Measuring the Puerto Rican Economy:
Things May Not Be As They Seem

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ABSTRACT

The usual measures of economic activity don't work so well for Puerto Rico. The standard gauge of economic activity, Gross Domestic Product, can yield a very misleading picture of the economic well-being of the Puerto Rican people or how their conditions are changing over time. The large gap, which grew substantially over the latter half of the 20th century, between Puerto Rico's Gross Domestic Product (GDP) and Gross National Product (GNP) not only presents a measurement problem. The gap also reveals important development problems for the island. The GDP-GNP gap is a measure of the rising degree of "de-territorialization" of the Puerto Rican economy, the degree to which development of the economy has been dependent on outside sources of capital and outside decision-making. De-territorialization indicates the lack of a substantial group of firms and individual investors who have a strong identity with and an interest in the local economy, and, yet, such a group is important for long run economic growth and development. Thus, if Puerto Rico is to re-establish a more positive economic dynamic, it would be worthwhile to examine the GDP-GNP gap and what it represents.

Be careful! The usual measures of economic activity don't work so well for Puerto Rico. The standard gauge of economic activity, Gross Domestic Product, can yield a very misleading picture of the economic well-being of the Puerto Rican people or how their conditions are changing over time. And measurement is just the beginning of the story; behind the numbers lie some serious, long term problems in the way Puerto Rican economic development has been organized.[1]

The measurement matter itself is relatively straight forward. In order to gauge the level of development of a country (or region) and to determine how economic activity is progressing,

[1] While Puerto Rico's GDP-GNP gap has not received all the attention it deserves, an important exception is provided by the writings of James Dietz. In both his well known economic history of Puerto Rico (1986) and in a recent article (2001), he calls attention to the issue and provided the impetus for my own thinking on the matter.

we usually look at Gross Domestic Product (GDP). GDP measures all the production of goods and services that take place in a country (or region) in a given period. The problem is that in Puerto Rico a great deal – a very great deal – of the income from that production does not go to either Puerto Rican companies or Puerto Rican workers. It goes as the profits of companies that are based outside of the island, mostly in the United States. Equally important, the share of Puerto Rican GDP that is attributable to these off-shore firms has been getting bigger and bigger over the last few decades.

The problem can be understood in terms of the gap between GDP and GNP. While GDP is the amount of production that takes place within a country (or region), GNP – Gross National Product – is the amount of production that is attributable to the nationals of a country (or region). GDP will be larger than GNP insofar as foreign labor or capital is obtaining income within the country (i.e., insofar as output in the country is attributable to foreign labor and capital); GDP will be smaller than GNP insofar as national labor and capital are obtaining income abroad.[2]

As is well known, Puerto Rican economic development for several decades has been organized around firms from the mainland U.S. operating on the island. The profits of these firms, while counting as part of Puerto Rican GDP, do not count as part of Puerto Rican GNP.[3] There are other factors that effect a difference between GDP and GNP in Puerto Rico, but the

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[2] Both GDP and GNP include only production for final use – i.e., intermediate goods and services, sales of inputs from one firm to another, are not included. Also, GDP and GNP only count goods and services produced for the market, which means that production in the home (done largely by women) is not counted.

[3] In some cases – 936 companies – the income of firms operating in Puerto Rico has been much larger than would normally be associated with the amount of activity they undertake on the island because, through such devices as locating the ownership of a lucrative patent with their Puerto Rican subsidiaries, they are able to locate a large amount of their profits on the island and thus take advantage of tax laws to increase their total after tax profits.

profits obtained by these mainland U.S. firms is by far the largest. Thus, in the context of Puerto Rican development, there is nothing surprising about the fact that GDP exceeds GNP.

What is shocking, if not surprising, is the size of the gap between Puerto Rican GDP and GNP. In 2001, GNP was 65% of GDP. That is, of the total production and income that was generated in Puerto Rico during 2001, 35% was attributable to non-Puerto Rican firms or individuals.[4] Not only is the figure large, but it has grown substantially over time: from 1% in 1960, to 7% in 1970, to 14% in 1980, to 32% in 1990 and then to the 35% of 2001. In 1950, before the transformation of the Puerto Rican economy, GNP was 4% larger than GDP. (See Table 1 and Chart 1.)

To put these figures in some perspective, it is useful to compare them with data on the GDP-GNP gap in various countries. For 1992, we have the data for 128 countries and the territory of Puerto Rico. Puerto Rico is at the bottom of the list. For 119 of these 128 countries, the GNP-GDP gap was less than 10% (and of course for some of the countries the gap was in the other direction – i.e., with GNP greater than GDP). Eight countries had gaps of between 10% and 20%, and one, Guyana, had a gap of 30.6%. For Puerto Rico in 1992, the gap was 34.6%.[5]

Of course, Puerto Rico is not a country. Within a national economy – the national economy of the United States, for example – a divergence between GDP and GNP of a state or region would not have all the same implications as the divergence for a national economy.

