



COMMONWEALTH OF
PUERTO RICO

Government Development Bank
for Puerto Rico

November 2013

Economic Activity Index (“GDB-EAI”)

About the interpretation of the GDB-EAI

The GDB-EAI is an indicator of the general level of economic activity, not a direct measurement of real GNP, and GDB-EAI annual growth rates are not the same as real GNP growth rates, because the former are more volatile than the latter. However, the GDB-EAI is highly correlated with real GNP and a good gauge of overall economic growth.

- When annualized, the level of the EAI is highly correlated with the **level** of 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).
- In order to approximate real GNP growth from the EAI annual growth, we estimate a linear regression model relating both variables.
- A linear regression model may be used to approximate real GNP growth from the EAI annual growth rates.

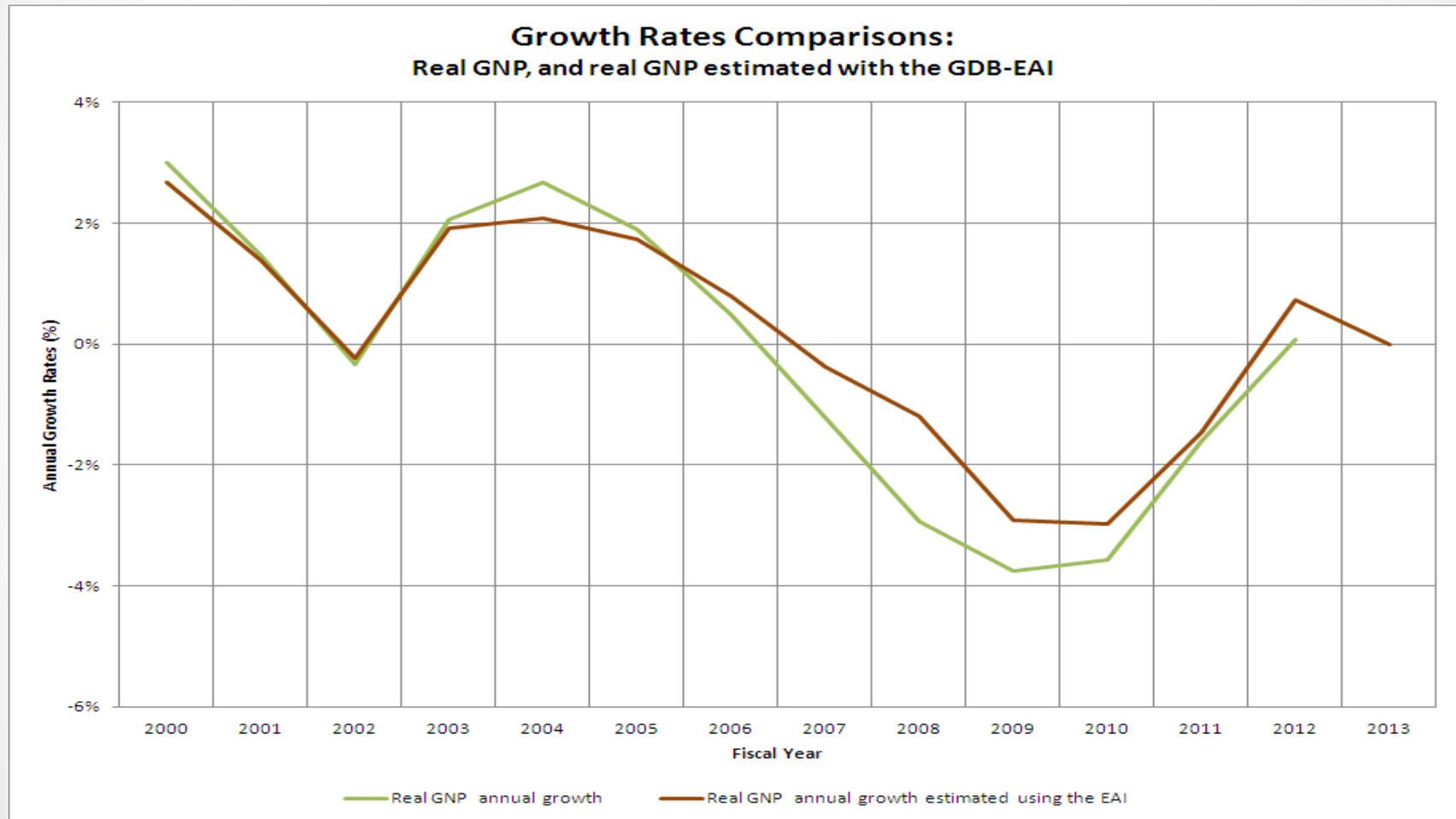
About the interpretation of the GDB-EAI(2)

