**How Can Puerto Rico’s Failed Economic Performance**

**Still Be Viewed As Success?**

In Puerto Rico for several decades in the late 20th century, the dominant myth about the economy was that policies were working well, growth would continue apace, and convergence with the income levels in the states was on the horizon. The severe and lasting recession of the recent years has challenged this myth but has not destroyed it.

In light of the economic facts of the last several decades it is hard to understand how this myth of success has persisted. Although the Puerto Rican economy grew rapidly in the 1950s and 1960s, since the mid-1970s Gross National Product (GNP) on the island has grown more slowly than in the states. Between 1980 and 2000, GNP in the states increased by 91%, but by only 59% on the island—hardly convergence! In no year, not even in that early period of rapid growth, has the unemployment rate dropped below 10%, and the labor force participation rate has never risen above 50%.

Yet, even as late as 1996, two eminent U.S. economists, William Baumol and Edward Wolff, publish an article in the highly regarded journal *World Development* in which they claimed:

The data on the level and growth rate of labor productivity along with the statistics on the level and growth of per capita GDP in the Commonwealth of Puerto Rico tell a dramatic story. … [In] the period since WWII Puerto Rico appears from the available data to have achieved economic progress that places it among the frontrunners of the world’s economies.[[1]](#endnote-1)

Baumol and Wolff went on to compare this alleged success to that of the so-called “Asian Tigers.”

The myth of economic success has some pernicious consequences because it encourages policy makers in the false belief that the policies that they followed were working. As the recession of the early 2000s deepened and continued, policy makers were forced to recognize that, in fact, economic growth had ceased and Puerto Rico’s economic trajectory was one of divergence from the states rather than convergence. But the myth remained powerful. Policy makers believed that if the policies that, according to the myth, worked so well in the earlier era could be restored, firmed up, and extended, all would be well. The connection between those policies and economic success, a connection at the foundation of the myth, remained firmly entrenched in the minds of Puerto Rico’s economic policy makers. The essence of those policies was two-fold: attracting investment from off the island, mainly from the states, with tax incentives; and obtaining special favors from the federal government.[[2]](#endnote-2)

What accounts for the persistence of this myth, of the blindness to the reality of the Puerto Rican economies poor performance? Why was the myth accepted not only by Puerto Rican policy makers but by many economists, of which Baumol and Wolff are the most outstanding example?

**The GDP-GNP Gap**

The error of Baumol and Wolff, and of others who saw the Puerto Rican economy as highly successful through the 1990s, was, in part, that they focused on Gross Domestic Product (GDP) rather than on Gross National Product (GNP). The former includes the large profits of foreign (most often U.S.) firms operating on the island, while the latter does not. Yet this income of foreign firms is generally not available to Puerto Ricans, either for consumption or investment, and is not a good measure of either Puerto Ricans’ economic well-being or their economic accomplishments.

Furthermore, a large portion of these profits do not even represent economic activity in Puerto Rico, as firms have used transfer pricing mechanisms to locate their profits in Puerto Rico due to the tax advantages that this has provided; also, and in addition to transfer pricing in the usual sense, firms, especially pharmaceutical firms, located the income from their patents in Puerto Rico. As shown in “The Puerto Rican GDP-GNP Gap” graph on the following page, when the Puerto Rican economy began to slow significantly in the mid-1970s, as measured by GNP growth, GDP growth continued apace. Whereas in 1970, GNP was 93% as large as GDP, in the 1990s the former was only two-thirds of the latter. To put these figures in some perspective, in 2004, out of 188 countries or territories for which data are available, for only fifteen was GNP less than 90% of GDP, and for only two was the GNP-GDP ratio less than 70%—Puerto Rico at 67% (roughly the same as in the 1990s) and Equatorial Guinea at 30%.[[3]](#endnote-3)

The table below shows the growth rates of per capita GNP and GDP in the 1950 to 1990 period and broken down into the two periods 1950 to 1970 and 1970 to 1990. The differences between the GNP and GDP measures and the difference between the two sub-periods of this 40 year period establish two points:

* In understanding the Puerto Rican economy it is necessary to consider the differences between the pre-1970 period and the post-1970 period. (Actually 1975 would be a better dividing line.)
* The data do not support a 1990s view of Puerto Rico as being in the same category as the rapidly growing East Asian economies.

