



COMMONWEALTH OF
PUERTO RICO

Government Development Bank
for Puerto Rico

January and February 2016

Economic Activity Index (“GDB-EAI”)

Special Comment - March 2016

Benchmark Revision of Payroll Employment

In March 2016 the benchmark revision of the payroll employment data for 2015 showed a considerable downward adjustment.

- Every March the BLS publishes the benchmark revision of the payroll employment. Each revision changes the employment figures for the previous 21 months.
- The revision released in March 2015 decreased the 2014 average level of payroll employment by 17,333 employees with respect to the previous employment estimates published until December 2014.
- **Moreover, the revision released in March 2016 decreased the 2015 level of payroll employment by 9,017 jobs with respect to the estimates released until December 2015.**

Calendar Year	Average Total Payroll Employment (Previous)	Average Total Payroll Employment (Revised)	Change in the Number of Employees
2005	1,019,871	1,043,822	23,951
2006	1,041,574	1,042,833	1,259
2007	1,027,833	1,028,767	934
2008	1,004,635	1,009,975	5,340
2009	967,642	961,133	(6,509)
2010	929,683	926,842	(2,841)
2011	918,550	922,617	4,067
2012	916,800	935,233	18,433
2013	904,575	925,850	21,275
2014	924,833	907,500	(17,333)
2015	908,975	899,958	(9,017)

Special Comment - March 2016

Benchmark Revision of Payroll Employment (2)

The benchmark revision had impacts on year-over-year (y-o-y) growth rates for 2015.

- The payroll employment benchmark revision not only impacted the average level of payroll employment, it also changed its average growth rate for previous years.
- Notice that from a 1.2% decline during FY2015, the revised figures now reflect a 1.3% decrease; and from a year-to-date (July-December) increase of 0.6% in FY2016, the revised numbers show a year-to-date drop of 1.2%.

Payroll Employment before the benchmark revision

	2011	2012	2013	2014	2015	2016
FISCAL YEAR						
AVERAGE	923.6	931.3	937.2	916.8	906.2	
DIFFERENCE	-19.7	7.7	5.9	-20.4	-10.6	
% CHANGE	-2.1	0.8	0.6	-2.2	-1.2	
JUL-DEC						
AVERAGE	926.8	928.1	945.8	923.4	904.8	910.2
DIFFERENCE	-23.3	1.3	17.7	-22.4	-18.6	5.5
% CHANGE	-2.4	0.1	1.9	-2.4	-2.0	0.6
CALENDAR YEAR						
AVERAGE	924.2	940.2	926.0	907.5	909.0	
DIFFERENCE	-7.4	15.9	-14.2	-18.5	1.5	
% CHANGE	-0.8	1.7	-1.5	-2.0	0.2	

Payroll Employment after the benchmark revision

	2011	2012	2013	2014	2015	2016
FISCAL YEAR						
AVERAGE	923.6	931.3	937.2	917.2	905.6	
DIFFERENCE	-19.7	7.7	5.9	-19.9	-11.6	
% CHANGE	-2.1	0.8	0.6	-2.1	-1.3	
JUL-DEC						
AVERAGE	926.8	928.0	945.8	923.4	908.6	897.3
DIFFERENCE	-23.3	1.2	17.8	-22.4	-14.8	-11.4
% CHANGE	-2.5	0.1	1.9	-2.4	-1.6	-1.2
CALENDAR YEAR						
AVERAGE	924.2	940.1	926.0	909.9	900.0	
DIFFERENCE	-7.4	15.9	-14.2	-16.1	-9.9	
% CHANGE	-0.8	1.7	-1.5	-1.7	-1.1	

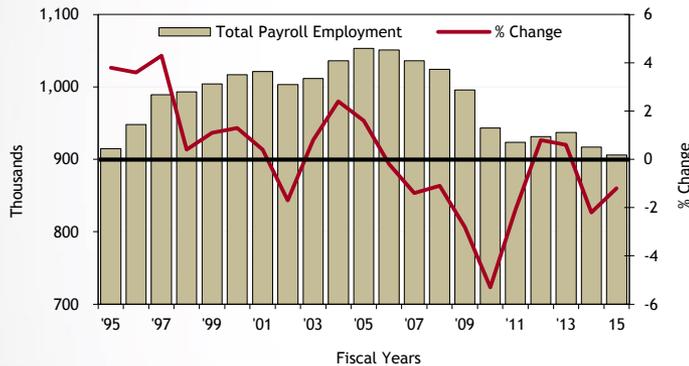
Special Comment - March 2016

Benchmark Revision of Payroll Employment (3)

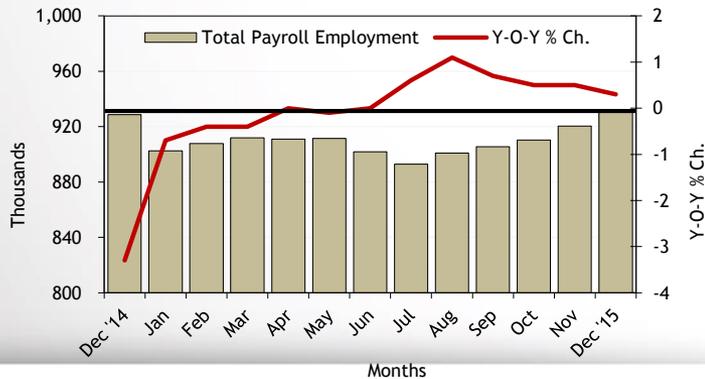
Below are the impacts of the benchmark revision on payroll employment. The revision changed the average payroll employment growth of 2015 from 0.2% to -1.1%

