User's Manual to the

BOOST Database for Uruguay

The World Bank
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Contents

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)*. http://www.agev.opp.gub.uy/observatorio/servlet/maininicio

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 1. Variable description

BOOST labels	**Original Variables**
Administrative classification variables	
ADMIN1	*Inciso*
ADMIN2	*Unidad Ejecutora*
Functional Variable	
FUNCTION1	*Area Programática*
Economic classification variables	
EXP_TYPE	*PFI*
ECON1	*grupo*
ECON2	*subgrupo*
ECON3	*objeto del gasto*
Program classification variable	
PROGRAM1	*Programa*
Source of funding variables	
SOURCE_FIN1	*Financiamiento*
SOURCE_FIN2	*Fuente de Financiamiento*
Project classification variable	
PROJECT1	*Proyecto*
Expenditure variables	
APRROVED	*Credito_apertura*
MODIFIED	*Credito_vigente*
EXECUTED	*Ejecutado*

2.2 Particularities of the Data of the Federal Government

- The data presents two level 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.

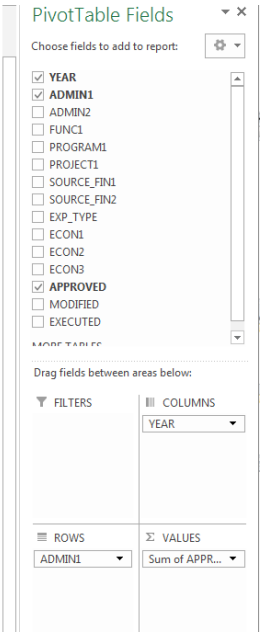
[1] For more information on Excel PivotTables, please consult the help function in Microsoft Excel or this helpful overview of the Microsoft website: http://office.microsoft.com/en-us/excel-help/overview-of-pivottable-and- pivotchart-reports-HP010177384.aspx.

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.

Figure1. Examining Government Initial Budget across Years

Sum of APPROVED	Column Labels				
Row Labels	2011	2012	2013	2014	2015
01 Poder Legislativo	2,932,794,600	3,319,252,701	3,621,700,772	3,990,863,312	4,296,362,960
02 Presidencia de la República	1,653,868,839	1,812,954,613	1,952,338,576	2,076,753,986	2,287,041,082
03 Ministerio de Defensa Nacional	9,612,573,458	10,001,477,282	10,873,135,202	12,133,256,062	13,109,730,178
04 Ministerio del Interior	12,274,518,365	13,562,075,800	16,318,510,453	18,814,383,038	20,239,536,049
05 Ministerio de Economía y Finanzas	4,374,633,742	4,693,321,482	5,037,062,399	5,295,444,856	5,686,319,137
06 Ministerio de Relaciones Exteriores	1,763,339,998	1,737,484,867	1,900,995,756	2,021,796,148	2,292,520,370
07 Ministerio de Ganadería, Agricultura y Pesca	2,279,862,858	2,449,977,308	2,728,526,657	2,837,089,923	2,991,150,358
08 Ministerio de Industria, Energía y Minería	718,814,594	875,970,715	991,547,574	1,002,496,929	1,062,325,590
09 Ministerio de Turismo y Deporte	984,257,508	1,051,162,578	1,156,531,020	1,170,193,768	1,227,232,767
10 Ministerio de Transporte y Obras Públicas	6,962,855,546	7,300,419,612	7,517,268,988	7,653,602,844	7,914,552,278
11 Ministerio de Educación y Cultura	2,432,990,072	2,662,001,662	2,996,887,034	3,553,514,732	3,834,205,418
12 Ministerio de Salud Pública	970,791,756	1,009,802,956	1,100,122,128	1,154,275,865	1,363,958,320
13 Ministerio de Trabajo y Seguridad Social	1,411,598,014	1,440,139,137	1,522,498,745	1,604,360,238	1,721,528,009
14 Mtrio. de Vivienda,Ordenamiento Territorial y Medio Ambiente	3,915,608,144	4,209,681,992	4,667,266,905	4,985,902,690	4,997,490,915
15 Ministerio de Desarrollo Social	2,276,337,715	2,506,853,961	2,842,830,250	2,838,078,456	3,108,485,139
16 Poder Judicial	2,917,298,163	3,171,126,290	3,493,407,603	3,776,360,494	4,028,461,985
17 Tribunal de Cuentas	379,168,247	402,850,439	388,325,340	422,844,697	457,242,473
18 Corte Electoral	536,322,955	574,025,187	635,439,994	695,531,731	753,635,628
19 Tribunal de lo Contencioso Administrativo	93,732,380	106,878,914	112,340,577	120,404,477	131,626,570
20 Intereses y Otros Gastos de la Deuda	22,019,348,802	22,468,555,444	24,718,699,767	27,541,406,416	32,254,599,040
21 Subsidios y Subvenciones	8,522,925,761	9,005,601,669	10,171,641,340	10,468,379,806	11,537,993,001
22 Transferencias Financieras al Sector Seguridad Social	44,853,629,552	49,584,359,710	57,411,969,843	65,431,285,467	72,897,728,903
23 Partidas a Reaplicar	9,979,212,840	10,287,599,813	12,017,251,139	12,117,642,404	14,064,172,250
24 Diversos Créditos	26,678,091,006	29,068,150,490	40,702,974,350	44,579,538,681	45,655,972,281
25 Administración Nacional de Educación Pública	26,358,041,039	30,345,399,043	34,792,746,667	38,547,089,999	41,490,135,953
26 Universidad de la República	6,439,473,525	7,162,848,112	8,004,259,211	8,757,383,787	9,660,956,162
27 Instituto del Niño y Adolescente del Uruguay	4,539,084,472	5,456,743,528	6,341,207,242	7,145,404,263	7,853,901,126
29 Administración de Servicios de Salud del Estado	14,579,706,433	15,283,322,554	17,689,223,709	20,107,812,858	22,566,440,002
31 Universidad Tecnológica del Uruguay				357,736,426	370,817,884
32 Instituto Uruguayo de Meteorología					-
Grand Total	222,460,880,384	241,550,037,859	281,706,709,241	311,200,834,353	339,856,121,828

