



COMMONWEALTH OF
PUERTO RICO

Government Development Bank
for Puerto Rico

August 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)

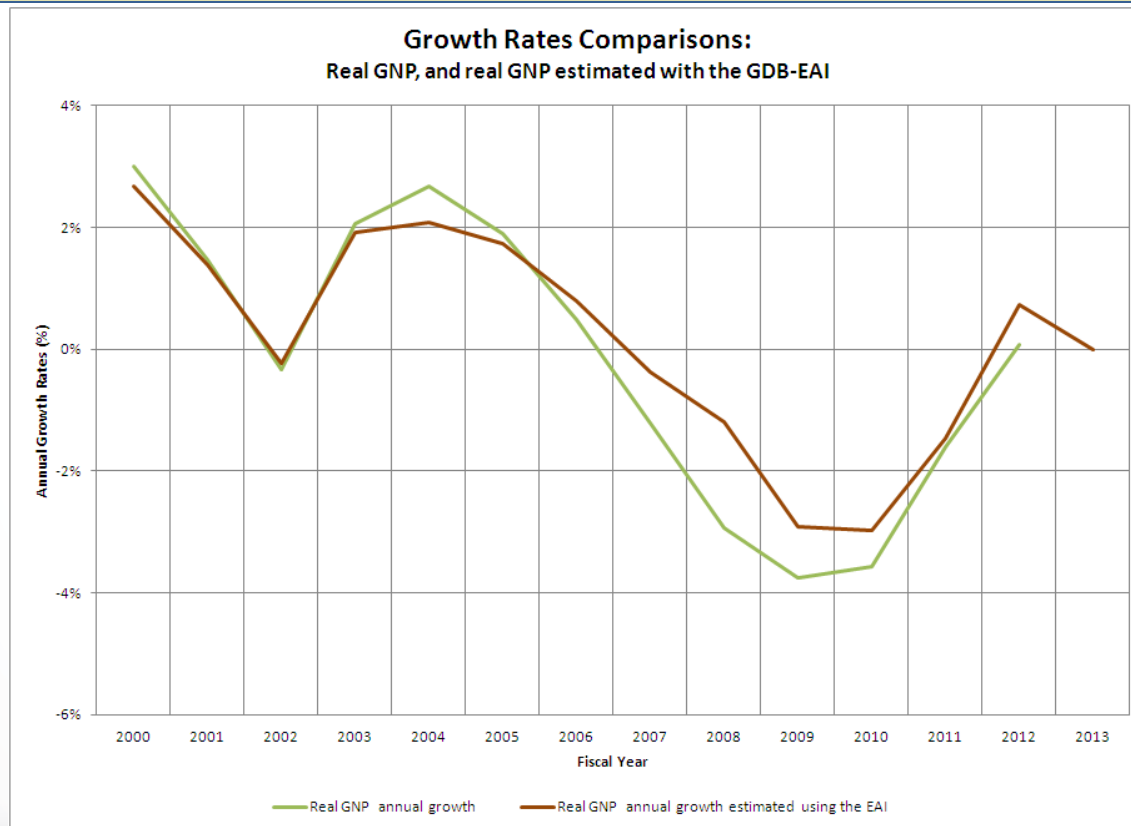
Here is a comparison of the annual growth rates of the GDB-EAI with the actual real GNP figures. There are also estimates of the annual growth of the real GNP using the figures coming from the GDB-EAI.

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.