Note that real GNP growth rates estimated from the EAI with a linear regression model are close to the actual real GNP growth rates.

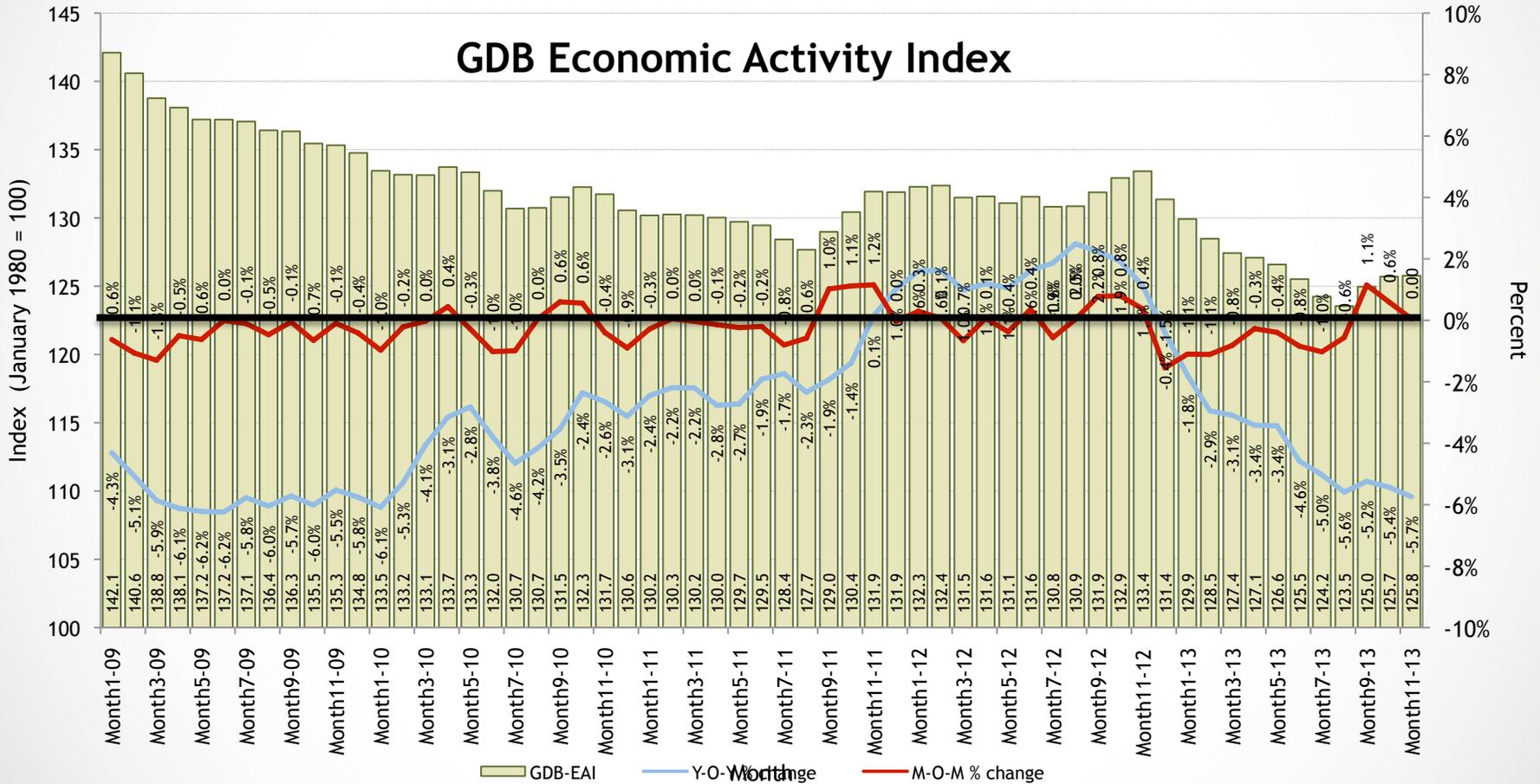
Fiscal Year	EAI annual growth	Real GNP annual growth estimated using the EAI	Actual Real GNP annual growth
2000	2.9%	2.7%	3.0%
2001	1.1%	1.4%	1.5%
2002	-1.2%	-0.2%	-0.3%
2003	1.8%	1.9%	2.1%
2004	2.0%	2.1%	2.7%
2005	1.6%	1.7%	1.9%
2006	0.3%	0.8%	0.5%
2007	-1.4%	-0.4%	-1.2%
2008	-2.5%	-1.2%	-2.9%
2009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