Before the benchmark revision

Total Non-Farm Payroll Employment

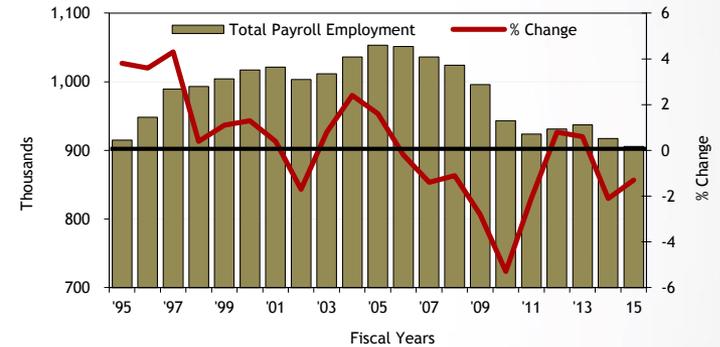


Total Non-Farm Payroll Employment

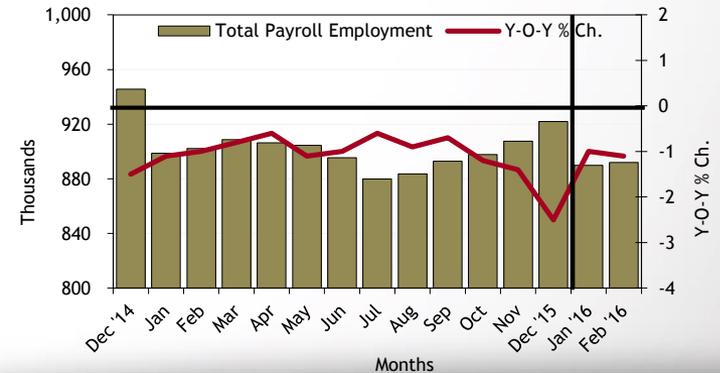


After the benchmark revision

Total Non-Farm Payroll Employment



Total Non-Farm Payroll Employment



Special Comment - March 2016

Benchmark Revision of Payroll Employment (4)

The annual benchmark revision resulted in the adjustment of the GDB-EAI

- Given that total payroll employment is one of the components of the GDB-EAI, a major change in payroll employment implies a significant change in the Index.
- Prior to the annual benchmark revision, the EAI was declining by 1.6% in FY2015 and increasing by 0.1% in the first semester of FY2016. After the benchmark revision, the reduction in the EAI was of 1.8% in FY2015 and of 1.2% for the first semester of FY2016.

GDB-EAI before the benchmark revision

	2011	2012	2013	2014	2015	2016
FISCAL YEAR						
AVERAGE	134.2	134.1	134.0	129.2	127.1	
DIFFERENCE	-3.9	-0.1	-0.1	-4.8	-2.1	
% CHANGE	-2.8	-0.1	-0.1	-3.6	-1.6	
JUL-DEC						
AVERAGE	135.0	133.2	135.3	130.1	126.9	127.0
DIFFERENCE	-4.4	-1.7	2.1	-5.3	-3.2	0.1
% CHANGE	-3.2	-1.3	1.6	-3.9	-2.5	0.1
CALENDAR YEAR						
AVERAGE	133.3	135.1	131.3	127.6	127.1	
DIFFERENCE	-2.6	1.8	-3.8	-3.8	-0.4	
% CHANGE	-1.9	1.4	-2.8	-2.9	-0.3	

GDB-EAI after the benchmark revision

	2011	2012	2013	2014	2015	2016
FISCAL YEAR						
AVERAGE	133.3	133.3	133.2	128.7	126.4	
DIFFERENCE	-3.9	0.0	-0.1	-4.6	-2.3	
% CHANGE	-2.8	0.0	-0.1	-3.4	-1.8	
JUL-DEC						
AVERAGE	133.6	132.9	134.2	129.1	126.4	125.0
DIFFERENCE	-4.3	-0.8	1.3	-5.1	-2.7	-1.5
% CHANGE	-3.1	-0.6	1.0	-3.8	-2.1	-1.2
CALENDAR YEAR						
AVERAGE	132.5	134.4	130.7	127.1	125.7	
DIFFERENCE	-2.3	1.9	-3.7	-3.6	-1.4	
% CHANGE	-1.7	1.4	-2.8	-2.7	-1.1	

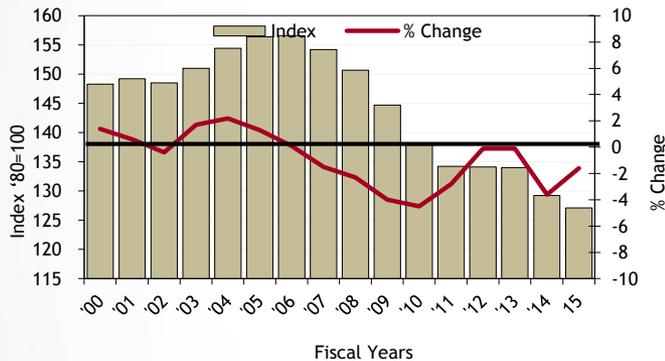
Special Comment - March 2016

Benchmark Revision of Payroll Employment (5)

Below are the changes of the benchmark revision on the GDB-EAI. This revision changed the GDB-EAI growth of 2015 from -0.3% to -1.1%