Annual Rate of Growth of Per Capita GNP and Per Capita GDP, 1950 to 1990

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1950 to 1990 | 1950 to 1970 | 1970 to 1990 |
| GNP Per Capita | 3.2% | 5.1% | 1.4% |
| GDP Per Capita | 4.3% | 5.7% | 3.0% |

Source: Calculated from population data in Table 2.1 of F. L. Rivera-Batiz and C. E. Santiago, *Island Paradox: Puerto Rico in the 1990s*, (Russell Sage Foundation, NY: 1996), from GNP and GDP data for 1950 to 1980 from Table 5.1 of J. L. Dietz, *Economic History of Puerto Rico: Institutional Change and Capitalist Development,* (Princeton University Press, Princeton: 1986) and for 1990 from Planning Board of Puerto Rico, *Economic Report to the Governor 2001*, (San Juan: 2002).

**Persistence of the Myth**

The persistence of the success myth, however, cannot be explained simply by the error of measuring economic performance by the wrong variable. The myth provided the rationale for the two central polices that were alleged to support economic growth on the island—the special favors from the federal government and the tax incentives. These policies, regardless of their failure to support strong economic growth after the 1960s, provided substantial benefits to powerful interests—both Puerto Rican interests and major U.S.-based firms, especially large pharmaceutical firms.

At the core of economic policies in Puerto Rico has long been the effort to attract firms from outside the island—principally firms based in the United States. To the extent that this effort has been successful, it has depended on special provisions in the U.S. federal tax code that have allowed U.S. firms operating in Puerto Rico to avoid paying federal taxes on their profits. This was originally Section 931 of the tax code, then Section 936, currently provisions for the treatment of Controlled Foreign Corporations, and most recently the proposals of H.R. 3020. While these special provisions—favors from Washington—were rationalized as expanding employment on the island, the employment consequences have been relatively small and very expensive.

The poor employment performance in manufacturing (where most firms benefiting from the favorable provisions of the federal tax code are located) in Puerto Rico is underscored by the fact that, while value added in manufacturing accounted for 47.3% of GDP in 2010, manufacturing accounted for only 9.4% of employment. (For the states, these 2010 figures are 11.7% and 8.1% respectively.)[[4]](#endnote-4) This large discrepancy between value added and employment in manufacturing is accounted for by the high level of profits accruing to the firms, especially the firms that have benefited from provisions of the U.S. tax code and locate a large share of their profits in Puerto Rico (often, as noted above, through transfer pricing and the location of patent ownership). During the early 1990s, when Section 936 was in force as the centerpiece of the federal and Puerto Rican governments’ economic policy for the island, the share of value added accounted for by proprietors’ income (profits, interest, etc.) in valued added of 936 firms was, for example, 94% in pharmaceuticals, 93% in bottled and canned soft drinks, 85% in non-electrical machinery, and 80% in professional instruments.[[5]](#endnote-5)

Consistent with the high ratio of proprietors’ income to labor income in value added, the cost per job and the overall cost to the U.S. Treasury of the tax incentive programs have been high. Again, experience with Section 936 illustrates the point. According to a U.S. Treasury Department report, in 1987 it cost the U.S. government on average at least $1.51 in lost tax revenue for each $1.00 in wages paid in Puerto Rico by firms operating under the provisions of Section 936. Or, put another way, on average it cost at least $26,725 each year to maintain a job that was paying an annual salary of $17,725. For the pharmaceutical industry, the figures were $3.08 per $1.00 in wages, or $81,483 to maintain a job paying $26,471.[[6]](#endnote-6) Another study, using 1992 data, indicated that 936 firms were less integrated with the island’s economy than were non-936 firms—the former having a total multiplier effect of 1.7 as compared to 2.6 for the latter.[[7]](#endnote-7) As to the overall cost of these programs, in the late 1980s and early 1990s, when the 936 program was at the center of economic policy in Puerto Rico, annual costs were running between $2 billion and $2.5 billion. In terms of 2013 dollars, this would amount to between $3.6 billion and $4.5 billion (i.e., between roughly 5% and 6.4% of Puerto Rican GNP).[[8]](#endnote-8)

Although the contribution of these federal government supplied tax incentives have had limited employment impact in Puerto Rico, they clearly have had large impacts of the revenues of the firms that have taken advantage of the programs. It is readily understandable that they have lobbied in both San Juan and Washington to maintain, in one form or another, these programs that have benefited them so greatly. Moreover, many interests within Puerto Rico are closely tied to these programs. Most clearly, the financial system on the island (which itself is to a large extent made up of subsidiaries of externally-based firms[[9]](#endnote-9)) reaps substantial gains from handling the revenues of the U.S.-based firms, as their profits are not taxed while they remain outside of the states. Sitting in the island’s banking system, these funds could be used by the firms in various ways—e.g., as collateral for loan-financed activity elsewhere in the world or simply to finance that activity, as long as it was outside of the states. Also, the legal sector and accounting firms are enmeshed with the federal tax incentive program.

