Data Sources Tutorial

This tutorial explains how to utilize several public IMF and World Bank databases to find and retrieve various data series necessary to perform your own Debt Sustainability Analysis.[1] To access these tools, simply visit www.imf.org, and click on the "Data" tab.

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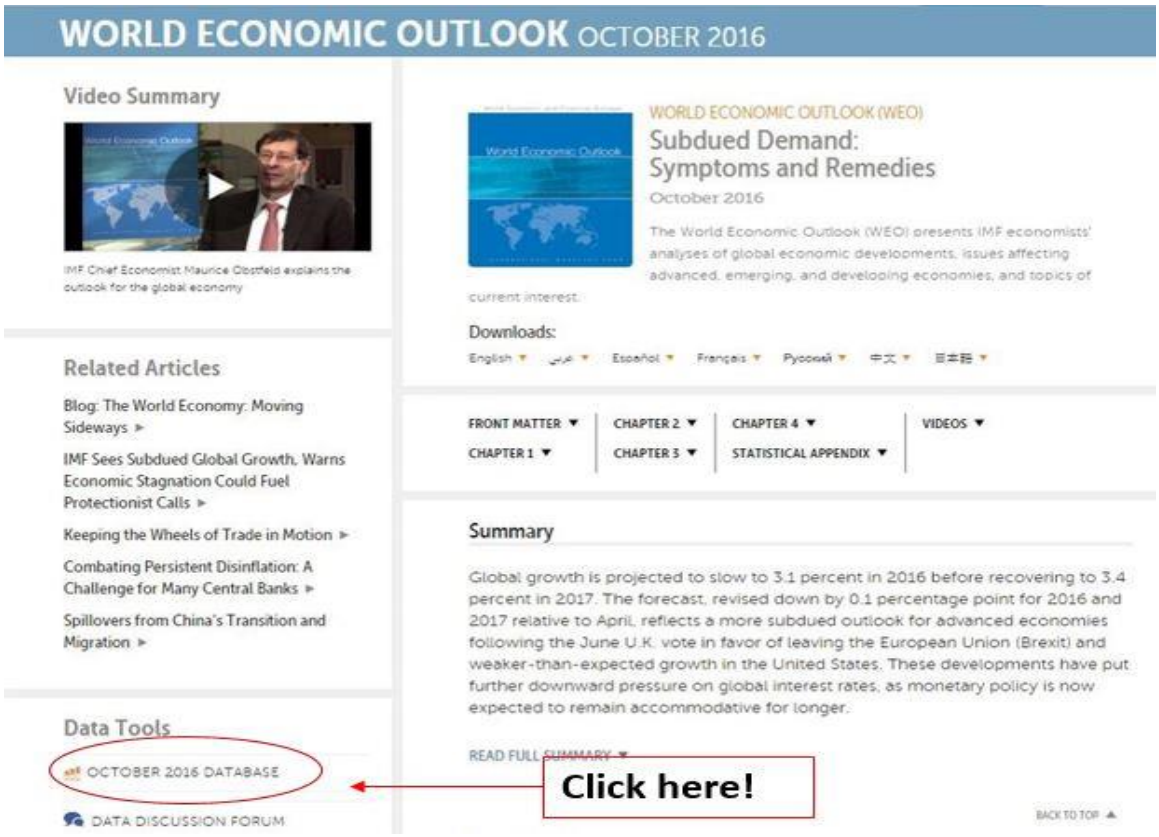
[1] This should complement other sources of data, like those published by national authorities or other agencies.

I. WORLD ECONOMIC OUTLOOK (WEO)

Access

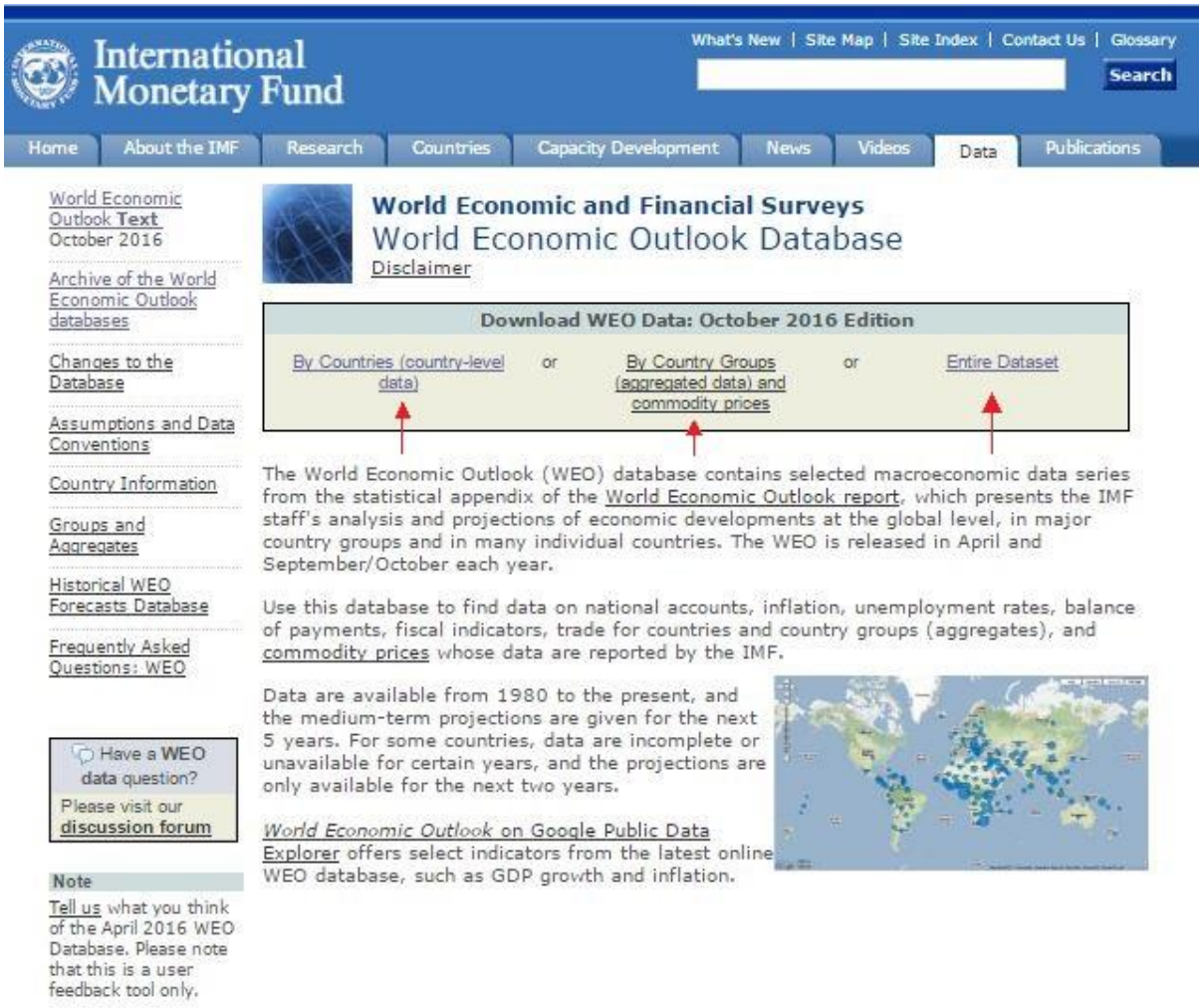
On the IMF's Data page http://www.imf.org/external/data.htm, select the most recently available WEO.

