PUERTO RICO: CONTINUING SOCIO-ECONOMIC DETERIORATION AND THE NEED FOR CHANGE

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ABSTRACT

The long-run decline of the Puerto Rican economy, predating the recession of the last decade, is evident in the relative stagnation that emerged from 1980 onward. The roots of both the relative stagnation and the long recession lie in the political status of the island. The option of statehood, however, can be the foundation for a new era of economic expansion.

The long-lasting economic problems of Puerto Rico are evidenced by several measures: the low rate of economic growth, the high unemployment rate and the low labor force participation rate, the falling investment rate, the high poverty level, the extreme degree of economic inequality, and the massive exodus to the states. And, of course, there is the very high—crisis level—amount of public debt.

In addition and of central importance, the poor treatment of Puerto Rico relative to the states by the U.S. government has contributed to the economic situation on the island and demonstrates the role of status in bringing about economic weakness and decline. The popular belief that Puerto Rico receives "generous" treatment from Washington is belied by the data. Moreover, while many observers viewed Puerto Rico as an economic success story during the late 1900s, this view erred in measuring success by the growth of GDP instead of GNP, the former including the profits of firms based off the island (mainly in the U.S.) and not providing a measure of economic conditions of Puerto Rican people of firms.

The detrimental impact of Puerto Rico's political status as a U.S. territory—or, if one prefers, a U.S colony—shows up clearly in the unequal treatment of Puerto Rico relative to the states in certain important federal programs. For example, Puerto Ricans have not been eligible for the federal Earned Income Tax Credit (EITC) and only partially eligible for the Child Tax Credit (CTC). A Puerto Rican family with two parents and two children and with earnings of $25,000 would have had a net income in 2011 of $23,587 after all federal taxes. It would not receive the EITC and CTC. An identical family in the states with earnings of $25,000, after all federal taxes and the EITC and CTC would have a net income of $30,013—$6,426 more than the Puerto Rican family.

Beyond these vary tangible negative impacts of the current status, and more fundamental, is the broad economic dependency of Puerto Rico. This dependency has led to an underdevelopment of Puerto Rican based economic activity and to government policies that have always looked outward for special favors from Washington and investment from abroad. The results show up in an excessive reliance on manufacturing and a failure to develop economic activity in areas where Puerto Rico has clear advantages—e.g., tourism and specialized business services linking the states to Latin America. The results of dependency also have included a weak and distorted financial sector and a failure to invest sufficiently in infrastructure, education, and science.

Keywords: Puerto Rico status, U.S. territory, EITC, CTC, level playing field
JEL classification: O1, O2, Z32

I. INTRODUCTION

In the summer of 2012, the sad story of economic life in Puerto Rico continues. The severe recession of recent years, with its high unemployment rate and sharply declining rate of investment, is only the beginning of this story. Economic growth has been weak for decades, and a staggering poverty rate and extreme income inequality have characterized life on the island.

In Washington, however, the Puerto Rican situation is ignored. In San Juan, during the early months of 2012, an election year, the Puerto Rican government focused on a slight improvement in its index of economic indicators and attempted to portray the economy as on the road to recovery and growth. A report from Wells Fargo Securities, however, stated:

> "…the Fortuño administration or administration officials have tried to override the truth by talking about how the economy is better today [May 2012] than several years ago. However, the best they can claim is that the economy seems to not be falling off a cliff any more…"[1]

The island's continuing economic difficulties are reflected in financial markets. In March 2012, Breckinridge Capital Advisors issued a White Paper on the Puerto Rican situation, stating:

> "…the Commonwealth today is flirting with insolvency, and the risk is growing that someday, Commonwealth investors may not be repaid in full. Puerto Rico's financial condition is far worse than any U.S. state's, and default—though unlikely in the immediate future—is a possibility over the next few years… Breckinridge has long avoided obligations of Puerto Rico, but we believe all municipal bond investors should now be cognizant of its problems."[2]

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[1] Eugenio J. Alemán, *Puerto Rico: Failure of the State*, Wells Fargo Securities, Economics Groups, Special Commentary, May 24, 2012, p. 10. Available at http://mediaserver.fxstreet.com/Reports/f94cca42-c3fa-47e4-88dd-b4c17a0cdced/d8b5822a-a0a2-4400-88cc-dbc573a21a9e.pdf.

[2] Breckinridge Capital Advisors, *Puerto Rico's Challenge*, Special Commentary, March 2012. Available at http://www.breckinridge.com/pdf/whitepapers/March_2012_Puerto_Ricos_Challenge.pdf

A May 29, 2012, Reuter's report noted that:

> "…some professionals, including specialists in riskier, high-yield municipals, won't go near Puerto Rico debt. Some seem to be betting against the island, judging by trading in Puerto Rico municipal credit-default swap contracts."
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> "Since early January, the cost for one-year CDS on 10-year Puerto Rico debt has shot up to 482 basis points from 391, according to data-services group Markit. That adds $91,000 to fees now close to half a million dollars to secure shelter against a possible default on $10 million of Puerto Rico debt."[3]

And on June 11, 2012, *Bloomberg News* told its readers that in the previous week, "Standard & Poor's said it may cut the island's general-obligation rating, now two steps above junk."[4]

But it is not only the financial markets that have lost confidence in Puerto Rico. According to the U.S Census, between 2000 and 2010 the population of the island declined by more than 2%. Only one state experienced a population decline in this period—Michigan, with a decline of 0.6%. Taking full advantage of their U.S. citizenship, it appears that many Puerto Ricans are voting with their feet, seeking improved economic conditions by moving to the mainland.[5]

Why is the Puerto Rican economy in such miserable shape—not just in 2012 and in the immediately preceding years, but as will be pointed out shortly, over the past several decades? There is, after all, wide agreement on many good policies that would improve the island's economy: improvement of the schools and support for "high tech"

[3] Michael Connor, "Puerto Rico bets on American tourists to repay debt," Reuters, May 29, 2012. Available at http://uk.reuters.com/article/2012/05/29/uk-puertorico-debt-idUKLNE84S00T20120529.

[4] Michelle Kaske, "Puerto Rico Borrowing Costs Rise on Rating Concerns: Muni Credit," Bloomberg News, June 11, 2012. Available at www.businessweek.com/news/2012-06-11/puerto-rico-borrowing-costs-rise-on-rating-concern-muni-credit.

[5] Official Puerto Rican data do not report a decline, but instead show an increase in the 2000 to 2010 period of 4.3%, from 3.814 million to 3.979 million. These data are reported in the *Statistical Abstract of the United States 2011*, Table 1313. The 2000 U.S. Census reports a basically similar figure, 3.809 million, for 2000, http://www2.census.gov/geo/maps/special/profile2k/PR_2K_Profile_eng.pdf. However, based on the American Community Survey for Puerto Rico, the U.S. Census reports a 2010 figure of 3.722 million, http://factfinder2.census.gov/faces/tableservices/jsf/ages/productview.xhtml?pid= ACS_10_ 1YR_DP02PR&prodType=table.

investments; improvement of the physical infrastructure; a better and more effective tax system; inclusion of the island in federal programs designed to reduce poverty (most especially the Earned Income Tax Credit); better support for the tourist industry; and the list goes on. Yet, rhetoric aside, policies of change are not thoroughly implemented. Why?

A. Economic Malaise and the Need for Statehood

The explanation for Puerto Rico's economic malaise presented here is that the island's economic condition is intimately connected to its political status as a "territory" of the United States. Territorial status creates uncertainty, a short-run approach to economic policy, a practice and ideology of reliance on special treatment by the U.S., and continual failure to build up bases for economic development within the island's own society. Under these circumstances good policies, while recognized and advocated in many quarters, waste away in government reports and statements of good intentions.

Continuation of territorial status will mean continuation of economic stagnation and instability. Statehood for Puerto Rico could be the foundation for economic progress, the route for the Puerto Rican people to enjoy a better quality of life in the 21st century. While there is no likelihood that statehood will be established in the near future, interim steps are both possible and desirable. Short of statehood, Puerto Rico must be put on a level playing field with the states, treated the same as the states, insofar as possible, in all federal legislation, executive orders, and programs. Ultimately, however, the island's economic development will depend on the integrity of becoming a state.

It is sometimes asserted that good economic policies could improve economic conditions on the island regardless of political status. Good economic policies, according to this view, can be "status neutral," implemented regardless of whether Puerto Rico remains a territory, becomes a state, or opts for independence. Certainly there are many positive policies that could, at least in principle, be introduced regardless of status. This "status neutral" approach, however, has little connection to the historical and social reality of Puerto Rico, and it fails to address the question of why economic policies that are good in principle have so seldom actually been adopted and implemented. It ignores the fact that policy makers on the island have been mired in a history of dependence on Washington. Working in a position of subordination in the U.S. polity, they have been unable to extricate themselves from a pattern of short-run and misdirected economic policies. It is, at best, naïve to separate economics from politics, and the "status neutral" approach can only lead to continued poor policy and stagnation.[6]

The approach, pursued by both major political parties, has advocated special treatment from Washington as the driver of economic success in Puerto Rico. Special provisions in the U.S. tax code—Section 931, Section 936, the treatment of Controlled Foreign Corporations, and the proposed H.R. 3020—would, supposedly, provide incentives for foreign firms (most often U.S. firms) to come to Puerto Rice, invest, and generate growth and jobs. Advocates of special treatment have often provided the rationale that it would create the basis for Puerto Rico to "catch up" and thus qualify to become a state.

The relatively rapid economic expansion of the Puerto Rican economy in the 1950s and 1960s, based in part on this approach, created an aura of success and generated the idea that income levels on the island would steadily converge towards those in the states. The wider bases of success in that era, however, were ephemeral and were gone by the mid-1970s. Since then, although an illusion of economic success persisted, the reality evaporated and there has been no further convergence; indeed, there has been a divergence between income levels in Puerto Rico and the states. Yet many policy makers in Puerto Rico have clung to both this "special treatment" approach and the illusion of success.

This illusion of success has been promoted by both of the major political parties, as each has tried to present economic problems as short-run and the result of the other's economic mismanagement. Yet the malaise of the Puerto Rican economy is enduring, continuing in spite of changes in which party controls the government. Each government has generated its own sets of particular problems, but all appear to ignore the fundamental problems plaguing the economy.

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[6] An example (which will be noted further below, pp. 54-55) of the "status neutral" approach to Puerto Rican economic policy is the 2005 volume published by the Center for the New Economy in San Juan and the Brookings Institution in Washington, *The Economy of Puerto Rico: Restoring Growth*, edited by Susan Collins, Barry Bosworth, and Miguel A. Soto-Class.

Although the malaise of the Puerto Rican economy has several particular causes, at the foundation of the island's poor economic performance is its political status. The b'twixt and b'tween status as a U.S. "territory" has undermined the economy, distorted economic policy, created continuing uncertainty, and prevented Puerto Rico from establishing sustained economic development. While the short-lived economic growth of the 1950s and 1960s led some people to claim that economic convergence with the states would create the foundation on which the island could become a state, it is now clear that in order for sustained convergence to take place it is first necessary for Puerto Rico to become a state.[7]

Statehood for Puerto Rico could break the historical inertia at the core of poor economic policy and poor economic performance, and statehood could dramatically eliminate the option of special treatment. Moreover, statehood could exert a policy discipline that is missing in Puerto Rico under its territorial status. Overall, with statehood Puerto Rico would no longer be treated differently—more poorly—than the states. Instead, Puerto Rico, as a state, would be on a level playing field with the other states. The same policies provided to the other states would be applied to Puerto Rico, which would provide substantial economic benefits to the people on the island. Improvement of economic conditions on the island would, in addition, be in the interests of the entire United States.

Independence for Puerto Rico does provide a theoretical option. The Wells Fargo report quoted above, avows that lack of viability of a continuation of the current status, and states:

> "It is clear that Puerto Rico needs to solve its status problem… An objective and impartial analysis of the current situation of the island would indicate that Puerto Rico should have only two alternatives: either it

[7] In fact, in that period of success in the 1950s and 1960s, under the rubric of "Operation Bootstrap" (*Operación Manos a la Obra*), Puerto Rico was taken by many observers to be a model of proper economic development. Even as late as the 1990s, when the success was long over, Puerto Rican was held out by some analysts as in the same league with the "East Asian Tigers." These points will be give attention below in Section IV and elsewhere.

> becomes a state of the United States or it becomes independent. … [The] current "no-status" of the Commonwealth is unsustainable."[8]

Some small, independent countries have achieved economic progress, and for many in Puerto Rico independence is attractive for non-economic reasons. Independence, however, is not a practical option. All indications are that independence does not have the support of a significantly large portion of the Puerto Rican population, and it is virtually certain that independence would not be allowed by the U.S. government—surely not without a much stronger showing of support for independence among Puerto Ricans. Statehood is the only option, the only foundation on which economic progress, the prosperity of the people of Puerto Rico, can be firmly established.

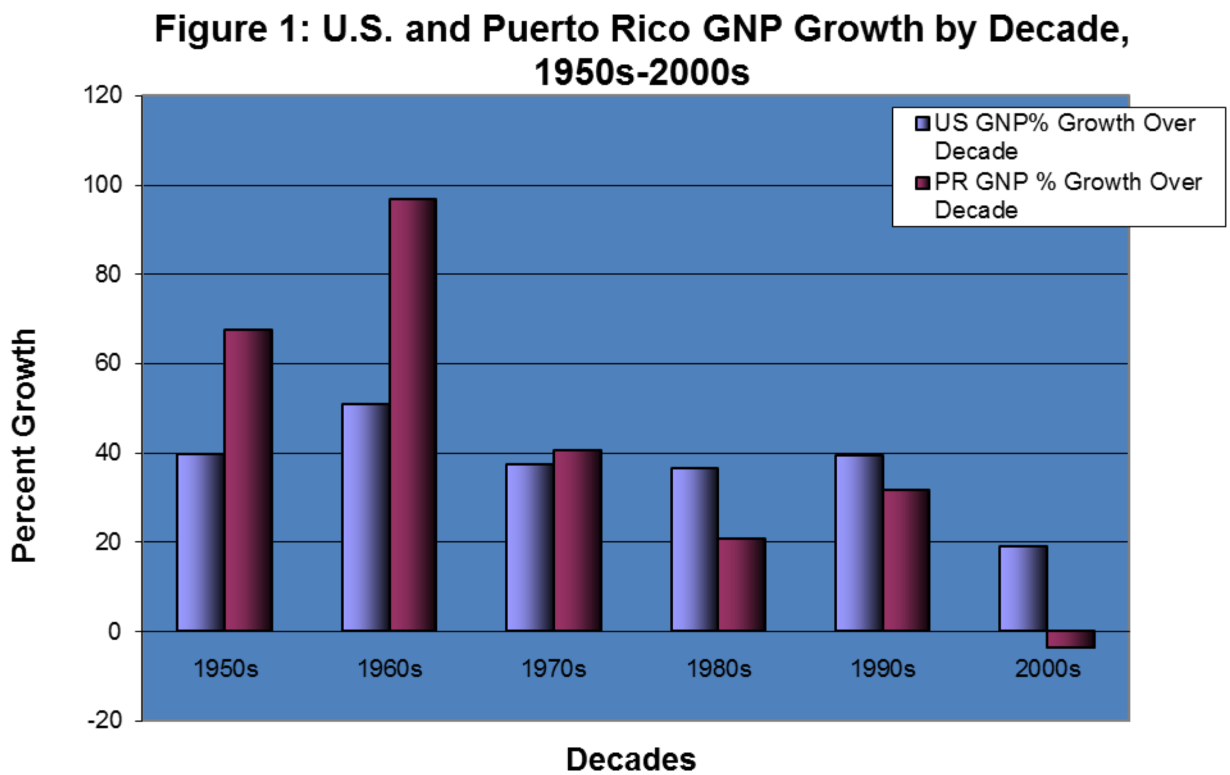
B. A Bad Situation, An Ignored Situation

Two graphs dramatically illustrate the economic situation in Puerto Rico. The first, Figure 1, shows decade-by-decade economic growth rates since 1950 for the Puerto Rican and U.S. economies. The rapid growth of the Puerto Rican economy in the 1950s and 1960s is shown to drop off substantially from the 1970s onward, and during the last three decades has been less than that of the United States. Convergence shifted to divergence. The second graph, Figure 2, shows the unemployment rate and the investment rate in Puerto Rico over the 2001 to 2010 decade. With the former rate rising and the latter rate falling, in 2010 the investment rate was below the unemployment rate—a stark indication of an economy in severe trouble. (These figures will be discussed further in subsequent sections.)

In fact, the problems of the Puerto Rican economy run deeper. Not only has economic growth been poor as illustrated in Figures 1 and 2, but the levels of poverty and economic inequality are extreme. The conditions are such that they could generate outrage and political instability. The outrage among the Puerto Rican populace has been limited, however, because, as U.S. citizens, Puerto Ricans can without restriction take up residency in the states. Instead of outrage and the action that often comes with outrage,

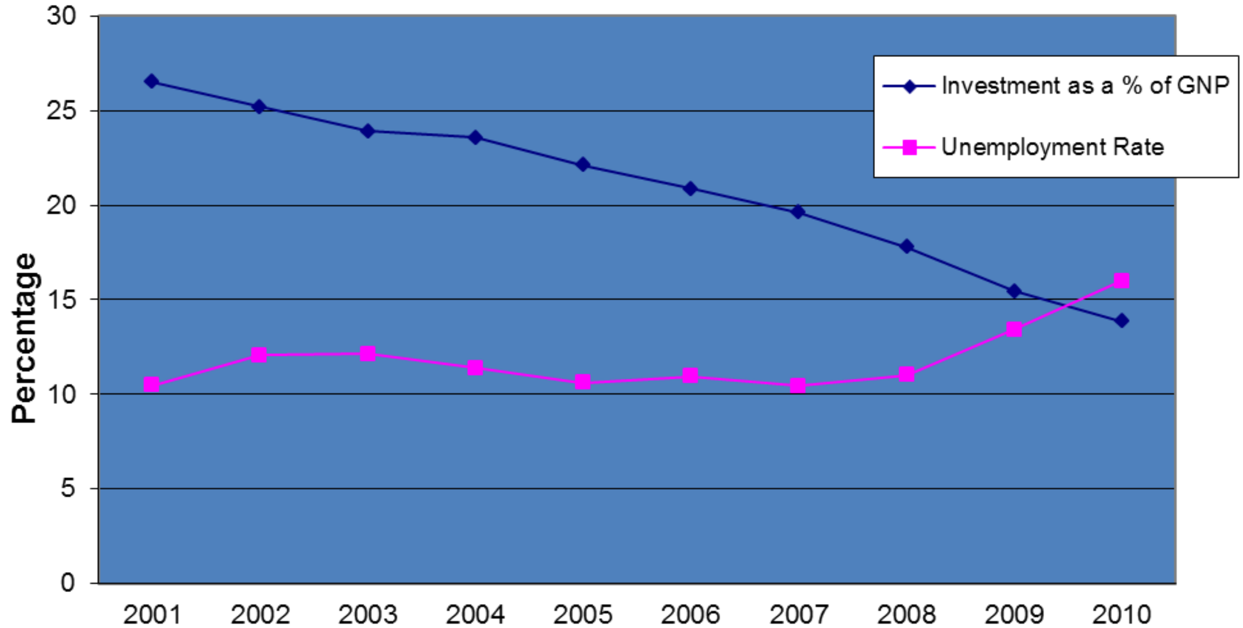
[8] As cited in footnote 1.

Puerto Ricans experience a cynical frustration that leads many to abandon the island. While this mobility provides a safety valve that limits political conflict over economic issues, it is not a solution to Puerto Rico's fundamental economic problems.



Source: See Table 5.

Figure 2: Investment and Unemployment Rates, 2001-2010



Note: The investment rate is gross fixed investment as a percentage of GNP.
Source: Junta de Planificación de Puerto Rico, http://www.jp.gobierno.pr/; click on Apéndice Estadístico.

In fact, the safety valve of migration to the states has been an obstacle to change, allowing those fundamental economic problems to be largely (and conveniently) ignored by political authorities in Washington and also by the great majority of the U.S. population. The economic conditions of Puerto Rico—the stagnation, the poverty, the inequality—are non-issues in the political discourse of the United States, swept under the rug, so to speak. But like dirt that is swept under a rug, the reality of Puerto Rico's economic situation is still there. And that reality will not stay under the rug forever.

C. Leveling the Playing Fields: Simulating Statehood

Although statehood could be the foundation of economic progress in Puerto Rico, there is little likelihood that statehood will be achieved in the near future. The Puerto Rican population remains divided on the issue, with roughly equal numbers supporting statehood and the territorial status quo. What's more, there is no substantial support in the U.S. Congress for statehood, and economic conditions in the states along with the sharp partisan divisions do not bode well for attention being devoted to the Puerto Rican issue, let alone for the emergence of a consensus.

This political reality calls for interim action, a set of policy changes that would both bring positive economic developments for Puerto Rico and lay the foundation for a move toward statehood. These policy changes would level the playing field by treating Puerto Rico, whenever possible, the same as the states in all federal legislation, executive orders, and programs. For example, Puerto Ricans should be made fully eligible for the Earned Income Tax Credit and the Child Tax Credit. Also, on all programs that involve the disbursement of federal funds, Puerto Rico should be treated in the same manner as the states. The collection of these policies would have the effect of "simulating statehood" for the island. They would generate significant economic improvement, first, through providing a substantial stimulus and, second, by actively encouraging positive policy changes within Puerto Rico—including greater transparency and greater accountability. These changes, which would simulate statehood, would not, however, alter any of the conditions under which the private sector operates.

This leveling of the playing field would be justified simply on the basis of fairness and by the positive impacts it would have for economic conditions on the island. In addition, the consequences would demonstrate—within Puerto Rico, within Congress, and among the U.S. public—the desirability of statehood for Puerto Rico.

Before proceeding, it is necessary to emphasize that economic issues dealt with in this report are far from the only issues that determine the well-being of Puerto Ricans. There are also, in particular, issues of human rights. With continued territorial status, even while Puerto Ricans have U.S. citizenship, they are second class citizens. When residing on the island, they have no vote in congressional or presidential elections. Although the government of Puerto Rico has a good deal of authority over internal matters, it is ultimately under the authority of the laws and courts of the United States. This condition, as discussed below, especially in Section VI, has detrimental economic impacts, but it is also abrogates fundamental human rights. Only statehood or independence can repair this situation.

