Puerto Rico - A Way Forward

July 13, 2015

ANNE O. KRUEGER, RANJIT TEJA, AND ANDREW WOLFE

Note on Puerto Rico – A Way Forward, updated as of July 13, 2015.

The report, Puerto Rico – A Way Forward, updated as of July 13, 2015, reflects updated information regarding: (i) debt service, mainly related to obligations of the Government Development Bank for Puerto Rico ("GDB") from FY2021-FY2025,[1] and (ii) a reclassification of certain Treasury expenditures over FY2015-FY2024 from interest and amortization to non-debt service outlays.

The updates to the report do not change the conclusions in the original report, Puerto Rico – A Way Forward, dated June 29, 2015, as the financing gaps between FY2015-FY2020 are substantially unchanged at an average level of just under $2 billion a year (after accounting for the implementation of the reform measures outlined in the report). This update does not include final fiscal numbers for FY2015, which could materially change the estimated financing gaps included in the report.

The primary updates are:

- **GDB debt service after FY2021**. The latest data available to the authors show smaller amortization and interest payments from FY2021-FY2025. Notwithstanding this updated debt service schedule, large financing gaps remain, even after the assumed implementation of the measures outlined in the report, in FY2021 and FY2022 ($992 million and $362 million, respectively, compared to $1,288 million and $1,011 million, as previously stated). The financing gap disappears in FY2023 rather than FY2024 as indicated in the version dated June 29, 2015.

- **Treasury expenditure reclassification for FY2015-FY2024**. The version dated June 29, 2015 classified certain non-debt service government spending (as uniformly declining) debt service payments that ranged from $92 million in FY2015 to $61 million in FY2024. The reclassification does not affect any financing gaps,

[1] Adjustments were also made for GDB debt service for years 2015-2020 and debt service of the Employees Retirement System of the Government of the Commonwealth of Puerto Rico ("ERS") for the years 2022-2025.

although the primary and overall fiscal balances are more negative.[2]

In line with the aforementioned updates, changes to the text of the version dated June 29, 2015 include:

- In paragraph 15, the fiscal deficits (before the implementation of any of the potential reform measures) now average $2.6 billion per year through FY2020 (3.7% of GNP, compared with the originally reported figures of $2.5 billion and 3.5%, respectively). The maximum level of the financing gap from FY2016 to FY2025 is now $7½ billion (versus $8¼ billion).

- In paragraph 32, debt relief is now needed for the period FY2016-FY2022 (and not through FY2023 as appears in the original version) and the financing gap disappears in FY2023 (no longer FY2024).

- In paragraph 27, Table 3 memorandum items on ratios-to-GDP of revenue, expenditure, and the primary and overall fiscal balances are adjusted to reflect the aforementioned changes (as well as a correction of a formula error).

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[2] Other similar adjustments were also made to reclassify certain spending associated with the Puerto Rico Infrastructure Financing Authority (“PRIFA”) and the Puerto Rico Public Buildings Authority (“PBA”). As with the treasury expenditure reclassification, these changes do not affect the total estimated financing gap.

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EXECUTIVE SUMMARY

- Puerto Rico faces hard times. Structural problems, economic shocks and weak public finances have yielded a decade of stagnation, outmigration and debt. Financial markets once looked past these realities but have since cut off the Commonwealth from normal market access. A crisis looms.
- For its part, the administration has worked hard to stave off a financing crisis with important measures since 2013, including higher taxes, pension reforms and spending cuts. However, as much as these are needed, much remains to be done to build on this progress. Given the economic downdrafts, the coming years will be difficult. But it is within the power of this government, which has repeatedly demonstrated a willingness to act, to set the economy on a sustainable path.
- Puerto Rico has advantages it can parlay into market confidence and durable growth if decades-old policy failings are fully addressed. The debt cannot be made sustainable without growth, nor can growth occur in the face of structural obstacles and doubts about debt sustainability. The strategy here is an integrated package, indicative of the scope and order of magnitude of needed policies:
  - *Structural reforms*. Restoring growth requires restoring competitiveness. Key here is local and federal action to lower labor costs gradually and encourage employment (minimum wage, labor laws, and welfare reform), and to cut the very high cost of electricity and transportation (Jones Act). Local laws that raise input costs should be liberalized and obstacles to the ease of doing business removed. Public enterprise reform is also crucial.
  - *Fiscal reform and public debt*. Probably the most startling finding in this report will be that the true fiscal deficit is much larger than assumed. Even a major fiscal effort leaves residual financing gaps in coming years, which can be bridged by debt restructuring (a voluntary exchange of existing bonds for new ones with a longer/lower debt service profile). Public enterprises too face financial challenges and are in discussions with their creditors. Despite legal complexities, *all* discussions with creditors should be coordinated.
  - *Institutional credibility*. The legacy of weak budget execution and opaque data – our fiscal analysis entailed many iterations – must be overcome. Priorities include legislative approval of a multi-year fiscal adjustment plan, legislative rules on deficits, a fiscal oversight board, and more reliable and timely data.
- This is a daunting agenda politically, legally, and organizationally. It is also an urgent one: the government's cash balances can evaporate in the face of delays, reducing the room for maneuver and intensifying the crisis.

CONTENTS

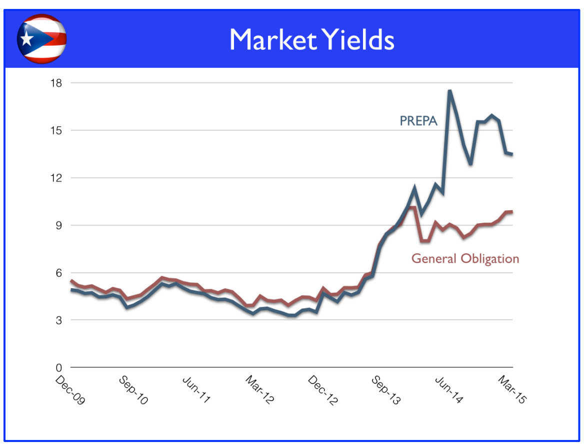
I. THE CRISIS OF CONFIDENCE ____ 3
II. ECONOMIC ORIGINS ____ 4
III. FISCAL ORIGINS ____ 9
IV. PROSPECTS UNDER CURRENT POLICIES ____ 14
V. A STRATEGY FOR GROWTH AND CONFIDENCE ____ 16
A. STRUCTURAL REFORMS ____ 17
B. FISCAL ADJUSTMENT AND PUBLIC DEBT ____ 19
C. INSTITUTIONS AND CREDIBILITY ____ 22
VI. OBJECTIONS AND RESPONSES ____ 23
VII. CONCLUDING THOUGHTS ____ 26

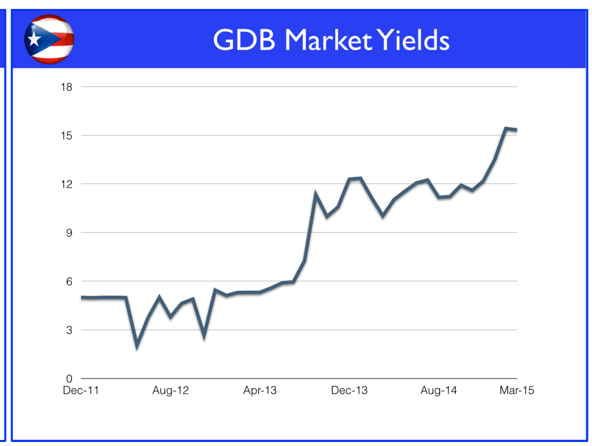
ACKNOWLEDGEMENTS. Without implicating anyone, we thank the many Commonwealth officials, business leaders and private economists – among the latter, Mohinder Bhatia, Vicente Feliciano, Jorge Freyre, Juan Lara, and Sergio Marxuach – who generously shared their insights and expertise. The report also draws on numerous studies on the structural challenges facing the Commonwealth. Rather than cite all these, we refer the reader to the analysis and references in the New York Federal Reserve's excellent *Update on the Competitiveness of Puerto Rico's Economy* (2014).

I. THE CRISIS OF CONFIDENCE

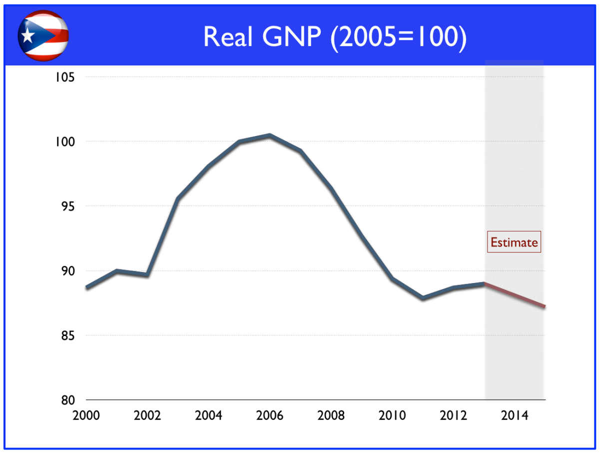
The shut off from normal market access risks a more pronounced crisis than the slow-motion deterioration the island has endured since 2005. The loss of confidence stems from protracted economic stagnation and weak public finances, which feed each other.

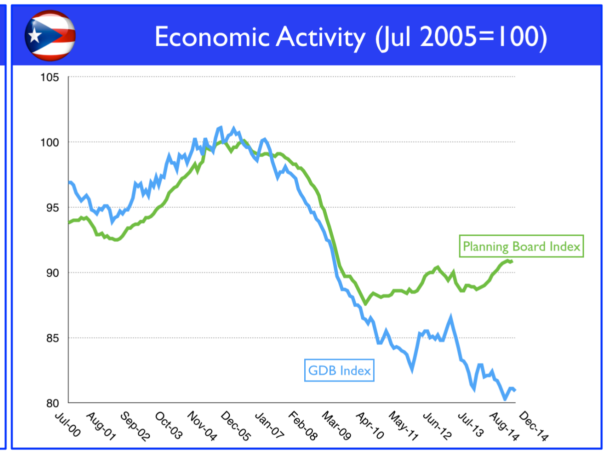
1. **Market confidence in the sustainability of public debt has deteriorated markedly**. Starting in 2013, risk premia on general obligation bonds began moving up steadily, as did those on the obligations of public enterprises. The traditional base of municipal bond investors narrowed after ratings agencies downgraded Puerto Rico debt to below investment grade in early 2014, with new investors demanding higher risk premia, shorter maturities, and greater seniority. The mid-teen yields of the government's fiscal agent, the Government Development Bank (GDB), also confirm that the market sees a weak liquidity position and puts a high probability on the risk of default. As a result, the Commonwealth is now virtually shut off from normal market access.