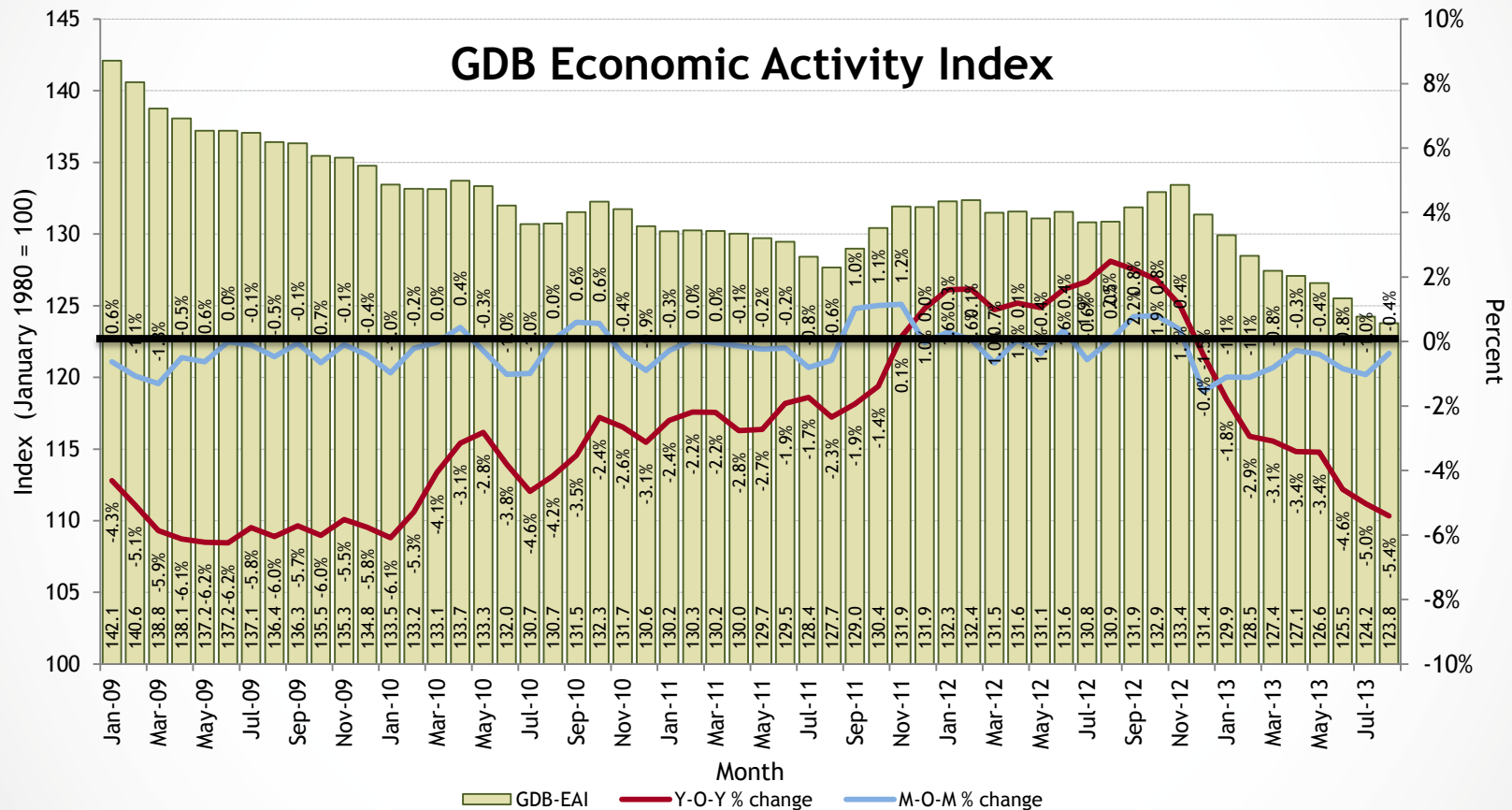
General Commentary - August 2013

GDB-EAI for the month of August registered a 5.4% year-over-year (“YOY”) reduction

- August 2013 EAI was 123.8, a 5.4% reduction compared to August 2012. Moreover, the average cumulative value for fiscal year (FY) 2014 (July- August) showed a reduction of 5.2% with respect to the corresponding figure of FY2013.
- The preliminary number of gasoline consumption* was 84.4 million gallons in August 2013, 5.4% above August 2012. The cumulative value for FY2014 was 1.9% above the corresponding value for FY2013.
- Total non-farm payroll employment for August 2013 averaged 884,300, an annual reduction of 4.4%. Furthermore, the average cumulative for FY2014 showed a decrease of 4.2%.
- Electric power generation for August 2013 totaled 1,948.9 million kWh, an annual decrease of 2.2%. The cumulative for FY2014 was 3.2% less than the cumulative for FY2013.
- Cement sales for August 2013 totaled 1.383 million bags, registering an annual reduction of 15.5%. For the FY2014 cement sales were below 14.9% with respect to the figure for 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.