D. The Plan of This Report

Overall, this report will:

- describe the continuing economic deterioration of the Puerto Rican economy;

- explain how Puerto Rico's status as a territory of the United States has been the major factor at the root of the economic difficulties—inhibiting the adoption of policies that would promote economic progress, preventing the establishment of firm social foundations for good economic programs, and placing the island on an un-level playing field with regard to the states; and

- argue that statehood for Puerto Rico could provide a strong foundation for economic progress.

The first several sections are largely descriptive. Section II explains how Puerto Rico is treated more poorly than the states by federal policy—which is to say that Puerto Rico is operating on an unlevel playing field. Puerto Rican's lack of access to federal tax credits means that most Puerto Rican families are much worse off in Puerto Rico than they would be earning the same income in the states, and the island's economy lacks the stimulus that would come from those tax credits. Also, in terms of federal expenditures, Puerto Rico—contrary to the wide-spread image—is treated poorly relative to the state. There is no level playing field.

Sections III, IV, and V describe in some detail the performance of the Puerto Rican economy, both over the long-run and in recent years. Section III focuses on poverty and income inequality, first presenting the data showing both the very high level of poverty on the island and the extreme degree of inequality—greater than that of any state. This section also points out how poverty and inequality are not simply problems in themselves, but can also have negative ramifications for many social outcomes—health, crime, the environment, and even democracy and economic growth.

Section IV discusses the economic growth experience of Puerto Rico since the middle of the last century. After the rapid growth of the 1950s and 1960s, the island has increasingly lagged behind the states. Although some prominent commentators touted the idea of Puerto Rico as similar to the so-called "Asian Tigers," in fact the particular conditions that generated the early success were gone by the mid-1970s. Not only did the global economy change in a way that removed Puerto Rico's special advantages, but the island's position as a territory meant that the social foundations of growth—the establishment of a strong, local class of business people and the creation of a highly skilled labor force—did not take place. An illusion of success was maintained, however, partly by a focus on the growth of Gross Domestic Product (GDP). Yet the growth of GDP was largely accounted for by the rising profits of firms based outside of Puerto Rico, and Gross National Product (GNP), which measures the growth accounted for by and the income coming to Puerto Ricans, did not increase apace. (This important GDP-GNP gap and its significance are explained in Box 2 below, pp. 31-33.)

Section V deals with Puerto Rico's experience of recent years, the severe and lasting recession that began in 2006. This experience is described in terms of the decline in income and output, the rising unemployment rate, the low (and falling) labor force participation rate, and the severe decline of the index of economic indicators. Yet, conditions of the period since 2006 are not only bad in themselves, but they portend a longer term malaise of the Puerto Rican economy, as the underpinnings of progress have been eroded. Furthermore, the huge build-up of government debt—both before and during the recession—will continue to be a burden on the economy for years to come. That debt rose above 100% of GNP in 2010 and that ratio continued to rise in subsequent years.

One of the problems in describing the Puerto Rican economy is that the official data are quite poor. Moreover, there is every reason to believe that Puerto Rican governments have viewed these data as political tools, sometimes simply withholding them or preventing their improvement for political gain. These data difficulties are explained in Box 1 (pp. 25-26).

Although the connections between Puerto Rico's status and economic deterioration are evident throughout the first several sections of this report, they receive direct focus in Section VI. The discussion begins with a review of an important earlier study demonstrating that over long periods there has been a general convergence of income levels among the states of the United States. Puerto Rico, however, has failed to converge. The data certainly suggest a positive causal connection between statehood and economic progress—and between the lack of statehood and the lack of progress.

The remainder of Section VI examines various ways in which Puerto Rico's current status, as opposed to statehood, has inhibited economic progress. Of central importance has been the impact of status on investment, both curtailing investment—especially locally-based investment—and making the island more reliant on externally-based investment. The current status hampers investment because it generates both uncertainly and a view by potential U.S. investors of Puerto Rico as "foreign." Perhaps most important is the complex, cumbersome regulatory regime on the island. While regulation can serve positive social functions, regulations in Puerto Rico appear to have as their major impact an excessive restriction of production. There are, of course, many programs of the Puerto Rican and U.S. governments that have encouraged investment on the island. This investment, however, has had limited positive, job-creating impacts. Moreover, it has created a dependence on external sources of capital and undermined the establishment of bases for progress within Puerto Rican society. Many of the investment problems can be seen within the distorted financial structure that has evolved among Puerto Rican banks, and problems are also evident in the public-private partnerships that are often touted as a basis for growth. Each of these issues, each of the problems with investment in Puerto Rico, is tied to the island's status.

Section VI also discusses the Puerto Rican tourist industry and its failure to progress in a manner that might be expected given the island's natural geographic and climatic conditions. A comparison with the Dominican Republic demonstrates the poor performance of tourism on the island. Here too the difficulties, while involving policy errors and other factors, can be seen largely as a consequence of the island's status. Were Puerto Rico a state, it is likely that things would be very different, and a comparison with Hawaii's experience underscores the point.

Section VII, then, examines the issue of policy directly, giving attention to the questions: Why are widely recognized good policies not adopted and effectively implemented by Puerto Rican governments? Why is policy so dysfunctional? And what are the structural consequences of these dysfunctional policies? A large part of the answer to these questions is facilitated by recognition that "territory" is a euphemism for "colony." In many ways the structures and ideas that dominate policy in Puerto Rico are characteristic of colonial and post-colonial societies. Policy makers are stuck in a vision of development that focuses on manufacturing (which was the basis of success in the 1950s and 1960s). They tend to take a very short-run view of the economy, failing to implement policies that would sustain long-run development. And they rely heavily on external sources of investment, adopting policies that would attract external investment but would also weaken the basis of internally-sourced investment. While this dysfunctional policy is well-rooted in the outlook of Puerto Rican authorities, it also receives strong impetus from the large externally-based firms—e.g., the pharmaceuticals—that benefit from these sorts of policies. Moreover, the U.S. government (in both its particular operations and its constitutional structure), by limiting the "policy space" of Puerto Rican governments and by its role in shaping policies for Puerto Rico, has contributed importantly to the economic problems on the island.

Yet, while statehood could set Puerto Rico on the road to economic progress, there is little if any likelihood that the island will become a state in the near future. So section VIII sets out some steps that could be taken short of statehood that would both contribute positively to the Puerto Rican economy and that would simulate statehood. These steps address, in particular, the tax credit issue and federal expenditure issue raised in Section II and also the data problem raised throughout the report. The general basic principle of these steps is that, insofar as possible, in federal legislation, executive orders, and programs, Puerto Rico and Puerto Ricans should be treated in the same manner as the states and people living in the states. The result would be, in effect, a level playing field. Immediate progress could be accomplished with tax credits, federal expenditures, and the handling of statistical reporting.

Some opponents of statehood in Puerto Rico have argued that with statehood Puerto Ricans would become liable for federal income taxes and, along with Puerto Rico's own taxes, this would be an unreasonable burden. Section IX, however, points out that this argument is simply wrong. The great majority of Puerto Ricans have incomes that are so low they would pay no federal income tax. Moreover, it is possible that upon becoming a state Puerto Rico's own taxes could be reduced. (Puerto Ricans now pay federal Social Security and Medicare taxes, so those would not change were the island to become a state.)

The final section, Section X, elaborates some basic arguments of this report by examining three cases: the schools, high-tech development, and the physical infrastructure. In each case, the weaknesses of these foundational aspects of the Puerto Rican economy are pointed out, and, most important, those weaknesses are explained in significant part by the continuing status of Puerto Rico as a territory of the United States, by the island's lack of statehood.

II. THE UN-LEVEL PLAYING FIELD

The U.S. government does not treat the territory of Puerto Rico in the same manner as it treats the states—which is to say that the federal government does not treat the U.S. citizens of Puerto Rico as it treats the U.S. citizens of the states. In the political realm, of course, the different treatment of Puerto Ricans is very clear. Their lack of full political rights and powers has direct implication in the economic realm, where, in relation to people in the states, Puerto Ricans do not operate on a level playing field. The negative impacts of this treatment are most evident in the way Puerto Ricans are excluded from certain federal programs and are denied a fair share of federal government expenditures.

A. The Earned Income Tax Credit and the Child Tax Credit

The Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC) are programs that play a significant role in alleviating poverty in the states. The EITC was originally put in place and later expanded to offset regressive payroll taxes (Social Security and Medicare) and to alleviate poverty. The CTC was established to address the concern that the tax structure did not adequately reflect a family's reduced ability to pay taxes as its size increased (i.e., with children). The design of the CTC is such that it contributes to poverty reduction. Although Puerto Ricans pay Social Security and Medicare taxes and although the poverty rate in Puerto Rico is substantially higher than on the mainland, with close to half of Puerto Ricans living below the poverty line, Puerto Ricans are not eligible for the EITC and are eligible for the CTC only if they have three or more children (though residents of the states are eligible with one, two or more children).[9]

The exclusion of Puerto Ricans from these programs is dramatically unfair. Consider a married couple with two children in Puerto Rico earning $25,000 before taxes. In 2011, this family ended up with $23,587.50 after paying federal taxes—i.e., Social Security and Medicare taxes. Yet the identical family in the states, after paying all federal taxes, would also receive an EITC of $4,426.00 and a CTC of $2,000.00, and would thus end up with

[9] Insofar as Puerto Ricans earn their income in the states and are then liable for the federal income tax, they would be eligible for these tax credits. But this is the situation of relatively few people on the island and involves a small amount of payments. Data on the amount of these credits received by the people in the various states, DC and Puerto Rico are not readily available. However, for the EITC, data are available showing the "excess" EITC paid to people in the various states, DC and Puerto Rico. This is the amount actually paid out by the federal authorities, but does not include the amount of reduction in people's federal income tax obligations when on net they still owe something (or when the credit exactly equals the tax obligation). In 2010, in the states and DC, the per capita payment of "excess" EITC was $164. In Puerto Rico, the figure was $1. See *Consolidated Federal Funds Report for Fiscal Year 2010, State and County Areas*, U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued September 2011.

an income after federal taxes and credits of $30,013.50—$6,426.00 more than the Puerto Rican family.[10]

Were Puerto Ricans fully eligible for the EITC and CTC, over half the families on the island would be positively affected. Moreover, beyond the impacts on individual families—or, more precisely, through having impacts on individual families—the full extension of these two programs to Puerto Rico would provide a major economic stimulus to the island's economy. During the first year that Puerto Ricans would be fully eligible for the EITC and CTC, these programs would provide a stimulus of close to $600 million (over $500 million from the EITC alone). Within a few years, the two programs would be injecting some $1.25 billion annually into the Puerto Rican economy, and over the first ten years of their operation the stimulus would amount to more than $10 billion (again, with most attributable to the EITC). The primary and secondary impacts of this injection of funds would (when compared to the situation in 2012) yield a level of GNP in Puerto Rican more than 1% higher in the early years and roughly 3% higher as the program would become fully utilized.[11]

Even greater benefits would accrue because of the impacts of these programs on participation in the paid labor force. The EITC and CTC create incentives for people to take part in paid labor because eligibility for these credits requires that people report earned income. Thus Puerto Rico could obtain an especially important benefit from these programs, as the economy suffers from a quite low labor force participation rate—41.9% on the island in 2010 as compared with 64.7% for the states. Also, Puerto Rico has a very large underground economy (about 25% of economic activity), and the full implementation of the EITC and CTC on the island would bring some of this activity into the regulated economy, increasing the tax base.

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[10] Similar disparities exist with other family structures and other levels of income. These figures were obtained using TurboTax 2011.

[11] GNP is used as a reference basis throughout this report instead of the more commonly used GDP because in Puerto Rico the former is a better measure of economic activity on the island. Unlike in the states and in most other countries, in Puerto Rico there is a very large difference between GNP and GDP, with the former running about two-thirds of the latter. See Box 2 for discussion of the important GNP-GDP gap.

Past efforts to extend the EITC and CTC fully to Puerto Rico have sometimes been opposed with the argument that Puerto Ricans should not be eligible for these programs, which are tied to the federal income tax, because Puerto Ricans do not pay the federal income tax (except on income obtained in the states). This argument, however, lacks validity. The EITC, as noted, was created in large part to offset the regressive payroll taxes that Puerto Ricans do pay, and the CTC is already available to Puerto Ricans with more than two children. Moreover, both programs are designed to alleviate economic hardship, of which Puerto Rico has far more than its share. In any case, many—perhaps a majority—of people who live in the states and are eligible for these programs pay no federal income tax simply because their incomes are too low. (The connection of these programs to the federal income tax does facilitate their handling by the IRS, but this is a technical problem that could be readily solved.)

The exclusion of Puerto Ricans from the EITC and CTC is a poignant example of the way Puerto Rico is placed on an unlevel playing field by the U.S. government, of the unfair treatment of the territory. U.S. citizens living on the island are excluded from these important benefits which are provided to citizens living in the states. Further, the economy of Puerto Rico is prevented from receiving the significant stimulus that these programs would provide. Yet the costs to the U.S. treasury would not be excessive (especially when compared to tax incentives, such as those that were embodied in the Section 936 program and those available in 2012 through the Controlled Foreign Corporations program, which have provided large benefits to U.S.-based firms in return for the creation of relatively few jobs; see below pp. 41-43).

B. The Distribution of Federal Government Expenditures

The U.S. government spent some $3.3 trillion in 2010 on everything from Social Security payments to weapons procurement, from support for public schools and health programs to agricultural subsidies and the salaries of government workers. While these expenditures are directed towards particular needs, they also provide economic stimulus, both to the country as a whole and to the particular regions where the money is spent. Of course, determination of the location of the expenditures is not simply a technical budgetary matter, but is also a political process, a process from which Puerto Rico is excluded. Although it is often alleged that Puerto Rico is treated "generously" by the federal government, the reality is rather different.

Both overall and in several particular ways, Puerto Rico is treated relatively poorly in terms of the dispersal of federal funds.[12] Consider the data in Table 1. In fiscal year 2010 Puerto Rico received $5,307 per capita from the federal government, less than any state or the District of Columbia (DC). In that year, the average per capita funds going to the states, DC, and Puerto Rico was $10,612—i.e., in per capita terms, Puerto Rico received 50% of the average.

Table 1
Federal Government Payments to Puerto Rico Per Capita; Rank of Puerto Rico Among States, DC, and Puerto Rico; and Payments to Puerto Rico as a Percentage of Average of States, DC, and Puerto Rico. Fiscal Year 2010

Category of Payments	Amount per Capita	Rank	Percent of Average
Retirement, Disability & Medicare	$1,998	52	67.4
Other Direct Payments[a]	1,247	52	47.0
Grants[b]	1,587	49	71.7
Salaries and Wages	214	52	19.3
Procurement	262	52	15.7
Total	**$5,307**	**52**	**50.0**

Source: *Consolidated Federal Funds Report for Fiscal Year 2010, State and County Areas*, U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued September 2011; and *Statistical Abstract of the United States 2011* for population data.

Notes:

[12] The discussion in this section builds on Arthur MacEwan and Angel Ruiz, "Washington Dollars and the Puerto Rican Economy: Amounts, Impacts, Alternatives," *Ensayos y Monografías,* No. 135, febrero 2008, Unidad de Investigaciones Económicas, Departamento de Economía, Universidad de Puerto Rico, Recinto de Río Piedras. More extensive discussion is presented there. On line at http://economia.uprrp.edu/ensayo%20135.pdf.

[a] Other Direct Payments consist primarily of direct payments for individuals other than retirement, disability, and Medicare. Major categories of such payments include unemployment compensation, "food stamp" payments, federal employees' life and health insurance, and agricultural assistance.
[b] Grants include both Formula Grants (allocation of money to states and subdivisions according to a distribution formula prescribed by law and not related to a specific program) and Project Grants (funding of either specific projects or the delivery of specific products and services). Principal funders include the departments of Health and Human Services, Transportation, HUD, Education and Agriculture.

The only area of federal government funds in which Puerto Rico rises from its position below all of the states and DC is in the "grants" category, which includes several programs that are explicitly designed—either by formula or discretionary policy—to support low-income areas. In terms of grants per capita, Puerto Rico, an area which has an income far below any of states or DC, ranks 49th. Categories of federal funds dispersal where Puerto Rico's receipts are especially low compared to the states are procurement (15.7% of the average) and salaries and wages (19.3% of the average).

Regardless of the fact that procurements and federal employment (salaries and wages) have their particular purposes, it is well known that the location of such activity is often designed to alleviate poverty and unemployment. Probably more important, the location of federal procurement and employment is highly influenced by the political process, whereby members of congress bring about the location of this activity in their districts or states. Over the years, particular members of congress have become famous for their ability to obtain high levels of federal funds for their states or districts; consider the examples of three now deceased figures: Senator Robert Byrd of West Virginia was able to use his seniority to garner extensive federal spending for his home state; John Stennis parlayed his chairmanship of the Senate's armed services committee into large amounts of federal spending in Mississippi; and Congressman John Murtha, as chairman of the House Appropriations Defense Subcommittee, was able to direct many millions to his home district in Pennsylvania. As a territory, Puerto Rico has no congressional representatives or senators, only a non-voting "resident commissioner."

If the dispersal of federal funds is viewed in relation to the per capita personal income of the states, DC, and Puerto Rico, the situation might be subject to a different interpretation. After all, in 2010, per capita personal income in Puerto Rico was only 37% of per capita personal income in the states (and DC)—$15,180 as compared to $40,584.[13] Yet, Table 2 shows that in 2010, in relation to personal income per capita, Puerto Rico—with federal funds amounting to 35% of per capita person income—ranked below six states and DC in terms of the funds it received from Washington; each of those states and DC had a level of per capita personal income more than twice as high as does Puerto Rico.[14] Of course, in some of these states, and especially DC, wages and salaries and procurement play an especially large role. But, again, federal wages and salaries and procurement expenditures are used to support jobs and incomes (though DC and perhaps Virginia are special cases).

There is, however, little rationale behind the idea that states and Puerto Rico should receive less federal funds if they have low levels of personal income per capita. Federal payments are designed to serve multiple functions, ranging from providing income and employment in relatively low-income regions to building infrastructure (e.g., highways), to establishing military bases and purchasing military equipment. Because of an implicit federal commitment to support regional income convergence, it is to be expected that low-income regions would have relatively large receipts. Yet Puerto Rico, with a level of income far lower than any of the states, still receives an allotment in relation to income well below several states.

[13] But see below p. 24 and footnote 26 regarding the comparison of income levels in Puerto Rico and the states.

[14] The six states were, in order (after DC which was first), Alaska (40%), New Mexico (40%), Kentucky (40%), Virginia (38%), Hawaii (37%), and West Virginia (36%). For the states and DC as a whole, the figure was 26%.

Table 2
Federal Government Payments to Puerto Rico Per Capita as a Percentage of Per Capita Personal Income; Rank of Puerto Rico Among States, DC, and Puerto Rico; and Payments to Puerto Rico as a Percentage of Average of States, DC, and Puerto Rico. Fiscal Year 2010

Category of Payments	Percent of per capita personal income	Rank	Percent of Average
Retirement, Disability & Medicare	13.2	1	180.3
Other Direct Payments	8.2	11	125.7
Grants	10.5	3	191.6
Salaries and Wages	1.4	47	51.5
Procurement	1.7	48	4 1.3
Total	**35.0**	**8**	**133.7**

Source: *Consolidated Federal Funds Report for Fiscal Year 2010, State and County Areas*, U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued September 2011; and for personal income for the states *Statistical Abstract of the United States 2012*, and for Puerto Rico Junta de Planificación de Puerto Rico, Apéndice Estadístico, www.jp.gobierno.pr.

Notes: See Table 1 notes.

It might be argued that Puerto Rico should receive less funds from Washington than do the states because Puerto Ricans do not pay the federal income tax. Yet, Puerto Ricans do pay Social Security and Medicare taxes to Washington (as well as some other payments), and when Puerto Rico, DC, and the states are ranked by net receipts per capita from the federal government—that is, receipts from the federal government less federal taxes—Puerto Rico is far from the top of the list. In 2010, net federal receipts to Puerto Rico were $4,697 per capita, while seventeen states and DC received larger amounts of net federal receipts per capita, as shown in Table 3. Even when net federal receipts are computed in relation to personal income per capita, Puerto Rico does not move to the top of the list. With net federal receipts per capita amounting to 29% of Puerto Rican per capita personal income, this 29% level is still below that for New Mexico (and DC). Moreover, for seven other states, net federal receipts per capita amounted to more than 20% of per capita personal income.[15]

[15] The figures appear to have been similar for earlier years. See MacEwan and Ruiz as cited in footnote 12 on p. 14 above for an analysis of the data for 2004.

In any case, as with the relation between the distribution of federal funds and per capita personal income (of Table 2), there is no rationale behind the idea that federal funds should be dispersed to the states in connection with payments (taxes) by the states to the federal authorities. Again, federal fund disbursements are designed to serve multiple functions, and there is no reason that the expenditures in a state or region should equal the tax payments from that state or region. It is to be expected that low-income regions, which make relatively low payments to the federal government, would have relatively large receipts from the federal government.

Table 3: Net Federal Expenditures Per Capita (Expenditures Minus Taxes), States, DC, and Puerto Rico, 2010

	Net Fed Ex	Rank		Net Fed Ex	Rank
District of Columbia	72,292.40	1	Utah	3,618.10	27
Alaska	11,123.10	2	Kansas	3,575.04	28
Hawaii	10,732.90	3	Iowa	3,545.22	29
New Mexico	9,906.86	4	North Carolina	3,481.73	30
Virginia	9,761.25	5	Pennsylvania	3,463.92	31
Maryland	8,417.70	6	Oregon	3,367.20	32
West Virginia	8,364.84	7	Connecticut	3,357.49	33
Kentucky	7,812.20	8	Georgia	3,292.85	34
Alabama	7,657.33	9	Washington	3,271.60	35
Mississippi	7,515.26	10	Wisconsin	2,936.53	36
Montana	6,872.75	11	Nevada	2,555.03	37
Vermont	6,712.04	12	Indiana	2,359.73	38
Maine	6,549.42	13	New Hampshire	2,202.86	39
North Dakota	6,541.87	14	Colorado	2,067.92	40
South Dakota	6,386.79	15	Massachusetts	1,695.27	41
South Carolina	6,313.02	16	California	1,621.30	42
Idaho	5,167.19	17	Texas	1,455.53	43
Arizona	5,115.76	18	Rhode Island	1,235.08	44
Puerto Rico	4,696.73	19	Arkansas	240.06	45
Wyoming	4,258.14	20	New York	108.37	46
Louisiana	4,102.91	21	Ohio	-8.67	47
Missouri	4,057.49	22	Illinois	-77.94	48
Oklahoma	4,025.22	23	Nebraska	-602.30	49
Florida	4,005.04	24	New Jersey	-4,310.79	50
Tennessee	3,829.12	25	Minnesota	-4,449.54	51
Michigan	3,753.68	26	Delaware	-8,018.41	52

Source: Source: *Consolidated Federal Funds Report for Fiscal Year 2010, State and County Areas*, U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued September 2011; and for personal income for the states *Statistical Abstract of the United States 2012*, and for Puerto Rico Junta de Planificación de Puerto Rico, Apéndice Estadístico, www.jp.gobierno.pr. Tax revenue from *Internal Revenue Service Data Book, 2010*, Department of the Treasury, IRS, http://www.irs.gov/pub/irs-soi/10databk.pdf

A level playing field would mean, at least to a large extent, that states (and Puerto Rico) would receive funds from Washington in response to their needs—or at least in response to an equitable distribution of political influence. Quite clearly, Puerto Rico is not treated fairly. Not only is fairness important in itself, but fair treatment would both improve the economic conditions of Puerto Rican families and provide a major boost to the island's economy. Yet, without effective (i.e., voting) power in Washington, Puerto Rico does not play on a level field.