About the interpretation of the GDB-EAI

(3)



The Index has shown three consecutive months of positive month-over-month (m-o-m) growth rates.



General Commentary - November 2013

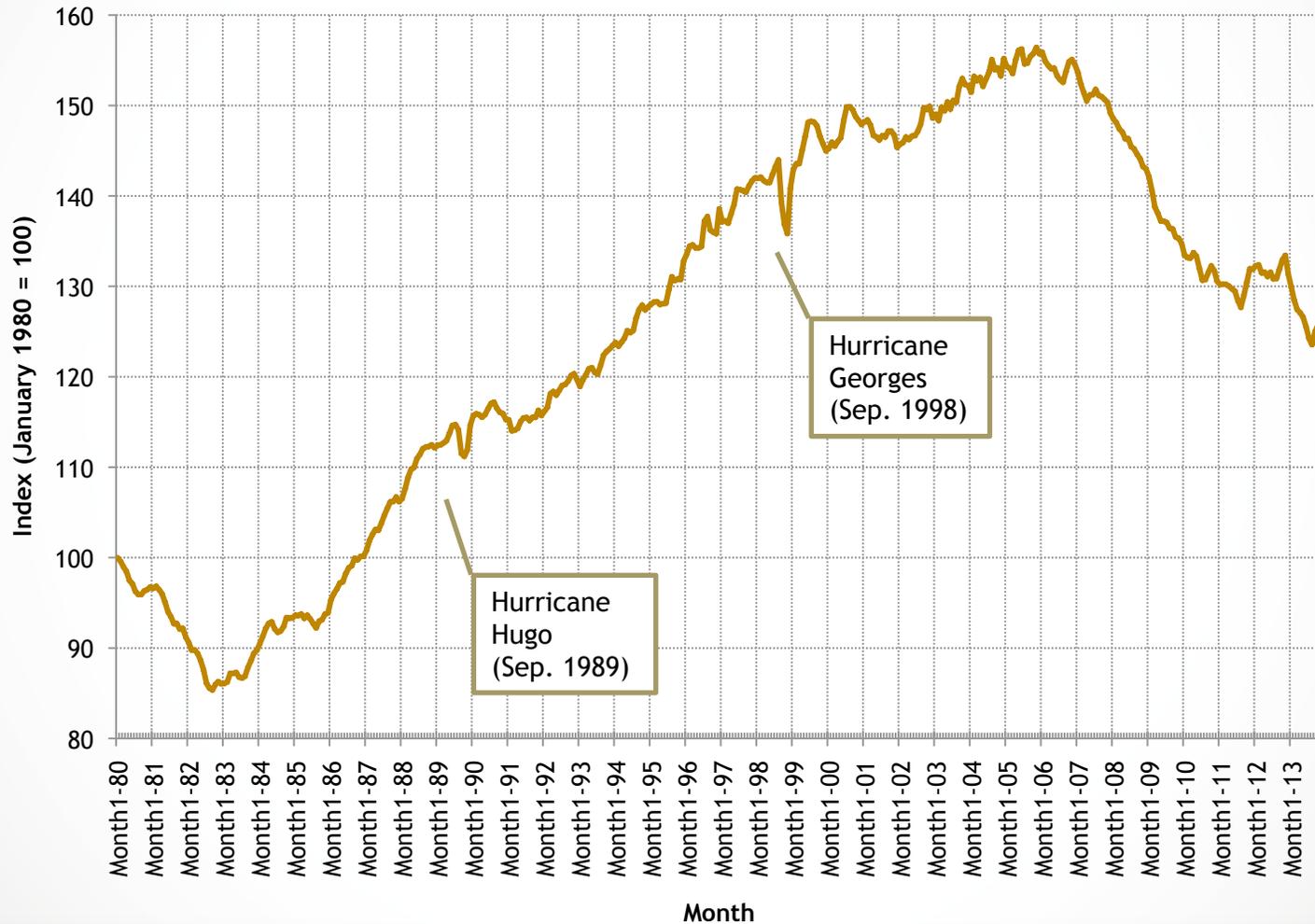
For the third consecutive month the GDB-EAI registered a month-over-month basis increase (0.047% growth)