[4] Actually, the figure is somewhat larger than 35% because this is a net figure, reflecting income earned outside of Puerto Rico by firms and individuals on the island; importantly, wages paid by the federal government in Puerto Rico are apparently treated as income earned outside the island by Puerto Ricans.

[5] These data are from the Penn World Tables (http://datacentre2.chass.utoronto.ca/cgi-bin/pwt/getrank?b=1992&s=RGNP).

(Unfortunately, I am not aware of data for the states that would allow us to see how Puerto Rico compares in that context.) Yet, Puerto Rico is also not a state or a fully integrated part of the U.S. economy. It does have its own identity, and, to a degree, its own dynamic. And I would argue that the GDP-GNP gap for Puerto Rico has the same sort of implications that such a gap has for a country.

What are these implications?

First, and I think most important, the GDP-GNP gap is a measure of the de-territorialization of the Puerto Rican economy (what we would call de-nationalization were Puerto Rico a nation). This de-territorialization is a measure of the degree to which the economy of the island is dependent on outside sources of capital and outside decision-making. While 'outside' forces are not necessarily 'bad,' firms based outside of Puerto Rico are likely, in general, to operate in a different manner than firms based within Puerto Rico. The former face different sets of information and different sets of economic, political and social connections than do the latter. While both the outside and inside firms may have the same set of goals (profits), they have, as sociologists might say, different sets of "boundaries;" as a consequence, they are likely to behave differently. I, and many others, would argue that the long run economic growth and development of a region is enhanced when there is a substantial group of firms and individual investors who have a strong identity with and an interest in the local/national/territorial economy. The large GDP-GNP gap in Puerto Rico suggests that this group is significantly lacking.

Second, and perhaps simply another way of stating the first implication, the substantial GDP-GNP gap indicates that a large share of the profits generated in Puerto Rico are likely to be unavailable for investment in Puerto Rico. This is not to say that all of the profits accruing to firms based off the island are taken out; some undoubtedly remain in Puerto Rican financial institutions and some may even be reinvested locally. However, all of these profits are owned elsewhere and can be taken out. It is, further, likely that in the case of funds that have been kept in Puerto Rico to take advantage of tax benefits, they may be effectively used elsewhere – e.g., as collateral for activities undertaken elsewhere. It seems to me to be of substantial consequence that these profits are controlled as they are, and the GDP-GNP gap is a measure of the issue.[6]

Third, and returning to the measurement problem, the existence of the large GDP-GNP divergence means it is important that we make clear what we are talking about when we speak of the level of output (or income) or the rate of economic growth in Puerto Rico. GDP per capita, in particular, is even a less meaningful measure of economic well-being in Puerto Rico than elsewhere. While it tells us about the output (or income) generated in Puerto Rico, it does not tell us about the output (or income) that is in the hands of Puerto Rican firms and individuals and available for their use – GNP gives us this latter form of information. Because in recent years GDP has been about half again as large as GNP, it is especially important that we always know which one we are talking about. As to the rate of growth, in the decade of the 1970s, for example, real GDP grew by 71% while real GNP grew by only 41%; for the decade of the 1980s, the two figures were 36% and 21%, respectively. (These are the two decades for which the difference was greatest; in the 1990s, as the GDP-GNP gap grew very little, the difference between the GDP and GNP growth rates was very small.) In general, for the period since 1950, GDP growth has been substantially greater than GNP growth – as a larger and larger share of the

[6] Of course, one might point out that all of the profits registered in Puerto Rico are not actually generated in Puerto Rico (a point noted above). This fact, however, does not alter the basic issue.

Puerto Rican economy has been de-territorialized and the gap has grown. (See Table 1 and Chart 1.)[7]

While the large GDP-GNP gap for Puerto Rico has these troubling implications, there is another part to the story. The gap, after all, reflects the large amount of outside capital that has come to the island. At least at times, this outside capital has generated jobs and income growth. Nonetheless, the problems associated with the GDP-GNP gap are significant. Moreover, whatever favorable outcomes were generated by the inflow of funds to Puerto Rico in the past, it seems that things have changed substantially in recent decades. If Puerto Rico is to re-establish a more positive economic dynamic, I would think it worthwhile to examine the GDP-GNP gap and what it represents.