III. POVERTY, INEQUALITY, AND THE CONSEQUENCES

The impacts of Puerto Rico's poor economic condition show up most starkly in the poverty and economic inequality that characterize life on the island. The way those at the bottom of society are faring and the way that income is distributed are important indicators of economic conditions. Moreover, measures of poverty and income distribution are indications of economic prospects as well as of current conditions. In Puerto Rico, both poverty and economic inequality have long shown, and continue to show, an economy with very serious problems in meeting the needs of the people.[16]

A. The Level of Poverty

The poverty rate for Puerto Rico—the percentage of the population living below the poverty line (which is the same absolute figure for Puerto Rico as for the states)—was 45% in both 2009 and 2010. This is roughly three times the 2010 poverty rate for the whole United States, which was 15.3%, and more than twice as high as the 22.4% 2010 poverty rate for Mississippi, the state with the highest level of poverty.[17]

Given the poor growth performance of the Puerto Rican economy (which will be examined shortly), it would seem reasonable to expect that over the last decade the poverty rate would have increased. Available data, however, do not support this

[16] Of course economic growth is also an important indicator of economic conditions and will be examined shortly.

[17] The figures are for the "percentage of people in poverty in the past 12 months," and are from Alemayehu Bishaw, *Poverty: 2009 and 2010*, American Community Survey Briefs, U.S. Census Bureau, Issued October 2011, http://www.census.gov/prod/2011pubs/acsbr10-01.pdf.

expectation.[18] The 45% rates for 2009 and 2010 are below that reported (also from the Census Bureau) for 1999 of 48.2%.[19] This apparent anomaly is explained in large part by the importance of federal government transfers in the incomes of low-income families. Even while GNP fell in recent years, these transfer payments bolstered the incomes of those at the bottom, reflected in the fact that personal income rose from 89.6% of GNP in 2006, the peak year in terms of real GNP, to 95.4% in 2010. (Although these federal transfers provided some relief for low-income families during this period of poor economic conditions in Puerto Rico, a level playing field would provide both more effective short-term relief—especially for those families below the poverty line—and a longer-term stimulus.)[20]

Even though Puerto Rico's poverty rate has fallen slightly over the last decade, the rate remains exceeding high and would be higher still were it not for the substantial federal transfers. This high poverty rate, in addition to indicating the poor conditions under which many Puerto Ricans live, suggests that, by failing to support the living conditions of a large segment of its population, Puerto Rico is failing to lay the foundations for future economic progress.

B. Income Inequality

Not only are many Puerto Ricans living below the poverty line, which is to say that their absolute income levels are very low, but in addition income is distributed very unequally

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[18] Available data may be no good, but they are the only data that exist. Data problems in Puerto Rico will be commented on shortly and are taken up more extensively in Box 1. Although the poverty rate data are from the U.S. Census, they derive from Puerto Rican information and thus are likely to have some of the problems that are endemic to the Puerto Rican data.

[19] Government Accounting Office, *Puerto Rico: Fiscal Relations with the Federal Government and Economic Trends during the Phaseout of the Possessions Tax Credit*, May 2006, Table 5, p. 78.

[20] In this regard, even though Puerto Rico is not treated as well as the states (not on a level playing field), the experience in the states was similar following the economic downturn that began in 2007. The poverty rate did rise in the states, but the social safety net, while having uneven impacts, did prevent many law income families in the states from falling even deeper into poverty. See Keith Gunnar Bentele, "Evaluating the Performance of the U.S. Social Safety Net in the Great Recession," Center for Social Policy Working Paper, University of Massachusetts Boston, April 20, 2012.

on the island. In 2010, the Gini ratio measuring the degree of income inequality for Puerto Rico was 0.537. For the United States, this ratio was 0.469. No individual state had a Gini ratio in 2010 higher than 0.499 (which was the figure for New York).[21]

The degree of income inequality in Puerto Rico was somewhat higher in 1999, when the Gini ratio was 0.588, having risen from 0.499 a decade earlier.[22] Thus, as with the poverty rate, the poor economic growth of the last decade has not led to a worsening of income inequality. During periods of slow or negative growth of GNP, sometimes income from capital declines most in percentage terms, and income from capital goes disproportionately to high income individuals. (Of course, even if incomes at the bottom fall by a smaller percentage than those at the top, by any reasonable standard the people at the bottom suffer much greater hardships as a result of the declines.)

Also, in the same way that transfers from the federal government make the Puerto Rican poverty rate lower than it would otherwise be, the degree of income inequality is also reduced by those transfers. Estimates of the Gini ratios for incomes and earnings show a substantial difference, with the latter much higher than the former. Unfortunately, data are not available for the recent years, but the figures in Table 4 show the situation for 1990 and 2000.

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[21] Amanda Noss, *Household Income for States: 2009 and 2010*, American Community Survey Briefs, U.S. Census Bureau, Issued September 2011, http://www.census.gov/prod/2011pubs/acsbr10-02.pdf. Washington, DC, did have a 2010 Gini ratio for income distribution of 0.532. The Gini ratio is a measure of the distribution of income, ranging from 0, all people having the same income, to 1.0, all income going to one person. Almost all countries have Gini ratios for the distribution of income between 0.250 and 0.650.

[22] Orlando Sotomayor, "Development and Income Distribution: The Case of Puerto Rico," *World Development*, Vol. 32, No. 8, pp. 1395–1406, 2004, Table 1. Sotomayor's Gini ratios are also from the U.S. Census Bureau.

Table 4
Gini Coefficients for Puerto Rico on Income and Earnings, 1990 and 2000

	Income	Earnings
1990	0.506	0.663
2000	0.564	0.691

Source: Eileen V. Segarra Alméstica, "What happened to the distribution of income in Puerto Rico during the last three decades of the XX century? A statistical point of view," *Ensayos y Monografías*, Número 129, julio 2006, Unidad de Investigaciones Económicas, Departamento de Economía, Universidad de Puerto Rico, Recinto de Río Piedras.

The data in Table 4 not only indicate the importance of transfer payments in affecting the distribution of income in Puerto Rico. In addition they show that the functioning of the economy aside from transfer payments generates an extremely high degree of inequality. Without the substantial transfer payments that Puerto Ricans receive, it would appear that Puerto Rico's economy would be one of the most unequal in the world. (However, how the economy would actually operate without those transfer payments is an open question.) In any case, it should be kept in mind that Puerto Rico's degree of income inequality falls in the general category of inequality in Latin America rather than that of the U.S. and other relatively high-income countries.[23]

C. The Impacts of Poverty and Inequality

The direct and immediate impact of Puerto Rico's high rates of poverty and economic inequality is relatively obvious: a very large share of the population is living in poor conditions in both absolute and relative terms. This fact alone should make economic conditions on the island of great concern to authorities in both San Juan and Washington.

[23] For example, for 2009 the World Bank reports Gini ratios for Costa Rica, Chile, and Brazil of 0.507, 0.521, and 0.5477, respectively. See http://data.worldbank.org/indicator/SI.POV.GINI.

In addition, however, a wide range of experiences from many countries and regions indicates that the impacts of poverty and inequality on a society go far beyond the obvious:[24]

- Both poverty and inequality tend to be associated with high crime rates. Societies with high levels of economic inequality suffer especially high rates of crimes of violence, which seems to reflect a breakdown of social bonds that comes with the inequality.

- Poor health—not only for those in poverty, but at all levels of society—is associated with high rates of inequality. There is considerable evidence that the level of stress associated with inequality is a major contributor to the poor health in unequal societies.

- Economic inequality appears to have negative impacts on the natural environment, as those who are relatively powerful and wealthy typically gain disproportionate benefits from the economic activities that degrade the environment, while those who are relatively powerless and poor typically bear disproportionate costs.

- Widespread poverty and inequality tend to undermine democracy, as those with high incomes are able to wield a disproportionate impact on political affairs—and, through political affairs, economic affairs.

- In societies with high degrees of inequality and poverty economic opportunity tends to be undermined, as those at the bottom are without the means to improve their positions and are so far removed from the economic norm.

[24] Much of the analysis regarding the negative social impacts of inequality is developed in Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger*, New York: Bloomsbury Press, 2009. Also, see James K. Boyce, "Is Inequality Bad for the Environment?" *Research in Social Problems and Public Policy*, Vol. 15, pp. 267-288, http://www.peri.umass.edu/Publication.236+M5b18b9f7e4c.0.html; and Arthur MacEwan, "An End in Itself and a Means to Good Ends: Why Income Equality is Important," in *Development, Equity And Poverty: Essays in Honour of Azizur Rahman Khan*, L. Banerje et al., eds., Macmillan Publishers India, New Delhi, 2010, http://scholarworks.umb.edu/csp_pubs/25/.

- The direct effect of poverty and inequality on overall economic growth is often negative, due to many factors—for example, poor education, limited demand for mass produced goods, and political instability.

Many of these general impacts of economic inequality and poverty are readily evident in Puerto Rico. Their existence underscores the widespread implications of the island's general economic conditions as well as the broad importance of improving those conditions. In this regard, perhaps the last point noted above—the potential role of "political instability" in affecting economic conditions—deserves special note. Puerto Rico should not be seen as immune from the sorts of political uprisings that have occurred in many countries in the early 21st century. Lack of economic growth (or absolute decline) combined with extensive poverty and severe economic inequality is a formula for political turmoil.

IV. ECONOMIC CONDITIONS IN PUERTO RICO: THE LONG TERM

A. Continuing Stagnation—Worse and Worse Since the Mid-1970s

Although relatively rapid economic growth took place in Puerto Rico during the period following World War II, since the mid-1970s growth of the island's economy has continually lagged behind that of the United States. Figure 1 above on page 6 and Table 5 below show the decade by decade growth of real GNP in Puerto Rico and the United States from 1950 to 2010. As these data demonstrate, in the early post-World War II period, there was a significant convergence of the income level in Puerto Rico towards that of the United States. However, since 1980—actually since the mid-1970s—things have moved strongly in the other direction: economic expansion on the island was significantly slower than in the states in the 1980s, a little better—though still slower than in the states—in the 1990s, and then, again, much slower than in the states during the most recent decade. (These points are based on official data.[25] The official data for Puerto Rico, however, have serious problems. See Box 1 and the discussion in Section V of experience in recent years.)

Table 5
Real GNP Growth in Puerto Rico and the United States, 1950 to 2010, Percent Change in the Decade

	Puerto Rico	United States
1950s	67.7	39.6
1960s	96.9	50.8
1970s	40.5	37.5
1980s	20.9	36.7
1990s	31.6	39.4
2000s	- 3.6	19.1

Sources: For Puerto Rico - 1950-1980: James L. Dietz, *Economic History of Puerto Rico.* Princeton: Princeton University Press, 1986, Table 5.1; 1990-2000: Planning Board of Puerto Rico (2002). *Economic Report to the Governor 2001*. San Juan; 2010 and 2001: Planning Board of Puerto Rico, http://www.jp.gobierno.pr/, Apéndice Estadístico. For the United States – 1950-1960, Economic Report of the President 1965; 1960-2010, U.S. Department of Commerce, Bureau of Economic Analysis, https://www.bea.gov/scb/pdf/2011/06%20June/D%20pages/0611dpg_c.pdf

Even with the very rapid economic expansion of the 1950s and 1960s, Puerto Rico's level of GNP in 2010 was not a great deal closer to that of the United States than it was in 1950: while Puerto Rico's GNP (in real, inflation adjusted terms) expanded 7.1 times in this sixty year period, the U.S. GNP expanded 6.6 times. GNP per capita in Puerto Rico rose from about 18% of GNP per capita in the United States in 1950 to about 29% in 1980. By 2010, however, the per capita GNP ratio had fallen to 21.5%.[26]

[25] The terms "official statistics" or "official data" refer to data from the Junta de Planificación de Puerto Rico, available at http://www.jp.gobierno.pr/; click on Apéndice Estadístico or Indicadores Económicos. When no source is cited, data are from this source. These data, compiled by the Junta de Planificación, also appear on the web site of the Government Development Bank at http://www.gdb-pur.com/economy/statistical-appendix.html.

[26] Calculated for Puerto Rico for 1950 and 1980 from James L. Dietz, *Economic History of Puerto Rico.* Princeton: Princeton University Press, 1986, Tabled 5.1 and 5.16, and for 2010 from Junta de Planificación de Puerto Rico, http://www.jp.gobierno.pr/, Apéndice Estadístico; for the United States, from U.S. Department of Commerce, Bureau of Economic Analysis http://www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=264&FirstYear=2002&LastYear=2004&Freq=Qtr. These ratios were calculated in "real" terms, which required putting Puerto Rican and U.S. data in the same "real" terms. Given the problems with the Puerto Rican data (see Box 1), these must be viewed as rough figures. The problem with simply taking the ratios based on current dollar figures is demonstrated by the fact that the ratio would rise during the 2001 to 2010 years, a period when Puerto Rican GNP was falling and U.S. GNP was rising. It has been noted above, p. 16, that per capita personal

Box 1
The Data Problem

Any discussion of the performance of the Puerto Rican economy is seriously hampered by the poor quality of the official data. Indeed, in some respects the official data are virtually useless. The poor quality of the data not only calls into question any statements about what has been happening to the economy; bad data also weaken economic performance. Furthermore, it has become increasingly clear that the government views economic data as a political tool, to be withheld or released—and perhaps distorted—according to its needs.

Perhaps the most obvious and most serious problem with the data is that 1954 prices are ostensibly* used to calculate real (inflation adjusted) aggregates. Over a fifty to sixty year period, goods and services change dramatically, the "market basket" of goods that is consumed becomes very different, completely new products are introduced, and many old products no longer exist. Thus "real" calculations for today based on 1954 prices are not real at all.

As an example of the problematic consequences of using the 1954 prices to determine "real" aggregate figures, consider: In 2010, according to the official data, real consumption expenditures were one-and-a-half times as large as real GNP, and the real excess of imports over exports was virtually equal to GNP. In current prices, however, consumption was 90% of GNP and the excess of imports over exports was 22% of GNP. While these strange "real" results may reflect an accurate mathematical application of 1954 prices to 2010 conditions, they provide nothing useful about the real condition of the 2010 economy.

A related problem is revealed by the very large change in the Puerto Rican Consumer Price Index (CPI) that became available in 2010. The new CPI presented a radically reduced and more plausible rate of inflation, as compared with the old CPI. Although the new CPI represents a positive step, the sharp change of these figures, which underlie judgments about what has been happening to the island's economy, increases general concern about the official data. Furthermore, although the CPI was revised, it appears that none of the figures for the last many years based on adjustments for inflation have been altered.

Beyond these problems with the available data, the Puerto Rican government has attempted to prevent the availability of data. In 2010 the government attempted to prevent the release of the new CPI. When the Director of the Instituto de Estadísticas ignored the government's efforts and made the new CPI public, the government tried (unsuccessfully) to have him dismissed. As another example of the government's efforts to suppress economic data, in April 2012 the following statement appeared on the home page of the Government Development Bank (GDB):

> "In compliance with Act 78-2011 (Puerto Rico Electoral Code for the Twenty-First Century), during an election year and until the following day of the election event, the Government Development Bank for Puerto Rico may not publish certain information through the media, including its website, for the benefit of the general public. In order to keep our public informed and maintain our commitment of transparency with the investor community, we may provide updated information, per request. If you wish to receive updated economic information, please send us an email to investorresources@gdb.pr.gov."

income in Puerto Rico in 2010 was 37% of U.S. personal income, which seems to contradict these figures. That figure, however, is based simply on current dollar data and would not be useful for comparisons over time.

The problem, of course, lies in the establishment of Act 78-2011. Yet the application of the law by the GDB, a major source of economic information on the Puerto Rican economy, underscores its implications. (Shortly after it was generally noticed, the statement disappeared from the GDB web site.)

(Box 1 cont'd)

The problems with the data themselves—especially with price adjustments and calculations of "real" values—make it difficult to give much credence to data coming from official government sources, the Junta de Planificación in particular. Adding the apparent view of the government that economic information released by official agencies is a political instrument, an observer must have little confidence in the veracity of these data.

The issue, however, is not simply that one must have little confidence in the picture of the Puerto Rican economy that can be obtained from the official data—though of course this hampers efforts to develop accurate analyses. In addition, it undermines the government's ability to formulate effective economic policy, the ability of rating agencies to know what is going on in Puerto Rico, and the confidence that private investors (internal or external) have in Puerto Rican conditions.

The President of the New York Federal Reserve Bank, William C. Dudley, speaking in Puerto Rico in 2010, both commented on the importance of good economic data and noted the existence of Puerto Rico's shortcomings:

> "The private and public sectors both need accurate, timely and comprehensive economic statistics to perform effectively. It is impossible to make good decisions without a solid factual basis for those decisions. For example, the government needs good economic information to develop effective fiscal, economic development and regulatory policy. Likewise, to make the best production, investment and pricing decisions, businesses need accurate and timely information on things such as wages, income and prices. Poor quality information increases uncertainly and this uncertainty inhibits well-considered risk-taking and investment decisions."
>
> "Although Puerto Rico's statistical system was once a model for other countries, now there are major opportunities for improvement in comparison with the mainland and other countries."**

The poor quality of government economic data in Puerto Rico has created business for private consulting firms, as they sometimes generate estimates of data series to meet the needs of business clients. The work of Estudios Técnicos in building a consumer price index for Puerto Rico is a good example.

In spite of the serious problems with the official data, there is no option but to use them in this report, except in a few place otherwise noted. But the reader has been cautioned.

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* "Ostensibly" because it is alleged by people who have worked with the data that, in fact, other methods are used to determine real aggregates. Even if correct, this is hardly reassuring, as it suggests that no one outside of the Junta de Planificación knows how the computations are actually accomplished—which, in itself, makes the data virtually useless.

** William C. Dudley, "The Challenges Ahead," Remarks at the Center for the New Economy 2010 Conference, San Juan, Puerto Rico, February 19, 2010,
http://www.newyorkfed.org/newsevents/speeches/2010/dud100219.html.

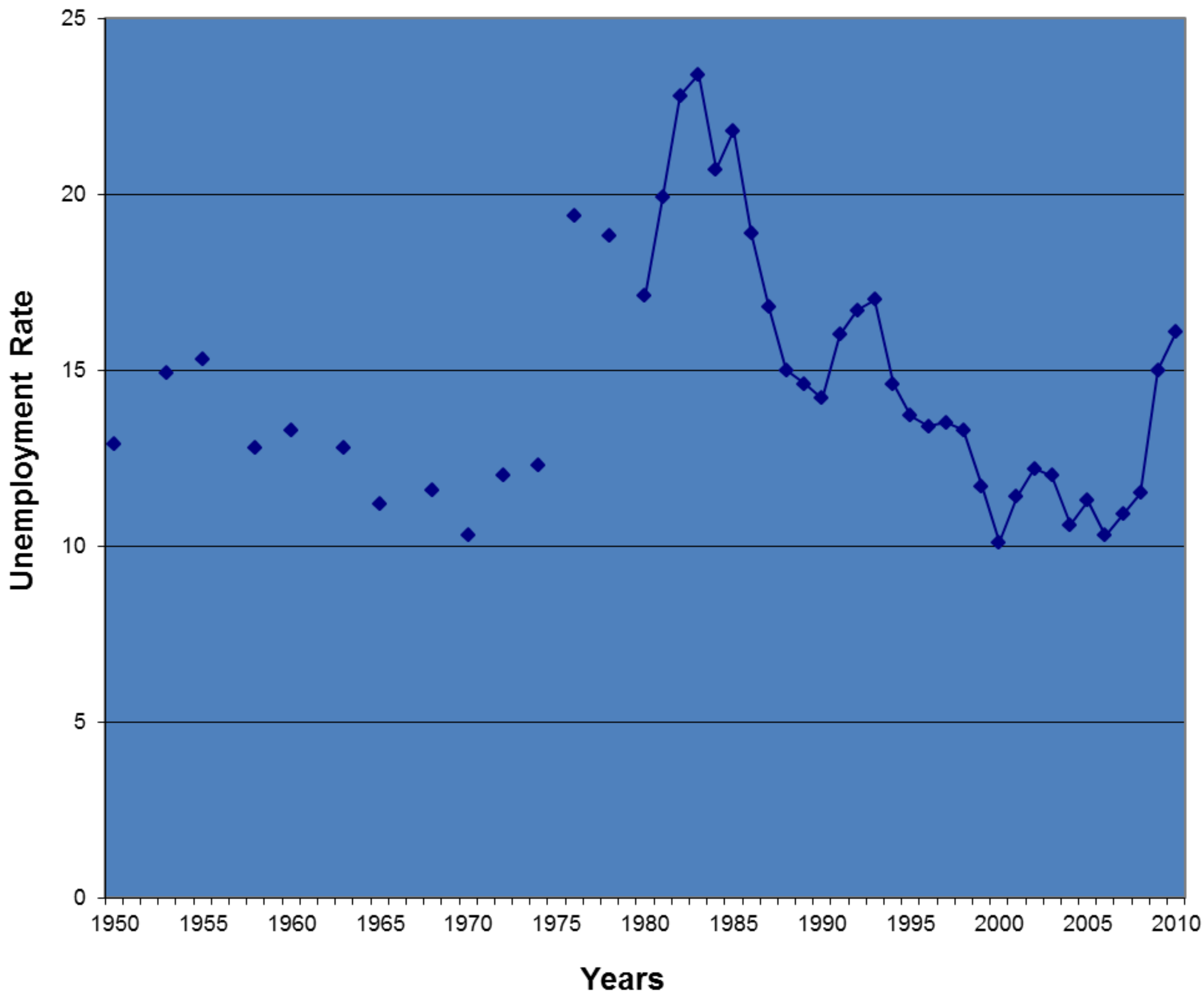
The poor economic performance of the Puerto Rican economy as measured by GNP data can also be seen in other indicators—most clearly in the high unemployment rate and the low labor force participation rate; see Figures 3 and 4. Since 1950, the unemployment rate has not dropped below 10% of the labor force; the lowest figure was 10.1% in 2000. (Data are not available for years before 1950.) Unemployment rose sharply in the late 1970s and ran above 20% for several years in the early 1980s. In more recent decades the unemployment rate came down, but then again rose sharply in 2009 and 2010. The high unemployment rate has been accompanied by an extremely low labor force participation rate. The participation rate dropped off after the 1950s and has, with some minor fluctuation, remained low since. In 2010, the participation rate stood at 41.9%, lower than for any year on record except 1982, when the participation rate was 41.8%. In no year since the early 1950s has the participation rate risen to 50%. In spite of these continuing signs of an economy in trouble, signs that were certainly clear by 1980 if not earlier, there remained an illusion of success regarding the Puerto Rican economy. (These data on unemployment and the labor force participation rate should be viewed as quite rough because of the large size of the "underground economy" in Puerto Rico. Estimates vary, but this activity probably accounts for 25% of economic activity, and surely a significant amount of the employment in this "off the books" activity is not counted in the official data. Nonetheless, there is little doubt that unemployment is relatively high and labor force participation is relatively low in Puerto Rico, and that the direction of change since 2006 is a clear indication of the worsening economic conditions.)

