



COMMONWEALTH OF
PUERTO RICO

Government Development Bank
for Puerto Rico

September and October 2013

Economic Activity Index (“GDB-EAI”)

Clarification about the interpretation of the GDB-EAI figures

The GDB-EAI is an indicator of the general economic activity, not a direct measurement of the real GNP. Moreover, the GDB-EAI annual growth rates are not the same as the real GNP growth rates, because the former are more volatile than the latter.

- When it is annualized, the level of the EAI is highly correlated with the **level** of the real GNP (with a Pearson correlation coefficient of 0.9883, for FY1981-FY2012).
- The annual **growth rates** of both variables are also highly correlated (with a Pearson correlation coefficient of 0.9461, for FY1982-FY2012).
- Nevertheless, the annual growth rate of the EAI **IS NOT** the same as the annual growth rate of the real GNP. Being highly correlated does not mean being equal.
- In order to approximate real GNP growth from the EAI annual growth, we estimate a linear regression model relating both variables.
- Plugging in the EAI annual growth rates into the resulting equation we obtain estimates for the annual growth rates of the real GNP.
- This transformation generates an approximation of the actual real GNP growth figures.

Clarification about the interpretation of the GDB-EAI figures (2)

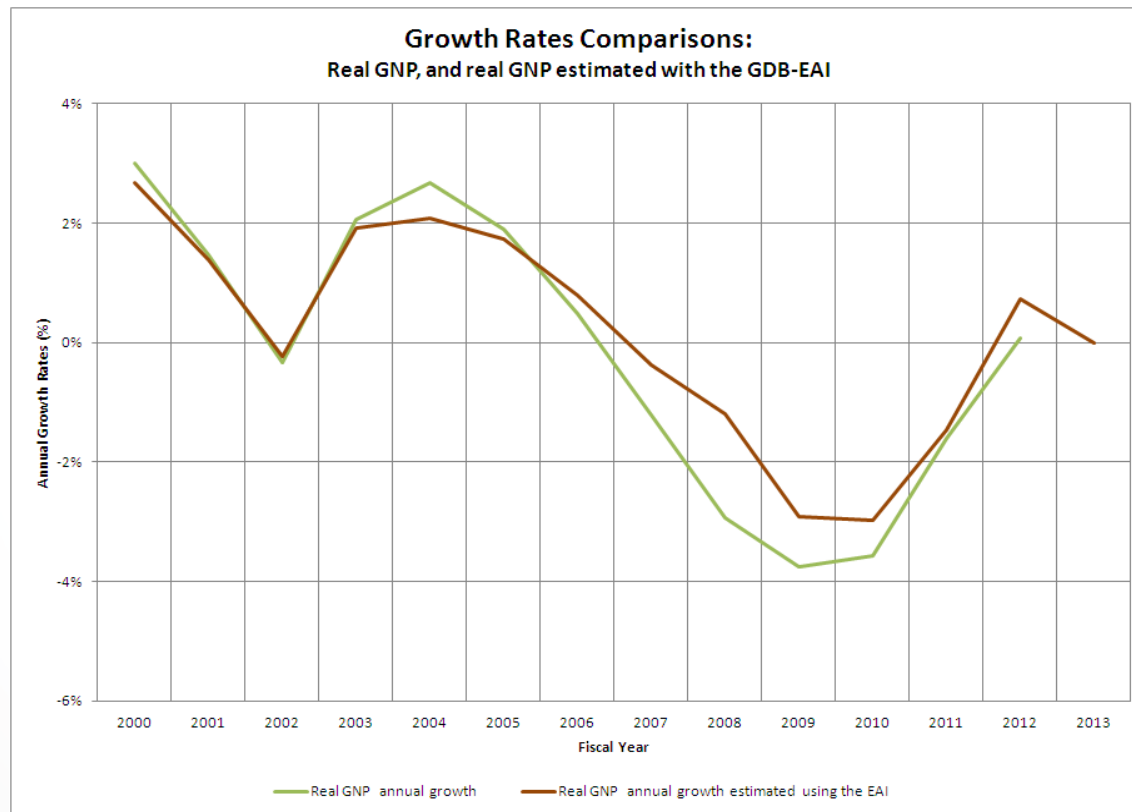
Below is a comparison of the annual growth rates of the GDB-EAI, the actual real GNP figures, and the annual growth of the real GNP using the figures from the GDB-EAI.