Then click on the icon on the side bar to access the WEO database.



Alternatively, access WEO here:
http://www.imf.org/external/pubs/ft/weo/2016/02/weodata/index.aspx

Description



WEO includes key macroeconomic variables at yearly frequency, starting in 1980, wherever available. It also includes the latest IMF forecasts 5 years ahead. The WEO database's strength is the fact that it is up-to-date and forward-looking.

Using the WEO database, you can download several variables from many different countries and country groups all at once. You also have the option to download the entire set of data.

To retrieve data on several countries, first select a country group.

World Economic Outlook Database, October 2016

Step 1 of 5 1 » 2 » 3 » 4 » 5 New Query

Help

1. Select Country Group

Country Group	Notes
All countries	
Advanced economies	
Euro area	
Major advanced economies (G7)	
Emerging market and developing economies	

Next, select one or several countries of interest.

World Economic Outlook Database, October 2016

Step 2 of 5 1 » 2 » 3 » 4 » 5 New Query

Help

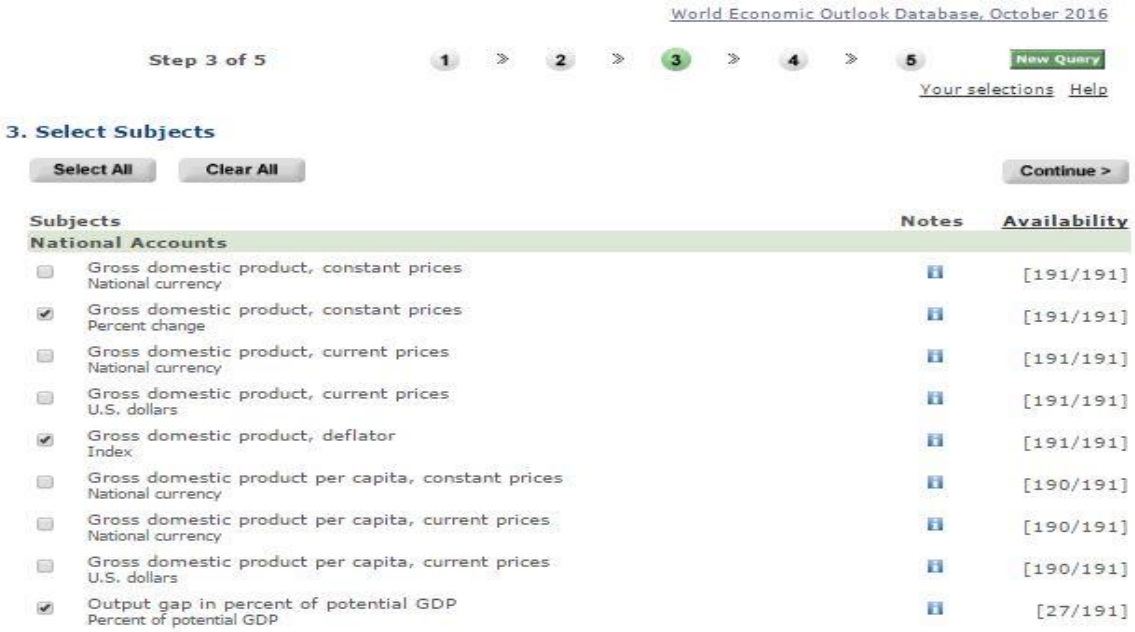
2. Select Countries

Select All Clear All Continue >

All countries (191 countries)

Countries	Notes	Countries	Notes
Afghanistan		Libya	
Albania		Lithuania	
Algeria		Luxembourg	
Angola		Macao SAR	
Antigua and Barbuda		FYR Macedonia	
Argentina		Madagascar	

Third, select variables of interest.


World Economic Outlook Database, October 2016

Step 3 of 5 1 » 2 » 3 » 4 » 5 New Query

Your selections Help

3. Select Subjects

Select All Clear All Continue >

Subjects	Notes	Availability
National Accounts		
Gross domestic product, constant prices National currency		[191/191]
Gross domestic product, constant prices Percent change		[191/191]
Gross domestic product, current prices National currency		[191/191]
Gross domestic product, current prices U.S. dollars		[191/191]
Gross domestic product, deflator Index		[191/191]
Gross domestic product per capita, constant prices National currency		[190/191]
Gross domestic product per capita, current prices National currency		[190/191]
Gross domestic product per capita, current prices U.S. dollars		[190/191]
Output gap in percent of potential GDP Percent of potential GDP		[27/191]

Variables of interest for the DSA are:

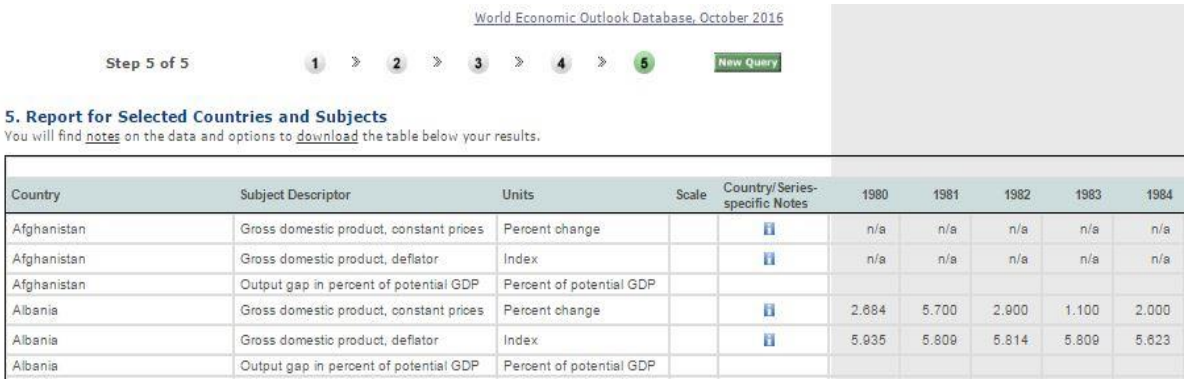
- Real GDP growth rate (annual percent change)
- Real GDP (national currency)
- GDP deflator
- Output gap (in percent of potential GDP)
- General government revenue (in national currency & as a percent of GDP)
- General government total expenditure (in national currency & as a percent of GDP)
- General government net lending/borrowing (in national currency & as a percent of GDP)
- General government structural balance (in national currency & as a percent of potential GDP)
- General government primary net lending/borrowing (in national currency & as a percent of GDP)
- General government gross debt (in national currency & as a percent of potential GDP)
- General government net debt (in national currency & as a percent of potential GDP)