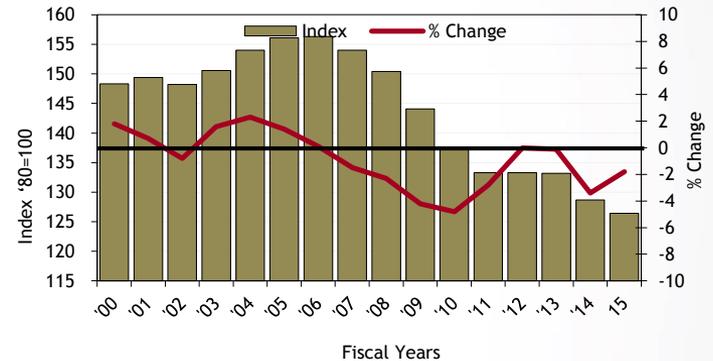
Before the benchmark revision

GDB Economic Activity Index

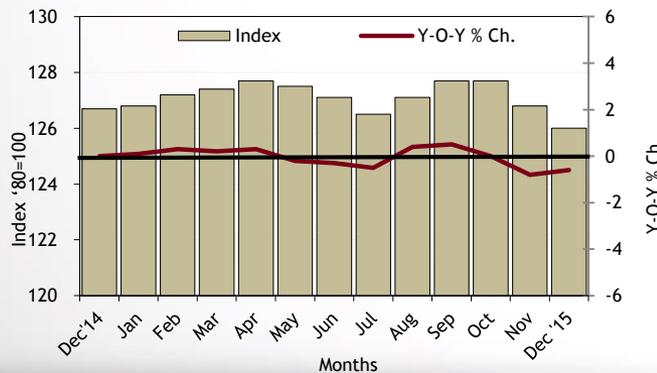


After the benchmark revision

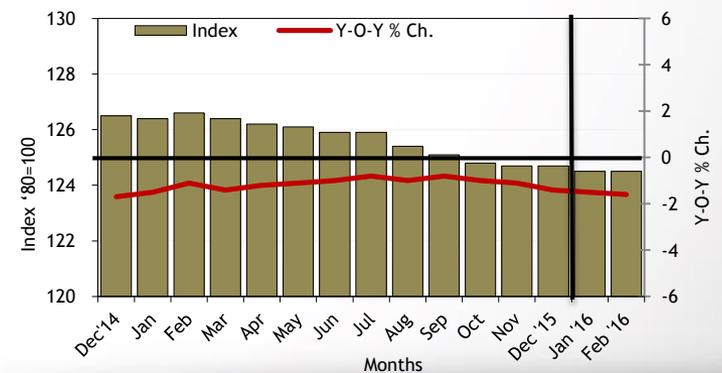
GDB Economic Activity Index



GDB Economic Activity Index



GDB Economic Activity Index

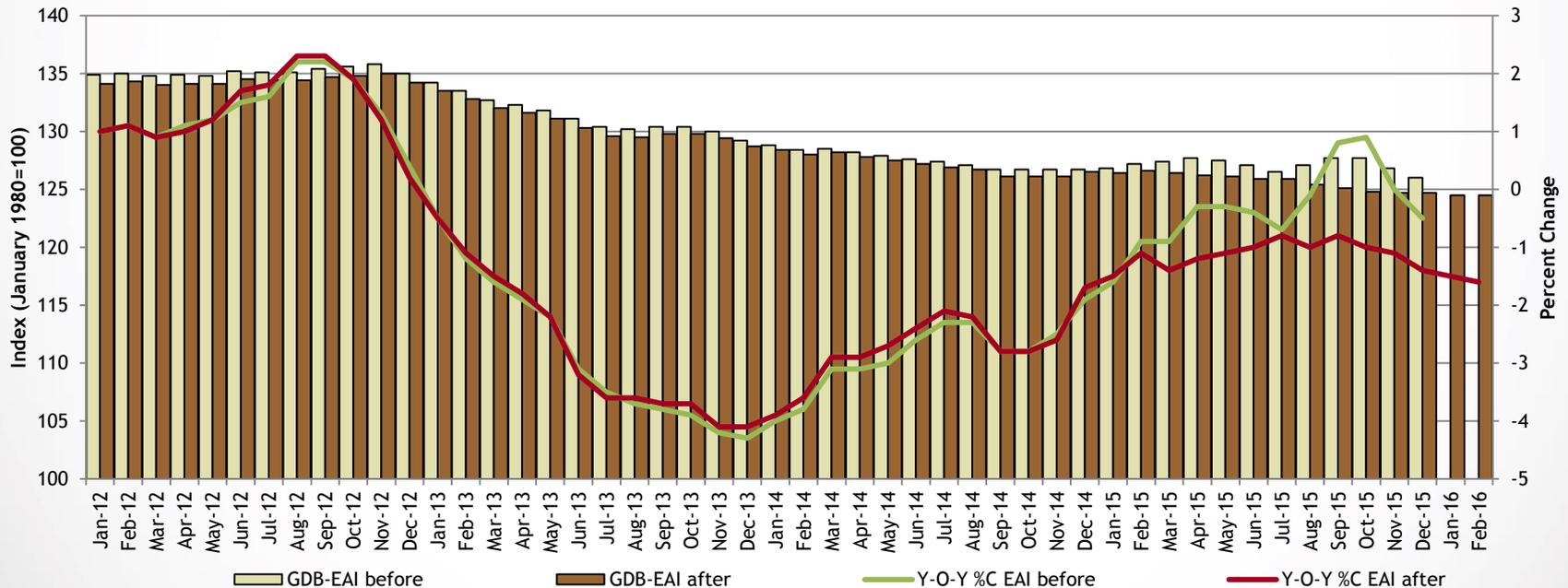


Special Comment - March 2016

Benchmark Revision of Payroll Employment (6)

The benchmark revision implies year-over-year reductions of larger magnitudes.

GDB Economic Activity Index
(Before and After the Payroll Benchmark Revision of March 2016)



About the interpretation of the GDB-EAI

The GDB-EAI is an indicator of general economic activity, not a direct measurement of real GNP. The annual growth rate of the EAI **is not** the same as the annual growth rate of real GNP.

- When it is annualized, the **level** of the **EAI** is highly correlated with the **level** of **real GNP** (with a Pearson correlation coefficient of 0.9824, for FY1981-FY2014).
- Annual **growth rates** of both variables are also highly correlated (with a Pearson correlation coefficient of 0.9489, for FY1982-FY2014).
- Nevertheless, the annual growth rate of the EAI **IS NOT** the same as the annual growth rate of real GNP. Being highly correlated does not mean being equal.
- In order to approximate real GNP growth from EAI annual growth, we estimate a linear regression model relating both variables.
- Plugging in EAI annual growth rates into the resulting equation, we obtain estimates for the annual growth rates of real GNP, which approximate real GNP annual growth figures published by the Planning Board.