Fiscal Year	EAI annual growth	Real GNP annual growth estimated using the EAI	Actual Real GNP annual growth
2000	2.9%	2.7%	3.0%
2001	1.1%	1.4%	1.5%
2002	-1.2%	-0.2%	-0.3%
2003	1.8%	1.9%	2.1%
2004	2.0%	2.1%	2.7%
2005	1.6%	1.7%	1.9%
2006	0.3%	0.8%	0.5%
2007	-1.4%	-0.4%	-1.2%
2008	-2.5%	-1.2%	-2.9%
2009	-4.9%	-2.9%	-3.8%
2010	-5.0%	-3.0%	-3.6%
2011	-2.9%	-1.5%	-1.6%
2012	0.2%	0.7%	0.1%

Notice that the real GNP growth estimates coming from the EAI are relatively close to the actual real GNP growth figures.

Clarification about the interpretation of the GDB-EAI figures (3)

Here is a comparison graph of the actual real GNP figures and the estimates of the annual growth of the real GNP using the figures coming from the GDB-EAI.



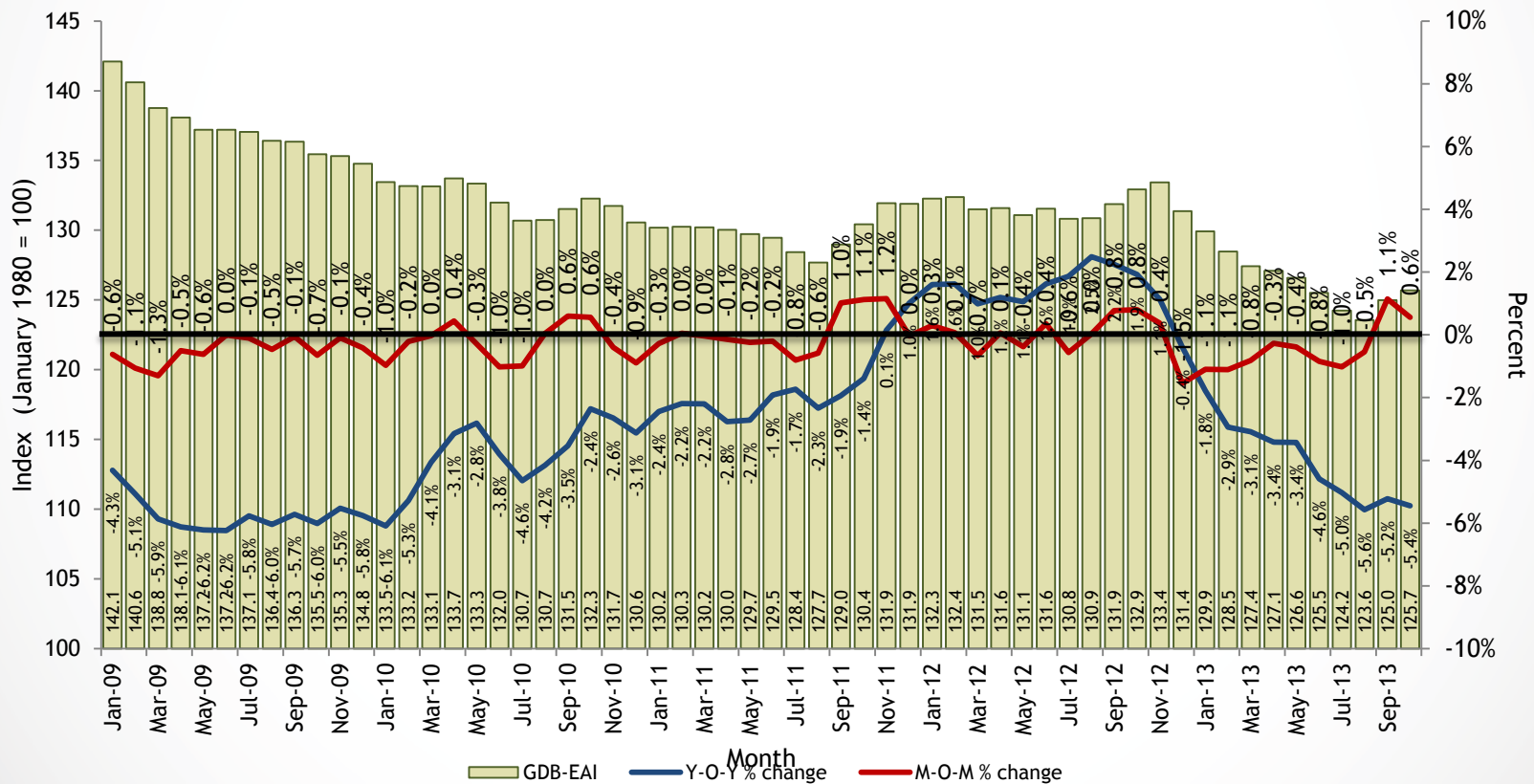
Effect of the recent federal government shutdown on the GDB-EAI publication

