



## Extracting representative exchange rates from the new series database

Please note that foreign exchange rate data in the series database are revised about 15 minutes after the publication of the rates, meaning around 3:45 pm, in XML format, at [boi.org.il/currency.xml](http://boi.org.il/currency.xml).

Every series in the database is a time series. It is possible to view one observation, a range of dates, or all observations that exist for that series.

This explanation is with regard to the representative exchange rates, but it can be drawn upon for information on how to extract from any series that is accessible in the new series database.

There are two methods for extracting time series:

### a. Extraction using API

The URL is comprised of a fixed portion, together with a number of parameters that can be changed according to the user's needs.

1. The fixed portion:  
<https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS>
2. Parameters:
  - **Code for the content field:** EXR – exchange rates<sup>1</sup>
  - **Version** (doesn't change) 1.0
  - Since there are exchange rates that are not necessarily representative rates, it is necessary to choose a parameter that will show that they are representative rates: **DATA\_TYPE=OF00**
  - Date ranges (If this parameter is not added, the default is the entire existing range of dates):
    - **Range:** startperiod=2008-01-02&endperiod=2008-01-03. Please use only this date format for daily observations.
    - N last observations: lastNObservations=N
  - **Data extraction format:** format=
    - Csv
    - Excel-series
    - Excel-table
    - Sdmx-json
    - Default=xml – do not include the format
  - Data characters (information on additional features of the series)
    - Labels=**id** or **name** or **both**, default id

This extraction will provide data for representative rates only, between certain dates, in CSV format:

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<sup>1</sup> If you are interested in extracting series from content fields other than exchange rates, you must first enter the series interface in order to find the content field code. There is an explanation later in this document.



[https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/?c%5BDTA\\_TYPE%5=OF00&startperiod=2008-01-01&endperiod=2008-01-02&format=csv](https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/?c%5BDTA_TYPE%5=OF00&startperiod=2008-01-01&endperiod=2008-01-02&format=csv)

If you want only one or two series in CSV format:

[https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER\\_GBP\\_ILS?format=csv](https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER_GBP_ILS?format=csv)

[https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER\\_AUD\\_ILS,RER\\_ESP\\_ILS?format=csv](https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER_AUD_ILS,RER_ESP_ILS?format=csv)

### 3. Calculations

You can calculate an average by converting the original frequency of the data (in this case daily).

Normalisefreq=M;mean

Choose the target frequency, in this case M (monthly), and then choose the type of calculation (in this case average).

You can choose any lower frequency. For instance, if the data are daily, you can calculate monthly, quarterly, or yearly. If the data is already monthly, you cannot convert it to daily, but only quarterly or yearly.

Type of calculation:

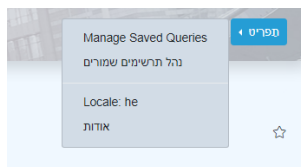
Sum, mean, median, min, max, stdddev, stddevsample, var, varsample, count, firstperiod, lastperiod, miperiod

[https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER\\_GBP\\_ILS?format=csv&normalisefreq=M;mean](https://edge.boi.org.il/FusionEdgeServer/sdmx/v2/data/dataflow/BOI.STATISTICS/EXR/1.0/RER_GBP_ILS?format=csv&normalisefreq=M;mean)

#### b. Extraction using the series interface:

<https://edge.boi.gov.il/FusionDataBrowser>

Choose your language:



Choose the exchange rate content field:



**Dataset Navigation**

- Bank Of Israel
- Banking
- Bond Market and Makam
- Money and Debt aggregates
- Inflation and Forecasts
- BOI interest rate and the Monetary Tools
- Interest rate derivatives
- Foreign Exchange Market**
- Banknotes and Coins
- Real Economic Activity
- Public Sector Activity

Choose specific series: If nothing is marked, the next action will be taken on all series in the chosen content area.

Home > Exchange Rates

Series name | Frequency | Base currency | Counterpart Currency | Unit of Measure | Official fixing

0 Series Selected | 1 filter(s) applied

<input type="checkbox"/>	Representative Exchange Rate Austrian schilling/New Israeli shekel	Daily	Units, New Israeli shekel	1962-02-10 / 2002-01-25	2.9	✓
<input type="checkbox"/>	Representative Exchange Rate Australian dollar/New Israeli shekel	Daily	Units, New Israeli shekel	1962-02-10 / 2023-01-03	2.4	✓
<input type="checkbox"/>	Representative Exchange Rate Belgian franc (financial)/New Israeli shekel	Daily	Units, New Israeli shekel	1962-02-10 / 2002-01-25	1.0	✓
<input type="checkbox"/>	Representative Exchange Rate Canadian dollar/New Israeli shekel	Daily	Units, New Israeli shekel	1962-02-10 / 2023-01-03	2.6	✓

If you want only representative exchange rates, choose the relevant type of data:

Official fixing

Search Data type








- Nominal effective exch. rate EN00
- Real effective exch. rate CPI deflated ERC0
- Official fixing OF00** ✓
- Spot SP00
- Actual STD STD\_A
- Implied STD STD\_I