Definitions for all variables can be found beneath the selection screen. For example:

General government total expenditure (Percent of GDP)
Total expenditure consists of total expense and the net acquisition of nonfinancial assets. Note: Apart from being on an accrual basis, total expenditure differs from the GFSM 1986 definition of total expenditure in the sense that it also takes the disposals of nonfinancial assets into account.

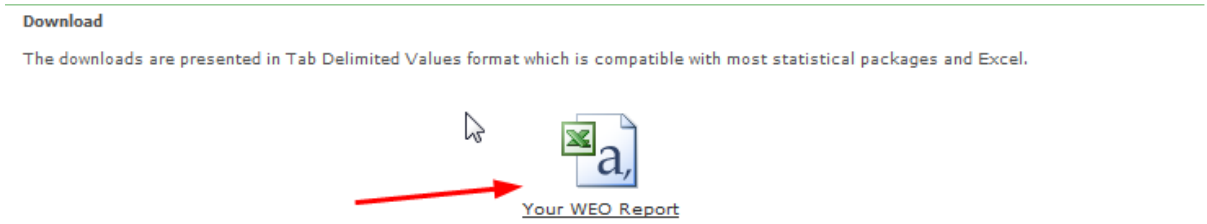
Finally, select a time period to examine. As mentioned, WEO includes IMF forecasts 5 years from the present for most countries. Specify advanced settings to format the report to your liking.

Click "Prepare Report" and you get a table of time series data sorted by country & variable.



Country	Subject Descriptor	Units	Scale	Country/Series-specific Notes	1980	1981	1982	1983	1984
Afghanistan	Gross domestic product, constant prices	Percent change			n/a	n/a	n/a	n/a	n/a
Afghanistan	Gross domestic product, deflator	Index			n/a	n/a	n/a	n/a	n/a
Afghanistan	Output gap in percent of potential GDP	Percent of potential GDP							
Albania	Gross domestic product, constant prices	Percent change			2.684	5.700	2.900	1.100	2.000
Albania	Gross domestic product, deflator	Index			5.935	5.809	5.814	5.809	5.623
Albania	Output gap in percent of potential GDP	Percent of potential GDP							

In conjunction with the DSA template, you can download the data into Excel using the link below the table.



To perform a DSA for a MAC will require information on several of the variables that WEO has to offer. Make good use of it!

II. THE FISCAL MONITOR (FM)

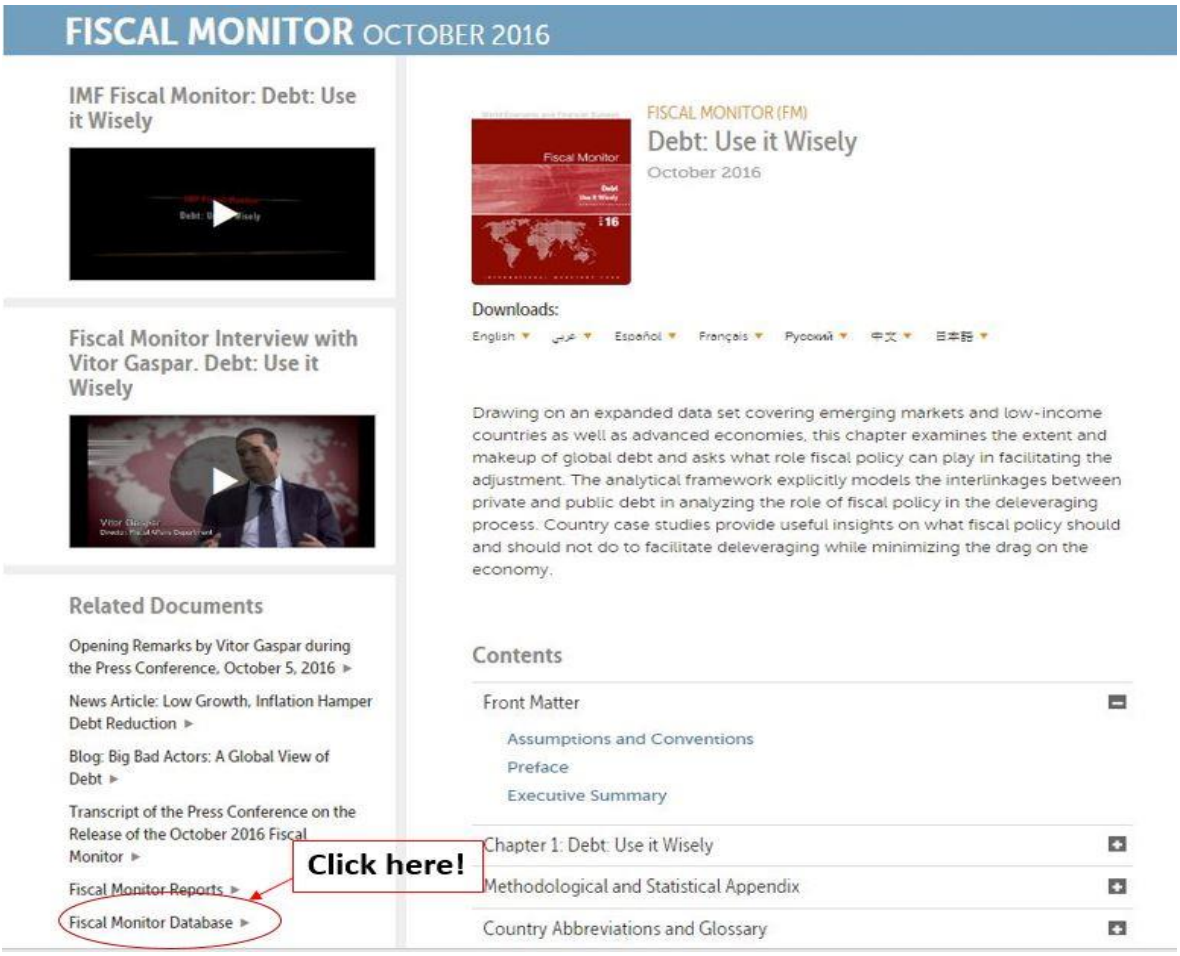
Access

On the IMF's Data page http://www.imf.org/external/data.htm, select the most recently available Fiscal Monitor.