During the past federal government shutdown (October 1st to October 16th, 2013), several federal government offices remained closed. This has a direct effect on the publication schedule of the Bureau of Labor Statistics (BLS).

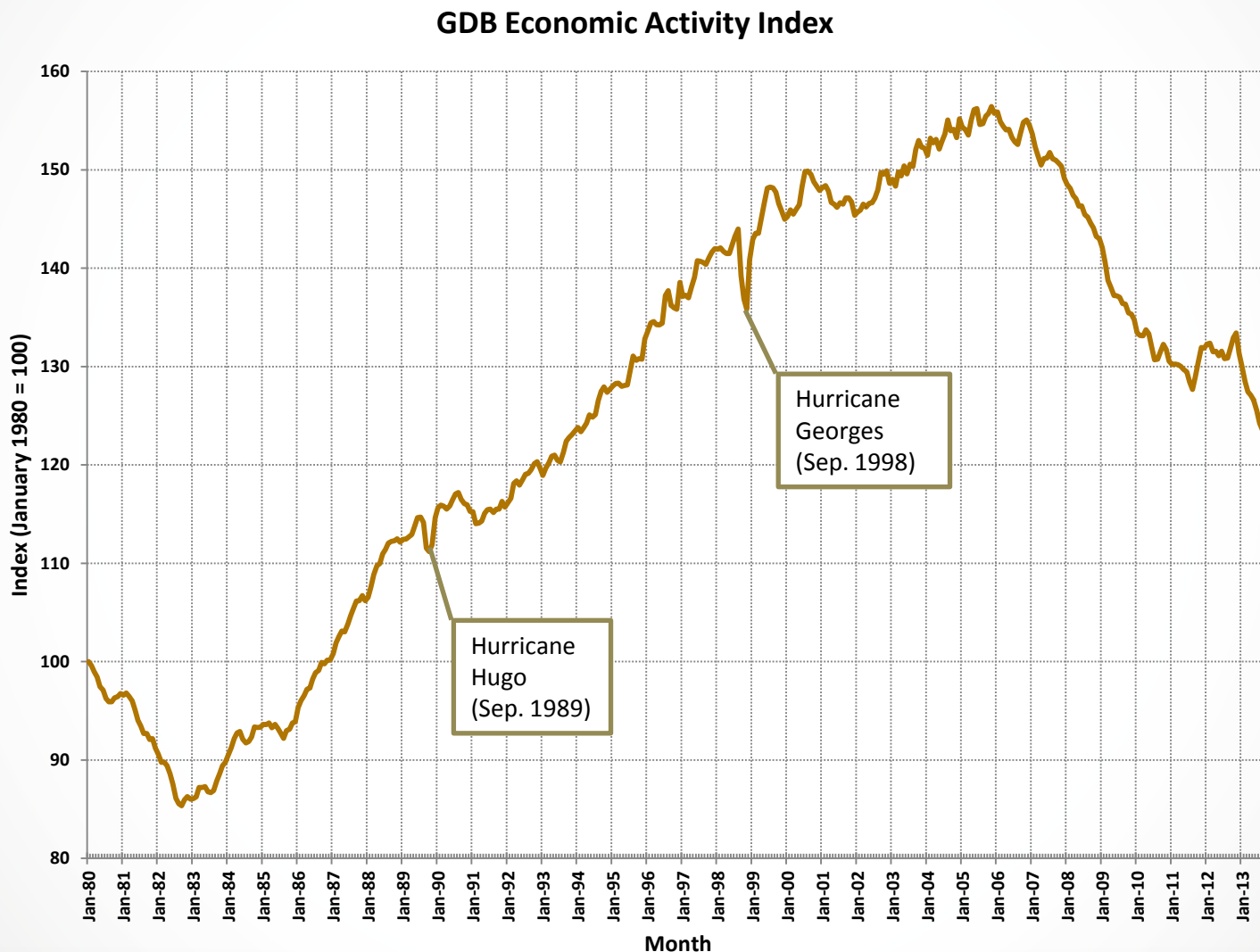
- Due to the federal government shutdown, the BLS postponed the release date of the Regional and State Employment and Unemployment data (the September numbers were supposed to be published on October 22, 2013).
- The BLS rescheduled the publication date in order to release the September and October figures the same day, on November 22, 2013.
- Since the total payroll employment is one of the components of the GDB Economic Activity Index, the GDB had to delay the publication of the corresponding figures of the index for September and October.
- For that reason, this issue of the GDB-EAI publication contains the figures for the months of September and October 2013.