2. **Sections II-III explore the main factors – economic stagnation and persistent fiscal deficits – behind the market's negative assessment of debt sustainability**. Few countries have been able to establish debt sustainability with low growth, which limits revenues and raises debt ratios. In Puerto Rico, growth has not just been low but output has actually been *contracting* for almost a decade now, which is remarkable for an economy suffering neither civil strife nor overt financial crisis. GNP data for the fiscal year ending June 2014 suggest that the economy shrank by about 1% in FY2014. More recent data are not available but our reading of the indicators is that the economy continues to contract at a rate of *at least* 1% per annum, likely more, in FY2015. As discussed in Section II, the drivers of economic decline have been years in the making: the problems are structural, not cyclical, and as such are not going away. Further, as discussed in Section III, fiscal deficits are much larger than assumed. The actions to date are insufficient, and fiscal deficits too are not going away. The economy is in a vicious circle where unsustainable public finances are feeding into uncertainty and low growth, which in turn is raising the fiscal deficit and the debt ratio.





3. **Section IV-VI explain the urgency in the current situation and the case for an alternative approach**. The cash flow position of the government is fast deteriorating. In Section IV, we estimate the fiscal financing gap that must be filled just on current trends (let alone on a deterioration of prospects). This is followed in Section V by a discussion of possible measures to rein in deficits in a manner that is least harmful to growth prospects – certainly less harmful than the alternative of an overt crisis – and the need for debt service relief until such time as the reform program can restore growth and the sustainability of public finances. Section VI subjects the analysis to some skeptical questions.

II. ECONOMIC ORIGINS

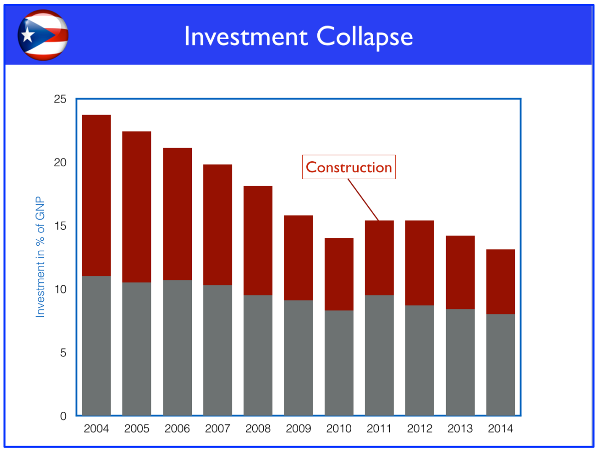
Both economic shocks and flawed policies have played a role in Puerto Rico's decline. After a decade of stagnation, negative growth is now mostly a supply side problem.

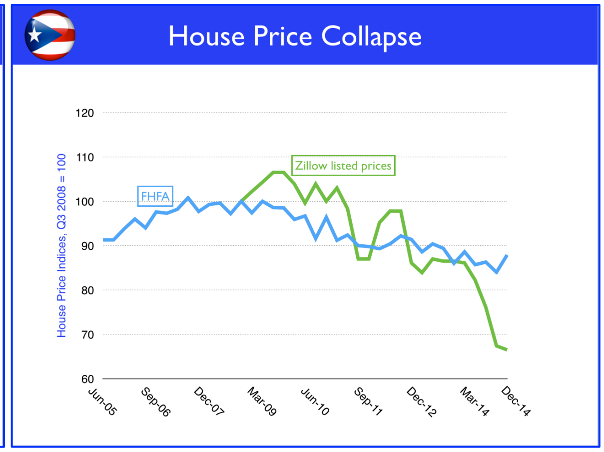
4. **The economic shocks have been numerous**. Because negative growth coincided with the final phase-out of IRS Section 936 provisions for mainland manufacturers on the island, it is customary to cite the loss of tax preferences as the original sin behind Puerto Rico's travails. The loss undoubtedly hollowed out the manufacturing base but was hardly the only blow. Many other forces, perhaps collectively more important, also bore down:

- *Investment/housing bust*. Investment fell by 10% points of GNP in the decade to FY2014, with construction accounting for three-quarters of the overall reduction in the investment ratio. Much of the damage came from the sharp fall in house prices[1], which preceded the one on the mainland and may be larger than commonly cited indices suggest. Lower home prices reduced the net wealth of individuals and small

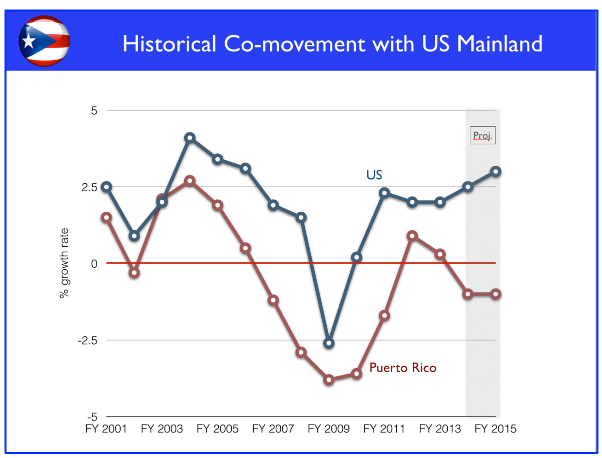
[1] The Federal Housing Finance Administration (FHFA) produces a "repeat sale" index that, by definition, excludes new home sales. But unsold *new* homes have been a big part of the housing boom-bust in Puerto Rico. The figure below on the right therefore also shows a broader index: Zillow's median list prices for new and existing homes. The 38% decline in the latter is large and indicative of on-going market pressures.

firms, and thus their capacity to borrow. The resulting weakness in consumption and investment, in turn, fed back into housing weakness – another vicious cycle.

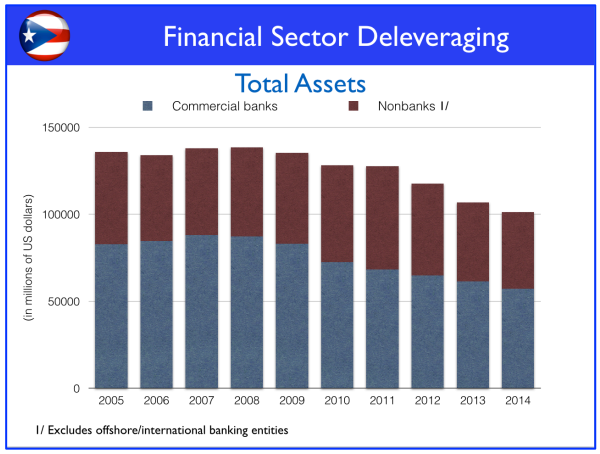




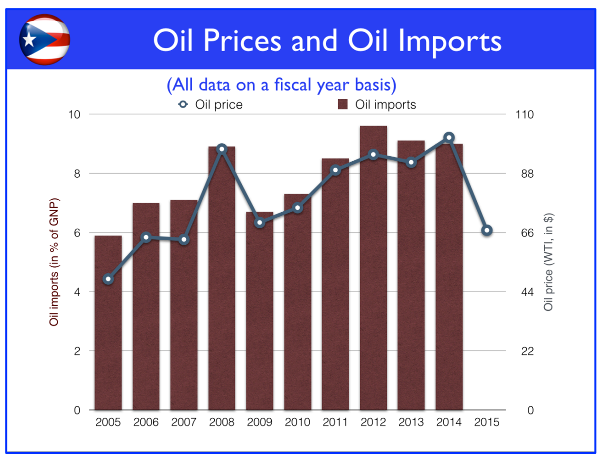
- *Recession on the US mainland*. Until recently, economic activity in Puerto Rico tracked that on the US mainland, the island's largest trade partner and investor. As such, the downturn in US activity during 2007-09 had a significant negative effect. The subsequent recovery in US demand should have lifted key sectors such as manufacturing, which is overwhelmingly geared to the US. The fact that this has not happened suggests a structural problem with competitiveness.



- *Bank distress and credit crunch.* The fall in the economy and housing was amplified by the associated distress in the banking sector and vice versa. Commercial bank assets have fallen by 30% since 2005, as banks reduced their balance sheets in response to the hit to their capital from lower asset prices. The distress in the banking sector would have been worse were it not for the backstop provided by FDIC, which had to intervene several banks, and for initiatives such as TARP.



- *Oil prices*. The doubling in oil prices during 2005-12 was a major setback, given Puerto Rico's dependence on imported oil for virtually all of its power generation. The 3% of GNP increase in the oil bill represented an equivalent loss of income for Puerto Rico that could have supported the local economy.



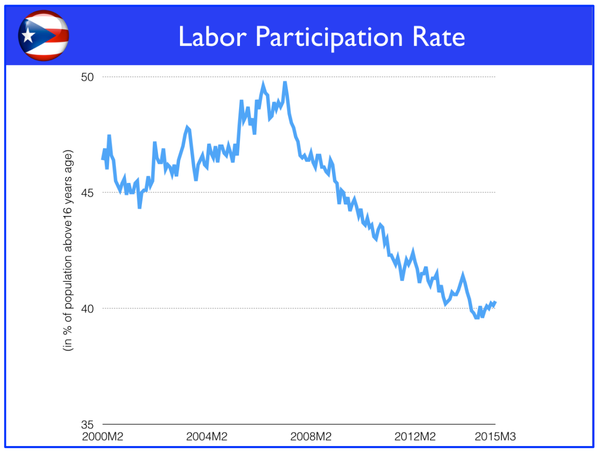
5. **But even more significant forces on the supply side have been gnawing at growth:**

- *Employment and labor costs*. The single most telling statistic in Puerto Rico is that only 40% of the adult population – versus 63% on the US mainland – is employed or looking for work; the rest are economically idle or working in the grey economy. In an economy with an abundance of unskilled labor, the reasons boil down to two.

