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Morningstar Special Report

Puerto Rico Fiscal Strain: Implications for Investors

State of the Territory
Puerto Rico Bonds Strained

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The Commonwealth of Puerto Rico has made numerous headlines recently, as a perfect storm of credit and market factors have driven prices for bonds from the island to acutely depressed levels. This has been a significant development not only because of the recent media attention to Puerto Rico, but also because Puerto Rico municipal bonds are widely held by individual investors who wish to take advantage of interest income exempt from federal, state, and local income taxes. For residents in areas with significant state and local tax burdens, this "triple tax-exempt" benefit has been a powerful motivator to overlook the potential credit risks presented by debt of the territory. However, because of the fundamental stressors afflicting Puerto Rico, we continue to urge caution in regard to investing in Puerto Rico bonds generally.

Key Takeaways

- Puerto Rico remains one of the most fiscally distressed municipalities, with substantial stressors to its fiscal health.
- Credit and market factors in recent months have combined to drive prices for Puerto Rico bonds to acutely depressed levels.
- Investors should not overlook the fundamental variation that exists between different obligors and security pledges. Based on market data, we see several potentially attractive opportunities for tactical investors who are comfortable with the inherent credit risks in Puerto Rico.
- We continue to maintain a negative outlook on the Commonwealth of Puerto Rico over the near term, but we do not think it is "the next Detroit."

Yet, we also note that there is a wide range of municipal debt issuers in Puerto Rico, each with different revenue streams securing its debt. Thus, we urge investors not to treat all municipal debtors in Puerto Rico as being monolithic; though many obligors are affected by the economy and financial condition of the central government, they are not all affected to the same extent. In light of the recent strain that Puerto Rico bondholders have experienced in the market, we aim to provide greater clarity about the various obligors and security structures behind the debt of Puerto Rico. Though we cannot offer predictions as to whether or when Puerto Rico's fiscal woes might lead to rating agency downgrades, or in a worst-case scenario to default, we can provide analysis and context around some of the recent market activity on Puerto Rico bonds. In so doing, we believe investors can benefit from a clearer picture of where risks and opportunities may lie in Puerto Rico.

Credit Recap: Weak Economy, Onerous Debt Burden, Unfunded Pensions

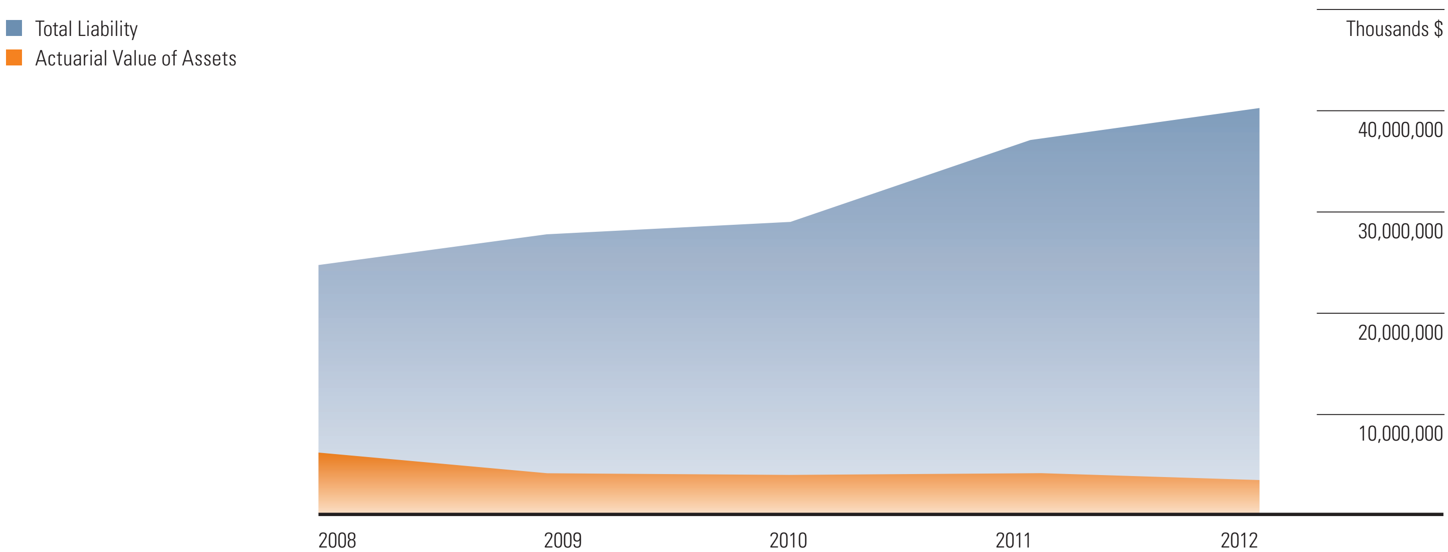
As many know, the Commonwealth of Puerto Rico has suffered for many years from a deteriorating economy, characterized by a shrinking and aging population, high rates of crime and unemployment, low workforce participation, crumbling infrastructure, and a dwindling manufacturing sector that once accounted for nearly half of the island's gross state product. The expiration of federal tax benefits for manufacturers in 2006 reduced their economic incentives for basing operations in Puerto Rico, and the resulting exodus precipitated an economic contraction that was further exacerbated by the housing and financial crisis. The economic contraction in Puerto Rico that began in 2006 has yet to show signs of abatement; the Government Development Bank's economic activity index was at a 10-year low in August 2013 after logging a 5.4% year-over-year contraction.

The weak economy has led to weak revenue collections by the island and has been coupled with ambitious spending plans. This created a pattern of structural deficits that necessitated the continuing use of deficit financing to fund current operations. Recurring expenditures have exceeded recurring revenues for the past 10 years. Since Governor Alejandro Padilla took office in January 2013, the central government has attempted to address the island's myriad of fiscal challenges, but fixed expenditure pressures and a contracting economy continue to weigh heavily on the fiscal health of the island.

Further compounding the economic and fiscal burden in Puerto Rico is the long-term liability in terms of both bonded debt and pension obligations. In its most recent audited financial statement from fiscal year 2012, the Commonwealth of Puerto Rico reported having $35.6 billion in total bonds, notes, and capital leases outstanding. Yet, this figure still understates the total debt liability of the island, as residents of the island are also on the hook for the repayment of debt issued by public corporations and instrumentalities of the Commonwealth, such as the water authority, electric power authority, and highway authority. Based on active bond-level data that we have aggregated up to the obligor level, we calculate more than $88 billion of aggregate public debt outstanding in Puerto Rico.

The crippling pension liability in Puerto Rico has been often discussed, as the governmental policy of paying into its pension system based on a statutory formula instead of the actuarially required amounts has led to severe underfunding. The total liability of Puerto Rico's three pension systems has

Puerto Rico Pension Funding



grown by more than 60% over the last five years, while total assets have shrunk. At the end of fiscal 2012, the three pension systems had an abysmal aggregate funded ratio of 8.4%, with the largest pension system of the three, the Employees' Retirement System, or ERS, funded at only 4.5%. This is by far the weakest funding level of any state in the U.S., as Morningstar research has shown that on aggregate, state plans are 72.6% funded; the worst-funded state, Illinois, has a 40.4% funded ratio.