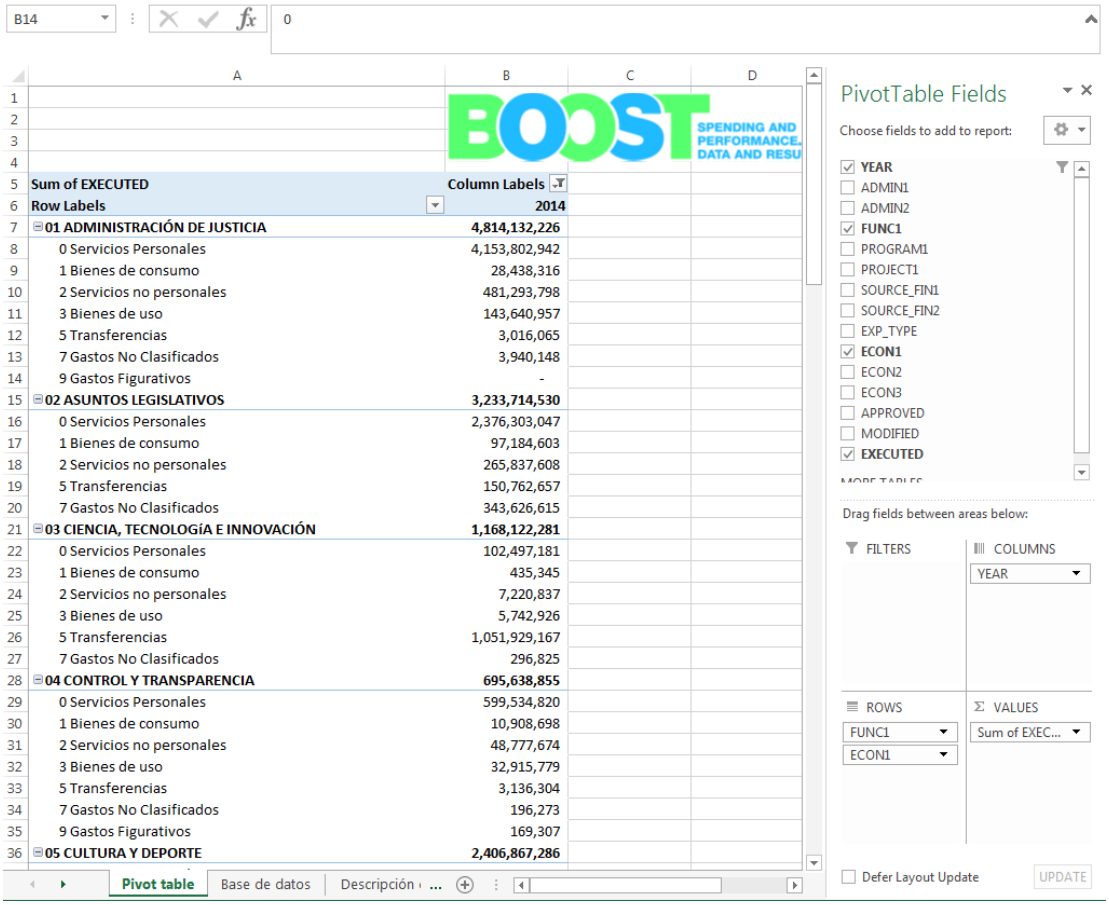


Do it yourself: how would you generate a similar table using the functional (*FUNCTION1*) instead of the administrative classification?