- The GDB-EAI has shown three consecutive months of positive month-over-month (m-o-m) growth rates (0.047% growth), further showing signals of stabilization.
- On a m-o-m basis, seasonally adjusted, total non-farm payroll employment increased from 889,400 in September 2013 to 896,700 in October 2013 to 897,700 in November 2013. On a year-over-year (y-o-y), non seasonally adjusted, total non-farm payroll employment for November 2013 averaged 907,800, an annual reduction of 4.3%.
- Cement sales for November 2013 totaled 1.20 million bags, registering an annual reduction of 15.8%. However, Cement Production increased 5.97% on a y-o-y basis for November 2013, the first annual increase in production since December 2012.
- The preliminary number of gasoline consumption* was 81.4 million gallons in November 2013, 8.1% below November 2012.
- Relatively low temperatures in November contributed to a decrease in generation of electric power. Electric power generation for November 2013 totaled 1,741.5 million kWh, an annual decrease of 6.4%.

* 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.

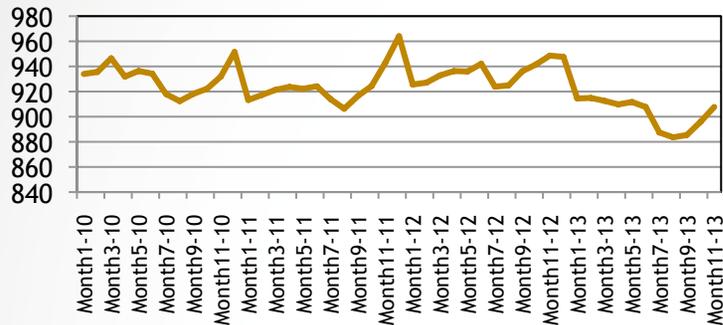
- The complete series of the EAI, which starts in January 1980, shows the recessions of FY1982 and FY1983, the mild recession of FY1991, the recession of 2001, and the sharp but temporary effects of two hurricanes. It also shows the path of the Index since the beginning of the current recession.