The ERS was due to deplete its assets by 2014, so the Padilla administration implemented much-needed pension reform upon taking office. Even with the changes, however, the government is simply buying a few more years of cash flow; over the long term, the $37 billion unfunded liability across Puerto Rico's three pension systems remains a significant burden that has yet to be addressed.

Market Factors: Media Panic and Fed Fears

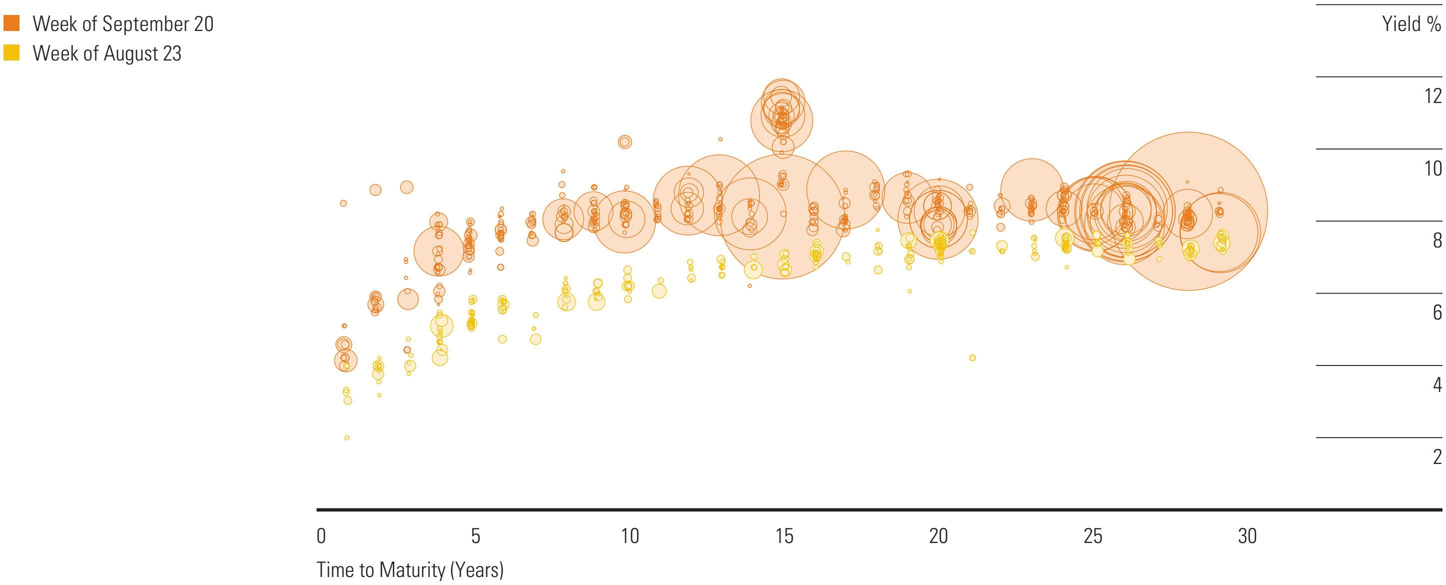
Recent exogenous events have also weighed on Puerto Rico bond activity. In particular, the municipal bankruptcy filing by the City of Detroit in mid-July was a watershed event with implications that reverberated throughout the entire market. This unprecedented event generated concerns about the safety of the general obligation security pledge, which has long been considered one of the strongest security pledges that an issuer can offer to investors. Investors began to pay greater scrutiny to other municipalities that face economic, fiscal, and/or pension woes similar to those of Detroit, and Puerto Rico was quickly thrust into the headlines as "the next Detroit" despite fundamental differences between the two entities.

Concurrently, fears about the Federal Reserve curtailing its bond buyback program, and the rising interest rates that would follow, spurred record-high outflows from municipal bond mutual funds. In just the third quarter of 2013, municipal bond mutual funds experienced an estimated $22 billion in outflows, according to Morningstar data.

In mid-August, the Puerto Rico Electric Power Authority came to market with a $673 million bond offering priced to yield up to 7.12%. These bonds were met with strong investor demand, as subsequent trading brought yields down to 7%. Such yields are long gone, though, as negative headlines persisted and exacerbated a sell-off in Puerto Rico bonds. In particular, a cover story published by Barron's on Aug. 26, 2013, highlighting the fiscal woes long faced by Puerto Rico appeared to set off heightened fears about Puerto Rico debt.

Prices on Puerto Rico bonds have taken a huge hit as a result of these recent events, with current market yields exceeding 11% for certain issues. The chart in Figure 1 compares the trading activity of uninsured general obligation and guaranteed bonds of the Commonwealth over the week of Aug. 23, 2013—prior to the Barron's feature—and the week of Sept. 20, 2013—four weeks later. The size of the bubbles

Figure 1: Uninsured Commonwealth GO and Guaranteed Bond Trades



denotes the transaction amount, and it is readily apparent that the amount traded on these bonds in recent weeks has increased substantially. Furthermore, it is clear that the headline risk has driven prices down significantly, particularly for certain bonds at the 15-year maturity range.

Still, GO and guaranteed debt constitutes only a fraction of the total debt of Puerto Rico, and many other types of debt have been affected by the recent headlines as well. In the next section, we will review the other types of Puerto Rico debt in order to offer a fuller picture of recent bond trading activity.

What Does Puerto Rico's Debt Profile Look Like?

As outlined in Figure 2, there is $88.6 billion in debt outstanding in Puerto Rico as of September 2013, a figure that includes amounts for accreted interest for zero-coupon bonds. As shown in the table below, this total debt figure includes a variety of obligors and security pledges, each of which represents varying risk factors. As a result, from a credit perspective, we are most concerned about the obligor of the bonds, not the issuer—that is, we are concerned with the entity responsible for the payment of principal and interest, the sources of revenue for payment, and covenants related to the payment on the bonds. At Morningstar we continually stress that understanding the security pledge and how and when an entity has promised to make debt service payments is of critical importance to investors. In the following section, we provide an overview of the total debt profile of Puerto Rico and a summary of the security pledge behind the bonds.

We note that although the specific security pledges vary widely, the revenue streams behind these security pledges are in fact highly connected. For example, the Puerto Rico Highway and Transportation Authority, or PRHTA, the Puerto Rico Electric Power Authority, or PREPA, and the Puerto Rico Aqueduct and Sewer Authority, or PRASA, have all historically relied on liquidity support from the Government Development Bank for operations. Furthermore, the Commonwealth and other governmental entities remain the largest customers for the PREPA, and PRASA has historically relied on operational subsidies from the Commonwealth. Because of the high degree of interconnectedness between Puerto Rico's governmental entities, we believe it is important to parse out features that offer a uniquely strong, or weak, pledge of security.