B. The Illusion and Myth of Success

Puerto Rico's rapid economic growth of the 1950s and, especially, the 1960s led many commentators to view the island as rapidly moving from its situation of 'Latin American underdevelopment' to a situation where it would be economically close to, if not part of, the United States. Looking at the experience of those early years, even from the perspective of the 1990s, two well-known and highly capable economists, William Baumol and Edward Wolff, suggested that Puerto Rico might be viewed as in the same category as the so-called “Asian Tigers.”[27] In retrospect, however, it is apparent that the island’s economic success, insofar as it was real, was due to special circumstances of the period—namely that the relatively low wages combined with unfettered access to the U.S. market made Puerto Rico an attractive site for U.S. firms to locate their labor-intensive production of goods destined for U.S. consumers. This expansion of manufacturing activity led the development of the economy from 1950 up through the early 1970s. Furthermore, under the rubric Operation Bootstrap (*Operación Manos a la Obra*), this expansion was also fueled by special tax treatment from both the federal and Puerto Rican governments. But neither of the special circumstances at the base of this period’s economic success—low wages and preferred access to the U.S. market—would last. (Unfortunately, the belief that manufacturing could be the foundation of economic growth in Puerto Rico has lasted, and has generated a perverse distortion of both economic policy and the economy—about which more below on pages 44 and 45.)

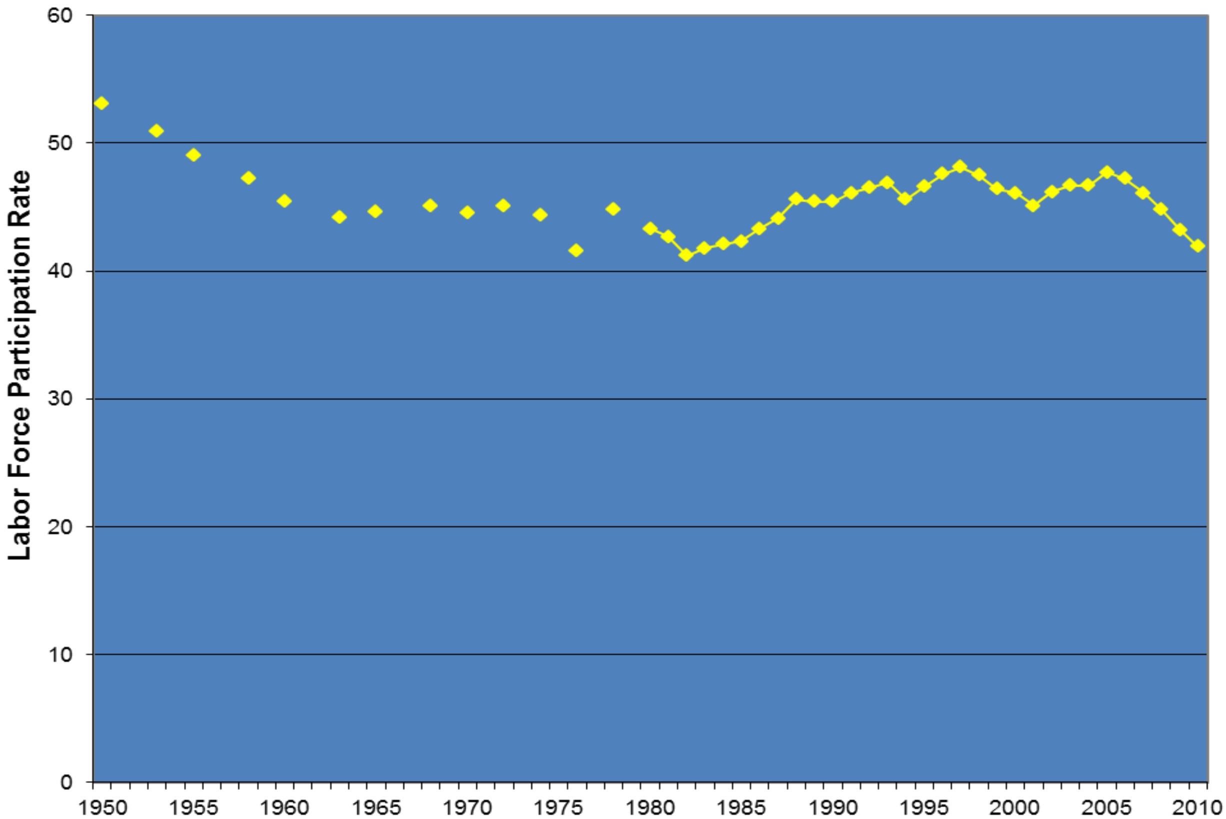
[27] William J. Baumol and Edward N. Wolff, “Catching Up in the Postwar Period: Puerto Rico as the Fifth ‘Tiger’?” *World Development*, Vol. 24, No. 5. 1996.

Figure 3: Unemployment Rate in Puerto Rico, Selected Years 1950-1980 and 1980-2010



Note: Based on a labor force of non-institutionalized persons 14 years of age and over until 1976 and 16 and over after 1976.
Source: For 1950-1980, James L. Dietz, *Economic History of Puerto Rico*. Princeton: Princeton University Press, 1986, Table 5.13 (not all years are available); for 1980-2010, Puerto Rican Departmento de Trabajo y Recursos Humanos, Tabla 7 at http://www.dtrh.gobierno.pr/pdf/serie_mensual_1980.pdf.

Figure 4: Labor Force Participation Rate in Puerto Rico, Selected Years 1950-1980 and 1980-2010



Note: See Figure 3.
Source: See Figure 3.

The error of Baumol and Wolff, and of many 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 Puerto Ricans' economic well-being. 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. 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, GDP was 7% larger than GNP, by the 1990s the former was 50% greater than the latter. (For more on this GDP-GNP gap, its origin, and its significance, see Box 2.)

The error of placing Puerto Rico in the same category as the "Asian Tigers," however, was not simply a result of focusing on the wrong variable. The error also arose from a failure to recognize the economic implications of Puerto Rico's status as a territory of the United States. 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. 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. As 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.[28]

As its economy slowed after the mid-1970s, Puerto Rico remained highly dependent on foreign (mainly U.S.) firms as the engine of economic progress. This dependence is

[28] James L. Dietz, *Puerto Rico: Negotiating Development and Change*, Lynne Rienner Publishers, Boulder and London, 2003, pp. 78 and 79.

reflected in the GDP-GNP gap, as GDP has remained about 50% above GNP 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.) Also, although the Puerto Rican population is extensively educated, as measured by the share of the population that has attained higher levels of schooling, the public school system—and hence the quality of education—is widely seen as seriously deficient. There is also limited progress in establishing the technological foundation for a more advanced economy. (See Section X below for more on the schools and the "high tech" issue.)

Puerto Rico's status, then, has been a major factor inhibiting the establishment of effective broad, economic development strategies. Moreover, territorial status has led to the adoption of poor—indeed, detrimental—economic policies by the governments of both major political parties. There is a sense in which Puerto Rican policy-makers are stuck in the economic 'glory years' of Operation Bootstrap. The same old policies—waiting for tax breaks from Washington to attract external investment and to provide special treatment for manufacturing—are relied upon as though policy makers are thinking, "They worked then, so they should work now."

Box 2
The GDP-GNP Gap in Puerto Rico

The usual measures of economic activity don't work so well for Puerto Rico. The standard gauge of economic activity, Gross Domestic Product yields 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.

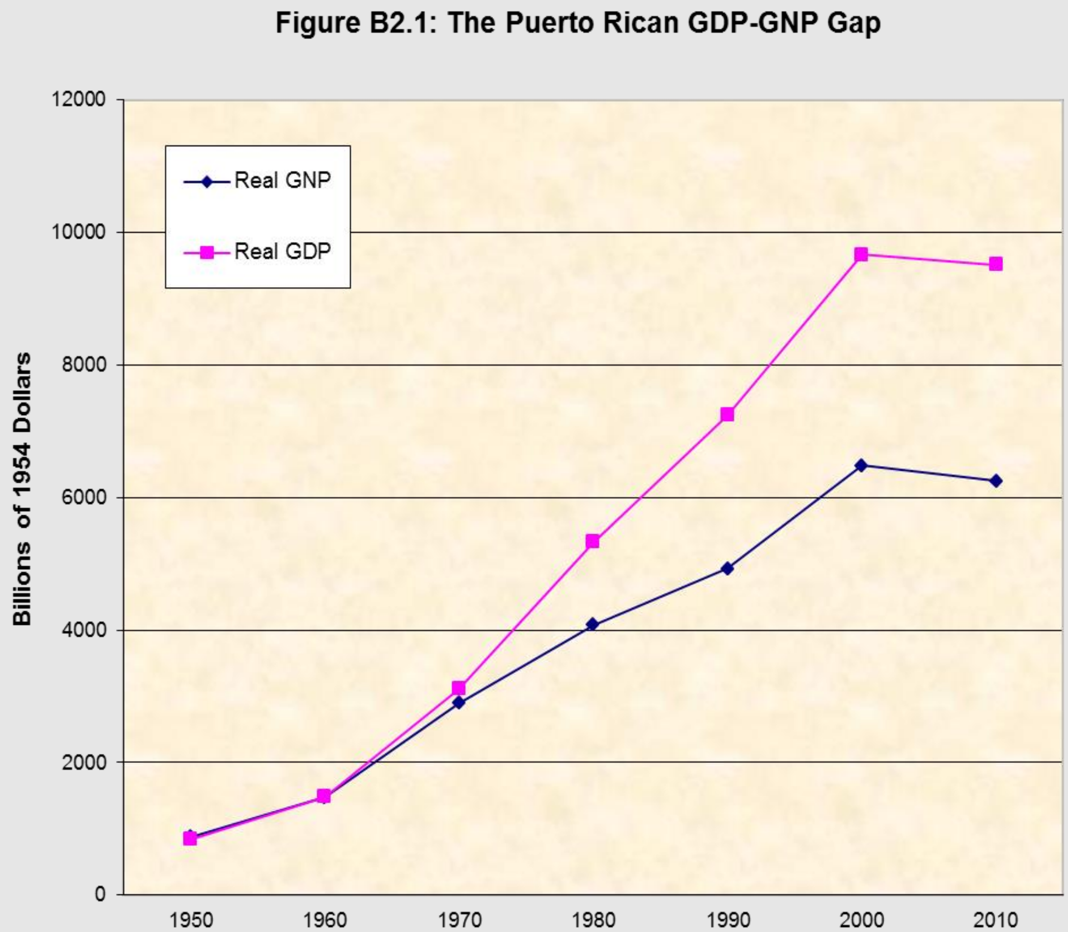
The measurement matter itself is relatively straight forward. In order to gauge the level of development of a country (or region) and to determine how economic activity is progressing, the usual focus is Gross Domestic Product (GDP). GDP measures all the production of goods and services that takes place 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 off-shore firms grew substantially over the last several decades of the 20th century.

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 workers or businesses are 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.*

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. 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.

In 1950, before the major influx of U.S.-based firms, GNP actually exceeded GDP by about 4%, the difference accounted for by the incomes earned by Puerto Ricans working in the U.S. which were part of GNP but not part of GDP. In the next two decades, as rapid growth took place with a large role of U.S.-based firms, GNP fell off to 93% of GDP. Then, over the following three decades, as the performance of the economy slowed but as the U.S.-based firms were still central to the economy, GNP fell to 76% of GDP in 1980, 68% in 1990, 67% in 2000, and 66% in 2010. (See Figure B2.1.)

Box 2 (cont'd)



Source: 1950-1980, James L. Dietz, *Economic History of Puerto Rico. Princeton*: Princeton University Press, 1986, Table 5.1; 1990 and 2000, Planning Board of Puerto Rico, Economic Report to the Governor 2001, San Juan, 2002; 2010, Junta de Planificación de Puerto Rico, www.jp.gobierno.pr, Apéndice Estadístico. Real GDP has been calculated on the assumption that the deflator is the same as that for GNP.

To put these figures in some perspective, in 2004, out of 188 countries or territories for which data are available, for only 15 was GNP less than 90% of GDP, and for only 2 was GNP-GDP ratio less than 70%—Puerto Rico at 67% in that year, and Equatorial Guinea at 30%.**

What are the implications of this GDP-GNP gap?

First, and 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

Box 2 (cont'd)

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. 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, the substantial GDP-GNP gap indicates that a large share of the profits generated in Puerto Rico is 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.

Third, the existence of the large GDP-GNP divergence means that GDP per capita is an even 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. Moreover, during the second half of the 20th century, GDP and GNP were growing at significantly different rates.

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, it worthwhile to examine the GDP-GNP gap and what it represents.

* Both GDP and GNP include only production that is sold for final use—i.e., intermediate goods and services, sales of inputs from one firm to another, are not included.

** Alan Heston, Robert Summers and Bettina Aten, Penn World Tables 6.2, http://datacentre2.chass.utoronto.ca/pwt62/alphacountries.html.

These policy problems will be addressed shortly. However, it is first necessary to examine the extremely poor economic performance in the first decade of the 21st century.

V. THE SEVERE AND LASTING RECESSION

From 2006 onward, Puerto Rico has experienced a long and severe recession. According to official statistics (again, see Box 1), in 2010 real GNP was 3.8% below its 2009 level. Real GNP had fallen every year since 2006, the peak year, and in 2010 was 11.3% below that peak level. Also, in 2010 real GNP was 5.0% below the 2001 level.[29] The situation with personal income, however, is not as bad because of transfer payments from the federal government. As noted above (p. 20), between 2006 and 2010, per capita personal income rose from 89.6% of per capita GNP to 95.4%.

The official data on real GNP, however, are not reliable (perhaps not even close to meaningful, as explained in Box 1). Nonetheless, there are other indicators that also show that the Puerto Rican economy did poorly in the first decade of the 21st century and extremely poorly after 2006. Unemployment, always high by U.S. standards rose to 13.4% of the labor force in 2009 and 16.0% in 2010, far from the 10.1% low in 2000 and from the still relatively low 10.3% in 2006. (Government layoffs of several thousand workers were a major contributor to this sharp upswing in the unemployment rate; more on this below, p. 58.) Moreover, this rise in the unemployment rate was accompanied by a sharp decline in the labor force participation rate, which fell from its peak rate of 47.7% in 2005 to 41.9% in 2010, as (on net) 109 thousand people departed the labor force in this four year period, a 7.7% decline. (See Figures 3 and 4 above.) The situation with investment has been at least as bad as that with employment. Gross domestic fixed investment fell off from 20.9% of GNP in 2006 to only 13.9% in 2010. And this fall in the second half of the decade had been preceded by a decline from 26.5% in 2001. The rising unemployment rate and the falling investment rate are shown in Figure 2 in the Introduction; as noted there, when the investment rate and unemployment rate cross and the former goes below the latter, an economy is in severe trouble.[30]

[29] It is somewhat unclear what happened to per capita income over this period because the official Puerto Rican data show a 3.6% growth of population over the decade while the U.S. Census reports a 2.5% decline. Apparently the difficulties with Puerto Rican data exist for demographic as well as economic data. The Puerto Rican data are from the "official statistics" of the Junta de Planificación as cited above in footnote 25, and the Census data are reported at http://www.census.gov/popest/data/intercensal/puerto_rico/pr2010.html.

[30] The investment decline over the decade was concentrated in construction, with real private construction spending falling by two-thirds and public construction (government and public enterprises) falling by about 45%. Real spending on machinery and equipment fell by less than one percent over the decade. As with other "real" data, these are official figures computed on the basis of 1954 prices. As many investment goods used today did not exist in 1954 (e.g., computers and other IT equipment), one can only wonder about the meaning of these figures.

These data on the rising unemployment rate and the falling rates of labor force participation and investment not only demonstrate the severity of the Puerto Rican recession, but they also do not bode well for recovery. The investment figures indicate a two-fold problem: that the capital foundation for future growth is not being put in place and that investors tend not to believe that the outlook for future growth is favorable. The unemployment and labor force participation rates indicate that it will, at best, take a long time before the Puerto Rican economy can return even to the pre-2006 situation. Furthermore, as will be noted in Section X, problems with the schools and training programs also do not bode well for the island's future economic condition, and, insofar as a highly skilled labor force does exist, a "brain drain" is also working against future economic prospects (see Box 3).

Box 3
The Brain Drain:
Consequence and Cause of Poor Performance

One of the consequences of Puerto Rico's poor economic performance appears to be a "brain drain" problem. Available data indicate a significant departure from the island of relatively highly educated people. This brain drain should probably be seen as a result, rather than a cause, of the current poor economic situation in Puerto Rico. That is, relatively highly educated people are probably leaving because of the lack of jobs for them on the island. However, as these people leave, their departure is an ominous sign for future economic prospects.

A recent study from the Instituto de Estadísticas de Puerto Rico* reports, first, that in the 2005 to 2009 period, Puerto Rico experienced a net out migration of some 144 thousand people, roughly 4% of the population. This net out migration largely balanced the "natural" growth of population; total population between 2005 and 2009 increased by only 55 thousand, or only 0.35% per year.** Moreover, the out migration has contributed to the aging of the Puerto Rican population.

Within this context, the study also reports that those leaving the island tend to be more highly educated than those returning. In particular, a larger number of people with some higher education are leaving than are coming in. The numbers are not huge, but they are fairly consistent over the years of the study. In 2009, for example, 38,465 people over 25 left the island. Of these, 9,313, 24.2%, had a bachelors degree or further higher education. Of the 18,619 people over 25 coming into the island, 2,936, 15.8%, fell in this educational category. On net, then, migration is reducing the share of the population that is relatively highly educated.

The net out migration is easy to understand. While jobs have been scarce in the states, with the unemployment rate in 2010 at 9.6%, it was much higher in Puerto Rico, at 16%. Moreover, the U.S. unemployment rate for people with a college degree was about 4.5% in 2010. (Similar data are not readily available for Puerto Rico.) The attraction for highly educated Puerto Ricans would appear to be substantial.

Some analysts have downplayed the role of a Puerto Rican brain drain. Based on data from earlier years, they have pointed out that the percentage of emigrants with high levels of education is no greater than the percentage of the population with high levels of education. These more recent data tend to undermine this argument. Moreover, the argument seems to miss the point. The re-establishment of Puerto Rican economic growth, if it is to be sustained, will depend (among other things) on the availability of a well-educated labor force. With the out migration of people with high levels of education, even when accompanied by a proportional out migration of people with low levels of education, re-establishment of sustained growth is less likely. In this sense, the brain drain has long been a significant issue for Puerto Rico.

* Idania Rodríguez Ayuso, Nahir Rodríguez Hernández, and Mario Marazzi Santiago, Perfil del Migrante, 2000-2009, Instituto de Estadísticas de Puerto Rico, 28 de febrero de 2011.

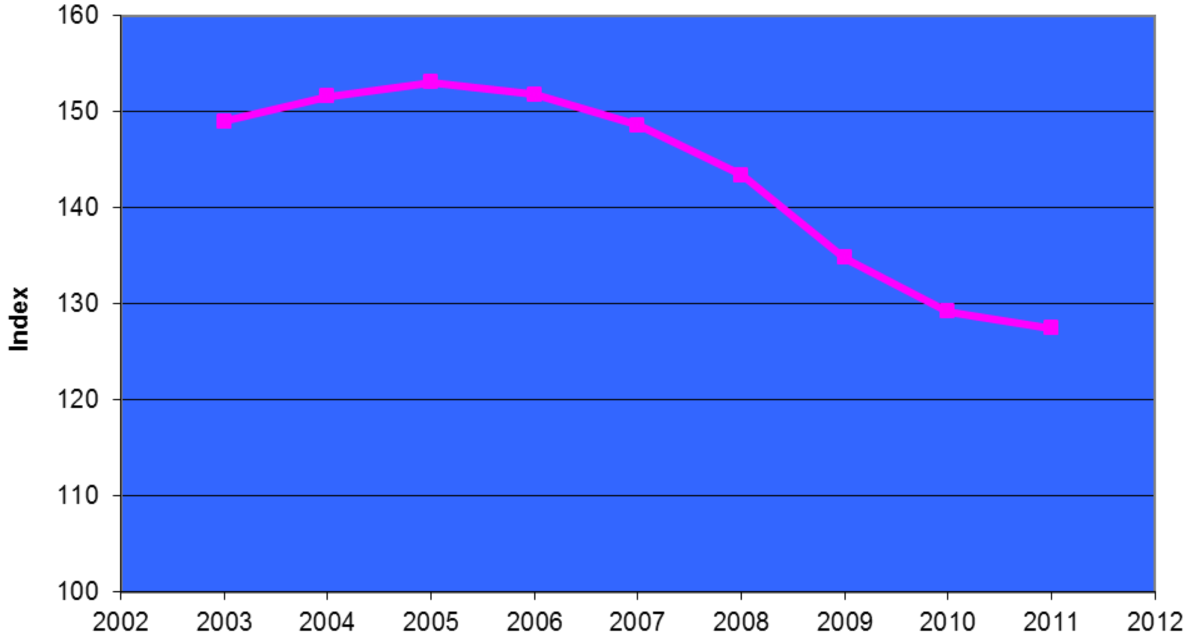
** This population growth figure is from the Junta de Planificación's oficial Puerto Rican data. U.S. Census Bureau data, however, suggest lesser growth—or a decline—of the Puerto Rican population in the early 2000s, as noted in footnote 5 of the text.