About the interpretation of the GDB-EAI (2)

The GDB-EAI is an indicator of the general economic activity, not a direct measurement of real GNP. The annual growth rate of the EAI **is not** the same as the annual growth rate of real GNP.

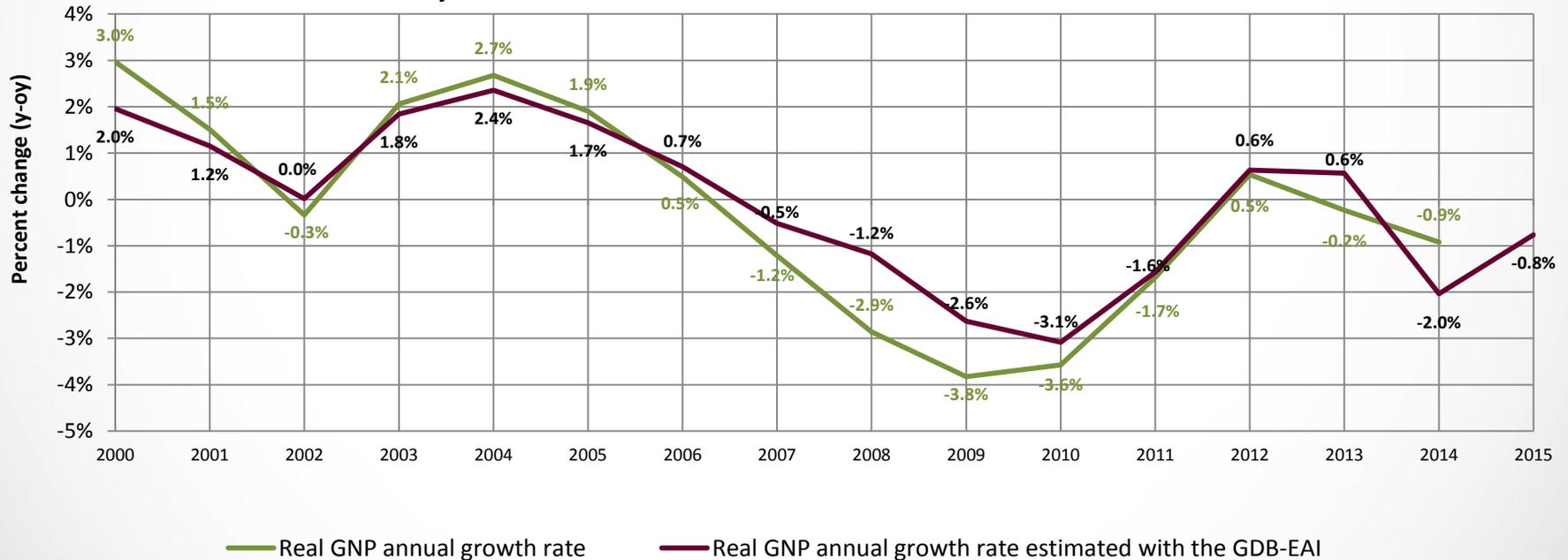
Fiscal Year	GDB-EAI annual growth	Real GNP annual growth estimated using the GDB-EAI	Current real GNP annual growth
2002	-0.8%	0.0%	-0.3%
2003	1.6%	1.8%	2.1%
2004	2.3%	2.4%	2.7%
2005	1.4%	1.7%	1.9%
2006	0.1%	0.7%	0.5%
2007	-1.5%	-0.5%	-1.2%
2008	-2.3%	-1.2%	-2.9%
2009	-4.2%	-2.6%	-3.8%
2010	-4.8%	-3.1%	-3.6%
2011	-2.8%	-1.6%	-1.7%
2012	0.0%	0.6%	0.5%
2013	-0.1%	0.6%	-0.2%
2014	-3.4%	-2.0%	-0.9%
2015	-1.8%	-0.8%	

- However, real GNP growth estimates based on the EAI are relatively close (although not identical) to actual real GNP growth figures.
- Real GNP growth for FY2015 was estimated at -0.8% using a regression equation with the growth of the EAI as the independent variable. The index's annual growth is calculated as the annual percentage change of the twelve-month average.
- For FY2014, the index-based estimate for real GNP growth showed a sharper decline than the actual official measure of the Puerto Rico Planning Board.

About the interpretation of the GDB-EAI (3)

The graph compares actual real GNP growth rates with projected real GNP growth rates based on the GDB-EAI.

Annual Growth Rate Comparisons: Real GNP, and real GNP estimated with the GDB-EAI



Real GNP data source: Puerto Rico Planning Board

Overview - January 2016

In January 2016, the GDB-EAI registered a 1.5% year-over-year (y-o-y) reduction, and a month-over-month (m-o-m) decrease of 0.1%.

- The January 2016 figure for the EAI was 124.5, a 1.5% reduction compared to January 2015, and a decrease of 0.1% compared to December 2015. In a year-to-date basis (July 2015 to January 2016) the decline was of -1.1% with respect to the same period of the previous fiscal year.
- Total non-farm payroll employment for January 2016 averaged 889,800, an annual decrease of 1.0%.
- Electric power generation for January 2016 totaled 1,612.8 million kWh, an annual decrease of 1.4%.
- The preliminary number for gasoline consumption* in January 2016 was 83.7 million gallons, 5.9% below January 2015.
- Cement sales for January 2016 totaled 0.85 million bags, registering an annual decrease of 14.4%.

* The monthly gasoline consumption is estimated by the GDB from the Treasury Department's monthly gasoline excise tax collections paid by importers which are transferred to P.R. Highways and Transportation Authority. These collections fluctuate due to changes in inventories and purchases, which do not necessarily reflect the actual monthly consumption reported by retailers.

