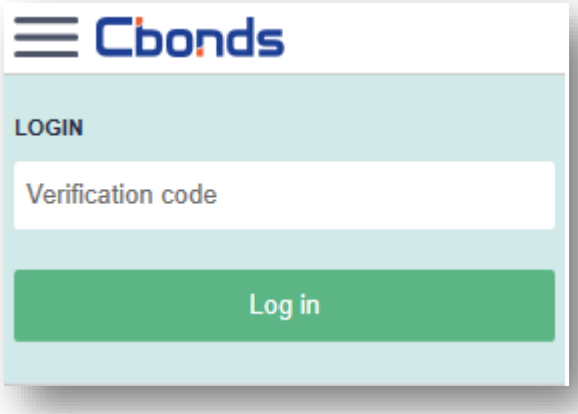


Fig. 4. The authentication confirmation box

User interface

After successfully authenticating you will be gain access to function buttons. Their description is represented in Table 1.

Table 1. Description of customization menu items

Menu item	Description
Issue information	Parameters, exchange quotes market participant quotes, issuance payments schedule
Stock information	Parameters of shares, information on trading and dividends
Indices and statistics	Current values of Cbonds indices, and stock market statistical data. Current archival values of indices. Depth available: daily indices - five years, monthly - ten years.
Financial reports	Accounting balance sheet, financial statements, IFRS indicators
Issue Quotes	All exchange quotes for a security for a given period. Limited to 2500 entries. Exchange market quotes for bonds for a given date. Quotes are available for the last 40 business days, Limited to 2500 entries.
Calendar	Information on archived and anticipated events. Limited to 2500 entries
Calculator	Calculation of yield by price expressed as a percentage of face value (excluding ACY)
Watchlist	Information on securities from the Watchlist
Bond maps	Bond quotes plotted onto a map
Saved queries	Access to bond searches previously saved. Limited to 2500 entries
New issues	Search for new issuances byregion, country, and types of securities for the last month. Limited to 2500 entries
Directory	Identifiers of trade platforms, indices, funds, RAS indicators in the Cbonds database and user's guide

A detailed description of the functionality is available in the chapter «Customization tool handling».

Using the add-in

Stock information

The menu item «Information about the share» reflects the statistical and dynamic parameters of a security.

In the corresponding field, enter an identifier (issuer name, ISIN, state registration number, CUSIP, etc.) and select the paper from the list provided (Fig. 5-6).

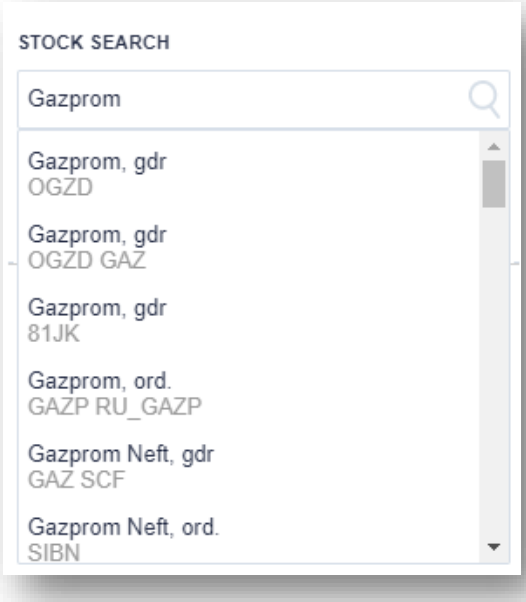


Fig.5. The selection of a share

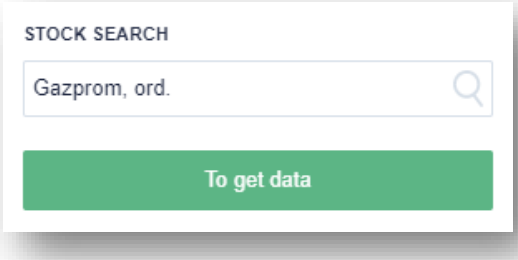


Fig.6. Share selected

The button *«Get data»* creates the CbondsStockPage sheet (Fig.7). If the sheet has already been created in the file it will be activated.

The data will be downloaded if you choose a security from the provided list.

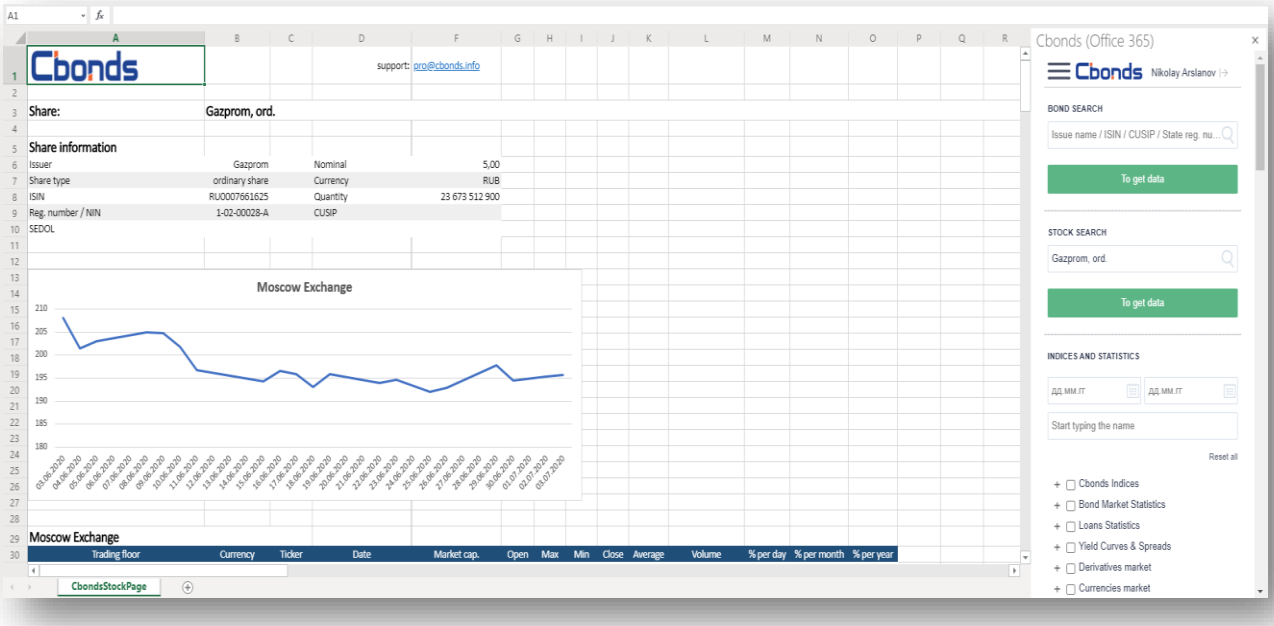


Fig. 7. The information sheet for Gazprom shares

Data in the sheet are grouped in blocks as follows:

- Information on the share;
- Trade curve for the last month;
- Information on the exchange trade;
- Dividends.

The complete list of fields shown in the sheet is provided in Appendix 1.

Bonds

Issue information

The menu item «Information on securities emission» reflects the main parameters available in the emission page on the Cbonds websites (for example https://cbonds.com/bonds/242/).

In the corresponding field, enter an identifier (issuer name, ISIN, state registration number, CUSIP, etc.) and select the paper from the list provided (Fig. 8-9).

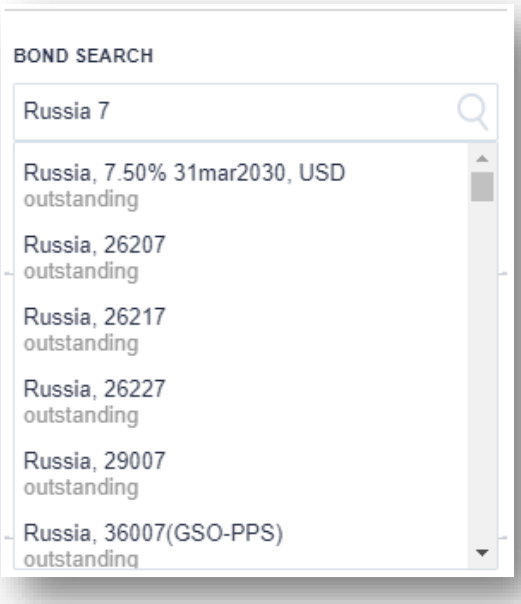


Fig. 8. The selection of an emission

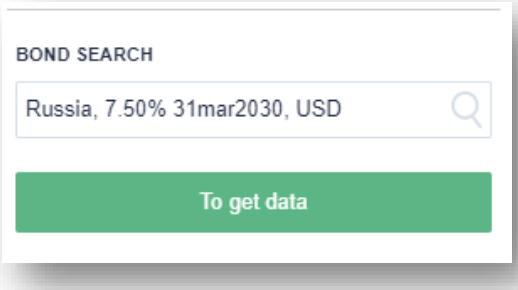


Fig. 9. Emission selected

The button *«Get data»* creates the CbondsIssuePage sheet (Fig.10). If the sheet has been already created in the file it will be activated.

The data will be downloaded if you choose a security from the provided list.

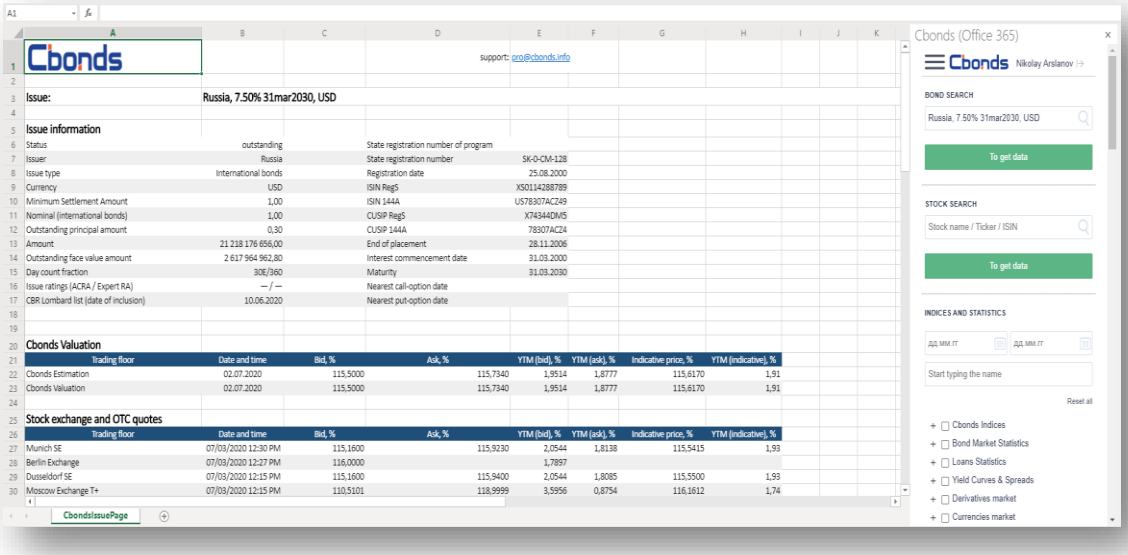


Fig. 10. Information sheet concerning securities issuance, Russia, 2030 on June 17, 2020.

Data in the sheet are grouped in blocks as follows:

- Securities emission information;
- Cbonds Valuation;
- Exchange and off-exchange quotes (end-of-day, delay);
- Market participant quotes;
- Payment Schedule.

The complete list of fields displayed in the sheet is provided in Appendix 2.

Events calendar

Calendar functionality provides information on all anticipated issuance events: placement, coupon and amortization payments, offer and redemption and default.

In the item of the main panel «Events calendar» (Fig. 11), you can set a filter by region and country, issuer, paper type, type of event and period. If a region is not selected, then events on emissions of issuers from all regions and countries will be displayed.

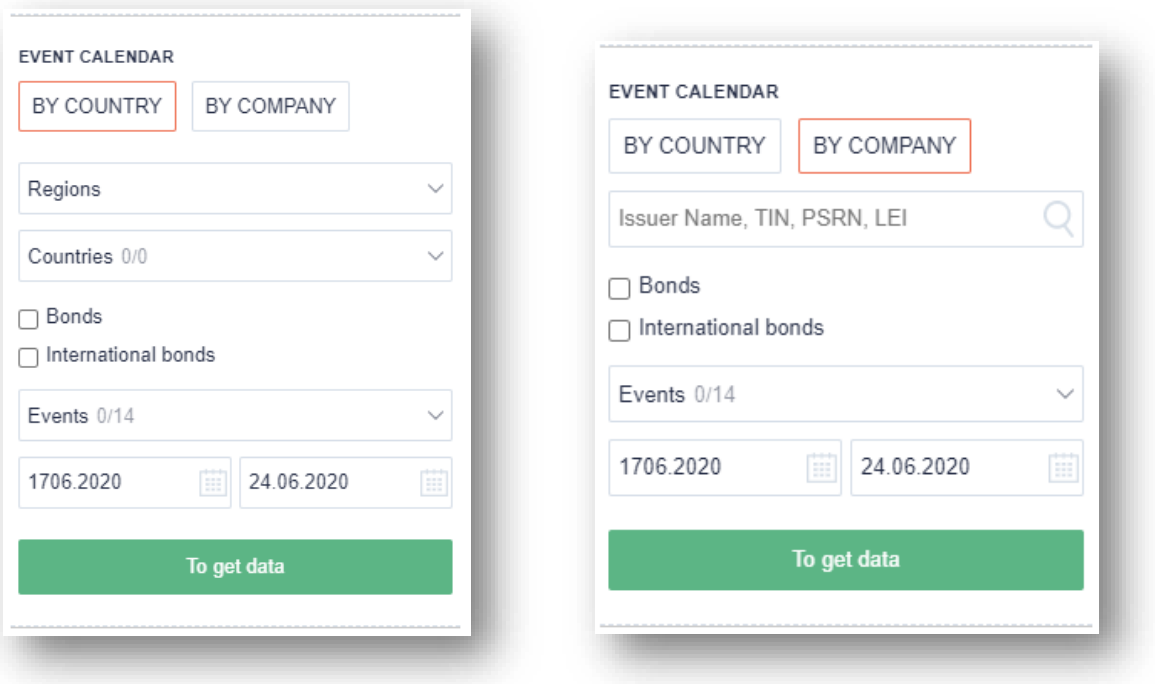


Fig. 11. The dialog box prompting you to select regions, countries and event types

The button *«Get data»* creates the CbondsCalendar sheet (Fig.12) to display data relevant to the filters chosen. If the sheet has already been created in the file it becomes active and updates.

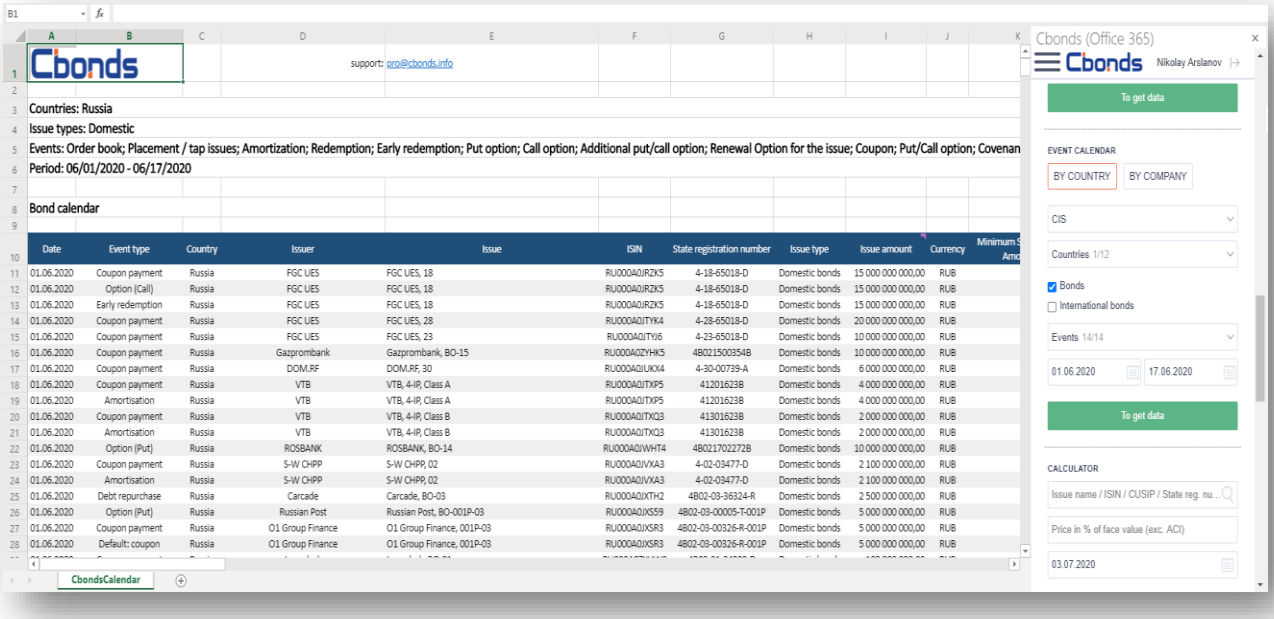


Fig. 12. The event schedule related to bonds emitted by Russian issuers for the period from June 1 through June 17, 2020.

The complete list of fields displayed in the sheet can be found in Appendix 3.

Saved queries

The functionality enables acquisition of results of saved requests concerning the search of securities emissions. User can add or delete requests in [Bond Search form at the website](#).

In the «Saved queries of bond search» on the main panel (Fig. 13) you can select bond searches which have been saved previously.

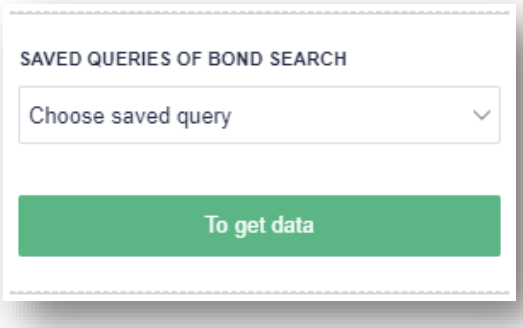


Fig. 13. The dialog to select a saved query

The button *«Get data»* creates the CbondsSavedQuery sheet (Fig.14) to display information relevant to the chosen filters. If the sheet has already been created in the file it becomes active and updates.

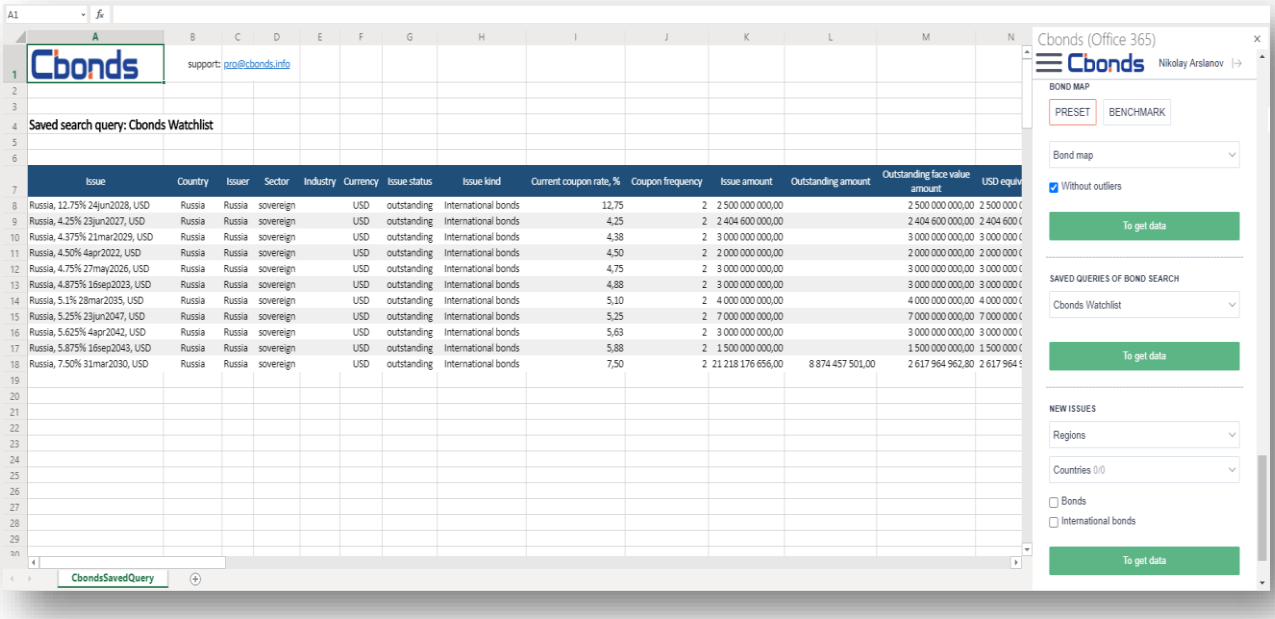


Fig. 14. Search result of a saved request

Use the queries you saved on the Cbonds website

The complete list of fields displayed in the sheet can be found in Appendix 4.

New issues

This function enables the acquisition of information regarding issuances placed during the last month.

In the «New issues» tab on the main panel (Fig. 15), you can set a filter by region, country and paper type. If no region is selected then new issues of issuers from all regions and countries will be displayed.

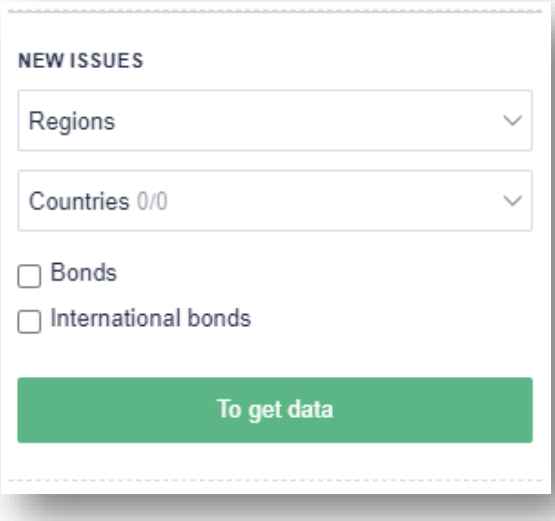


Fig. 15. The dialog box prompting you to select regions, countries and event types

The button *«Get data»* creates the CbondsNewIssues sheet (Fig.16) to display data relevant to the selected filters. If the sheet has been already created in the file it becomes active and updates.