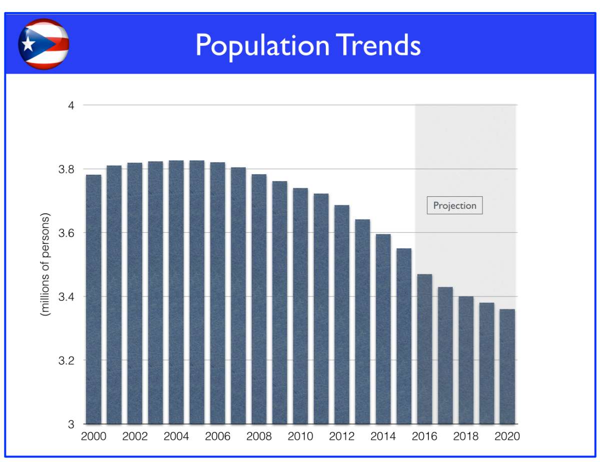
  - Employers are disinclined to hire workers because (a) the US federal minimum wage is very high relative to the local average (full-time employment at the minimum wage is equivalent to 77% of per capita income, versus 28% on the mainland) and a more binding constraint on employment (28% of hourly workers in Puerto Rico earn $8.50 or less versus only 3% on the mainland); and (b) local regulations pertaining to overtime, paid vacation, and dismissal are costly and more onerous than on the US mainland.

- Workers are disinclined to take up jobs because the welfare system provides generous benefits that often exceed what minimum wage employment yields; one estimate shows that a household of three eligible for food stamps, AFDC, Medicaid and utilities subsidies could receive $1,743 per month – as compared to a minimum wage earner's take-home earnings of $1,159.

The result of all of the above is massive underutilization of labor, foregone output, and waning competitiveness.



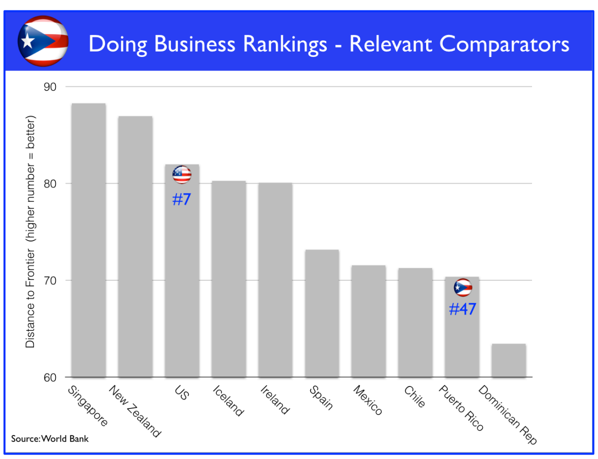
- *Outmigration and population loss*. Diminished job opportunities have also prompted a sharp rise in outmigration, greater even than that in the 1950s. As a result, after growing continuously for almost two centuries, Puerto Rico's population declined for the first time in 2006, and has since shrunk from its peak to about 3.5 million in 2015. Even if there is no intensification in economic problems, which is a big if, the Planning Board projects that the population will continue to fall through 2020. The loss of 1% of population each year – ten times more than the rate in Japan or West Virginia, the only US state with subzero growth – obviously decreases demand on the island but also potential growth as the labor force shrinks.



- *Energy costs*. Although they have fallen with oil prices, electricity costs of 22 cents per kilowatt hour are exceedingly high – similar to levels in less developed islands and several times the prices on the US mainland. As a key input cost, this cascades down to locally produced goods and services and stunts potential growth sectors such as tourism. Electricity is produced and distributed by an inefficient and over-staffed public enterprise (PREPA) using technologies decades out of date. A failure to tackle these issues satisfactorily has greatly undermined competitiveness.

- *Transport costs*. All islands, remote from the centers of economic activity, suffer from high transportation costs. But Puerto Rico does so disproportionately, with import costs at least twice as high as in neighboring islands on account of the Jones Act, which forces all shipping to and from US ports to be conducted with US vessels and crews. Even those that consider the negative effects of the Jones Act to be exaggerated – e.g., outbound cargo rates are lower than inbound ones, as ships would rather not return empty – concede it is a clear net negative. Puerto Rico also has local laws that add to transportation costs – specifically, prices and licensing requirements set by the Public Service Commission for ground transportation.

- *Barriers to competition and business activity*. A number of local laws and regulations restrict domestic competition and business investment. Puerto Rico's rankings in the World Bank's Doing Business Index slipped to 47 of 189 in 2015 (versus a #7 ranking for the US as a whole); in some areas, the rankings are decidedly bottom tier.



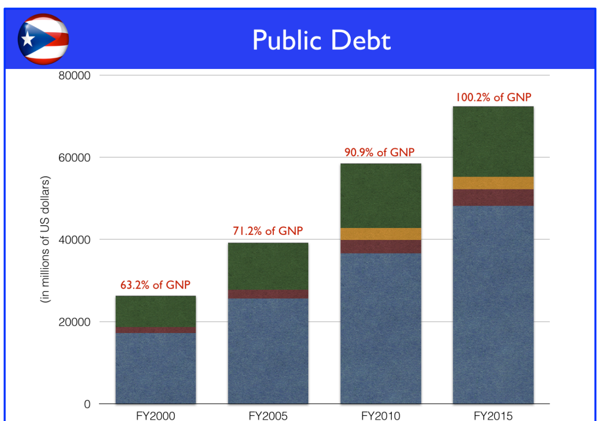
6. **These problems have shaped Puerto Rico's economic structure, policies, and growth**. High minimum wages and welfare benefits have mostly hit unskilled employment in labor intensive sectors such as tourism; the number of tourist arrivals today is in fact lower than a decade ago, and the number of hotel beds about the same as in the 1970s. The high costs of labor and transportation have meant that Puerto Rico's manufacturing sector is forced into high-value/low-weight/capital-intensive industries such as pharmaceuticals, bio-technology and software. The high cost of energy and water supply problems have also dissuaded numerous firms and industries from locating in Puerto Rico. To offset this high

input-cost structure, the government has had to resort to tax breaks to attract mainland and foreign direct investment – to the detriment of the tax system and the budget.

III. FISCAL ORIGINS

It is not just low growth that is casting a shadow over debt sustainability. Using standard IMF metrics, the overall deficit is larger than recognized, its true size obscured by incomplete accounting. This means that any fiscal adjustment program to restore market confidence starts in a deeper-than-assumed hole.

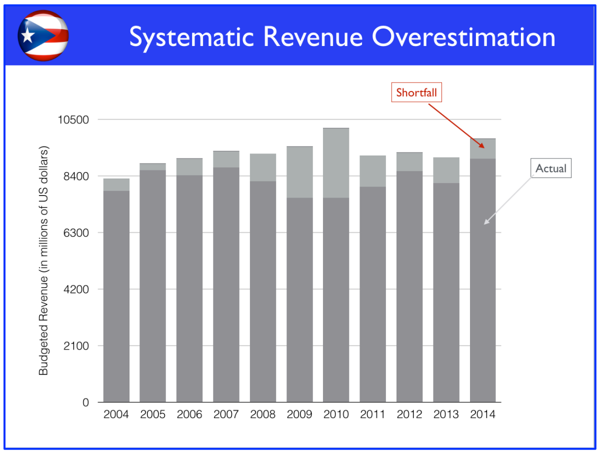
7. **Public sector debt has risen every year since 2000, through good years and bad ones, reaching 100 percent of GNP by end-FY 2014**. The central government and the three large public enterprises – the water and sewerage utility (PRASA), the state electricity company (PREPA), and the highway authority (HTA) – have been responsible for most of the increase in public debt. The fact that debt was rising even in years before the economy started to contract says something about the weakness in public finances. And how could debt continue climbing in the face of one emergency measure after another to "balance the budget" – from the sales tax in FY2006 to staff cuts in FY2009 to pension reform in FY2013?

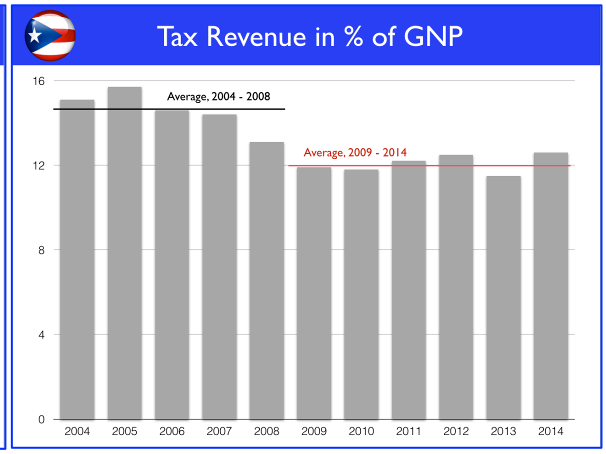


(total public sector debt, including enterprises, in dollars and % of GNP)

8. **Persistent deficits reflect institutional factors, not just the weak economy:**

- *Overly optimistic revenue projections and budget formulation*. The Commonwealth's budget is based on extremely optimistic revenue projections. Over the period FY2004-2014, and even excluding the Lehman shock year FY2009, revenue forecasts have systematically exceeded actual collections by some $1.5 billion each year (15% of the original budget). The budget also systematically underestimates tax refunds due to the public from previous year filings. Revenue over-estimation happens in other places too – but rarely is it so consistently large. Moreover, tax revenues have slid markedly relative to nominal GNP, from over 15% of GNP prior to 2006 to around 12% of GNP, despite new measures implemented in the intervening period.