Overview - February 2016

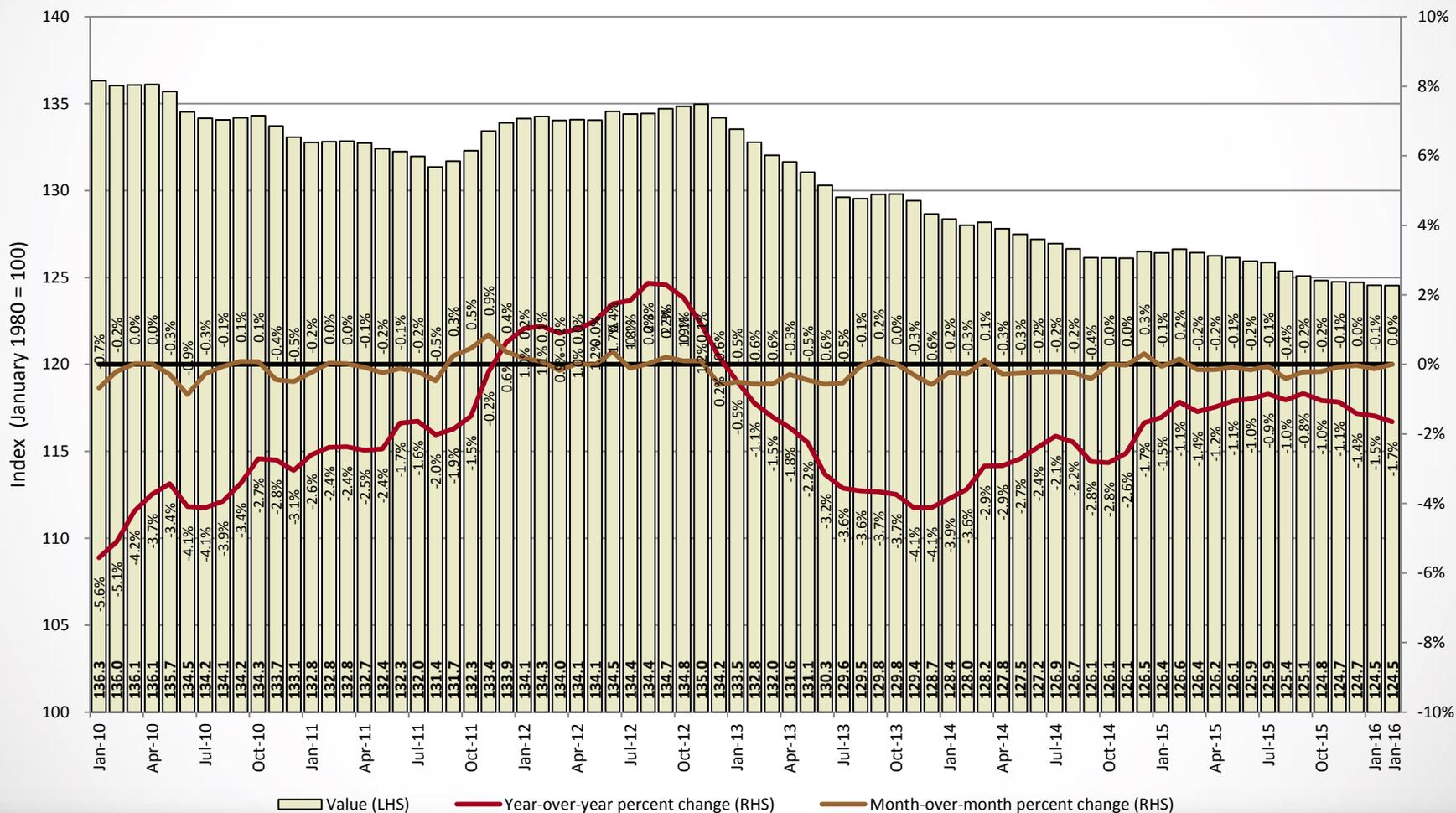
In February 2016, the GDB-EAI registered a 1.6% y-o-y reduction, and no change in a m-o-m basis.

- The February 2016 figure for the EAI was 124.5, a 1.6% reduction compared to February 2015, and remained flat compared to January 2016. In a year-to-date basis (July 2015 to February 2016) the decline was of -1.2% with respect to the same period of the previous fiscal year.
- Total non-farm payroll employment for February 2016 averaged 891,900, an annual decrease of 1.1%.
- Electric power generation for February 2016 totaled 1,561.6 million kWh, an annual increase of 2.6%.
- The preliminary number for gasoline consumption* in February 2016 was 88.0 million gallons, 1.2% above February 2015.
- Cement sales for February 2016 totaled 1.06 million bags, registering an annual decrease of 4.3%.

* The monthly gasoline consumption is estimated by the GDB from the Treasury Department's monthly gasoline excise tax collections paid by importers which are transferred to P.R. Highways and Transportation Authority. These collections fluctuate due to changes in inventories and purchases, which do not necessarily reflect the actual monthly consumption reported by retailers.