GDB Economic Activity Index



GDB Economic Activity Index Components

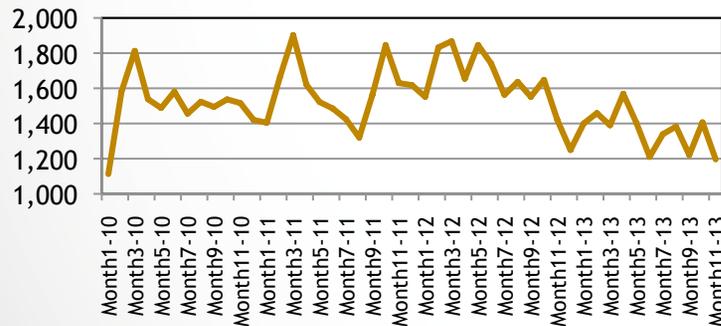
Total Non-Farm Payroll Employment*
(Thousands of jobs)



- On a m-o-m basis, seasonally adjusted, total non-farm payroll employment increased from 889,400 in September 2013 to 896,700 in October 2013 to 897,700 in November 2013.
- Total labor force, seasonally adjusted increased from 1,186,700 in September 2013 to 1,189,500 in October 2013 to 1,191,400 in November 2013.

Cement Sales

(Cement bags sold, in thousands)

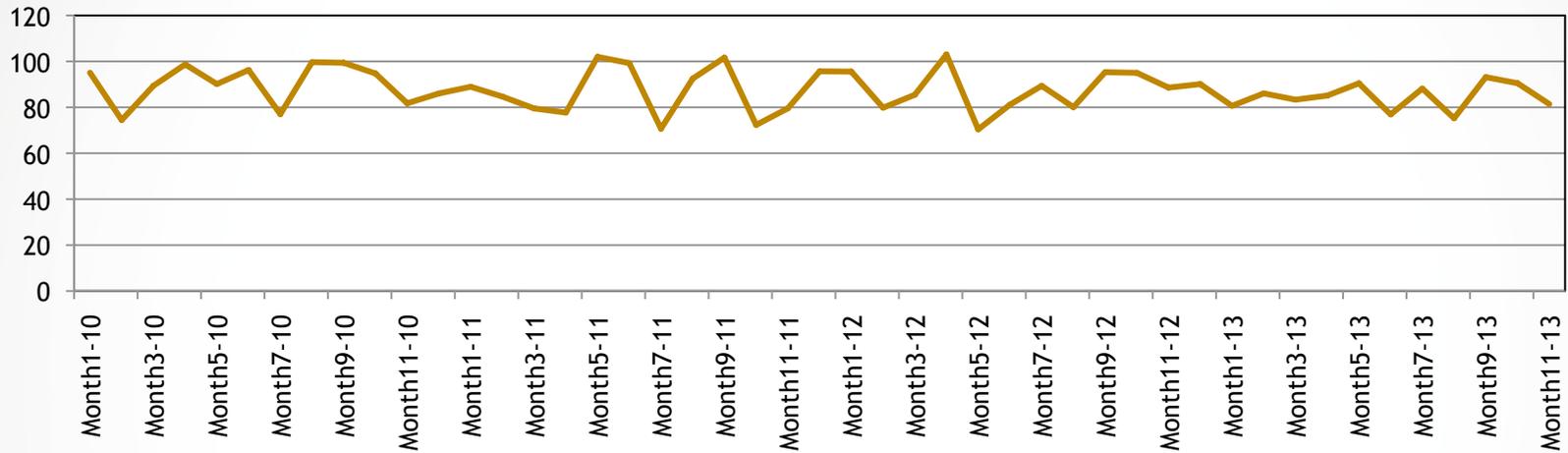


- Cement Sales for November 2013 totaled 1.20 million bags, an annual decrease of 15.8%.
- However, Cement Production increased 5.97% on a y-o-y basis for November 2013, the first annual increase in production since December 2012.

Sources: BLS and GDB
* Not seasonally adjusted.