Description

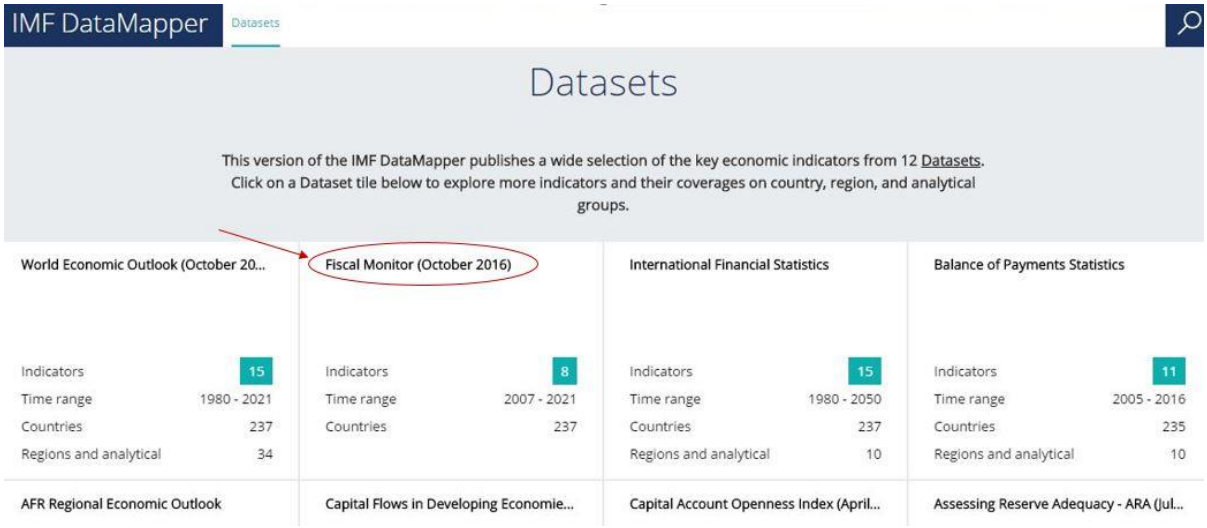
The Fiscal Monitor offers public finance data for all IMF member countries dating back several years, as well as projections 5-years ahead.

Click on the icon on the side bar to access the FM database through DataMapper.

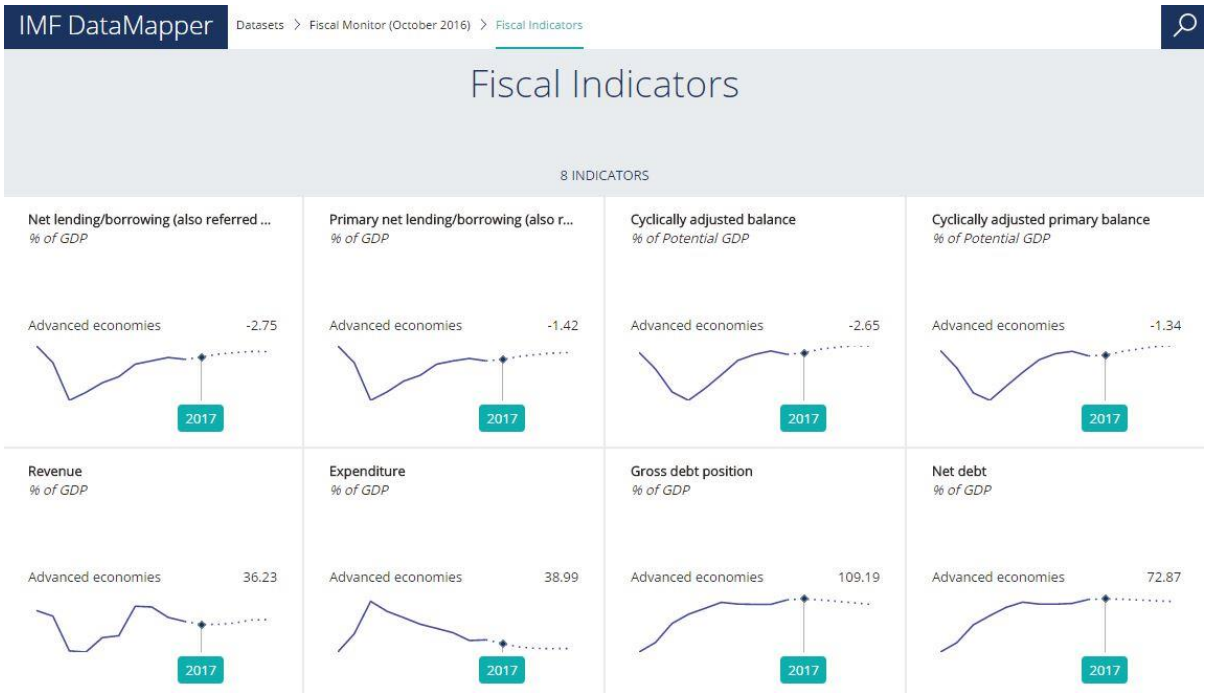


IMF Data Mapper is a tool to quickly retrieve variables from several IMF datasets. Data Mapper is useful to visualize data over time and perform cross-country comparisons of a few key DSA variables. The default dataset pulled through DataMapper is the WEO database, so be sure to select the FM dataset by clicking the "Datasets"