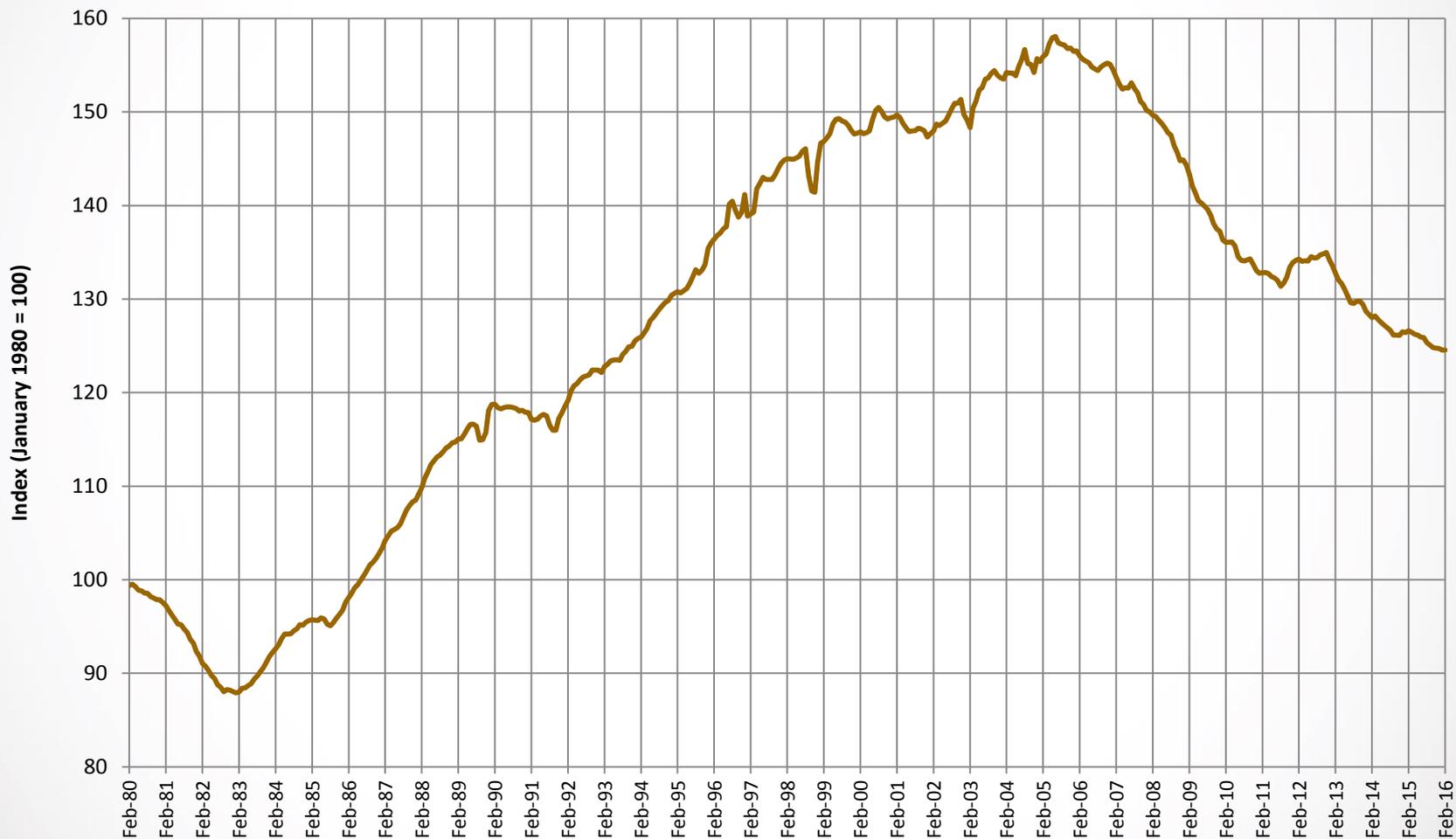
In February 2016, the GDB-EAI registered a 1.6% y-o-y reduction, and remained flat on a m-o-m basis.

GDB Economic Activity Index



The complete series of the new EAI, which starts in January 1980, shows the recessions of FY1982 and FY1983, the mild recession of FY1991, and the recession of 2001. It also shows the downward path of the Index since the beginning of the current recession.

GDB Economic Activity Index



GDB Economic Activity Index: Data for the past decade

PUERTO RICO ECONOMIC INDICATORS
GDB Economic Activity Index
(January 1980 = 100)

GOVERNMENT DEVELOPMENT BANK
ECONOMIC ANALYSIS DIVISION

FISCAL YEAR *	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
JULY	154.6	153.1	147.8	139.9	134.2	132.0	134.4	129.6	126.9	125.9
AUGUST	154.4	152.5	147.5	139.6	134.1	131.4	134.4	129.5	126.7	125.4
SEPTEMBER	154.8	152.1	146.4	138.9	134.2	131.7	134.7	129.8	126.1	125.1
OCTOBER	155.1	151.1	145.7	138.1	134.3	132.3	134.8	129.8	126.1	124.8
NOVEMBER	155.2	150.8	144.8	137.5	133.7	133.4	135.0	129.4	126.1	124.7
DECEMBER	155.1	150.2	144.9	137.3	133.1	133.9	134.2	128.7	126.5	124.7
JANUARY	154.5	150.0	144.3	136.3	132.8	134.1	133.5	128.4	126.4	124.5
FEBRUARY	153.7	149.7	143.4	136.0	132.8	134.3	132.8	128.0	126.6	124.5
MARCH	153.0	149.5	142.1	136.1	132.8	134.0	132.0	128.2	126.4	
APRIL	152.5	149.1	141.4	136.1	132.7	134.1	131.6	127.8	126.2	
MAY	152.6	148.8	140.5	135.7	132.4	134.1	131.1	127.5	126.1	
JUNE	152.6	148.3	140.3	134.5	132.3	134.5	130.3	127.2	125.9	

YEAR OVER YEAR PERCENTAGE CHANGE

FISCAL YEAR *	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
JULY	-1.8	-1.0	-3.5	-5.3	-4.1	-1.6	1.8	-3.6	-2.1	-0.8
AUGUST	-1.8	-1.3	-3.3	-5.4	-3.9	-2.0	2.3	-3.6	-2.2	-1.0
SEPTEMBER	-1.5	-1.8	-3.7	-5.1	-3.4	-1.9	2.3	-3.7	-2.8	-0.8
OCTOBER	-1.1	-2.6	-3.6	-5.2	-2.7	-1.5	1.9	-3.7	-2.8	-1.0
NOVEMBER	-1.0	-2.9	-4.0	-5.0	-2.7	-0.2	1.2	-4.1	-2.6	-1.1
DECEMBER	-0.9	-3.2	-3.5	-5.3	-3.1	0.6	0.2	-4.1	-1.7	-1.4
JANUARY	-1.3	-2.9	-3.8	-5.6	-2.6	1.0	-0.5	-3.9	-1.5	-1.5
FEBRUARY	-1.5	-2.6	-4.2	-5.1	-2.4	1.1	-1.1	-3.6	-1.1	-1.6
MARCH	-1.7	-2.3	-5.0	-4.2	-2.4	0.9	-1.5	-2.9	-1.4	
APRIL	-1.9	-2.2	-5.2	-3.7	-2.5	1.0	-1.8	-2.9	-1.2	
MAY	-1.7	-2.5	-5.5	-3.4	-2.4	1.2	-2.2	-2.7	-1.1	
JUNE	-1.5	-2.8	-5.4	-4.1	-1.7	1.7	-3.2	-2.4	-1.0	