The severity of the economic downturn that emerged in 2006 is further demonstrated by the "Economic Activity Index," compiled monthly by the Government Development Bank of Puerto Rico. This index of current economic activity is a composite based on four variables—payroll employment, electric power consumption, cement sales, and gas consumption; the index is based on 1980 =100. As shown in Figure 5, the index peaked at 153.1 in 2005, and then in 2006, as the economy started to decline in the second half of the year, fell to 151.8. From there, the decline was precipitous, with the index dropping each year to 127.5 in 2011.[31]

Even if one discounts the reliability of the Puerto Rican GNP data, all of these other indicators—the unemployment rate, the investment rate, the labor force participation rate, and the Economic Activity Index—tell the same story of an economy in serious decline. (And then there are the perceptions of people in Puerto Rico, based on their own experiences and observations.) Of course the fate of the island's economy is connected to the condition of the U.S. economy, which was not doing well in the first decade of the new millennium. Yet, while the Puerto Rican economy was in serious decline, the U.S. economy grew by over 16% in the 2001 to 2010 decade. Far from "catching up" or "converging," Puerto Rico has been moving further and further from economic conditions in the states.

[31] For the index, go to http://www.gdb-pur.com/economy/pr-monthly-economic-indicators-time-series.html and click on "Economic Activity Index" and the bottom of the page. It should be noted that the index showed some slight upward movement, beginning in late 2011. However, it had risen only to 128.7 by February 2012.

Figure 5: Economic Activity Index for Puerto Rico, 2003 to 2011 (1980 = 100)



Source: Government Development Bank of Puerto Rico,
http://www.bgfpr.com/economy/documents/13.EAI-2012-04-24.xls

VI. THE COSTS OF NOT BEING A STATE

The causes of Puerto Rico's poor economic performance in recent decades and, especially, in recent years can be traced to many sources. In terms of the important comparison with the states and in the context of the problems associated with Puerto Rico's status, it is useful to examine the question: How might economic conditions be different were Puerto Rico a state? In other words: What are the costs of the territorial status? What are the costs of the lack of statehood status?

A. The Convergence among the States and Puerto Rico's Lack of Convergence

A 1997 study by Fernando Lefort established two points rather clearly:[32]

[32] Fernando Lefort, "Is Puerto Rico Converging to the United States?" Working Paper 1003, International Tax Program, Harvard University, October 1997.

One: Among the states of the United States, during the 1940 to 1990 period, there was a substantial and significant convergence of per capita income levels. States with lower per capita income in 1940 tended to experience significantly more rapid economic growth over this fifty year period than did states with higher per capita income in 1940.

Two: Puerto Rico did not experience this convergence. Based on the statistical relationship between income level and economic growth for the states, it is possible to estimate what the economic growth rate of Puerto Rico would have been under the hypothetical assumption that it was a state. Its growth rate would have been much higher.[33] (Some states also performed more poorly than what would have been expected on the basis of the overall experience of all the states—and some performed better. None, however, deviated from statistically expected performance nearly as much as did Puerto Rico.)

Of course, the data presented above (Figure 1 and Table 5, in particular) demonstrate the lack of convergence between per capita income levels in Puerto Rico and the states. The value of Lefort's study, however, is that it demonstrates convergence among the states. Moreover, when Lefort exams the period from 1880 to 1940 and considers the experience of U.S. territories that became states during this period, he finds that territorial status has a significant negative impact on economic growth as compared to statehood status. That is, his data suggest that convergence is connected to statehood.

Since the period covered by Lefort's study (up to 1990), the Puerto Rican economy has diverged sharply from the economy of the states in terms of per capita income (as shown in Figure 1 and Table 5). Thus there is no doubt that the statistical results of his 1997 study would hold as well for subsequent years.

[33] Lefort (p. 17), using conservative assumptions, reports that had Puerto Rico been converging as a state up to 1994, in that year the average Puerto Rican would have had an annual income $6,000 higher than she/he actually had. That's over $9,000 in 2012 prices.

Yet statistical correlation—the association between Puerto Rico's territorial status and the island's lack of convergence with the states—does not necessarily mean causation. Lefort's work certainly suggests causation. Yet, without establishing reasons for the lack of convergence, there is no assurance that the relationship is causal. It is especially useful, therefore, to examine specific ways in which Puerto Rico's status, its lack of statehood, has inhibited its economic progress.

An important and perhaps the most obvious specific way in which Puerto Rico's status has limited its economic advance has been discussed earlier—namely that with regard to the states Puerto Rico is on an unlevel playing field. The island is placed in a disadvantageous position, treated poorly relative to the states by the federal government in terms of both the availability of tax credits (the EITC and the CTC) and the distribution of federal expenditures. There is no need to repeat what has been said earlier (Section II), but those aspects of the unlevel playing field do deserve emphasis.

B. Investment

Investment is a central driver of economic growth. As pointed out above in Sections I and V, in the last decade, investment in Puerto Rico has fallen off substantially. This fall off, of course, is both cause and effect of the generally dismal condition of the island's economy in recent years. Yet, as serious as has been the condition of investment in the last decade, there are very substantial long-term factors that have had negative impacts on the level of investment in Puerto Rico. These factors include: the political status of Puerto Rico; the excessive, inefficient regulatory regime and the consequent difficulty in starting and operating a business; the high cost of energy; and the limited public provision of infrastructure. Moreover, while political status is an issue in itself, status also has impacts on the other factors inhibiting and misshaping investment in Puerto Rico. Nonetheless, the governments in both San Juan and Washington have encouraged and facilitated a large amount of investment that has come to the island from external sources—mainly from the states. This "foreign" investment, however, has not provided an effective foundation for economic growth.

Impediments to Investment

Direct Effects of Political Status

The political status of Puerto Rico is an impediment to investment, first, because potential investors based in the United States view Puerto Rico as "foreign." Indeed, there is a certain sense in which, for the investor from the states, Puerto Rico *is* "foreign," in spite of having the U.S. dollar as its currency and having ultimate legal authority residing in the U.S. constitution and U.S. courts. The Puerto Rican economy is, to a large extent, governed by a different set of rules and regulation than those familiar to U.S. firms. For large firms, operating internationally, a different set of rules in itself should not be a problem—though Puerto Rico's rules and regulations (about which more shortly) present problems for even the largest firms. But, especially important, Puerto Rico's rules and regulations serve to inhibit the start up of companies, and it is new companies that, in the states and elsewhere, play an important role in both job creation and the introduction of new activities—high-tech and bio-tech activities, for example. New activities, which would employ and build upon Puerto Rico's relatively highly educated labor force,[34] are widely seen as what the island needs for effective economic growth.

Territorial status creates a second impediment to investment in that it is necessarily an uncertain status. Territorial status is always subject to change. The history of U.S. territories has been characterized either by their absorption as states or, in the unique case of the Philippines, independence. Investors, aware of this history and not knowing what is likely in Puerto Rico, are faced with considerable uncertainty—which is of course an inhibition to investment. The problem, moreover, is as much a concern that the island could become a state as that the much more unlikely outcome of independence could take place. Special tax advantages for U.S.-based firms that come with territorial status are reviewed annually by Congress and would no longer exist were Puerto Rico to become a state (though transitional arrangements could readily be put in place). It is of some

[34] See below, Section X, for qualification of the presumption that Puerto Rico has a relatively highly educated labor force.

significance that the rating agencies—Standard and Poor's and the others—place a good deal of emphasis on the uncertainty of Puerto Rico's situation.

The Regulatory Regime

Regardless of the difficulties directly connected to status, the rules and regulations governing investment in Puerto Rico are especially problematic, as also are the ways that the rules and regulations are administered. And, at least in a comparative sense, the situation is getting worse. Each year the World Bank and the International Finance Corporation prepare a report ranking countries, including Puerto Rico, on "the ease of doing business." For 2011, of the 183 countries ranked, Puerto Rico was 47th. While far from the group at the bottom of the list (the position occupied by Guinea, Eritrea, Burundi, the Central African Republic and, at the very bottom, Chad), Puerto Rico is also well below the U.S. (5), outside the group of relatively wealthy countries, and also below, for example, Mexico (35), Peru (36), Columbia (39), and the Kyrgyz Republic (44).[35]

The problem here is not simply where Puerto Rico stands in the rankings for 2011, but also that Puerto Rico has been falling in the rankings—from position number 18 and 19 in 2006 and 2007, respectively. These earlier rankings appear somewhat surprising, as the problems with Puerto Rico's rules and regulations certainly existed in those earlier years. Indeed, according to the report for 2011, in recent years Puerto Rico has undertaken some reforms that improve "the ease of doing business." However, such reforms have been widespread among countries, and Puerto Rico's reforms have been relatively less than in many other countries, and thus its drop in the rankings.

These rankings are made up of several particular factors, and while Puerto Rico does fairly well on some, it ranks quite poorly on others. In particular, Puerto Rico ranks

[35] *Doing Business 2011: Making a Difference for Entrepreneurs*, A Publication of the World Bank and the International Finance Corporation, Washington, DC, 2010. The rankings data here and in subsequent paragraphs and the figures (rankings and time involved) on particular aspects of doing business are from this source or the same publication for earlier years.

fairly well in terms of starting a business (16), protecting investors (16), getting credit (32), and closing a business (25). But it ranks quite poorly in terms of dealing with construction permits (150), paying taxes (108), trading across borders (107), and enforcing contracts (99). Moreover, the relatively favorable ranking of Puerto Rico in terms of "starting a business" is misleading, for it is based on only the formal, legal arrangements for starting a business and ignores the problems associated with, for example, construction and registering property (see just below).

Of course, there are often good, socially desirable reasons for placing restrictions on doing business. Environmental regulations and health and safety regulations, for example, can be socially desirable even while they reduce the ease of doing business. Thus a high ranking in terms of "the ease of doing business" is not necessarily an unequivocally good thing. (One suspects that some countries that have risen dramatically in the rankings in recent years have accomplished this feat at considerable cost to society. For example, Georgia ranked 100 for 2006 but moved to 13 for 2011.) Yet in Puerto Rico it is clear that some of the serious problems are not—or not simply—the rules themselves but the time it takes to fulfill the obligations imposed by the rules. For example, dealing with construction permits requires 209 days, registering property takes 194 days, and enforcing contracts takes 620 days.

Furthermore, there are aspects of the Puerto Rican rules and regulations that are not readily quantified for rankings, but which are often cited by businesses as impediments to their operations. In particular, to establish or expand a business, multiple permits are often required from multiple agencies. Each permit at each agency can generate a delay. Furthermore, there are frequent complaints regarding the "bureaucratic ineptitude" that a business confronts in the permitting process. While such subjective appraisals may be no more severe in Puerto Rico than in many other countries, the problems in Puerto Rico are certainly substantial, especially when seen in relation to the states.

It seems fairly clear that were Puerto Rico a state, these conditions would be dramatically altered. There are, to be sure, differences among the states in rules and regulations affecting businesses operations. Yet, were the island a state, many of the factors that present problems for business in Puerto Rico would be submerged under federal authority. Equally important, as a state, Puerto Rico would be under severe pressure to bring its rules and regulations into line with other states.

Additional factors inhibiting investment in Puerto Rico, as noted above (p. 38), include the high cost of energy and the inadequate public support for infrastructure—both the physical foundations (transport and communications facilities) and the social foundations (schools in particular) of economic activity. These issues will be taken up in Section X, but an important part of the explanation for the infrastructure inadequacies will be discussed shortly.

Encouraging of Investment, But…

In spite of the factors inhibiting investment in Puerto Rico, over the decades there has been a great deal of external-source investment on the island. During the period of rapid economic growth in the post-World War II years, Operation Bootstrap (*Operación Manos a la Obra*)—based on low-wage labor, unrestricted access to the U.S. market, and favorable tax treatment (by both the U.S. and Puerto Rican governments)—brought many U.S. firms to the island. In later years, U.S. firms have been provided with special incentives through the U.S. tax code to invest on the island—continuation of Section 931 from the earlier era, then Section 936, and then the Controlled Foreign Corporations (CFC) status. Moreover, these incentives emanating from Washington have been complemented by efforts of the Puerto Rican Commonwealth government to attract U.S. firms to the island. (Although it is generally recognized that a large share of investment in Puerto Rico has come from foreign sources and the role of foreign investment is evident in the large GDP-GNP gap, for the past 30 years the government has not published a breakdown of the data that would show the extent of external-source investment—the data problem again.)

While these various actions have resulted in substantial investment, they have shaped investment in a way that has not provided an effective foundation for economic growth in Puerto Rico. Although in the early era (through the 1960s) much of the activity of foreign/U.S. firms involved labor intensive production, this activity and the employment it generated waned as wages rose and as production in other, lower-wage countries gained access to the U.S. market. In later years, the era of Section 936, foreign/U.S. firms engaged in activity that generated relatively little employment—e.g., pharmaceuticals especially. 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.[36] 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.[37]

Not only was 936 a poor job-creating mechanism. It also was costly for the U.S. Treasury. In the late 1980s and early 1990s, when the 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 2011 dollars, this would amount to between $3.4 billion and $4.2

[36] 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.

[37] 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 1.7 multiplier for 936 firms means that a $1 increase in final demand for 936 firms generated $1.70 in increased output.

billion. This figure far exceeds the costs to the Treasury of alternative proposals put forth in Section VIII below.[38]

Although the employment and output impacts of the investment induced by the tax benefits of Section 936 have been limited, this activity—again, especially the activity of the pharmaceutical firms—is often viewed as valuable for the Puerto Rican economy because it is relatively "high tech." This designation, however, is based on a confusion between the initial creation of a product, involving (as in the case of pharmaceuticals) extensive research and development, and the regular manufacture of a product, involving largely routine, not highly skilled activity. It is the latter that characterizes much of the production that has taken place in 936 and later CFC firms in Puerto Rico. Moreover, the value added in Puerto Rico that is attributed to these "foreign" firms is surely overstated, as it is clear that through transfer pricing and the allocation of patent payments much of the profits of the firms has nothing to do with production on the island. This phenomenon—and other factors—is illustrated by the high share of proprietors' income (profits, interest, etc.) in value added of 936 firms in the early 1990s; for example: 94% in pharmaceuticals, 93% in bottled and canned soft drinks, 85% in non-electrical machinery, and 80% in professional instruments.[39]

Investment from external sources has gone hand to hand with a heavy reliance on manufacturing as the supposed central pillar of the Puerto Rican economy. Manufacturing was, indeed, important in the economic surge of the 1950s and 1960s, and by some measures manufacturing appears to continue to be extremely important to the

[38] Estimates of the costs of 936 to the U.S. Treasury are from Ruiz and Melendez, as cited in the previous note, 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., "Puerto Rican Statehood: A Precondition to Sound Economic Growth," Hex, Inc., Cambridge, MA, 1993, pp. 25-26. Also, for a full discussion of the costliness of 936, see the 1995 *Tax Notes International* article by Hexner and Jenkins.

[39] Ruíz and Melendez as previously, 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."

Puerto Rican economy. Yet the role of manufacturing is not what it appears. Through the latter part of the twentieth century and into the twenty-first century, manufacturing has accounted for over 40%—in some years over 45%—of Gross Domestic Product (GDP). Yet the great majority of the income that appears through the manufacturing sector is the profits of externally based firms, and the employment and local income generated by manufacturing in Puerto Rico is relatively small. In 2010, for example, 90% of the value added in manufacturing was "proprietors' income," and employment in manufacturing accounted for only 13.7% of total employment.[40]

Thus it is clear that the apparent large role of manufacturing in the Puerto Rican economy, as seen in the share of GDP generated by manufacturing, greatly overstates the contribution of manufacturing to actual economic activity—employment in particular—in Puerto Rico. A huge share of that GDP is simply the profits of firms based elsewhere (and often is not even derived from economic activity in Puerto Rico—as explained in Box 2). Yet, policy makers continue to cling to the idea that manufacturing is "the key." Perhaps this idea had some validity in the 1950s and 1960s, but today it is more an illusion than an idea.

The illusion that manufacturing continues to be the key to Puerto Rico's development has deep roots. However practically important manufacturing was for Puerto Rico in the post-World War II era, it was also a central element in a global ideology of economic development in that era, an ideology thoroughly adopted in Puerto Rico. Both in war-devastated Europe and in the world's low-income countries, manufacturing was seen as the foundation of economic progress. Certainly manufacturing is an important component of economic development in most settings, transforming the workforce and generating widespread productivity gains. In Puerto Rico, under the special circumstances that existed in the 1950s through the early 1970s, labor-intensive manufacturing, producing for the U.S. market, gave a major push to expansion. Manufacturing also dramatically shifted the locus of employment. Whereas in 1950,

[40] Junta de Planificación de Puerto Rico, http://www.jp.gobierno.pr/, Apéndice Estadístico.

36% of the labor force was working in agriculture and 11% in manufacturing, by 1980, only 5.3% or workers were in agriculture and 19% were in manufacturing.[41]

Yet this transformation was not based on Puerto Rico's "natural" advantages—especially as wages rose and other low income areas gained access to the U.S. market. Instead it was, as already emphasized, based on special tax treatments and other incentives from both the federal and Commonwealth governments. The result of giving special, privileged treatment to manufacturing has been to create a bias against other sectors of the economy that could have played a substantial, positive role. The virtual wiping out of agriculture (leaving Puerto Rico in a position where it still imports a great deal of its food) and the neglect of tourism (see Section VI.C below) are important examples. Instead of taking advantages of the island's comparative advantages, officials in Puerto Rico have been, and continue to be, driven by a manufacturing-is-key ideology.

The manufacturing illusion is closely tied not just to ideology but also to the heavy reliance on external sources of investment. Yet, while this reliance on external sources of investment has distorted the economy's sectoral structure, perhaps the most serious problem arising from Puerto Rico's heavy reliance on "foreign" investment is its effect of displacing Puerto Rican based business in leading the island's development. The difficulties begin, as the quote from James Dietz cited above (p. 30) indicates, with the failure of the Puerto Rican authorities to provide systematic support for local entrepreneurs and local sources of finance.[42] The difficulties, however, run deeper. Without a strong set of local capitalists, there is limited support for the sorts of policies that focus on the foundations for long-run economic development. For example, there is

[41] Dietz, *Economic History of Puerto Rico*, Table 5.7, as previously cited. As pointed out above, p. 39, after 1980, manufacturing's share of total employment would drop to its 2010 level of less than 14%.

[42] Elsewhere, Dietz explicitly ties the situation to the strategy pursued by the Puerto Rican authorities. Dealing with the 1960s and 1970s, he writes: "Fomento's strategy of industrialization…enlarged the role of external ownership in the manufacturing sector. External investment has not been a complement to local ownership and control, but a substitute for it, despite the fact that one goal of Operation Bootstrap was to create an environment propitious for the emergence of local capital linked to firms promoted by Fomento. The Puerto Rican capitalist class has assumed an auxiliary or even subordinate relationship to U.S. capital as small businessmen in banking, trade, insurance, and real estate." James L. Dietz, *Economic History of Puerto Rico*, as previously cited, p. 265.

limited effective support for the formation of a solid infrastructure, both the social infrastructure that is generated by a strong school system and the physical infrastructure of energy, high-tech, transport, and communications (see Section X). Foreign-based investors—that is, investors that have been dominant in Puerto Rico's economy—simply do not have the same interest in supporting the creation of these foundations for long-run development as do local investors.

The rationale—in Puerto Rico, but also elsewhere in low-income countries—for relying on external sources of investment has been two-fold. First, low-income countries are seen as suffering in their development from a shortage of capital, and thus there is seen to be a need for external investment. This rationale is seriously undermined when external investment is replacing, instead of adding to, domestic-source investment. Available data do not allow a determination of the extent to which this replacement phenomenon has characterized the Puerto Rican experience, but it is clear that Puerto Rico has not achieved a high level of investment by bringing in external funds.

Second, and emphasized during the years when Puerto Rico's development strategy was being formed in the post-World War II years, external investment supposedly brings in technology and organizational changes (both in the labor force and in management) that will spread to and bring about improvements in local industry. Of course, simply the engagement with the U.S. economy and society—through far more than U.S. investment on the island—Puerto Ricans have assimilated many of the practices of U.S. firms. Investment from the United States (and from other external sources), however, has (as pointed out) often undermined the emergence of a strong local set of capitalists/entrepreneurs who would lead the transformation of the local economy. Where experience with external capital has been quite different—in countries of East Asia, in particular—governments have played a very different role than in Puerto Rico, accepting foreign investment but also regulating and guiding it so as to enhance, rather than distort, the local economy.[43]

[43] See, for example, the comparison of Puerto Rico with East Asian countries in James L. Dietz, *Puerto Rico: Negotiating Development and Change*, Lynn Rienner Publishers, Inc., Boulder, Co., 2003. Also, see

Banking and Finance: Further Distortion

A further distortion in the economy arising from the particular way reliance on external-source investment was established is in the structure of the financial sector in Puerto Rico. The operation of federal government tax incentives, particularly the Section 936 incentive, allowed U.S. firms to pay no federal taxes on their Puerto Rican profits as long as those profits were not returned to the states. These profits, as discussed, have been substantial (including earnings from intangible property that involved no actual economic activity in Puerto Rico), and have been held in Puerto Rican banks. 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.

These funds were certainly a boon for the banks and, not incidentally, gave the banks a strong reason to support continuation of territorial status for the island, which would preserve this important aspect of their operations. But the importance of these funds led the banks to build themselves more on trading in securities as a means of handling the "foreign" deposits and less on the basis of financing the island's development. Thus the structure of the tax incentives not only encouraged a reliance on external-source investment, but also weakened the basis for the development of internally based business. In a chapter in the volume published by the Center for the New Economy and the Brookings Institution, this situation is summed up by Rita Maldonado-Bear and Ingo Walter:[44]

> "Commercial banks appear to have failed to allocate funds to economic development through commercial and industrial loans as much as would seem desirable in an economy such as Puerto Rico's. Moreover, they have not generated sufficient asset gathering in the form of savings and

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studies of South Korea and Taiwan: Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization*, Oxford University Press, Oxford, 1989, and Robert Wade, *Governing the Market: Economic Theory and the Role of the Government in East Asian Industrialization,* Princeton University Press, Princeton, 1990.