- *Lack of expenditure control and the buildup of payables*. Midway in the fiscal year, the Office of Budget Management lowers its revenue forecast and assigns lower spending targets to agencies. But it has no enforcement power to oversee cuts. As a result, spending agencies continue to spend, accumulating unpaid bills that remain in their offices or sit temporarily unpaid at the Treasury. These payables used to be cleared at the start of the next fiscal year with fresh appropriations and debt issuances. But the stock of payables has been rising in recent years, lengthening the queue of unhappy suppliers and the time they must wait to be paid. There are also other problems with expenditure control, including lax verification of payrolls.

- *Cash crunch and tax bargaining*. The near continuous pressure on the Treasury often brings government cash deposits down to precarious levels. To deal with this problem, in addition to delaying payables, the Treasury also tries to manage tax receipts. Sometimes, it offers tax amnesties; at other times, it offers a negotiated discount on the anticipated tax obligation if taxpayers pre-pay (closing agreements). While such practices raise needed cash, they also reduce incentives for prompt tax compliance and over time erode the tax base.

- *Tax expenditure*. Although statutory tax rates are comparable to federal ones, Puerto Rico grants extensive tax credits and exemptions to attract investment – to alleviate the problem of the island's high cost structure. For example, it is normal for firms to pay only 0-4% on their profits for 15 years (renewable); in addition, there are numerous tax credits and exemptions from income and excise taxes during and after the construction phase. Not surprisingly, collections have lagged behind the growth in manufacturing income. We have not quantified the foregone revenue/tax expenditure but there are estimates of $250-500 million per year.

- *Deficit monitoring*. The accounting systems in Puerto Rico do not permit timely and reliable monitoring of fiscal trends. The dense and hard-to-penetrate Consolidated Annual Fiscal Report (CAFR) is reliable but not timely – the latest accounts still relate to FY2013. By contrast, information on the Treasury's General Fund operations is timely but partial, as explained below.

9. **The standard measure of the fiscal balance in Puerto Rico, using General Fund accounts, greatly understates the true deficit and the challenge ahead**. There are three fundamental problems. First, the General Fund is on a cash basis: if, say, the education department delays payments for school supplies, the purchase is not recorded as spending, thus understating the deficit. (Only a year later, after boxes of missing invoices have been hauled to the Treasury and recorded for the CAFR audit, does a truer picture emerge of the fiscal deficit on an accruals basis.) Second, the General Fund excludes numerous agencies – some 150 in total, including large ones like the health insurer ASES and smaller ones like the public buildings administration – that also run deficits, as well as the GDB, which operates like an arm of the government. Third, the General Fund excludes some $300-400 million per year of capital expenditure; these too deplete cash balances or raise debt and must be counted. These missing items – missing due to the conceptual framework of the General Fund rather than any intention to mislead – are not accounting niceties but directly impact government operations. For example, if the interest payments the GDB has to make depletes its cash balances, this impacts the Commonwealth's credit rating and market access – even if the General Fund cash deficit were zero. Similarly, if the numerous small agencies run large deficits, these reduce the cash balances available to the Commonwealth. An analysis of fiscal and debt sustainability cannot be conducted on so narrow a measure as the balance in the General Fund.

10. **Accordingly, we construct a measure of the deficit incorporating estimates of non-cash spending and a broader definition of central government**. First, to ensure that both cash and non-cash spending are captured in our metric, we begin by using the fact that the flow deficit must add up to (1) net debt issued to the private sector by the Commonwealth and the GDB; (2) the accumulation of payables (due to suppliers and tax refunds)[2]; (3) the run down of cash balances, and (4) other non-debt creating financing such as asset sales. This measure of the deficit, as used by the IMF, includes all of these financing items.[3] Second, we use a wider definition of the central government, which here is comprised of the Treasury and other primary government units (as defined in Puerto Rico), including those receiving formula-based budgetary transfers (e.g., University of Puerto Rico), the GDB and COFINA. To get the central government primary deficit, we add General Fund revenues, COFINA revenues, and the net operating surplus of the GDB (revenue less administrative expenses) and deduct General Fund expenses (excluding debt service), the net operating deficits (excluding debt service) of the primary units, non-enterprise component units (e.g., ASES), and capital expenditures; federal transfers and spending cancel out but are included as an indicator of the size of the central government in the economy. Effectively, the central government includes all parts of the public sector except the municipalities, the retirement funds, and the three large enterprises (PREPA, PRASA, and HTA).

[2] The payables here refer to macro-relevant arrears (e.g., for suppliers, wages, and tax refunds) and differ from the accounting concept (which includes items like accumulated vacation benefits).

[3] In principle, the GAAP analysis of the CAFR too incorporates the financing sources cited here – but it also includes asset and liability valuation effects, which are not really financing sources for the government and obscure the flow deficit relevant to fiscal policy. Our estimates for past years remove the latter effects.

11. **The primary and overall deficits estimated in Table 1 are larger and more problematic than generally understood**. The original budget objective in FY2015 was to run a surplus of revenue over non-debt expenditure (a primary surplus) sufficient to cover interest and amortization – what in the Commonwealth is called "balancing the budget". In theory, had this occurred, cash balances and payables would have been unchanged and the debt stock would have declined by the amount of amortization. In practice, Table 1 shows that FY2015 will witness an alarming decline in cash balances and a further buildup of payables due to the fact that the $0.75 billion primary surplus is a far cry from interest and amortization costs of some $2.75 billion. The problem is not just that revenues are falling short while General Fund spending trundles along. It is also that there is other spending – on goods, services, interest and amortization – by entities other than the General Fund that is draining cash balances. This underlines the importance of using metrics that capture the full financing needs of the Commonwealth. Doing so brings the realization that the central government will be starting FY2016 in a deeper hole than understood, with the room for maneuver constrained by the loss of market access, dwindling cash balances, and a longer queue of disgruntled suppliers.

Table 1. Puerto Rico: Central Government Accounts
(In millions of dollars)

	2013	**2014**	Proj. **2015**
Total revenue	15,881	16,468	16,439
Tax Revenue	7,889	8,551	8,724
Nontax revenue	775	590	621
GDB net operating revenue	25	25	25
Cofina	607	630	655
Federal transfers	6,586	6,671	6,414
Total Noninterest Expenditure	16,363	16,797	15,686
GF budget, less total debt service	8,946	9,135	8,425
Net operating deficit non-GF governmental funds 1/	357	359	359
Net operating deficit of non-enterprise comp.units 2/	78	139	200
Capital	396	493	288
Federal programs	6,586	6,671	6,414
Financing gap in retirement funds (ERS, TRS, and JRS)	0	0	0
Primary balance	**-481**	**-329**	**752**
Interest expenditures	2,099	1,736	1,685
Overall balance	**-2,580**	**-2,065**	**-933**
Amortization	1,597	2,606	1,060
Gross Financing Needs	**4,178**	**4,671**	**1,993**
Identified financing	4,178	4,671	1,993
Disbursements	2,535	3,255	0
Change in stock of payables	591	-124	491
Change in stock of deposits	436	1,540	1,501
Privatization	615	0	0
Memorandum items (% of GNP, unless indicated):			
Nominal GNP (millions of dollars)	68,768	69,202	69,195
Revenue, ex-federal	13.5	14.2	14.5
Noninterest expenditure, ex-federal	14.2	14.6	13.4
Primary balance	-0.7	-0.5	1.1
Interest expenditure	3.1	2.5	2.4
Overall balance	-3.8	-3.0	-1.3
Stock of deposits and investments (millions of dollars)	4,554	3,014	1,512
Stock of payables (millions of dollars)	3,302	3,178	3,669

1/ Includes primary government agencies such as Public Buildings, the Medical Services Administration, and the Infrastructure Financing Authority (PRIFA).
2/ Includes non-primary, non-enterprises, such as ASES.

12. **A similar narrative of large flow deficits applies to the wider public sector:**

- The three big state enterprises and the employee and teacher retirement funds are also running deficits. Operational data and projections of the enterprises were made available and indicate that the enterprises are generally running overall deficits. The shutoff of market financing means that needed capital improvements, including those mandated by federal environmental laws, have been delayed.

- Although reforms have raised contribution rates and shifted the system away from a defined benefit regime, the continuing payout of previously accumulated rights has fully drained the liquid assets of the employee retirement system for government workers (ERS) and brought those of the teachers and judicial workers to low levels. The combination of high payouts for those with accumulated rights and few new contributors implies shortfalls that will ultimately fall on the central government.

Puerto Rico: Fiscal Balances of Key Public Enterprises and Retirement Funds

	2014	Proj. 2015	(In millions of US$s)	2014	Proj. 2015
PREPA			ERS		
Operating revenue	4,660.5	4,124.0	Contributions	893.1	925.0
Noninterest expenditure	4,211.7	3,563.0	Pensions & admin costs	1,537.0	1,629.0
Primary balance	448.8	561.0	Primary balance	-643.9	-704.0
Interest expenditures	458.4	414.6	Interest expenditures	179.4	166.5
Financing needs	298.5	764.0	Financing need	823.2	870.5
Deficit	9.6	-146.4	Deficit	823.2	870.5
Amortization	288.9	910.4	Amortization	0.0	0.0
Financing sources	816.9	764.0	Financing sources	854.2	872.5
Payables	479.3	0.0	Payables	0.0	0.0
Changes in deposits and inve	-337.4	342.3	Net asset movements	853.2	870.5
Disbursements	675.0	0.0	Disbursements	1.0	2.0
Arrears on debt service	0.0	421.7	Debt stock	2,947.6	2,947.6
Debt stock (includes arrears)	8,526.7	8,969.5	Assets	2,021.7	1,151.2
Deposits	1,465.9	1,123.6			
PRASA			TRS		
Operating revenue	1,045.5	1,105.6	Contributions	...	383.4
Noninterest expenditure	985.5	951.6	Pensions & admin costs	...	671.8
Primary balance	60.1	153.9	Primary balance	...	-188.4
Interest expenditures	241.1	284.6	Interest expenditures	...	0.0
Financing needs	258.4	234.4	Financing need	...	188.4
Deficit	181.0	130.7	Deficit	...	188.4
Amortization	77.4	103.7	Amortization	...	0.0
Financing sources	432.8	234.4	Financing sources	...	188.4
Payables	230.5	0.0	Payables	...	0.0
Changes in deposits and inve	-39.3	-560.6	Net lending	...	0.0
Disbursements	241.5	795.0	Net asset movements	...	188.4
Debt stock	4,095.5	4,786.8	Debt stock	0.0	0.0
Deposits	462.9	1,023.5	Assets	1,303.8	1,115.4
HTA					
Operating revenue	826.9	918.9			
Noninterest expenditure	438.7	639.3			
Primary balance	388.2	279.6			
Interest expenditures	435.8	255.1			
Financing needs	380.8	80.7			
Deficit	47.7	-24.5			
Amortization	333.1	105.2			
Financing sources	380.8	80.7			
Payables	298.8	285.0			
Changes in deposits and inve	-20.6	-204.3			
Disbursements	102.7	0.0			
Debt stock	4,824.7	4,719.5			
Deposits	769.4	973.7			

13. **These flow deficits have worsened prospects for debt sustainability**. Consolidating the full public sector – central government, three enterprises, and two retirement funds – yields an overall deficit averaging 5% of GNP in FY2013 - FY2014. As nominal GNP growth is

barely 1%, flow deficits of this magnitude imply rising debt ratios, and explain the growing – if belated – concern in financial markets about the sustainability of public debt.