The tax incentives provided by the federal government have a counterpart in the extensive incentives to business provided by the Puerto Rican government. A useful summary is provided in the “Economic Incentives for the Development of Puerto Rico Act” (Act No. 73 of May 28, 2008).[[10]](#endnote-10) The *International Legal News* of March 27, 2009, described the provisions of Act 73 in the following terms:[[11]](#endnote-11)

“Beginning on July 1, 2008, Act 73 allows for a wide array of tax incentives and credits that enable local and foreign companies to operate successfully in Puerto Rico enjoying the benefits of operating within a U.S. jurisdiction, while taking advantage of a foreign tax structure since for U.S. tax purposes, Puerto Rico is treated as a foreign jurisdiction.”

“Some of the provisions of the new law include:

* 4% fixed income tax rate on net taxable income
* Pioneer industries’ tax rate of 0% or 1%
* Combined floor of 3% for local business
* Credit of up to $5,000 per job created during the first year of operation, if the operation is located in the municipalities of Vieques and Culebra
* Up to 50% credit of qualified R&D expenses
* Credit for purchase of locally manufactured products
* Up to 10% credit of industrial energy consumption
* Special deductions for investment in structures, machinery and equipment
* Infrastructure incentives
* 90% exemption for personal and real property tax and 60% exemption for municipal taxes
* Training incentives
* Competitive financing options”

These incentives, primarily tax breaks, are often quite arbitrary, having no basis in an overall strategy of economic development, and some are applied subject to the discretion of government officials.[[12]](#endnote-12) Moreover, many are focused on U.S.-based firms and the local financial institutions.

It is possible of course that some of these individual incentives are appropriate, contributing to employment and the general development of the Puerto Rican economy. However, it is clear from the record of recent decades, to say nothing of the current continuing recession, that as a general strategy for economic progress the approach that these large sets of local and federal incentives represent has been a dismal failure. Yet it is also clear that they provide a strong impetus to powerful U.S. and Puerto Rico interests to continue pressing for the continuation of this approach to economic development.

**The Deeper Damage**

The policies that the Puerto Rican and U.S. governments have used with the ostensible goal of promoting economic development on the island have not only failed, but in addition they have done deeper damage by distorting the social foundations of economic activity on the island. In particular, the focus on attracting firms from outside of Puerto Rico, which was at the center of the governments’ strategy, created a situation that underscores the error—by Baumol and Wolff in particular—of placing Puerto Rico in the same category as East Asian economies that grew so rapidly in the late 20th century. Baumol and Wolff recognized the difference between the Puerto Rican approach and the approach in many parts of East Asia. Taking South Korea as an example, they write: “…a key to Puerto Rico’s progress was its success in attracting external investment, while South Korea relied primarily on investment from domestic sources.”[[13]](#endnote-13) But they fail to recognize the implications of this difference. This difference fostered very dissimilar approaches to policy over the long run, polices that generated rapid growth in East Asia and policies that led to relative stagnation in Puerto Rico.

The countries of East Asia that experienced such great economic success in the latter half of the 20th century—Taiwan and South Korea being the best examples—were able to shift from an ‘easy’ early stage of development based on import substitution to a more advanced and more difficult stage of economic progress based on technological advances in which locally-based business and increasingly skilled workers played the leading role. This shift was based on extensive government support, involving restrictions on foreign investment and regulation of foreign commerce, as well as direct support for locally-based business and skill development.[[14]](#endnote-14) For Puerto Rico, under the control of the U.S. government, this sort of support for local business—which necessarily would mean discrimination against foreign-based (U.S.) business—was not an option. James Dietz has usefully summed up the situation: “…Puerto Rico’s strategy of development lacked a focus on the systematic support or fostering of local entrepreneurs and local sources of finance.” As a consequence “the central role of domestic entrepreneurs, skilled workers and technological progress that underlies sustained economic progress” has been weaker in Puerto Rico than in sovereign nations where sustained economic progress has proceeded more rapidly.[[15]](#endnote-15)

As its economy slowed after the mid-1970s, Puerto Rico remained highly dependent on foreign (mainly U.S.) firms. This dependence is reflected in the GDP-GNP gap, as GNP has remained at about two-thirds of GDP for the last 20 years. Government development strategy continues to be heavily directed towards attracting investment by U.S. based firms (and other firms based abroad), and limited support is provided for firms based in Puerto Rico. (Furthermore, the high level of regulation of business by the Puerto Rican government, while size-neutral in form, weighs more heavily on smaller firms, which tend to be local.)