[44] Rita Maldonaldo-Bear and Ingo Walter, "Financing Economic Development," in S. Collins, B. Bosworth and M.A Soto-Class as previously cited, p. 454.

> checking deposits from the household sector to underwrite the capital formation needed to create… self-sustained economic development…"
>
> "…all the banks on the island…need to invest less in securities and instead to lend for commercial and industrial purposes at longer maturities, because doing so is more conducive to economic development…"

Furthermore, as the financial sector developed in Puerto Rico in the middle of the 20th century, it was heavily dominated by U.S.-based banks. Examining this period, Dietz notes:[45]

> "Of fifteen mortgage companies in the late 1960s, fourteen were U.S. branch operations. Of the 225 insurance companies, 196 or 87.1 percent were externally owned (182 of them U.S. owned), and they controlled 99.97 percent of all insurance assets at the end of 1966. In commercial banking, the two U.S. banks in operation in 1967—First National City (now Citibank) and Chase Manhattan—controlled 33.4 percent of total banking assets. By 1977, the share of assets held by these two banks had increased to 40.6%... [B]ecause they are international banks, they can move funds and assets in and out of Puerto Rico quite easily. More than 81% of the deposits of international corporations in financial institutions in Puerto Rico were deposited in the branches of these two banks…"

Though full data are not available, it appears that in subsequent years Puerto Rican-based banks have come to play a larger role. Maldonaldo-Bear and Walter classify the fourteen banks operating in Puerto Rico in 2004 as domestic, national, or international: Banco Popular and Citibank fall under their national classification, Nova Scotia Bank is international, and the remaining eleven are domestic. The "domestic" banks are ones for which more than 50 percent of the shares are owned by local residents. However, among the eleven domestic banks several are clearly affiliates of non-Puerto Rican banks—for example, Banco Santander Puerto Rico, Banco Bilbao Viscaya Argenta, and Scotia Bank of Puerto Rico. It seems, then, that in spite of the changes in recent decades, Puerto Rican banking continues to be dominated by non-Puerto Rican firms—and by their priorities. This situation is integrally bound up with the island's territorial status and its consequent reliance on external sources of capital. It is unlikely to be an effective foundation for economic development.

[45] James L. Dietz, *Economic History of Puerto Rico*," as previously cited, pp. 265-266.

Furthermore, the structure of Puerto Rican banking made it vulnerable to the financial crisis that emerged in the United States in 2007 and 2008. Heavily engaged in securities and less in building a customer deposit foundation for their activities, in 2010, according to *The New York Times*, "An enormous deposit shortfall…developed among the banks. Of the $60 billion of loans outstanding, nearly 60 percent, or $35 billion, have been financed with customer deposits…On the mainland, by contrast, deposits typically finance about 80 percent of lending."[46] In addition, some Puerto Rican banks had attempted to extend their operations into the states and were directly caught up in the financial crisis there. All this was on top of the weak and deteriorating condition of the Puerto Rican economy in 2010, which in itself would have been sufficient to cause difficulties for the banks. At the end of April of that year, the Federal Deposit Insurance Corporation "sold off three Puerto Rican banks to head off a potentially ruinous series of failures across the Commonwealth."[47] Of course these developments exacerbated the already severe recession in Puerto Rico, as loans became even more difficult to obtain, hampering production and employment, and feeding back to weaken the banks in a vicious circle.[48]

The problems of the Puerto Rican banking industry are exhibited by the data in Table 6. The elimination of three banks in 2010 is reflected in the drop from 10 to 7 in the first row of the table; the number of institutions had peaked at 16 in 1994. The decline in total assets by 27% between 2007 and 2011 was largely accounted for by the fall off of investment securities and net loans and leases. The 18% reduction of total domestic deposits was accounted for by the severe fall off, 44%, of time deposits (and was partially

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[46] Eric Dash, "Puerto Rican Lenders Face Their Own Crisis," *The New York Times*, April 29, 2010.

[47] The three banks were Westernbank, R-G Premier Bank, and Eurobank. Dealbook, *The New York Times*, April 30, 2010.

[48] Ironically, the banks' lack of orientation toward the domestic economy may have contributed to the fact that Puerto Rico did not experience the same sort of housing bubble as did the states during the 1997 to 2007 period. In those years, while U.S. housing prices were rapidly rising, housing prices in Puerto Rico were almost stable—with several years of actual price declines. While various forces were involved, it appears that, unlike U.S. financial firms, these firms in Puerto Rico were not pushing the expansion of mortgages. The housing price data are available at http://www.freddiemac.com/corporate/about/pdf/Puerto_Rico.pdf.

attenuated by an increase of savings and demand deposits). Already providing a weak foundation for economic development in Puerto Rico, the island's banking sector appears to be in an especially poor position to support economic growth after the difficulties of recent years.

Table 6
Selected Data on FDIC-Insured Commercial Banks in Puerto Rico, 2005-2011, year end
(dollar amounts in billions)

	2005	2006	2007	2008	2009	2010	2011
# of institutions	10	10	10	10	10	7	7
Total Assets	104.1	99.1	100.7	99.2	92.6	77.8	73.3
Investment Securities	39.1	33.0	30.0	28.1	23.1	14.8	10.6
Net Loans and Leases	56.4	57.9	61.0	61.1	59.7	51.2	50.5
Total Domestic Office Deposits	54.5	55.6	60.8	63.6	59.8	49.6	49.9
Domestic Time Deposits	34.1	35.5	40.0	42.9	36.4	26.2	22.4

Source: Federal Deposit Insurance Corporations, Historical Statistics on Banking, Tables CB09 and CB15, http://www2.fdic.gov/hsob/SelectRpt.asp?EntryTyp=10&Header=1

Public-Private Partnerships and External Investors: Their Value?

In an effort to pump up the volume of investment and stimulate further investment (and, not surprisingly, to enhance its political image), the government of Puerto Rico touted two large projects in 2011, a public-private partnership project that turns over major toll highways to external investors in return for seemingly large investment and the construction of a natural gas pipeline that would run across the island, again undertaken by external firms. These projects, however, are unlikely to have the positive impacts that the government claims and, indeed, may be significantly damaging to the Puerto Rican economy. (Not surprisingly in the context of the lengthy, severe recession, in recent years there have been no major investment projects underway independent of the government.)

Public-private partnerships can be a useful part of an economic development program. They can, however, also be an ineffective and costly component of economic development, involving a short-run injection of funds to the government in return for high payments to the private partners over the long-run. Especially when a government is facing severe fiscal imbalances, as has been the case with the Puerto Rican government for many years, a good arrangement for the immediate political needs of the government can be a poor investment for the society. The authorities present the supposed efficiency of private firms as a justification for turning over public sector operations to private operators. Yet, when the activity in question is a public good—for example, a highway, water delivery, or a public utility—the private firm is likely to be in a monopoly position but absent meaningful regulation. In any such partnership, the particulars of the arrangement—the prices, payments, and the regulations—will determine its social value.

With the toll highways project, the particulars are not fully clear, but the overall picture is not encouraging. A news release of the governor's office on June 20, 2011, presents the highway project as bringing $1.436 billion of investment to Puerto Rico.[49] With total

[49] http://www.p3.gov.pr/wp-content/uploads/2011/06/News-Release-ENG.pdf. The two highways are PR-22, which runs from San Juan 51 miles west along the coast, and PR-5, which now connects Cataño and Bayamón and is to be extended under the new arrangements.

2010 investment at $9.135 billion—down from the peak of $12.249 billion in 2005—this would seem a major boon for the economy. However, although the project involves "an upfront payment of $1.090 billion," the news release also reports: "The private investment will allow the PRHTA [Puerto Rico Highway and Transport Authority] to retire a significant portion of its outstanding debt." Debt retirement in general, but especially retirement of bonds that are held outside of Puerto Rico, greatly reduces the net impact of investment. The remainder of the $1.436 billion is to be spread over the 40 year life of the contract. Moreover, the governor's news release does not specify the payments that will be made to the foreign investors, information that would be necessary to determine even the reduced net impact. There is no reason to believe that this public-private partnership will have an overall impact of great magnitude, and, depending on the particular terms of the agreement (the payments that will be obtained by the investors), may be a poor project for Puerto Rico.

The gas pipeline project has been presented by the governor as an important foundation for reducing the extremely high energy costs in Puerto Rico, by allowing a major shift away from costly oil-based energy generation to natural gas. (The pipeline would run 92 miles from Peñuelas on the south, across the mountains to electrical generating stations in Cataño, Arecibo, and San Juan on the north coast.) Yet, as described in an article in *The New York Times*,[50] the project has generated extensive opposition, a large portion of which is based on the expected environmental damage that would result from running the pipeline across the island. Furthermore, without discounting the negative environmental impact of the pipeline, several other factors lead to questions about the validity of the project:

- The high cost of energy in Puerto Rico is not simply a result of oil-reliance, but to a large extent is a result of dependence on aging, inefficient generation plants.

[50] The Pipeline story is recounted by *The New York Times* of October 21, 2011: "Puerto Rico's Plan for Gas Pipeline Has Many Critics," by Lizette Alvarez. The details and quotations presented here are from that article: http://www.nytimes.com/2011/10/22/us/puerto-ricos-plan-for-gas-pipeline-has-many-critics.html?pagewanted=all.

- The contract to construct the pipeline, according to the *Times* article, has been given to a company headed by an "old friend of [Governor] Fortuño's. The company had no experience in pipeline construction and immediately subcontracted the work to a firm in Texas."

- The *Times* further reports: "In 2008, [Governor Fortuño] campaigned against the natural gas pipeline that his [predecessor and opponent] was putting in place, and called it the wrong approach. But soon after Mr. Fortuño won the election, he proposed his own, larger pipeline."

- As Puerto Rico's natural gas is imported, one cannot help but wonder why it is desirable to build a pipeline that transports the gas from one coastal site across the island to another coastal site.

If the pipeline is constructed, while it will create some jobs and provide some stimulus to the economy, it is likely to have an overall negative impact on Puerto Rico.

Even accepting the claims that each of these projects will have considerable positive short-term impacts on the Puerto Rican economy and discounting their limited or damaging impacts, there remains the fact that both perpetuate the reliance on firms from outside the island. This reliance, as explained above in Section VI.B and elsewhere, has been a poor foundation on which to develop the Puerto Rican economy. These projects, as with industry based on the special provisions of Section 936 or CFC status, will contribute to the weak foundation of economic development on the island.

C. Attractiveness to Tourists

At the beginning of July, 2011, the Young Republicans held their national convention in Puerto Rico. On the website for the convention, a brightly colored announcement informed potential participants: "Guess What? No U.S. Passport Required."[51] In assuming that their members were ignorant of Puerto Rico's status, that

[51] http://www.yrnfpuertorico2011.com/

they were likely to view it as a foreign place, the organizers of the conference were simply recognizing the widely held perception—or misperception—about Puerto Rico among people in the states. The impact of this misperception is not trivial.

Puerto Rico's climate, geography (beaches in particular), and proximity to the eastern population centers of the United States would seem to make it a highly attractive tourist destination. Puerto Rico does of course have a significant tourist industry. That tourist industry, however, is not the dynamic part of the island's economy that one might expect.

Faced with severe debt obligations (as noted in the Introduction and below, page 58) the Puerto Rican government has viewed income from tourism as a means to meet those obligations. Yet, for many years, the tourist industry has not been the dynamic part of the island's economy that one might expect.

Table 7 presents some data on Puerto Rican tourism in comparison with similar data for the Dominican Republic for the period 1990 to 2010. These data demonstrate what can only be viewed as poor performance for tourism in Puerto Rico. While in terms of the various measures, Puerto Rico was well ahead of the Dominican Republic in 1990, the Dominican Republic was well ahead of Puerto Rico by 2010. Even in terms of the multiplier effect (the ratio of total contribution to GDP to direct contribution to GDP), in 2010 the Dominican Republic (3.22) was doing better than Puerto Rico (2.82); that is, a dollar of tourism expenditure was generating more secondary activity in the Dominican Republic than a dollar of tourism expenditure in Puerto Rico.

Why, given its seeming natural advantages, which would seem to offer the island a comparative advantage in tourism, has the Puerto Rican tourism industry done poorly? Why has this sector, which might be a leading sector of the economy, lagged behind? Part of the answer to these questions lies in the limited government support for tourism in Puerto Rico. While government spending to support tourism in Puerto Rico was twice that in the Dominican Republic in 1990, by 2010, this ratio had almost reversed, as shown in Table 7 (another problem with Puerto Rican economic policy). The much larger issue, however, is surely the cost disadvantage that Puerto Rico suffers in comparison with the Dominican Republic—as well as with many other sites in the Caribbean. Wages in the tourism industry are probably twice as high in Puerto Rico as in the Dominican Republic.[52]

Table 7
Measures of Tourism in Puerto Rico and the Dominican Republic, 1990-2010
(millions of current dollars)

	Direct Contribution to GDP		Total Contribution to GDP		Visitor Spending		Gov Support Spending	
	PR	DR	PR	DR	PR	DR	PR	DR
1990	812	426	2,229	1,270	1,387	890	20	10
1995	829	804	2,261	2,485	1,894	1,612	30	30
2000	1,283	1,292	3,690	3,914	2,499	2,932	40	50
2005	1,915	1,922	5,463	5,999	3,405	3,617	50	60
2010	2,131	2,750	6,010	8,847	3,467	4,985	60	105

Source: World Travel & Tourism Council, Economic Data Search, http://www.wttc.org/

With the obvious cost disadvantage for Puerto Rico as compared to the Dominican Republic and many other sites in the Caribbean, Puerto Rico might nonetheless be able to keep pace were it a state, instead of being viewed as a foreign site (as implied by the Young Republicans' convention ad cited above, p. 51). Viewed by people in the states as part of the states, its attractiveness would almost surely increase considerably. Numerous

[52] Another factor negatively affecting the development of tourism in Puerto Rico is that policy on the industry has been set in San Juan, without engagement by local authorities. Consequently, opportunities for specialized (niche) tourism and small scale enterprises are being ignored, in favor of grand schemes. This example of policy centralization is one example of the bureaucratic approach that characterizes government operations in Puerto Rico—an approach, as pointed out elsewhere, that is connected to the island's status.

states and cities in the states developed prosperous tourist industries in the latter half of the 20th century, ranging from Vermont to Florida from Atlantic City to, of course, Las Vegas. But perhaps the most appropriate comparison is with Hawaii. Hawaii, which is a third-again as far by plane from the closest U.S. population centers than is Puerto Rico, receives tourist expenditures three times as great as those of Puerto Rico.[53] Not only further from population centers, Hawaii is also more expensive to reach than Puerto Rico and more expensive once there. Perhaps the beaches and other aspects of Hawaii's geography are more attractive than those of Puerto Rico. Yet it is hard to believe that these factors, if real, explain the large difference in economic gains from tourism.

Surely the fact that Hawaii is a state and Puerto Rico is a territory, perceived by many as a foreign site, is a significant factor in explaining the difference. In addition, however, the difference is explained by the failure of the Puerto Rican government to escape from the development ideas that guided its era of success in the 1950s and 1960s, from the idea that manufacturing was the *sine qua non* of economic progress. In Puerto Rico, tourism was viewed as an inappropriate sector on which to focus and thus did not receive the kind of government support and promotion that it would have needed to play an important role in the island's advance. An opportunity was missed and a full realization of the island's tourism potential has never been realized.[54]

VII. DYSFUNCTIONAL POLICY AND ITS STRUCTURAL CONSEQUENCES

The approach to tourism, the way investment has been both undermined by poorly structured and poorly implemented regulations, and the particular examples of the recent

[53] http://hawaii.gov/dbedt/info/visitor-stats/visitor-research/

[54] In 2012, faced with severe debt problems (as noted in the Introduction and the following section), the Puerto Rican government has touted tourism as a means to provide the income to meet those obligations. See Michael Connor "Puerto Rico bets on American tourists to repay debt," Reuters, May 29, 2012, http://uk.reuters.com/article/2012/05/29/uk-puertorico-debt-idUKLNE84S00T20120529. It would require, however, a major shift in the government's approach to the tourist industry, let alone a change in the island's status, to make a significant dent in the debt obligations.

highway and pipeline projects, all illustrate the dysfunctional policies that have characterized Puerto Rican governments'—governments of both major parties—approaches to economic expansion for the past several decades. Several more dysfunctional policies can and will be cited. Behind the particular policies have been several failures of several governments. For example:

- *A failure to recognize the significance of the changing global economy*. Several changes in the world economy undercut the advantages that Puerto Rico had had in terms of access to the U.S. market—in particular, the implementation of the North American Free Trade Agreement (NAFTA) in 1994 and in 2005 the establishment of the Dominican Republic-Central America Free Trade Agreement (DR-CAFTA), the enactment of various other U.S. bi-lateral trade agreements, and the effective opening of the U.S. market to China. Puerto Rico is no longer able to compete as a low-cost manufacturing site.

- *A failure to build up the public educational system*. While often touting Puerto Rico as an advantageous site for "high tech" activity, governments have done little to improve the island's schools. The public school system remains very poor by U.S. standards and is mired in an island-wide bureaucratic structure. (See Section X below.)

- *A failure to deal with lack of reliable economic data and a failure to recognize the importance of good data*. Data are of poor quality and are not readily available. Efforts to improve the data have been blocked by governments that apparently see the control of data as a political tool. As result, neither potential investors nor analysts are able to readily obtain a clear picture of the Puerto Rican economic situation. (See Box 1 for more on the data issue.)

- *A failure to revise the general approach to economic development policy*. Instead of adjusting to the new era of globalization (i.e., the loss of Puerto Rico's special position with regard to the U.S. market), policy makers continue efforts to

> promote economic development through special business incentives and favors from Washington, policies that had some success in period up to the 1970s. While the world has changed, Puerto Rican governments appear to be ideologically stuck in the middle of the 20th century.

What is important for the argument here, however, is not simply that the economic policies built on these broader failures and pursued by Puerto Rican governments are inappropriate, but also that these inappropriate policies are in large part a consequence of the island's political status. It would not be credible to claim that statehood would somehow assure that the government of the island would pursue effective policies. Many state governments adopt poor economic policies, and no one would claim that statehood per se is a cure for poor policies. Similarly, many state governments seem to go to great lengths to prove that statehood would not automatically eliminate the corruption that is bound up with economic policy in Puerto Rico.

Nonetheless, while statehood would not be a *sufficient* condition for establishing an effective economic policy framework in Puerto Rico, it is a *necessary* condition for moving in this direction. Yet the policy-status connection is widely ignored. The influential 2006 book produced by the Center for the New Economy in San Juan and the Brookings Institution in Washington, for example, portrays policy and status as unconnected: "…our economic analyses and proposed growth strategy are status neutral and will be relevant regardless of political regime."[55] Many of the articles in this volume are useful, and several of the book's policy proposals (though not all) are good in the abstract. Yet, the failure to consider the reasons why these policies are not adopted, the failure to consider the connection between economic policy choices and political status, leaves these proposals as abstractions, unconnected to the Puerto Rican reality. Thus, by ignoring the policy-status connection, this "status neutral" approach becomes an impediment to progress.

[55] Susan Collins, Barry P. Bosworth, and Miguel A. Soto-Class, editors, *The Economy of Puerto Rico: Restoring Growth*, *Center for the New Economy*, San Juan, and Brookings Institution, Washington, 2006, p. 2.

There is no great problem in listing good policies for Puerto Rico, policies that would build upon the island's comparative advantages and prepare the economy for long term development. For example, it is generally recognized that a well-educated labor force could play an important role in exploiting Puerto Rico's geographic advantages[56]—the potential for enhanced tourism and the possibility for Puerto Rico to supplement centers such as Miami and Houston as a "bridge" between the states and Latin America.[57] Accordingly, the government programs should be directed toward promoting these particular sorts of activities and toward improving the schools at all levels. Yet, rhetoric notwithstanding, Puerto Rican governments have failed to provide the supports that would be needed. As a result, tourism, as previously noted, has not kept pace with advancements in other parts of the region, and the schools, as will be discussed in Section X, continue in poor condition.

The list of "good policies" could be readily extended. Examples in other realms could be (and often are) provided—on tax policy, government regulation, energy, and physical infrastructure—where there is wide agreement on what should be done. The difficulty is not in figuring out what would be good policies for Puerto Rico, but in figuring out why good policies are not formulated and not implemented.[58]

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[56] See, for example, the discussion in Robert Lawrence and Juan Lara, "Trade Performance and Industrial Policy," in Collins et al., as cited in the previous footnote.

[57] The possible advantages of rebuilding Puerto Rican much-neglected agriculture are, however, less widely acknowledged. An exception is the brief discussion by James Dietz, *Economic History of Puerto Rico: Institutional Change and Capitalist Development*, Princeton: Princeton University Press, 1986, pp. 295-297. While Dietz notes that the authorities took some steps towards supporting agriculture in the 1970s and early 1980s, he also states (p. 297): "The increased awareness by those in power that agriculture cannot be neglected without further imperiling the economic structure has not resulted in any noticeable increase in the total amount of cultivated land." He also notes: "The multiplier effect from local agricultural production on income and employment is greater than for any other sector of the economy, because of the predominance of local ownership—compelling evidence of the importance of the agricultural sector and, by inference, of the need for expanded local ownership in other sectors as well."

[58] There are areas in which dispute exists over the appropriate policies. For example, disputes exist regarding the appropriate way federal government transfers and regulations (e.g., minimum wage laws) should be applied in Puerto Rico. Also, the role of privatization of public services is an issue of controversy. Yet there are, as pointed out, important areas of consensus regarding policies that would be useful foundation for long-run economic development.