IV. PROSPECTS UNDER CURRENT POLICIES

Even if the recent sub-crisis situation could somehow persist (rather than worsen), current policies imply an unsustainable fiscal situation.

14. **The near-term prospects for growth are poor – but we begin by positing something less bleak**. The reason is that we want to avoid drawing a strong negative conclusion about the fiscal outlook by *assumption* – i.e., by assuming a deteriorating growth outlook. The baseline scenario thus assumes that intermittent access to liquidity forestalls an overt financing crisis, and that real GDP growth somehow remains around -1%. The implied assumption of zero per capita income growth does not strike us as too pessimistic – if anything, it is probably *too optimistic*:

- The international experience is that financial market shocks have far more profound effects on economic activity than real shocks. Therefore, it is likely that investment will remain severely depressed on account of the financial turmoil and uncertainty.
- The forced contraction in the fiscal deficit, as well as the restriction of spending to the revenues coming in each month, will depress aggregate demand.
- The key housing/construction sector remains under pressure. The stock of vacant homes is still high and home prices may have further to fall. Given the centrality of home values as collateral, this will add to the downward pressure on credit.
- The longer-term structural problems persist: the labor force is still shrinking and there is little reason to think that competitiveness has improved.
- The one positive development, a significant one, is lower oil prices. However, the fact that activity indicators have continued to sink in spite of lower oil prices leads us to judge it inadequate to overcome all of the above.

The muddle-through-baseline with -1% real growth and 2% inflation is merely an analytical construct to assess the *minimum* financing needs that arise over the next five years. A more realistic macro scenario might consist of a much sharper decline in output if a crisis were to materialize; alternatively, an early decline might be followed by recovery if pre-emptive actions are taken. We will return to the latter.

15. **Against this backdrop, central government deficits and amortizations over the coming years imply an unsustainable trajectory of large financing gaps (Table 2)**. The projections focus on FY2016-2020 but, to better convey the challenges, have been extended to FY2025. The baseline uses OMB projections for coming years but does not include the

progress on the sales tax reform (which is taken into account later on). The result is overall deficits of some $2½ billion per year (3½ % of GNP) over the next five years; this projection includes budgetary support for the Employee Retirement Fund starting in FY2017, for the judiciary starting in FY2019, and for teachers starting in FY2020. Further, there are: (i) amortizations; (ii) gradual pay down of arrears to suppliers and taxpayers ($450 million per year); and (iii) downside risks from a potential loss of federal funding for the Affordable Care Act and from a decline in Law 154 excises (due to modified source income accounting rules for firms operating in multiple tax jurisdictions). After factoring these in, the total financing gap ranges from $3½-7½ billion per year through FY2025. If market access were open, central government debt would more than double by FY2025. But since that is neither sustainable nor feasible, financing gaps will have to be closed through policy action.

Table 2. Puerto Rico: Central Government Outlook

(In millions of dollars)

	Proj. 2015	Proj. 2016	Proj. 2017	Proj. 2018	Proj. 2019	Proj. 2020	Proj. 2021	Proj. 2022	Proj. 2023	Proj. 2024	Proj. 2025
Total revenue	16,439	15,875	16,120	16,426	16,628	16,813	16,981	17,154	17,341	17,537	17,738
Tax Revenue	8,724	7,960	8,038	8,117	8,196	8,277	8,358	8,440	8,522	8,606	8,690
Nontax revenue	621	627	632	638	644	650	656	662	669	675	681
GDB net operating revenue 1/	25	130	200	329	352	353	335	321	317	320	324
Cofina	655	682	709	737	767	799	831	864	899	934	972
Federal transfers	6,414	6,477	6,540	6,604	6,669	6,734	6,800	6,867	6,934	7,002	7,071
Total Noninterest Expenditure	15,686	15,631	16,086	17,179	17,900	18,594	19,117	19,450	19,794	20,097	20,446
GF budget, less debt serv., plus unacc. funds	8,425	8,142	8,259	8,910	9,598	10,070	10,415	10,644	10,884	11,158	11,409
Net operating deficit of non-GF governmental funds 2/	359	362	366	370	373	377	381	384	388	392	396
Net operating deficit of non-enterprise comp.units 3/	200	350	353	357	360	364	367	371	375	378	382
Capital	288	300	300	300	300	300	300	300	300	300	300
Federal programs	6,414	6,477	6,540	6,604	6,669	6,734	6,800	6,867	6,934	7,002	7,071
Financing gap in retirement funds (ERS, TRS, and JRS)	0	0	268	638	599	748	853	883	913	867	888
Primary balance	**752**	**243**	**34**	**-753**	**-1,271**	**-1,781**	**-2,137**	**-2,295**	**-2,454**	**-2,560**	**-2,708**
Interest on pre-2015 debt	1,685	1,920	1,986	1,942	1,879	1,810	1,763	1,719	1,692	1,653	1,659
Overall balance	**-933**	**-1,677**	**-1,953**	**-2,695**	**-3,150**	**-3,590**	**-3,899**	**-4,014**	**-4,146**	**-4,213**	**-4,367**
Amortization of pre-2015 debt	1,060	1,561	873	846	1,517	1,186	1,132	921	888	1,408	898
Gross Financing Needs	**1,993**	**3,238**	**2,825**	**3,541**	**4,667**	**4,776**	**5,031**	**4,934**	**5,034**	**5,620**	**5,265**
Identified financing	1,993	-438	-450	-450	-450	-450	-450	-450	0	0	0
Disbursements	0	0	0	0	0	0	0	0	0	0	0
Change in stock of payables	491	-450	-450	-450	-450	-450	-450	-450	0	0	0
Change in stock of deposits	1,501	12	0	0	0	0	0	0	0	0	0
Privatization	0	0	0	0	0	0	0	0	0	0	0
Financing gap on current policies	**0**	**3,676**	**3,275**	**3,991**	**5,117**	**5,226**	**5,481**	**5,384**	**5,034**	**5,620**	**5,265**
Added margin for downside risks	**0**	**0**	**894**	**1,903**	**1,912**	**1,921**	**1,930**	**1,939**	**1,948**	**1,957**	**1,967**
Loss of ACA funding 4/			0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Law 154 excise losses			894	903	912	921	930	939	948	957	967
Total financing gap		**3,676**	**4,169**	**5,893**	**7,028**	**7,147**	**7,410**	**7,323**	**6,981**	**7,577**	**7,231**
Memorandum items (% of GNP, unless indicated):											
Nominal GNP (millions of dollars)	69,195	69,873	70,558	71,249	71,947	72,652	73,364	74,083	74,809	75,542	76,283
Revenue, ex-federal, on current policies & risks	14.5	13.4	12.3	12.5	12.6	12.6	12.6	12.6	12.6	12.7	12.7
Noninterest expenditure, ex-federal, on current policies & risks	13.4	13.1	13.5	16.2	17.0	17.7	18.2	18.3	18.5	18.7	18.8
Primary balance on current policies & risks	1.1	0.3	-1.2	-3.7	-4.4	-5.1	-5.5	-5.7	-5.9	-6.0	-6.1
Interest expenditure on current policies & risks	2.4	2.7	2.8	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.2
Overall balance on current policies & risks	-1.3	-2.4	-4.0	-6.5	-7.0	-7.6	-7.9	-8.0	-8.1	-8.2	-8.3
Stock of deposits and investments (millions of dollars)	1,512	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Stock of payables (millions of dollars)	3,669	3,219	2,769	2,319	1,869	1,419	969	519	519	519	519

1/ Includes petroleum tax (PET) net receipts as a revenue source for the GDB in 2016-2025.
2/ Includes primary government agencies such as Public Buildings, the Medical Services Administration, and the Infrastructure Financing Authority (PRIFA).
3/ Includes non-primary non-enterprises, such as ASES (healthcare agency) and the bus and ferry mass transit authority (from 2016 on).
4/ As in many of the projections, the actual outturn could be worse. For example, in the absence of reform of the healthcare system the cost here could reach $2 billion by 2019 and the gap in the retirement funds could be larger in the absence of strict adherence to increasing contribution rates.

16. **The financial situation of the public sector enterprises is also precarious**. The projections assume that the central government will have to assume loss-making operations of the highway authority to keep it afloat. The electric utility PREPA is already operating on

a pure cash basis; until its situation with its creditors is regularized, it accumulates interest and amortization arrears of over $600 million per year. The water and sewage company PRASA is not projected to generate enough revenues to cover EPA-mandated investments.

V. A STRATEGY FOR GROWTH AND CONFIDENCE

The restoration of confidence and growth requires ambitious measures in three inter-locking areas: structural reform, fiscal consolidation/debt restructuring, and institutional reform. All are important, and the exclusion of any one reduces the chances of success of the others.

