

High-Level Brief



Thinking ahead for Europe

Puerto Rico and Greece: A Tale of two defaults in a monetary union

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1. Introduction

It is widely argued that the problems of Greece in the eurozone derive not only from mistakes made by successive Greek governments, but from deep-seated problems with the design of the euro area. The euro area is judged to be incomplete because it does not have any fiscal shock absorbers, nor a federal transfer system, and, according to many, it has imposed senseless austerity on the country. The US, by contrast, is often held up as an example of a complete monetary union in this type of problem could not arise.

However, the working of the US is much less perfect than it appears from afar. The 'genuine' economic and monetary union, which undoubtedly exists in the US, also has problems in dealing with low-performing states in terms of productivity and governance. Puerto Rico exemplifies these difficulties and shows that in such an integrated area similar problems, including a fiscal crisis can arise. Both Puerto Rico and Greece are very special and extreme cases within their respective unions, but the strength of a system can be measured by how it deals with these cases.

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The Commonwealth of Puerto Rico, as it is called officially, is a full and integral part of the US. The people living on this Caribbean island are US citizens, use the US dollar and are subject to the US judicial system and law enforcement. US economic policy, including minimum wage rules, apply in Puerto Rico as well. There is little difference between Puerto Rico and the other 50 states, except that it has no representation in the US Senate, and sends only one (non-voting) 'delegate' to the US House of Representatives (<https://www.govtrack.us/congress/members/PR>).

Full formal statehood, however, would bring little influence on US economic policy decisions since its two senators would give Puerto Rico just 2% of the US Senate (the same weight as any other state) and with a population of roughly 3.6 million, slightly more than five members (around 1%) of the US House of Representatives.

Puerto Rico is clearly an underperforming part of the US economy. In what one author calls "arrested development" (Devereux, 2015), its income per capita has for some time been below one-half of the US average, with a continuing deterioration over the last 40 years. This simple fact shows that even the 'genuine' economic and monetary union of the US does not always deliver convergence in incomes.

Moreover, Puerto Rico also suffered a severe fiscal crisis in 2006. Taken as a whole, this experience implies that one cannot attribute the dismal state of Greece, both in terms of growth and fiscal problems, to austerity or the incompleteness of the euro area as a monetary union. The much-admired working of the US monetary and federal fiscal system has actually not prevented Puerto Rico from performing on many accounts worse than Greece. In other words a case like Greece could arise even if the euro were to be transformed in a 'genuine' economic and monetary union.

This paper first documents a series of similarities between Greece and Puerto Rico in terms of major economic and social indicators. It then turn to the longer-term structural-growth problem. The role of labour mobility and fiscal transfers, supposedly essential elements of a well-functioning monetary union, are also discussed in sections 4 and 5. Finally, section 6 shows how a sub-central level fiscal crisis unfolds in a monetary union.

2. Puerto Rico vs. Greece: Surprising similarities

Greece and PR are comparable on most economic indicators, as shown in Table 1. The Greek population is somewhat larger (10 million against less than 4 million for PR). But in per capita terms many indicators are of a similar order of magnitude. For both countries, GNP or GNI per capita is at about 50% of their respective 'union' average and wages are also somewhat above 50% of their respective union's average.

In terms of unemployment, the absolute numbers are quite different (the unemployment rate in Greece is twice as high at that one in Puerto Rico), but in both cases the national value is over two times higher than the respective union average. The employment rates are almost identical.

Given the large transfers that Puerto Rico receives, it is surprising that its poverty rate at over 45% is much worse than that of Greece (35.7%). In relative terms, the difference is even starker: the poverty rate in Puerto Rico is more than 3 times higher than that of

the US, whereas the poverty rate in Greece is ‘only’ 1.45 times higher than the EU average. Given that the poverty rate has been high in Puerto Rico for a long time, one must conclude that the US GEMU, with its very substantial fiscal transfers, has not prevented a permanent ‘humanitarian crisis’ on US soil.

More surprising are perhaps the similarities in terms fiscal indicators. The ‘state’ debt is of course much lower as a percentage of GDP. But the more appropriate comparator would be the debt burden relative to the revenues of the state government.

On this account, Puerto Rico appears even more over-indebted than Greece. The debt burden can be measured either as the stock of debt relative to the revenues of the entity which has to service the debt, or as the share of revenues that are devoted to interest payments. On both accounts, Puerto Rico seems to be worse off. Its public debt is higher relative to government revenues (4.5 times) than that of Greece (‘only’ 3.87 times revenues) and its government devotes a higher share of revenues to interest payments (13%) than Greece’s government does (‘only’ 8.5%).

Puerto Rico thus appears even more over-indebted than Greece on both accounts. It is therefore not surprising that the ratings of the two are almost identical¹ and that the yield on Puerto Rico’s state and state-guaranteed debt is similar to that of Greece. Puerto Rico suffered from a first fiscal crisis in 2006, whose effects seem to linger in the form of doubts about the willingness of its government to service its debt.