Of key importance are the constitutional provisions that provide an extra layer of security for Commonwealth general obligation and guaranteed bonds. Principal and interest payments for these bonds have a first lien on general fund revenues, taking priority over pension payments and

Figure 2: Direct Debt of Puerto Rico, as of Sept. 2013

Obligor Name	Abbreviation	Security Provision	Amount of Debt Outstanding	Subject to Claw Back
Puerto Rico Sales Tax Financing Corporation	COFINA	Sales Tax Revenue	38,374,270,000	No
Commonwealth of Puerto Rico		GO/ Guaranteed	16,194,333,667	No
Puerto Rico Electric Power Authority	PREPA	Electric System Revenue	9,052,300,000	No
Government Development Bank for Puerto Rico	GDB	Unsecured	6,161,517,000	No
Puerto Rico Highway and Transportation Authority	PRHTA	Gas Tax and Toll Revenue	5,050,790,128	Yes (portion)
Employees Retirement System of the Government of Puerto Rico	ERS	Retirement Contributions	3,841,110,000	No
Puerto Rico Aqueduct and Sewer Authority	PRASA	Water Revenue	3,437,200,000	No
Commonwealth of Puerto Rico		Commonwealth Appropriations	2,457,501,120	No
Puerto Rico Infrastructure Financing Authority	PRIFA	Federal Rum Tax Revenue	2,449,055,000	Yes
Puerto Rico Municipal Finance Agency	MFA	Municipal GO	793,000,000	No
Puerto Rico Convention Center District Authority	PRCCDA	Hotel Occupancy Tax	418,805,000	Yes
Puerto Rico Ports Authority		Port Revenue	329,215,000	No
Total Direct Debt			**88,559,096,915**	

For a more detailed breakdown of Puerto Rico debt, please refer to Appendix A.

payroll expenses. If Commonwealth revenues are insufficient to meet debt service payments for these bonds, the central government can claim all available Commonwealth resources, including the revenues of federal excise taxes on rum, fuel taxes, and hotel occupancy taxes in order to make those payments whole. The claw back provision weakens the security pledge of the bonds that are paid from these three revenue streams, notably from the Highway and Transportation Authority, the Infrastructure Financing Authority, and the Convention Center District Authority. Notably, utility system revenue (from both the water and electric systems), toll revenue, and sales tax revenue are not considered available Commonwealth resources, and are thus not subject to claw back.

Non-impairment of the revenue stream is one of the reasons that we find the sales tax revenue bonds issued by COFINA to have the strongest security pledge in Puerto Rico. Each year, a dedicated portion of the island-wide sales and use tax is first deposited to COFINA before it is allocated to the central government and its municipalities. The sales tax revenue stream for COFINA has been very consistent over the past five years, and the fact that the central government cannot claw back COFINA revenues provides further strength for these bonds.

Summary of Obligor Security Pledges

Puerto Rico Sales Tax Financing Corporation (COFINA)
Sales tax revenue bonds secured by a first claim on half of the island-wide sales and use tax. Each year, sales and use tax receipts are allocated to the COFINA sales tax fund up to the Pledged Sales Tax Base Amount before they can be allocated to the Commonwealth general fund. Debt service on COFINA bonds is then paid out of this fund.

Commonwealth GO and Guaranteed
General obligation and guaranteed bonds are backed by the full faith and credit of the Commonwealth. Per the Puerto Rico Constitution (Section 8, Article VI), interest and principal payments on GO and guaranteed debt have a first lien on all available Commonwealth resources, taking priority over appropriated expenses.

Puerto Rico Electric Power Authority (PREPA)
Payable from net revenues of the electric utility system, which is the monopoly provider of electric power on the island.

Government Development Bank (GDB)
Unsecured obligations of the bank, payable from future revenues, appropriations, or bond proceeds of the borrowing entities.

Puerto Rico Highway and Transportation Authority (PRHTA)
Revenue bonds mostly payable from a combination of gas taxes, motor vehicle license fees, and toll revenues. These revenues are subject to first being applied to the payment of Commonwealth general obligation and guaranteed debt in the event that Commonwealth revenues fall short. The PRHTA has also issued grant anticipation revenue bonds, payable federal highway grant revenues.

Employees Retirement System of Puerto Rico (ERS)
Pension funding bonds payable from statutorily required governmental contributions to the retirement system. Annual contributions are first applied to ERS principal and interest payments before pension benefits.

Puerto Rico Aqueduct and Sewer Authority (PRASA)
Revenue bonds payable from net revenues of the water and sewer system, which is the monopoly provider of water on the island.

Commonwealth Appropriation
Payable from annual budgetary appropriations of the Commonwealth; bondholders have no legal recourse to require the legislature to appropriate sufficient funds for bond payments.

Puerto Rico Infrastructure Financing Authority (PRIFA)
Payable from federal excise taxes on Puerto Rico rum, which are subject to first being applied to the payment of Commonwealth general obligation and guaranteed debt.

Puerto Rico Municipal Finance Agency (MFA)
Obligations of the Agency secured an unlimited tax general obligation pledge of participating municipalities and monies appropriated or transferred to the MFA by the Commonwealth of Puerto Rico.

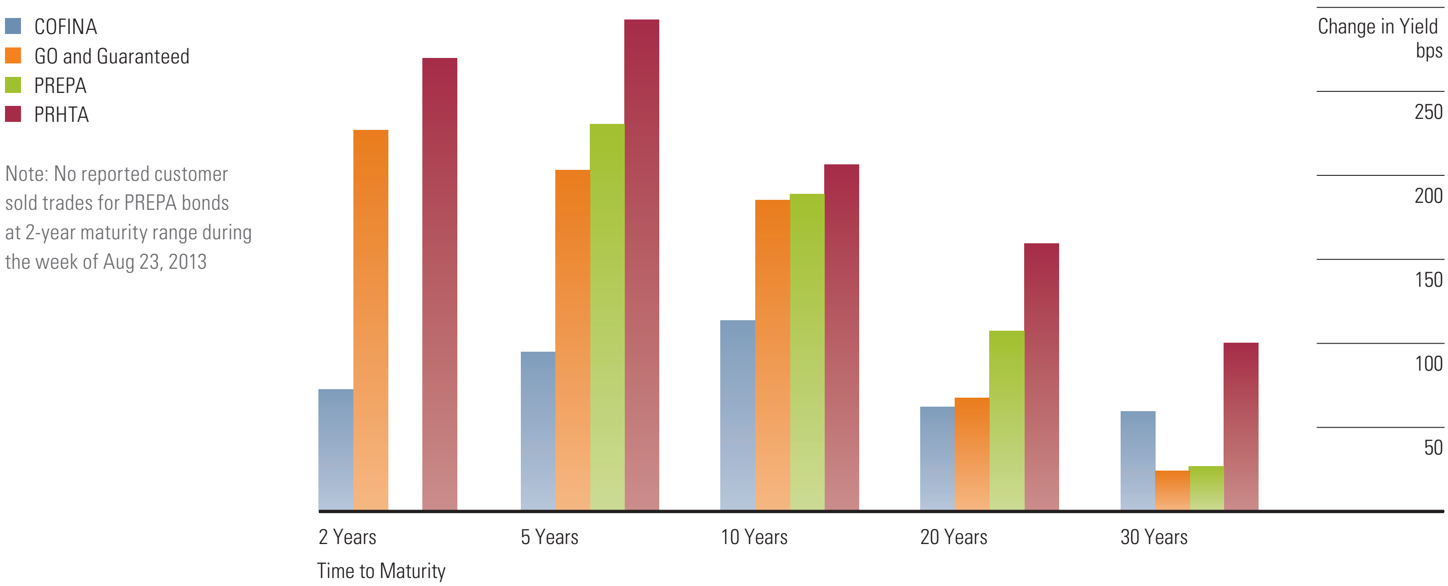
Puerto Rico Convention Center District Authority (PRCCDA)
Revenue bonds payable from hotel occupancy taxes, subject to first being applied to the payment of Commonwealth general obligation and guaranteed debt.