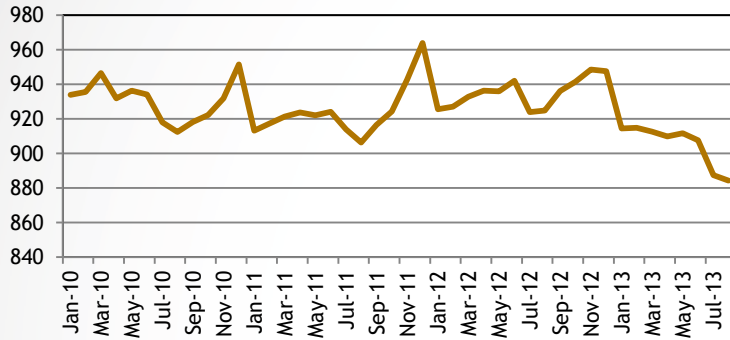
The GDB-EAI for the month of August 2013 reflected a year-over reduction of 5.4%



GDB Economic Activity Index Components

Total Non-Farm Payroll Employment*

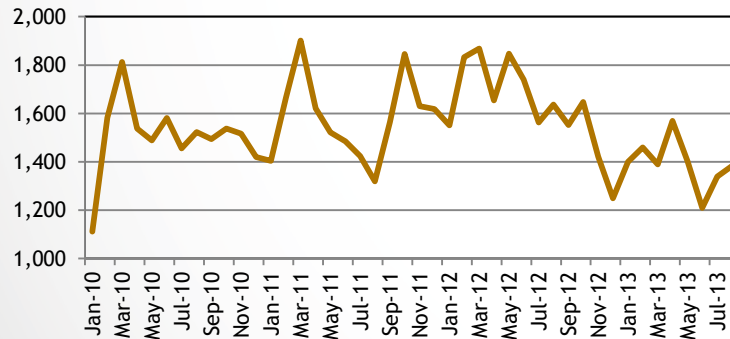
(Thousands of jobs)



- Total non-farm payroll employment for August 2013 averaged 884,300, an annual reduction of 4.4%.

Cement Sales

(Cement bags sold, in thousands)



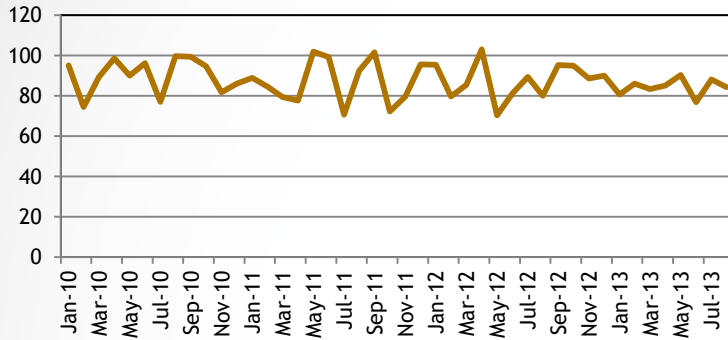
- Cement Sales for August 2013 totaled 1.38 million bags, an annual decrease of 15.5%.

Sources: BLS and GDB
* Not seasonally adjusted.

GDB Economic Activity Index Components

Gasoline Consumption

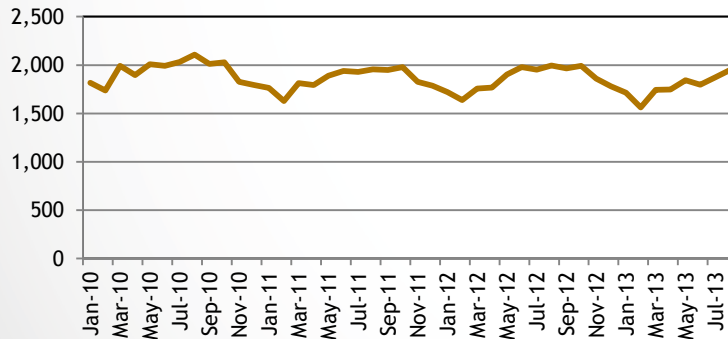
(Millions of gallons)



- The preliminary estimate of gasoline consumption* for August 2013 was 84.4 million gallons, for an annual increase of 5.4%.

Electric Power Generation

(Millions of kWh)



- Electric power generation averaged 1,948.9 million kWh, an annual decline of 2.2%.

*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.