17. **The key to turning around Puerto Rico's situation is a revival of growth**. The island has many problems but they all result in the same outcome – a lack of growth. Structural rigidities have compromised competitiveness and yielded stagnation. Weak fiscal discipline has resulted in uncertainty that is further depressing economic activity and employment. Low growth feeds back to strains on revenue and spending. It is a vicious circle.

18. **A comprehensive approach is needed**. The problems are too interdependent. For example, fiscal adjustment alone might strengthen confidence in long-term public finances and thereby support demand. But too much fiscal tightening could also depress demand in the near-term and would do nothing to address the supply side problems at the root of Puerto Rico's growth problem. Similarly, structural reforms alone would still leave large fiscal financing gaps. Hence the need for complementary structural reforms to boost growth and debt restructuring to avoid an economically harsh and politically unviable cut in the fiscal deficit. A combination of structural reforms, fiscal adjustment, and debt restructuring ensures that all problems are addressed. And, importantly, it shares the costs and benefits of adjustment across all stakeholders.

19. **Puerto Rico's record of failed partial solutions also argues for a comprehensive approach**. Over the years, successive administrations put in place important and even lasting policy responses. However, they focused on fiscal deficits, not economic growth. Moreover, even the narrow approach was implemented in an ad hoc manner in response to immediate pressures rather than in a forward-looking way that acknowledged the scope of fiscal problems. Thus, the introduction of the sales tax in FY2006 was followed by a fiscal emergency to cut government staffing in FY2009, by reform of public employee and teacher pensions in FY2013, by the petroleum tax in FY2014, and most recently by the attempted VAT reform – each presented as a durable solution to the island's problems. Puerto Rico's current predicament reflects its unsustainable policies but also a lack of confidence in its preparedness to change course.

20. **Establishing a new and credible strategy will be challenging**. The needed measures face domestic political resistance (e.g., on labor laws and cutting fiscal deficits), federal inertia (e.g., on exemptions to the minimum wage and the Jones Act), legal challenges (e.g., on debt restructuring), and organizational difficulties in keeping the program on track. New institutions to establish budget discipline and data transparency will need to be created. All

this will fully occupy the administration. But so would *not* implementing a comprehensive solution, which might usher in an even more severe and harder-to-manage crisis.

A. STRUCTURAL REFORMS

Supply-side reforms are fundamental to any lasting economic recovery but will take time to implement and to bear fruit.

21. **Puerto Rico has many advantages to build on but also important disadvantages, some within its power to tackle and some requiring federal help**. Among the advantages are its natural gifts as a tropical island, the size of its college-educated and bilingual population, its sizable manufacturing base, its situation as an integral part of the United States, with all the attendant benefits in terms of currency stability, legal system, property rights, and federal backing of welfare, education, defense, and banking. That is a lot. At the same time, there are numerous policy failures that raise input costs and stifle growth. While some of these are within the Commonwealth's power to fix (such as local labor regulations), others lie in the remit of the federal government and the US Congress (the minimum wage and welfare rules, the Jones Act, and Chapter 9 bankruptcy eligibility). If these could be overcome, there is no reason why Puerto Rico could not grow in new directions – likely ones like tourism, possible ones like serving as a financial/services hub between North and South America, and entirely unpredictable ones because that is how reforms have played out elsewhere. Reducing input costs for labor, energy and transport is key to regaining competitiveness, so that production can be geared to more buoyant external markets.

22. **A fresh start on structural reforms should begin with the recognition that supply-side reforms take time**. Partly this is because reforms are hard to formulate and legislate. Partly it is because, even after being implemented, it takes time for people to perceive the change and to gain confidence that reforms will stick and not be reversed by the next administration. The impact on growth could take 2-4 years to become apparent, less when (a) there is a prior history of successful reforms; (b) the strategy and details are effectively communicated; (c) all segments of society share in the reform effort's near-term costs and long-term gains; and (d) the program as a whole is credible, with upfront delivery of key reforms. Experience also teaches that while the goals should be clear at the start, structural reform is more a process than a check-list: the details need to evolve with circumstances.

23. **To raise employment, it is imperative to remove the disincentives for firms to hire workers and for workers to accept jobs**. As suggested earlier, the key issues are as follows:

- The US federal minimum wage of $7.25 per hour is too high relative to local incomes and regional competitors. Puerto Rico should seek an exemption until such time as its per capita income approaches that of the poorest US state, which currently is still 50% higher than Puerto Rico's. If full exemption is not possible, then an alternative might be to set the rate for Puerto Rico at one-third the general rate (per capita income in Puerto Rico is about one-third that on the mainland).

- Local labor laws magnify employment costs. Undoing this entails: (i) redefining overtime as on the mainland (excess over a 40-hour week, not 8-hour day); (ii) cutting paid vacation days to mainland levels (for public sector workers, from 30 days to 15 days); (iii) eliminating the mandatory end-of-year bonus; (iv) reducing onerous requirements for proving just cause in layoffs to mainland levels; (v) extending the probationary period for new employees from 3 months to 1-2 years; and (vi) relaxing labor laws for youth/new entrants for the first few years.

- Federal welfare payments are generous relative to the low incomes in Puerto Rico, and as such are a disincentive for the unskilled to accept work (lest they lose benefits). Welfare needs to be made consistent with local labor market conditions rather than with US mainland conditions. The federal government should therefore give the Commonwealth more latitude to adjust welfare requirements and benefits – e.g., to continue food stamps for a while even after a person returns to work; or to provide lower housing benefits to more people rather than higher benefits to a few (the Commonwealth block grant is capped and insufficient for all those who qualify). Puerto Rico too can act here, cutting back the Medicaid benefits it pays out over and above the Federal minimum standard (thus saving some $150 million per year).

24. **Exempting Puerto Rico from the US Jones Act could significantly reduce transport costs and open up new sectors for future growth**. In no mainland state does the Jones Act have so profound an effect on the cost structure as in Puerto Rico. Furthermore, there are precedents for exempting islands, notably the US Virgin Islands. Puerto Rico should also eliminate its own self-imposed costs by freeing up the scope for competition in ground transportation and liberalizing the associated prices set by the Public Service Commission.

25. **The drive for competitiveness must include a cut in high energy costs, which cascade down to the rest of the economy**. The silver lining in PREPA's financial difficulties is that it has forced the public enterprise to confront its problems of over-staffing and inefficiency. The specifics of upcoming reforms, and the associated debt relief to make it viable, are still being worked out by PREPA and its creditors. Whatever the details, they should build to a solution where PREPA focuses on transmission and distribution, while electricity generation is opened up to competition from newer and more efficient suppliers.

26. **A lot can be done to lighten the burden of doing business, which is particularly important when reforms are aiming to move the economy in new directions**. To date, the term business-friendly in Puerto Rico has referred to efforts to offset high input costs with tax breaks and subsidies. As input costs are brought down, the focus should shift to ensuring a level playing field and greater ease of doing business, including permits for new businesses. This is always an on-going task but a start could be made by addressing the three weakest areas identified by the World Bank: the difficulty in registering property, in paying taxes, and in obtaining construction permits. There is already some progress to build on, notably a plan to modernize property registration. Lest this sort of work slip into

obscurity in the press of a crisis, the task should be assigned to a high-level official held accountable for pulling up the Commonwealth's score in future Doing Business rankings.

B. FISCAL ADJUSTMENT AND PUBLIC DEBT

Given looming revenue and spending pressures, eliminating the fiscal deficit will take substantial measures. Reforms should aim more at broadening tax bases than raising rates, and at targeted expenditure reduction rather than across-the-board cuts. But even a major fiscal effort leaves large residual financing gaps that will need to be bridged with debt relief.

27. **Table 3 illustrates a scenario where revenue and expenditure substantially reduce the total financing gap in coming years**. The measures set out below, along with the revenue enhancing effects of structural reform, would eliminate the overall budget deficit by FY2020. Given the starting point of fiscal unsustainability, this is important. At the same time, the adjustment scenario tries to be as growth friendly as possible, avoiding too sharp a contraction in the near-term, and focuses more on broadening tax bases than on raising tax rates. The measures below are, in our view, sensible and feasible. But there are undoubtedly other sensible and feasible options the government will also want to explore.

Table 3. Puerto Rico: Central Government Outlook
(In millions of dollars)