Ports Authority
These bonds were issued by PRIFA but are general unsecured obligations of the Ports Authority, payable from net revenues of the Authority including fuel delivery fees for all Puerto Rico airports.

Market Activity: GO Panic, COFINA Jitters

Trading activity of Puerto Rico bonds has reflected the fundamental differences in the strength of various pledges of security. Across all Puerto Rico obligors, bond yields have risen over the past month; however, the fact that they have not risen uniformly underscores the inherent variation in credit risk between these obligors. We compared "customer sold" trades of uninsured bonds for the one-week period ending Aug. 23 and the one-week period ending Sept. 20 for four different obligors. A chart depicting the change in yields can be seen in Figure 3. As expected, yields increased less for issuers with the strongest security pledges, namely, GO and COFINA, while yields rose more for weaker security pledges such as PREPA and PRHTA.

Figure 3. Change in Yield for Various Obligors (Week of Aug. 23, 2013 vs Week of Sept. 20, 2013)



Note: No reported customer sold trades for PREPA bonds at 2-year maturity range during the week of Aug 23, 2013

Notably, the rising yields have roughly equalized the yields of GO bonds, electric system revenue bonds, and gas tax revenue bonds, as seen in Figure 4. In our view, this reflects pricing inefficiency in the market, as we believe that the security pledge of Commonwealth GO and guaranteed bonds is fundamentally stronger than that of the electric system (PREPA) or the highway system (PRHTA). Our view is based on the fact that 1) a significant portion of PREPA revenues comes from the Commonwealth, which must pay debt service on GO and guaranteed bonds before it pays its electric bill, and 2) roughly half of the PRHTA's annual revenues are subject to claw back by the Commonwealth, also for the payment of GO and guaranteed debt. Thus, all else equal we would expect yields for GO and guaranteed bonds to be lower than those of PREPA and PRHTA, not higher or the same.

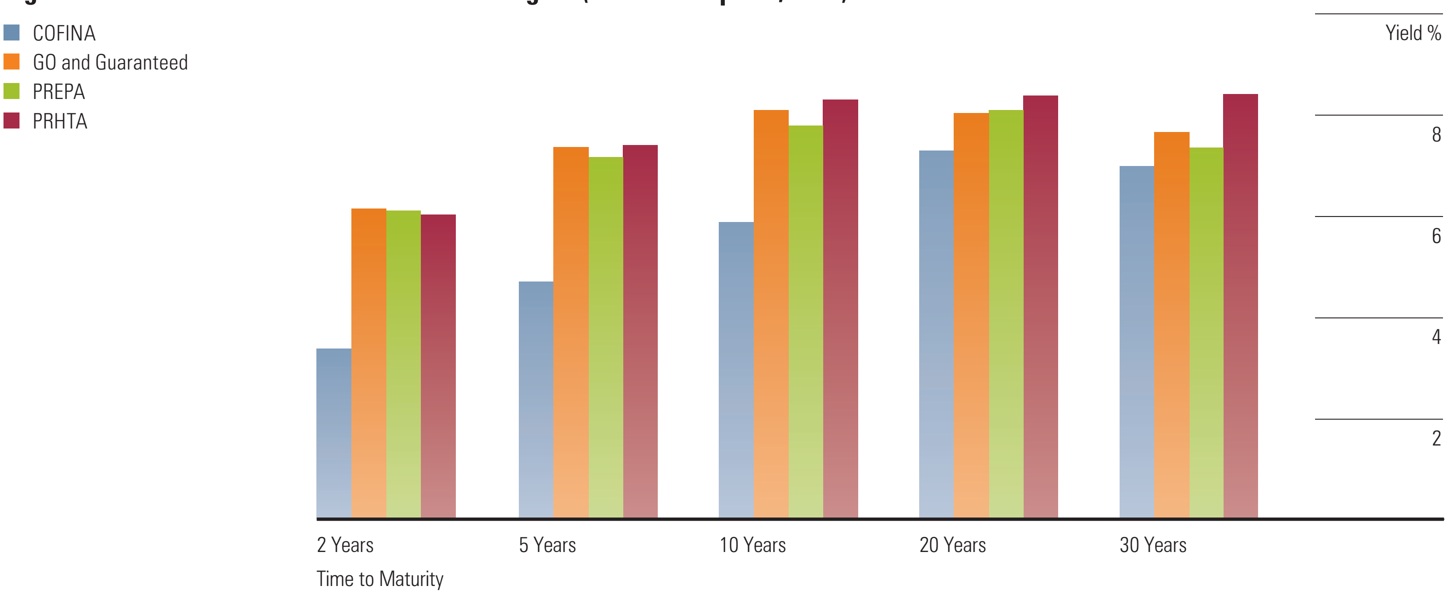
The relative strength of the first-claim sales tax revenue bonds issued by COFINA is also reflected by data, as these bonds have consistently traded at yields below other Puerto Rico bonds. Still, despite strong sales tax collections, yields for COFINA bonds have also risen over the past four weeks—especially at the 5- and 10-year maturity range.

Based on this market data, we see several potential opportunities for opportunistic investors who are comfortable with the inherent credit risks. The first is for short-term GO and guaranteed bonds, which, based on the strength of security pledge, we believe were overly punished by the market because of recent headlines relative to other forms of Puerto Rico debt. In particular, yields at the 2-year maturity range have risen the most, offering an appealing reward for the short-term risk exposure. Second, we believe that the COFINA sales tax revenue pledge remains strong, making the discounts now available at short-term maturity ranges look appealing as well. As always, risk tolerance and investor objectives must be carefully weighed before making a decision to invest, and given the very real stresses the territory is facing, we strongly encourage adhering to this maxim.

The Role of Bond Insurance: Limited, Unless You Have the 'Right' Kind

Since the financial crisis, the role of bond insurance has diminished greatly in the municipal market. Immediately prior to the crisis, most municipal bond insurers carried AAA ratings and the majority of bonds issued annually came with an insurance wrapper. As the crisis unfolded, each of the active insurers' claims-paying ability became impaired, and their credit ratings were subsequently adjusted downward. At present, the credit assessment of insurance has changed dramatically from what it once entailed, as the claims-paying ability of each insurer must be weighed separately.

Figure 4. Current Market Yield for Various Obligors (Week of Sept. 20, 2013)



Currently, roughly 30% of Puerto Rico debt carries bond insurance; however, there is substantial variation in the value that the market places on different insurers. To illustrate this, we analyzed the trading activity of PRHTA revenue bonds from Aug. 23 to Sept. 23, 2013. We found that bonds insured by FGIC, AMBAC, and Syncora offered no savings from uninsured bonds. Meanwhile, bonds insured by MBIA and Assured Guaranty did trade at lower yields than the insured bonds. Though we cannot assess the credit strength of these various bond insurers directly, we do note that the varying degrees of exposure they have to City of Detroit debt is likely affect their financial standing. In a very real sense investors are now faced with making a determination of whether the insurance policies in place will actually perform as originally intended and believed.