GDB Economic Activity Index Components

Gasoline Consumption
(Millions of gallons)



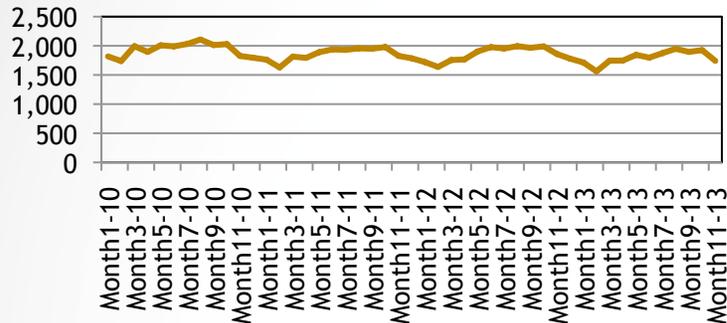
- The preliminary estimate of gasoline consumption* for November 2013 was 81.4 million gallons, for an annual decrease of 8.1%.

*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.

GDB Economic Activity Index Components

Electric Power Generation

(Millions of kWh)



- Electric power generation for November averaged 1,741.5 million kWh, an annual decline of 6.4%.

- Relatively low temperatures in November 2013 contributed to a decrease in generation of electric power. Moreover, November 2012 had the highest average temperature on record for the month of November. *
- Furthermore, the year-over-year reduction in power generation for November 2013 is the result of a relative higher demand in November 2012 which may reflect the effect of the Rate Stabilization Program established by PREPA during FY 2012. **

*According to NOAA, November 2012 was the warmest November on record, therefore low temperatures November 2013 contributed to a decrease in generation of electric power. <http://www.srh.noaa.gov/sju/?n=nov2012cr>

**PREPA's Rate Stabilization Program provided interim relief to residential customers. The reduction was passed in the form of a lower fuel adjustment charge for residential customers and it provided a relief of \$132 million. The program officially expired on Oct 2012.

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)

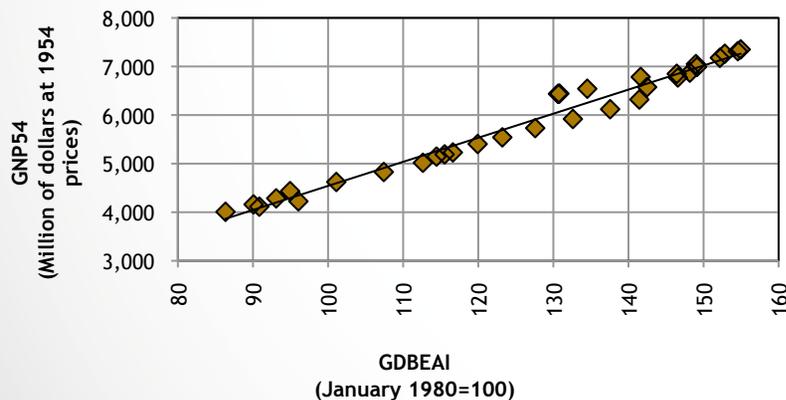
Description of the GDB-EAI

- 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

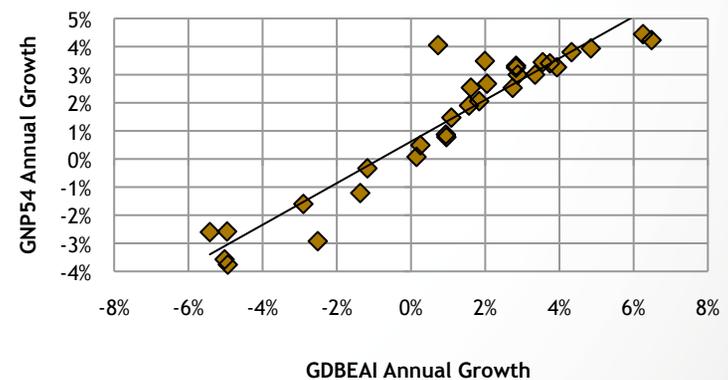
Relationship on the levels: FY1981-FY2012

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



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.