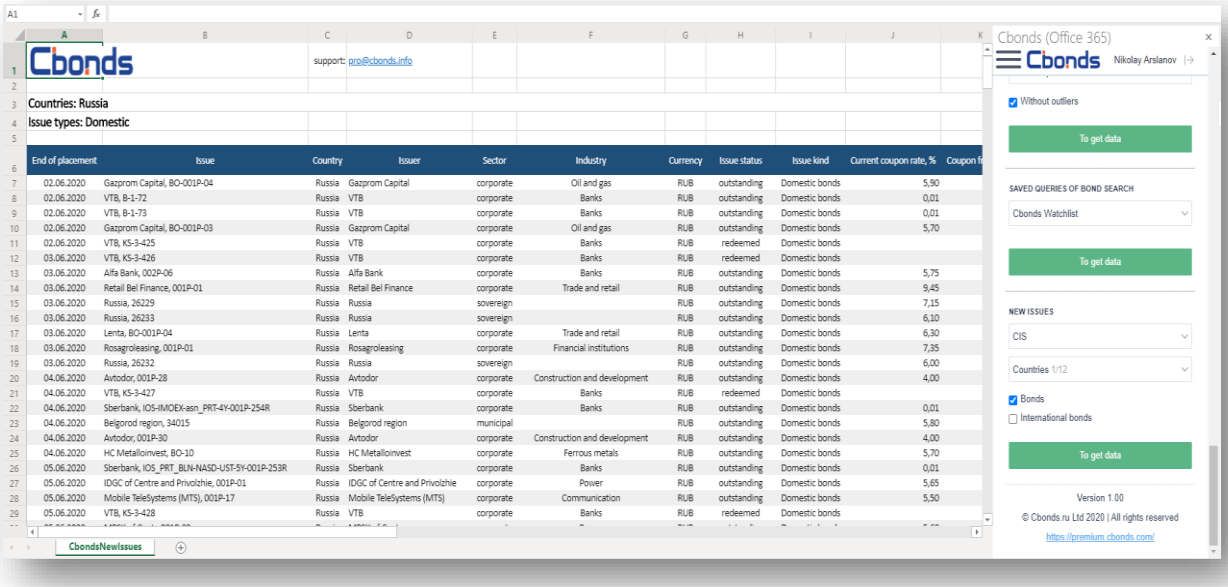


Fig. 16. New bond emissions made by Russian issuers for the period at July 3, 2020.

The complete list of fields displayed in the sheet can be found in Appendix 5.

Financial reports

This function provides RAS and IFRS reports.

In the «RAS and IFRS financial reporting» item of the main panel (Fig. 17) a specific issuer can be found by its name, TIN, OGRN, LEI as well as by the identifier of a security. The default period is set to the previous year.

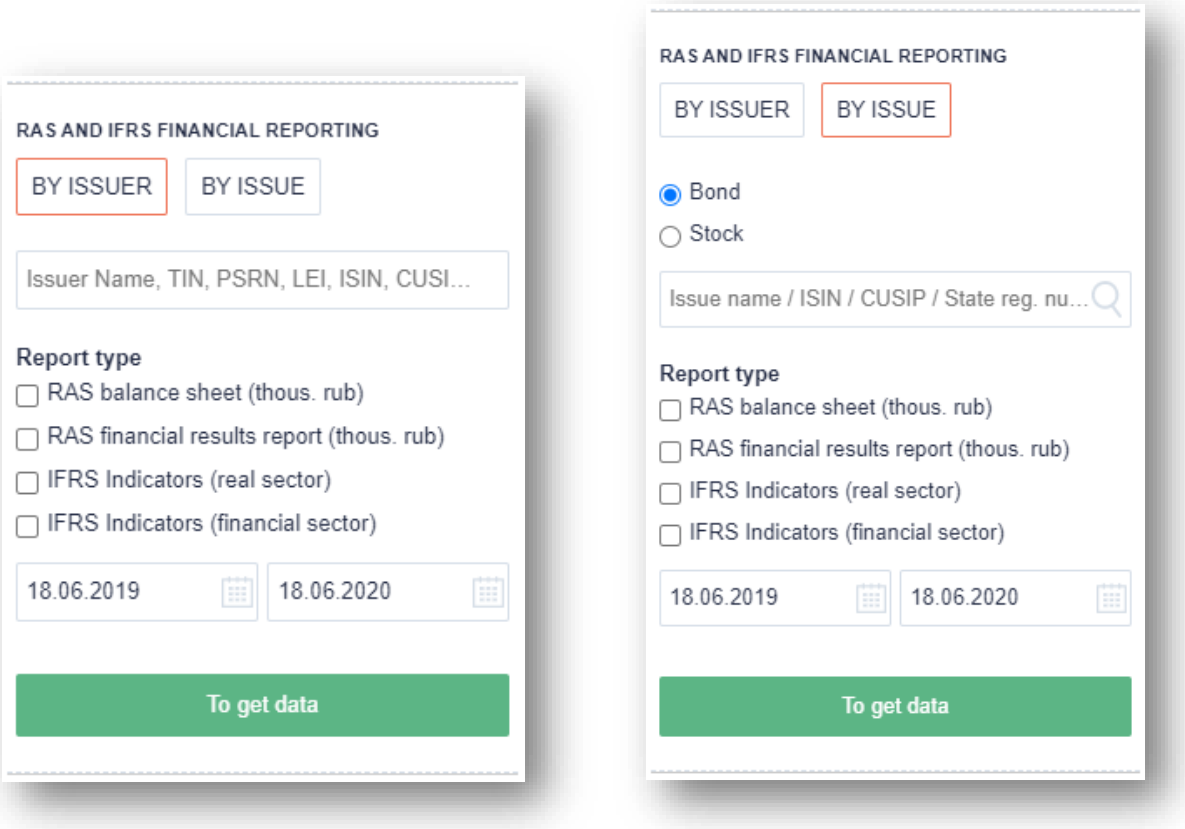
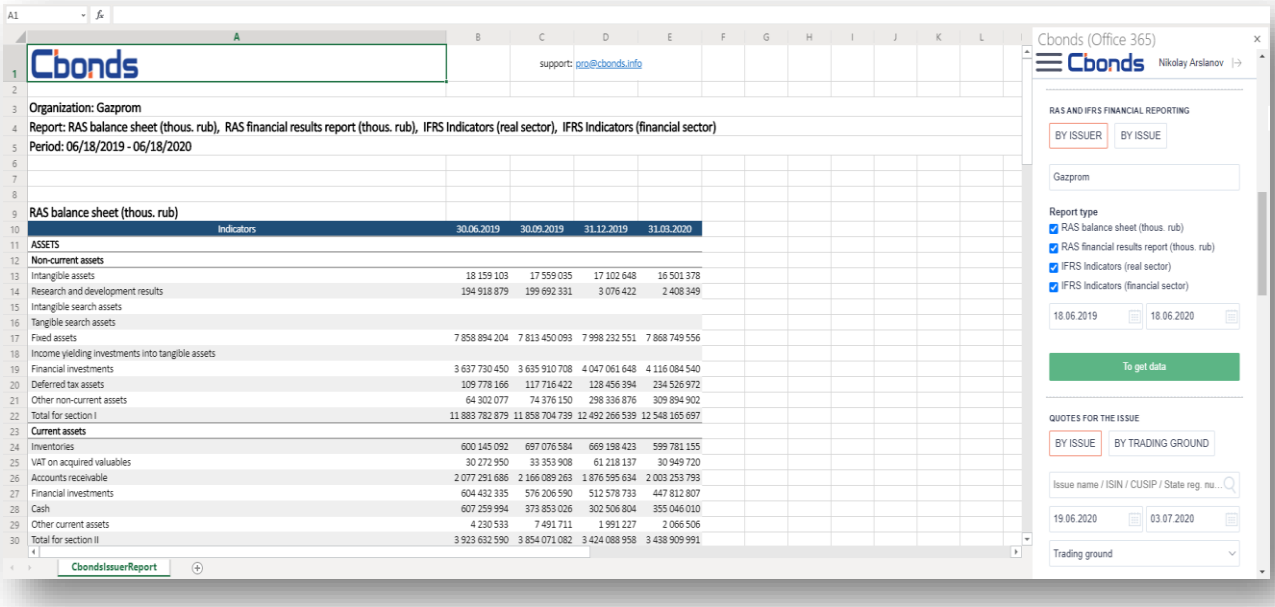


Fig. 17. The dialog box for the search of an organization and selection of a report type and a report period

The button *«Get data»* creates the CbondsIssuerReport sheet (Fig. 18) to display data relevant to the selected filters. If the sheet has already been created in the file it becomes active and updates.



Cbonds

support: pro@cbonds.info

Organization: Gazprom

Report: RAS balance sheet (thous. rub), RAS financial results report (thous. rub), IFRS Indicators (real sector), IFRS Indicators (financial sector)

Period: 06/18/2019 - 06/18/2020

RAS balance sheet (thous. rub)

Indicators	30.06.2019	30.09.2019	31.12.2019	31.03.2020
ASSETS				
Non-current assets				
Intangible assets	18 159 103	17 559 035	17 102 648	16 501 378
Research and development results	194 918 879	199 692 331	3 076 422	2 408 349
Intangible search assets				
Tangible search assets				
Fixed assets	7 858 894 204	7 813 450 093	7 998 232 551	7 868 749 556
Income yielding investments into tangible assets				
Financial investments	3 637 730 450	3 635 910 708	4 047 061 648	4 116 084 540
Deferred tax assets	109 778 166	117 716 422	128 456 394	234 526 972
Other non-current assets	64 302 077	74 376 150	298 336 876	309 894 902
Total for section I	11 883 782 879	11 858 704 739	12 492 266 539	12 548 165 697
Current assets				
Inventories	600 145 092	697 076 584	669 198 423	599 781 155
VAT on acquired valuables	30 272 950	33 353 908	61 218 137	30 949 720
Accounts receivable	2 077 291 686	2 166 089 263	1 876 595 634	2 003 253 793
Financial investments	604 432 335	576 206 590	512 578 733	447 812 807
Cash	607 259 994	373 853 026	302 506 804	355 046 010
Other current assets	4 230 533	7 491 711	1 991 227	2 066 506
Total for section II	3 923 632 590	3 854 071 082	3 424 088 958	3 438 909 991

CbondsIssuerReport

Fig. 18. Financial reports of Gazprom for the period from June 18, 2019 to June 18, 2020.

The complete list of fields displayed in the sheet can be found in Appendix 6.

Quotes for the issue

The group «Quotes for the issue» represents the exchange quotes data available at the end-of-the-day, as well as data on the trade turnover and quantity of transactions made.

Bond Quotes for a specific period

In the «Quotes for the issue» item of the main panel, on the tab «BY ISSUE» (Fig. 19) enter the identifier of a security (issuer name, ISIN, state registration number, CUSIP, etc.) and the time period (the last two weeks are initially set by default). If you are interested in quotes for a particular exchange, you have to activate the relevant element of the drop-down list by clicking the respective checkbox.

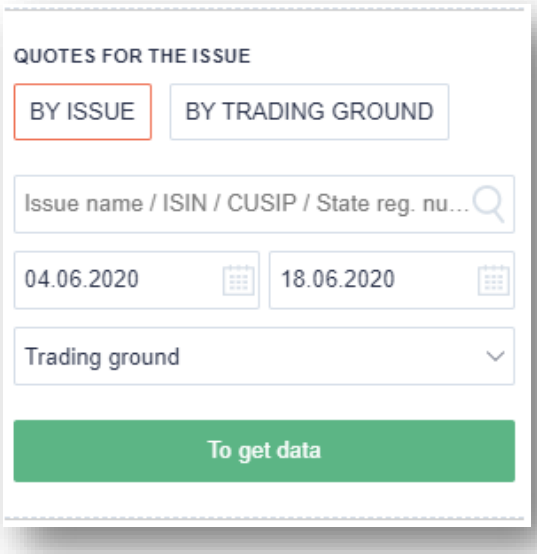
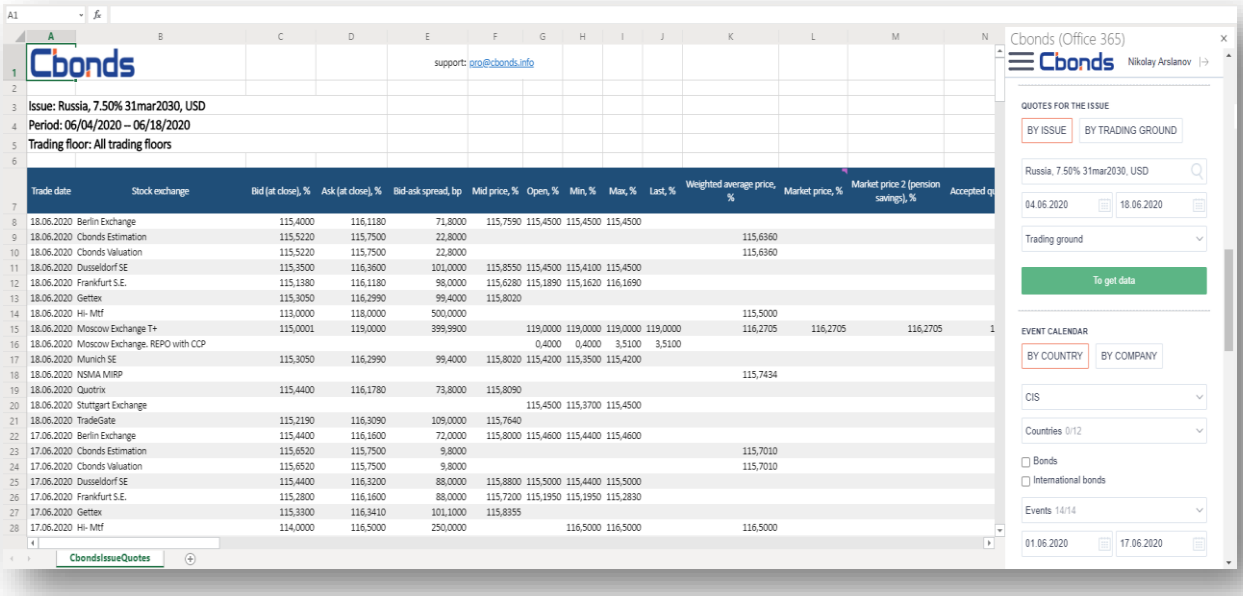


Fig. 19. The dialog box for selecting anissue and time period

The button *«Get data»* creates the CbondsIssueQuotes sheet (Fig. 20). If the sheet has been already created in the file it becomes active.

The information will be downloaded if you choose a security from the list which will appear.



Cbonds

support: pro@cbonds.info

Issue: Russia, 7.50% 31mar2030, USD

Period: 06/04/2020 – 06/18/2020

Trading floor: All trading floors

Trade date	Stock exchange	Bid (at close), %	Ask (at close), %	Bid-ask spread, bp	Mid price, %	Open, %	Min, %	Max, %	Last, %	Weighted average price, %	Market price, %	Market price 2 (pension savings), %	Accepted q
18.06.2020	Berlin Exchange	115,4000	116,1180	71,8000	115,7590	115,4500	115,4500	115,4500					
18.06.2020	Cbonds Estimation	115,5220	115,7500	22,8000						115,6360			
18.06.2020	Cbonds Valuation	115,5220	115,7500	22,8000						115,6360			
18.06.2020	Dusseldorf SE	115,3500	116,3600	101,0000	115,8550	115,4500	115,4100	115,4500					
18.06.2020	Frankfurt S.E.	115,1380	116,1180	98,0000	115,6280	115,1890	115,1620	116,1690					
18.06.2020	Gettex	115,3050	116,2990	99,4000	115,8020								
18.06.2020	Hi- Mtf	113,0000	118,0000	500,0000						115,5000			
18.06.2020	Moscow Exchange T+	115,0001	119,0000	399,9900		119,0000	119,0000	119,0000	119,0000	116,2705	116,2705	116,2705	1
18.06.2020	Moscow Exchange. REPO with CCP					0,4000	0,4000	3,5100	3,5100				
18.06.2020	Munich SE	115,3050	116,2990	99,4000	115,8020	115,4200	115,3500	115,4200					
18.06.2020	NSMA MIRP									115,7434			
18.06.2020	Quotrix	115,4400	116,1780	73,8000	115,8090								
18.06.2020	Stuttgart Exchange					115,4500	115,3700	115,4500					
18.06.2020	TradeGate	115,2190	116,3090	109,0000	115,7640								
17.06.2020	Berlin Exchange	115,4400	116,1600	72,0000	115,8000	115,4600	115,4400	115,4600					
17.06.2020	Cbonds Estimation	115,6520	115,7500	9,8000						115,7010			
17.06.2020	Cbonds Valuation	115,6520	115,7500	9,8000						115,7010			
17.06.2020	Dusseldorf SE	115,4400	116,3200	88,0000	115,8800	115,5000	115,4400	115,5000					
17.06.2020	Frankfurt S.E.	115,2800	116,1600	88,0000	115,7200	115,1950	115,1950	115,2830					
17.06.2020	Gettex	115,3300	116,3410	101,1000	115,8355								
17.06.2020	Hi- Mtf	114,0000	116,5000	250,0000			116,5000	116,5000		116,5000			

CbondsIssueQuotes

Fig. 20. Quotes for the issue Russia, 7.50% 31mar2030, USD for the period from June 4 through June 18, 2020.

No limits for period selection

The complete list of fields shown in the sheet is provided in Appendix 7.

Quotes by stock exchange for agiven date

In the «Quotes for the issue» item of the main panel select a trading platform on the tab «BY TRADING GROUND» (Fig. 21) and a date (date of the previous day is chosen by default).

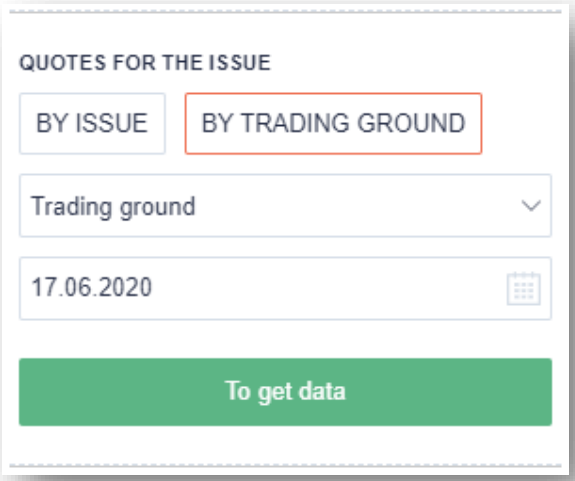


Fig. 21. The dialog box for selecting a stock exchange and a date

The button *«Get data»* creates the CbondsTFQuotes sheet (Fig.22). If the sheet has been already created in the file it will be activated and updated.

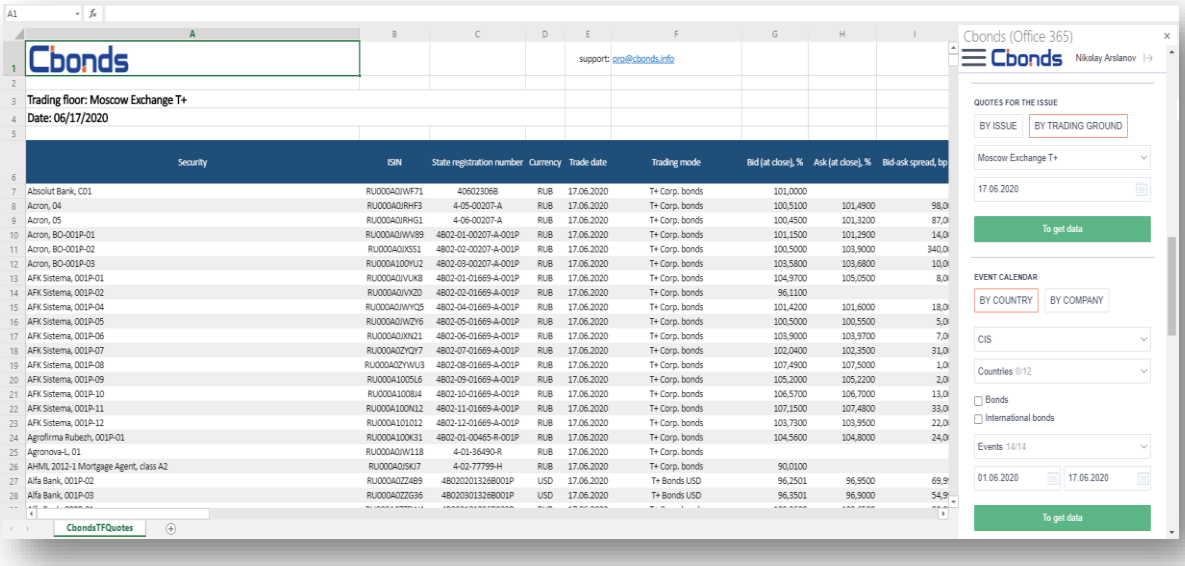


Fig. 22. Quotes for MOEX T+ as of June 17, 2020.

You can view up to 2500 exchange quotes at once

The complete list of fields shown in the sheet is provided in Appendix 7.

Watchlist

You can use the Watchlist for to track and monitor data related to selected issuances The list of securities and stock exchanges can be customized on the Cbonds websites (e.g., https://cbonds.com/watchlist/).

In the «Watchlist» (Fig. 23) item on the main panel you can obtain quotes from trading platforms, from all suppliers, as well as obtain data on anticipated eventsand create a market map.