Figure 5. PRHTA Yields (Aug. 23–Sept. 23, 2013)

TTM	No Insurance	FGIC/AMBAC/ Syncora	MBIA	Assured Guaranty
2 Years	5.91	5.91	3.3	2.96
5 Years	7.84	7.92	5.05	5.63
10 Years	8.24	8.31	6.9	6.08
20 Years	8.23	8.22	7.29	6.7
30 Years	7.66	7.84	6.68	7.1

Our Outlook Going Forward

Continued Weakness…

In light of the dire economic and fiscal challenges the island faces, we maintain our negative outlook on Puerto Rico. Economically, Puerto Rico has yet to emerge from recession, and both corporations and people continue to leave the island. Unemployment is persistently high, and the increasing number of people dropping out of the labor force will place an even greater strain on the social safety net. High reliance on intergovernmental revenues from the federal government could potentially be another source of strain, as congressional gridlock and conservatism may lead to reductions in federal transfers. Financially, we expect fiscal 2013 results to be weak, as preliminary figures released by the Government Development Bank indicate lower total revenue collections than in the previous year. Meanwhile, the debt and pension burden of the Commonwealth continues to grow year after year.

While we believe that the reforms Governor Padilla and his administration have undertaken were absolutely essential to buy some time for Puerto Rico, we also fear that many of the measures are too little, too late. Padilla's pension reform efforts are expected to bring cash flow relief to Puerto Rico's retirement systems, but they do not address the unfunded actuarial liability of more than $37 billion that has already accumulated—and that will eventually have to be addressed. The administration has also expanded its budget for the current fiscal year 2014 through tax increases on business sales transactions and multinational corporations—despite the fact that businesses continue to leave the island. As a result, we remain pessimistic about the government's budgeted revenue projections.

…But Not Quite Like Detroit

In many ways, the current plight of Puerto Rico mirrors that of the City of Detroit—overreliance on a deteriorating manufacturing sector, high unemployment, stagnant economy, high crime rate, ongoing structural deficits, unwieldy debt and pension liability, and overly optimistic budget projections. While we do not wish to understate the substantial degree of credit stress that Puerto Rico is experiencing, we also note that there are a few key differences between the two entities.

First, unlike the City of Detroit, the Commonwealth of Puerto Rico cannot file for Chapter 9 bankruptcy under the U.S. Bankruptcy Code. Second, the repayment of GO debt is constitutionally guaranteed, superseding both pension and current payroll payments—a level of legal protection that Detroit bondholders did not have. Third, both the central government and component units of the Commonwealth have access to short-term funding through the Government Development Bank, or GDB, which allows them to stave off the possibility of default, at least for the near term. More than half of the bank's assets are in the form of public-sector loans and standby letters of credit, underscoring the critical importance of the GDB in keeping Puerto Rico's governmental entities financially afloat. Finally, the Commonwealth has effectively used COFINA as a long-term debt financing vehicle, as the non-impaired revenue stream is insulated from many of Puerto Rico's fiscal woes.

Recent market events, however, have somewhat weakened the financial lifeline that the GDB and COFINA provides for the various obligors in Puerto Rico. Because of current market conditions and the structural weakness of many GDB borrowers, the president of the GDB has announced plans to scale back its bond issuance for the current fiscal year. Lack of willingness from the GDB to extend operating loans could potentially have a profound impact in exacerbating the revenue shortfall of the Commonwealth and component units such as PRHTA and PRASA.

The government has also passed a law to increase the share of sales and use tax revenue allocated to COFINA from 2.75% to 3.5% of the island-wide 7% sales and use tax. The increased allotment to COFINA will be used to fund bond financings related to $1.2 billion in debt incurred in fiscal years 2012 and 2013, as well as $820 million in deficits projected for the current fiscal year. Unfortunately, Moody's recently downgraded senior lien COFINA bonds from Aa3 to A2, citing its notching methodology and weak economy for the downgrade. Ironically, neither of these factors led to a downgrade of the subordinate lien COFINA bonds, which are secured by the exact same revenue stream as the senior lien bonds. Moreover, none of the other Puerto Rico obligors that are affected by the same economic pressures were downgraded.

While it's uncertain whether this means there will be a coming wave of credit downgrades, we do reiterate that the economic pressures the island faces are serious, and have a negative effect on the credit quality of most Puerto Rico debt. However, on a relative basis, we maintain our view that the dedicated sales and use tax, or SUT, supporting COFINA bonds remains the strongest security pledge available in Puerto Rico. Monthly SUT collections have grown consistently over previous years, and the portion of this revenue stream dedicated for COFINA cannot be impaired by the commonwealth. Of course, SUT collections will still be highly tied to economic activity, which has continued to contract. However, because COFINA has a first claim on its portion of the SUT, we think the contracting economy's effect on SUT collections will negatively affect the commonwealth's general fund before it weakens COFINA.

There is still the possibility that Puerto Rico can weather this protracted downturn and achieve a long-term solution to its fiscal woes. In our opinion, it is absolutely critical that something be done to spark the economy; current efforts to raise taxes on corporations as both people and businesses continue to leave the island just aren't going to cut it. Given the current political climate in Washington, D.C., we also think it is unlikely that the federal government will offer any sort of financial bailout for Puerto Rico. Thus, we think an economic development plan aimed at attracting manufacturers back to the island will be critically important. Other possible remedies include the introduction of a sub-minimum wage to employ more of the eligible workforce, as has been suggested to the Puerto Rico government by the Federal Reserve Bank of New York. Furthermore, we would also like to see more of a concerted effort to reduce annual budgeted expenditures and actually match them with recurring revenues. The unfunded pension liability will also need to be seriously addressed and not merely buck-passed to the next administration.

What Does This Mean for Puerto Rico Bonds?

As all of these developments relate to Puerto Rico bonds, we would not rule out the eventual possibility of default, though that possibility is mitigated in the near term so long as the Government Development Bank remains willing and able to extend liquidity support, and sales tax revenues supporting COFINA remain robust. In our opinion, Puerto Rico bonds that do not have a specific, first-priority revenue claim are more vulnerable; in particular, we are wary of the highway revenue and hotel revenue bonds as both revenue streams are economically volatile and furthermore are subject to claw back for the payment of Commonwealth GO and guaranteed debt. Commonwealth appropriation bonds issued by the Public Finance Corporation also run the risk of non-appropriation if there is a revenue shortfall and lack of cash flow borrowing to prop up the Commonwealth. Conversely, we like COFINA debt and to a lesser extent

Commonwealth GO and guaranteed debt, as the legal pledges and dedicated revenue streams securing these bonds remain strong.

On an absolute basis, all Puerto Rico obligors face considerable credit strain due to the myriad of challenges faced by the Commonwealth. Yet, our assessment of the current relative risk of different obligors of Puerto Rico underscores the importance of both obligor-level and security-level analysis. Following the recent wave of Puerto Rico bond sell-offs, we believe that now may be an opportune time to take advantage of the discounts available on some of the safer Puerto Rico securities at shorter maturities; however, our ability to analyze the longer-term claims-paying ability for any specific obligor is imprecise. As always, investors must analyze their tolerance for risk and their investment objectives carefully before deciding to invest. Given all of the uncertainties surrounding the various Puerto Rico bond issues, this maxim is acutely true today.