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

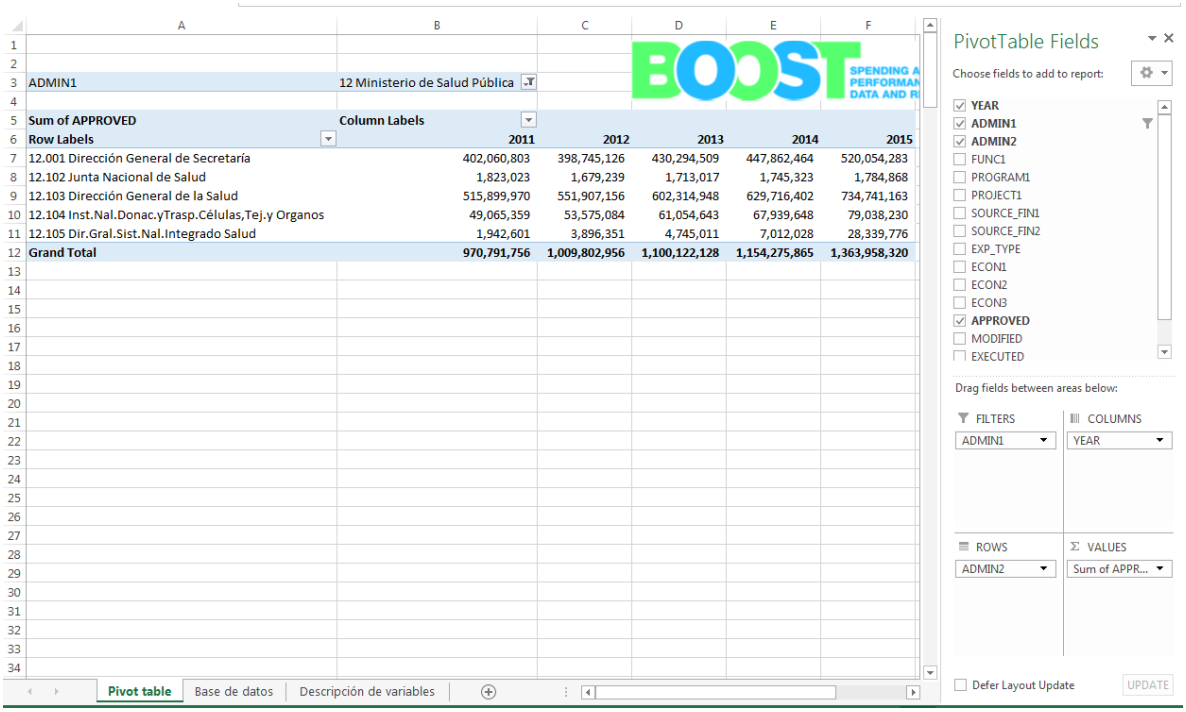


Sum of EXECUTED	Column Labels
Row Labels	2014
01 ADMINISTRACIÓN DE JUSTICIA	**4,814,132,226**
0 Servicios Personales	4,153,802,942
1 Bienes de consumo	28,438,316
2 Servicios no personales	481,293,798
3 Bienes de uso	143,640,957
5 Transferencias	3,016,065
7 Gastos No Clasificados	3,940,148
9 Gastos Figurativos	-
02 ASUNTOS LEGISLATIVOS	**3,233,714,530**
0 Servicios Personales	2,376,303,047
1 Bienes de consumo	97,184,603
2 Servicios no personales	265,837,608
5 Transferencias	150,762,657
7 Gastos No Clasificados	343,626,615
03 CIENCIA, TECNOLOGíA E INNOVACIÓN	**1,168,122,281**
0 Servicios Personales	102,497,181
1 Bienes de consumo	435,345
2 Servicios no personales	7,220,837
3 Bienes de uso	5,742,926
5 Transferencias	1,051,929,167
7 Gastos No Clasificados	296,825
04 CONTROL Y TRANSPARENCIA	**695,638,855**
0 Servicios Personales	599,534,820
1 Bienes de consumo	10,908,698
2 Servicios no personales	48,777,674
3 Bienes de uso	32,915,779
5 Transferencias	3,136,304
7 Gastos No Clasificados	196,273
9 Gastos Figurativos	169,307
05 CULTURA Y DEPORTE	**2,406,867,286**

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)