	Proj. 2015	Proj. 2016	Proj. 2017	Proj. 2018	Proj. 2019	Proj. 2020	Proj. 2021	Proj. 2022	Proj. 2023	Proj. 2024	Proj. 2025
Total financing gap		**3,676**	**4,169**	**5,893**	**7,028**	**7,147**	**7,410**	**7,323**	**6,981**	**7,577**	**7,231**
Additional reform measures		**1,157**	**1,822**	**3,315**	**4,174**	**4,913**	**5,191**	**5,482**	**5,758**	**6,047**	**6,352**
Revenue measures		1,157	1,576	2,073	2,439	2,827	3,005	3,194	3,394	3,604	3,827
Rise in income taxes from labor reform		0	56	142	248	376	527	689	860	1,043	1,237
Revamp property tax		100	200	350	350	350	357	364	371	379	386
Elimination of tax amnesties and closings		0	50	50	50	50	50	50	50	50	50
Overhaul of corporate tax system		0	250	500	750	1,000	1,010	1,020	1,030	1,040	1,050
VAT/sales tax		1,057	1,021	1,031	1,041	1,051	1,061	1,072	1,082	1,093	1,104
Expenditure measures		0	246	1,242	1,735	2,086	2,186	2,288	2,364	2,443	2,525
Renewal of Law 66		0	0	568	800	1,051	1,072	1,093	1,115	1,138	1,160
Resizing of education services		0	50	200	300	400	450	500	523	547	571
Bring down medicaid benefits to federal standards		0	75	150	150	150	157	164	171	179	187
Reduced subsidization of UPR		0	121	323	485	485	507	530	554	579	606
Increased revenue from reform-induced increase in GNP growth		0	509	632	791	988	1,227	1,479	1,745	2,025	2,319
Residual financing gap after measures	**0**	**2,519**	**1,838**	**1,946**	**2,063**	**1,246**	**992**	**362**	**-521**	**-494**	**-1,440**
Total debt service	**2,745**	**3,481**	**2,859**	**2,788**	**3,395**	**2,995**	**2,894**	**2,639**	**2,580**	**3,060**	**2,557**
Principal amortization	1,060	1,561	873	846	1,517	1,186	1,132	921	888	1,408	898
Interest	1,685	1,920	1,986	1,942	1,879	1,810	1,763	1,719	1,692	1,653	1,659
Memorandum items (% of GNP, unless indicated):											
Nominal GNP in reform scenario (millions of dollars)	69,195	69,873	71,270	73,423	76,014	79,085	82,684	86,446	90,379	94,491	98,791
Real GNP growth (in %)	-1.0	-1.0	0.0	1.0	1.5	2.0	2.5	2.5	2.5	2.5	2.5
Inflation (in %)	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Revenue,ex-federal, in reform scenario	14.5	15.1	15.1	15.8	16.2	16.4	16.3	16.2	16.2	16.1	16.0
Noninterest expenditure in reform scenario	13.4	13.1	13.0	14.1	13.8	13.6	13.5	13.1	12.7	12.3	12.0
Primary balance in reform scenario	1.1	2.0	2.1	1.8	2.3	2.8	2.8	3.2	3.4	3.8	4.0
Overall balance in reform scenario	-1.3	-0.7	-0.7	-0.9	-0.1	0.5	0.7	1.2	1.6	2.0	2.4
Stock of deposits and investments (millions of dollars)	1,512	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Stock of payables (millions of dollars)	3,669	3,219	2,769	2,319	1,869	1,419	969	519	519	519	519

28. **On the revenue side, there is scope to raise receipts by $1 billion in FY2016, around $3 billion annually by FY2020 and $4 billion annually by FY2025**. Some possible measures:

- Adoption of a sales tax as proposed by the administration; this could yield just over $1 billion in FY2016.

- A surcharge on the corporate income tax that would also cover firms currently paying only 0-4% (versus the statutory 35%). This should be seen as a first step to an eventual overhaul that replaces widespread exemptions with a low flat rate of 10-15%; this is assumed to yield $250 million starting in FY2017 and to rise quickly after that.

- A step up in property taxes (currently based on real estate values from 1954); updating the registry and adjusting down tax rates could yield $100 million in FY2016 and more in later years as the project takes off (a target of 1% of GNP is reasonable). This is shown in Table 3 as a revenue measure but could equally be treated as a spending measure: since municipalities normally retain property taxes, the central government revenue could cut its transfers to municipalities by the amount of additional property tax receipts.

- Rising income tax collections from higher worker participation due to labor reforms; the amount raised is assumed to be a modest $50 million in early years but grows quickly.

The payoffs from the above are indicative and obviously will depend on details that have yet to be worked out. Substantial additional revenue might also accrue from improved tax collection, which is low relative to statutory rates not just due to exemptions but also due to poor compliance; no assumptions regarding improved compliance are made at this stage.

29. **On the expenditure side, there is scope to save over $2 billion per year by FY2020 and $2½ billion per year by FY2025**:

- Renewing Law 66 (freeze of certain formula-based transfers from the general fund) and freezing remaining spending in real terms saves $1 billion by FY2020. Capital/ infrastructure is assumed flat but could be raised if revenues exceed expectations.

- Puerto Rico currently has 40% fewer students but 10% more teachers than a decade ago. Teacher-student ratios are high, higher than in the mainland and many of its wealthiest and best-performing counties. A gradual cut in the number of teachers saves $400 million per year by FY2020 – more if sparsely attended schools are also consolidated. The one-off costs of retrenchment should be met by one-off revenues, e.g., if valuable/cash-rich enterprises like the state insurance fund are privatized.

- A reduction in the subsidy for the University of Puerto Rico. College students currently pay a low flat rate that for many is far lower than on the mainland and far lower than what well-off UPR students paid for private high school. Rather than a blanket subsidy, support should be provided through need-based scholarship. A program along these lines could save up to $500 million by FY2020.

- Cuts in Medicaid benefits in excess of minimum standards on the US mainland. This could save an estimated $150 million per year.

Despite these cuts, total expenditure would still rise in dollar terms and relative to GNP as it is assumed that the government makes up for any cash shortfalls of the retirement funds.

30. **The fiscal benefits of comprehensive reform should also be factored in**. The bottom of Table 3 sets out a higher growth path than assumed so far. The difference between a trend real GNP growth of -1% and of +2.5% delivers additional revenue of some 2½% of GNP by FY2025, which is built into the projections of the residual financing gap after measures.

31. **The quantitative estimates in Table 3 are subject to great uncertainty and do not reflect the full menu of policy options**. Apart from known unknowns such as the size of declines in Law 154 excise receipts, the baseline financing gap projections are subject to numerous other assumptions (e.g., the rate at which payables are brought down) and do not cover all government reform needs (e.g., retirement system funding). The impact of measures also hard to predict and depend on the timing and specifics. Could the measures be enhanced or made more front loaded? Perhaps but not easily. Even if enacted quickly, it would be imprudent to assume large revenue increases in the first year of an adjustment program, when economic pressures and implementation difficulties are at their most intense. The payoff is especially unclear with regard to the corporate tax surcharge – although the need to claw back decades of exemptions and tax spending is acute.

32. **Even after factoring in a major fiscal effort, a large residual financing gap persists into the next decade – implying a need for debt relief**. On the assumptions embodied in Table 3, to close the residual financing gap, the government would need to seek relief from a significant – but progressively declining – proportion of the principal and interest falling due during FY2016-22 the residual financing gap disappears by FY2023. The precise amount of debt relief will need to be calibrated to the specifics of the reform and the likely path of the economy, both of which are uncertain at this stage.

33. **Debt relief could be obtained through a voluntary exchange of old bonds for new ones with a later/lower debt service profile**. To agree to it, bondholders would need to be convinced that the specific reforms on the table are indeed a best use of debt relief, and that – by keeping the government functioning as it phases in organizationally and politically difficult measures – the reform program will increase the expected value of their claims. Negotiations with creditors will doubtlessly be challenging: there is no US precedent for anything of this scale and scope, and there is the added complication of extensive pledging of specific revenue streams to specific debts. But difficult or not, the projections are clear that the issue can no longer be avoided.

34. **Any discussion with creditors on general obligation debt should be coordinated with the parallel one being conducted by public enterprises**. The government will need to coordinate its own discussions on general obligation debt with those already in progress for public enterprises – not least because creditors too, like the government, will look at the overall resource envelope and investment needs in public enterprises. To facilitate a more orderly discussion of debt, it would help if the US Congress were to remove the explicit exclusion of Puerto Rico from the provisions of Chapter 9 of the US bankruptcy code.

C. INSTITUTIONS AND CREDIBILITY

The legacy of budgetary laxity, non-transparency, and unreliable/dated statistics must be overcome if the reform program is to work and command credibility. The priorities include a rolling 5-year budgetary plan approved by the legislature, legislative rules to limit changes to the plan, an independent fiscal oversight board to advise on the budget and control its implementation, and strengthening the quality and timeliness of economic data.

35. **The first step must be legislative approval of a long-term fiscal plan**. Broad political backing for the fiscal adjustment plan – for all five years of the adjustment, not just for FY2016 – will be crucial to its credibility. To limit the scope for deviations, the legislature should consider adopting rules that either force across-the board spending cuts (a Gramm-Rudman rule) or else some combination of spending cuts and tax increases (a PAYGO rule) if any subsequent measure or event causes the projected fiscal deficit to deviate from its planned path. Experience shows that such legislative rules can improve fiscal discipline, but cannot ensure it, as they work by restraining fiscal plans rather than fiscal outcomes.

36. **An independent fiscal oversight board can improve fiscal outcomes**. The group, comprised of experienced individuals from inside and outside the Commonwealth, would vet the current year's budget and the rolling 5-year fiscal plan prior to submission to the legislature; it would also have special powers to enforce approved budgets. These powers are needed because of Puerto Rico's legacy of overly-optimistic budget estimates and of failure to control spending even when it is clear that revenue targets will not be met. Effective expenditure control will take more than an oversight board at the top. It will also take uniform data and reporting requirements across all spending agencies – spending units currently employ different IT systems – as well as internal coordination. The existing single treasury account needs to be employed as an expenditure control mechanism as well as its current use as a centralized payment system. Notwithstanding the logistical challenges, consideration should be given to merging the operations of the Government Development Bank and the Commonwealth Treasury (Hacienda). The functional overlap is significant, while coordination is hindered by differences in formal roles and governance structures.

37. **Greater transparency in the provision of fiscal data could also enhance market discipline**. As discussed earlier, the published quarterly figures are too narrow in scope to provide an accurate picture, while the CAFR consolidated accounts appear with a long lag and are difficult to interpret. Analysts should not have to engage in jujitsu with the data in order to figure out the fiscal deficit. The data will need to be put in a standardized format, as has been done in this report, and published in regular updates.

38. **Finally, statistics on the wider economy need to be strengthened – urgently**. The problems with the national accounts are severe. The US Bureau of Economic Analysis has a report on what needs to be fixed but a lack of resources has limited progress. Consideration should be given to consolidating the relevant statistics providers and giving them necessary funding. Better statistics are not a luxury. Without them the Commonwealth is flying blind

and market uncertainty about underlying developments is reflected in the risk premium on government debt. Improved statistics and data transparency could pay for themselves.

VI. OBJECTIONS AND RESPONSES

This section subjects some of the above arguments to a stress test of counterarguments – not to pre-empt objections but to probe into the thinking behind the analysis.

39. *Objections – growth.* Some might wonder if the report is too pessimistic on near-term prospects. After all, there are positive signs. Private employment has stopped falling; the GDB's economic activity index has improved; and many individual sectors are doing well, including tourism, agriculture, and increasingly aeronautics. It could also be argued that official figures underestimate growth on account of overestimated price deflators.