YEAR OVER YEAR DIFFERENCE

FISCAL YEAR *	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
JULY	-2.8	-1.5	-5.3	-7.9	-5.8	-2.2	2.4	-4.8	-2.7	-1.1
AUGUST	-2.8	-1.9	-5.0	-8.0	-5.5	-2.7	3.1	-4.9	-2.9	-1.3
SEPTEMBER	-2.3	-2.8	-5.7	-7.4	-4.8	-2.5	3.0	-4.9	-3.6	-1.1
OCTOBER	-1.7	-4.0	-5.4	-7.6	-3.7	-2.0	2.5	-5.0	-3.7	-1.3
NOVEMBER	-1.6	-4.4	-6.0	-7.3	-3.8	-0.3	1.6	-5.6	-3.3	-1.4
DECEMBER	-1.4	-5.0	-5.3	-7.6	-4.2	0.8	0.3	-5.5	-2.2	-1.8
JANUARY	-2.0	-4.5	-5.7	-8.0	-3.6	1.4	-0.6	-5.2	-1.9	-1.9
FEBRUARY	-2.3	-4.1	-6.3	-7.3	-3.2	1.5	-1.5	-4.8	-1.4	-2.1
MARCH	-2.7	-3.5	-7.5	-6.0	-3.2	1.2	-2.0	-3.9	-1.7	
APRIL	-3.0	-3.4	-7.7	-5.3	-3.4	1.4	-2.4	-3.8	-1.6	
MAY	-2.7	-3.8	-8.2	-4.8	-3.3	1.6	-3.0	-3.6	-1.3	
JUNE	-2.3	-4.2	-8.1	-5.7	-2.3	2.3	-4.2	-3.1	-1.3	

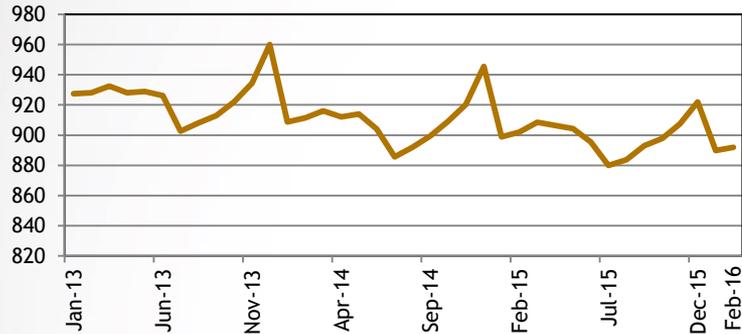
SUMMARY DATA

FISCAL YEAR *	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AVERAGE	154.0	150.4	144.1	137.2	133.3	133.3	133.2	128.7	126.4	
DIFFERENCE	-2.3	-3.6	-6.3	-6.9	-3.9	0.0	-0.1	-4.6	-2.3	
% CHANGE	-1.5	-2.3	-4.2	-4.8	-2.8	0.0	-0.1	-3.4	-1.8	
JUL-FEB										
AVERAGE	154.7	151.2	145.6	138.0	133.6	132.9	134.2	129.1	126.4	125.0
DIFFERENCE	-2.1	-3.5	-5.6	-7.7	-4.3	-0.8	1.3	-5.1	-2.7	-1.5
% CHANGE	-1.3	-2.3	-3.7	-5.3	-3.1	-0.6	1.0	-3.8	-2.1	-1.2
CALENDAR YEAR										
AVERAGE	152.4	147.7	140.3	134.9	132.5	134.4	130.7	127.1	125.7	
DIFFERENCE	-2.9	-4.7	-7.4	-5.4	-2.3	1.9	-3.7	-3.6	-1.4	
% CHANGE	-1.8	-3.1	-5.0	-3.9	-1.7	1.4	-2.8	-2.7	-1.1	
JAN-FEB										
AVERAGE	154.1	149.8	143.9	136.2	132.8	134.2	133.2	128.2	126.5	124.5
DIFFERENCE	-2.1	-4.3	-6.0	-7.7	-3.4	1.4	-1.1	-5.0	-1.7	-2.0
% CHANGE	-1.4	-2.8	-4.0	-5.3	-2.5	1.1	-0.8	-3.7	-1.3	-1.6

GDB Economic Activity Index Components

Total Non-Farm Payroll Employment*

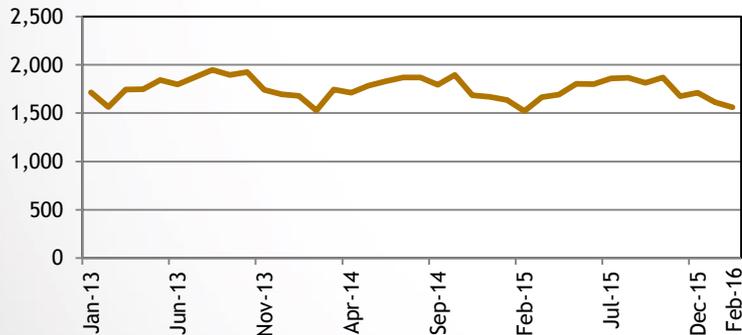
(Thousands of jobs)



- Total non-farm payroll employment for February 2016 averaged 891,900, an annual decrease of -1.1%.