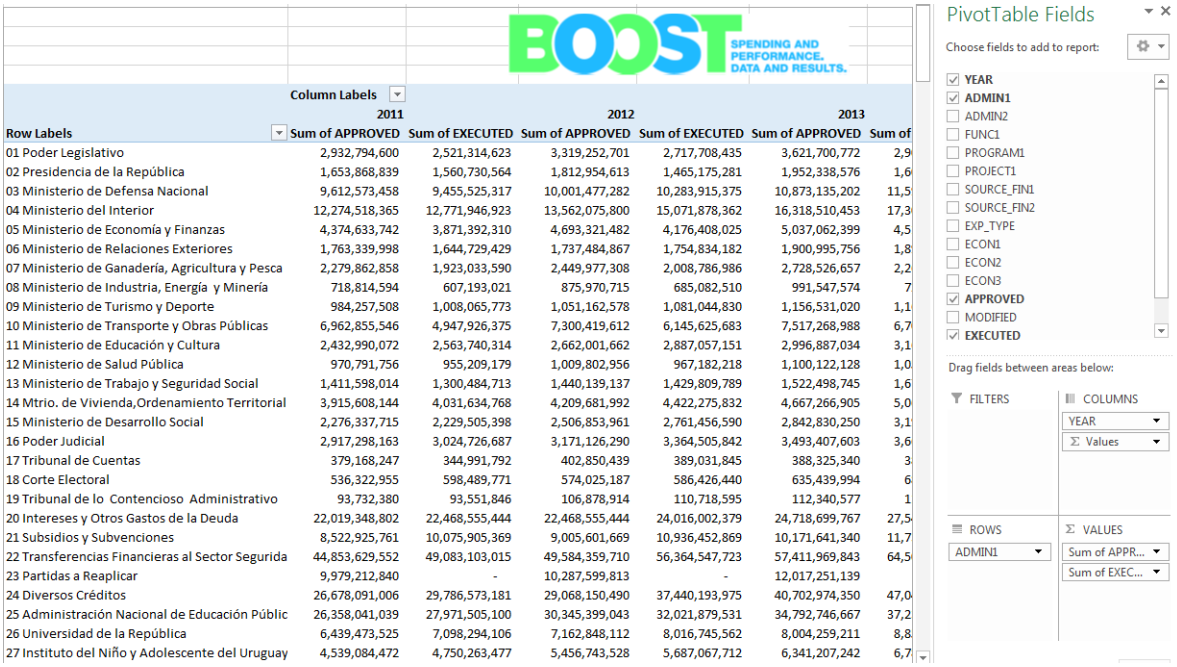


ADMIN1	12 Ministerio de Salud Pública					
Sum of APPROVED	Column Labels					
Row Labels		2011	2012	2013	2014	2015
12.001 Dirección General de Secretaría		402,060,803	398,745,126	430,294,509	447,862,464	520,054,283
12.102 Junta Nacional de Salud		1,823,023	1,679,239	1,713,017	1,745,323	1,784,868
12.103 Dirección General de la Salud		515,899,970	551,907,156	602,314,948	629,716,402	734,741,163
12.104 Inst.Nal.Donac.yTrasp.Células,Tej.y Organos		49,065,359	53,575,084	61,054,643	67,939,648	79,038,230
12.105 Dir.Gral.Sist.Nal.Integrado Salud		1,942,601	3,896,351	4,745,011	7,012,028	28,339,776
Grand Total		970,791,756	1,009,802,956	1,100,122,128	1,154,275,865	1,363,958,320

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:



	Column Labels					
	2011		2012		2013	
Row Labels	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of
01 Poder Legislativo	2,932,794,600	2,521,314,623	3,319,252,701	2,717,708,435	3,621,700,772	2,9
02 Presidencia de la República	1,653,868,839	1,560,730,564	1,812,954,613	1,465,175,281	1,952,338,576	1,6
03 Ministerio de Defensa Nacional	9,612,573,458	9,455,525,317	10,001,477,282	10,283,915,375	10,873,135,202	11,5
04 Ministerio del Interior	12,274,518,365	12,771,946,923	13,562,075,800	15,071,878,362	16,318,510,453	17,3
05 Ministerio de Economía y Finanzas	4,374,633,742	3,871,392,310	4,693,321,482	4,176,408,025	5,037,062,399	4,5
06 Ministerio de Relaciones Exteriores	1,763,339,998	1,644,729,429	1,737,484,867	1,754,834,182	1,900,995,756	1,8
07 Ministerio de Ganadería, Agricultura y Pesca	2,279,862,858	1,923,033,590	2,449,977,308	2,008,786,986	2,728,526,657	2,2
08 Ministerio de Industria, Energía y Minería	718,814,594	607,193,021	875,970,715	685,082,510	991,547,574	7
09 Ministerio de Turismo y Deporte	984,257,508	1,008,065,773	1,051,162,578	1,081,044,830	1,156,531,020	1,1
10 Ministerio de Transporte y Obras Públicas	6,962,855,546	4,947,926,375	7,300,419,612	6,145,625,683	7,517,268,988	6,7
11 Ministerio de Educación y Cultura	2,432,990,072	2,563,740,314	2,662,001,662	2,887,057,151	2,996,887,034	3,1
12 Ministerio de Salud Pública	970,791,756	955,209,179	1,009,802,956	967,182,218	1,100,122,128	1,0
13 Ministerio de Trabajo y Seguridad Social	1,411,598,014	1,300,484,713	1,440,139,137	1,429,809,789	1,522,498,745	1,6
14 Mtrio. de Vivienda,Ordenamiento Territorial	3,915,608,144	4,031,634,768	4,209,681,992	4,422,275,832	4,667,266,905	5,0
15 Ministerio de Desarrollo Social	2,276,337,715	2,229,505,398	2,506,853,961	2,761,456,590	2,842,830,250	3,1
16 Poder Judicial	2,917,298,163	3,024,726,687	3,171,126,290	3,364,505,842	3,493,407,603	3,6
17 Tribunal de Cuentas	379,168,247	344,991,792	402,850,439	389,031,845	388,325,340	3
18 Corte Electoral	536,322,955	598,489,771	574,025,187	586,426,440	635,439,994	6
19 Tribunal de lo Contencioso Administrativo	93,732,380	93,551,846	106,878,914	110,718,595	112,340,577	1
20 Intereses y Otros Gastos de la Deuda	22,019,348,802	22,468,555,444	22,468,555,444	24,016,002,379	24,718,699,767	27,5
21 Subsidios y Subvenciones	8,522,925,761	10,075,905,369	9,005,601,669	10,936,452,869	10,171,641,340	11,7
22 Transferencias Financieras al Sector Segurida	44,853,629,552	49,083,103,015	49,584,359,710	56,364,547,723	57,411,969,843	64,5
23 Partidas a Reaplicar	9,979,212,840	-	10,287,599,813	-	12,017,251,139	
24 Diversos Créditos	26,678,091,006	29,786,573,181	29,068,150,490	37,440,193,975	40,702,974,350	47,0
25 Administración Nacional de Educación Públic	26,358,041,039	27,971,505,100	30,345,399,043	32,021,879,531	34,792,746,667	37,2
26 Universidad de la República	6,439,473,525	7,098,294,106	7,162,848,112	8,016,745,562	8,004,259,211	8,8
27 Instituto del Niño y Adolescente del Uruguay	4,539,084,472	4,750,263,477	5,456,743,528	5,687,067,712	6,341,207,242	6,7

BOOST SPENDING AND PERFORMANCE. DATA AND RESULTS.