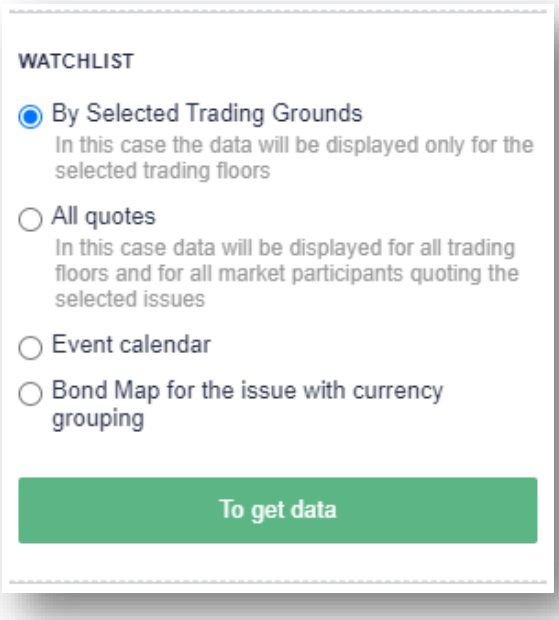


Fig. 23. The dialog box of the menu item «Watchlist»

Select «By chosen trading platforms» in the dialog box and press the button *«get data»* to create CbondsWatchlist sheet (Fig.24). If the sheet has been already created in the file it will be activated and updated.

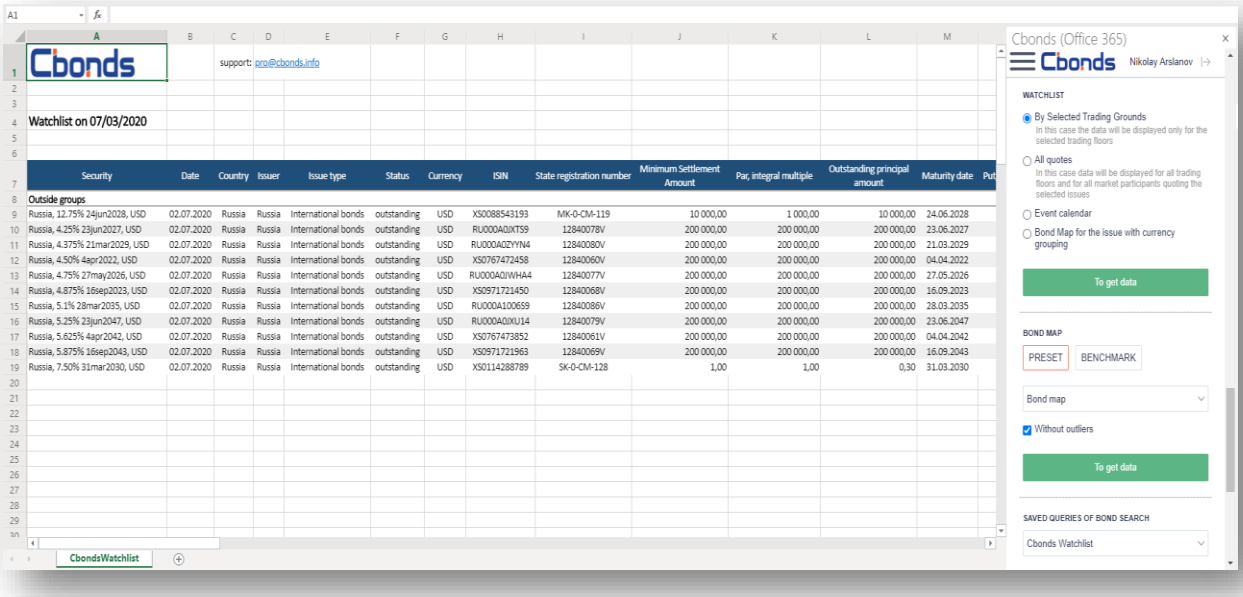
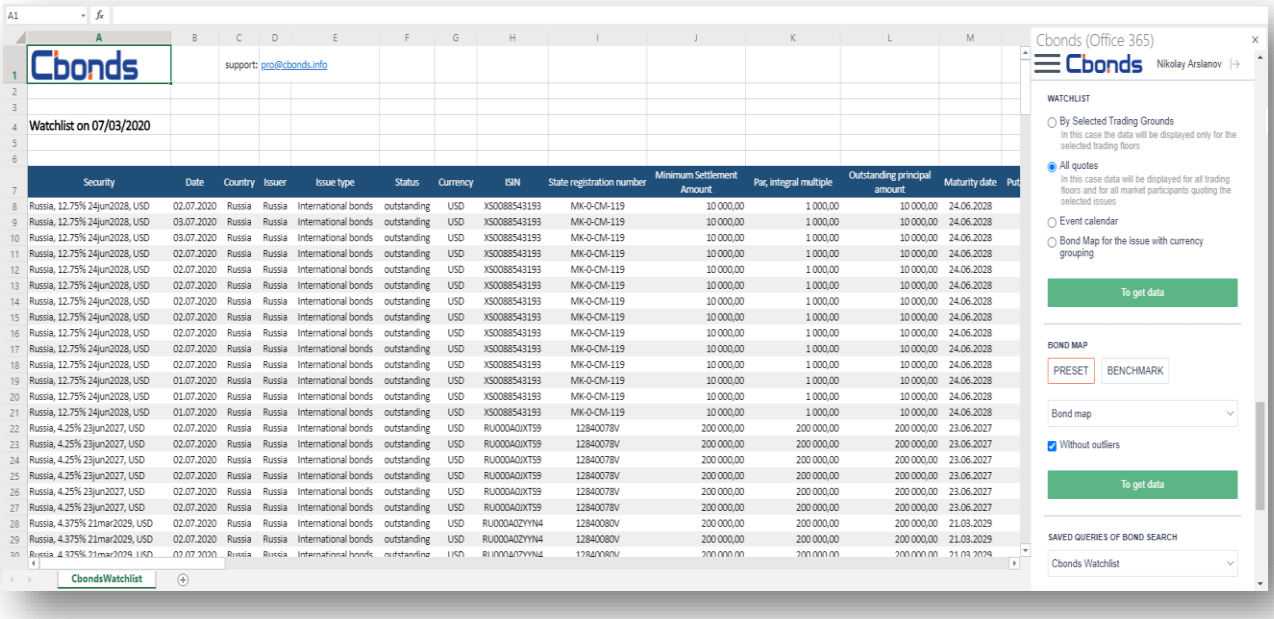


Fig. 24. An example of Watchlist with grouping as at July 3, 2020.

Select the item «All quotes» in the dialog box and press the *«get data»* button to create a CbondsWatchlist sheet (Fig.25). Unlike the previous item, this case is characterized by the appearance of a column with the supplier type and by nogrouping: security emissions will be sorted according to names. If the sheet has been already created in the file it will be activated and updated.



support: pro@cbonds.info

Watchlist on 07/03/2020

Security	Date	Country	Issuer	Issue type	Status	Currency	ISIN	State registration number	Minimum Settlement Amount	Par, integral multiple	Outstanding principal amount	Maturity date	Put
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	03.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	03.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	01.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	01.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 12.75% 24jun2028, USD	01.07.2020	Russia	Russia	International bonds	outstanding	USD	XS0088543193	MK-0-CM-119	10 000,00	1 000,00	10 000,00	24.06.2028	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.25% 23jun2027, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0JXTS9	12840078V	200 000,00	200 000,00	200 000,00	23.06.2027	
Russia, 4.375% 21mar2029, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0ZYYN4	12840080V	200 000,00	200 000,00	200 000,00	21.03.2029	
Russia, 4.375% 21mar2029, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0ZYYN4	12840080V	200 000,00	200 000,00	200 000,00	21.03.2029	
Russia, 4.375% 21mar2029, USD	02.07.2020	Russia	Russia	International bonds	outstanding	USD	RU000A0ZYYN4	12840080V	200 000,00	200 000,00	200 000,00	21.03.2029	

WATCHLIST

○ By Selected Trading Grounds
In this case the data will be displayed only for the selected trading floors

● All quotes
In this case data will be displayed for all trading floors and for all market participants quoting the selected issues

○ Event calendar

○ Bond Map for the issue with currency grouping

BOND MAP

Bond map

☑ Without outliers

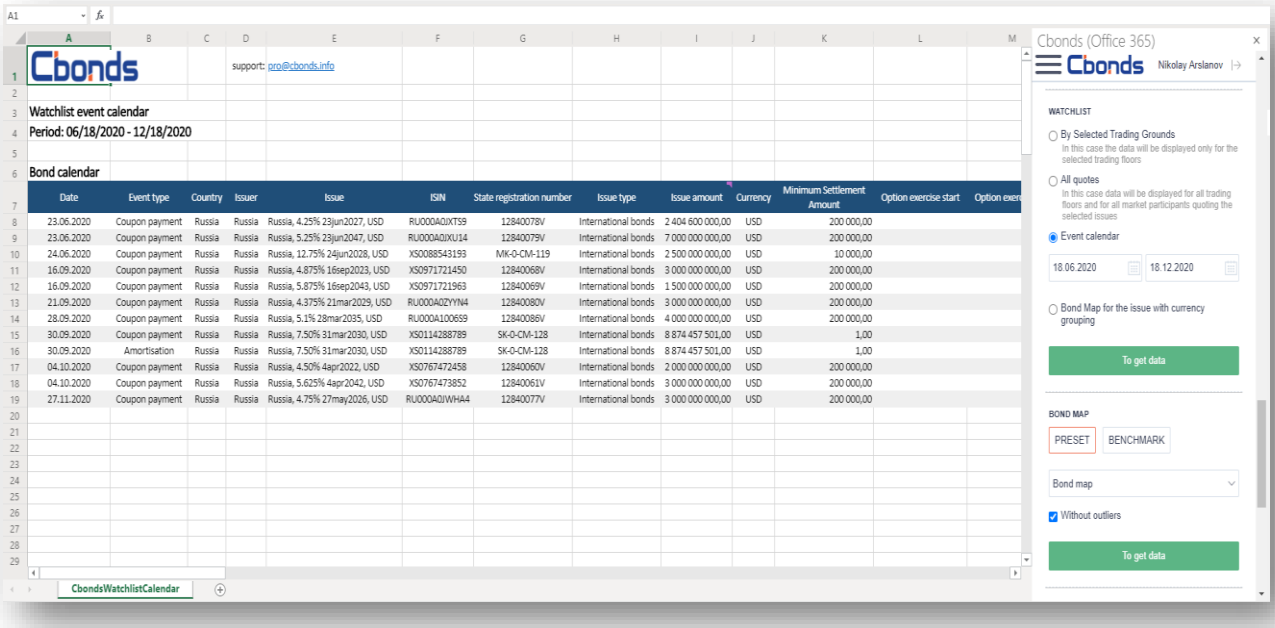
SAVED QUERIES OF BOND SEARCH

Cbonds Watchlist

Fig. 25. An example of a Watchlist with quotes from all suppliers as of July 3, 2020.

The list of fields displayed in the CbondsWatchlist sheet is available in Appendix 8.

Select the item «Event calendar» in the dialog box and click the button *«get data»* to create a CbondsWatchlist sheet (Fig.26). The default time period is the next six months. If the sheet has been already created in the file it will be activated and updated.



Cbonds

support: pro@cbonds.info

Watchlist event calendar

Period: 06/18/2020 - 12/18/2020

Bond calendar

Date	Event type	Country	Issuer	Issue	ISIN	State registration number	Issue type	Issue amount	Currency	Minimum Settlement Amount	Option exercise start	Option exer
23.06.2020	Coupon payment	Russia	Russia	Russia, 4.25% 23jun2027, USD	RU000A0JXTS9	12840078V	International bonds	2 404 600 000,00	USD	200 000,00		
23.06.2020	Coupon payment	Russia	Russia	Russia, 5.25% 23jun2047, USD	RU000A0JXU14	12840079V	International bonds	7 000 000 000,00	USD	200 000,00		
24.06.2020	Coupon payment	Russia	Russia	Russia, 12.75% 24jun2028, USD	XS0088543193	MK-0-CM-119	International bonds	2 500 000 000,00	USD	10 000,00		
16.09.2020	Coupon payment	Russia	Russia	Russia, 4.875% 16sep2023, USD	XS0971721450	12840068V	International bonds	3 000 000 000,00	USD	200 000,00		
16.09.2020	Coupon payment	Russia	Russia	Russia, 5.875% 16sep2043, USD	XS0971721963	12840069V	International bonds	1 500 000 000,00	USD	200 000,00		
21.09.2020	Coupon payment	Russia	Russia	Russia, 4.375% 21mar2029, USD	RU000A0ZYYN4	12840080V	International bonds	3 000 000 000,00	USD	200 000,00		
28.09.2020	Coupon payment	Russia	Russia	Russia, 5.1% 28mar2035, USD	RU000A100659	12840086V	International bonds	4 000 000 000,00	USD	200 000,00		
30.09.2020	Coupon payment	Russia	Russia	Russia, 7.50% 31mar2030, USD	XS0114288789	SK-0-CM-128	International bonds	8 874 457 501,00	USD	1,00		
30.09.2020	Amortisation	Russia	Russia	Russia, 7.50% 31mar2030, USD	XS0114288789	SK-0-CM-128	International bonds	8 874 457 501,00	USD	1,00		
04.10.2020	Coupon payment	Russia	Russia	Russia, 4.50% 4apr2022, USD	XS0767472458	12840060V	International bonds	2 000 000 000,00	USD	200 000,00		
04.10.2020	Coupon payment	Russia	Russia	Russia, 5.625% 4apr2042, USD	XS0767473852	12840061V	International bonds	3 000 000 000,00	USD	200 000,00		
27.11.2020	Coupon payment	Russia	Russia	Russia, 4.75% 27may2026, USD	RU000A0JWHA4	12840077V	International bonds	3 000 000 000,00	USD	200 000,00		

CbondsWatchlistCalendar

Рис. 26. An example of the event schedule for securities from Watchlist for the period from June 18, 2020 to December 18, 2020.

Select the item «Bond Map for the issue with currency grouping» on the dialog box and click the button *«get data»* to create a CbondsWatchlistMap sheet (Fig. 27). The sheet demonstrates the yield curve against duration, security emissions are grouped by currency. The default setting assumes exclusion of releases[1]. If the sheet has been already created in the file it will be activated and updated.

[1] For the purposes of bond maps, releases mean all quotes falling within the upper and lower five-percent quintile provided that the difference between the maximum and the minimum yield is over 50%.

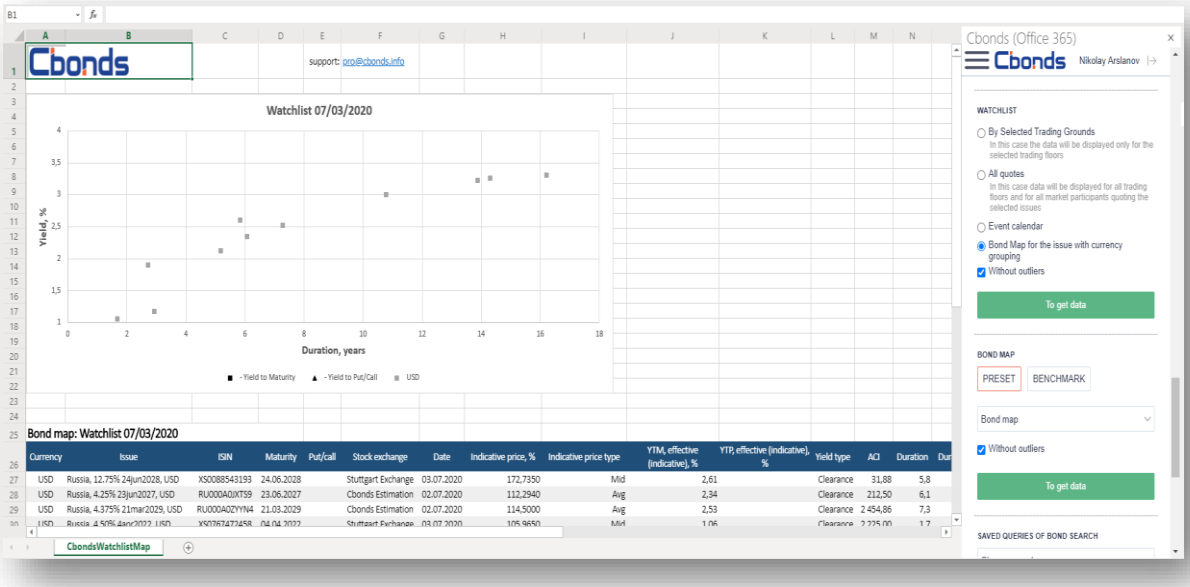


Fig. 27. An example of the bond map for securities from the Watchlist as at July 3, 2020 without releases

Calculator

The calculator allows calculation of simple and effective yield, duration, accrued coupon interest, spreads etc.

In the «Calculator» item on the main panel (Fig. 28) enter the identifier, price, and date (yesterday's date is set by default).

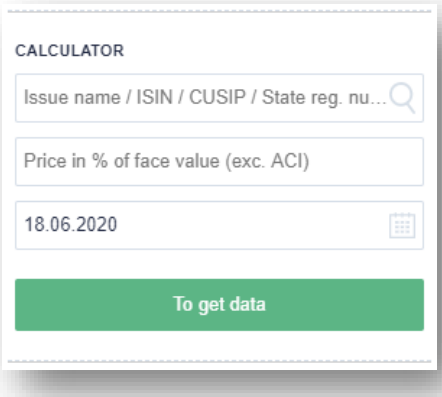


Fig. 28. The calculator dialog box with indication of the price and date

The button *«get data»* creates the CbondsCalculator sheet (Fig.29). If the sheet has been already created in the file it will be activated and updated.

The information will be downloaded if you choose a security from the provided list.

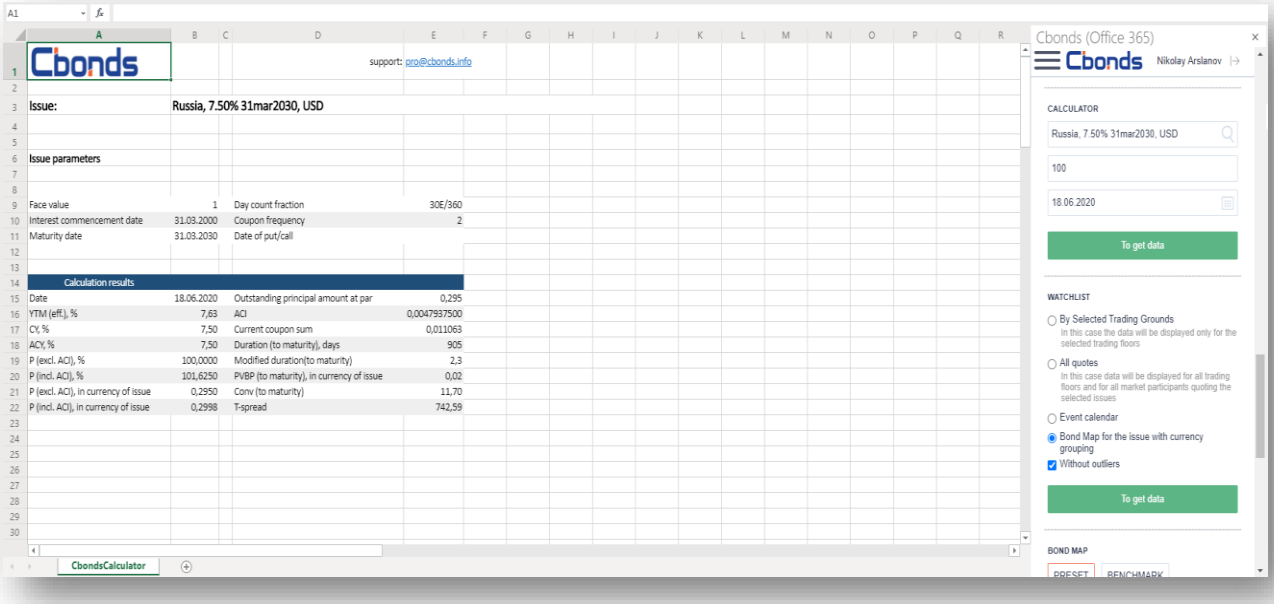


Fig. 29. Calculator: calculation results

The complete list of fields shown in the sheet is available in Appendix 9.

Bond maps

Bond maps enable a graphical representation of emitted securities which are being traded. The curve is plotted as profitability against duration what makes it possible to operatively consider the current situation in the global stock market and euro-bond markets in a particular region, county, sector or industry.

In the «Bonds map» item of the main panel, on the «Preset» tab (Fig. 30) you can select a preset market map.

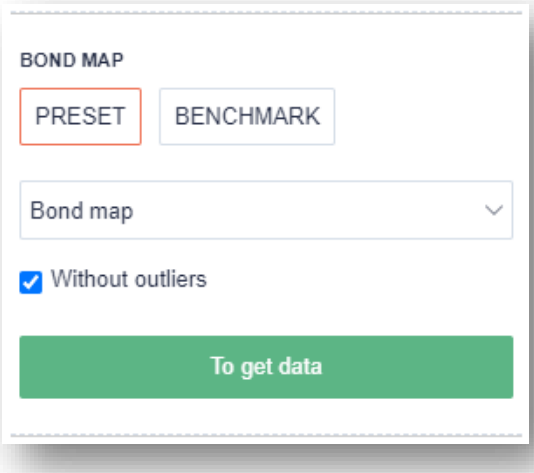


Fig. 30. The dialog box «Market Maps - Preset»

The *«get data»* button creates a CbondsMap with quotes and a curve (Fig.31).). If the sheet has been already created in the file it will be activated and updated.