Table 1. Economic Indicators: Puerto Rico vs. Greece

	Puerto Rico		Greece	
	National value	Relative to Union average	National value	Relative to Union average
GNP per capita	14,400 USD	0.36	16,200 EUR	0.53
Wages/week	390 EUR	0.52	434 EUR	0.56
Employment rate	35%	0.76	36%	0.82
Unemployment rate	13.9%	2.48	26.5%	2.28
Public debt/revenues	450% (717%*)		387%	1.92
Interest on state debt/revenues	13% (22%)		8.5%	1.47
Interest rate 10-year (06/2015)	10.5		12	
Rating	CCC/Caa2		CCC-/Caa2	
Governance (WGI corruption)	0.5	1.3 (US value)	-0.1	1.1 (EA average)
Poverty rate	45.4	3.13	35.7	1.45

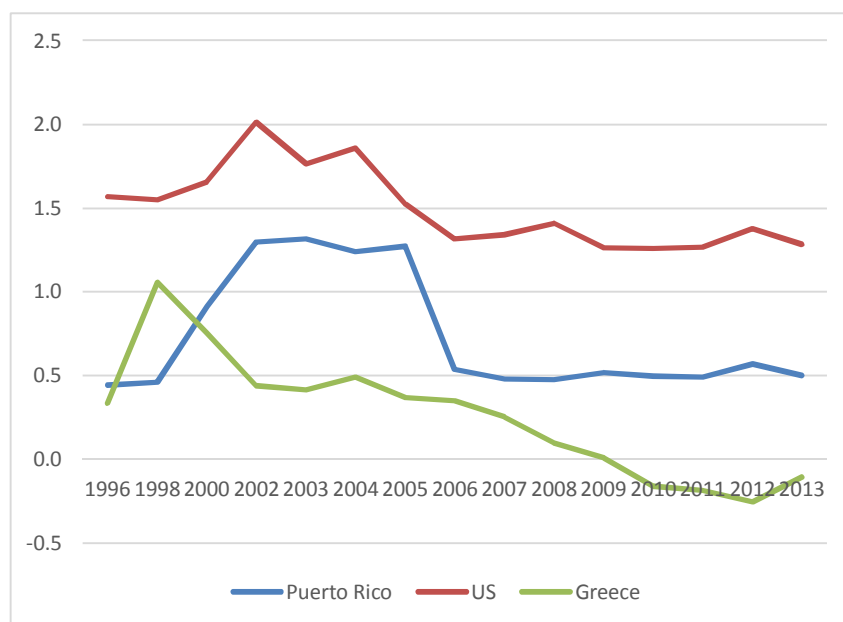
* If US grants are excluded.

Source: Commonwealth of Puerto Rico, US Bureau of Labour Statistics, European Commission and World Bank, latest data available.

¹ See <http://www.tradingeconomics.com/greece/rating>

Another uncanny parallel between the two cases concerns the quality of local governance: The available indicators of the quality of governance from the World Bank (World Governance Indicators - WGI) suggests that Greece performs much worse than the rest of the euro area. The same is true for Puerto Rico relative to the US. The indicator for the control of corruption has always been lower for Puerto Rico than the US. But about 20 years ago, Greece was at about the same level as PR (with a value of about 0.5 on the World Bank's WGI scale). Today the value for Greece has sunk to below zero, indicating another large deterioration, whereas that for PR is still at its previous level. This large difference within the 'legal union' of the United States is not merely due to a difference in perception. Hard data show a similar picture. On a per capita basis, there are many more cases of corruption of public officials in PR than in the rest of the US. Over the last five years, there were five times as many cases in PR than in the rest of the US. No other US state had a similar performance.

Figure 1. Control of corruption index: Puerto Rico, US and Greece



Source: World Governance Indicators, World Bank.

Other indicators give a similar picture. For example, in the World Bank's 'Ease of Doing Business' ranking, the US comes in at 4th place globally, but Puerto Rico is ranked at 43rd place. This is astonishing since the island is an integral of the US legal, judicial and administrative system as mentioned above.²

In terms of openness to international trade Puerto Rico appears very different since exports account for a much higher share of GNP. But a closer look reveals that most of the exports from the island (chemicals and medical equipment) contain very little value added and that the contribution of the export sector to the economy is minor.

² For more detail, see Federal Reserve Bank of New York (2012).

Openness: Much less than meets the eye

At first sight, there appears to be one major difference between Greece and Puerto Rico: The Commonwealth is a major exporter of manufacturing products. Exports of goods are worth almost 100% of GNP, suggesting a very open economy (compared to less than 15% for Greece).

However, closer inspection reveals that most of these exports contain very limited local value added. A first indication that this is the case can be gleaned from the fact that the most important import categories are the same as those on the export side as shown below. The most egregious case is that of chemicals, with imports amounting to over a quarter of GNP and export over three-quarters of GNP.

Puerto Rico: Goods trade by major product category, 2014 (\$ million)

	Exports	Imports
Food and agriculture	2,481	3,901
Petroleum and coal products	604	4,645
Chemicals	48,146	17,999
Machinery	862	1,096
Computer and electronic products	1,687	2,262
Electrical equipment, appliance,	1,114	919
Medical equipment and supplies	5,693	NA (ca. 1,750)
Other	1,870	8,276
Total	62,457	42,475.6

Source: Commonwealth of Puerto Rico, Government Development Bank.

One can have a more precise indication of the local importance of trade by looking at employment and wages in the sectors which account for most of the trade activity (in goods). Manufacturing (which must be the source of all goods exports) accounts for only less than 10% of all employment (the same as in Greece), this implies immediately that the export industry employs only a small fraction of the total work force. This implies immediately that the trade figures must greatly overstate the importance of exports for the local economy (unless wages in manufacturing are several times higher than in the rest of the economy). Manufacturing contributes 45% of national value added, but most of this value added consists of cost of capital and profits, both of which go to the mainland owners of the exporting industries.

Two specific examples can illustrate this phenomenon. The most important export (and import) product category is chemicals. But the chemical industry (mostly pharmaceutical) plays only a very limited role for the local economy. Total employment in this sector amounted in 2013 to ca. 15,000 with an average annual wage of about \$44,000, which gives an annual wage bill of about \$660 million, or only 1% of GNP (0.66% of GDP). This value is not much different from the average for the entire US. The value added, which remains on the Island, from the exports of chemicals, cannot be much above 1% of GDP since the profits belong to the mainland and other multinational firms that own the plants (and most of these profits are tax exempt).

