User's Manual to the
BOOST Database for Uruguay

The World Bank
April 2016
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1. Introduction

A central function of any government involves collecting and spending public funds and maintaining records of such expenditures. Budgets are at the core of government activity: they provide a clear picture of what the national priorities are, and where governments can make efficiency gains. From that perspective, timely and concise budget analysis is necessary for policymaking. Despite their relevance for policymakers, public budgets are usually hard to access and understand, even though IT-based applications can open doors for analysis and policymaking.

In that spirit, the World Bank has collaborated with governments around the World to create easy-to-use public expenditure (BOOST) databases that make budgets accessible, understandable, and ready to use. The Uruguay database was built as part of the BOOST project which aims to improve accessibility and use of fiscal data for enhanced expenditure analysis. Uruguay is the second country in the world where the BOOST platform was built from the official transparency portal - Oficina de Planeamiento y Presupuesto (OPP).

The database includes expenditure data from 2011 to 2015.

This is a tool designed to promote budgetary analysis by public officials and researchers. This manual describes the database and provides the information necessary to update and analyze Uruguay public expenditures. This document is organized as follows:

- Part II outlines the structure of the data provided by the Uruguay Government.
- Part III explains how to use the database with an Excel pivot table.

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We hope this database is helpful in opening new avenues of analysis and providing answers to important questions regarding the efficiency, equity, and effectiveness of government spending.
2. Structure of the Database

2.1 Central Government
The data for the Uruguay’s Central Government includes budget, modified and expenditures amounts executed by different agencies of the Central Government for the period between 2011 to 2015. The data is disaggregated by administrative, functional, economic, program and project classification. The source of funding for each budget line is also identified.

Table 1 classifies the variables of the Uruguay’s Central Government database according to classifications of other BOOST public expenditure databases created by the World Bank.

<table>
<thead>
<tr>
<th>BOOST labels</th>
<th>Original Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMIN1</td>
<td>Inciso</td>
</tr>
<tr>
<td>ADMIN2</td>
<td>Unidad Ejecutora</td>
</tr>
<tr>
<td>FUNCTION1</td>
<td>Area Programática</td>
</tr>
<tr>
<td>EXP_TYPE</td>
<td>PFI</td>
</tr>
<tr>
<td>ECON1</td>
<td>grupo</td>
</tr>
<tr>
<td>ECON2</td>
<td>subgroup</td>
</tr>
<tr>
<td>ECON3</td>
<td>objeto del gasto</td>
</tr>
<tr>
<td>PROGRAM1</td>
<td>Programa</td>
</tr>
<tr>
<td>SOURCE_FIN1</td>
<td>Financiamiento</td>
</tr>
<tr>
<td>SOURCE_FIN2</td>
<td>Fuente de Financiamiento</td>
</tr>
<tr>
<td>PROJECT1</td>
<td>Proyecto</td>
</tr>
<tr>
<td>APPROVED</td>
<td>Credito_apertura</td>
</tr>
<tr>
<td>MODIFIED</td>
<td>Credito_vigente</td>
</tr>
<tr>
<td>EXECUTED</td>
<td>Ejecutado</td>
</tr>
</tbody>
</table>
2.2 Particularities of the Data of the Federal Government

- The data presents two levels of administrative classifications. The first one corresponds to Inciso, a category classified into ministries and top-level public agencies. The second level of administrative classification corresponds to Unidad Ejecutora or executing unit.
- There are two functional classifications in the Uruguay’s Central database; the first level corresponds to Area Programática and the second level corresponds to Programa. The category of Area Programática was incorporated into the structure of the Uruguay’s budget in 2011.
- The budget presents an Exp_Type (PFI) category and three levels of economic classification. The PFI variable can take the following values: Personal (P), Operation (F), Investment (I).

3. How to use the Uruguay Database. Some examples

For ease of use, the BOOST team has developed a standard user interface through which to access the BOOST government expenditure database with the help of Excel PivotTables.

A PivotTable report is an interactive way to quickly summarize large amounts of data. Use a PivotTable report to analyze numerical data in detail and to answer unanticipated questions about your data. A PivotTable report is especially designed for:

- Querying large amounts of data in many user-friendly ways.
- Subtotaling and aggregating numeric data, summarizing data by categories and subcategories, and creating custom calculations and formulas.
- Expanding and collapsing levels of data to focus your results, and drilling down to details from the summary data for areas of interest to you.
- Moving rows to columns or columns to rows (or “pivoting”) to see different summaries of the source data.
- Filtering, sorting, grouping, and conditionally formatting the most useful and interesting subset of data to enable you to focus on the information that you want.
• Presenting concise, attractive, online or printed reports.¹

PivotTables are straightforward and easy to use and allow for quick, customizable analyses of large amounts of data. This section presents several examples of using the BOOST PivotTable interface to general custom reports. With BOOST, as with many things in life, the best way to learn is by doing.

3.1. Example 1. Trend Analysis by Administrative Unit

Figure 1 below presents a simple example of time trend analysis at the macro level. It reports total central government expenditures from 2011 to 2015, broken down by the top-level administrative classification. To generate this PivotTable, ADMIN1 is placed in the Row Labels box, YEAR in the Column Labels box, and the values in the body of the table consist of the sum of the APPROVED variable.

![Figure 1](image)

**Figure 1. Examining Government Initial Budget across Years**

**Do it yourself:** how would you generate a similar table using the functional (FUNCTION1) instead of the administrative classification?

3.2. Example 2. Composition Breakdown

Figure 2 below presents a breakdown of government expenditures by economic category for each sector in the Uruguay functional budget classification. To generate this PivotTable, FUNCTION1 and ECON1 are placed in the Row Labels box, and YEAR in the Column Labels, filter year 2014. The values in the body of the table consist of the sum of the EXECUTED variable.
Figure 2. Examining the Composition of expenditure by Sector in 2014
3.3. Example 3. Initial budget by entities in the Health Sector

Go back to the dataset for the Administration Entities. Leave Year in the Column Labels box (select all the years again 2011-2015) and ADMIN2 in the Row Labels box. Replace EXECUTED amounts for APPROVED amounts in the Values box. Then, drag and drop ADMIN1 into Report Filter box. Click on the right arrow sign of the ADMIN1 tab and select “12 – Salud Pública”.

**Figure 3:** Example of Time Series Analysis: Initial Budget by Entities in the Health sector (2011-2015)

3.4. Example 4. Deviation Analysis

One of the most basic but revealing exercises you can do with BOOST is a deviation analysis; i.e., how much of the budget authorized by the Legislative Assembly was executed at the end of the year. To do this, you need to follow the following steps:

1. Place ADMIN1 is the Row Labels box, Year in the Column Labels box. The values in the body of the table consist of the sum of the APPROVED and EXECUTED variables. You should get a table like the following one:
2. Create a new sheet called “Deviation”.
3. Go back to sheet Pivot Table. Copy the Table you created in step 1.
4. Paste the table in the cell A1 of sheet “Deviation”. We need to copy and paste the table in a different sheet because Pivot Tables erase data in case modifications are done. In other words, any analysis you do in this sheet will get lost if you create a new pivot table. At the end of this step, sheet “Deviation” should look like this:
5. In cell L4, write “Deviation 2011”. We will estimate the deviation between executed and budgeted amounts in this column.

6. In cell L5, write down the following formula: =C5-B5. This is the estimation of the difference between the executed and the budgeted amounts for 2011.

7. Extend the formula until it reaches the end of your table. At the end of this step, your table should look like this:
8. Repeat the process for the other years.