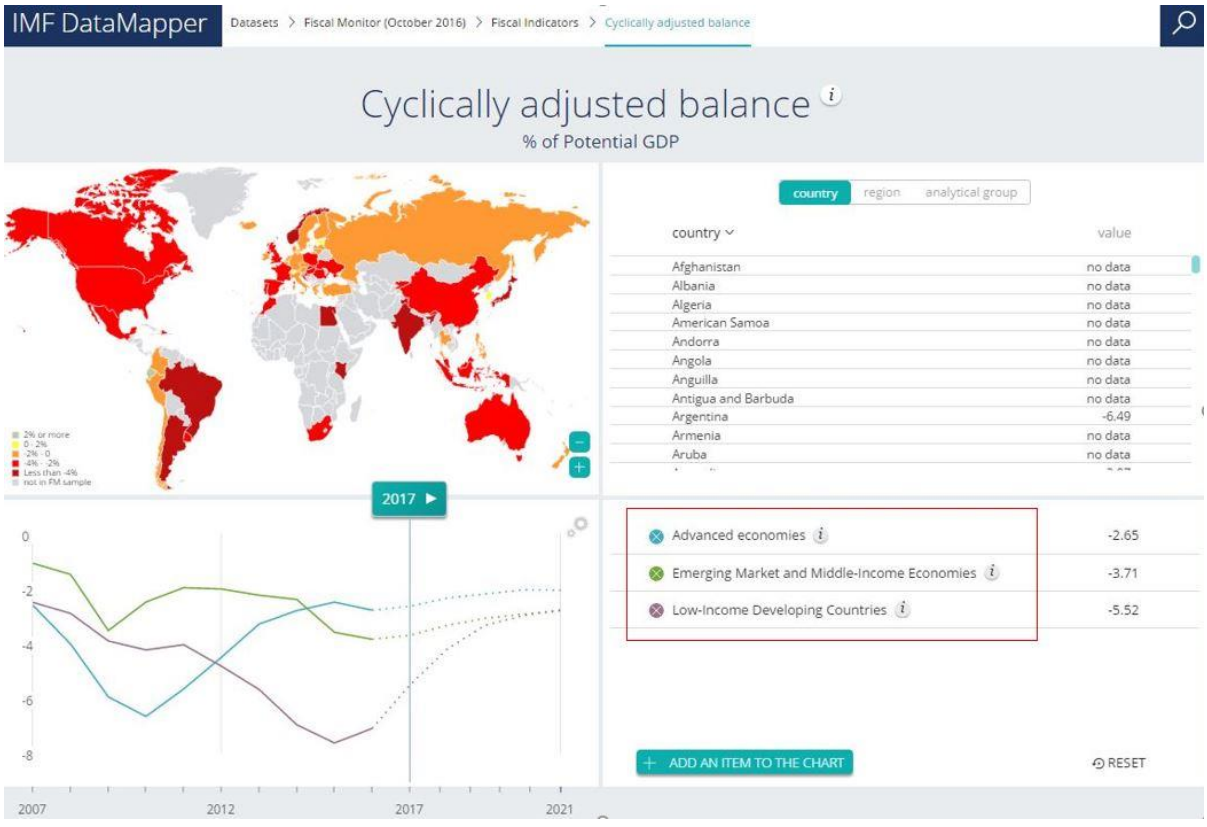
Select Fiscal Monitor from the available dataset options



From there, select the indicators you are interested in.



You can choose between Advanced Economies, Emerging Markets, and Low-Income Countries, or specify countries by their name.



Additional variables of interest for the DSA are:

- Cyclically adjusted balance (percent of potential GDP) – incl fcst
- Cyclically adjusted primary balance (percent of potential GDP) – incl fcst

Download

You can download all of the Fiscal Monitor data in excel format, by clicking on the "Fiscal Monitor Database"

Example 1: Examine net debt in the Advanced economies countries in 2012.

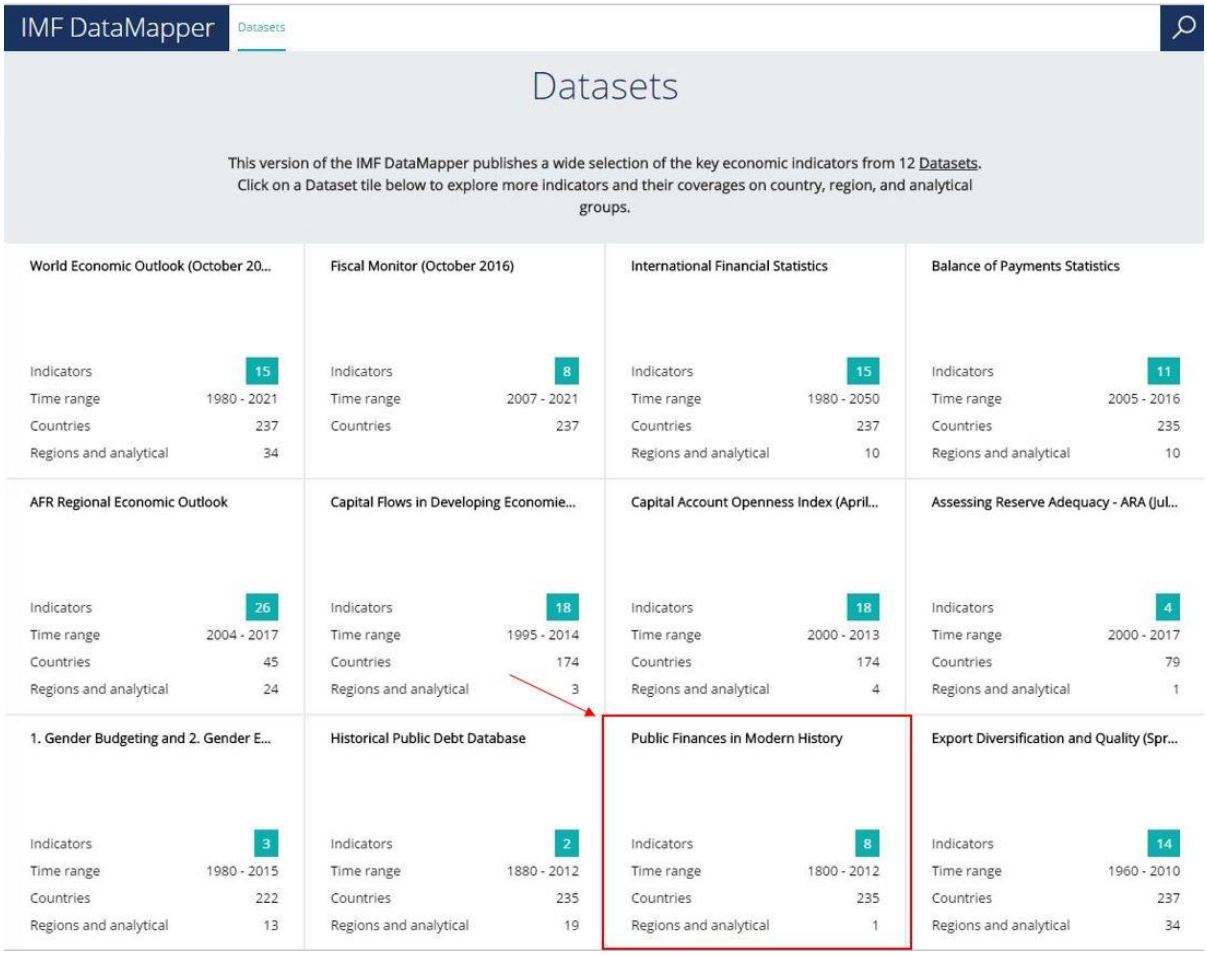
1. Select the Fiscal Monitor as the dataset in DataMapper.
2. Select Net debt as the fiscal indicator.
3. Specify "Advanced economies" by removing the other options.
4. Use the time bar on the graph to select 2012.