A central element of the Puerto Rican reality, having major impacts on the formation and implementation of economic policy, is the island's territorial status. The role of territorial status in affecting economic policy can perhaps be best understood when it is recognized that "territory" is a euphemism for "colony." The term "colony," perhaps, conjures up images of overt oppression and military control that do not characterize Puerto Rico (at least not generally), and the fact that Puerto Ricans are U.S. citizens seems to run counter to the popular image of colonial status. (Still, it should not be ignored that during its early decades as a U.S. colony Puerto Rico was under military control, and certainly by some standards was subject to various forms of oppression, including the suppression of the Spanish language.) Of course, because of the term's negative connotations it is avoided both by the U.S. government and many in Puerto Rico. Yet as a geographic area having its own political integrity but under the rule of another nation, Puerto Rico can reasonably be viewed as a colony.

In terms of economic policy, colonial status has important implications. On the one hand, Puerto Rico does not benefit from full incorporation into the United States and is excluded from benefits of statehood, as has been explained earlier. Not able to vote in national elections and without voting representatives in the Congress, Puerto Ricans do not get a full share in federal programs. On the other hand, Puerto Rico has limits on the control of its own economy. Subject to U.S. laws and U.S. control of its international trade and foreign investment policies, the island's colonial status narrows its "policy space." For example, and of considerable importance, Puerto Rico is not able to choose policies regarding its relations with the rest of the world that would promote its internal economic development. Such policies have been employed in virtually all countries that have attained a high level of economic development, including, for example, not only South Korea and Taiwan, but also Japan, Germany, the United States itself, and, at an early stage, Great Britain.

The failure of Puerto Rican governments to promote internal economic development—that is, development based to a significant extent on Puerto Rican capital and Puerto Rican organization (dependent on local entrepreneurs and highly trained workers)—is not, however, simply a result of the formal constraints of colonial status. From the initial efforts to formulate development plans for Puerto Rico in the post-World War II era, Puerto Rican governments have consistently looked outward in their efforts to drive economic expansion. Starting in that early period with Operation Bootstrap (*Operación* Manos *a la* Obra), followed by the Section 936 program, the Controlled Foreign Corporations provisions, and various particular incentive programs adopted by Puerto Rican governments, foreign firms have been viewed as the key to the island's economic development. Puerto Rican capital, in particular, and broader Puerto Rican based programs of development, in general, have been placed in a subordinate position. The approach has been a "colonial approach" and stands in sharp contrast to, for example, the approaches of South Korea, Taiwan, and several other countries that have used foreign investment but have done so in the context of building a domestic-based economic program. (Of course, the Puerto Rican government has had ample pressure from the U.S. firms that benefit from the incentive programs; also the role of the U.S. government has been important, as several of the programs just noted have been based on provisions of the U.S. tax code or other U.S. regulations.)

Foreign capital can certainly contribute to a region's or a country's economic development. Yet, without being part of a program that also includes central roles for firms based within the region or country, its contribution is at best limited. The remarks of James Dietz, quoted above (p. 30), are worth repeating: "…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.

Without the advance of *Puerto Rican* foundations for development, many policies push in the wrong direction—towards increasing the reliance on outside capital (as starkly illustrated in the highway and gas line projects noted above, pp. 49-51). Further, lacking Puerto Rican foundations, government policy goes awry in numerous particular ways.

Perhaps no set of policies illustrates the problem more thoroughly than Puerto Rican governments' handling of finances. The virtually disastrous fiscal policies followed by each of Puerto Rico's two major parties when in power illustrate the dysfunctionality:

- During the early part of the 2000s, the Puerto Rican government—controlled by the *Partido Popular Democrático*, the pro-current status party—ran large fiscal deficits. The large deficits generated a severe debt burden. By 2006, the Puerto Rican public debt was 70% as large as GNP. In 2005, tax supported debt, at $5,758 per capita, was about 59 percent more than that of Connecticut, the state with the highest tax-supported per capita debt, and almost five times that of Hawaii, the state with the greatest debt in relation to personal income. Under this debt pressure, in 2006 the Puerto Rican government laid off without pay 100,000 workers, giving an impetus to the economic downturn that emerged that year.

- When the pro-statehood *Partido Nuevo Progresista* came into power in 2009, it imposed austerity budgets. Arguing that a sharp reduction in government spending was necessary to avoid Puerto Rican government bonds being rated as "junk," the government enacted Law 7 and laid off some 30,000 employees. The result of this pro-cyclical "shock treatment" was to raise the unemployment rate substantially, exacerbate the recession (as noted above, p. 34), and make the debt problem even worse. Puerto Rican public debt increased from $56.5 billion at the end of 2008 to $63.9 billion at the end of 2010—from 92% of GNP to 101% of GNP.[59] (These austerity actions did obtain the government's immediate objective of gaining the approval of the rating agencies and thus—in the short-run—avoided excessive costs of further borrowing. However, had the government followed a policy of employment reduction by attrition instead of by "shock

[59] http://www.gdb-pur.com/investors_resources/documents/2010-12-DeudaPublica-Engtrs-Final.pdf. For information on COFINA: http://www.gdb-pur.com/investors_resources/cofina.html.
The government, however, claimed that there was a reduction in "central government" debt between 2008 and 2010. Yet this "reduction" was due to a shift in the manner by which government debt is issued, from being directly issued by the central government to being issued by COFINA, the Government Development Bank agency that issues debt backed by the sales tax.

treatment," it is likely that the rating agencies could have been satisfied without such a negative impact on the economy.)

Because of its severe debt problem, Puerto Rico is sometimes likened to Greece, which has been at the center of European economic difficulties. While the Greek and Puerto Rican situations have their differences, and that of Greece may be worse, the two situations have common aspects:

- Neither the Greek government nor the Puerto Rico government has effectively collected taxes, and thus neither has had a sufficient base on which to raise revenue (and avoid budget deficits). Tax evasion is rampant in both.

- Both Greece and Puerto Rico have formulated their own fiscal policies, but both use currencies that they do not control. Devaluation is then not an option for overcoming weak economic growth or decline.

Greece, however, is an independent country, in spite of the extensive controls that other European powers exercise over its economic policies. Its people have options, at least formally, that do not exist for Puerto Ricans.

States too have had fiscal difficulties, especially since the emergence of the financial crisis in 2007 and 2008, and few state governments can be held up as paragons of fiscal responsibility. However, none approaches Puerto Rico's debt condition. The difference between the states and Puerto Rico cannot be explained by constitutional or statutory provisions requiring balanced budgets. The difference between Puerto Rico and the states (and also the variation among the states) is primarily explained by a matter of the policies selected.[60]

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[60] See National Council of State Legislatures, *NCSL Fiscal Brief: State Balanced Budget Provisions*, October 2010, which includes consideration of Puerto Rico, http://www.ncsl.org/documents/fiscal/StateBalancedBudgetProvisions2010.pdf.

The extremely poor fiscal conditions of the Puerto Rican government, however, are the result of more than poor policy. They have structural roots. Without economic progress, the government becomes the employer of last resort and the result is a bloated government bureaucracy—not uncommon in colonial or post-colonial societies. In Puerto Rico, this approach to economic policy was firmly established—in both practice and ideology—during the third quarter of the 20th century. Moreover, the bureaucracy was enhanced in this period by the establishment of several state enterprises, which, whatever positive functions they may have had in that earlier era, have become centers of independent power and patronage—and which do not deliver their services in an efficient and effective manner. PREPA, the electric energy company, and PRHTA, the highway and transportation authority, are good examples.

Part of the employment role of government in Puerto Rico is that patronage positions—ostensibly policy positions—go deeper into the bureaucracy that is generally the case in the states. As a result, the bureaucracy is exceptionally dysfunctional. The government bureaucracy has become an impediment to economic progress, and a cycle of stagnation has been created. Under these circumstances, the sort of "shock treatment" employed by the government in 2009 and 2010 with its huge layoffs of government employees is not a solution to the problem. Not only are essential government functions undermined and the recession made worse, but, in addition, the fundamental reasons for the large government bureaucracy and its contribution to the fiscal problems remain in place.

It is not, however, only the practical and direct impacts of this condition of colonial structure that have negative impacts on Puerto Rico's economic policies.[61] The "second class citizenship" of Puerto Ricans combined with the continuing instability and fundamentally temporary nature of "territorial" status tends to inhibit commitments, both of private sector actors and the government. Economic actions are viewed as short-run, and there is limited commitment to laying the foundations for the long-run development.

[61] However, in the realm of practical matters, it is worth once again mentioning the data problems that exist in Puerto Rico. For the states, with much of the data handled at the federal level, the poor condition of Puerto Rican economic data (and related data on, for example, the schools) could not exist.

For example, while there is a great deal of talk about the need for a better school system and the importance of improving the “high tech” capabilities of Puerto Rico, there is little more than talk. Under colonial conditions, the social foundations for action are not there.

The situation with the schools, lagging support for “high tech,” the continuing policy bias in favor of foreign (largely U.S. firms), the virtually disastrous fiscal policies and austerity programs—all are aspects of dysfunctional policy, and all can be connected to Puerto Rico’s status. These are problems manifested in the short-run orientation of policy, the lack of “policy space,” and the lack of a firm internal social foundation for development.

VIII. FIRST STEPS: SIMULATING STATEHOOD BY CREATING A LEVEL PLAYING FIELD

Although statehood would carry substantial economic advantages for Puerto Rico, there is no reason to think that statehood will come in the near future. The results of opinion polls vary, but most polls do not show that a majority of Puerto Rican’s favor statehood.[62] Equally important, there seems to be no impetus in the U.S. Congress towards bringing Puerto Rico in as the 51st state. It is hard to imagine the inertia of inaction in the Congress shifting without much stronger support for statehood among the Puerto Rican population. There are, furthermore, powerful interests—for instance, the large pharmaceutical companies and other firms—that gain considerable advantages as long as the current non-statehood status is maintained.

[62] An early 2012 poll indicated the 51% of Puerto Ricans want to maintain the island’s current relationship with the United States; “Poll: Majority Backs Current Status,” *Caribbean Business*, May 9, 2012, http://www.caribbeanbusinesspr.com/news03.php?nt_id=71465&ct_id=1&ct_name=1. Another poll conducted by *El Nuevo Día* in March 2011 found 43% of respondents favoring statehood, 39% for the Associated Free State (current status enhanced), 7% for independence, and 11% undecided or did not respond; as reported by the Daily Kos, http://www.dailykos.com/story/2011/07/14/994703/-Puerto-Rico:-new-political-status-poll-(to-be-or-not-to-be!). Virtually all polls on the issue are involved disputes over how the questions are framed. Moreover, the report of the early 2012 poll in *Caribbean Business* notes: “The pollsters found that 45 percent of Puerto Ricans do not understand what the different options really mean.”

Fortunately, however, the options are not simply "statehood or nothing." There are actions that can and should be taken that would have both positive economic impacts for Puerto Rico and could be first steps towards statehood. These actions fall under the rubric of "simulating statehood" because they would increasingly lead to Puerto Ricans being treated by the federal government in the same manner as other U.S. citizens. The basic principle of these steps is that, insofar as possible, in federal legislation, executive orders, and programs, Puerto Rico and Puerto Ricans should be treated in the same manner as the states and citizens living in the states. The result would be, in effect, a level playing field.

In creating a level playing field and thus improving economic conditions and prospects in Puerto Rico, the island would be receiving no special treatment. No special programs focused on Puerto Rico would be needed. However, the treatment of private firms would not be altered.

A. Make Puerto Ricans Fully Eligible for EITC and CTC

The first step in the set of first steps would be to make Puerto Ricans fully eligible for the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC). Full extension of these programs to Puerto Rico would immediately and directly improve the economic well-being of tens of thousands of families, significantly reducing poverty on the island. Also, these programs would provide a very substantial and continuing fiscal stimulus to Puerto Rico's whole economy. In addition to fiscal stimulus, the EITC and CTC would further spur economic expansion by drawing many more people into the paid, formal workforce. At present, Puerto Ricans are not eligible at all for the EITC (unless they have earned income from activity in the states); the CTC is available to Puerto Ricans only if they have three or more children.

The compelling reason for extending these two programs fully to Puerto Rico is fairness. As pointed out in Section II, the existing situation with these tax credits is dramatically unfair. Identical families with identical earnings in Puerto Rico and the states end up after federal taxes and credits in very different positions, with the family in the states several thousand dollars better off.

While providing very substantial benefits to Puerto Ricans and providing a boost to the Puerto Rican economy—increasing output by as much as 3%—the cost to the U.S. Treasury of extending the EITC and CTC to Puerto Rico would be very small. With the programs fully implemented, the annual cost would be about $1.25 billion, or 33 one-thousandths of the fiscal year 2012 federal budget. Thus these programs would cost about one-fourth of the tax expenditures that have been implemented in the past through Section 936 and continue in the provisions for Controlled Foreign Corporations. (See above pp. 41-43 for these figures.) Yet the resulting job creation and increase in tax payments (Social Security and Medicare) to the federal government would be greater than what has been achieved by these tax expenditure programs.

There is simply no good reason to continue the exclusion of Puerto Ricans from the EITC and CTC programs. Furthermore, extending these programs would be an important step in "simulating statehood," providing the same benefits to Puerto Ricans as are provided to their fellow citizens in the states.

B. Make All Federal Programs Include Puerto Rico Along With the States

As with the EITC and CTC, all federal programs for the states and for U.S. citizens living in the states should be provided for Puerto Rico and for U.S. citizens in Puerto Rico. The generally unequal treatment of Puerto Rico in terms of federal funds has been described in Section II above. There is no reason, other than political (voting) power that Puerto Rico should not be included in all federal programs along with, and in the same manner as, the states.

There are several examples of programs where this level playing field could be implemented:

- *Medicare* payments to Puerto Rico have been "capped," resulting before 2010 in far lower payments for services covered by Medicare than in the states. However, the "cap" was raised substantially in the health care reform enacted in 2010, providing what appear to be sufficient funds for Puerto Rican payments to be on a level similar to those in the states. Yet the procedure of imposing a "cap" on Puerto Rican payments is still in place, and, as health care costs rise, it is likely that the funds for Puerto Rico will be insufficient. To put Puerto Rico on a level playing field, the "cap" should be eliminated and Puerto Ricans should be treated as are other U.S. citizens. This step in creating a level playing field with regard to Medicare would tend to raise payment to Puerto Rico, though perhaps not immediately.

- *Grants* from the federal government to Puerto Rico are, in several cases, substantial in relation to the states because various categories of federal grants are distributed by formula and at least partially based on need. For example, from the Department of Education and the Housing and Urban Development, Puerto Rico appears to get a fair share of federal funds. However, there are several categories of grants where Puerto Rico is clearly treated differently, which is to say poorly. In funds coming from the Department of Health and Human Services, the Department of Energy, and the Department of Transportation, Puerto Rico receives an especially small share. The limited amount of funds coming from the Department of Energy is especially troubling, given the high costs of energy in Puerto Rico and thus the obvious need for support for change in this category. With regard to the Department of Transportation funds, it is well known that federal expenditures in this area are often dictated by political considerations (e.g., the infamous "bridge to nowhere"), and thus Puerto Rico's small share once again illustrates the island's lack of effective representation in Washington.

- *Federal procurement and federal salaries and wages*, as is evident from Tables 1 and 2, are categories of federal funds in which Puerto Rico receives especially short shrift. As indicated in Table 1, in these two categories on a per capita basis, Puerto Rico receives, respectively, only 15.7% and 19.3% of the national average. As noted in the discussion of the data in Table 1, these categories of expenditure, while payments for real needs of the federal government for supplies and services, are also distributed to generate employment in depressed areas and in response to political influence in Washington. Although it is possible that Puerto Rico could not readily meet some of the real needs for services and supplies, there is no reason, aside from lack of political influence, that more of these funds could not go to the island. The impact of relatively small increases would not be trivial. For example, if each of these two categories Puerto Rico's per capita share of funds in 2010 had been just 27% of the national average, this would have entailed a $1 billion increase of federal expenditures on the island.

These examples illustrate the possibilities for readily moving towards a level playing field for Puerto Rico with regard to the distribution of federal funds. Changes along these lines could considerably improve economic conditions on the island.

C. Adopt Federal Guidelines/Methods on All Statistical Reporting

As has been noted earlier in the discussion of the condition of the Puerto Rican economy, official economic statistics for Puerto Rico are extremely problematic. Data on some of the aggregates (e.g., real GDP, real GNP, and their components) are of dubious value, to say the least. (See Box 1.) The only way to assure that accurate economic statistics are developed and maintained for Puerto Rico is to adopt federal guidelines and methods for all statistical reporting. In the short run at least, doing so will require that Puerto Rico's data gathering and reporting processes be supervised by federal authorities.

Indeed, in some realms, the gathering and reporting of Puerto Rican data should become the responsibility of federal agencies. For example, the U.S. Bureau of Labor Statistics (BLS) currently provides price indexes for various regions of the United States. In the same manner, the BLS could and should provide price indexes for Puerto Rico. Although Puerto Rican agencies made available a new consumer price index (CPI) in late 2010, which corrected substantial errors in the previous existing CPI, those agencies are not prepared (i.e., do not have sufficient resources or procedures) to continue to update and re-calculate the CPI in the manner that would be necessary. Moreover, in 2010, the government attempted to suppress the publication of the new CPI, adding to the public perception that Puerto Rican governments, insofar as they consider economic statistics as important, attempt to shape those statistics (or at least their availability) according to political needs.[63]

The sorts of data that can be provided only through the direction and oversight of federal authorities are essential as the foundation for accurate economic policy decisions in Puerto Rico and as accurate guides to private investors considering action on the island. Beyond these important accomplishments, this shift in handling of Puerto Rican economic data would be one more step in "simulating statehood."

IX. THE FEDERAL INCOME TAX ARGUMENT AGAINST STATEHOOD?

Opponents of statehood for Puerto Rico often attempt to support their position by pointing out that, if Puerto Rico were to become a state, Puerto Ricans would fall under the provisions of the federal income tax. They declare—or at least imply—that Puerto Ricans would have to pay the federal income tax and would therefore have an additional tax burden. Yet for the great majority of Puerto Ricans, the truth is the opposite of this claim. Because their incomes are too low, they would not be required to pay federal income taxes. Indeed, most Puerto Ricans would have their tax burden *reduced* because

[63] Indeed, since 2010, the government's effort to suppress economic information has been enacted into law. The following statement appeared on the web site of the Government Development Bank in April 2012 (though it was removed after it became widely notice: "In compliance with Act 78-2011 (Puerto Rico Electoral Code for the Twenty-First Century), during an election year and until the following day of the election event, the Government Development Bank for Puerto Rico may not publish certain information through the media, including its website, for the benefit of the general public. In order to keep our public informed and maintain our commitment of transparency with the investor community, we may provide updated information, per request. If you wish to receive updated economic information, please send us an email to investorresources@gdp.pr.gov." See further discussion in Box 1.

they would receive federal tax credits, the EITC and CTC in particular (assuming those credits had not already been provided to Puerto Ricans, as advocated above in Section VIII.A).

In 2011, the median household income in Puerto Rico was $18,862. Yet in that year, for a household consisting of a married couple with two children, there would have been no tax liability (after credits) as long as the family's income was below $45,800—2.4 times the median. Clearly, the great majority of households in Puerto Rico are below this income level. Furthermore, if the family's income was $45,000, it would have received a small net federal refund of $90; at $40,000, the net refund would have been $1,904; and at $30,000 the net refund would have been $5,010.[64]

> One comprehensive 2005 study of taxation in Puerto Rico concluded:
>
> "The overall effect of fully incorporating Puerto Rico into the US Federal tax system would be to provide additional benefits in the form of refundable credits to the vast majority of Puerto Rican residents."
>
> "Based on [this study's] estimates, approximately 92.5 percent of all returns of Puerto Rican residents would either receive a tax refund or have no Federal income tax liability if Puerto Rico were fully incorporated into the US Federal tax system. The proportion of single and head of household returns that would either receive a refund or have no income tax liability is approximately 96.1 percent. Likewise, the proportion of married returns filing jointly that would either receive a refund or have no income tax liability is approximately 87.9 percent."[65]

Thus statehood and the incorporation of Puerto Ricans into the federal income tax system would reduce the tax burden for most Puerto Ricans, even while they continued to pay

[64] The median income figure is from Amanda Noss, as cited in footnote 21 above. The figure at which there would be no tax liability (after credits) and the amount of refunds at lower levels were computed using TurboTax 2011. It is likely that households with incomes significantly higher than $45,800 would have no federal tax liability because of the deductions they could take, including a deduction for Puerto Rican taxes. The calculations here are based on the standard deduction.

[65] Mary Schmitt and Judy Xanthopoulos, "Puerto Rico and the US Federal Tax System – Lessons from the Past and a Proposal for Economic Growth through Reduced Tax Burdens, A report by Optimal Benefit Strategies, LLC, Washington, November 11, 2005, p. 47.

Puerto Rican taxes at the same level. A relatively small number of high income tax payers, however, would experience an increase in tax liability—again, assuming that Puerto Rican taxes were unaltered by the statehood status.

It is possible—indeed, likely—that Puerto Rican taxes would not remain as high as in the pre-statehood era. Although there may not be large functions of the Puerto Rican government that would move into the realm of federal responsibility were the island to become a state, it is likely that in some areas statehood would establish a policy discipline that would reduce the extent of bureaucracy and waste that exists in Puerto Rican government operations. A small but telling example is the collection of economic data; another is the collection of Puerto Rican state taxes, a process that would surely be enhanced (i.e., more revenue per unit of expenditures) were Puerto Ricans subject to the federal income tax; and still another is in the Government Development Bank and in the Puerto Rican Industrial Development Corporation, where the combination of statehood and links to federal policy would enhance their operations or, possibly, eliminate the need for their existence. The consequent reduction in the need for revenue for local (state) functions could lead to reductions in local (state) taxation.

In any case, regardless of the impact of statehood on the tax burden of Puerto Ricans, the immediate steps set out in the previous section—leveling the playing field—would not raise the issue of federal income tax liabilities. These steps that would "simulate statehood" can be undertaken without an alteration of tax policies.