A similar calculation can be made for another major export category, namely electrical equipment and appliances. This sector employs only about 5,000 workers (out of a work force of over 1 million) with an average annual wage (for the sector) of about \$39,000, giving a total wage bill is somewhat below \$200 million or 0.3% of GNP (or 0.2% of GDP). This is another sector in which low value added assembly operations have had little impact on the local economy. A similar calculation can be done for another sector that looms relatively large in the export statistics, namely computer and electronics.

3. The longer-term problem: Arrested development

Fiscal problems are often only the most visible sign of a dysfunctional economy. Puerto Rico is no exception to this regularity.

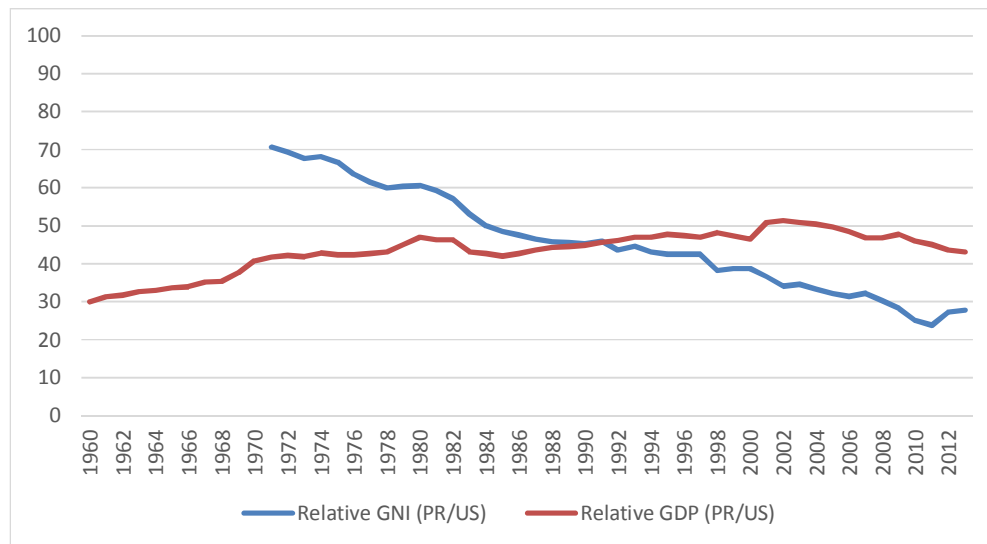
The broad trends can be seen from Figure 2 below. Income per capita of Puerto Rico was less than one-fifth that of the US when its constitution was enacted shortly after World War II. Over the next quarter of a century, it then rose to over two-thirds. But during the early 1970s, the catching-up stopped. Relative GDP held up, but the more relevant national (GNP) product started to fall on a per capita basis relative to the US average (see Figure 2 below). The unusually large difference between GDP and GNP growth was due to the heavy investment in highly capital-intensive pharmaceutical plants, which took advantage of huge tax subsidies (Art. 326 of the US Tax Code). However, little of the value added created in these plants remains on the island. The near total exemption from taxes means that the local government does not benefit³ and these plants do not employ much local labour. According to Collin et al. (2006), the share of payroll in local value added is less than 10% for all the major manufacturing industries in Puerto Rico. The data on the chemicals industry presented in the box above confirms that in this sector the tax shifting must have been extreme given that the total wage bill of this sector (whose exports amount to 70-80 % of GNP) is only about 1 % of GNP.

A period of rapid growth followed by a sharp slowdown is often the prelude to fiscal problems because the rapid growth period fosters unrealistic expectations in terms of income and consumption growth. Moreover, high growth rates also imply a high debt-carrying capacity for the state. As with Puerto Rico until the mid-1970s, this was also the case of Greece and other peripheral countries during the boom years after the introduction of the euro. As documented in Alcidi & Gros (2010), growth rates exceeded interest rates by a wide margin until 2007-08. But growth rates then plummeted and interest rates increased, making the situation difficult for all and unsustainable for Greece. Puerto Rico is facing a similar situation today with the interest rate it is paying (close to 8%) much higher than its growth rate.

There were of course attempts to revive growth in Puerto Rico during the 1980s and afterwards. Sweeping tax breaks were supposed to create a strong industrial base, but the strategy of fostering a local manufacturing base via tax subsidies did not work. Puerto Rico briefly even had a computer parts industry, but employment there fell from 20,000 at the end of the 1990s, just before NAFTA, to less than 5,000 today.

³ Moreover, as discussed below, enterprises in Puerto Rico pay almost no federal tax.

Figure 2. Puerto Rico: Real GDP and GNI (per capita) relative to the US average



Devereux (2014) concludes: “The broad pattern remains the same no matter which versions of income or which states we examine: Puerto Rico made substantial progress toward catching up with the US and the poorest states from the 1950s to the mid-1970s, and since then it has stagnated or fallen further behind.” This conclusion was based on the available data on nominal income. More recent data from the World Bank on real income show an even worse picture (see below): Since the early 1990s, real GNI (i.e. income per capita) has fallen by about one-half, from about 70% of the US average to about 35%. GDP kept increasing until the early 2000s, due to the tax subsidies for mainland investment by pharmaceutical industries (whose profits are contained in Puerto Rico’s GDP, but not in GNP).⁴