If you've performed the steps correctly, the value next to the "Advanced economies" should be 71.03

III. PUBLIC FINANCES IN MODERN HISTORY (PFMH)

Access

From the DataMapper, you also have access to an additional database of public finances. Simply select "Public Finances in Modern History" from the available datasets as shown below.



You can also open here: http://www.imf.org/external/datamapper/datasets/FPP

Description

The Public Finances in Modern History database covers the public finances of 55 different advanced and emerging countries from as far back as 1800. This dataset is described in detail in the IMF working paper "A Modern History of Fiscal Prudence and Profligacy"[2] (which you can access in the Course Materials folder). The strength of this database is the richness of the historical data, useful when conducting, for example, cross-country comparison of fiscal consolidation episodes. However, the data ends in 2011 as of now, so you might need to get the latest data from a different source.

Download

Simply select "Data" to download the entire dataset into Microsoft Excel. You can also take a look at the Chartbook to see some nice figures for select countries.

Paolo Mauro & Rafael Romeu & Ariel J Binder & Asad Zaman, 2013. "A Modern History of Fiscal Prudence and Profligacy," IMF Working Papers 13/5, International Monetary Fund.

Variables of interest for the DSA are:

- Government revenue (as a percent of GDP)
- Government expenditure, primary and total (as a percent of GDP)
- Government primary balance (as a percent of GDP)
- Interest paid on public debt (as a percent of GDP)
- Real long term interest rate on gov't debt (percent)
- Gross public debt (as a percent of GDP)
- Real GDP growth rate (percent)
- Real long term government bond yield (percent)

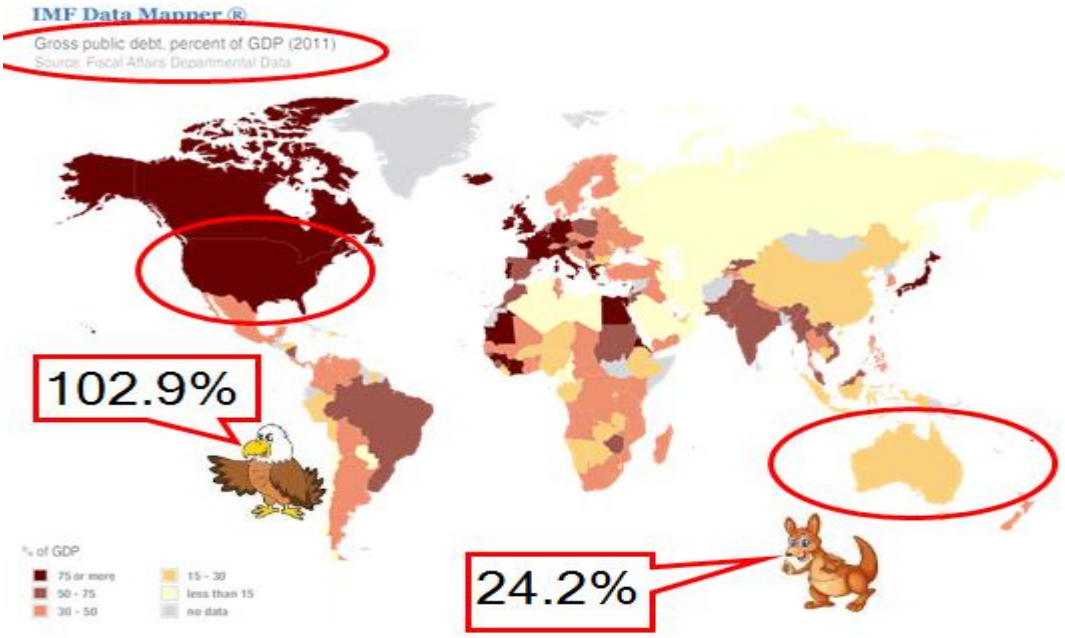
A. Country Comparison via the PFMH Dataset

Download

Example: Compare gross public debt in AUS and USA.

1. Open DataMapper.
2. Select the Public Finances dataset.
3. Specify subject as "gross public debt."
4. Remove default countries by unchecking boxes.
5. Click "add an item to the chart." Select United States and Australia.
6. Select 2011 as year using scroll bar.
7. Select the "Map" under the "Use Our Data" section.

If you've performed the steps correctly, your chart should appear as shown on the next page. Here we see that, as of 2011, Australia's gross public debt was about 24.2% of its GDP, hence its yellow color on the heat map. In contrast, the United States' public debt ratio was significantly higher (102.9%), as shown by its intense dark red color.


IMF Data Mapper ®
Gross public debt, percent of GDP (2011)
Source: Fiscal Affairs Departmental Data
102.9%
24.2%
% of GDP
75 or more
50 - 75
30 - 50
15 - 30
less than 15
no data