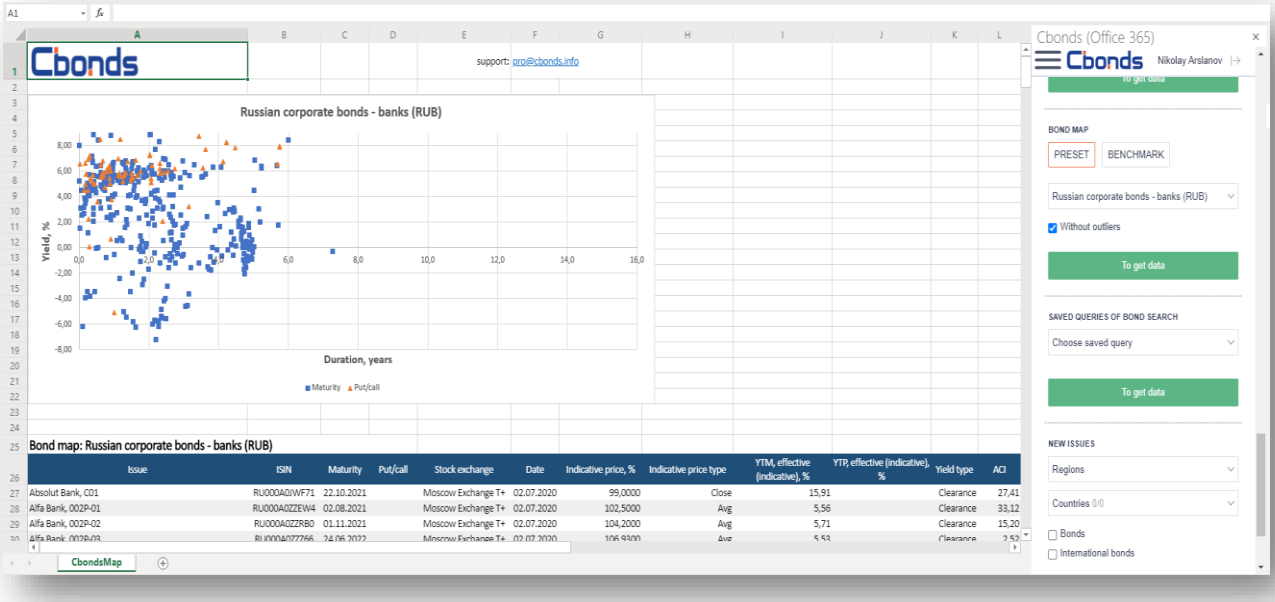


Fig. 31. The stock market map of Russian banks as of July 3, 2020.

The list of maps displayed in the list is available in Appendix 10.

In the «Bonds map» item on the main panel open the tab «Benchmark», select a benchmark and then choose a date (Fig. 32).

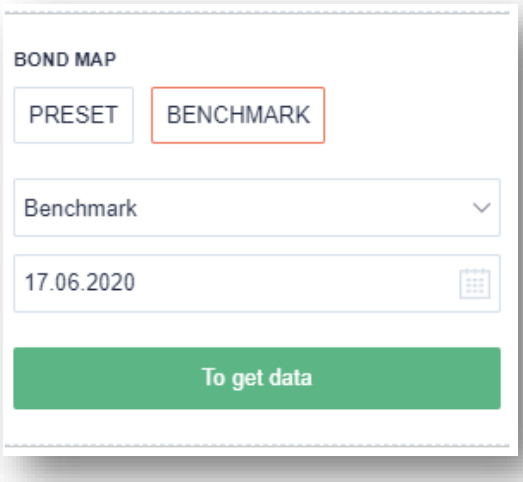


Fig. 32. The dialog box «Market Maps - Benchmark»

The button «*get data*» creates a CbondsBenchmark sheet (Fig.33). If the sheet has been already created in the file it will be activated and updated.

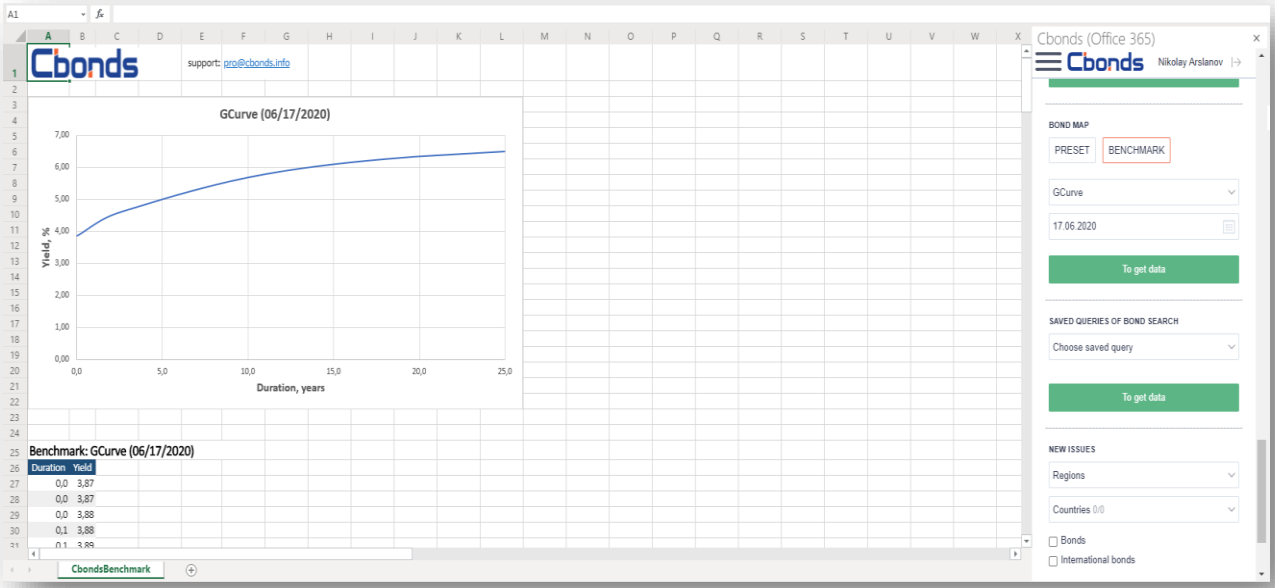


Fig. 33. The GCurve graph on June 17, 2020.

Indices and statistics

Current values of indices

In the «Indices and statistics» item on the main panel (Fig. 34), select the desired index groups using the index tree.

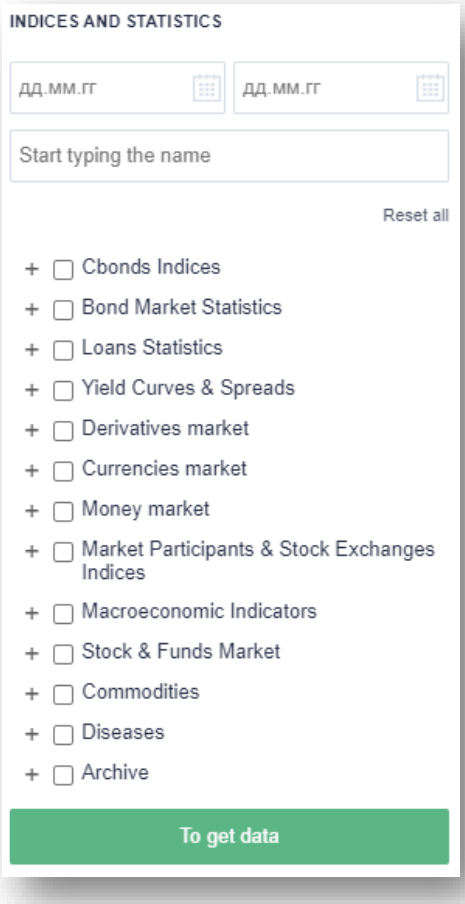


Fig. 34. The dialog box with the index tree

In order to view current index values, **leave the date fields blank**

The button «*get data*» creates the CbondsIndices sheet (Fig. 35) containing current values. If the sheet has been already created in the file it will be activated.

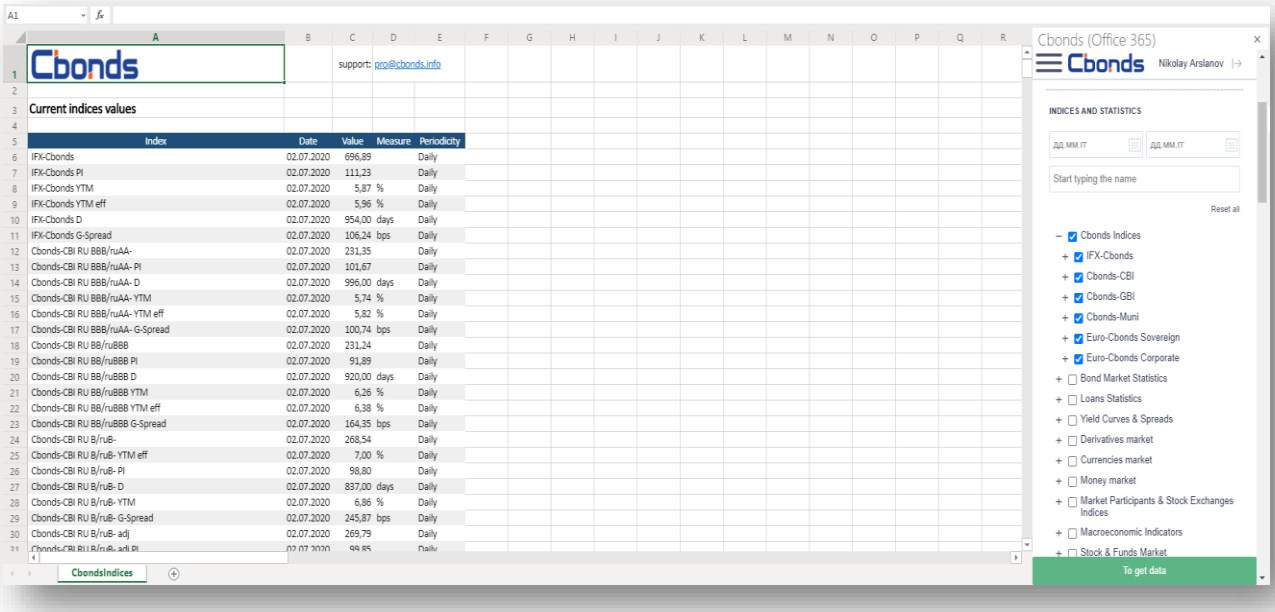


Fig. 35. Current index values

Index archive

In the «Indices and statistics» item of the main panel (Fig. 36) specify the time period and select an index using the index tree.

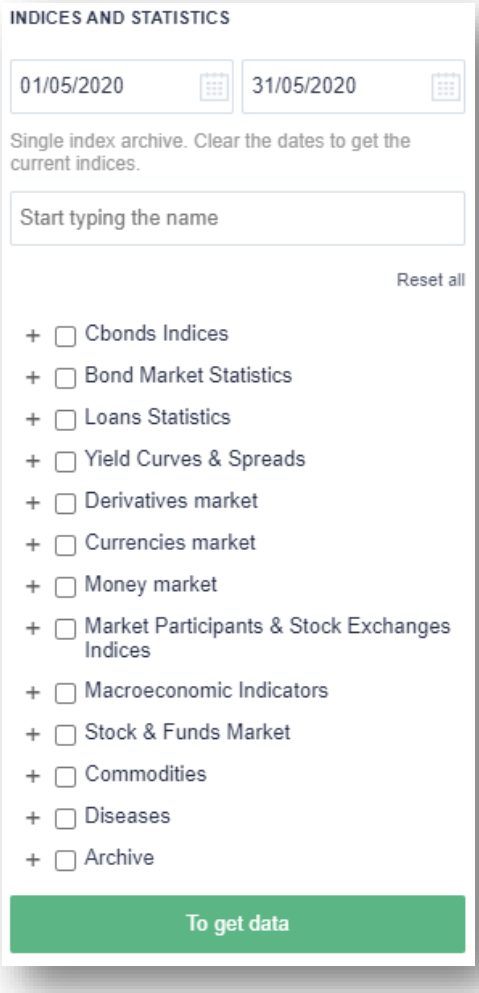


Fig. 36. The dialog box with the index tree and time period selection

In order to view the archive by index **specify date range in the entry fields**

The button «*get data*» creates the CbondsIndexArchive sheet (Fig. 37) containing the archive values of index. If the sheet has been already created in the file it will be activated.

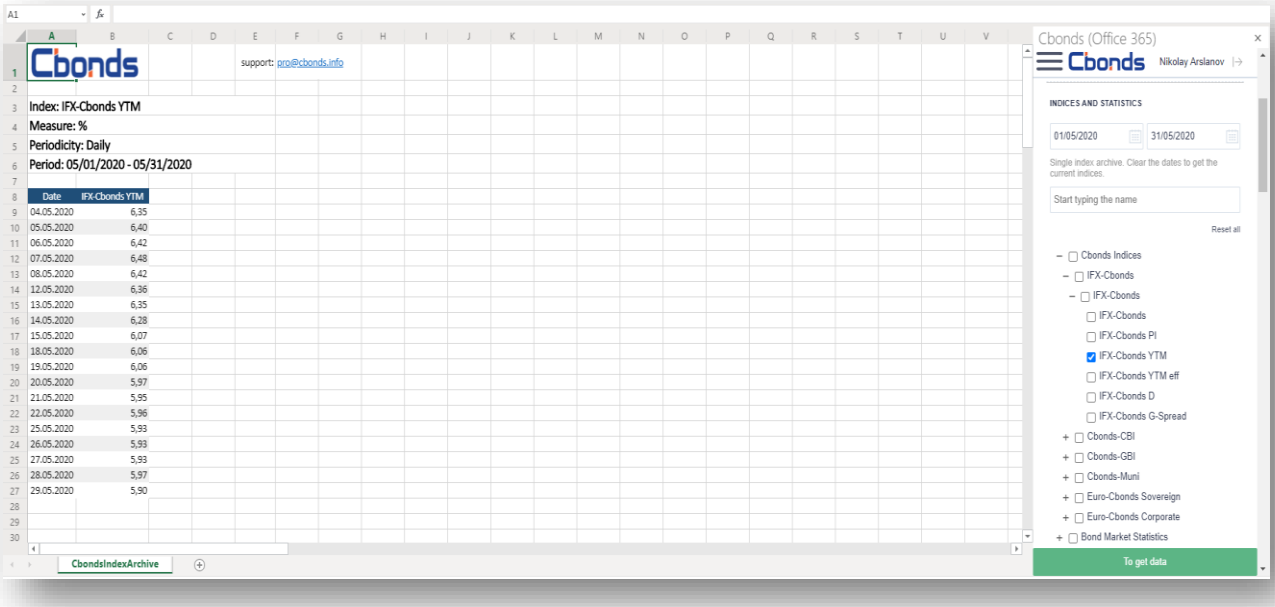


Fig. 37. Values of IFX-Cbonds YTM for the period from May 1 through May 31 2020.

You can obtain archive data for any of the 10,000 indices:
five years – for daily indices,
ten years – for monthly indices.

Cbonds functions

The Cbonds functions enable access to Cbonds data on bonds, stocks, funds, indices and trade results.

To see the list of available functions within Windows OS, the user has to open the function master and to select the category «Cbonds functions» (Fig.38).

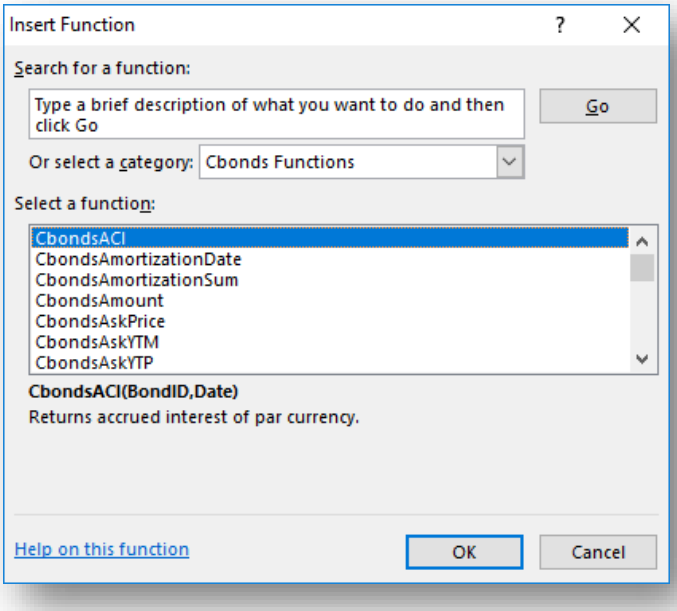


Fig. 38. The function master box on Windows OS

To see the list of available functions on Mac OS the user has to open the function master and to select the category «Cbonds functions» (Fig.39).

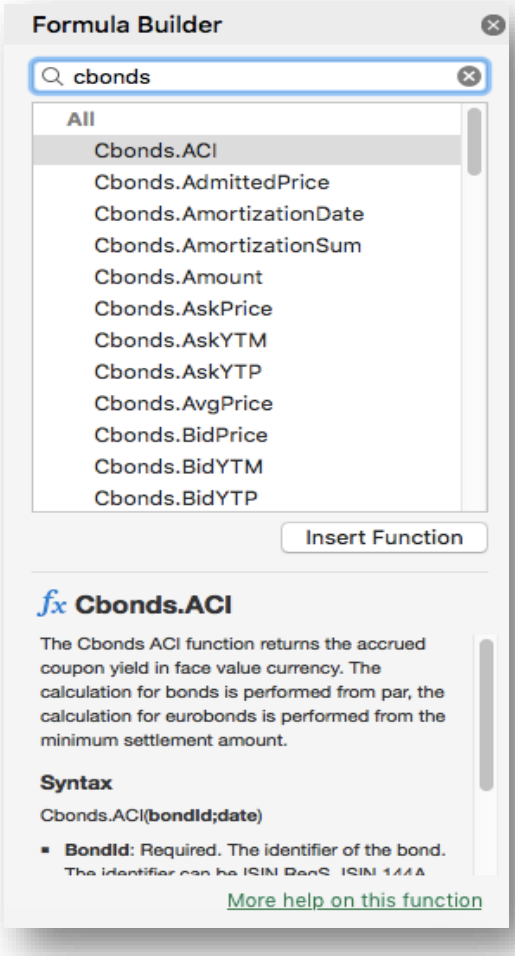
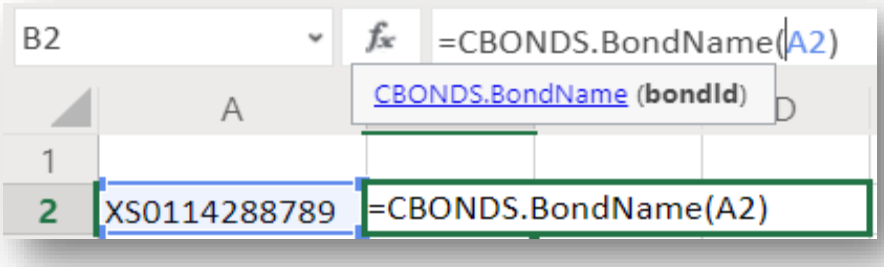


Fig. 39. The function master box on Mac OS

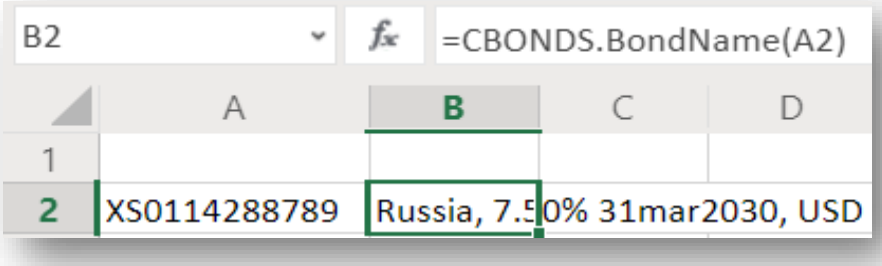
The list of functions with their concise description is presented in Appendix 11.

The difference between the syntax of the add-in functions for Office 365 and the syntax of functions in an add-in for the standard MS Excel is the separator (dot) after the word Cbonds. For example,
In add-in for MS Excel – CbondsACI
In add-in for Office 365 – Cbonds.ACI

The functions operation is demonstrated on the example of the function Cbonds.BondName (Fig. 40). An authorized user completes the field B2 with a function and refers to the identifier of a security from the field A2 (a) to view the result (b).



(a)



(b)

Fig. 40. Getting the name of an emission using the function Cbonds.BondName: entering the formula (a) and obtaining the result (b)

Some functions employ trade platform identifiers, indices, funds, and the Cbonds database, which are available in Appendix 12.

Error messages

The list of possible warning messages and the actions necessary toto rectify them.

Table 3. Possible warnings while working on spreadsheets

Message	Action
The item of securities has been not found in the Cbonds database	Double-check the identification code you've entered
Please specify search options	The data entered covers a large list of securities. Please narrow your search
Please choose a single index	Archive can be obtained only by one index. Please check that only one index is selected
Invalid period is specified	Please make sure that the date period is set from shorter to longer
No data relevant to your request has been found	If the transferred parameters don't contradict to each other (for example, period end is earlier than the period start) and to the type of variables (text is entered instead of a date), please email to pro@cbonds.info with the note «Cbonds Add-in: checking request»

The following function-related messages can appear in the fields (Table 4).

Table 4. Warnings related to functions

Message	Action
Cbonds authorization is requires	Authorize
Server is not responding	Server did not reply on the set limit. If error occurs regularly, please email to pro@cbonds.info with the note «Cbonds Add-in: error when receiving data using a funcion»

timeout of 0ms exceeded	The queue to execute the function has exceeded the specified time. Please recount the function in this cell.