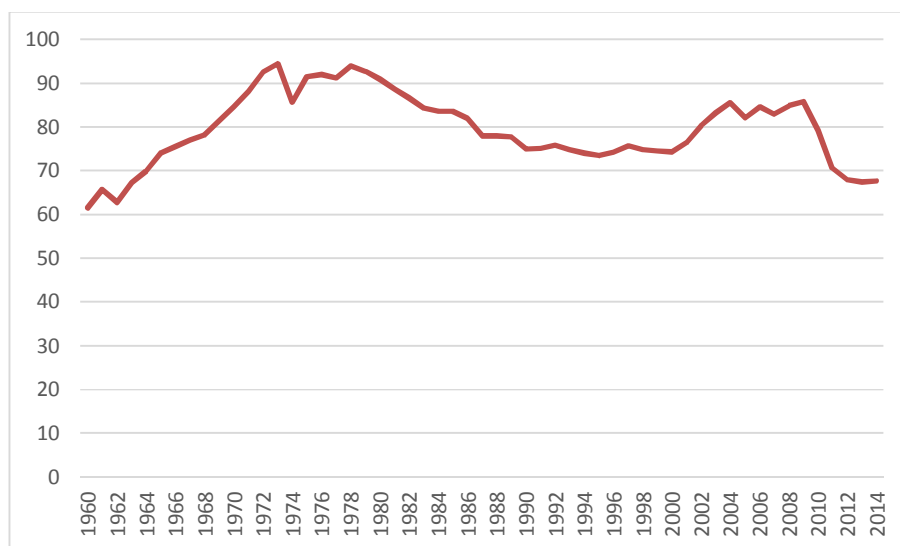
In terms of the desirable degree of integration of economic policy in a monetary union it is interesting to note that the catching up process stopped around the time the US minimum wage was extended to Puerto Rico. According to Freeman (1991), this had a significant impact on local employment, but no study has yet linked the minimum wage to long-term relative growth rates in a systematic manner. The decline in relative GNP coincided also with the start of the tax benefits under Article 326, but this resulted mainly in an increasing divergence between GDP (which continued to grow) and GNP (which fell relative to the US). The end of the phasing out of these tax benefits (in 2006, i.e. 10 years after the decision to end 326 in 1996) coincided with the beginning of the crisis in Puerto Rico although the rest of the US was still booming at that point in time.

Greece has actually performed much better than Puerto Rico (or rather not as bad), if one considers a longer time trend. Its national income relative to the euro-area average is shown in Figure 3 below. The broad pattern is similar in that Greece’s catch-up process also came to a halt during the 1970s (but somewhat later, towards the end of

⁴ Remittances of migrants to the mainland might also have increased in absolute value, but they would not be part of GDP. The decline of GNI relative to GDP suggests that the importance of remittances has fallen over time.

the decade), and the subsequent decline has been slower and much less deep (and was interrupted by the boom that followed its euro membership).

Figure 3. Greece: GNI (per capita at PPP) relative to euro-area average



Source: AMECO database, European Commission.

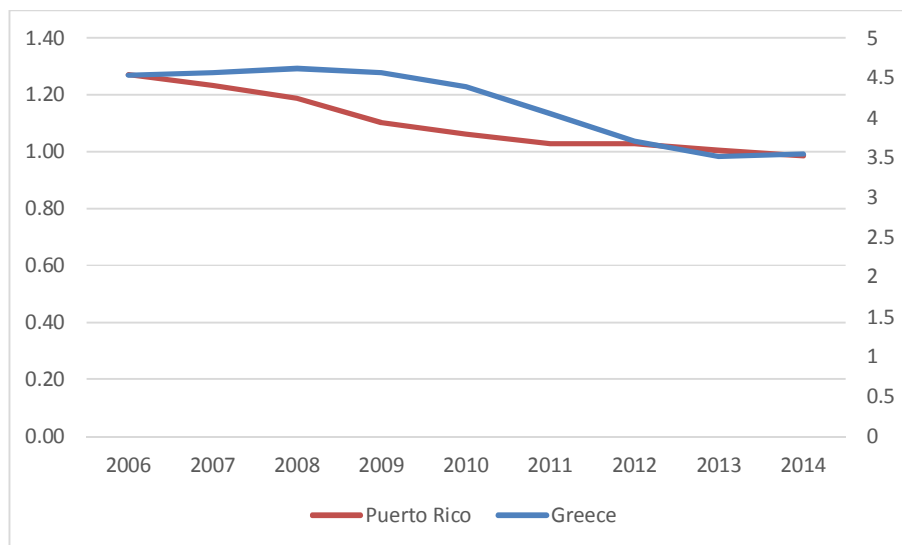
4. Labour mobility

Since Mundell (1961), a sufficient degree of labour mobility is taken to be a necessary condition for a well-functioning monetary union. However, labour mobility can be two-edged sword in terms of its fiscal impact: in a country with high unemployment (and a high debt level) emigration might constitute a social safety valve and the government might gain when unemployed find a job abroad as this lowers domestic unemployment benefit claims and other social security expenditure. But a permanent reduction in the labour force will over time weaken the capacity of the state to service its debt. The case of Puerto Rico shows the (limited) importance of both elements.

Labour mobility is clearly higher within the US. Since the start of the fiscal crisis in 2006 rates of emigration have increased noticeably with net emigration reaching a peak of almost 2% of the population in 2006. Emigration has continued at more than 1% since then (the only exception being 2009, when there was a deep recession in mainland US). By contrast, in Greece the net emigration rate has not gone above 0.5%, even with a much larger decline in income and a much higher unemployment rate. As a consequence, the resident labour force has declined. This is the reason why the unemployment rate has never gone above 20% and is now declining to low two-digit values although employment in Greece has not declined more than in Puerto Rico.

Figure 4 shows that, if one compares 2006 to today, one finds that employment has fallen by exactly the same proportion in Greece as in Puerto Rico. Unemployment would thus have increased by as much as in Greece, if emigration had not provided a safety valve.

Figure 4. Employment since the financial crisis: Puerto Rico vs. Greece
(in millions, PR left hand scale)



Source: Own calculations on European Commission and Commonwealth of Puerto Rico data.