GDB Economic Activity Index

- The Economic Activity Index has shown two consecutive months of positive month-over-month (m-o-m) growth rates, both in September 2013 and October 2013.
- While it cannot be concluded that the economic activity is necessarily experiencing an effective inflection point, these are the first months of increase since October 2012.



The complete series of the EAI, which starts in January 1980, shows the recessions of FY1982 and FY1983, the mild recession of FY1991, the recession of 2001, and the sharp but temporary effects of two hurricanes. It also shows the path of the Index since the beginning of the current recession.



General Commentary - September 2013

GDB-EAI for the month of September registered a 5.2% year-over-year reduction and a 1.1% month-over-month increase.

- September 2013 EAI was 125.0, a 5.2% reduction compared to September 2012. Moreover, the FY 2014 year-to-date (YTD) (July- September) EAI figure showed a reduction of 5.3% with respect to the corresponding figure for FY2013. For the month of September, the EAI registered a month-over-month increase of 1.1%.
- The preliminary number of gasoline consumption* was 93.1 million gallons in September 2013, 2.3% below September 2012. The FY2014 YTD gasoline consumption number was 3.1% below the corresponding number for FY2013.
- Total non-farm payroll employment for September 2013 averaged 885.4, an annual reduction of 5.4%. Furthermore, FY2014 YTD total non-farm payroll employment showed a decrease of 4.6%.
- Electric power generation for September 2013 totaled 1,895.3 million kWh, an annual decrease of 3.6%. Electricity generation for FY2014 YTD was 3.3% less than during the same period of FY2013.
- Cement sales for September 2013 totaled 1.22 million bags, registering an annual reduction of 21.3%. Sales for FY2014 YTD were below 17.0% with respect to the figure for the same period of FY2013.

* 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.

General Commentary - October 2013

GDB-EAI for the month of October registered a 5.4% year-over-year reduction and a month-over-month increase of 0.6%.