Appendices

Appendix 1. List of fields on CbondsStockPage

Stock information block:

- Issuer
- Share type
- Nominal
- Currency
- ISIN
- Reg. number / NIN
- CUSIP
- SEDOL

Trading information block:

- Trading floor
- Currency
- Ticker
- Date
- Market cap.
- Open
- Max
- Min
- Close
- Average
- Volume
- % per day
- % per month
- % per year

Dividend information block:

- Year
- Payment
- Currency
- Closure of registers for AGM
- Closure of registers for dividend
- Period% per year

Appendix 2. List of fields on CbondsIssuePage

Issue information block:

- Status
- Borrower
- Type of debt obligations
- Issue currency
- Nominal/Minimum settlement amount
- Nominal (Eurobonds)
- Outstanding principal amount
- Issue amount
- Volume at current face value
- ACY Calculation method
- Issue ratings
- Data of inclusion into the Lombard list of the Bank of Russia
- Number of the bond program
- State registration number
- Registration date
- ISIN RegS;
- ISIN 144A
- CUSIP RegS;
- CUSIP 144A.
- Date of end placing
- Interest commencement date
- Maturity date
- Next offer (call)
- Next offer (put)

«Cbonds Valuation» and «Stock exchange и OTC quotes» blocks

- Trading floor
- Date and time (UTC+3)
- Bid
- Ask
- Bid yield
- Ask yield
- Indicative price
- Yield by indicative price

«Market participants' quotes» block

- Market participant
- Date and time (UTC+3)
- Bid
- Ask
- Last
- Bid yield
- Ask yield
- Last yield

«Payment schedule» block

- Date of coupon end
- Date of actual payment
- List of holders record date
- Coupon rate
- Coupon amount
- Redemption of face value

Appendix 3. List of fields on the CbondsCalendar worksheet

The following fields are available for each event:

- Date
- Event type
- Country
- Issuer
- Instrument
- ISIN
- Registration number
- Instrument type
- Issue amount
- Currency
- Nominal/Minimum settlement amount
- Offer type
- Offer price
- Coupon rate
- Coupon size
- Payment amount
- Redemption of face value
- Buyback amount
- Maturity date
- Arrangers
- Initial issue price
- Initial issue yield
- Order book open time
- Order book close time
- Coupon guidance (lower limit)
- Coupon guidance (upper limit)
- Yield guidance (lower limit)
- Yield guidance (upper limit)
- Default type
- Default reason
- Grace period expiration date
- Actual performance date
- Defaulted obligations amount

Appendix 4. List of fields on CbondsSavedQuery worksheet

The following fields are available for each query:

- Issue
- Country
- Issuer
- Sector
- Industry
- Currency
- Issue status
- Issue kind
- Current coupon rate, %
- Coupon frequency
- Issue amount
- Outstanding amount
- Outstanding face value amount
- USD equivalent
- Nominal / minimum Settlement Amount
- Integral multiple
- Outstanding face value
- Floating rate
- Initial issue price
- Yield at pricing
- Additional information
- ISIN
- ISIN 144A
- State reg number
- CUSIP RegS
- CUSIP 144A
- WKN code
- WKN code 144A
- Start of placement
- End of placement
- Maturity date
- Nearest put-option date
- Nearest call-option date
- Settlement date
- Date of start circulation
- Registration date
- Stock exchange
- Trade date
- Indicative price
- Effective yield
- Duration
- Trading floors

Appendix 5. List of fields on CbondsNewIssues worksheet

The following fields are available for each issue:

- End of placement
- Issue
- Country
- Issuer
- Sector
- Industry
- Currency
- Issue status
- Issue kind
- Current coupon rate, %
- Coupon frequency
- Issue amount
- Nominal / minimum Settlement Amount
- Maturity date
- Nearest put-option date
- Nearest call-option date
- ISIN
- ISIN 144A
- State reg number
- CUSIP RegS
- CUSIP 144A
- Initial issue price
- Yield at pricing
- Issue managers

Appendix 6. List of fields on CbondsIssuerReport sheet

Balance sheet:

- Intangible assets
- Reserch and development results
- Property, plant and equipment
- Income yielding investments into tangible assets
- Financial investments
- Deferred tax assets
- Other non-current assets
- Total for section I
- Inventories
- VAT on acquired valuables
- Accounts receivable
- Financial investments
- Cash
- Other current assets
- Total for section II
- Issued share capital
- Treasury stock
- Revaluation of non-current assets
- Additional capital (without revaluation)
- Reserve funds
- Retained earnings (uncovered loss)
- Total for section III
- Credits and loans
- Deferred tax liabilities
- Provisions for contingent liabilities
- Other liabilities
- Total for section IV
- Credits and loans
- Accounts payable
- Deferred revenue
- Provision for future expenses
- Other liabilities
- Total for section V

Profit and loss account:

- Sales revenue
- Cost of goods (services) sold
- Gross profit
- Selling expenses
- Administrative expenses
- Sales profit (loss)
- Revenues from participation in other companies
- Interest receivable
- Interest payable
- Other revenues
- Other expenses
- Profit (loss) before tax
- Current income tax
- Change in deferred tax liabilities
- Change in deferred tax assets
- Other
- Net profit (loss)
- Revaluation of fixed assets, not included in net profit (loss)
- Result of other operations, not included in net profit (loss)
- Total financial result for the period
- Basic earnings (loss) per share
- Diluted earnings (loss) per share

IFRS Indicators (real sector):

- Cash and cash equivalents
- Inventories
- Other current assets
- Total current assets
- Fixed assets
- Other non current assets
- Total non current assets
- Total assets
- Current debt
- Other current liabilities
- Total current liabilities
- Non current debt
- Other non current liabilities
- Total non current liabilities
- Retained earnings
- Total equity attributable to shareholders of the company
- Total equity
- Total liabilities and equity
- Revenue
- Gross profit
- Operational profit
- Profit before taxation
- Net profit
- Operational cash flow
- Investment cash flow
- Financial cash flow
- Total debt
- Net debt
- EBITDA
- OIBDA
- Capital expenditure
- Free cash flow
- Revenues, YoY (%)
- EBITDA, YoY (%)
- EBITDA margin (%)
- Net debt / EBITDA
- Total debt / Equity
- Cash Flow To Capital Expenditures

IFRS Indicators (financial sector):

- Cash and cash equivalents
- Assets due to banks
- Net loans
- Other assets
- Total assets
- From banks
- Deposits
- Securities issued
- Other liabilities
- Total liabilities
- Equity
- Total liabilities and equity
- Interest income
- Interest expense
- Net interest income before impairment
- Provisions for impairment
- Net interest income after impairment
- Comission income
- Comission expenses
- Operational income
- Operational expenses
- Profit before taxation
- Net profit
- Operational cash fiow
- Investment cash flow
- Financial cash flow
- Net change in cash and cash equivalents
- Loan portfolio
- Loan portfolio impairment reserve

- Loans overdue by more than 90 days
- Tier I capital adequacy
- Tier II capital adequacy
- Assets, YoY (%)
- Equity, YoY (%)
- Operating expense ratio
- Loan-to-deposit ratio

Appendix 7. List of fields on CbondsIssueQuotes and CbondsTFQuotes worksheets

The following fields are available on the worksheets with quotes:

- Stock exchange name
- Instrument
- ISIN code
- Registration number
- Currency
- Trading date
- Trading mode
- Quote for purchase, closing (bid)
- Quote for sale, closing (ask)
- Bid-ask spread, bp
- Average price
- Opening price
- Minimum price
- Maximum price
- Last price
- Weighted average price
- Market price
- Market price 2 (pension accruals)
- Acknowledged exchange quotation
- Closing price
- Indicative price
- Indicative price type
- Turnover
- Number of transactions.
- Volume of transactions in instruments
- Current coupon rate
- Maturity date
- YTM by individual price
- YTM by bid price
- YTM by ask price
- YTM by last price
- YTM by closure price
- ACY
- Duration
- Modified duration
- Offer date (put/call)
- Yield to offer by individual price
- Yield to offer by bid price
- Yield to offer by ask price
- Yield to offer by last price
- Yield to offer by closure price
- Duration to offer
- Modified duration to offer
- G-spread, bp
- T-spread, bp
- Benchmark for T-spread

Appendix 8. List of fields on the CbondsWatchlist worksheet

The following fields are available on the worksheet:

- Issue
- Trading date
- Country
- Issuer
- Instrument type
- Status
- Currency
- ISIN
- State registration number
- Nominal/Minimum settlement amount
- Integral multiple
- Outstanding principal amount
- Maturity date
- Offer date (put/call)
- Coupon rate
- Coupon amount
- Stock exchange
- Bid, closed
- Ask, closed
- Price, avg
- Market price
- Acknowledged exchange quotation
- Closing price
- Indicative price
- Indicative price type
- Yield, eff.
- Change in yield, bp
- ACY
- Duration
- Modified duration

Appendix 9. List of fields on the CbondsCalculator worksheet

Issue parameters:

- Face value
- Interest commencement date
- Maturity date
- Basis for ACY and coupons calculation
- Coupon payment period
- Offer date

Calculation parameters of the calculator:

- Date
- YTM (eff), %
- YTP (eff), %
- CY, %
- ACY, %
- P (net), %
- P (gross), %
- P (net), in the currency of face value
- P (gross), in the currency of face value
- Outstanding principal amount
- ACY
- Current coupon amount
- D (to maturity), days
- D (to offer), days
- MD (to maturity)
- MD (to offer)
- PVBP (to maturity), in the currency of face value
- PVBP (to offer), in the currency of face value
- Conv (to maturity)
- Conv (to offer)
- G-spread, bp
- T-spread, bp

Appendix 10. List of fields on the CbondsMap worksheet

Available market maps:

- Apple bonds and international bonds (USD)
- Argentine sovereign international bonds (USD)
- Armenian government bonds (AMD)
- Australian government bonds (AUD)
- Austrian government bonds (EUR)
- Azerbaijani sovereign international bonds (USD)
- Azerbaijanian corporate bonds (AZN)
- Bahraini government bonds (BHD)
- Bahraini sovereign international bonds (USD)
- Belgian government bonds (EUR)
- Bosnian and Herzegovinian government bonds (BAM, issuer - Bosnia and Herzegovina)
- Bosnian and Herzegovinian government bonds (BAM, issuer - Republika Srpska)
- Brazilian government bonds (BRL)
- Brazilian sovereign international bonds (USD)
- British government bonds (GBP)
- Bulgarian government bonds (BGN)
- Canadian government bonds (CAD)
- Chilean government bonds (CLP)
- Chilean sovereign international bonds (USD)
- Chinese government bonds (CNY)
- Colombian government bonds (COP)
- Colombian sovereign international bonds (USD)
- Costa Rican government bonds (CRC)
- Costa Rican sovereign international bonds (USD)
- Croatian government bonds (HRK)
- Cypriot government bonds (EUR)
- Czech government bonds (CZK)
- Danish government bonds (DKK)
- Dominican government bonds (DOP)
- Dominican sovereign international bonds (USD)
- Dutch government bonds (EUR)
- Ecuadorian sovereign international bonds (USD)
- Egyptian government bonds (EGP)
- Egyptian sovereign international bonds (USD)
- EIB international bonds (USD)
- Finnish government bonds (EUR)
- French government bonds (EUR)
- Georgian government bonds (GEL)
- German government bonds (EUR)
- Ghanaian government bonds (GHS)

- Hong Kong government bonds (HKD)
- Hungarian government bonds (HUF)
- Hungarian sovereign international bonds (USD)
- Icelandic government bonds (ISK)
- Indian government bonds (INR)
- Indonesian government bonds (IDR)
- Indonesian sovereign international bonds (USD)
- Irish government bonds (EUR)
- Israeli government bonds (ILS)
- Israeli sovereign international bonds (USD)
- Italian government bonds (EUR)
- Jamaican sovereign international bonds (USD)
- Japanese government bonds (JPY)
- Jordanian sovereign international bonds (USD)
- Kazakh government bonds (KZT)
- Kenyan government bonds (KES)
- Korean government bonds (KRW)
- Latvian government bonds (EUR)
- Lebanese sovereign international bonds (USD)
- Lithuanian government bonds (EUR)
- Malaysian government bonds (MYR)
- Maltese government bonds (EUR)
- Mexican government bonds (MXN)
- Mexican sovereign international bonds (USD)
- Namibian government bonds (NAD)
- New Zealand government bonds (NZD)
- Nigerian government bonds (NGN)
- Norwegian government bonds (NOK)
- Omani sovereign international bonds (USD)
- Pakistani sovereign international bonds (USD)
- Panamanian sovereign international bonds (USD)
- Pemex international bonds (USD)
- Peruvian government bonds (PEN)
- Peruvian sovereign international bonds (USD)
- Petrobras international bonds (USD)
- Philippine government bonds (PHP)
- Philippines sovereign international bonds (USD)
- Polish government bonds (PLN)
- Polish sovereign international bonds (USD)
- Portuguese government bonds (EUR)
- Qatari sovereign international bonds (USD)
- Romanian government bonds (RON)
- Russian corporate bonds - banks (RUB)
- Russian corporate bonds - banks and financial institutions (RUB)
- Russian corporate bonds - chemical and petrochemical industry (RUB)

- Russian corporate bonds - communication (RUB)
- Russian corporate bonds - construction and development (RUB)
- Russian corporate bonds - engineering industry (RUB)
- Russian corporate bonds - ferrous metals (RUB)
- Russian corporate bonds - financial institutions (RUB)
- Russian corporate bonds - food industry (RUB)
- Russian corporate bonds - mining industry (RUB)
- Russian corporate bonds - nonfinancial sector (RUB)
- Russian corporate bonds - oil and gas (RUB)
- Russian corporate bonds - power (RUB)
- Russian corporate bonds - trade and retail (RUB)
- Russian corporate bonds - transportation (RUB)
- Russian corporate international bonds - banks and financial institutions, B (USD)
- Russian corporate international bonds - banks and financial institutions, BB and higher (USD)
- Russian corporate international bonds - nonfinancial sector, B (USD)
- Russian corporate international bonds - nonfinancial sector, BB and higher (USD)
- Russian government bonds (RUB)
- Russian municipal bonds (RUB)
- Russian sovereign international bonds (USD)
- Saudi Arabian sovereign international bonds (USD)
- Singapore government bonds (SGD)
- Slovak government bonds (EUR)
- Slovenian government bonds (EUR)
- South African government bonds (ZAR)
- South African sovereign international bonds (USD)
- Spanish government bonds (EUR)
- Sri Lankan government bonds (LKR)
- Sri Lankan sovereign international bonds (USD)
- Swedish government bonds (SEK)
- Swedish sovereign international bonds (USD)
- Swiss government bonds (CHF)
- Swiss government bonds (CHF)
- Taiwanese government bonds (TWD)
- Thai government bonds (THB)
- Tunisian government bonds (TND)
- Turkish corporate bonds (TRY)
- Turkish corporate international bonds (USD)
- Turkish government bonds (TRY)
- Ukrainian government bonds (UAH)
- Ukrainian sovereign international bonds (USD)
- Uruguayan sovereign international bonds (USD)
- USA corporate bonds and international bonds - banks (USD)
- USA government bonds (USD)

- Venezuelan sovereign international bonds (USD)
- Vietnamese government bonds (VND)

The following fields are available on the maps worksheets:

- Instrument
- ISIN
- Redemption
- Offer (put/call)
- Stock exchange name
- Date
- Indicative price
- Indicative price type
- YTM by individual price
- Yield to offer by individual price, %
- Yield type
- ACY
- Duration
- Duration to offer

Appendix 11. List of available functions

Function	Description
Cbonds.ACI	Returns the accrued coupon yield in face value currency
Cbonds.AdmittedPrice	Returns admitted price of a bond
Cbonds.AmortizationDate	Returns the nearest amortization date regarding the given date
Cbonds.AmortizationSum	Returns the nearest amortization sum in face value currency regarding the given date
Cbonds.Amount	Returns the issue amount
Cbonds.AskPrice	Returns ask price of a bond in percentage of par value
Cbonds.AskYTM	Returns yield to maturity by ask price in percentage per annum
Cbonds.AskYTP	Returns yield to put/call option by ask price in percentage per annum
Cbonds.AvgPrice	Returns weighted average price of a bond
Cbonds.BidPrice	Returns bid price of a bond in percentage of par
Cbonds.BidYTM	Returns yield to maturity by bid price in percentage per annum
Cbonds.BidYTP	Returns yield to put/call-option by bid price in percentage per annum
Cbonds.BondName	Returns issue name
Cbonds.CalcConv	Returns convexity to maturity
Cbonds.CalcConvToPutCall	Returns convexity to put/call option
Cbonds.CalcCY	Returns current yield in percentage per annum
Cbonds.CalcDuration	Returns duration to maturity in days
Cbonds.CalcDurationToPutCall	Returns duration to put/call option in days
Cbonds.CalcGSpread	Returns the G-Spread or T-Spread for securities

Function	Description
Cbonds.CalcModifiedDurationToMaturity	Returns modified duration to maturity
Cbonds.CalcModifiedDurationToPutCall	Returns modified duration to put/call option
Cbonds.CalcPVBPToMaturity	Returns the absolute value of the change the dirty price of a bond when its YTM is changed for one bp
Cbonds.CalcPVBPToPutCall	Returns the absolute value of the change the dirty price of a bond when its YTP is changed for one bp
Cbonds.CalcYTM	Returns yield to maturity in percentage per annum
Cbonds.CalcYTMnom	Returns nominal yield to maturity in percentage per annum
Cbonds.CalcYTP	Returns yield to put/call option in percentage per annum
Cbonds.CalcYTPnom	Returns nominal yield to put/call option in percentage per annum
Cbonds.CalcZSpread	Returns Z-Spread to G-Curve or Z-Spread to swaps, depending on the selected parameter: swaps or G-curve
Cbonds.CallDate	Returns the nearest call-option date
Cbonds.CleanPriceCalcYTM	Returns clean price of a bond in percentage of par value
Cbonds.CleanPriceCalcYTP	Returns clean price of a bond in percentage of par value
Cbonds.ClosePrice	Returns close price of a bond in percentage of par value
Cbonds.CloseYTM	Returns yield to maturity by close price in percentage per annum
Cbonds.CloseYTP	Returns yield to put/call option by close price in percentage per annum
Cbonds.CouponDate	Returns the nearest coupon date regarding the given date
Cbonds.CouponRate	Returns the nearest coupon rate in percentage per annum regarding the given date

Function	Description
Cbonds.CouponSum	the nearest coupon sum in face value currency regarding the given date
Cbonds.Currency	Returns the issue currency
Cbonds.CurrentCouponRate	Returns a current coupon rate in percentage per annum
Cbonds.DealsNumber	Returns daily number of deals with a bond
Cbonds.Duration	Returns duration to maturity in days
Cbonds.DurationToPutCall	Returns duration to put/call option in days
Cbonds.EmitentCountry	Returns the issuer's country by its issue ID
Cbonds.EmitentIndustry	Returns the issuer's industry by its issue ID
Cbonds.EmitentLEI	Returns the issuer's LEI by its issue ID
Cbonds.EmitentName	Returns the issuer's name by its issue ID
Cbonds.EmitentPSRN	Returns the issuer's PSRN by its issue ID
Cbonds.EmitentTIN	Returns the issuer's TIN by its issue ID
Cbonds.ETFLastPrice	Returns ETF last price in trading currency
Cbonds.ETFNAV	Returns the ETF's net asset value in the fund's currency
Cbonds.ETFNAVusd	Returns the ETF's net asset value in USD
Cbonds.IndexDate	Returns date of the current index value
Cbonds.IndexMeasure	Returns index measure
Cbonds.IndexValue	Returns the index value on date
Cbonds.IndicativeCY	Returns the current yield by an indicative price in percentage per annum

Function	Description
Cbonds.IndicativePrice	Returns indicative price of a bond in percentage of par
Cbonds.IndicativeYTM	Returns the yield to maturity by an indicative price in percentage per annum
Cbonds.IndicativeYTP	Returns the yield to put/call option by an indicative price in percentage per annum
Cbonds.IssueRatingsACRA	Returns current issue ratings from ACRA rating agency
Cbonds.IssueRatingsExpertRA	Returns current issue ratings from Expert RA rating agencies
Cbonds.LastPrice	Returns last price of a bond in percentage of par value
Cbonds.LastYTM	Returns yield to maturity by close price in percentage per annum
Cbonds.LastYTP	Returns yield to maturity by last price in percentage per annum
Cbonds.MarketPrice	Returns market price of a bond from Moscow Exchange
Cbonds.MaturityDate	Returns the issue maturity date
Cbonds.MaxPrice	Returns the maximum price of a bond
Cbonds.MinPrice	Returns the minimum price of a bond
Cbonds.MutualFundNAV	Returns the mutual fund net asset value
Cbonds.MutualFundShare	Returns the mutual fund share
Cbonds.Nominal	Returns the issue nominal
Cbonds.OnlineAskPrice	Returns online ask price of a bond in percentage of par value
Cbonds.OnlineBidPrice	Returns online bid price of a bond in percentage of par value
Cbonds.OnlineIndicativePrice	Returns online indicative price of a bond in percentage of par value
Cbonds.OpenPrice	Returns the open price of a bond

Function	Description
Cbonds.OutstandingFaceValue	Returns the issue outstanding principal amount
Cbonds.OutstandingFaceValueAmount	Returns the issue outstanding face value amount
Cbonds.OutstandingFaceValueIndexed	Returns outstanding principal amount for indexed issues
Cbonds.PaymentsNumber	Returns the coupon frequency per year
Cbonds.PlacementDate	Returns placement date
Cbonds.PreviousAmortizationDate	Returns the previous amortization date regarding the given date
Cbonds.PreviousAmortizationSum	Returns the previous amortization sum in face value currency regarding the given date
Cbonds.PreviousCouponDate	Returnsthe previous coupon date regarding the given date
Cbonds.PreviousCouponRate	Returns the previous coupon rate in percentage per annum regarding the given date
Cbonds.PreviousCouponSum	Returns the previous coupon sum in face value currency regarding the given date
Cbonds.PreviousIndexDate	Returns date of the previous index value
Cbonds.PreviousIndexValue	Returns index previous index value
Cbonds.PutDate	Returns the nearest put-option date
Cbonds.RAS	Returns the value of a specific indicator of reporting under RAS in rubles
Cbonds.StockAskPrice	Returns stock ask price in trading currency
Cbonds.StockAvgPrice	Returns stock average price in trading currency
Cbonds.StockBidPrice	Returns stock bid price in trading currency
Cbonds.StockCurrency	Returns stock trading currency

Appendix 12. Directory

List of trading floor identifier for emissions

List of trading floor identifier for stocks

Index identifier list

Mutual fund list

RAS indicators list

Appendix 13. Cbonds functions

Cbonds.ACI

The Cbonds.ACI function returns the accrued coupon yield in face value currency.

Syntax

Cbonds.ACI(BondID, Date)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Date.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.ACI, which returns accrued interests for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**ACI**	
2	XS0114288789	20.11.2017	=Cbonds.ACI(A2;B2)	
3	RU000A0JXVY3	20.11.2017	=Cbonds.ACI(A3;B3)	
4	RU000A0ZYCJ8	20.11.2017	=Cbonds.ACI(A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**ACI**	
2	XS0114288789	20.11.2017	0.004948	
3	RU000A0JXVY3	20.11.2017	50.96	
4	RU000A0ZYCJ8	20.11.2017	9.55	

Cbonds.AdmittedPrice

The function Cbonds.AdmittedPrice returns admitted price of a bond.