40. *Response*. Fine but the improvements are too small, narrowly focused, recent – and dwarfed by the gorilla in the room: the damage from a decade of stagnation and the cutoff of market access, which experience tells us has severe negative effects on credit, investment, and consumption. More generally, Puerto Rico is suffering from protracted supply side problems, its growth potential eroding in the face of a shrinking labor force, narrowing manufacturing base and depreciating capital stock. Turning this around will take time and more ambitious action. Finally, on GNP statistics, the overestimation of price deflators is not the only problem: *nominal* GNP may also be overstated, in which case lower price deflators do not necessarily yield higher real growth estimates.

41. *Objections – Puerto Rico structural reforms*. Many will doubt that upfront action in so many structural areas is feasible in Puerto Rico. The reforms are difficult enough individually. Attempting all at once risks overloading the political circuits.

42. *Response*. The government is better positioned than we are to assess political feasibility. Certainly, many countries have found ways to muster support for comprehensive reforms, albeit usually in the context of international support. But, support or no support, the island has little choice now but to press ahead. It has tried gradual and partial solutions to no avail. The crisis can concentrate minds in the political system to suspend "business as usual" and attend to all that has gone untended for years – it ought to get on with this regardless of the speed of federal action. Not all action need be up front but there should be enough up front to make it credible, with a clear road map of further reforms and where they lead. Importantly, the proposed package shares the costs of reform – lower wages for labor, fewer tax exemptions for business, debt re-profiling for creditors – while holding out the prospect of renewed confidence and growth, which benefits all.

43. *Objections – federal structural reforms*. Why not focus on something simpler like reviving US tax preferences? Many consider it naïve to think that the US Congress would modify labor and transportation laws intended for all of the United States just to help out

Puerto Rico. It may be easier to push for something that the Congress has agreed to before – tax preferences, the loss of which is anyway the original sin behind the island's travails.

44. *Response.* Reforms in labor, transport, and bankruptcy laws are economically essential. They may face political resistance in Washington DC but Puerto Rico has a case to make. On reinstating US tax preferences, it is not clear that this is an easier ask for the US Congress. Or that mainland firms would necessarily be lured to the island, as exemptions can – and have – been withdrawn before. Or indeed that a growth model founded on tax advantages is better in the long run than one based on genuine competitiveness.

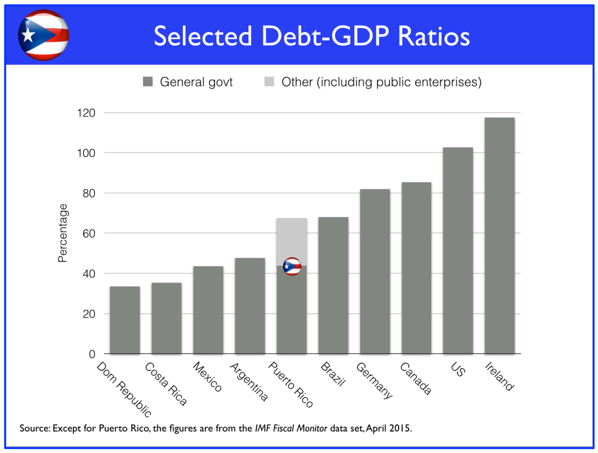
45. *Objections – minimum wage*. Even if one accepts that there may eventually be positive effects on hiring from lower wages, one has also to take into account that lower wage earnings by the currently employed will reduce domestic spending and growth.

46. *Response*. First, it is unlikely that a reduction in the minimum wage will induce an instantaneous fall in all wages in Puerto Rico. The downward pressure on wages, like the upward pressure on employment, will take time to play out; and anyway, below minimum-wage market wages already exist in the large informal sector. Second, even if currently employed workers reduce their spending by some fraction of lost earnings, this should be offset – more than offset – by the higher spending of the newly employed. Third, labor reform should be seen in a wider context of the effort to restore confidence in future growth, which should raise consumption and investment.

47. *Objections – pace of fiscal adjustment*. Some observers might point to the contrasting experiences of Ireland and Greece with fiscal adjustment. Ireland, in many ways similar Puerto Rico (a large resident base of multinational firms, a recent housing bust, low corporate taxes), had much better growth outcomes partly because it had a more gradual fiscal adjustment than Greece. Puerto Rico should heed the lesson that fiscal multiplier effects are high in crisis situations, and so reduce its fiscal deficit only gradually.

48. *Response.* There was scope for slower fiscal adjustment in Ireland because off-market financing was made available to it by Euro zone partners and the IMF. Ireland's policy credibility was also enhanced by quarterly EC/IMF monitoring of program implementation, and by the fact that its fiscal problem was not decades old but the result of a banking crisis. These points do not apply to Puerto Rico, thus limiting its options. That said, Puerto Rico does have scope to generate some financing by reprofiling part of the debt service falling due, and having the adjustment effort overseen by a fiscal oversight board. Ultimately, Puerto Rico needs to strike a balance between the demands of financing, credibility and growth – which is what the fiscal adjustment scenario here tries to do.

49. *Objection – debt burden*. Many people argue that Puerto Rico's debt ratios aren't bad by international standards, especially if the Commonwealth's ratio is calculated relative to *GDP* (not GNP, which is much lower) and public enterprises are excluded (as in other countries). They argue that Puerto Rico's problem is not too high debt but too high deficits.



50. *Response.* Regardless of whether public enterprise debt is included or not, or deflated by GDP rather than GNP, the fact is that Puerto Rico's situation is worse than simple debt ratios suggest because the island is laboring under near-zero *nominal* GNP/GDP growth. This inevitably forces up debt ratios over time. None of the other countries in the chart is in this situation. On inclusion of enterprises in public debt statistics, that hinges on whether the government can, as a practical matter, maintain a hands off financial relationship with enterprises. Could Puerto Rico countenance an interruption – prolonged by the absence of Chapter 9 bankruptcy provisions – in the electricity, water and transportation services provided by public enterprises? Probably not.

51. *Objection – restructuring general obligation debt.* To some, it seems quixotic to try to restructure Puerto Rico central government debt given that (1) the Commonwealth's constitution prioritizes these obligations; (2) the task is complicated by the extensiveness of pledged revenues; and (3) no US state has restructured its general obligation debt in living memory. Any attempt faces unprecedented legal challenges. Moreover, in the absence of an IMF or debtor-in-possession creditor for Puerto Rico during a potentially drawn out legal process, the government's capacity to provide essential services would be compromised. Rather than a formal restructuring process, it would be preferable to raise taxes and cut spending by a lot more, thus inducing creditors to voluntarily roll over maturing debt.

52. *Response.* A decision to restructure debt, even via a market-friendly debt exchange, is never taken lightly. The legal challenges are indeed a complex issue for the government's legal advisors. But from an economic perspective, the fact remains that the central government faces huge financing gaps even *with* substantial adjustment efforts. There are limits to how much more expenditures can be cut or taxes raised. A tax to GNP ratio of 12-13% may seem low by US standards (it is similar to states, but the latter also pay federal taxes from which Puerto Rico is exempt). However, statutory *tax rates* are high in Puerto Rico, similar to federal rates, and – before contemplating further hikes – one has to be mindful of the already large informal economy, and the hit to near-term growth from a sharper fiscal contraction; if output falls significantly, tax receipts will decline. Too much fiscal adjustment also raises questions about fair burden sharing between creditors and taxpayers, and puts at risk the political viability of the overall reform effort. These thoughts

will also occur to creditors when they assess the credibility of a sharper fiscal response – a mere show of fiscal austerity will not necessarily induce them to roll over maturing debt. Yes formal debt restructuring without an IMF or debtor-in-possession lender in the background carries risks. But so does unrealistically high fiscal adjustment and the rollover of debt at unaffordable interest rates and seniority.

VII. CONCLUDING THOUGHTS

The situation is acute in the face of faltering economic activity, faltering fiscal and debt sustainability, and faltering policy credibility. A comprehensive program that tackles all three has a better chance of success than a partial approach, and the advantage of sharing the costs and benefits of reform across government, workers, businesses, and creditors.

53. **The measures to date are important first steps that need to be built on to deal with a situation years in the making**. Credit must be given to the current administration for putting in place important measures – higher taxes, pension reforms and spending cuts and freezes – to try and stabilize public finances. These measures were necessary but incomplete. The shortcoming has been to view the problem as one of cash flow: if only the Commonwealth had more time and loans, fiscal efforts would turn around confidence and the economy. But the problem of negative growth, a non-starter for debt sustainability, is structural. The problem of the fiscal hole is larger than recognized and set to deteriorate. The problem of policy credibility – from poor fiscal control to inaccurate and dated statistics to lack of political consensus – is as severe as ever.

54. **The debt crisis is not just a fiscal one but also reflects structural problems that have held back growth – both need to be tackled together**. There will be a temptation to focus on the fiscal side because it is more in the administration's direct control. This is not surprising and, indeed, has been the norm in the last decade, which has seen a series of fiscal measures presented as complete answers to the island's ills. Structural reform is harder: explaining that real wages are too high is a hard sell, as is getting the US Congress to exempt Puerto Rico from federal laws that especially disadvantage it (minimum wage, Jones Act, Chapter 9 bankruptcy). Many will dismiss structural reforms as too difficult, too wooly or too long term. But we are convinced that structural reforms are critical to growth, and that without growth, the chances of success are dim. The problems of growth, of credibility, of public debt – all cast a shadow on each other and must be tackled together.

55. **The policy agenda is daunting but similar challenges have been overcome elsewhere and can be in Puerto Rico too**. It will be especially important to establish the credibility of the reform effort early on in the process. This will require up front action and new institutional mechanisms such as a fiscal oversight board. The government should also consider appointing a senior official to coordinate the effort, as well as specific individuals to deliver reforms that would otherwise fall between the cracks in the press of a crisis (e.g., reforms to strengthen the business climate and the provision of data). All this is a heavy lift but also one within the capacity of Puerto Rico to accomplish.