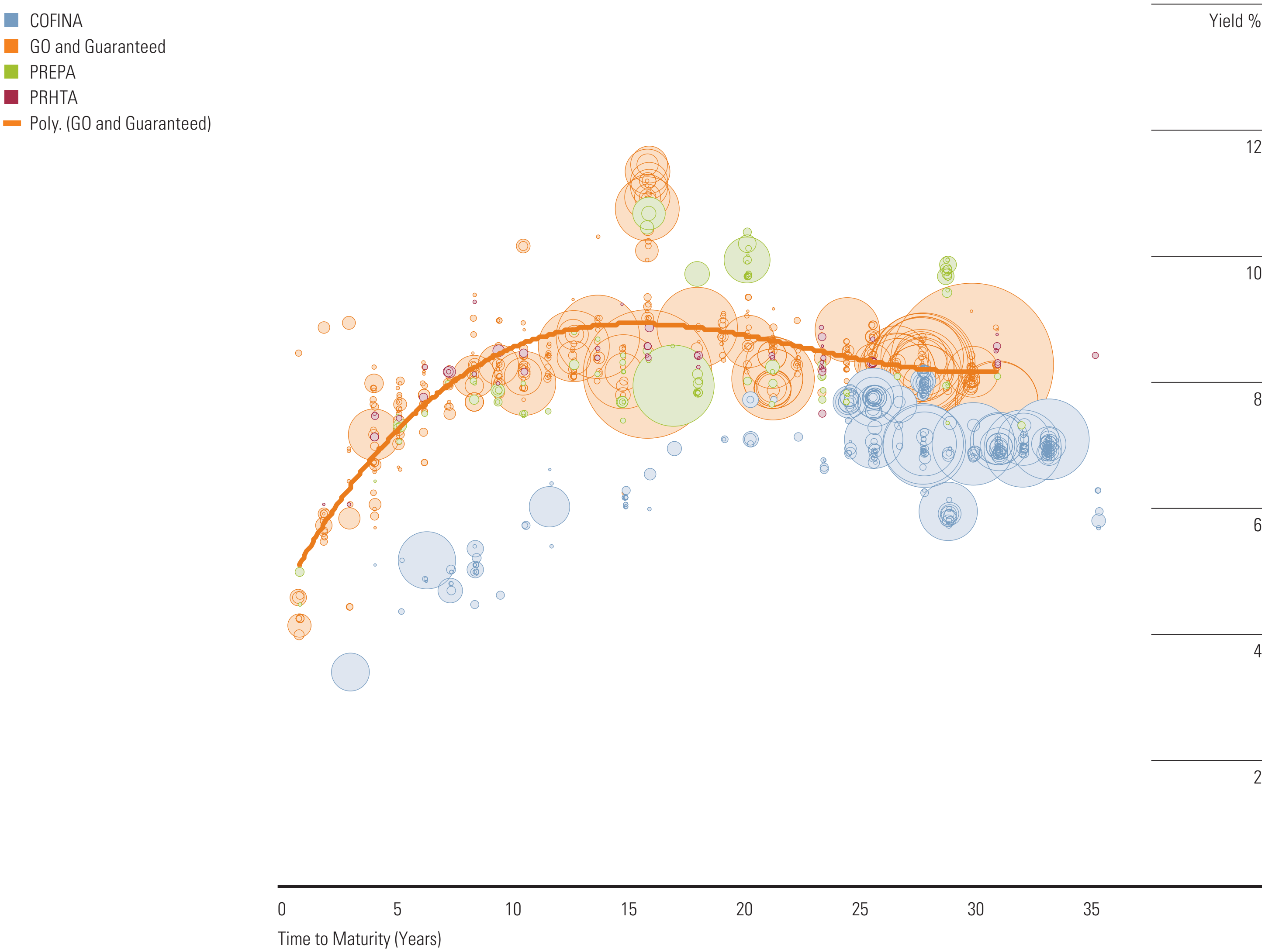
Appendix A. Detailed Breakdown of Puerto Rico Debt

Name	Security Provision	Capital Structure	Associated Pledge	Amount Outstanding	Amount Insured
Puerto Rico Sales Tax Financing Corporation	**Sales Tax Revenue**			**38,374,270,000**	**12,829,365,000**
Obligor: Puerto Rico Sales Tax Financing Corporation Issuer: Puerto Rico Sales Tax Financing Corporation	Pledge of a dedicated portion of Commonwealth Sales Tax revenue	Senior Lien	—	21,743,395,000	12,579,365,000
Obligor: Puerto Rico Sales Tax Financing Corporation Issuer: Puerto Rico Sales Tax Financing Corporation	Pledge of a dedicated portion of Commonwealth Sales Tax revenue	Subordinate Lien	—	14,860,875,000	250,000,000
Obligor: Puerto Rico Sales Tax Financing Corporation Issuer: Government Development Bank for Puerto Rico	Pledge of a dedicated portion of Commonwealth Sales Tax revenue	Senior Lien	—	1,770,000,000	0
Commonwealth of Puerto Rico	**GO/Guaranteed**			**16,194,333,667**	**3,795,035,000**
Obligor: Commonwealth of Puerto Rico Issuer: Commonwealth of Puerto Rico	General obligation	Unlimited Tax	—	11,652,450,000	3,795,035,000
Obligor: Puerto Rico Public Buildings Authority Issuer: Puerto Rico Public Buildings Authority Associated Obligor: Commonwealth of Puerto Rico	Pledge of lease rental payments and additional general obligation guarantee of the Commonwealth	—	General Obligation	4,257,128,667	0
Obligor: Puerto Rico Aqueduct and Sewer Authority Issuer: Puerto Rico Aqueduct and Sewer Authority Associated Obligor: Commonwealth of Puerto Rico	Pledge of net revenues of water system and additional guarantee of the Commonwealth	Subordinate Lien	General Obligation	284,755,000	0
Puerto Rico Electric Power Authority	**Electric System Revenue**			**9,052,300,000**	**2,847,420,000**
Obligor: Puerto Rico Electric Power Authority Issuer: Puerto Rico Electric Power Authority	pledge of net revenues of electric system	—	—	9,052,300,000	2,847,420,000
Government Development Bank for Puerto Rico	**Unsecured**			**6,161,517,000**	**267,000,000**
Obligor: Government Development Bank for Puerto Rico Issuer: Government Development Bank for Puerto Rico	Unsecured general obligation of the Bank	—	—	6,161,517,000	267,000,000

Name	Security Provision	Capital Structure	Associated Pledge	Amount Outstanding	Amount Insured
Puerto Rico Highway and Transportation Authority	**Gas Tax and Toll Revenue**			**5,050,790,128**	**3,226,095,128**
Obligor: Puerto Rico Highway and Transportation Authority Issuer: Puerto Rico Highway and Transportation Authority	Pledge of all gas taxes, a portion of motor vehicle license fee revenues, and all toll revenues	First Tier	—	804,545,000	474,615,000
Obligor: Puerto Rico Highway and Transportation Authority Issur: Puerto Rico Highway and Transportation Authority	Pledge of excise tax on certain petroleum products and certain toll revenues	Second Tier/ Senior Lien	—	3,908,420,128	2,599,305,128
Obligor: Puerto Rico Highway and Transportation Authority Issuer: Puerto Rico Highway and Transportation Authority	Pledge of excise tax on certain petroleum products and certain toll revenues	Second Tier Subordinate Lien	—	251,725,000	66,075,000
Obligor: Puerto Rico Highway and Transportation Authority Issuer: Puerto Rico Highway and Transportation Authority	Pledge of federal highway grant revenue	—	—	86,100,000	86,100,000
Employees Retirement System of the Government of Puerto Rico	**Retirement Contributions**			**3,841,110,000**	**0**
Obligor: Employees Retirement System of the Government of Puerto Rico Issuer: Employees Retirement System of the Government of Puerto Rico	Pledge of revenues from employer retirement contributions	—	—	3,841,110,000	0
Puerto Rico Aqueduct and Sewer Authority	**Water Revenue**			**3,437,200,000**	**384,115,000**
Obligor: Puerto Rico Aqueduct and Sewer Authority Issuer: Puerto Rico Aqueduct and Sewer Authority	Pledge of net revenues of water system	Senior Lien	—	3,437,200,000	384,115,000
Commonwealth of Puerto Rico	**Commonwealth Appropriations**			**2,457,501,120**	**0**
Obligor: Commonwealth of Puerto Rico Issuer: Puerto Rico Public Finance Corporation	Pledge of annual payments by Commonwealth covenant to budget and appropriate	—	—	1,968,616,120	0
Obligor: University of Puerto Rico Issuer: University of Puerto Rico Associated Obligor: Commonwealth of Puerto Rico	Pledge of revenues consisting primarily from tuition and student fees with a backup pledge of additional revenues including Commonwealth appropriations	—	Commonwealth Appropriations	488,885,000	0