Syntax

Cbonds.AdmittedPrice(BondID; Date; TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.AdmittedPrice, which returns the admitted price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Admitted price**
2	XS2125163688	03.03.2020	1	=Cbonds.AdmittedPrice(A2;B2;C2)
3	RU000A101FA1	03.03.2020	135	=Cbonds.AdmittedPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Admitted price**
2	XS2125163688	03.03.2020	1	100
3	RU000A101FA1	03.03.2020	135	99.408

Cbonds.AmortizationDate

The Cbonds.AmortizationDate function returns the nearest amortization date regarding the given date.

Syntax

Cbonds.AmortizationDate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.AmortizationDate, which returns the amortization dates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Amortization date**
2	RU000A0JVS10	12.03.2019	=Cbonds.AmortizationDate(A2;B2)
3	RU000A0JU3B6	18.02.2019	=Cbonds.AmortizationDate(A3;B3)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Amortization date**
2	RU000A0JVS10	12.03.2019	11.06.2019
3	RU000A0JU3B6	18.02.2019	19.08.2019

CbondsAmortizationSum

The Cbonds.AmortizationSumfunction returns the nearest amortization sum in face value currency regarding the given date.

Syntax

Cbonds.AmortizationSum(BondID, [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.AmortizationSum, which returns the nearest amortization sum for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Amortization**		
2	RU000A0JVS10	12.03.2019	=Cbonds.AmortizationSum(A2;B2)		
3	RU000A0JU3B6	18.02.2019	=Cbonds.AmortizationSum(A3;B3)		

As a result, column C takes the following form:

	A	B	C	D	E
1	**ISIN**	**Date**	**Amortization**		
2	RU000A0JVS10	12.03.2019	300		
3	RU000A0JU3B6	18.02.2019	200		

Cbonds.Amount

The function Cbonds.Amount returns the issue amount.

Syntax

Cbonds.Amount(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.Amount, which returns the amount for securities from column A.

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	=Cbonds.Amount(A2)
3	RU000A0JSLP2	=Cbonds.Amount(A3)
4	RU000A0JSLQ0	=Cbonds.Amount(A4)
5	RU000A0JWLQ2	=Cbonds.Amount(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	600 000
3	RU000A0JSLP2	5 000 000
4	RU000A0JSLQ0	5 000 000
5	RU000A0JWLQ2	300 000 000

Cbonds.AskPrice

The function Cbonds.AskPrice returns ask price of a bond in percentage of par value.

Syntax

Cbonds.AskPrice(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.AskPrice, which returns ask price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		=Cbonds.AskPrice(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.AskPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		117,30
3	XS0114288789	20.11.2017	20	117,38

Cbonds.AskYTM

The function Cbonds.AskYTM returns yield to maturity by ask price in proportion per annum.

Syntax

Cbonds.AskYTM(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.AskYTM, which returns yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		=Cbonds.AskYTM(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.AskYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		0,028
3	XS0114288789	20.11.2017	20	0,0278

Cbonds.AskYTP

The function Cbonds.AskYTP returns yield to put/call option by ask price in proportion per annum.

Syntax

Cbonds.AskYTP(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.AskYTP, which returns the yield to put/call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JPLU8	20.11.2017		=Cbonds.AskYTP(A2;B2)
3	RU000A0JWBK6	20.11.2017	1	=Cbonds.AskYTP(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JPLU8	20.11.2017		0,0872
3	RU000A0JWBK6	20.11.2017	1	0,0788

Cbonds.AvgPrice

The function Cbonds.AvgPrice returns weighted average price of a bond.

Syntax

Cbonds.AvgPrice(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.AvgPrice, which returns the weighted average price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Weighted average price**
2	XS2125163688	03.03.2020	1	=Cbonds.AvgPrice(A2;B2;C2)
3	RU000A101FA1	03.03.2020	135	=Cbonds.AvgPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Weighted average price**
2	XS2125163688	03.03.2020	1	100
3	RU000A101FA1	03.03.2020	135	99.372

Cbonds.BidPrice

The function Cbonds.BidPrice returns bid price of a bond in percentage of par.

Syntax

Cbonds.BidPrice(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (20 - Frankfurt S.E.). Column D contains the function Cbonds.BidPrice, which returns bid price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		=Cbonds.BidPrice(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.BidPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		117,22
3	XS0114288789	20.11.2017	20	117,19

Cbonds.BidYTM

The function Cbonds.BidYTM returns yield to maturity by bid price in proportion per annum.

Syntax

Cbonds.BidYTM(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.BidYTM, which returns yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		=Cbonds.BidYTM(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.BidYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		0,0282
3	XS0114288789	20.11.2017	20	0,0282

Cbonds.BidYTP

The function Cbonds.BidYTP returns yield to put/call-option by bid price in proportion per annum.

Syntax

Cbonds.BidYTP(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies of the trading platforms (1 - Moscow Exchange). Column D contains the function Cbonds.BidYTP, which returns the yield to put-call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JPLU8	20.11.2017		=Cbonds.BidYTP(A2;B2)
3	RU000A0JWBK6	20.11.2017	1	=Cbonds.BidYTP(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JPLU8	20.11.2017		0,0899
3	RU000A0JWBK6	20.11.2017	1	0,0798

Cbonds.BondName

The function Cbonds.BondName returns issue name.

Syntax

Cbonds.BondName(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.BondName, which returns the issue name for securities from column A.

	A	B
1	**ISIN**	**Issue name**
2	XS0918604496	=Cbonds.BondName(A2)
3	RU000A0JSLP2	=Cbonds.BondName(A3)
4	RU000A0JSLQ0	=Cbonds.BondName(A4)
5	RU000A0JWLQ2	=Cbonds.BondName(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Issue name**
2	XS0918604496	Burovaya Kompaniya Eurasia, 4.875% 17apr2020, USD
3	RU000A0JSLP2	IFC, 01
4	RU000A0JSLQ0	IFC, 02
5	RU000A0JWLQ2	Oil Alliance Bank, 03

Cbonds.CalcConv

The function Cbonds.CalcConv returns convexity to maturity.

Syntax

Cbonds.CalcConv(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcConv, which returns the convexity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Convexity**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcConv(A2;B2;C2)
3	XS0114288789	06.07.2018	102,705	=Cbonds.CalcConv(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Convexity**
2	NO0010697485	06.07.2018	101	2,72
3	XS0114288789	06.07.2018	102,705	15,93

Cbonds.CalcConvToPutCall

The function Cbonds.CalcConvToPutCall returns convexity to put/call option.

Syntax

Cbonds.CalcConvToPutCall(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcConvToPutCall, which returns the convexity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Convexity**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcConvToPutCall(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	102,705	=Cbonds.CalcConvToPutCall(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Convexity**
2	NO0010697485	06.07.2018	101	0,49
3	RU000A0JXVY3	06.07.2018	102,705	1,48

Cbonds.CalcCY

The function Cbonds.CalcCY returns current yield in proportion per annum.

Syntax

Cbonds.CalcCY(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcCY, which returns the yield for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Yield**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcCY(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	102,705	=Cbonds.CalcCY(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Yield**
2	NO0010697485	06.07.2018	101	0,099
3	RU000A0JXVY3	06.07.2018	102,705	0,146

Cbonds.CalcDuration

The function Cbonds.CalcDuration returns duration to maturity in days.

Syntax

Cbonds.CalcDuration(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcDuration, which returns the duration for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Duration**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcDuration(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	102,705	=Cbonds.CalcDuration(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Duration**
2	NO0010697485	06.07.2018	101	489
3	RU000A0JXVY3	06.07.2018	102,705	1089

Cbonds.CalcDurationToPutCall

The function Cbonds.CalcDurationToPutCall returns duration to put/call option in days.

Syntax

Cbonds.CalcDurationToPutCall(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcDurationToPutCall, which returns the duration for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Duration**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcDurationToPutCall(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	102,705	=Cbonds.CalcDurationToPutCall(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Duration**
2	NO0010697485	06.07.2018	101	154
3	RU000A0JXVY3	06.07.2018	102,705	339

Cbonds.CalcGSpread

The function Cbonds.CalcGSpread returns G-Spread or T-Spread for issue.

Syntax

Cbonds.CalcGSpread(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcGSpread, which returns the G-Spread or T-Spread for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**G-Spread/T-Spread**
2	XS2125163688	03.03.2020	100	=Cbonds.CalcGSpread(A2;B2;C2)
3	RU000A101FA1	03.03.2020	101	=Cbonds.CalcGSpread(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**G-Spread/T-Spread**
2	XS2125163688	03.03.2020	100	No data
3	RU000A101FA1	03.03.2020	101	- 62.41

Cbonds.CalcModifiedDurationToMaturity

The function Cbonds.CalcModifiedDurationToMaturity returns modified duration to maturity.

Syntax

Cbonds.CalcModifiedDurationToMaturity(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcModifiedDurationToMaturity, which returns the modified duration for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Modified duration**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcModifiedDurationToMaturity(A2;B2;C2)
3	XS0114288789	06.07.2018	102.705	=Cbonds.CalcModifiedDurationToMaturity(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Modified duration**
2	NO0010697485	06.07.2018	101	1,22
3	XS0114288789	06.07.2018	102.705	2,80

Cbonds.CalcModifiedDurationToPutCall

The function Cbonds.CalcModifiedDurationToPutCall returns modified duration to put/call option.

Syntax

Cbonds.CalcModifiedDurationToPutCall(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcModifiedDurationToPutCall, which returns the modified duration for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Modified duration**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcModifiedDurationToPutCall(A2;B2;C2)
3	XS0114288789	06.07.2018	102.705	=Cbonds.CalcModifiedDurationToPutCall(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Modified duration**
2	NO0010697485	06.07.2018	101	0,38
3	XS0114288789	06.07.2018	102.705	No data

Cbonds.CalcPVBPToMaturity

The function Cbonds.CalcPVBPToMaturity returns the absolute value of the change the dirty price of a bond when its YTM is changed for one bp.

Syntax

Cbonds.CalcPVBPToMaturity(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcPVBPToMaturity, which returns the price value of a basis point for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**PVBP**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcPVBPToMaturity(A2;B2;C2)
3	XS0114288789	06.07.2018	102,705	=Cbonds.CalcPVBPToMaturity(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**PVBP**
2	NO0010697485	06.07.2018	101	0,01
3	XS0114288789	06.07.2018	102,705	0,03

Cbonds.CalcPVBPToPutCall

The function Cbonds.CalcPVBPToPutCall returns the absolute value of the change the dirty price of a bond when its YTP is changed for one bp.

Syntax

Cbonds.CalcPVBPToPutCall(BondID; Date; CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcPVBPToPutCall, which returns the price value of a basis point for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**PVBP**
2	NO0010697485	06.07.2018	101	=Cbonds.CalcPVBPToPutCall(A2;B2;C2)
3	XS0114288789	06.07.2018	102,705	=Cbonds.CalcPVBPToPutCall(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**PVBP**
2	NO0010697485	06.07.2018	101	0,00
3	XS0114288789	06.07.2018	102,705	Нет данных

Cbonds.CalcYTM

The function CbondsCalcYTM returns yield to maturity in proportion per annum.

Syntax

Cbonds.CalcYTM(BondID, Date, CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcYTM, which returns the yield for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Yield**	
2	NO0010697485	06.07.2018	101	=Cbonds.CalcYTM(A2;B2;C2)	
3	RU000A0JXVY3	06.07.2018	102.705	=Cbonds.CalcYTM(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Yield**	
2	NO0010697485	06.07.2018	101	0,0944	
3	RU000A0JXVY3	06.07.2018	102.705	0,067	

Cbonds.CalcYTMnom

The function Cbonds.CalcYTMnom returns nominal yield to maturity in proportion per annum.

Syntax

Cbonds.CalcYTMnom (BondId;Date;CPrice)

The function syntax has the following arguments:

- **BondID** Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** Required. Calculation date.
- **CPrice** Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcYTMnom, which returns the nominal yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Nominal yield to maturity**
2	NO0010697485	06.07.2018	101	= Cbonds.CalcYTMnom(A2;B2;C2)
3	XS0114288789	06.07.2018	102.705	= Cbonds.CalcYTMnom(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Nominal yield to maturity**
2	NO0010697485	06.07.2018	101	0,0923
3	XS0114288789	06.07.2018	102.705	0,0659

Cbonds.CalcYTP

The function Cbonds.CalcYTP returns yield to put/call option in proportion per annum.

Syntax

Cbonds.CalcYTP(BondID, Date, CPrice)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcYTP, which returns the yield for securities from column A.

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	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Yield**	
2	NO0010697485	06.07.2018	101	=Cbonds.CalcYTP(A2;B2;C2)	
3	RU000A0JXVY3	06.07.2018	102.705	=Cbonds.CalcYTP(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Yield**	
2	NO0010697485	06.07.2018	101	0,1174	
3	RU000A0JXVY3	06.07.2018	102.705	0,1248	

Cbonds.CalcYTPnom

The function Cbonds.CalcYTPnom returns nominal yield to put/call option in proportion per annum.

Syntax

Cbonds.CalcYTPnom (BondId;Date;CPrice)

The function syntax has the following arguments:

- **BondID** Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** Required. Calculation date.
- **CPrice** Required. Clean price in percentage of par value.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcYTPnom, which returns the nominal yield to put/call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Nominal yield to put/call option**
2	NO0010697485	06.07.2018	101	= Cbonds.CalcYTPnom(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	102.705	= Cbonds.CalcYTPnom(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Price**	**Nominal yield to put/call option**
2	NO0010697485	06.07.2018	101	0,1142
3	RU000A0JXVY3	06.07.2018	102,705	0,1211

Cbonds.CalcZSpread

The function Cbonds.CalcZSpread returns Z-Spread to G-Curve or Z-Spread to swaps, depending on the selected parameter: swaps or G-curve.

Syntax

Cbonds.CalcZSpread(BondID; Date; CPrice; [CalcTo])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **CPrice** – Required. Clean price in percentage of par value.
- **CalcTo** – Optional. Argument takes values 0 – G-Curve or 1 – swaps. As a parameter, 0 –G-Curve is set as default.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains prices. Column D contains the function Cbonds.CalcZSpread, which returns the Z-Spread to G-Curve or Z-Spread to swaps for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Z-Spread to G-Curve**	**Z-Spread to swaps**
2	RU000A0JR6S8	03.03.2020	100		=Cbonds.CalcZSpread(A2;B2;C2;1)
3	RU000A101FA1	03.03.2020	101	=Cbonds.CalcZSpread(A3;B3;C3;0)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**ISIN**	**Date**	**Price**	**Z-Spread to G-Curve**	**Z-Spread to swaps**
2	RU000A0JR6S8	03.03.2020	100		268.05
3	RU000A101FA1	03.03.2020	101	-64.01	

Cbonds.CallDate

The function Cbonds.CallDate returns the nearest call-option date.

Syntax

Cbonds.CallDate(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.CallDate, which returns the call date for securities from column A.

	A	B
1	**ISIN**	**Call**
2	RU000A0JRF37	=Cbonds.CallDate(A2)
3	RU000A0JRYW3	=Cbonds.CallDate(A3)
4	RU000A0JVYH6	=Cbonds.CallDate(A4)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Call**
2	RU000A0JRF37	15.11.2018
3	RU000A0JRYW3	15.12.2022
4	RU000A0JVYH6	21.11.2017

Cbonds.CleanPriceCalcYTM

The function Cbonds.CleanPriceCalcYTM returns clean price of a bond in percentage of par value.

Syntax

Cbonds.CleanPriceCalcYTM(BondID; Date; YTM)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **YTM** – Required. Yield to maturity, % *(you need to use the number format in excel for the function to work correctly).*

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains yield to maturity. Column D contains the function Cbonds.CleanPriceCalcYTM, which returns the clean price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Yield**	**Price**
2	XS2249892535	15.05.2023	5.25	=Cbonds.CleanPriceCalcYTM(A2;B2;C2)
3	RU000A102FC5	15.05.2023	8.5	=Cbonds.CleanPriceCalcYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Yield**	**Price**
2	XS2249892535	15.05.2023	5.25	94.07
3	RU000A102FC5	15.05.2023	8.5	98.72

Cbonds.CleanPriceCalcYTP

The function Cbonds.CleanPriceCalcYTP returns clean price of a bond in percentage of par value.

Syntax

Cbonds.CleanPriceCalcYTP(BondID, Date, YTP)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **YTP** – Required. Yield to put/call option, % *(you need to use the number format in excel for the function to work correctly).*

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains yield to put/call option. Column D contains the function Cbonds.CleanPriceCalcYTP, which returns the clean price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Yield**	**Price**
2	XS2249892535	15.05.2023	5.25	=Cbonds.CleanPriceCalcYTP(A2;B2;C2)
3	RU000A0JWN22	15.05.2023	4.25	=Cbonds.CleanPriceCalcYTP(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Yield**	**Price**
2	XS2249892535	15.05.2023	5.25	99.39
3	RU000A0JWN22	15.05.2023	4.25	130.02

Cbonds.ClosePrice

The function Cbonds.ClosePrice returns close price of a bond in percentage of par value.

Syntax

Cbonds.ClosePrice(BondID, Date, [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 105 – Istanbul S.E.). Column D contains the function Cbonds.ClosePrice, which returns close price for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**S.E.**	**Price**	
2	TRSKOTNE1814	29.06.2018	105	=Cbonds.ClosePrice(A2;B2;C2)	
3	RU000A0JXVY3	29.06.2018	1	=Cbonds.ClosePrice(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**ISIN**	**Date**	**S.E.**	**Price**	
2	TRSKOTNE1814	29.06.2018	105	100.18	
3	RU000A0JXVY3	29.06.2018	1	105.69	

Cbonds.CloseYTM

The function Cbonds.CloseYTM returns yield to maturity by close price in proportion per annum.

Syntax

Cbonds.CloseYTM(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange, 105 – Istanbul S.E.). Column D contains the function Cbonds.CloseYTM, which returns the yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	TRT150120T16	29.06.2018	105	=Cbonds.CloseYTM(A2;B2;C2)
3	RU000A0JQ557	29.06.2018	1	=Cbonds.CloseYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	TRT150120T16	29.06.2018	105	0,1882
3	RU000A0JQ557	29.06.2018	1	0,0821

Cbonds.CloseYTP

The function Cbonds.CloseYTP returns yield to put/call option by close price in proportion per annum.

Syntax

Cbonds.CloseYTP(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.CloseYTP, which returns the yield to put/call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JXVY3	29.06.2018	1	=Cbonds.CloseYTP(A2;B2;C2)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JXVY3	29.06.2018	1	0,0938

Cbonds.CouponDate

The Cbonds.CouponDate function returns the nearest coupon date regarding the given date.

Syntax

Cbonds.CouponDate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.CouponDate, which returns the coupon dates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Coupon date**
2	XS0114288789	20.11.2018	=Cbonds.CouponDate(A2;B2)
3	RU000A0JXVY3	20.11.2018	=Cbonds.CouponDate(A3;B3)
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.CouponDate(A4;B4)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Coupon date**
2	XS0114288789	20.11.2018	31.03.2019
3	RU000A0JXVY3	20.11.2018	16.01.2019
4	RU000A0ZYCJ8	20.11.2018	09.04.2019

Cbonds.CouponRate

The Cbonds.CouponRate function returns the nearest coupon rate in percentage per annum regarding the given date.

Syntax

Cbonds.CouponRate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.CouponRate, which returns the previous coupon rates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Rate**
2	XS0114288789	20.11.2018	=Cbonds.CouponRate(A2;B2)
3	RU000A0JXVY3	20.11.2018	=Cbonds.CouponRate(A3;B3)
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.CouponRate(A4;B4)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Rate**
2	XS0114288789	20.11.2018	7.5
3	RU000A0JXVY3	20.11.2018	15
4	RU000A0ZYCJ8	20.11.2018	8.5

Cbonds.CouponSum

The Cbonds.CouponSum function returns the nearest coupon sum in face value currency regarding the given date.

Syntax

Cbonds.CouponSum(BondID, [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.CouponSum, which returns the nearest coupon sum for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Coupon sum**	
2	XS0114288789	20.11.2018	=Cbonds.CouponSum(A2;B2)	
3	RU000A0JXVY3	20.11.2018	=Cbonds.CouponSum(A3;B3)	
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.CouponSum(A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Coupon sum**	
2	XS0114288789	20.11.2018	0.0155625	
3	RU000A0JXVY3	20.11.2018	74.79	
4	RU000A0ZYCJ8	20.11.2018	42.38	

Cbonds.Currency

The function Cbonds.Currency returns the issue currency.

Syntax

Cbonds.Currency(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.Currency, which returns the currency for securities from column A.

	A	B	C
1	**ISIN**	**Currency**	
2	XS0918604496	=Cbonds.Currency(A2)	
3	RU000A0JSLP2	=Cbonds.Currency(A3)	
4	RU000A0JSLQ0	=Cbonds.Currency(A4)	
5	RU000A0JWLQ2	=Cbonds.Currency(A5)	

As a result, column B takes the following form:

	A	B	C
1	**ISIN**	**Currency**	
2	XS0918604496	USD	
3	RU000A0JSLP2	RUB	
4	RU000A0JSLQ0	RUB	
5	RU000A0JWLQ2	RUB	

Cbonds.CurrentCouponRate

The function Cbonds.CurrentCouponRate returns a current coupon rate in percentage per annum.

Syntax

Cbonds.CurrentCouponRate(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.CurrentCouponRate, which returns a coupon rate for securities from column A.