The figure also shows one further difference: in Greece the fall in employment was quicker and more directly related to the fiscal crisis.

5. Fiscal transfers

According to many, this is the key unfinished business for the euro area. It is widely argued (for example, in the above-cited reports of the EU's Presidents from 2012 and 2015) that the euro area needs a fiscal union in order to survive. But if one looks at the case of Puerto Rico, it is difficult to argue that fiscal transfers improve the situation when the real problem is a structural one.

In any federal fiscal system, one has to look at two elements: i) transfers from the Federal budget to sub-federal budgets (e.g. from the US Treasury to the budget of Puerto Rico) and ii) transfers from federal programmes directly to individuals who happen to live in particular states.

For Puerto Rico, both aspects are important: federal transfers constitute a large share of the revenues of the government of the Commonwealth and US federal transfers to individuals constitute an exceptionally large part of local income. This confirms the widely-held notion that the federal fiscal transfer system of the US can be of macroeconomic importance at the level of individual states.

Transfers from the US federal budget to the budget of Puerto Rico constitute over one-third of the total revenues of the Commonwealth authorities. This dependence from the federal budget has increased slightly over time as the share of domestic revenues fell from over two-thirds to 63.6%. In terms of GNP the federal transfers to the budget of Puerto Rico amounted to about 7.5%, increasing to close to 8%, after the fiscal and economic crisis, which started in Puerto Rico already in 2006.

Table 2. Budget of the Commonwealth of Puerto Rico

	2005	2014
Total revenues (billions of USD)	12.4	14.8
of which in percent		
Commonwealth	32.6%	36.4%
Non-Commonwealth	67.4%	63.6%
% GNP		
Non-Commonwealth	7.4%	7.8%

6. Transfers to individuals

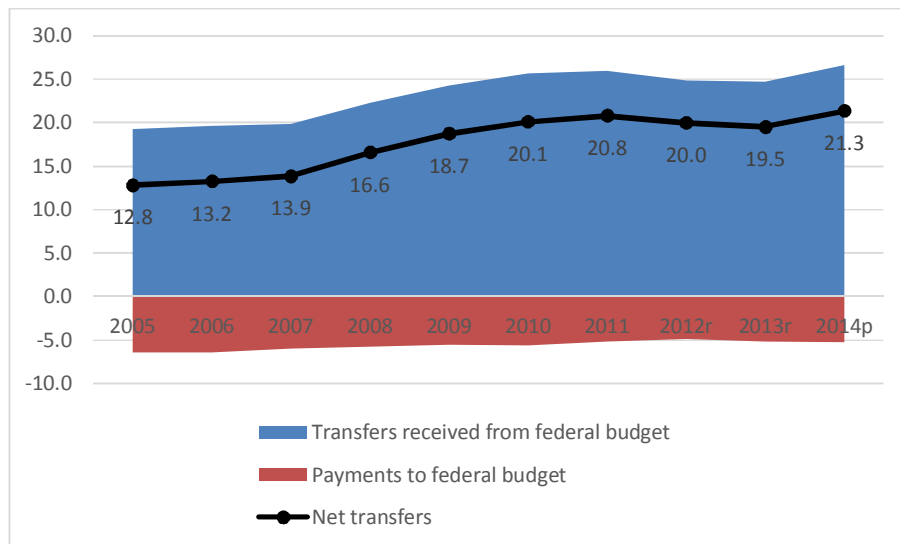
Here Puerto Rico stands out both in terms of the exceptionally low tax payments it send to the federal level and the high level of transfers received. The US federal budget amounts to about 20% of GDP in revenues (and somewhat more in terms of expenditure). But the values for Puerto Rico are quite different on both sides. The tax and other payments coming from Puerto Rico to the federal budget amount to only 5% of Puerto Rico GNI, versus the close to 20% for the US average. Receipts by individuals and enterprises in Puerto Rico from the federal budget amount to close to 26% of Puerto Rico GNP, again much more than the national average.

Figure 5 below shows that payments (tax and other) to the federal budget have been roughly constant over time (declining marginally over the last years only). Receipts from the federal budget have increased substantially, however, from below 20% to 26% of GNP. The result of these two tendencies has been a very substantial increase in the net receipts of the residents of Puerto Rico from the federal budget from less than 13% of GNP in 2005 to over 21% of GNP in 2014.

It is difficult to see how a ‘fiscal capacity’ at the euro-area level would make much of a difference in cases like Greece. In the US, fiscal transfers of over 20% of GDP have not been sufficient to prevent the abysmal performance in terms of the poverty, under-employment and low growth of Puerto Rico.

Budgetary subsidies worth another 8% of GDP have also not been sufficient to prevent a public debt crisis, as shown below.

Figure 5. Puerto Rico: Payments from and to US federal budget (% of GNP)



Source: Commonwealth of Puerto Rico.

The corresponding figure for Greece would be about 3% of GDP if one nets its contributions to the EU budget against the payments to Greek farmers and the expenditure on infrastructure under the Structural Funds.