With a business sector that is so dominated by firms that focus primarily outside of Puerto Rico, the pressure to develop the foundations for a modern, advanced economy on the island is lacking. Effective development of new activities—not just in manufacturing, but also in a variety of services sectors—would depend on establishing a firm foundation for business, a stronger social and physical infrastructure. The weakness of the schools and the limited foundations for high-tech activity illustrate the poor condition of the foundation for developing a new economy in Puerto Rico:

* Although it is often claimed that Puerto Rico has a relatively highly educated population, with 22% of the population 25 years old and older having a bachelor’s degree or more (as compared to 28% in the states), it is also the case that 31% of this population has no high school degree (as compared to 14% in the states). Moreover, the quality of public education is low, as indicated by the high-rate at which parents send their children to private schools and the poor performance of Puerto Rican students on standardized tests. There is also a high dropout rate form the schools.[[16]](#endnote-16)
* In spite of the fact that Puerto Rican governments have touted the island as well prepared for high-tech activity—for the emergence of the “new economy”—the available data indicate otherwise. The National Science Board’s report *Science and Engineering Indicators 2010* (SEI) provides data which allow one to appraise the situation.[[17]](#endnote-17) For example:
* In 2007, federal research and development obligations per civilian worker for Puerto Rico were less than 10% of those for the states, $69 for Puerto Rico, but $764 states.
* Federal funding for small business innovation research for Puerto Rico in the 2003-2005 period per $1 million of GDP was $6 as compared to $161 for the states.
* In terms of state (or Puerto Rican) agency research and development expenditures per civilian worker, the 2007 figure for Puerto Rico was $1.87 while that for the states was $8.42.
* In 2006 in Puerto Rico, 1 patent was awarded per 1,000 individuals in science and engineering occupations, while the figure was 16.6 for the states.

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These examples illustrate the poor foundation Puerto Rico has built to enable the economy to grow in the globalized environment of the 21st century. This failure, however, was not simply a policy mistake. It was a mistake, to be sure, but it was a mistake based on the debilitating myth that has dominated policy making in Puerto Rico for decades.

1. William J. Baumol and Edward N. Wolff, “Catching Up in the Postwar Period: Puerto Rico as the Fifth ‘Tiger’?” *World Development*, Vol. 24, No. 5. 1996, p. 869. [↑](#endnote-ref-1)
2. Actually, there was a third component to the economic development strategy of the Puerto Rican governments, especially pronounced in the 1950s—massive out migration. During the 1950s, net out-migration amounted to roughly 300,000 people, nearly 15% of the 1950 population; see J. L. Dietz, *Economic History of Puerto Rico: Institutional Change and Capitalist Development,* (Princeton University Press, Princeton: 1986), Table 5.15. [↑](#endnote-ref-2)
3. See the Penn World Table 6.2, compiled by Robert Summers and Bettina Aten, <http://datacentre2.chass.utoronto.ca/pwt62/alphacountries.html>. [↑](#endnote-ref-3)
4. # The Puerto Rico data are from the Government Development Bank of Puerto Rico, Statistical Appendix of the *Economic Report for the Governor and Legislative Assembly 2012*, available at <http://www.gdb-pur.com/economy/statistical-appendix.html>. The U.S. data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics.

   [↑](#endnote-ref-4)
5. Angel L. Ruíz and Edwin Meléndez, “The Economic Impact of Repealing Section 936 on Puerto Rico’s Economy,” in *Economic Impacts of the Political Options for Puerto Rico*, edited by Edwin Meléndez and Angel L. Ruíz, (Universidad Interamericana de Puerto Rico, San Germán, Puerto Rico: 1998), p. 135. The authors point out that the relatively small labor share in value added of 936 firms “is particularly relevant when considering that the wage component is the most important contribution of Section 936 investment to the economic welfare of the island.” [↑](#endnote-ref-5)
6. U.S. Department of the Treasury, “U.S. Possessions Corporations Returns, 1987,” Tables 1 and 2, as cited by J. Tomas Hexner et al., *Puerto Rican Statehood: A Precondition to Sound Economic Growth*, Second Edition, (Hex, Inc. Cambridge: 1993), p. 27. The ratios of cost to wage benefits are excessively conservative as they are based on the assumption that the persons employed in the 936 industries would otherwise be unemployed. [↑](#endnote-ref-6)
7. Ruíz and Meléndez, as previously cited, p. 135. The 1.7 multiplier for 936 firms means that a $1 increase in final demand for 936 firms generated $1.70 in increased output. [↑](#endnote-ref-7)
8. Estimates of the costs of 936 to the U.S. Treasury are from Ruiz and Melendez, as previously cited, p. 126; P. Morrison, “Testimony before the Committee on Finance, United States Senate,” April 26, 1990, p. 2, as cited by J. Tomas Hexner and Glenn P. Jenkins, “Puerto Rico and Section 936: A Costly Dependence,” *Tax Notes International*, January 16, 1995, p. 236; and United States Department of the Treasury, “U.S. Possessions Corporations Returns, 1987,” Tables 1 and 2, as cited by J. Tomas Hexner et al., as previously cited, pp. 25-26. Also, for a full discussion of the costliness of 936, see the 1995 *Tax Notes International* article by Hexner and Jenkins.