	A	B	C
1	**ISIN**	**Coupon rate**	
2	RU000A0JWNV8	=Cbonds.CurrentCouponRate(A2)	
3	RU000A0JWU72	=Cbonds.CurrentCouponRate(A3)	
4	RU000A0ZYDH0	=Cbonds.CurrentCouponRate(A4)	

As a result, column B takes the following form:

	A	B	C
1	**ISIN**	**Coupon rate**	
2	RU000A0JWNV8	9.65	
3	RU000A0JWU72	9.65	
4	RU000A0ZYDH0	7.75	

Cbonds.DealsNumber

The function Cbonds.DealsNumber returns daily number of deals with a bond.

Syntax

Cbonds.DealsNumber(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange, 105 – Istanbul S.E.). Column D contains the function Cbonds.DealsNumber, which returns the deals number for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Deals**
2	TRT150120T16	29.06.2018	105	=Cbonds.DealsNumber(A2;B2;C2)
3	RU000A0JXVY3	29.06.2018	1	=Cbonds.DealsNumber(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Deals**
2	TRT150120T16	29.06.2018	105	5
3	RU000A0JXVY3	29.06.2018	1	31

Cbonds.Duration

The function Cbonds.Duration returns duration to maturity in days.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.Duration(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.Duration, which returns duration to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Duration**
2	XS0114288789	20.11.2017		=Cbonds.Duration(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.Duration(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Duration**
2	XS0114288789	20.11.2017		1293
3	XS0114288789	20.11.2017	20	1292

Cbonds.DurationToPutCall

The function Cbonds.DurationToPutCall returns duration to put/call option in days.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.DurationToPutCall(BondID, Date, [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.DurationToPutCall, which returns duration to put-call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Duration**
2	RU000A0JVWD9	20.11.2017		=Cbonds.DurationToPutCall(A2;B2)
3	RU000A0JWBK6	20.11.2017	1	=Cbonds.DurationToPutCall(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Duration**
2	RU000A0JVWD9	20.11.2017		1643
3	RU000A0JWBK6	20.11.2017	1	714

Cbonds.EmitentCountry

The function Cbonds.EmitentCountry returns the issuer's country by its issue ID.

Syntax

Cbonds.EmitentCountry(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.EmitentCountry, which returns the countries of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**Country**	
2	XS0191754729	=Cbonds.EmitentCountry(A2)	
3	US025816CM94	=Cbonds.EmitentCountry(A3)	
4	718911	=Cbonds.EmitentCountry(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**Country**	
2	XS0191754729	Russia	
3	US025816CM94	USA	
4	718911	China	

Cbonds.EmitentIndustry

The function Cbonds.EmitentIndustry returns the issuer's industry by its issue ID.

Syntax

Cbonds.EmitentIndustry(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.EmitentIndustry, which returns the industries of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**Industry**	
2	XS0191754729	=Cbonds.EmitentIndustry(A2)	
3	US025816CM94	=Cbonds.EmitentIndustry(A3)	
4	792487	=Cbonds.EmitentIndustry(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**Industry**	
2	XS0191754729	Oil and Gas Extraction and Refining	
3	US025816CM94	Banks	
4	718911	IT equipment	

Cbonds.EmitentLEI

The function Cbonds.EmitentLEI returns the issuer's LEI by its issue ID.

Syntax

Cbonds.EmitentLEI(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.EmitentLEI, which returns the LEI of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**LEI**	
2	XS0191754729	=Cbonds.EmitentLEI(A2)	
3	RU000A0JTS06	=Cbonds.EmitentLEI(A3)	
4	792487	=Cbonds.EmitentLEI(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**LEI**	
2	XS0191754729	213800FD9J2IHTA7YX78	
3	RU000A0JTS06	253400JT3MQWNDKMJE44	
4	792487	2534000KL0PLD6KG7T76	

Cbonds.EmitentName

The function Cbonds.EmitentName returns the issuer's name by its issue ID.

Syntax

Cbonds.EmitentName(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.EmitentName, which returns the names of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**Name**	
2	XS0191754729	=Cbonds.EmitentName(A2)	
3	US025816CM94	=Cbonds.EmitentName(A3)	
4	792487	=Cbonds.EmitentName(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**Name**	
2	XS0191754729	Gazprom PJSC	
3	US025816CM94	American Express Company	
4	718911	Xiaomi Corporation	

Cbonds.EmitentPSRN

The function Cbonds.EmitentPSRN returns the issuer's PSRN by its issue ID.

Syntax

Cbonds.EmitentPSRN(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function CbondsEmitent.PSRN, which returns the PSRN of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**PSRN**	
2	XS0191754729	=Cbonds.EmitentPSRN(A2)	
3	RU000A0JTS06	=Cbonds.EmitentPSRN(A3)	
4	792487	=Cbonds.EmitentPSRN(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**PSRN**	
2	XS0191754729	1027700070518	
3	RU000A0JTS06	1027700043502	
4	792487	1027739642281	

Cbonds.EmitentTIN

The function Cbonds.EmitentTIN returns the issuer's TIN by its issue ID.

Syntax

Cbonds.EmitentTIN(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.EmitentTIN, which returns the TIN of issuers for securities from column A.

	A	B	C
1	**Bond ID**	**TIN**	
2	XS0191754729	=Cbonds.EmitentTIN(A2)	
3	RU000A0JTS06	=Cbonds.EmitentTIN(A3)	
4	792487	=Cbonds.EmitentTIN(A4)	

As a result, column B takes the following form:

	A	B	C
1	**Bond ID**	**TIN**	
2	XS0191754729	7736050003	
3	RU000A0JTS06	7706107510	
4	792487	7710140679	

Cbonds.ETFLastPrice

The function Cbonds.ETFLastPrice returns ETF last price in trading currency.

Syntax

Cbonds.ETFLastPrice(EtfID, Date, TradingFloorId)

The function syntax has the following arguments:

- **EtfID** – Required. ETF identifier (ISIN, ticker, id in the Cbonds database).
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier.

Example

Column A contains ETF identifiers, column B contains trading dates, and column C contains identifiers of the trading floors. Column D contains the function Cbonds.ETFLastPrice, which returns last price for ETF from column A.

	A	B	C	D	E
1	**ETF ID**	**Date**	**S.E.**	**Last**	
2	DE0005933931	28.09.2020	137	=Cbonds.ETFLastPrice(A2;B2;C2)	
3	USMV	21.01.2021	147	=Cbonds.ETFLastPrice(A3;B3;C3)	
	55	12.10.2021	147	=Cbonds.ETFLastPrice(A4;B4;C4)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**ETF ID**	**Date**	**S.E.**	**Last**	
2	DE0005933931	28.09.2020	137	109,22	
3	USMV	21.01.2021	147	67,99	
	55	12.10.2021	147	50,46	

Cbonds.ETFNAV

The function Cbonds.ETFNAV returns the ETF's net asset value in the fund's currency.

Syntax

Cbonds.ETFNAV(EtfID, Date)

The function syntax has the following arguments:

- **EtfID** – Required. ETF identifier (ISIN, id in the Cbonds database).
- **Date** – Required. Trading date.

Example

Column A contains ETF identifiers, column B contains trading dates. Column C contains the function Cbonds.ETFNAV, which returns NAV for ETF from column A.

	A	B	C	D
1	**ETF ID**	**Date**	**NAV**	
2	US46429B6974	29.09.2021	=Cbonds.ETFNAV(A2;B2)	
3	5449	11.10.2021	=Cbonds.ETFNAV(A3;B3)	

As a result, column C takes the following form:

	A	B	C	D
1	**ETF ID**	**Date**	**NAV**	
2	US46429B6974	29.09.2021	27 245 256 632,00	
3	5449	11.10.2021	355 922 112,86	

Cbonds.ETFNAVusd

The function Cbonds.ETFNAVusd returns the ETF's net asset value in USD.

Syntax

Cbonds.ETFNAVusd(EtfID, Date)

The function syntax has the following arguments:

- **EtfID** – Required. ETF identifier (ISIN, id in the Cbonds database).
- **Date** – Required. Trading date.

Example

Column A contains ETF identifiers, column B contains trading dates. Column C contains the function Cbonds.ETFNAV, which returns NAV for ETF from column A.

	A	B	C	D
1	**ETF ID**	**Date**	**NAV (USD)**	
2	US46429B6974	29.09.2021	=Cbonds.ETFNAVusd(A2;B2)	
3	5449	11.10.2021	=Cbonds.ETFNAVusd(A3;B3)	

As a result, column C takes the following form:

	A	B	C	D
1	**ETF ID**	**Date**	**NAV (USD)**	
2	US46429B6974	29.09.2021	27 245 256 632,00	
3	5449	11.10.2021	411 221 731,53	

Cbonds.IndexDate

The function Cbonds.IndexDate returns date of the current index value.

Syntax

Cbonds.IndexDate(IndexId)

The function syntax has the following arguments:

- **IndexId** - Required. The identifier of the index. The list of index with identifiers is available in the catalog.

Example

Column B contains issue identifiers; column C contains the function Cbonds.IndexDate, which returns the date of the current index value.

	A	B	C	D
1	**Index name**	**Index (id)**	**Date of the current index value**	
2	IFX-Cbonds. D	11	=Cbonds.IndexDate(B2)	
3	IFX-Cbonds. G-Spread	22185	=Cbonds.IndexDate(B3)	
4	IFX-Cbonds. YTM	9	=Cbonds.IndexDate(B4)	

As a result, column C takes the following form:

	A	B	C
1	**Index name**	**Index (id)**	**Date of the current index value**
2	IFX-Cbonds. D	11	28/08/2020
3	IFX-Cbonds. G-Spread	22185	28/08/2020
4	IFX-Cbonds. YTM	9	28/08/2020

Cbonds.IndexMeasure

The function Cbonds.IndexMeasure returns index measure.

Syntax

Cbonds.IndexMeasure(IndexId)

The function syntax has the following arguments:

- **IndexId** - Required. The identifier of the index. The list of index with identifiers is available in the catalog.

Example

Column B contains issue identifiers; column C contains the function Cbonds.IndexMeasure, which returns the index measure.

	A	B	C	D
1	**Index name**	**Index (id)**	**Measure (eng)**	
2	IFX-Cbonds. D	11	=Cbonds.IndexMeasure(B2)	
3	IFX-Cbonds. G-Spread	22185	=Cbonds.IndexMeasure(B3)	
4	IFX-Cbonds. YTM	9	=Cbonds.IndexMeasure(B4)	

As a result, column C takes the following form:

	A	B	C
1	**Index name**	**Index (id)**	**Measure (eng)**
2	IFX-Cbonds. D	11	days
3	IFX-Cbonds. G-Spread	22185	bps
4	IFX-Cbonds. YTM	9	%

Cbonds.IndexValue

The Cbonds.IndexValue function returns the index value on date. If the date is not set, the function returns current value.

Syntax

Cbonds.IndexValue(IndexID, [Date])

The function syntax has the following arguments:

- **IndexID** – Required. Index identifier in the Cbonds database.
- **Date** – Optional. Calculation date.

Example

Column B contains index identifiers, column C contains dates. Column D contains the function Cbonds.IndexValue, which returns value of index from column B on the date from column C.

	A	B	C	D
1	**Index**	**Cbonds ID**	**Date**	**Value**
2	IFX-Cbonds	1	06.06.2018	=Cbonds.IndexValue(B2;C2)
3	IFX-Cbonds D	11	06.06.2018	=Cbonds.IndexValue(B3;C3)
4	IFX-Cbonds YTM	9	06.06.2018	=Cbonds.IndexValue(B4;C4)

As a result, column D takes the following form:

	A	B	C	D
1	**Index**	**Cbonds ID**	**Date**	**Value**
2	IFX-Cbonds	1	06.06.2018	509.10
3	IFX-Cbonds D	11	06.06.2018	981.00
4	IFX-Cbonds YTM	9	06.06.2018	7.30

Cbonds.IndicativeCY

The function Cbonds.IndicativeCY returns the current yield by an indicative price in proportion per annum.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.IndicativeCY(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.IndicativeCY, which returns current yield to put-call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	06.07.2018		=Cbonds.IndicativeCY(A2;B2)
3	XS0114288789	06.07.2018	20	=Cbonds.IndicativeCY(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	06.07.2018		0,0678
3	XS0114288789	06.07.2018	20	0,0679

Cbonds.IndicativePrice

The function Cbonds.IndicativePrice returns indicative price of a bond in percentage of par.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.IndicativePrice(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.IndicativePrice, which returns the indicative price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		=Cbonds.IndicativePrice(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.IndicativePrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	XS0114288789	20.11.2017		117,26
3	XS0114288789	20.11.2017	20	117,16

Cbonds.IndicativeYTM

The function Cbonds.IndicativeYTM returns the yield to maturity by an indicative price in proportion per annum.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.IndicativeYTM(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 20 - Frankfurt S.E.). Column D contains the function Cbonds.IndicativeYTM, which returns yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		=Cbonds.IndicativeYTM(A2;B2)
3	XS0114288789	20.11.2017	20	=Cbonds.IndicativeYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	XS0114288789	20.11.2017		0,0281
3	XS0114288789	20.11.2017	20	0,0283

Cbonds.IndicativeYTP

The function Cbonds.IndicativeYTP returns the yield to put/call option by an indicative price in proportion per annum.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.IndicativeYTP(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.IndicativeYTP, which returns yield to put-call option for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JVWD9	20.11.2017		=Cbonds.IndicativeYTP(A2;B2)
3	RU000A0JWBK6	20.11.2017	1	=Cbonds.IndicativeYTP(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	RU000A0JVWD9	20.11.2017		0,0846
3	RU000A0JWBK6	20.11.2017	1	0,0792

Cbonds.IssueRatingsACRA

The function Cbonds.IssueRatingsACRA returns current issue ratings from ACRA rating agency.

Syntax

Cbonds.IssueRatingsACRA(StockID)

The function syntax has the following arguments:

- **BondID** - Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.IssueRatingsACRA, which returns the current issue ratings from ACRA for securities from column A.

	A	B	C
1	**ISIN**	**ACRA**	
2	RU000A0JUQ39	=Cbonds.IssueRatingsACRA(A2)	
3	RU000A0ZZ9R4	=Cbonds.IssueRatingsACRA(A3)	
4	RU000A1029A9	=Cbonds.IssueRatingsACRA(A4)	

As a result, column B takes the following form:

	A	B	C	D
1	**ISIN**	**ACRA**		
2	RU000A0JUQ39	AA+(RU)		
3	RU000A0ZZ9R4	AAA(RU)		
4	RU000A1029A9	No data		

Cbonds.IssueRatingsExpertRA

The function CbondsIssueRatingsExpertRA returns current issue ratings from Expert RA rating agencies.

Syntax

Cbonds.IssueRatingsExpertRA(StockID)

The function syntax has the following arguments:

- **BondID** - Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.IssueRatingsExpertRA, which returns the current issue ratings from Expert RA for securities from column A.

	A	B	C
1	**ISIN**	**Expert RA**	
2	RU000A0JUQ39	=Cbonds.IssueRatingsExpertRA(A2)	
3	RU000A0ZZ9R4	=Cbonds.IssueRatingsExpertRA(A3)	
4	RU000A1029A9	=Cbonds.IssueRatingsExpertRA(A4)	

As a result, column B takes the following form:

	A	B	C	D
1	**ISIN**	**Expert RA**		
2	RU000A0JUQ39	ruAA+		
3	RU000A0ZZ9R4	No data		
4	RU000A1029A9	ruAAA		

Cbonds.LastPrice

The function CbondsLastPrice returns last price of a bond in percentage of par value.

Syntax

Cbonds.LastPrice(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 115 – Oslo Bors). Column D contains the function Cbonds.LastPrice, which returns last price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Price**
2	NO0010737174	06.07.2018	115	=Cbonds.LastPrice(A2;B2;C3)
3	RU000A0JXVY3	06.07.2018	1	=Cbonds.LastPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Price**
2	NO0010737174	06.07.2018	115	103,75
3	RU000A0JXVY3	06.07.2018	1	104,97

Cbonds.LastYTM

The function Cbonds.LastYTM returns yield to maturity by last price in proportion per annum.

Syntax

Cbonds.LastYTM(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange, 115 – Oslo Bors). Column D contains the function Cbonds.LastYTM, which returns the yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	NO0010657885	06.07.2018	115	=Cbonds.LastYTM(A2;B2;C2)
3	RU000A0JQ557	06.07.2018	1	=Cbonds.LastYTM(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	NO0010657885	06.07.2018	115	0,0047
3	RU000A0JQ557	06.07.2018	1	0,0782

Cbonds.LastYTP

The function Cbonds.LastYTP returns yield to put/call option by last price in proportion per annum.

Syntax

Cbonds.LastYTP(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange, 115 – Oslo Bors). Column D contains the function Cbonds.LastYTM, which returns the yield to maturity for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	NO0010697485	06.07.2018	115	=Cbonds.LastYTP(A2;B2;C2)
3	RU000A0JXVY3	06.07.2018	1	=Cbonds.LastYTP(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Yield**
2	NO0010697485	06.07.2018	115	0,0856
3	RU000A0JXVY3	06.07.2018	1	0,1004

Cbonds.MarketPrice

The function Cbonds.MarketPrice returns market price of a bond from Moscow Exchange.

Syntax

Cbonds.MarketPrice(BondID, Date, TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.MarketPrice, which returns the market price from Moscow Exchange for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Market price**
2	XS2125163688	03.03.2020	1	=Cbonds.MarketPrice(A2;B2;C2)
3	RU000A101FA1	03.03.2020	135	=Cbonds.MarketPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Market price**
2	XS2125163688	03.03.2020	1	100
3	RU000A101FA1	03.03.2020	135	99.372

Cbonds.MaturityDate

The function Cbonds.MaturityDate returns the issue maturity date.

Syntax

Cbonds.MaturityDate(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.MaturityDate, which returns the maturity date for securities from column A.

	A	B	C
1	**ISIN**	**Maturity**	
2	XS0918604496	=Cbonds.MaturityDate(A2)	
3	RU000A0JSLP2	=Cbonds.MaturityDate(A3)	
4	RU000A0JSLQ0	=Cbonds.MaturityDate(A4)	

As a result, column B takes the following form:

	A	B	C
1	**ISIN**	**Maturity**	
2	XS0918604496	17.04.2020	
3	RU000A0JSLP2	25.01.2022	
4	RU000A0JSLQ0	26.11.2017	

Cbonds.MaxPrice

The function Cbonds.MaxPrice returns the maximum price of a bond.

Syntax

Cbonds.MaxPrice(BondId;Date;TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Optional. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.MaxPrice, which returns the maximum price for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Trading floor**	**Maximum price**	
2	XS0114288789	19.02.2020	237	=Cbonds.MaxPrice(A2;B2;C2)	
3	XS0971721450	22.03.2019	255	=Cbonds.MaxPrice(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Maximum price**
2	XS0114288789	19.02.2020	237	114.01
3	XS0971721450	22.03.2019	255	104.56

Cbonds.MinPrice

The function Cbonds.MinPrice returns the minimum price of a bond.

Syntax

Cbonds.MinPrice(BondId;Date;TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Optional. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.MinPrice, which returns the minimum price for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Trading floor**	**Minimum price**	
2	XS0114288789	19.02.2020	237	=Cbonds.MinPrice(A2;B2;C2)	
3	XS0971721450	22.03.2019	255	=Cbonds.MinPrice(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Minimum price**
2	XS0114288789	19.02.2020	237	113.8
3	XS0971721450	22.03.2019	255	104.48

Cbonds.MutualFundNAV

The function Cbonds.MutualFundNAV returns the mutual fund net asset value.

Syntax

Cbonds.MutualFundNAV(FundID; Date)

The function syntax has the following arguments:

- **FundID** – Required. Mutual fund identifier (ISIN, ticker, id in the Cbonds database).
- **Date** – Required. Trading date.

Example

Column A contains fund identifiers, column B contains trading dates. Column C contains the function Cbonds.MutualFundNAV, which returns NAV for funds from column A.

	A	B	C	D
1	**Fund ID**	**Date**	**NAV**	
2	RU000A103331	11.10.2021	=Cbonds.MutualFundNAV(A2;B2)	
3	GROD	12.10.2021	=Cbonds.MutualFundNAV(A3;B3)	
4	952	11.10.2021	=Cbonds.MutualFundNAV(A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**Fund ID**	**Date**	**NAV**	
2	RU000A103331	11.10.2021	14 358 518 672,52	
3	GROD	12.10.2021	84 839 471,87	
4	952	11.10.2021	14 367 657 500,22	

Cbonds.MutualFundShare

The function Cbonds.MutualFundShare returns the mutual fund share.

Syntax

Cbonds.MutualFundShare(FundID, Date)

The function syntax has the following arguments:

- **FundID** – Required. Mutual fund identifier (ISIN, ticker, id in the Cbonds database).
- **Date** – Required. Trading date.

Example

Column A contains fund identifiers, column B contains trading dates. Column C contains the function Cbonds.MutualFundShare, which returns share for funds from column A.

	A	B	C	D
1	**Fund ID**	**Date**	**Share**	
2	RU000A103331	11.10.2021	=Cbonds.MutualFundShare(A2;B2)	
3	GROD	12.10.2021	=Cbonds.MutualFundShare(A3;B3)	
4	952	11.10.2021	=Cbonds.MutualFundShare(A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**Fund ID**	**Date**	**Share**	
2	RU000A103331	11.10.2021	61 243,68	
3	GROD	12.10.2021	1 060,49	
4	952	11.10.2021	2 197,64	

Cbonds.Nominal

The function Cbonds.Nominal returns the issue nominal. For international bonds the function returns minimum settlement amount.

Syntax

Cbonds.Nominal(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.Nominal, which returns the nominal for securities from column A.

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	=Cbonds.Nominal(A2)
3	RU000A0JSLP2	=Cbonds.Nominal(A3)
4	RU000A0JSLQ0	=Cbonds.Nominal(A4)
5	RU000A0JWLQ2	=Cbonds.Nominal(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	200 000
3	RU000A0JSLP2	10 000 000
4	RU000A0JSLQ0	10 000 000
5	RU000A0JWLQ2	1 000

Cbonds.OnlineAskPrice

The function Cbonds.OnlineAskPrice returns online ask price of a bond in percentage of par value.

Syntax
Cbonds.OnlineAskPrice(BondId;TradingFloorId)
The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example
Column A contains issue identifiers, and column B contains trading floor identifier. Column C contains the function Cbonds.OnlineAskPrice, which returns the online ask price for securities from column A.