PivotTable Fields

Choose fields to add to report:

- YEAR
- ADMIN1
- ADMIN2
- FUNC1
- PROGRAM1
- PROJECT1
- SOURCE_FIN1
- SOURCE_FIN2
- EXP_TYPE
- ECON1
- ECON2
- ECON3
- APPROVED
- MODIFIED
- EXECUTED

Drag fields between areas below:

FILTERS | COLUMNS: YEAR, Σ Values

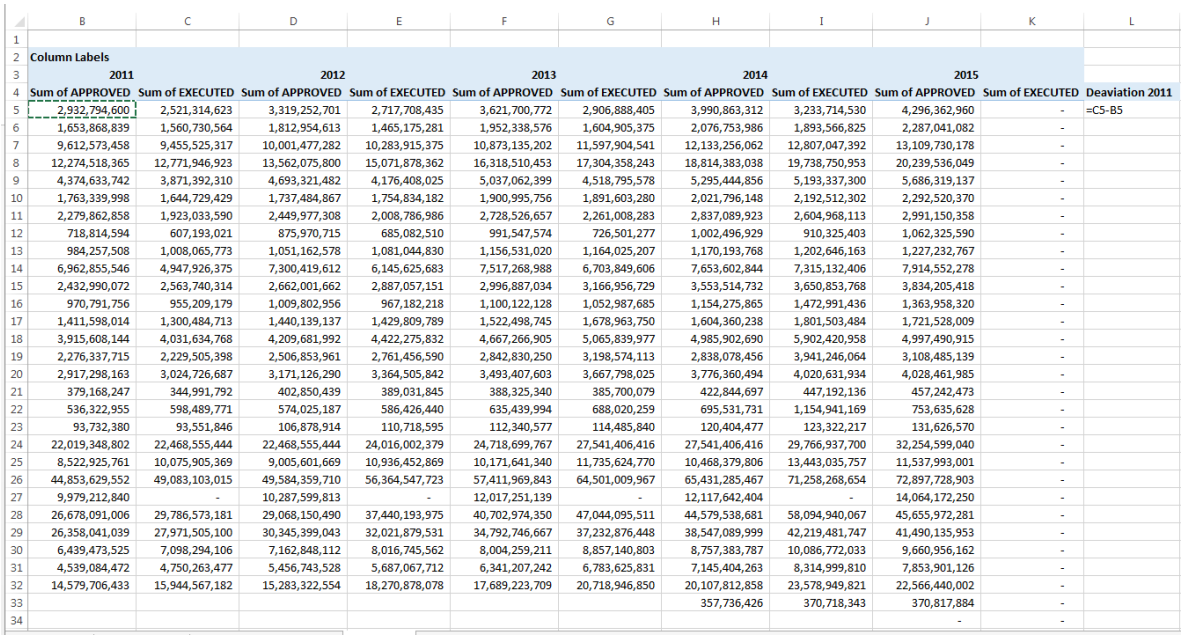
ROWS: ADMIN1 | Σ VALUES: Sum of APPR..., Sum of EXEC...

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:

	A	B	C	D	E	F	G	H	I
1									
2		Column Labels							
3		2011		2012		2013		2014	
4	Row Labels	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXI
5	01 Poder Legislativo	2,932,794,600	2,521,314,623	3,319,252,701	2,717,708,435	3,621,700,772	2,906,888,405	3,990,863,312	3,233,
6	02 Presidencia de la República	1,653,868,839	1,560,730,564	1,812,954,613	1,465,175,281	1,952,338,576	1,604,905,375	2,076,753,986	1,893,
7	03 Ministerio de Defensa Nacional	9,612,573,458	9,455,525,317	10,001,477,282	10,283,915,375	10,873,135,202	11,597,904,541	12,133,256,062	12,807,
8	04 Ministerio del Interior	12,274,518,365	12,771,946,923	13,562,075,800	15,071,878,362	16,318,510,453	17,304,358,243	18,814,383,038	19,738,
9	05 Ministerio de Economía y Finanzas	4,374,633,742	3,871,392,310	4,693,321,482	4,176,408,025	5,037,062,399	4,518,795,578	5,295,444,856	5,193,
10	06 Ministerio de Relaciones Exteriores	1,763,339,998	1,644,729,429	1,737,484,867	1,754,834,182	1,900,995,756	1,891,603,280	2,021,796,148	2,192,
11	07 Ministerio de Ganadería, Agricultura y Pesca	2,279,862,858	1,923,033,590	2,449,977,308	2,008,786,986	2,728,526,657	2,261,008,283	2,837,089,923	2,604,
12	08 Ministerio de Industria, Energía y Minería	718,814,594	607,193,021	875,970,715	685,082,510	991,547,574	726,501,277	1,002,496,929	910,
13	09 Ministerio de Turismo y Deporte	984,257,508	1,008,065,773	1,051,162,578	1,081,044,830	1,156,531,020	1,164,025,207	1,170,193,768	1,202,
14	10 Ministerio de Transporte y Obras Públicas	6,962,855,546	4,947,926,375	7,300,419,612	6,145,625,683	7,517,268,988	6,703,849,606	7,653,602,844	7,315,
15	11 Ministerio de Educación y Cultura	2,432,990,072	2,563,740,314	2,662,001,662	2,887,057,151	2,996,887,034	3,166,956,729	3,553,514,732	3,650,
16	12 Ministerio de Salud Pública	970,791,756	955,209,179	1,009,802,956	967,182,218	1,100,122,128	1,052,987,685	1,154,275,865	1,472,
17	13 Ministerio de Trabajo y Seguridad Social	1,411,598,014	1,300,484,713	1,440,139,137	1,429,809,789	1,522,498,745	1,678,963,750	1,604,360,238	1,801,
18	14 Mtrio. de Vivienda,Ordenamiento Territorial	3,915,608,144	4,031,634,768	4,209,681,992	4,422,275,832	4,667,266,905	5,065,839,977	4,985,902,690	5,902,
19	15 Ministerio de Desarrollo Social	2,276,337,715	2,229,505,398	2,506,853,961	2,761,456,590	2,842,830,250	3,198,574,113	2,838,078,456	3,941,
20	16 Poder Judicial	2,917,298,163	3,024,726,687	3,171,126,290	3,364,505,842	3,493,407,603	3,667,798,025	3,776,360,494	4,020,
21	17 Tribunal de Cuentas	379,168,247	344,991,792	402,850,439	389,031,845	388,325,340	385,700,079	422,844,697	447,
22	18 Corte Electoral	536,322,955	598,489,771	574,025,187	586,426,440	635,439,994	688,020,259	695,531,731	1,154,
23	19 Tribunal de lo Contencioso Administrativo	93,732,380	93,551,846	106,878,914	110,718,595	112,340,577	114,485,840	120,404,477	123,
24	20 Intereses y Otros Gastos de la Deuda	22,019,348,802	22,468,555,444	22,468,555,444	24,016,002,379	24,718,699,767	27,541,406,416	27,541,406,416	29,766,
25	21 Subsidios y Subvenciones	8,522,925,761	10,075,905,369	9,005,601,669	10,936,452,869	10,171,641,340	11,735,624,770	10,468,379,806	13,443,
26	22 Transferencias Financieras al Sector Segurida	44,853,629,552	49,083,103,015	49,584,359,710	56,364,547,723	57,411,969,843	64,501,009,967	65,431,285,467	71,258,
27	23 Partidas a Reaplicar	9,979,212,840	-	10,287,599,813	-	12,017,251,139	-	12,117,642,404	
28	24 Diversos Créditos	26,678,091,006	29,786,573,181	29,068,150,490	37,440,193,975	40,702,974,350	47,044,095,511	44,579,538,681	58,094,
29	25 Administración Nacional de Educación Públic	26,358,041,039	27,971,505,100	30,345,399,043	32,021,879,531	34,792,746,667	37,232,876,448	38,547,089,999	42,219,
30	26 Universidad de la República	6,439,473,525	7,098,294,106	7,162,848,112	8,016,745,562	8,004,259,211	8,857,140,803	8,757,383,787	10,086,
31	27 Instituto del Niño y Adolescente del Uruguay	4,539,084,472	4,750,263,477	5,456,743,528	5,687,067,712	6,341,207,242	6,783,625,831	7,145,404,263	8,314,
32	29 Administración de Servicios de Salud del Esta	14,579,706,433	15,944,567,182	15,283,322,554	18,270,878,078	17,689,223,709	20,718,946,850	20,107,812,858	23,578,
33	31 Universidad Tecnológica del Uruguay							357,736,426	370,
34	32 Instituto Uruguayo de Meteorología								

... | Base de datos | Descripción de variables | Deviation

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.