   [↑](#endnote-ref-8)
9. See James L. Dietz, *Economic History of Puerto Rico*,” as previously cited, pp. 265-266, and Rita Maldonaldo-Bear and Ingo Walter, “Financing Economic Development,” in S. Collins, B. Bosworth and M.A Soto-Class, editors, *The Economy of Puerto Rico: Restoring Growth,* (Center for the New Economy and Brookings Institution, San Juan and Washington: 2005). [↑](#endnote-ref-9)
10. Act 73 is available on line and can be found by searching on the act’s full name. [↑](#endnote-ref-10)
11. *International Legal News*, <http://www.imakenews.com/iln/e_article001381124.cfm?x=b11,0,w>. [↑](#endnote-ref-11)
12. As an illustration of the role of discretion and judgment of government officials, concerning the second item in the above list provided by the *International Legal News*, the Act, on page 22, defines “Novel Pioneer Activity: …the fixed income tax rate will be one percent (1%), provided the Secretary of Development, prior the favorable recommendation of the Secretary of Treasury, and the Executive Director and its Board of Directors, determines that the exempted business under this Act will carry on an economic activity that has not been produced, carried on nor realized in Puerto Rico in the twelve (12) months ending on the date in which the exemption for the pioneer activity is requested, and that such activity has characteristics, attributes or special and impacting qualities for the benefit of Puerto Rico’s socioeconomic development, including a profile of the jobs to be created by such pioneer activity.” [↑](#endnote-ref-12)
13. Baumol and Wolff as previously cited, p. 869. [↑](#endnote-ref-13)
14. See Alice Amsden, *Asian’s Next Giant: South Korean and Late Industrialization*, (Oxford University Press, Oxford: 1989) and Robert Wade, *Governing the Market: Theory and the Role of Government in East Asian Industrialization*, (Princeton University Press, Princeton: 1990). [↑](#endnote-ref-14)
15. James L. Dietz, *Puerto Rico: Negotiating Development and Change*, (Lynne Rienner Publishers, Boulder and London: 2003), pp. 78 and 79. [↑](#endnote-ref-15)
16. The educational attainment data are from the U.S. Census Bureau. The Puerto Rican figures are available at

    <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_3YR_DP02PR&prodType=table> and the figures for the states are available at

    <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_1YR_DP02&prodType=table>. Public and private school enrollment data are from the *Statistical Abstract of the United States 2012*, Table 1321. Regarding standardized test performance data, go to <http://nces.ed.gov/nationalreportcard/pubs/studies/2007459.asp> and <http://nces.ed.gov/nationalreportcard/pubs/studies/2009451.asp>. On the dropout issue, see Neil Allison and Arthur MacEwan, “Students Dropping Out of Puerto Rico Public Schools: Measuring the Problem and Examining the Implications,” *Ensayos y Monografías*, Número 125, marzo 2005, Unidad de Investigaciones Económicas, Departamento de Economía, Universidad de Puerto Rico, Recinto de Río Piedras, <http://economia.uprrp.edu/ensayo%20125.pdf>. [↑](#endnote-ref-16)
17. National Science Board. 2010. *Science and Engineering Indicators 2010*. Arlington, VA: National Science Foundation (NSB 10-01). The data reported here are from this report and from the similar reports of earlier years. The SEI data for Puerto Rico are, however, hampered by the usual Puerto Rican data problems. The report states (p. 8-6): “Although data for Puerto Rico are reported whenever available, they frequently were collected by a different source, making it unclear whether the methodology used for data collection and analysis is comparable with that used for the states.” Nonetheless, the data in the report are sufficient to begin to obtain a useful picture of the situation in Puerto Rico. [↑](#endnote-ref-17)