X. CASES: VARIOUS AREAS WHERE STATEHOOD COULD MAKE A POSITIVE DIFFERENCE

A. Schools

Puerto Rico is widely viewed as having a relatively highly educated labor force. That is, given the level of income on the island, one might not expect the Puerto Rican population to be as highly educated as it appears to be. A figure often presented to demonstrate the situation is that 21.7% of the population 25 years old or older has a bachelor's degree or more. The same figure for the states is 28.2%, and half a dozen states have a lower level of educational attainment than Puerto Rico by this measure.[66]

However, this is not the whole picture. In Puerto Rico, the share of the population 25 and older without a high school degree is 31.6% as compared to 14.4% for the states; for only one state is this figure above 20%—Mississippi at 21.1%. It appears, then, that in terms of years of schooling, Puerto Rico has a labor force with a bi-modal structure—i.e., a substantial share of the population is relatively highly educated, but also a substantial share, a larger share, has relatively little schooling.[67]

The view of Puerto Rico as having a highly educated labor force requires further qualification because years of schooling (or degrees held) is a questionable indicator of

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[66] The figures are averages for 2006-2008 and are from the U.S. Census Bureau. The Puerto Rican figure is available at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_3YR_DP02PR&prodType=table and the figure for the states is available at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_1YR_DP02&prodType=table. For the individual states, the data are from the National Center for Educational Statistics http://nces.ed.gov/programs/digest/d10/tables/dt10_012.asp. West Virginia is as the bottom of the list at 16.9%. It should also be noted that, according to UNESCO data, no country in Latin America has as high a figure as Puerto Rico's for share of the population with a bachelor's degree or higher http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx.

[67] Of course, part of the explanation of the low level of high school completion in Puerto Rico is that schooling has expanded more recently than in the states, and thus it is largely among the elderly that the rate of high school completion is low. Nonetheless, these data need to be considered as part of the whole story of the labor force's level of education. See the previous footnote for sources of the data.

the educational level of the labor force. There is also the quality of the schooling. It is widely believed in Puerto Rico that the quality of the public schools is very low. Perhaps the clearest indication of this view is the very high share of students who attend private schools, a share that has risen greatly over the past few decades. It seems that people have been voting with their feet (or their children's feet).

Table 8 shows the total K-12 student population in Puerto Rican public and private schools and the number and percentage of the total in public schools. The decline in pubic school enrollment is quite dramatic. In the 1980s, the share of students in public schools was similar to the figure for the states, but by the beginning of the new millennium the percentage in public schools in Puerto Rico was far lower than in any state.[68]

Table 8
Enrollment in K-12 Schools in Puerto Rico, 1980-2010

	Total Enrollment (in thousands)	In Public Schools (in thousands)	(percentage of total)
1980	811.3	716.1	88.3
1985	795.6	692.9	87.1
1990	797.0	651.2	81.7
1995	767.3	621.4	81.0
2000	796.0	612.3	76.9
2005	750.7	575.6	76.7
2010	703.0	493.3	70.2

Source: *Statistical Abstract of the United States 2012,* Table 1321

The decline in public school enrollment (as opposed to the decline in the public school share of enrollment) is not fully accounted for by students shifting to private schools. There are demographic changes, and there are also the students who drop out of school entirely. Although poor data leave a degree of ambiguity, in Puerto Rico the dropout rate

[68] There are problems with these data. In some years (not shown in the table) the data show large swings in private school enrollment that are not plausible. However, the large decline in public school enrollment is probably relatively reliable, even if the percentage figures in the final column of Table 4 are not fully accurate—i.e., even if the number of students in private schools is overstated.

is clearly high, and the dropout problem appears to be especially severe for young students, those at the 7th and 8th grade levels. Whereas high school dropout rates appear to be no higher for Puerto Rico than for the average of the 50 states (and thus significantly better than for many individual states), the dropout rate in Puerto Rico for pre-high school students appears to be higher than in almost all states. Overall, then, from the 6th grade to high school graduation, Puerto Rico is below all or virtually all of the states in its ability to engage and retain students.[69]

The limited test data available that compare Puerto Rican public school students with students in the states also indicate problems with quality of school outcomes on the island. Whether the test data indicate poor quality of the schools or poor quality of other factors—economic and social conditions are important determinants of test scores—they do suggest that the educational quality of the work force is not as high as years of schooling and degrees might suggest. Although the National Assessment of Educational Progress (NAEP) is not used in Puerto Rico (partly because the reading segment of the test is in English), there have been some trials of the NAEP tests in Puerto Rico using the mathematics portion of the NAEP (translated into Spanish). The results for Puerto Rico, presented in Table 9 along with results for the states, are not encouraging. Though the data for 2007 are reported differently than for 2003 and 2005 (see note to the table), the persistence of the gap between the average scores of Puerto Rican and U.S. students is large.

[69] 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. It would of course be inappropriate to simply blame the schools for this situation, as socio-economic factors play an important role affecting the dropout rate.

Table 9
National Assessment of Educational Progress,
Mathematics,
Results for Puerto Rico and the United States: 2003, 2005, and 2007

	Average Score for Puerto Rico		Average Score for States	
	4th Grade	8th Grade	4th Grade	8th Grade
2003	178	234	234	276
2005	183	218	237	278
2007	0.26	0.25	0.55	0.51

Note: Scores from year to year and between grade levels are not directly comparable. For 2003 and 2005, scores are reported as absolute numbers. For 2007, scores are reported as average score on questions, presented as a decimal.

Sources: For 2003 and 2005 http://nces.ed.gov/nationsreportcard/pubs/studies/2007459.asp. For 2007 http://nces.ed.gov/nationsreportcard/pubs/studies/2009451.asp.

There are, no doubt, some good public schools in Puerto Rico, and there are many highly intelligent, well-educated, and skilled people. Moreover, as noted, social and economic factors—the high degree of poverty and income inequality in particular—have strong negative impacts on education. Nonetheless, when test scores are combined with the exodus from the public schools and also with the widely held perception within Puerto Rico of the public schools, there is every reason to believe that in general the public school system on the island has serious problems. Also, while it is probably reasonable to view the Puerto Rican labor force as "highly skilled" in the Latin American context, in relation to the states (and other high income countries) the data on years of schooling and degrees held surely give an excessively positive picture of the situation.

Why is it that, with all those years of schooling, Puerto Rico is not able to produce an unequivocally highly educated labor force? Why are there, apparently, such serious problems with the public schools? The answer to these questions is not simply that, in comparison with the states, Puerto Rico has a low level of income. Other countries that had low incomes in the middle of the 20th century have developed effective school systems and a relatively highly educated labor force—and economic advances followed. South Korea stands out as a prime example.

Various points set out above help explain the situation of the schools in Puerto Rico and the consequent less-than-it-appears level of education of the labor force. One of these factors is surely the combined impact of poverty and income inequality on the island, which, in Puerto Rico and elsewhere, has two sorts of impacts on the public schools. One impact is direct: conditions of poverty (whether measured in absolute or relative terms) mean that students are impeded in their capacity to learn. Poverty is, for example, associated with low levels of health and nutrition that affect learning capabilities. Also, coming from poverty, many students see themselves as consigned to low-level jobs in their adulthood, and they therefore have limited incentive to learn or even continue in school. The second impact is indirect, but substantial: the more unequal a society is, the less that the more well-off social groups will be willing to pay for or even give full attention to the problems of the public schools. They will instead turn to private schools for their children. This certainly appears to be increasingly the case in Puerto Rico.

The phenomenon of the more-well off social groups giving little attention to and support for improving the public schools can also be tied to the lack of development of a strong business class within Puerto Rico—an issue that has been repeatedly noted above. In many countries (for example, South Korea in the mid-20th century, on the one hand, and the United States in the 19th century, on the other hand) the expansion of the school system has come with strong support of business leaders who view the schools as establishing the social stability and skilled labor force that they need for their own success. Without a relatively strong social group of business leaders in Puerto Rico—people who look to the quality of the island's labor force as the foundation for their own progress—there is limited support by the social elite for the steps necessary to improve the schools.

A prime example of the failure of Puerto Rican authorities to deal with the problems of the public school system is the continuation of handling all the public schools on the island in a single school district. The Puerto Rican school district is the third largest in the United States, exceeded in size only by New York and Los Angeles (measured by the number of pupils). It is well established that large school districts, run by a centralized administration, tend to yield poor student performance. In Puerto Rico, where the one school district includes highly diverse situations—large cities, medium sized towns, small villages, and rural areas, the problems are likely to be especially severe. (In New York and Los Angeles, while there are certainly serious problems, at least the schools all operate in the similar big-city environment.) Yet inertia dominates, and no moves have been taken to establish a more reasonable administrative structure for the school system—not even an effort to "study the problem."[70]

Furthermore, the data on school operations in Puerto Rico suggest that this single school district is a top-heavy bureaucracy. In 2008-09, for public elementary and secondary schools in the states, 60.95% of current expenditures were expenditures on instruction. (The remainder was divided among a variety of support services, including, for example, operation and maintenance, food services, transportation, student support, and administration.) In Puerto Rico, only 49.63% of current expenditures went to instruction. For no state was the figure below Alaska's 56.01%. For Hawaii, the only state with a single school district, the figure was 62.21%.[71]

Of course, the high level of inequality and the lack of support from the more well-off for organizational changes or particular programs that would improve the public schools are two parts of the same phenomenon. Moreover, these are conditions that, as has been discussed at several places above, are products in large part of Puerto Rico's political status. Statehood would certainly not eliminate the problems of the public schools, but it would create a shift that could lead in a direction of progress.

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[70] While the single administrative unit remains in place, there have been some very small efforts to devolve authority to the local level. For example, legislation of 2009 enabled the municipality of San Juan to become a "local education agency" and directly access federal education funds. As part of this devolution of authority, the municipality of San Juan had, in 2009, established a bilingual elementary school and a specialized sports middle school, together serving 410 students. The small size of this initiative would seem to underscore the limits of significant change. See "Governor links law boosting municipal schools," *Caribbean Business Online*, July 20, 2009, http://www.topix.com/forum/world/puerto-rico/TVE841MJ8TTUQSII7.

[71] National Center for Education Statistics, *Digest of Education 2011*, Table 186. Available at http://nces.ed.gov/programs/digest/d11/tables/dt11_186.asp.

B. High-Tech Development

Because the Puerto Rican population is relatively highly educated (as both explained and qualified in the previous section) and because Puerto Rican firms can no longer compete effectively on the basis of low wages and special access to the U.S. market, many commentators have seen Puerto Rican development as depending on expansion of "high-tech" activities, i.e., so-called "new economy" types of production. There is, moreover, an illusion that Puerto Rico is well situated for gains in these advancing economic areas. For example:

- The web page of the Puerto Rico Industrial Development Company (PRIDCO) tells viewers: "Puerto Rico is one of the fastest growing venture destinations for companies in the biosciences, information technology, engineering services, and advanced manufacturing markets in the world," and continues by touting (among other attributes) a "highly skilled and loyal workforce" and a "proven track record of creativity and innovation."[72]

- A June 2011 report from the U.S. Chamber of Commerce and the National Chamber Foundation notes various initiatives proposed by the Puerto Rican government, among which it lists: "Science City, in the heart of San Juan, to move Puerto Rico to the forefront of science, technology and research and development. Science City is leveraging Puerto Rico's significant competitive advantages in the knowledge-based sectors to integrate medical centers, research centers and university campuses. Efforts intended to transition Puerto Rico to a knowledge-based economy are leveraging the Island's highly educated work force and existing industrial base to create new jobs and businesses by creating new industry clusters and consortia with a focus on innovation."[73]

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[72] http://www.pridco.com/

[73] Enterprising States 2011: Recovery and Renewal for the 21st Century, A Project of the U.S. Chamber of Commerce and the National Chamber Foundation, 2011, p. 128,

Yet, these statements are illusory. Investors are unlikely to be so naïve as to accept these publicity statements without a more complete consideration of the actual situation. Leaving aside the qualifications that have been noted in the previous section regarding the quality of formal education in Puerto Rico (indicating that the data on years of school completed do not necessarily mean that the workforce is so highly educated), it is hard to sustain the position that Puerto Rico has a "proven track record of creativity and innovation" and a "significant competitive advantages in the knowledge-based sectors" that could readily be the foundation for economic expansion based on "high-tech" activities.

The National Science Board's report *Science and Engineering Indicators 2010* (SEI) provides data which allow one to appraise the situation.[74] The SEI data for Puerto Rico are, however, hampered by the usual 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. Consider, for example:[75]

- In 2005 in Puerto Rico, science and technology graduate students per 1,000 individuals 25 to 34 years old was 6.6, whereas in the states the figure was 11.7. (Four states did have a lower figure, but see the next point.) Moreover, between 2005 and 2007, the total number of these graduate students in Puerto Rico declined by 10%.

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http://www.uschamber.com/sites/default/files/reports/ES2011-full-doc-web.pdf

74 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.

75 While more recent figures than those reported in the following points are not available, there is no reason to believe that the relative figures comparing Puerto Rico with the states have changed in more recent years.

- The data do not indicate, moreover, that Puerto Ricans are going to the states to obtain graduate training in science and engineering and then returning to the island to work. In 2008, individuals in science and engineering occupations in Puerto Rico as a share of the work force were 1.68% as compared to 3.75% for the states (and no state had a lower figure than Puerto Rico). Puerto Rico did compare favorably with the states in terms of the number of physical and life scientists as a share of the work force in 2008—0.39% in Puerto Rico and 0.40% in the states. However, the figure for computer scientists was only 0.64% in Puerto Rico as compared to 2.08% in the states, and for engineers the figures were 0.58% for Puerto Rico and 1.06% for the states.

The relatively weak position of Puerto Rico as compared to the states on these types of measures is at least in part explained by the lack of support from the governments in both Washington and San Juan:

- 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. These figures mean that Puerto Rico was getting less than 2% per person of what the states were receiving.

- 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.

Following from these figures, as would be expected, scientific output measured in terms of academic articles and patents presents a similar picture.

- In 2008, there were 577 academic articles per 1,000 science and engineering doctorate holders in academia, whereas in the states there were 2,009.[76]

- 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.

- Puerto Rico compares similarly in terms of academic patents per 1,000 science and technology doctorate holders in academia—in 2006, 1.6 for Puerto Rico and 11.6 for the states.

These various bits of data, especially when combined with the discussion of the schools in the previous section, raise serious doubts about the capacity of Puerto Rico to base its economic development—at least for now—on "high-tech" activity of the so-called "new economy" variety. Furthermore, in these data, Puerto Rico is compared to all the states taken together, most of which are, of course, not "high tech" centers. Were the comparison confined to Silicon Valley, Seattle, Boston, and the Golden Triangle in North Carolina, for example, Puerto Rico would not appear to be even a player in the game.[77] Moreover, it is clear from these data that the governments in both Washington and San Juan have not been providing the support that would make development along these lines a real possibility. The groundwork has not been laid. (And see the appraisal of Bosworth and Collins cited shortly below.)

[76] While the number of articles is for 2008, the number of doctorate holders is for 2006.

[77] The failure to develop the bases for "new economy" operations on the island has far reaching impacts. Not only are "high tech" companies missing, but all those other firms that are attracted by a "high tech" agglomeration are absent as well. Also, those individual Puerto Ricans who have the capacities to advance a "new economy" tend to leave the island. This "brain drain" is suggested by existing data, as discussed in Box 3. And there are numerous anecdotes of highly educated and technically capable Puerto Ricans leaving the island for positions in mainland private firms and government agencies (e.g,, NASA) where they are able to apply their skills.

C. The Physical Infrastructure

The development of physical infrastructure is always a long-term project—or, more precisely, many long-term projects. For this reason, the weaknesses in Puerto Rico's physical infrastructure reveal a good deal about the policy deficiencies of Puerto Rican governments. There are positive aspects of Puerto Rico's physical infrastructure. The island has extensive paved roads, various airports, and substantial sea ports. However, overall there are serious problems with the island's infrastructure.

The Brookings editors of the 2006 volume published by the Center for the New Economy and the Brookings Institute, Bosworth and Collins, conclude their discussion of infrastructure with the comment: "…available indicators suggest a physical infrastructure that is falling behind, particularly in dimensions such as information and communications, and that could constrain Puerto Rico's prospects for increased growth."[78] Focusing on transportation, energy, and telecommunications, Bosworth and Collins cite several particulars:

- In spite of the extensive road network on the island, the extent of traffic congestion and the roughness of roads compare poorly with the states.

- Although overall use of energy is relatively high, the energy system is inefficient and energy prices are very high (about which more shortly).

- Phone coverage, both land lines and wireless, is low and has fallen behind as much of the rest of the world has moved rapidly ahead in recent decades.

The data on which Bosworth and Collins make their appraisal is a few years old. However, there is good reason to believe the situation has deteriorated further in the

[78] Barry P. Bosworth and Susan M. Collins, "Economic Growth," in Collins, Bosworth, and Soto-Class, as cited earlier in footnote 55.

ensuing years, especially the years of severe recession.[79] Indeed, current dollar fixed investment in "roads, schools, and other public works" fell by 45% between 2003 (the peak year) and 2010, and investment in public enterprises fell by 34% over the 2001 to 2010 decade. The government has proposed public-private partnerships to improve infrastructure, but these partnerships have certainly not had a significant impact. Private investment overall in current dollars fell by 22% over the decade, and thus there is no reason to believe that private activity somehow made up for the lack of public investment.[80] Furthermore, the data suggest not only a failure to establish new infrastructure but also that the existing infrastructure is not being maintained. To use the in vogue euphemism, it would seem that with regard to Puerto Rico's infrastructure there is a great deal of "deferred maintenance."

The difficulties with roads might not be so severe were Puerto Rico to have an extensive system of public transportation. San Juan does have the *Tren Urbano*, which runs 10.7 miles and links the central business district to residential and employment areas with 16 stations. However, overall public transportation is poor. One travel advisory web site comments:[81]

> "The bus system is really cheap in San Juan… A ride is 75c but contrary to…the bus schedules posted at stops, buses do **not** run every 15-20 minutes; the average time between buses is more like an hour, and even on

[79] The recent information provided in *The Global Competitiveness Report 2011-2012* of the World Economic Forum (http://www.weforum.org/reports/global-competitiveness-report-2011-2012) tends to confirm this appraisal. The report ranks 142 countries, including Puerto Rico, by a measure of overall competitiveness made up of several components, one of which is infrastructure. On overall competitiveness, Puerto Rico is ranked 35, but in terms of infrastructure Puerto Rico is ranked 55. The United States is ranked 5, while its infrastructure is ranked 16. However, the report cannot be taken too seriously, as it ranks Puerto Rico's "macroeconomic environment" as 17, while the U.S. is ranked 90.

[80] These investment data are from the Junta de Planificación, as previously cited. Clearly, in real terms the declines are even greater that the current dollar figures indicate. The toll road project discussed above, pp. 49-51, does not appear in these data, as it had not begun in 2010. However, as explained, it is unlikely to make a substantial contribution to overcoming Puerto Rico's problems with roads or overall investment.

[81] http://www.tripadvisor.com/Travel-g147319-s303/Puerto-Rico:Caribbean:Public.Transportation.html .

> that schedule, the buses in San Juan can be extremely unpredictable. Additionally traffic gets very heavy heading into Old San Juan on the A-5 and C-52 so even catching a bus does not guarantee a quick trip…"
>
> "…there are no convenient buses connecting San Juan to the rest of the island. Apparently, there are some *publicos* which go to various places on the island. You may want to ask around before you use them - it is rumored that they stop everywhere and it takes ages to get anywhere…"
>
> "All the buses stop running at around 8pm, so forget about them in the evenings."

Returning to the energy matters noted by Bosworth and Collins, the problems here are especially important, significantly raising the costs of many businesses and thus a deterrent to new operations. Electrical energy in Puerto Rico is under monopoly control of the state enterprise Puerto Rico Electric Power Authority (PREPA), which fully controls distribution on the island (though two privately held power plants exist and sell their electricity to PREPA for distribution). The high cost of energy in Puerto Rico has been a long-standing issue. In the latter half of 2011, the price of electricity per kilowatt hour averaged 27.1 cents for residential customers, 28.6 cents for commercial customers, and 24.1 cents for industrial customers.[82] Compared to the states overall, these prices are about 2.4 times as high for residential customers, 2.75 times as high for commercial customers, and 3.6 times as high for industrial customers. Hawaii has somewhat higher prices than does Puerto Rico in all categories, but no other state comes even close to the Puerto Rican prices.[83]

Part of the high cost of electricity in Puerto Rico is due to the heavy reliance on oil-fired plants, and thus the appeal of shifting to lower-cost natural gas. (This has been the basis for the government's attempt to have a cross-island gas pipeline constructed, as discussed

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[82] http://www.prepa.com/spanish.asp?url=http://www.aeepr.com/AVISOS.ASP.

[83] The prices for the states are averages of the prices for February 2011 and February 2012 from U.S. Energy Information Administration, Electric Power Monthly, April 2012, 0http://www.eia.gov/electricity/monthly/pdf/epm.pdf.

above, pp. 49-51) In the past decade, PREPA's reliance on oil has been reduced from 80% to 65%, but the change has been accounted for more by coal than natural gas, as reliance on the former rose from 8% to 15% while reliance on the latter rose from 10% to 15%.[84] Also, the decline in oil-reliance is not explained so much by new non-oil capacity as by the decline in total demand (a consequence of the recession) allowing some of the high-cost oil capacity to be used less extensively. (Whether oil, gas, or coal, all these fuels must be imported.)

In any case, PREPA's problems run deeper than reliance on high-cost fuel. The generation plants are old and relatively inefficient. Eighty-four percent of PREPA's generating capacity was constructed prior to 1977, and the average age of its generating facilities (weighted by capacity) is 34 years.[85] In addition, there is substantial loss in transmission, both from inefficiency and theft.

If public utility monopolies are to deliver electricity at reasonable cost, they must be effectively regulated. The failure of PREPA is, accordingly, one more example of dysfunctional government policy—which, it should once again be emphasized, has been characteristic of government of both parties. It is, then, not unreasonable to see Puerto Rico's electricity problem as reflecting the failure of governments to develop a long-run perspective, to develop policies that would provide a firm foundation for the economy's development. As has been explained earlier, this approach is closely connected to the island's territorial status.

And what is true of Puerto Rico's electricity problem is true more broadly of its entire infrastructure problem. To the examples of roads, public transportation, and high tech support that have been cited here, one could add both water and the general disregard of the natural environment, which is, of course, the ultimate infrastructure for economic activity. Continuation of Puerto Rico's territorial status virtually guarantees that there will continue to be no effective approach to creating a firm infrastructure, as the current

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[84] Current figures are from PREPA, http://www.prepa.com/AEEES2_ENG.ASP. Earlier figures are from a report by Richard D. Tabors and Ram Sekar, *Electric Power in Puerto Rico: An overview and policy analysis*, Tabors Caramanis & Associates, November 2004

[85] Data from. PREPA, http://www.prepa.com/AEEES2_ENG.ASP.

status generates poor policy and a failure to build the foundation for long-term economic development. Statehood would not guarantee a more effective approach to this complex set of problems, but would at least create the likelihood of moving in a new, more effective direction.