	B	C	D	E	F	G	H	I	J	K	L
1											
2	Column Labels										
3	2011		2012		2013		2014		2015		
4	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Deaviation 2011
5	2,932,794,600	2,521,314,623	3,319,252,701	2,717,708,435	3,621,700,772	2,906,888,405	3,990,863,312	3,233,714,530	4,296,362,960	-	=C5-B5
6	1,653,868,839	1,560,730,564	1,812,954,613	1,465,175,281	1,952,338,576	1,604,905,375	2,076,753,986	1,893,566,825	2,287,041,082	-	
7	9,612,573,458	9,455,525,317	10,001,477,282	10,283,915,375	10,873,135,202	11,597,904,541	12,133,256,062	12,807,047,392	13,109,730,178	-	
8	12,274,518,365	12,771,946,923	13,562,075,800	15,071,878,362	16,318,510,453	17,304,358,243	18,814,383,038	19,738,750,953	20,239,536,049	-	
9	4,374,633,742	3,871,392,310	4,693,321,482	4,176,408,025	5,037,062,399	4,518,795,578	5,295,444,856	5,193,337,300	5,686,319,137	-	
10	1,763,339,998	1,644,729,429	1,737,484,867	1,754,834,182	1,900,995,756	1,891,603,280	2,021,796,148	2,192,512,302	2,292,520,370	-	
11	2,279,862,858	1,923,033,590	2,449,977,308	2,008,786,986	2,728,526,657	2,261,008,283	2,837,089,923	2,604,968,113	2,991,150,358	-	
12	718,814,594	607,193,021	875,970,715	685,082,510	991,547,574	726,501,277	1,002,496,929	910,325,403	1,062,325,590	-	
13	984,257,508	1,008,065,773	1,051,162,578	1,081,044,830	1,156,531,020	1,164,025,207	1,170,193,768	1,202,646,163	1,227,232,767	-	
14	6,962,855,546	4,947,926,375	7,300,419,612	6,145,625,683	7,517,268,988	6,703,849,606	7,653,602,844	7,315,132,406	7,914,552,278	-	
15	2,432,990,072	2,563,740,314	2,662,001,662	2,887,057,151	2,996,887,034	3,166,956,729	3,553,514,732	3,650,853,768	3,834,205,418	-	
16	970,791,756	955,209,179	1,009,802,956	967,182,218	1,100,122,128	1,052,987,685	1,154,275,865	1,472,991,436	1,363,958,320	-	
17	1,411,598,014	1,300,484,713	1,440,139,137	1,429,809,789	1,522,498,745	1,678,963,750	1,604,360,238	1,801,503,484	1,721,528,009	-	
18	3,915,608,144	4,031,634,768	4,209,681,992	4,422,275,832	4,667,266,905	5,065,839,977	4,985,902,690	5,902,420,958	4,997,490,915	-	
19	2,276,337,715	2,229,505,398	2,506,853,961	2,761,456,590	2,842,830,250	3,198,574,113	2,838,078,456	3,941,246,064	3,108,485,139	-	
20	2,917,298,163	3,024,726,687	3,171,126,290	3,364,505,842	3,493,407,603	3,667,798,025	3,776,360,494	4,020,631,934	4,028,461,985	-	
21	379,168,247	344,991,792	402,850,439	389,031,845	388,325,340	385,700,079	422,844,697	447,192,136	457,242,473	-	
22	536,322,955	598,489,771	574,025,187	586,426,440	635,439,994	688,020,259	695,531,731	1,154,941,169	753,635,628	-	
23	93,732,380	93,551,846	106,878,914	110,718,595	112,340,577	114,485,840	120,404,477	123,322,217	131,626,570	-	
24	22,019,348,802	22,468,555,444	22,468,555,444	24,016,002,379	24,718,699,767	27,541,406,416	27,541,406,416	29,766,937,700	32,254,599,040	-	
25	8,522,925,761	10,075,905,369	9,005,601,669	10,936,452,869	10,171,641,340	11,735,624,770	10,468,379,806	13,443,035,757	11,537,993,001	-	
26	44,853,629,552	49,083,103,015	49,584,359,710	56,364,547,723	57,411,969,843	64,501,009,967	65,431,285,467	71,258,268,654	72,897,728,903	-	
27	9,979,212,840	-	10,287,599,813	-	12,017,251,139	-	12,117,642,404	-	14,064,172,250	-	
28	26,678,091,006	29,786,573,181	29,068,150,490	37,440,193,975	40,702,974,350	47,044,095,511	44,579,538,681	58,094,940,067	45,655,972,281	-	
29	26,358,041,039	27,971,505,100	30,345,399,043	32,021,879,531	34,792,746,667	37,232,876,448	38,547,089,999	42,219,481,747	41,490,135,953	-	
30	6,439,473,525	7,098,294,106	7,162,848,112	8,016,745,562	8,004,259,211	8,857,140,803	8,757,383,787	10,086,772,033	9,660,956,162	-	
31	4,539,084,472	4,750,263,477	5,456,743,528	5,687,067,712	6,341,207,242	6,783,625,831	7,145,404,263	8,314,999,810	7,853,901,126	-	
32	14,579,706,433	15,944,567,182	15,283,322,554	18,270,878,078	17,689,223,709	20,718,946,850	20,107,812,858	23,578,949,821	22,566,440,002	-	
33							357,736,426	370,718,343	370,817,884	-	
34									-	-	