7. The mechanics of a sub-federal public debt crisis

One important criticism of the euro area has been that there is no lender of last resort for euro-area governments (De Grauwe, 2011). This is also true for state governments and municipalities in the US. The impact of a lack of access to funding can indeed be brutal, as this quote illustrates:

On May 1, 2006, the Puerto Rican government faced significant [shortages in cash flows](#), which forced the closure of the local Department of Education and 42 other government agencies. All 1,536 public schools closed, and 95,762 people were furloughed in the first-ever partial shutdown of the government in the island's history. On May 10, 2006, the [budget crisis](#) was resolved with a new tax reform agreement so that all government employees could return to work. On November 15, 2006, a 5.5% sales tax was implemented. Municipalities are required by law to apply a municipal sales tax of 1.5% bringing the total sales tax to 7%.⁵

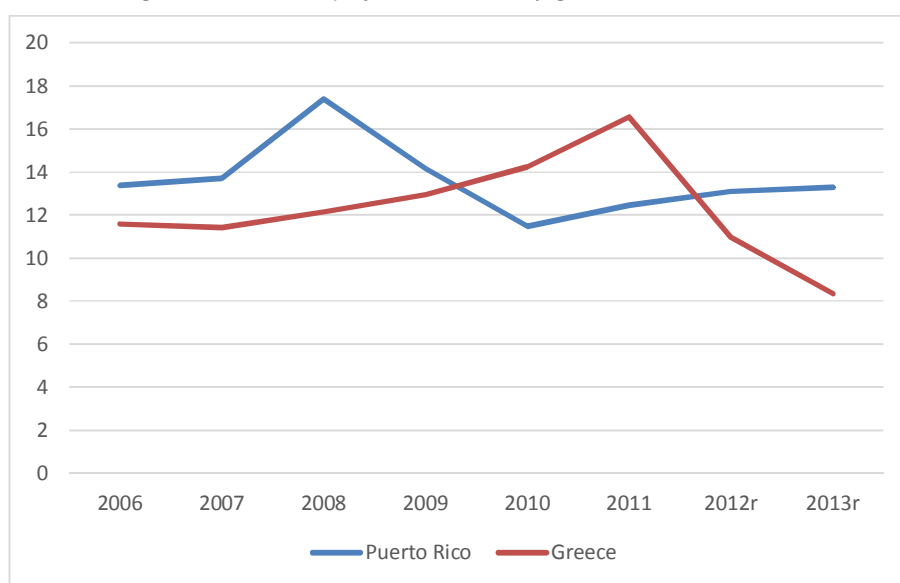
Puerto Rico was not bailed out. When faced with a cash crisis its government thus had to take immediate action to restore the confidence of its investors. One might ask what would have been the reaction in Greece if (either today or in 2010) the government had had to fire all the teaching staff and immediately increase sales taxes. A key difference between Puerto Rico and Greece is that the austerity in Puerto Rico was not imposed by an identifiable outside political entity, but rather by anonymous market forces. The political reaction was thus quite different. Investor committees might be even more unpopular than the Troika in Greece, but they offer much less of a target for

⁵ See https://en.wikipedia.org/wiki/Economy_of_Puerto_Rico#Mining (under Recent Developments).

demonstrations. This difference in the politics of privately held versus official debt also explains why the current Greek government has been asking insistently for debt forgiveness from its official creditors (but not from the private ones).

So far the government of Puerto Rico has had little choice, but to service its debt in full. One reason is that Puerto Rico has been explicitly prohibited by US law from seeking the protection of Chapter 9 bankruptcy proceedings for municipalities and states.⁶ This prohibition has had the effect of increasing the cost of bankruptcy for Puerto Rico, allowing it to sell debt at lower rates than other similarly placed states have been able to. Similarly, membership in the euro area was also thought to have made public debt safer, allowing Greece to accumulate a higher debt level than would have been possible under the drachma.

Figure 6. Interest payments as % of government revenue



Source: Own calculations based on European Commission and Commonwealth of Puerto Rico data.

Figure 6 shows that in the case of Greece substantial debt relief has taken place through lower interest payments whose share in total government expenditure has halved from about 16% in 2011 to less than 8% today. Puerto Rico, by contrast, has only temporarily benefitted from lower US interest rates, and its government now has to devote about 14% of its revenues to paying interest on its debt.

Like Greece, Puerto Rico is also pushing for debt relief, but in a different way. It wants to be able to avail itself of the protection of Chapter 9 of the US bankruptcy code. A bill to enable this has recently been introduced in Congress by the delegate from Puerto Rico (see www.congress.gov/bill/114th-congress/house-bill/870/text).

⁶ See also www.aei.org/publication/puerto-ricos-debt-crisis-and-the-siren-song-of-after-the-fact-bankruptcy/

The US thus has a procedure to deal with the insolvency of sub-national units, but this procedure is apparently not applicable to the one case where it might now be really be used.

If Puerto Rico were allowed to avail itself of a restructuring under Chapter 9, it would then have to accept the supervision of a federal (US) court, losing most of its sovereignty. It is difficult to imagine that Greece would accept the supervision of, let us say, the European Court of Auditors, over its public finances. This is the key difference between a sovereign and a sub-sovereign debt crisis.

Moreover, the petition for protection against creditors could be denied. Apparently in 1991, the petition for relief filed by the city of Bridgeport, Connecticut, was denied because the bankruptcy court concluded that Bridgeport, although financially distressed, was not insolvent (within the meaning of the eligibility criteria of Chapter 9).⁷ This has to be kept in mind, given that the interest burden for Greece is actually lower than that of Italy or Portugal (see De Grauwe, 2015). One could thus argue that a putative European bankruptcy court could declare Greece to be solvent.

The headline fiscal numbers for Puerto Rico appear to be reassuring in that the debt-to-GNP⁸ ratio at about 100% does not appear to be excessive by euro-area standards. But a debt should be compared to the income from which it is being served. Hence one should compare the public debt of the Commonwealth not to the GNP of Puerto Rico, but the revenues of the Commonwealth. On this account, the debt ratio looks much worse than that of Greece, as mentioned above, especially if one relates interest expenditure to revenues.

The stock of public debt is worth 4.5 times the annual (total) revenues of the Commonwealth and it is seven time larger than the revenues that the Commonwealth raises from the Island (the total includes a large amount of transfers from the federal government). For Greece public debt is worth less than four times annual revenues, very little of which comes from the EU since most EU transfers go directly to individuals.