Table 1 – Puerto Rican Gross National Product and Gross Domestic Product, 1950 to 2001

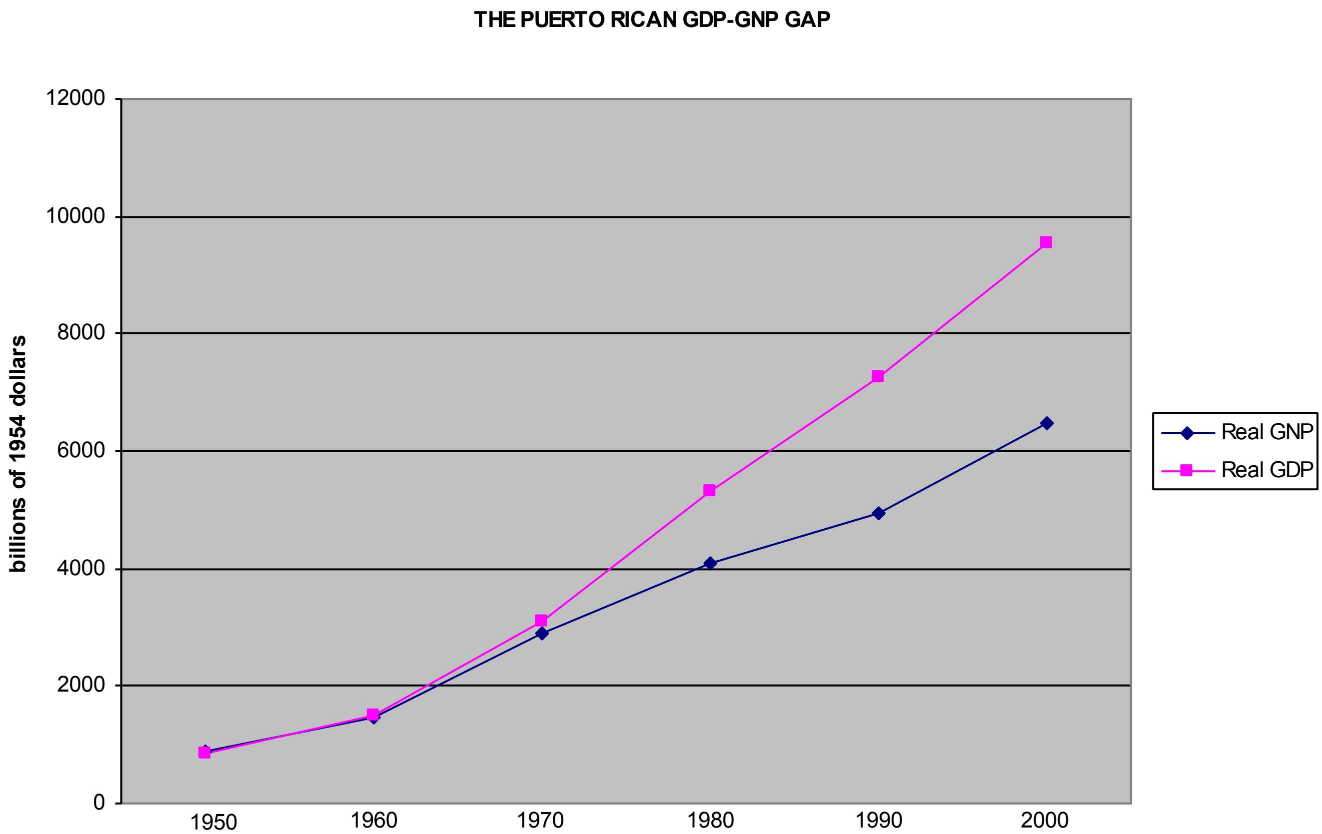
	Current*		GNP as a	Real**		decade % increase	
	GNP	GDP	% of GDP	GNP	GDP	real GNP	real GDP
1950	754.5	723.9	104.2	878.7	843.1		
1960	1,676.4	1,691.9	99.1	1,473.2	1,486.8	67.7	76.4
1970	4,687.9	5,034.7	93.1	2,901.4	3,116.0	96.9	109.6
1980	11,073.8	14,480.0	76.5	4,076.7	5,330.7	40.5	71.1
1990	21,619.0	31,783.3	68.0	4,929.8	7,247.6	20.9	36.0
2000	41,441.7	61,044.9	67.8	6,488.8	9,558.2	31.6	31.9
2001	44,211.3	67,897.1	65.1	6,602.3	10,139.4		
2006	56,688.4	86,775.6	65.6 (row added in 2008)				

* millions of dollars   ** millions of 1954 dollars

Source: 1950-1980, Dietz (1986) Table 5.1; 1990-2001, Planning Board of Puerto Rico (2002). Real GDP has been calculated on the assumption that the deflator is the same as that for GNP.

[7] People who write about the Puerto Rican economy are, of course, not ignorant of these issues. Frequently, instead of using either GDP or GNP to measure economic well-being and its change, economists use personal income, or personal income per capita. For example, Francisco L. Rivera-Batiz and Carlos E. Santiago (1996) and Fernando Lefort (2000) use the personal income measure to compare conditions in Puerto Rico and the United States. While this does tell us of the current well-being of people, it does not capture the income of businesses, which is an important factor affecting the longer run conditions of economic life.

Chart 1



Source: Table 1

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