7. Extend the formula until it reaches the end of your table. At the end of this step, your table should look like this:

	B	C	D	E	F	G	H	I	J	K	L
1											
2	Column Labels										
3	2011		2012		2013		2014		2015		
4	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Sum of APPROVED	Sum of EXECUTED	Deviation 2011
5	2,932,794,600	2,521,314,623	3,319,252,701	2,717,708,435	3,621,700,772	2,906,888,405	3,990,863,312	3,233,714,530	4,296,362,960	-	(411,479,977)
6	1,653,868,839	1,560,730,564	1,812,954,613	1,465,175,281	1,952,338,576	1,604,905,375	2,076,753,986	1,893,566,825	2,287,041,082	-	(93,138,275)
7	9,612,573,458	9,455,525,317	10,001,477,282	10,283,915,375	10,873,135,202	11,597,904,541	12,133,256,062	12,807,047,392	13,109,730,178	-	(157,048,141)
8	12,274,518,365	12,771,946,923	13,562,075,800	15,071,878,362	16,318,510,453	17,304,358,243	18,814,383,038	19,738,750,953	20,239,536,049	-	497,428,558
9	4,374,633,742	3,871,392,310	4,693,321,482	4,176,408,025	5,037,062,399	4,518,795,578	5,295,444,856	5,193,337,300	5,686,319,137	-	(503,241,432)
10	1,763,339,998	1,644,729,429	1,737,484,867	1,754,834,182	1,900,995,756	1,891,603,280	2,021,796,148	2,192,512,302	2,292,520,370	-	(118,610,569)
11	2,279,862,858	1,923,033,590	2,449,977,308	2,008,786,986	2,728,526,657	2,261,008,283	2,837,089,923	2,604,968,113	2,991,150,358	-	(356,829,268)
12	718,814,594	607,193,021	875,970,715	685,082,510	991,547,574	726,501,277	1,002,496,929	910,325,403	1,062,325,590	-	(111,621,573)
13	984,257,508	1,008,065,773	1,051,162,578	1,081,044,830	1,156,531,020	1,164,025,207	1,170,193,768	1,202,646,163	1,227,232,767	-	23,808,265
14	6,962,855,546	4,947,926,375	7,300,419,612	6,145,625,683	7,517,268,988	6,703,849,606	7,653,602,844	7,315,132,406	7,914,552,278	-	(2,014,929,171)
15	2,432,990,072	2,563,740,314	2,662,001,662	2,887,057,151	2,996,887,034	3,166,956,729	3,553,514,732	3,650,853,768	3,834,205,418	-	130,750,242
16	970,791,756	955,209,179	1,009,802,956	967,182,218	1,100,122,128	1,052,987,685	1,154,275,865	1,472,991,436	1,363,958,320	-	(15,582,577)
17	1,411,598,014	1,300,484,713	1,440,139,137	1,429,809,789	1,522,498,745	1,678,963,750	1,604,360,238	1,801,503,484	1,721,528,009	-	(111,113,301)
18	3,915,608,144	4,031,634,768	4,209,681,992	4,422,275,832	4,667,266,905	5,065,839,977	4,985,902,690	5,902,420,958	4,997,490,915	-	116,026,624
19	2,276,337,715	2,229,505,398	2,506,853,961	2,761,456,590	2,842,830,250	3,198,574,113	2,838,078,456	3,941,246,064	3,108,485,139	-	(46,832,317)
20	2,917,298,163	3,024,726,687	3,171,126,290	3,364,505,842	3,493,407,603	3,667,798,025	3,776,360,494	4,020,631,934	4,028,461,985	-	107,428,524
21	379,168,247	344,991,792	402,850,439	389,031,845	388,325,340	385,700,079	422,844,697	447,192,136	457,242,473	-	(34,176,455)
22	536,322,955	598,489,771	574,025,187	586,426,440	635,439,994	688,020,259	695,531,731	1,154,941,169	753,635,628	-	62,166,816
23	93,732,380	93,551,846	106,878,914	110,718,595	112,340,577	114,485,840	120,404,477	123,322,217	131,626,570	-	(180,534)
24	22,019,348,802	22,468,555,444	22,468,555,444	24,016,002,379	24,718,699,767	27,541,406,416	27,541,406,416	29,766,937,700	32,254,599,040	-	449,206,642
25	8,522,925,761	10,075,905,369	9,005,601,669	10,936,452,869	10,171,641,340	11,735,624,770	10,468,379,806	13,443,035,757	11,537,993,001	-	1,552,979,608
26	44,853,629,552	49,083,103,015	49,584,359,710	56,364,547,723	57,411,969,843	64,501,009,967	65,431,285,467	71,258,268,654	72,897,728,903	-	4,229,473,463
27	9,979,212,840	-	10,287,599,813	-	12,017,251,139	-	12,117,642,404	-	14,064,172,250	-	(9,979,212,840)
28	26,678,091,006	29,786,573,181	29,068,150,490	37,440,193,975	40,702,974,350	47,044,095,511	44,579,538,681	58,094,940,067	45,655,972,281	-	3,108,482,175
29	26,358,041,039	27,971,505,100	30,345,399,043	32,021,879,531	34,792,746,667	37,232,876,448	38,547,089,999	42,219,481,747	41,490,135,953	-	1,613,464,061
30	6,439,473,525	7,098,294,106	7,162,848,112	8,016,745,562	8,004,259,211	8,857,140,803	8,757,383,787	10,086,772,033	9,660,956,162	-	658,820,581
31	4,539,084,472	4,750,263,477	5,456,743,528	5,687,067,712	6,341,207,242	6,783,625,831	7,145,404,263	8,314,999,810	7,853,901,126	-	211,179,005
32	14,579,706,433	15,944,567,182	15,283,322,554	18,270,878,078	17,689,223,709	20,718,946,850	20,107,812,858	23,578,949,821	22,566,440,002	-	1,364,860,749
33							357,736,426	370,718,343	370,817,884	-	-
34									-	-	-

8. Repeat the process for the other years.