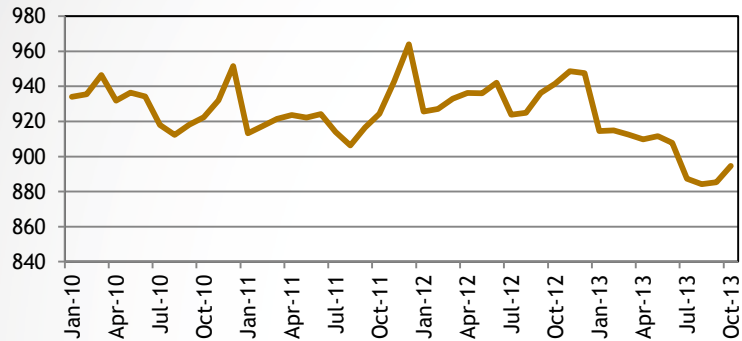
- October 2013 EAI was 125.7, a 5.4% reduction compared to October 2012. Moreover, the FY2014 YTD (July- October) EAI showed a reduction of 5.3% with respect to the corresponding figure for FY2013. For the month of October, the EAI registered a month-over-month increase of 0.6%.
- The preliminary number of gasoline consumption* was 90.5 million gallons in October 2013, 4.7% below October 2012. The FY2014 YTD gasoline consumption number was 3.5% below the corresponding number for FY2013.
- Total non-farm payroll employment for October 2013 averaged 894,600, an annual reduction of 5.0%. Furthermore, FY2014 YTD total non-farm payroll employment showed a decrease of 4.7%.
- Electric power generation for October 2013 totaled 1,925.8 million kWh, an annual decrease of 3.2%. Electricity generation for FY2014 YTD was 3.3% less than during the same period of FY2013.
- Cement sales for October 2013 totaled 1.41 million bags, registering an annual reduction of 14.6%. Sales for FY2014 YTD were below 16.4% with respect to the figure for the same period of FY2013.

* 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.

GDB Economic Activity Index Components

Total Non-Farm Payroll Employment*

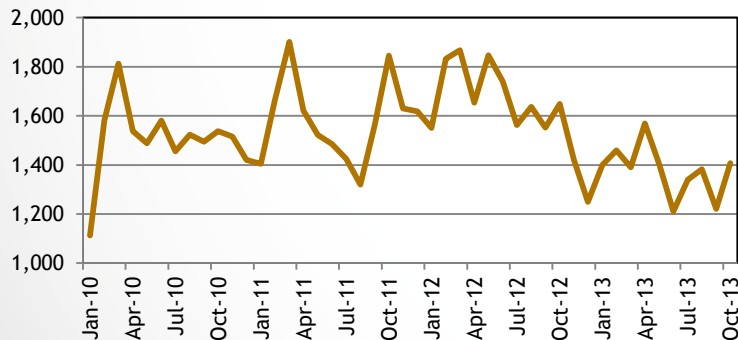
(Thousands of jobs)



- Total non-farm payroll employment for October 2013 averaged 894,600, an annual reduction of 5.0%.

Cement Sales

(Cement bags sold, in thousands)



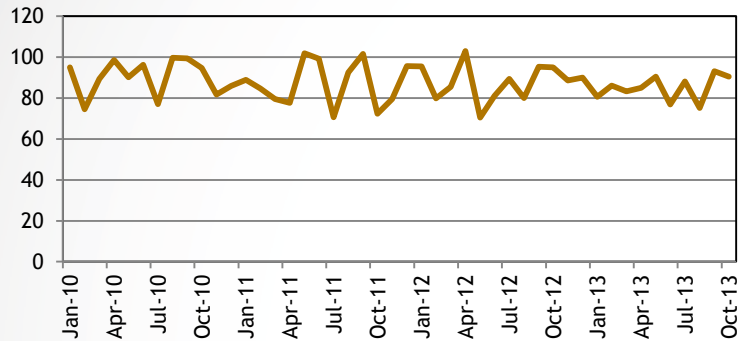
- Cement Sales for October 2013 totaled 1.41 million bags, an annual decrease of 14.6%.