Electric Power Generation*

(Millions of kWh)



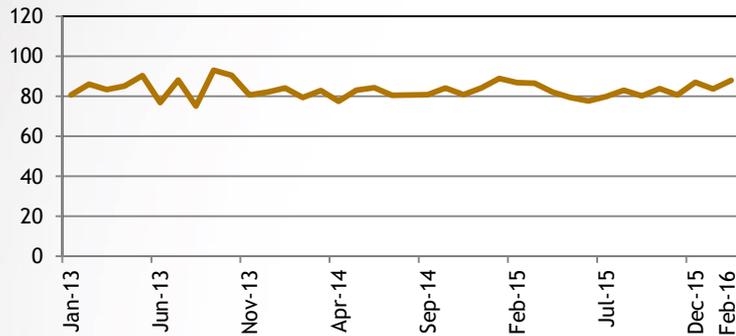
- Electric power generation for February 2016 averaged 1,561.6 million kWh, an annual increase of 2.6%.

Sources: BLS and PREPA
* Not seasonally adjusted.

GDB Economic Activity Index Components

Gasoline Consumption*

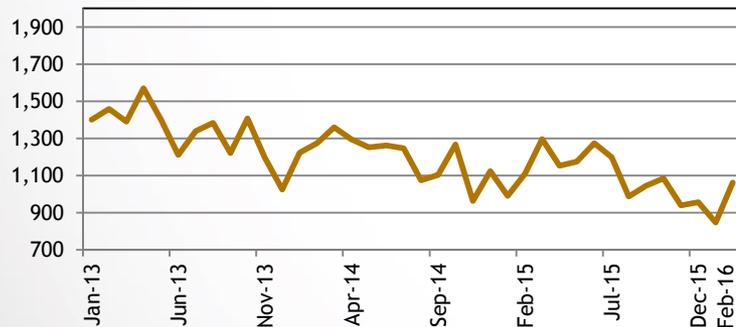
(Millions of gallons)



- The preliminary estimate of gasoline consumption for February 2016 was 88.0 million gallons, for an annual increase of 1.2%.

Cement Sales*

(Cement bags sold, in thousands)



- Cement Sales for February 2016 totaled 1.06 million bags, an annual decrease of 4.3%.

*The monthly gasoline consumption is estimated by the GDB from the Treasury Department's monthly gasoline excise tax collections paid by importers which are transferred to P.R. Highways and Transportation Authority.

Sources: PRHTA and GDB
* Not seasonally adjusted.

Description of the GDB-Economic Activity Index

GDB-EAI Highlights and Composition

GDB Economic Activity Index Highlights

Advantages of the GDB-EAI:

- Readily available
- Highly correlated to Puerto Rico's real GNP
- Reliable tool to monitor actual trend of Puerto Rico economy

The GDB-EAI is made up of 4 indicators:

- Total Payroll Employment (Establishment Survey/ Thousand of employees)
- Total Electric Power Generation (Millions of kWh)
- Cement Sales (Millions of bags)
- Gas Consumption (Millions of gallons)

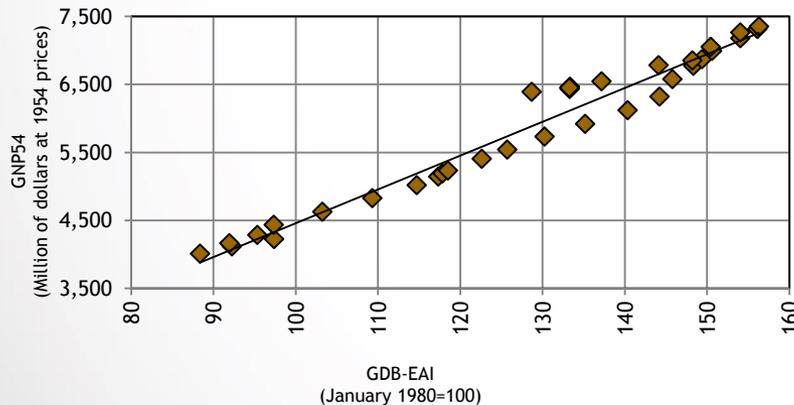
Description of the GDB-EAI

- The GDB-EAI is a coincident index for the economic activity of Puerto Rico. It is highly correlated to Puerto Rico's real GNP in both, levels and annual growth rates.
- This index's methodology is similar to that used in The Conference Board's coincident index of the US economy. This methodology follows a standard procedure to adjust the data for seasonality and volatility factors.

Real Gross National Product as a function of the GDB Economic Activity Index

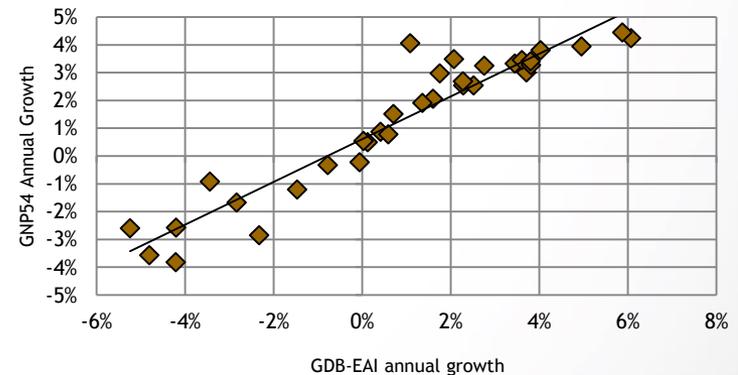
Relationship on the levels: FY1981-FY2014

$$y = 49.751x - 515.95.42 \quad R^2 = 0.9651$$



Relationship on the growth rates: FY1982-FY2014

$$y = 0.7688x + 0.0061 \quad R^2 = 0.9003$$



Sources: GDB

Disclaimer

The GDB-EAI and its indicators are subject to revisions. While the information comprising the GDB EAI has been obtained from sources GDB believes to be reliable, GDB is not responsible for any errors or omissions, or for the results obtained from the use of this information.