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)

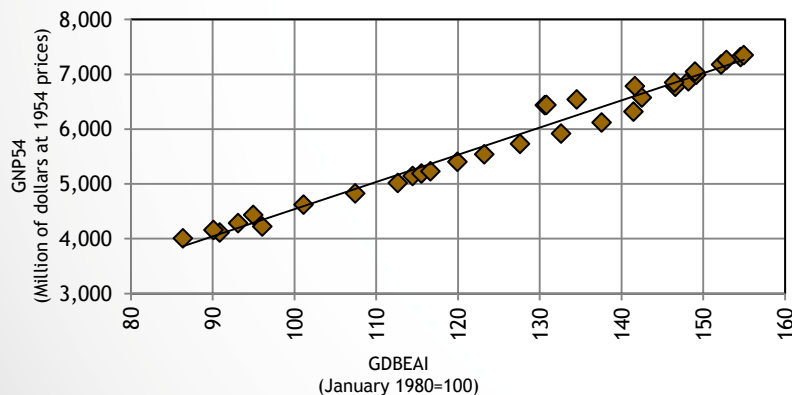
Description of the GDB-EAI

- 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

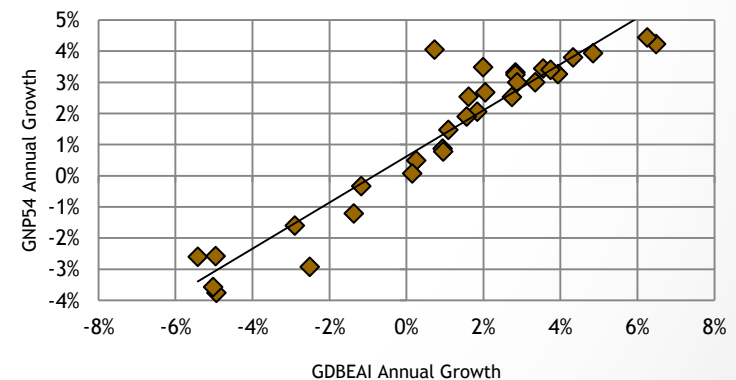
Relationship on the levels: FY1981-FY2012

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



Relationship on the growth rates: FY1982-FY2012

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



Sources: GDB

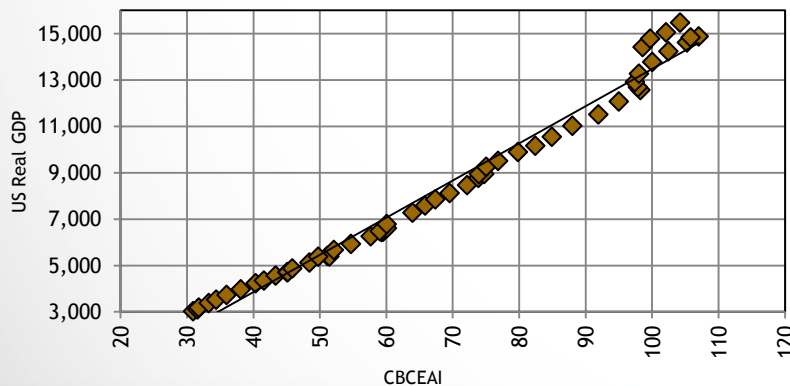
Relationship between the Conference Board Coincident Economic Activity Index and the US Real GDP

- Similar relationships are observed between the Conference Board Coincident Economic Activity Index (CB CEAI) and the US Real GDP.
- They are highly correlated on the levels as well as on the growth rates.

US Real Gross Domestic Product as a function of the Conference Board Coincident Economic Activity Index

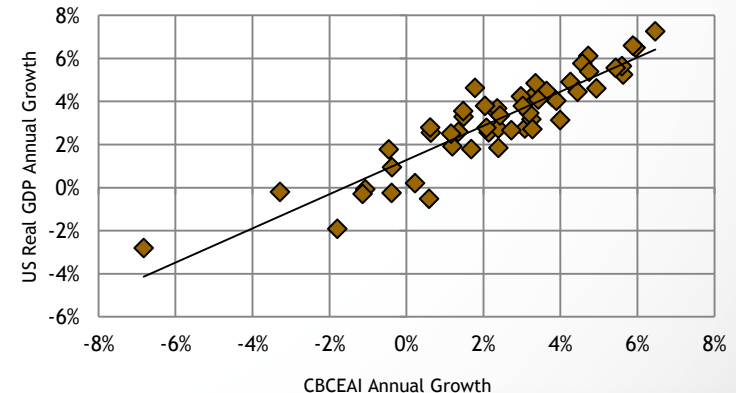
Relationship on the levels: 1959-2012

$$y = 160.33x - 2562.2 \quad R^2 = 0.9815$$



Relationship on the growth rates: 1960-2012

$$y = 0.7944x + 0.0128 \quad R^2 = 0.8400$$



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.