Sources: BLS and GDB
* Not seasonally adjusted.

GDB Economic Activity Index Components

Gasoline Consumption

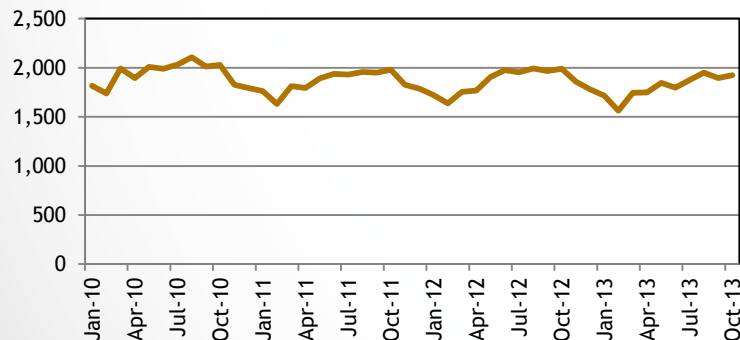
(Millions of gallons)



- The preliminary estimate of gasoline consumption* for October 2013 was 90.5 million gallons, for an annual decrease of 4.7%.

Electric Power Generation

(Millions of kWh)



- Electric power generation averaged 1,925.8 million kWh for October 2013, an annual decline of 3.2%.

*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: GDB, PRHTA and PREPA

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)

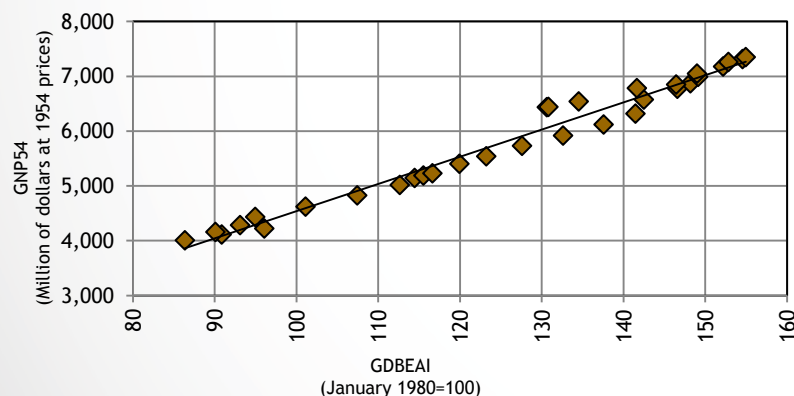
Description of the GDB-EAI

- The GDB-EAI is a coincident index for the economic activity of Puerto Rico. It is highly correlated to the Puerto Rico's real GNP not only on the levels, but also on the annual growth rates.
- This index was developed following the methodology similar to that used by The Conference Board in their coincident index. 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

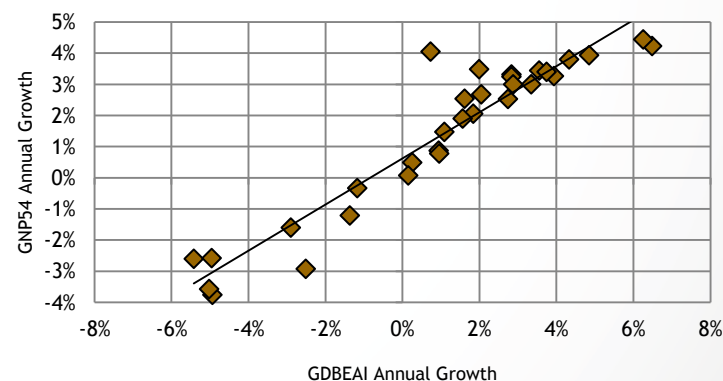
Relationship on the levels: FY1981-FY2012

$$y = 49.551x - 413.49 \quad R^2 = 0.9768$$



Relationship on the growth rates: FY1982-FY2012

$$y = 0.741x + 0.0062 \quad R^2 = 0.8953$$



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.