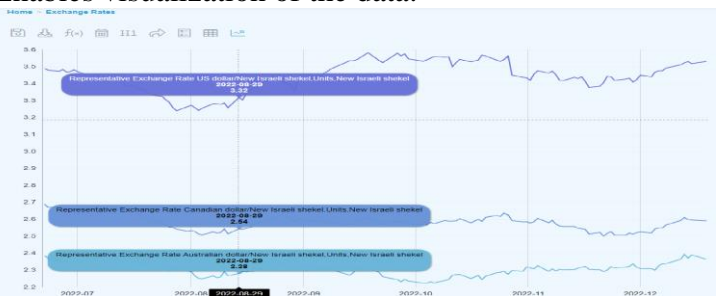


- a. After marking the series you want, you can take various actions by clicking on the icons at the top of the page.



The following are the functions of the various icons:

	Shares the selected series	
	Saves the selected series (locally on the browser) for rapid loading later on	
	Creates a basket of series for rapid loading later on	
	Exports series in a number of formats (see below)	
	Returns to the list of series	
	Enables viewing of the series as a table	In addition, it opens a submenu that enables various manipulations of the data.
	Enables visualization of the data:	



- b. Exporting series



In order to export, please choose the series you want to export and click on the icon.

In the screen that opens, please fill in the various parameters for export. In the “format” field, please choose from among the following formats:



Export Data✕

Format	Excel Table
Slice	<div style="background-color: #007bff; color: white; padding: 2px;">Excel Table</div> <div style="padding: 2px;">CSV</div> <div style="padding: 2px;">SDMX</div>
Include Attributes	
Calculations	Nothing selected
Date From	<input type="text" value="dd/mm/yyyy"/>
Date To	<input type="text" value="dd/mm/yyyy"/>
First 'n' Observations	<div style="display: flex; gap: 5px;"> <span>1</span> <span>2</span> <span>3</span> <span>4</span> <span>5</span> <span>6</span> <span>12</span> <span>24</span> <span>50</span> <span>100</span> <span style="background-color: #007bff; color: white; padding: 2px 5px;">All</span> </div>
Last 'n' Observations	<div style="display: flex; gap: 5px;"> <span>1</span> <span>2</span> <span>3</span> <span>4</span> <span>5</span> <span>6</span> <span>12</span> <span>24</span> <span>50</span> <span>100</span> <span style="background-color: #007bff; color: white; padding: 2px 5px;">All</span> </div>

**Calculations:**

Export Data✕

Format	Excel Series												
Slice	-												
Calculations	Convert Frequency												
Convert Frequency	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Target Frequency</td> <td style="border: 1px solid #ccc; padding: 2px;">Monthly</td> </tr> <tr> <td>Aggregation Function</td> <td style="border: 1px solid #ccc; padding: 2px;"> <div style="background-color: #f0f0f0; padding: 2px;">Arithmetic Mean</div> </td> </tr> <tr> <td>Date From</td> <td style="border: 1px solid #ccc; padding: 2px;"><input type="text"/></td> </tr> <tr> <td>Date To</td> <td style="border: 1px solid #ccc; padding: 2px;"> <div style="background-color: #007bff; color: white; padding: 2px;">Arithmetic Mean</div> <div style="padding: 2px;">Sum</div> <div style="padding: 2px;">Median</div> <div style="padding: 2px;">First Period</div> <div style="padding: 2px;">Last Period</div> <div style="padding: 2px;">Min</div> <div style="padding: 2px;">Max</div> <div style="padding: 2px;">Std Dev</div> <div style="padding: 2px;">Std Dev (Sample)</div> <div style="padding: 2px;">Variance</div> <div style="padding: 2px;">Variance (Sample)</div> <div style="padding: 2px;">Count</div> </td> </tr> <tr> <td>First 'n' Observations</td> <td style="border: 1px solid #ccc; padding: 2px;"></td> </tr> <tr> <td>Last 'n' Observations</td> <td style="border: 1px solid #ccc; padding: 2px;"></td> </tr> </table>	Target Frequency	Monthly	Aggregation Function	<div style="background-color: #f0f0f0; padding: 2px;">Arithmetic Mean</div>	Date From	<input type="text"/>	Date To	<div style="background-color: #007bff; color: white; padding: 2px;">Arithmetic Mean</div> <div style="padding: 2px;">Sum</div> <div style="padding: 2px;">Median</div> <div style="padding: 2px;">First Period</div> <div style="padding: 2px;">Last Period</div> <div style="padding: 2px;">Min</div> <div style="padding: 2px;">Max</div> <div style="padding: 2px;">Std Dev</div> <div style="padding: 2px;">Std Dev (Sample)</div> <div style="padding: 2px;">Variance</div> <div style="padding: 2px;">Variance (Sample)</div> <div style="padding: 2px;">Count</div>	First 'n' Observations		Last 'n' Observations	
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First 'n' Observations													
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Then click on the **Export** button.

You can obtain the data in PI query format, which you can then embed in your



systems, by clicking on the **Query Syntax** button.

In the window that opens, you will be able to copy the query that you created and add the required suffix as explained at the beginning of this document.