	A	B	C	D
1	**ISIN**	**Trading floor**	**Online ask price**	
2	XS2125163688	1	=Cbonds.OnlineAskPrice(A2;B2)	
3	RU000A101FA1	135	=Cbonds.OnlineAskPrice(A3;B3)	

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Trading floor**	**Online ask price**
2	XS2125163688	1	100
3	RU000A101FA1	135	99.372

Cbonds.OnlineBidPrice

The function Cbonds.OnlineBidPrice returns online bid price of a bond in percentage of par value.

Syntax

Cbonds.OnlineBidPrice(BondId;TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers and column B contains trading floor identifier. Column C contains the function Cbonds.OnlineBidPrice, which returns the online bid price for securities from column A.

	A	B	C	D
1	**ISIN**	**Trading floor**	**Online bid price**	
2	XS2125163688	1	=Cbonds.OnlineBidPrice(A2;B2)	
3	RU000A101FA1	135	=Cbonds.OnlineBidPrice(A3;B3)	

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Trading floor**	**Online bid price**
2	XS2125163688	1	99,8
3	RU000A101FA1	135	99,25

Cbonds.OnlineIndicativePrice

The function Cbonds.OnlineIndicativePrice returns online indicative price of a bond in percentage of par value.

The indicative price is calculated according to the following price priority: weighted average price (average), market price (market), closing price (close), admitted quote (admitted), mid price (mid), last price (last).

Syntax

Cbonds.OnlineIndicativePrice(BondId;TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, and column B contains trading floor identifier. Column C contains the function Cbonds.OnlineIndicativePrice, which returns the online indicative price for securities from column A.

	A	B	C	D
1	**ISIN**	**Trading floor**	**Online indicative price**	
2	XS2125163688	1	=Cbonds.OnlineIndicativePrice(A2;B2)	
3	RU000A101FA1	135	=Cbonds.OnlineIndicativePrice(A3;B3)	

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Trading floor**	**Online indicative price**
2	XS2125163688	1	99,9
3	RU000A101FA1	135	99,29

Cbonds.OpenPrice

The function Cbonds.OpenPrice returns the open price of a bond.

Syntax

Cbonds.OpenPrice(BondId;Date;TradingFloorId)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Calculation date.
- **TradingFloorId** – Optional. As a trading floor, Cbonds Estimation is set as default.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains trading floor identifier. Column D contains the function Cbonds.OpenPrice, which returns the open price for securities from column A.

	A	B	C	D	E
1	**ISIN**	**Date**	**Trading floor**	**Open price**	
2	XS0114288789	19.02.2020	237	=Cbonds.OpenPrice(A2;B2;C2)	
3	XS0971721450	22.03.2019	255	=Cbonds.OpenPrice(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**Trading floor**	**Open price**
2	XS0114288789	19.02.2020	237	113.92
3	XS0971721450	22.03.2019	255	104.48

Cbonds.OutstandingFaceValue

The function Cbonds.OutstandingFaceValue returns the issue outstanding principal amount.

Syntax

Cbonds.OutstandingFaceValue (BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers; column C contains the function Cbonds.OutstandingFaceValue, which returns the outstanding principal amount for securities from column A.

	A	B	C	D
1	**Bond ID**	**Date**	**Amount**	
2	XS0918604496	20.11.2017	=Cbonds.OutstandingFaceValue (A2;B2)	
3	XS0114288789	20.11.2017	=Cbonds.OutstandingFaceValue (A3;B3)	
4	RU000A0JXVY3	20.11.2017	=Cbonds.OutstandingFaceValue (A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**Bond ID**	**Date**	**Amount**	
2	XS0918604496	20.11.2017	200 000	
3	XS0114288789	20.11.2017	0,475	
4	RU000A0JXVY3	20.11.2017	1 000	

Cbonds.OutstandingFaceValueAmount

The function Cbonds.OutstandingFaceValueAmount returns the issue outstanding face value amount.

Syntax

Cbonds.OutstandingFaceValueAmount(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.OutstandingFaceValueAmount, which returns the outstanding face value amount for securities from column A.

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	=Cbonds.OutstandingFaceValueAmount(A2)
3	RU000A0JSLP2	=Cbonds.OutstandingFaceValueAmount(A3)
4	RU000A0JSLQ0	=Cbonds.OutstandingFaceValueAmount(A4)
5	RU000A0JWLQ2	=Cbonds.OutstandingFaceValueAmount(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Amount**
2	XS0918604496	600 000 000
3	RU000A0JSLP2	8 874 457 501
4	RU000A0JSLQ0	15 000 000 000
5	RU000A0JWLQ2	300 000 000

Cbonds.OutstandingFaceValueIndexed

The function Cbonds.OutstandingFaceValueIndexed returns outstanding principal amount for indexed issues.

Syntax

Cbonds.OutstandingFaceValueIndexed(BondID, Date)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond (id in Cbonds database).
- **Date** – Required. Date.

Example

Column A contains issue identifiers; column C contains the function Cbonds.OutstandingFaceValueIndexed, which returns the outstanding principal amount for securities from column A.

	A	B	C	D
1	**Bond ID**	**Date**	**Amount**	
2	155637	29.07.2021	=Cbonds.OutstandingFaceValueIndexed(A2;B2)	
3	177269	18.11.2021	=Cbonds.OutstandingFaceValueIndexed(A3;B3)	
4	203411	01.09.2020	=Cbonds.OutstandingFaceValueIndexed(A4;B4)	

As a result, column C takes the following form:

	A	B	C	D
1	**Bond ID**	**Date**	**Amount**	
2	155637	29.07.2021	1 310,65	
3	177269	18.11.2021	1 306,57	
4	203411	01.09.2020	1 169,72	

Cbonds.PaymentsNumber

The function Cbonds.PaymentsNumber returns the coupon frequency per year.

Syntax

Cbonds.PaymentsNumber(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.PaymentsNumber, which returns the coupon frequency for securities from column A.

	A	B
1	**ISIN**	**Frequency**
2	XS0918604496	=Cbonds.PaymentsNumber(A2)
3	RU000A0JSLP2	=Cbonds.PaymentsNumber(A3)
4	RU000A0JSLQ0	=Cbonds.PaymentsNumber(A4)
5	RU000A0JWLQ2	=Cbonds.PaymentsNumber(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Frequency**
2	XS0918604496	2
3	RU000A0JSLP2	1
4	RU000A0JSLQ0	1
5	RU000A0JWLQ2	2

Cbonds.PlacementDate

The function Cbonds.PlacementDate returns placement date.

Syntax

Cbonds.PlacementDate(StockID)

The function syntax has the following arguments:

- **BondID** Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.PlacementDate, which returns the placement date for securities from column A.

	A	B	C	D
1	**ISIN**	**Placement date**		
2	XS0918604496	=Cbonds.PlacementDate(A2)		
3	RU000A0JSLP2	=Cbonds.PlacementDate(A3)		
4	RU000A0JSLQ0	=Cbonds.PlacementDate(A4)		
5	RU000A0JWLQ2	=Cbonds.PlacementDate(A5)		

As a result, column B takes the following form:

	A	B	C	D
1	**ISIN**	**Placement date**		
2	XS0918604496	11/04/2013		
3	RU000A0JSLP2	27/11/2012		
4	RU000A0JSLQ0	27/11/2012		
5	RU000A0JWLQ2	27/06/2016		

Cbonds.PreviousAmortizationDate

The Cbonds.PreviousAmortizationDate function returns the previous amortization date regarding the given date.

Syntax

Cbonds.PreviousAmortizationDate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.PreviousAmortizationDate, which returns the previous amortization dates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Amortization date**
2	RU000A0JVS10	12.03.2019	=Cbonds.PreviousAmortizationDate(A2;B2)
3	RU000A0JU3B6	18.02.2019	=Cbonds.PreviousAmortizationDate(A3;B3)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Amortization date**
2	RU000A0JVS10	12.03.2019	11.09.2018
3	RU000A0JU3B6	18.02.2019	20.08.2018

Cbonds.PreviousAmortizationSum

The Cbonds.PreviousAmortizationSum function returns the previous amortization sum in face value currency regarding the given date.

Syntax

Cbonds.PreviousAmortizationSum(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.PreviousAmortizationSum, which returns the previous amortization sum for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Amortization**
2	RU000A0JVS10	12.03.2019	=Cbonds.PreviousAmortizationSum(A2;B2)
3	RU000A0JU3B6	18.02.2019	=Cbonds.PreviousAmortizationSum(A3;B3)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Amortization**
2	RU000A0JVS10	12.03.2019	100
3	RU000A0JU3B6	18.02.2019	200

Cbonds.PreviousCouponDate

The Cbonds.PreviousCouponDate function returns the previous coupon date regarding the given date.

Syntax

Cbonds.PreviousCouponDate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.PreviousCouponDate, which returns the previous coupon dates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Coupon date**
2	XS0114288789	20.11.2018	=Cbonds.PreviousCouponDate(A2;B2)
3	RU000A0JXVY3	20.11.2018	=Cbonds.PreviousCouponDate(A3;B3)
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.PreviousCouponDate(A4;B4)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Coupon date**
2	XS0114288789	20.11.2018	30.09.2018
3	RU000A0JXVY3	20.11.2018	18.07.2018
4	RU000A0ZYCJ8	20.11.2018	09.10.2018

Cbonds.PreviousCouponRate

The Cbonds.PreviousCouponRate function returns the previous coupon rate in percentage per annum regarding the given date.

Syntax

Cbonds.PreviousCouponRate(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.PreviousCouponRate, which returns the previous coupon rates for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Rate**
2	XS0114288789	20.11.2018	=Cbonds.PreviousCouponRate(A2;B2)
3	RU000A0JXVY3	20.11.2018	=Cbonds.PreviousCouponRate(A3;B3)
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.PreviousCouponRate(A4;B4)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Rate**
2	XS0114288789	20.11.2018	7.5
3	RU000A0JXVY3	20.11.2018	15
4	RU000A0ZYCJ8	20.11.2018	8.5

Cbonds.PreviousCouponSum

The Cbonds.PreviousCouponSum function returns the previous coupon sum in face value currency regarding the given date.

Syntax

Cbonds.PreviousCouponSum(BondID; [Date])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Optional. Date. Today is set as default.

Example

Column A contains issue identifiers, column B contains dates. Column C contains the function Cbonds.PreviousCouponSum, which returns the previous coupon sum for securities from column A.

	A	B	C
1	**ISIN**	**Date**	**Coupon sum**
2	XS0114288789	20.11.2018	=Cbonds.PreviousCouponSum(A2;B2)
3	RU000A0JXVY3	20.11.2018	=Cbonds.PreviousCouponSum(A3;B3)
4	RU000A0ZYCJ8	20.11.2018	=Cbonds.PreviousCouponSum(A4;B4)

As a result, column C takes the following form:

	A	B	C
1	**ISIN**	**Date**	**Coupon sum**
2	XS0114288789	20.11.2018	0.0166875
3	RU000A0JXVY3	20.11.2018	74.79
4	RU000A0ZYCJ8	20.11.2018	42.38

Cbonds.PreviousIndexDate

The function Cbonds.PreviousIndexDate returns date of the previous index value.

Syntax

CbondsPreviousIndexDate(IndexId)

The function syntax has the following arguments:

- **IndexId** - Required. The identifier of the index. The list of index with identifiers is available in the catalog.

Example

Column B contains issue identifiers; column C contains the function Cbonds.PreviousIndexDate, which returns the date of the previous index value.

	A	B	C	D
1	**Index name**	**Index (id)**	**Date of the previous index value**	
2	IFX-Cbonds D	11	=Cbonds.PreviousIndexDate(B2)	
3	IFX-Cbonds G-Spread	22185	=Cbonds.PreviousIndexDate(B3)	
4	IFX-Cbonds YTM	9	=Cbonds.PreviousIndexDate(B4)	

As a result, column C takes the following form:

	A	B	C
1	**Index name**	**Index (id)**	**Date of the previous index value**
2	IFX-Cbonds D	11	27/08/2020
3	IFX-Cbonds G-Spread	22185	27/08/2020
4	IFX-Cbonds YTM	9	27/08/2020

Cbonds.PreviousIndexValue

The function Cbonds.PreviousIndexValue returns index previous index value.

Syntax

Cbonds.PreviousIndexValue(IndexId)

The function syntax has the following arguments:

- **IndexId** - Required. The identifier of the index. The list of index with identifiers is available in the catalog.

Example

Column A contains issue identifiers; column B contains the function Cbonds.PreviousIndexValue, which returns the previous index value.

	A	B	C	D
1	**Index name**	**Index (id)**	**Previous index value**	
2	IFX-Cbonds. D	11	=Cbonds.PreviousIndexValue(B2)	
3	IFX-Cbonds. G-Spread	22185	=Cbonds.PreviousIndexValue(B3)	
4	IFX-Cbonds. YTM	9	=Cbonds.PreviousIndexValue(B4)	

As a result, column B takes the following form:

	A	B	C
1	**Index name**	**Index (id)**	**Previous index value**
2	IFX-Cbonds. D	11	912
3	IFX-Cbonds. G-Spread	22185	105,59
4	IFX-Cbonds. YTM	9	5,91

Cbonds.PutDate

The function Cbonds.PutDate returns the nearest put-option date.

Syntax

Cbonds.PutDate(BondID)

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.PutDate, which returns the put date for securities from column A.

	A	B
1	**ISIN**	**Put**
2	RU000A0JUFU0	=Cbonds.PutDate(A2)
3	RU000A0JUCS1	=Cbonds.PutDate(A3)
4	RU000A0JWTN2	=Cbonds.PutDate(A4)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Put**
2	RU000A0JUFU0	14.02.2019
3	RU000A0JUCS1	19.12.2018
4	RU000A0JWTN2	24.09.2019

Cbonds.RAS

The function Cbonds.RAS returns the value of a specific indicator of reporting under RAS.

Syntax

Cbonds.RAS(EmitentId;Date;Code;Unit)

The function syntax has the following arguments:

- **EmitentId** – Required. The identifier of the issuer. The identifier can be TIN, PSRN, LEI.
- **Date** – Required. Calculation date.
- **Code** – Required. Reporting indicator code. The list of codes is available in the catalog.
- **Unit** – Optional. Measurement unit (0 - thousands, 1 - millions). By default, the parameter is 0.

Example

Column A contains issuer identifiers, column B contains reporting dates, and column C contains reporting indicator codes. Column D contains the function Cbonds.RAS, which returns the value of a specific indicator of reporting under RAS.

	A	B	C	D	E
1	**TIN**	**Date**	**Code**	**Indicator value**	
2	7736050003	30.06.2020	2110	=Cbonds.RAS(A2;B2;C2)	
3	7706107510	31.03.2020	1250	=Cbonds.RAS(A3;B3;C3)	

As a result, column D takes the following form:

	A	B	C	D	E
1	**TIN**	**Date**	**Code**	**Indicator value**	
2	7736050003	30.06.2020	2110	1 883 271 318	
3	7706107510	31.03.2020	1250	81 531 642	

Cbonds.StockAskPrice

The function Cbonds.StockAskPrice returns stock ask price in trading currency.

Syntax

Cbonds.StockAskPrice(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 6 – London S.E.). Column D contains the function Cbonds.StockAskPrice, which returns ask price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	RU0007661625	12.11.2018	1	=Cbonds.StockAskPrice(A2;B2;C2)
3	GB00BFZ45C84	12.11.2018	6	=Cbonds.StockAskPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Ask**
2	RU0007661625	12.11.2018	1	151,15
3	GB00BFZ45C84	12.11.2018	6	40,00

Cbonds.StockAvgPrice

The function Cbonds.StockAvgPrice returns stock average price in trading currency.

Syntax

Cbonds.StockAvgPrice(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.StockAvgPrice, which returns price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Avg**
2	RU0007661625	12.11.2018	1	=Cbonds.StockAvgPrice(A2;B2;C2)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Avg**
2	RU0007661625	12.11.2018	1	152,25

Cbonds.StockBidPrice

The function Cbonds.StockBidPrice returns stock bid price in trading currency.

Syntax

Cbonds.StockBidPrice(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 6 – London S.E.). Column D contains the function Cbonds.StockBidPrice, which returns bid price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Bid**
2	RU0007661625	12.11.2018	1	=Cbonds.StockBidPrice(A2;B2;C2)
3	GB00BFZ45C84	12.11.2018	6	=Cbonds.StockBidPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Bid**
2	RU0007661625	12.11.2018	1	151,10
3	GB00BFZ45C84	12.11.2018	6	38,00

Cbonds.StockCurrency

The function Cbonds.StockCurrency returns stock trading currency.

Syntax

Cbonds.StockCurrency(StockID, TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains identifiers of the trading floors (1 - Moscow Exchange, 10 – KASE). Column C contains the function Cbonds.StockCurrency, which returns currency for securities from column A.

	A	B	C	D
1	**ISIN**	**S.E.**	**Currency**	
2	RU0007661625	1	=Cbonds.StockCurrency(A2;B2)	
3	RU0007661625	10	=Cbonds.StockCurrency(A3;B3)	

As a result, column C takes the following form:

	A	B	C	D
1	**ISIN**	**S.E.**	**Currency**	
2	RU0007661625	1	RUB	
3	RU0007661625	10	KZT	

Cbonds.StockDealsNumber

The function Cbonds.StockDealsNumber returns stock daily deals number.

Syntax

Cbonds.StockDealsNumber(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange). Column D contains the function Cbonds.StockDealsNumber, which returns price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Deals**
2	RU0007661625	12.11.2018	1	=Cbonds.StockDealsNumber(A2;B2;C2)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Deals**
2	RU0007661625	12.11.2018	1	25 446

Cbonds.StockLastPrice

The function Cbonds.StockLastPrice returns stock last price in trading currency.

Syntax

Cbonds.StockLastPrice(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 26 – New York S.E.). Column D contains the function Cbonds.StockLastPrice, which returns last price for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Last**
2	RU0007661625	12.11.2018	1	=Cbonds.StockLastPrice(A2;B2;C2)
3	US38141G1040	12.11.2018	26	=Cbonds.StockLastPrice(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Last**
2	RU0007661625	12.11.2018	1	150,89
3	US38141G1040	12.11.2018	26	206,05

Cbonds.StockName

The function Cbonds.StockName returns stock name.

Syntax

Cbonds.StockName(StockID)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in Cbonds database.

Example

Column A contains issue identifiers; column B contains the function Cbonds.StockName, which returns the stock name for securities from column A.

	A	B
1	**ISIN**	**Stock name**
2	RU0009029540	=Cbonds.StockName(A2)
3	RU0007661625	=Cbonds.StockName(A3)
4	RU0009024277	=Cbonds.StockName(A4)
5	RU0006944147	=Cbonds.StockName(A5)

As a result, column B takes the following form:

	A	B
1	**ISIN**	**Stock name**
2	RU0009029540	Sberbank, ord.
3	RU0007661625	Gazprom, ord.
4	RU0009024277	Lukoil, ord.
5	RU0006944147	Tatneft, pref

Cbonds.StockTradingVolume

The function Cbonds.StockTradingVolume returns stock daily trading volume.

Syntax

Cbonds.StockTradingVolume(StockID; Date; TradingFloorId)

The function syntax has the following arguments:

- **StockID** – Required. The identifier of the stock. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Required. Trading floor identifier. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifiers of the trading floors (1 - Moscow Exchange, 6 – London S.E.). Column D contains the function Cbonds.StockTradingVolume, which returns trading volume for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Volume**
2	RU0007661625	12.11.2018	1	=Cbonds.StockTradingVolume(A2;B2;C2)
3	GB00BFZ45C84	12.11.2018	6	=Cbonds.StockTradingVolume(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Volume**
2	RU0007661625	12.11.2018	1	2 270 538 509,85
3	GB00BFZ45C84	12.11.2018	6	89 271,00

Cbonds.TradingFloorName

The function Cbonds.TradingFloorName returns trading floor name.

Syntax

Cbonds.TradingFloorName(TradingFloorId)

The function syntax has the following arguments:

- **TradingFloorId** – Required. The identifier of the trading floor. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers; column B contains the function Cbonds.TradingFloorName, which returns the trading floor name.

	A	B
1	**Trading floor (id)**	**Trading floor (eng)**
2	1	=Cbonds.TradingFloorName(A2)
3	135	=Cbonds.TradingFloorName(A3)
4	4	=Cbonds.TradingFloorName(A4)
5	20	=Cbonds.TradingFloorName(A5)

As a result, column B takes the following form:

	A	B
1	**Trading floor (id)**	**Trading floor (eng)**
2	1	Moscow Exchange
3	135	Moscow Exchange T+
4	4	Cbonds Estimation
5	20	Frankfurt S.E.

Cbonds.TradingVolume

The function Cbonds.TradingVolume returns daily trading volume of a bond in the issue currency.

Syntax
Cbonds.TradingVolume(BondID; Date; [TradingFloorId])

The function syntax has the following arguments:

- **BondID** – Required. The identifier of the bond. The identifier can be ISIN RegS, ISIN 144A, CUSIP RegS, CUSIP 144A, state registration number, id in the Cbonds database.
- **Date** – Required. Trading date.
- **TradingFloorId** – Optional. Trading floor identifier. As a trading floor, Cbonds Estimation is set as default. The list of trading platforms with identifiers is available in Appendix 12.

Example

Column A contains issue identifiers, column B contains trading dates, and column C contains identifies the trading floors (1 - Moscow Exchange, 105 – Istanbul S.E.). Column D contains the function Cbonds.TradingVolume, which returns the volume for securities from column A.

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Volume**
2	TRT150120T16	29.06.2018	105	=Cbonds.TradingVolume(A2;B2;C2)
3	RU000A0JXVY3	29.06.2018	1	=Cbonds.TradingVolume(A3;B3;C3)

As a result, column D takes the following form:

	A	B	C	D
1	**ISIN**	**Date**	**S.E.**	**Volume**
2	TRT150120T16	29.06.2018	105	2 563 652
3	RU000A0JXVY3	29.06.2018	1	1 443 503