Name	Security Provision	Capital Structure	Associated Pledge	Amount Outstanding	Amount Insured
Puerto Rico Infrastructure Financing Authority	**Federal Rum Tax Revenue**			**2,449,055,000**	**1,681,940,000**
Obligor: Puerto Rico Infrastructure Financing Authority Issuer: Puerto Rico Infrastructure Financing Authority	subordinate pledge of Federal excise tax receipts from rum and other articles produced by the Commonwealth	—	—	2,449,055,000	1,681,940,000
Puerto Rico Municipal Finance Agency	**Municipal GO**			**793,000,000**	**737,420,000**
Obligor: Puerto Rico Municipal Finance Agency Issuer: Puerto Rico Municipal Finance Agency	pledge of payment from underlying general obligation securities of local municipalities within the Comonwealth	—	—	793,000,000	737,420,000
Puerto Rico Convention Center District Authority	**Hotel Occupancy Tax**			**418,805,000**	**418,805,000**
Obligor: Puerto Rico Convention Center District Authority Issuer: Puerto Rico Convention Center District Authority	subordinated pledge of hotel occupancy tax revenues			418,805,000	418,805,000
Puerto Rico Ports Authority	**Port Revenue**			**329,215,000**	**0**
Obligor: Puerto Rico Infrastructure Financing Authority Issuer: Puerto Rico Infrastructure Financing Authority Associated Obligor: Puerto Rico Ports Authority	pledge of loan payments by Ports Authority		General Unsecured Obligation	329,215,000	0
			Total	**88,559,096,914**	**26,187,195,128**

Appendix B. Detailed Trading Activity of Uninsured Puerto Rico Bonds, Week of September 20, 2013



Feeling the Heat from Puerto Rico
The commonwealth's fiscal and bond-market woes have begat mutual-fund pain.

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It's been a rollercoaster of a year for bond investors, and muni funds are faring particularly poorly. The reasons have been many, but one set of problems has been pain in specific municipal credits, and Puerto Rico is near the top of that list. The commonwealth has struggled with financial problems for a while. Things began deteriorating even before the 2008 financial crisis, thanks in part to a 2006 tax-benefit expiration and a resultant exodus of manufacturers from the island, according to Morningstar municipal credit analyst Candice Lee. Puerto Rico's difficulties have only worsened since then, with well-documented strains such as a crumbling infrastructure, high crime, and unemployment all coming up against a contracting economy and weak tax revenues.

In the Penalty Box

Although Puerto Rico's bonds bounced back strongly after the financial crisis, investors began to penalize them more severely in 2012, when, as a group, they returned less than half that of national muni benchmarks. After the broader bond market began to sell off in May 2013, though, Puerto Rico's fortunes went from bad to worse. Detroit's bankruptcy filing naturally spooked investors, who began looking around to see what might be the next shoe to drop, while negative headlines and new data about the commonwealth's fiscal challenges were of no help. Puerto Rico's bond yields had already blown out to an average of 6.8% by the end of September 2013—some individual issues fared much worse—when Standard & Poor's lowered its outlook on bonds issued by the island's Sales Tax Financing Corp. (COFINA). The U.S. government shutdown that began on October 1 only added insult to injury: Puerto Rico relies on federal funding for an unusually large percentage of its own government spending. From the start of May through October 1, 2013, Barclays' Puerto Rico municipal bond index tumbled 18.7%. That compares with a 4.4% loss for the broader Barclays Municipal Bond index.

Where Did Those Bonds Come From?

Many investors might assume that they're immune to Puerto Rico's troubles. Those who hold their investments in dedicated single state muni funds might think they're even more insulated than investors with national fund exposure. Unfortunately, the pain has been more widespread than many might guess.

That's because Puerto Rico's debt has found its way into many muni bond portfolios thanks to a crucial tax advantage possessed by the commonwealth. Owing to its status as a U.S. territory, Puerto Rico's municipal debt is not only exempt from federal taxes, but state and local levies, as well. That makes it unusually attractive to fund managers, and in particular those who run portfolios invested in narrow, single-state markets with limited and illiquid issuance. In recent years, meanwhile, the relatively high yields offered by Puerto Rico bonds have been extremely enticing to those whose fund sales rely most heavily on the competitiveness of their distribution rates.

A Broad Footprint

In fact, there are approximately 180 funds in Morningstar's database—representing more than $100 billion in net assets—that boast weightings of 5% or more in Puerto Rico bonds. Of course, there is a wide variety of issues and issuers in Puerto Rico with different levels of perceived safety, so not every fund has suffered proportionately. It's also difficult to isolate Puerto Rico's effect in the midst of a broad muni market sell off. All in all, though, it's clear that the damage among funds with large Puerto Rico weightings has been painful and a number of large funds have been caught up in the carnage.

Among the largest funds with at least 5% exposure to Puerto Rico, there are some trends that show up almost regardless of how you slice and dice the data. There are 10 Franklin funds on the list, for example, and while one of them is explicitly marketed as a high-yield muni offering, the others are all single-state focused portfolios. Oppenheimer occupies a prominent spot, as well, with seven entrants.

Managers at the various firms represented on the list have different approaches, of course, and that can extend to what kinds of bonds they favor, even within Puerto Rico itself. Although it hasn't been as much of an issue during the market's latest turbulence, the Franklin fund complex tends to keep very light exposure, if any, to bonds backed by the tobacco industry's Master Settlement Agreement, for example, whereas several Oppenheimer portfolios are more heavily invested in the sector. Generally, though, both firms have emphasized subsectors of the Puerto Rico market that are considered to be more reliable than others. Those include the island's general-obligation bonds and those backed by COFINA, for example.

Holding the Bag

Puerto Rico's troubles have been particularly damaging to a subset of funds with especially high weightings in the commonwealth, though. The largest exposure of all belongs to **Franklin Double Tax-Free Income** FPRTX, which is designed to serve investors who want to avoid their own state's taxes and otherwise wouldn't enjoy a tax benefit from holding their own state's bonds. (Some states such as Illinois, for example, tax the income from many of their own bonds.) Even though the portfolio holds reasonably large stakes in higher-quality issuers within the commonwealth, meanwhile—including a nearly 15% stake in bonds with third-party insurance—its more than 60% exposure to Puerto Rico puts the fund squarely in the midst of the storm. The fund tumbled a harrowing 15.7% from May 1 through October 1, 2013.