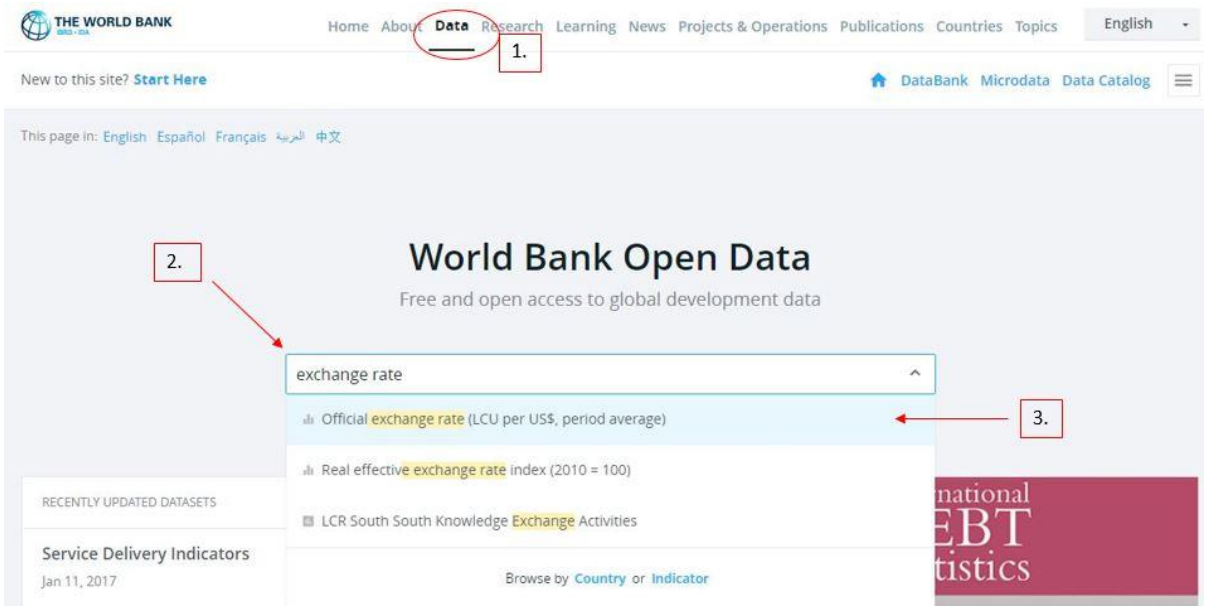
IV. WORLD BANK DATA

Access

To find the most comprehensive data on annual exchange rates for DSA, visit our friends over at the World Bank at www.worldbank.org and click on the "Data" tab. The World Bank provides free and open access to data of all sorts.

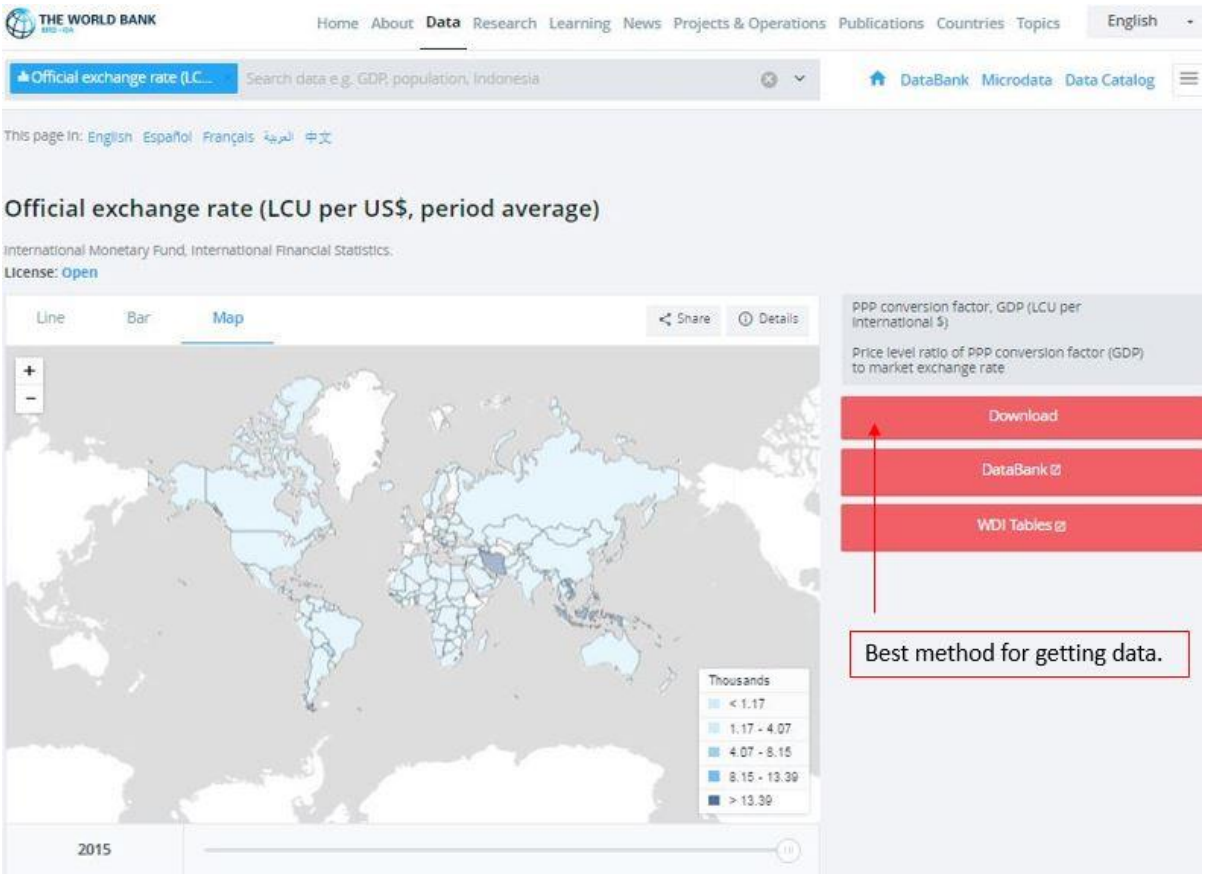
Download

As shown below, simply search "exchange rate" in the indicator bar, select "Official exchange rate" and press "Enter" Alternatively, get data directly here: http://data.worldbank.org/indicator/PA.NUS.FCRF



Note that the MAC DSA template uses exchange rates quoted in LCU/USD.

To obtain your own figures to perform a DSA, the easiest method would be simply to download the data into Excel. Click the "Download Data" icon and you obtain annual ER figures as far back as 1960 for some countries. See below.



Variables of interest for the DSA:

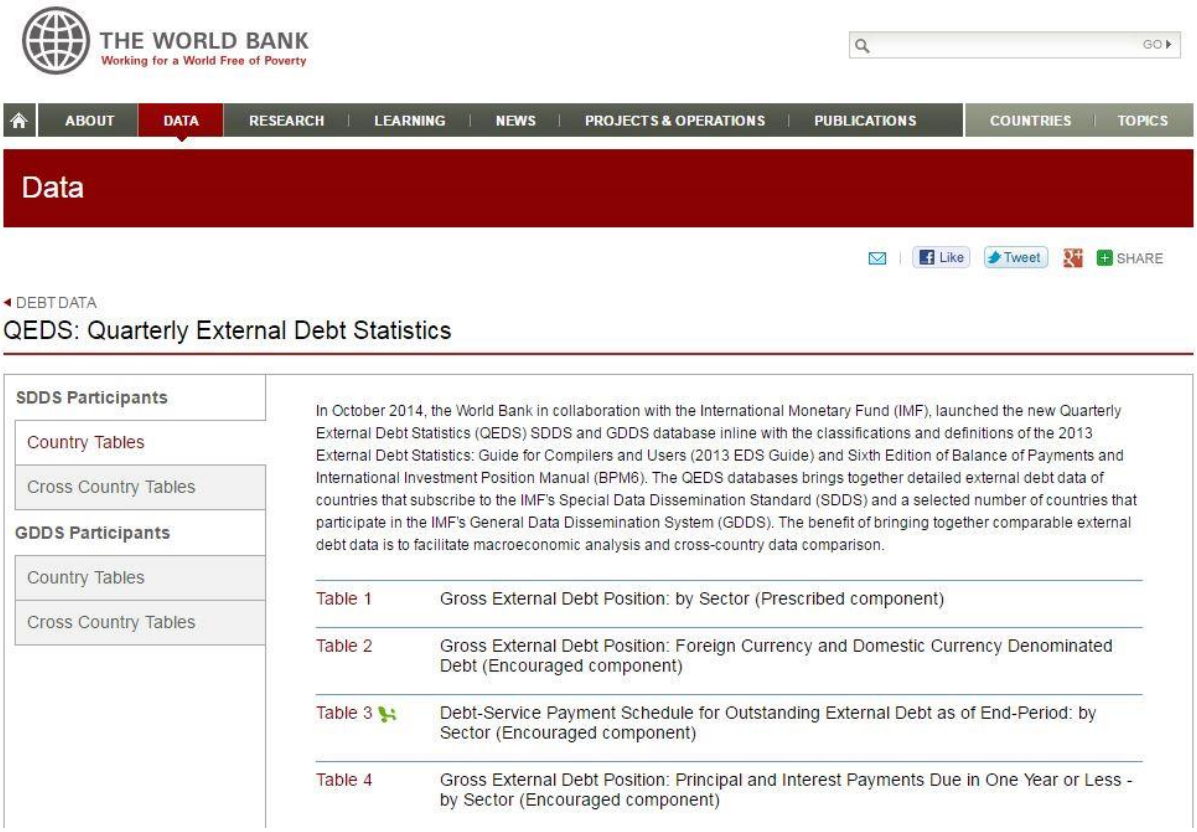
- Nominal exchange rate (currency units per U.S. dollar)

V. QUARTERLY EXTERNAL DEBT STATISTICS (QEDS)

Access

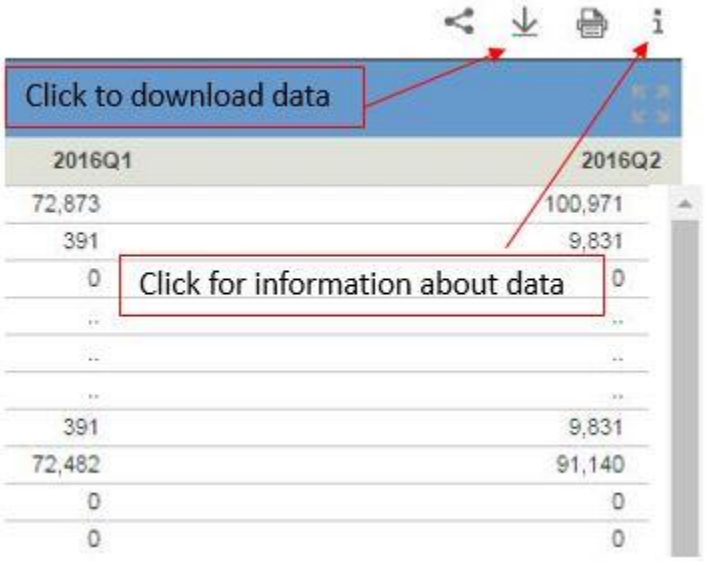
Open
http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/EXTDECQEDS/0,,menuPK:1805431~pagePK:64168427~piPK:64168435~theSitePK:1805415,00.html

To access the SSDS/QEDS and GDDS/QEDS data, simply click to expand the corresponding tabs in the top left corner of the page. The external debt country data is located under "Country Data" in the respective tabs.



Select a table and on the next page, select a country from the drop down menu.

In the top right hand corner, you have buttons to share, to download (as Excel, CSV, Tabbed TXT, or PDF), to print, and to obtain additional information about the dataset. At the bottom of the page, there are footnotes about the items in the table.



Description

The World Bank Quarterly External Debt Statistics contains detailed quarterly external debt data, starting at the earliest from 1998. The information provided varies by country depending on whether the country subscribes to IMF's Special Data Dissemination Standard (SDDS) or the General Data Dissemination Standard (GDDS)[3]. Generally, more data is available for the SDDS.

[3] Seventy countries currently participate in the SDDS/QEDS database and 48 LIC countries participate in the GDDS/QEDS database.

Variables of interest for the DSA:

- General government external debt (short-term and long-term) [4]
- Public sector external debt (short-term and long-term) [5]
- Publicly-guaranteed private sector external debt position (short-term and long-term) [6]
- Gross foreign currency and foreign-currency-linked general government external debt[7]
- General government debt-service payment schedule[8]
- Short-term general government gross external debt (on an original maturity basis) [9]

Download

Example: Obtain foreign currency and domestic currency debt for the most recent quarter to date from Chile and Thailand.

1. Open SDDS/QEDS Country data page and click table 2: Gross External Debt Position: Foreign Currency and Domestic Currency Debt (Encouraged component)
2. Select a country from the drop down menu.

[4] Table 1 for SDDS; unavailable for GDDS.

[5] Supplementary Table 1.3 for SDDS; Table 1 for GDDS.

[6] Supplementary Table 1.3 for SDDS; Table 1 for GDDS.

[7] Supplementary Table 2.1 for SDDS; unavailable for GDDS.

[8] Table 3 for SDDS; Table 2 for GDDS.

[9] Supplementary Table 3.1 for SDDS; unavailable for GDDS.

3. You should now see a table with values for selected country. You can download this data to other programs, to excel by clicking the button in the top right corner of the page.

4. If you have performed the steps correctly, you should be able to see a table like the one below.

Table 2 - Gross External Debt Position Foreign Currency and Domestic Currency Denominated Debt 3/ 4/

Chile

Table 2 - Gross External Debt Position Foreign Currency and Domestic Currency Denominated Debt 3/ 4/

Data are in USD millions	2015Q2
0071_T2_Foreign currency 5/	144,019
0072_T2_.. Short-term	16,424
0073_T2_.. Long-term 6/	127,595
0074_T2_Domestic currency 7/	7,033
0075_T2_.. Short-term	302
0076_T2_.. Long-term	6,731
0077_T2_Unallocated	0
0078_T2_Gross External Debt Position	**151,051**

Table 2 - (SDDS Encouraged component 1/ 2/)