The ratings agencies seem to have adopted a similar point of view, assigning Puerto Rico almost the same rating as Greece. The interest rate (premium for government bonds) is also similar (see Table 3).

⁷ See https://en.wikipedia.org/wiki/Chapter_9,_Title_11,_United_States_Code, for details see <http://business-finance-restructuring.weil.com/chapter-9/bridgeport-%E2%80%93-distressed-but-not-insolvent/#axzz23Dly2TDy>

⁸ The Maastricht criteria relate debt to GDP. But this is not appropriate since governments can tax only the income of national factors of production (GNP), not GDP. For most euro area countries, including Greece, the difference between GDP and GNP can be neglected. The only exception to this in Europe is Ireland.

Table 3. Fiscal position and market indicators 2014-15

	Puerto Rico	Greece
Public debt/revenues	450% (717% only domestic revenues)	387%
Interest on state debt/revenues	13% (22% only domestic revenues)	8.5%
Interest rate 10-year (06/2015)	10.5%	12%
Rating (06/2015)	CCC/Caa2	CCC-/Caa2

Source: Own calculations based on data from the Commonwealth and European Commission.

It is surprising that Puerto Rico has become so over-indebted given that its constitution says that its “budget has to comply with the principle of a ‘balanced budget’”.⁹ Most surveys of balanced budget amendments among US states list Puerto Rico as one of them.¹⁰ It had been widely assumed that these balanced budget amendments, which were adopted by around 40 states following a wave of costly bankruptcies in the early part of the 19th century, would prevent an accumulation of public debt. This assumption had been behind the Fiscal Compact in Europe, which was adopted only recently, and forced all euro-area member countries to adopt such budget balance rules. But the case of Puerto Rico shows that even self-imposed rules offer little protection against over-spending.

The key difference between Puerto Rico and Greece is of course the impact of the fiscal crisis on the banking system. In Puerto Rico the fiscal crisis has had little direct impact on the local banking system, which in any event is not exposed to its own ‘sovereign’. Moreover, the US is a full banking union, with its powerful bank rescue institutions and the prevalence of large, nationally integrated banks. Gros (2012) has emphasised the stabilising property of a Banking Union with an integrated banking system. In the euro area, the insolvency of a sovereign is always linked at least partially to the stability of the banking system. In Greece today, the main reason is no longer large holdings of government debt (government debt is now only a fraction the assets of Greek banks); but rather the fact that a government insolvency will also have a strong negative impact on the economy, and thus on the health of banks.

However, even with the protection of the US federal banking institutions, the crisis has left its mark on the banking system of Puerto Rico. The overall balance sheet of banks in Puerto Rico has actually fallen much more than that of Greece, as Figure 7 below shows.

⁹ See www2.pr.gov/presupuestos/RecommendedBudget2014-2015/Informacin%20General/Budget%20Process.pdf

¹⁰ See the official one from the association of state legislators: www.ncsl.org/research/fiscal-policy/state-balanced-budget-requirements.aspx

Figure 7. Banking asset as a percentage of GNI

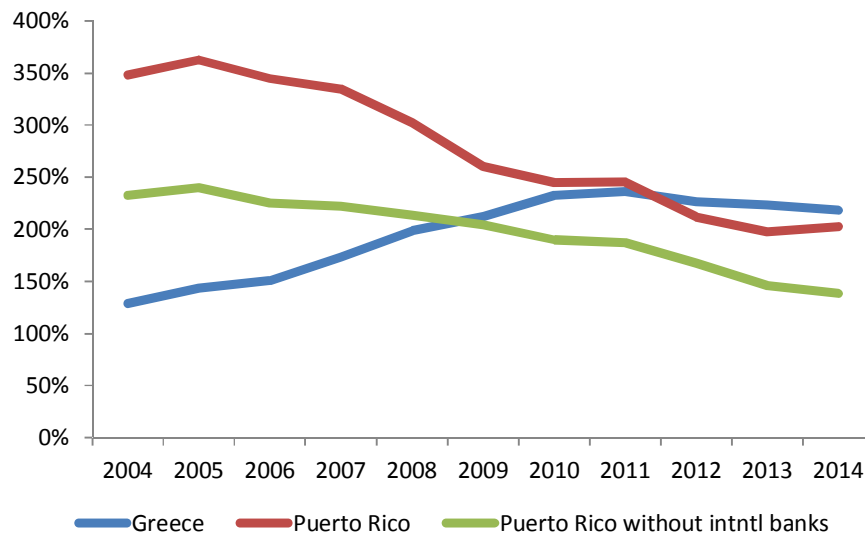


Figure 7 shows that the total banking sheet of Greek banks had grown very rapidly until 2010 and that the decline since then has not been much larger than the decline in national income. By contrast, in Puerto Rico banks have shrunk their assets almost without interruption since the crisis of 2006. That year marked the end of the ‘section 326’ tax credits, which had favoured local plants of international pharmaceutical companies. This might be one of the reasons why the overall balance sheet of international banks present in Puerto Rico has declined by over 30% since 2006. Even without international banks, however, the assets of the banking system of Puerto Rico have declined by over a quarter, and the ratio of banking assets to GNI, which had been much higher than in Greece, is now much lower. This shows that even within a fully integrated banking market a local banking and economic crisis is reflected in, and potentially amplified by, a contraction of the local banking system.¹¹

The difference between Greece and Puerto Rico is thus two-fold: Depositors in Puerto Rico did not have to fear a loss of their savings thanks to the protection of the FDIC. In this sense, banking has been more stable in Puerto Rico than in Greece. See box below.