A look at the rest of the funds among the top-20 holders of Puerto Rico debt shows a gut-wrenching trend for investors in the Oppenheimer municipal funds complex, in particular. In all, Morningstar counts 20 municipal funds managed by the firm, with an average loss of roughly 8.9% over the May 1 through October 1 period. The most fortunate investors in the group have been shareholders in the firm's offerings that focus on short- or intermediate-term bonds. While the point is likely of little comfort, there were hopefully few investors surprised by these most recent losses. Oppenheimer has run its municipal funds with a very strong focus on income production for many years, and while that has resulted in very generous yields, it has too provided plenty of volatility. Although they all bounced back strongly in 2009, for example, the average return among the firm's 18 funds in existence during 2008 was a stomach-churning –32.2%.

Breathing Room

If there's one question that's likely on the minds of Puerto Rico investors, it's "What now?" Muni funds overall saw more than $6.5 billion in redemptions in September, with at least $500 million coming out of the 20 funds with the greatest exposure to the commonwealth. At a minimum, that has put pressure on managers who might otherwise be content to ride out the storm.

Many of the funds with large exposure to the island's bonds continued to suffer losses in the first calendar week of October, meanwhile, as the Barclays Puerto Rico index tumbled another 3.6% from the 2nd through the 9th of the month, and the bad news keeps coming. There have been press reports that Puerto Rico has been having a difficult time selling new bonds to market, and that it has been forced to fall back on private placement and bank financing.

Normally, that kind of liquidity trouble might be cause for panic, but there are rays of hope. For one thing, consensus in the investment industry appears to be that the commonwealth's more structurally defensive issues still deserve relatively-high investment-grade ratings, an opinion shared by Morningstar's own municipal credit analysts. Perhaps as important is a point recently made by T. Rowe Price's head of municipal fixed income, Hugh McGuirk to USA Today. He noted that Puerto Rico has fairly little short-term debt, and therefore a muted risk that failure to get financing will trigger a crisis in the near future.

That may be cold comfort to investors otherwise worried that more downgrades or bad news on Puerto Rico's economy or fiscal situation could drive down prices further. It does, however, suggest that the commonwealth may still have some breathing room to allow for its fortunes to improve. M

Largest 25 Funds with 5% or More in Puerto Rico

Fund	Ticker	Portfolio Weighting of Puerto Rico Muni Bonds %	May 1, 2013 to Oct. 1, 2013	Fund Size
Franklin California Tax Free Income Fund	FKTFX	5.1	–6.13	12,728,641,073
Franklin High Yield Tax Free Income Fund	FRHIX	6.75	–8.17	8,256,054,864
PowerShares Insured National Muni Bond	PZA	6.14	0	7,808,621,992
Rochester Fund Municipals Fund	RMUNX	24.73	–12.22	6,577,377,356
Franklin New York Tax Free Income Fund	FNYTX	8.58	–6.09	5,768,553,103
Oppenheimer Rochester National Munis	ORNAX	7.79	–10.31	5,535,949,863
Oppenheimer Limited Term NY Municipal	LTNYX	26.06	–6.33	4,763,688,865
Oppenheimer Rochester Ltd Term Muni Fd	OPITX	12.88	–5.44	4,591,015,110
Goldman Sachs High Yield Municipal Fund	GHYAX	8.22	–8.64	3,074,372,963
Oppenheimer AMT Free Municipals Fund	OPTAX	8.33	–8.83	2,145,022,498
Franklin Pennsylvania Tax-Free Incd Fd	FRPAX	9.63	–7.12	1,422,424,925
Franklin New Jersey Tax Free Income Fund	FRNJX	10.61	–6.58	1,390,889,395
Alpine Ultra Short Tax Optimized Inc Fd	ATOIX	6.99	0.11	1,301,872,328
Oppenheimer California Municipal Fund	OPCAX	9.56	–8.58	1,298,027,182
Franklin North Carolina Tax-Free Inc	FXNCX	11.03	–7.51	1,272,292,235
Dreyfus New York Tax Exempt Bond Fund	DRNYX	8.32	–5.46	1,227,305,273
Franklin Oregon Tax Free Income Fund	FRORX	10.97	–7.34	1,223,924,418
Franklin Missouri Tax Free Income Fund	FRMOX	10.98	–6.52	1,206,228,603
Franklin Michigan Tax-Free Inc	FTTMX	7.04	–6.25	1,197,096,731
Oppenheimer Rochester AMT-Free NY Muni	OPNYX	19.02	–11.33	1,193,736,314
Nuveen NY AMT-Free Muni Inc	NRK	5.55	–8.49	1,188,106,914
Putnam New York Tax Exempt Income Fund	PTEIX	6.78	–5.89	1,100,117,808
Dreyfus CA AMT-Free Muni Bd Fd	DRCAX	7.29	–6.01	1,058,997,872
Franklin Arizona Tax Free Income Fund	FTAZX	6.51	–6.26	988,729,169

As of most recently available portfolios. Source: Morningstar

Funds with largest exposure to Puerto Rico's municipal bonds

Fund	Ticker	Portfolio Weighting of Puerto Rico Muni Bonds %	May 1, 2013 to Oct. 1, 2013
Franklin Double Tax Free Income Fund	FPRTX	61.29	–15.67
Oppenheimer Rochester VA Municipal Fund	ORVAX	31.07	–14.12
Oppenheimer Rochester NC Municipal Fund	OPNCX	30.55	–10.78
Oppenheimer Rochester MD Municipal Fund	ORMDX	30.22	–13.05
Oppenheimer Rochester AZ Municipal Fund	ORAZX	27.49	–11.92
Oppenheimer Rochester MA Municipal Fund	ORMAX	26.5	–10.02
Oppenheimer Limited Term NY Municipal	LTNYX	26.06	–6.33
Oppenheimer Pennsylvania Municipal Fund	OPATX	25.1	–10.56
Rochester Fund Municipals Fund*	RMUNX	24.73	–12.22
Oppenheimer Rochester Michigan Muni Fund	ORMIX	22.25	–10.91
Forward Credit Analysis Long/Short Fd	FLSIX	21.47	–13.69
Wells Fargo Advantage Wisconsin Tax-Free	SWFRX	12.76	–2.77
Nationwide Ziegler WI Tax Exempt Fund	NWJWX	20.42	–5.61
Oppenheimer New Jersey Municipal Fund	ONJAX	20.24	–10.88
Oppenheimer Rochester AMT-Free NY Muni	OPNYX	19.02	–11.33
PowerShares Insured New York Muni Bond	PZT	17.01	–8.35
Oppenheimer Rochester Ohio Muni Fund	OROHX	15.91	–9.15
Nuveen MD Premium Inc Muni	NMY	14.79	–8.97
Nuveen VA Premium Inc Muni	NPV	14.65	–11.66
Nuveen Maryland Municipal Bond Fund	NMMDX	14.05	–5.98
Nuveen NY AMT-Free Muni Inc	NRK	5.55	–8.49
Putnam New York Tax Exempt Income Fund	PTEIX	6.78	–5.89

* Managed by Oppenheimer Funds.
As of most recently available portfolios. Source: Morningstar