¹¹ Moreover, over 80% of the commercial banks (in terms of assets) in Puerto Rico are local. Only about one-fifth of the banking system of the Commonwealth consists of local subsidiaries of large US banks, for whom the feedback loop between weak banks and a weak economy is much less relevant since local losses can be absorbed at the group level (see www.ocif.gobierno.pr/documents/Q2-2013/total_assets.pdf).

The role of the FDIC

The FDIC has played a crucial role in stabilising the banking sector of Puerto Rico. It had to rescue three large banks in 2010 and one this year. As the table below shows, the total assets of the banks 'intervened' by the FDIC were worth about \$26 billion; or the equivalent of close to 40% of GNP. It is clear that without the intervention of the FDIC the entire banking system would have collapsed. The total estimated cost of these four interventions amounted to close to \$5 billion, or over 7% of GNP. Without the FDIC, the state of Puerto Rico would have had no choice, but to rescue the banks in question (or at least the insured depositors). This would have added to an already-high debt burden (which has now been recognised as unsustainable). The situation is thus similar to that in Greece where the government would also be unable to guarantee the (remaining) deposits. ELA has de facto been used as a substitute for a common deposit insurance guarantee system.

Failed banks in Puerto Rico

	Assets (\$ bn)	Net deficit (\$ bn)
Doral Bank	5.9	0.7
Westernbank Puerto Rico	11.9	2.5
R-G Premier Bank of Puerto Rico	5.9	1.0
Eurobank	2.6	0.7
Total	26.3	4.8
in % GNP 2014	38%	7%

Sources: "FDIC Failed Bank list" (www.fdic.gov/bank/individual/failed/banklist.html), and Commonwealth of Puerto Rico for GNP.

But over the medium run the deleveraging has been even more pronounced in Puerto Rico. One key reason might be the absence of ELA in the US. Banks in Puerto Rico can refinance themselves (for example with brokered deposits) only against good collateral. Banks in Greece, by contrast, were able to refinance themselves continuously even when they were running out of good collateral because the Bank of Greece would furnish them with Emergency Liquidity Assistance (ELA). The provision of liquidity for banks has thus been much more amble in Greece than in Puerto Rico, allowing for a much slower deleveraging of the banking system.

The downside of the large provision of ELA via the Bank of Greece (and thus ultimately the ECB) is that the provision of this liquidity is viewed as a political decision. The recent decision of the ECB to put a ceiling on ELA was thus interpreted as being motivated by political reasons. By contrast, when banks in Puerto Rico encounter re-financing difficulties on the market, this is a commercial, not a political problem. The provision of ELA has thus allowed for a more gradual deleveraging in Greece, but has also politicised the entire process and made it less gradual.

What remains as a fundamental difference is the possibility of a national government to leave the euro area and introduce a national currency. This makes a bank deposit at a Greek bank inherently vulnerable to a bank run, whatever the strength of the bank.

By contrast, a 'PRexit' is simply not on the table, thus removing another source of uncertainty.

7. Concluding remarks

The main purpose of this contribution has been to illustrate that even in the US, which is usually held up as model for Europe on how a 'genuine' economic and monetary union should work, dysfunctional parts of the Union can get into a combination of long-term economic underperformance and fiscal crisis. The performance of Puerto Rico in terms of under-employment and poverty is even worse than that of Greece despite (some would say because of) the huge fiscal transfers the Island receives. This underperformance in the absence of externally imposed 'austerity' should also be taken as an indication that the problems of Greece today might be much less due to the imposition of an unreasonable fiscal adjustment by the Troika, and much more due to internal structural problems.

Policy-makers in Puerto Rico have a very limited freedom of manoeuvre in terms of economic policy since their Commonwealth is part of the US (the last independence movement was put down by the US military in the late 1940s). It is thus difficult to argue that a 'political union' or a centralisation of economic policy-making can prevent regional failures of this kind. The Greek case should thus not be ascribed to the imperfections (which doubtlessly exist) of the euro area, but rather to a combination of a weak economic fundamentals and local fiscal excesses.

Both Greece and Puerto Rico seem now have arrived at the end of the road. The governor of the Commonwealth has announced that the public debt needs to be restructured (although there are no legal provisions to do so, as mentioned above). In Greece, the government is organising a referendum, calling on the people of Greece to reject the latest proposal of its official creditors (the Troika, composed of the IMF, the ECB and the European Commission) for a further adjustment programme.

This coincidence illustrates that the difference between the two cases is not the underlying economic problems, but the political context: in Greece, both the liquidity provision to banks and the debt problems are politically charged because both are in the hands of official institutions. In Puerto Rico, by contrast, both of these issues are determined by the market.

In Greece the government and the Greek people feel that they have to battle 'foreigners', i.e. other political institutions. In Puerto Rico, the government (and the banks) has a problem with anonymous market forces and investors. This is why nobody argues that the 'dollar' has failed when Puerto Rico fails, but many argue that the 'euro' fails if Greece fails.

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Annex

Among the system's many deficiencies are low collection rates on major taxes, an income tax code plagued by many exceptions, deductions, and preferences, and liberal use of tax incentives for favored purposes. Further, one driver of the large informal sector of the Island's economy is likely the avoidance of taxes, and thus no revenues are collected from the significant activity.

Our earlier report pointed out that high electricity rates charged by the Puerto Rico Electric Power Authority (PREPA), a government-owned monopoly, are restraining economic growth on the Island. Two key recommendations were made in that report: 1) that an independent regulatory commission be set up to protect consumers and improve the efficiency of PREPA's operations, and 2) that Puerto Rico adopt the rules set by the Federal Energy Regulatory Commission for allowing independent power producers to access.

Source: <http://www.newyorkfed.org/outreach-and-education/puerto-rico/2014/Puerto-Rico-Report-2014.pdf>



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