

Puerto Rico's Impending Defaults and Fall: Is There a Viable Solution?

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Abstract

Puerto Rico has amassed critical amounts of debt through intertwined bond issues and the usage of Capital Appreciation Bonds. This paper explores the background leading to the impending defaults with a focus on the viability of alternative solutions including bankruptcy, the issuance of a Superbond, insurance coverage, revenue diversion, and PROMESA debt restructuring.

I. Introduction

Puerto Rico is carrying more debt, \$72 billion according to Bloomberg, than all U.S. states with the exception of California and New York. This debt represents over 70% of its GDP and over 100% of its GNP; the interest requirement on the debt consumes more than a third of annual tax revenues. According to Walsh of the New York Times (2015), Puerto Rico is carrying a debt per capita ratio that is more than twice that of the two worst US states combined. At the same time, Puerto Rico has a population of under 3.5 million which has been declining by 9% per year since 2005, shrinking the labor force by 20% in sharp contrast to an average 8.4% increase for the U.S. as a whole over the same time period, according to Nick Timiraos of the Wall Street Journal. This high level of debt and historical poor fiscal performance combined with a lack of growth, increasing poverty, high unemployment (only 40% of adults are either working or looking for work), strong outmigration, and economic uncertainty have led to the downgrade of the Commonwealth's general obligation bonds to non-investment grade. This downgrade has resulted in a loss of access to market funding for the Commonwealth. In this paper, we explore Puerto Rico's already serious debt crisis, potential solutions, and their viability.

I. Background on Puerto Rico's Debt Crisis

Puerto Rico has faced a history of economic challenges. According to the United States Treasury report entitled "Puerto Rico's Fiscal Challenges" (2015), Puerto Rico has experienced a record of poor fiscal performance due to unrealistic budget and revenue estimates, lack of fiscal discipline, and opaque reporting and disclosure. Despite these challenges, historically the Commonwealth has been able to rely on the municipal bond markets for relatively low-cost financing. According to Wirtz, Timiraos, and Kiriloff of the Wall Street Journal (2015), the popularity of these bonds, due to their tax-free nature, led to the amassing of over \$72 billion in total bond indebtedness. However, Puerto Rico's access to the capital markets has ended.

Given the lack of available further financing to support Puerto Rico's immediate fiscal needs, the Commonwealth has begun to run out of cash and to utilize emergency liquidity measures (Krueger, Teja, & Wolfe 2015). Payments to vendors are stretched, tax refunds are

delayed, pension assets have been liquidated early, debt service has been withheld, and ultimately Puerto Rico will run out of cash. When that occurs, Puerto Rico will no longer be able to either repay its debts or continue municipal services. As explained in the U.S. Treasury report outlining Puerto Rico's fiscal crisis, "There is no doubt that there is a large gap between Puerto Rico's required operating expenses, contractual debt obligations and its available financial resources."

In addition to the fear of impending bankruptcy for the territory, the impact on the US Municipal Bond Market is massive. It is estimated that approximately half of municipal bond funds have Puerto Rican bond exposure according to Jeff Benjamin of Investment News (2015). However, according to the Soreide Law Group Website, UBS and Oppenheimer funds are much more heavily exposed than others. As can be seen from Table I below, which illustrates the largest exposures to these bonds, present losses equal almost \$21 billion with value shrinking from \$25.5 billion to \$4.5 billion as of June 29th of 2015, a drop of over 82%. As this table represents only the top 20 mutual funds, there is actual remaining exposure of over \$11 billion according to Tom Anderson of CNBC (2015). Obviously, a Puerto Rican default, in addition to having a significant impact on Puerto Rico's economy, would have large reverberations throughout the U.S. municipal bond mutual fund market.

Table I. Top 20 Mutual Funds holding Puerto Rican Bonds

Fund Name	Market Value of Puerto Rican debt as of June 29, 2015	Percentage of the portfolio invested in Puerto Rican debt	Total Investment as of portfolio date	Category
Oppenheimer Rochester Fund Muni A	\$1,376,856,503	22.30%	\$6,185,980,085	Muni New York Long
Oppenheimer Rochester High Yld Muni A	\$715,302,841	13.20%	\$5,406,587,424	High Yield Muni
Oppenheimer Rochester LtdTerm NY Muni A	\$726,558,930	20.60%	\$3,515,612,163	Muni Single State Short
Oppenheimer Rochester Ltd Term Muni A	\$608,173,909	19.20%	\$3,160,840,263	High Yield Muni
MainStay High Yield Muni Bond A	\$215,681,931	12.90%	\$1,727,077,784	High Yield Muni
Oppenheimer Rochester CA Muni A	\$150,523,359	11.40%	\$1,328,984,067	Muni California Long
Oppenheimer Rochester AMT-Free NY Muni A	\$190,431,569	16.30%	\$1,166,986,059	Muni New York Long
Oppenheimer Rochester PA Muni A	\$123,108,661	13.90%	\$883,561,556	Muni Pennsylvania
Oppenheimer Rochester Ltd Term CA Muni A	\$89,003,199	12.90%	\$687,146,588	Muni Single State Short
Oppenheimer Rochester NJ Muni A	\$82,876,129	17.30%	\$479,016,636	Muni New Jersey
Franklin Double Tax-Free Income A	\$110,282,812	47.20%	\$233,553,864	High Yield Muni
Wells Fargo Advantage WI Tax-Free Inv	\$24,420,696	15.30%	\$160,092,126	Muni Single State Interm
Oppenheimer Rochester VA Muni A	\$40,736,112	33.80%	\$120,667,805	Muni Single State Long
Oppenheimer Rochester NC Muni A	\$15,577,530	17.30%	\$89,810,812	Muni Single State Long
Oppenheimer Rochester Ohio Muni	\$10,310,176	14.60%	\$70,479,154	Muni Ohio
Oppenheimer Rochester AZ Munici A	\$12,059,832	18.80%	\$64,312,517	Muni Single State Long
Oppenheimer Rochester MD Munici A	\$23,093,065	36.90%	\$62,603,594	Muni Single State Long
Oppenheimer Rochester MA Munici A	\$9,850,542	16.10%	\$61,339,160	Muni Massachusetts
Oppenheimer Rochester Michigan Muni A	\$10,105,790	19.50%	\$51,801,240	Muni Single State Long
Alpine High Yield Managed Dur Muni A	\$5,835,739	13.80%	\$42,105,336	High Yield Muni
Totals	\$4,540,789,325		\$25,498,558,233	

Source: CNBC Puerto Rico Municipal Bond Database: <http://www.cnbc.com/2015/06/30/is-your-bond-fund-invested-in-puerto-rico.html>

II. Puerto Rico's Intertwined Bond Usage

After a sales tax was introduced in 2006, the Puerto Rico Urgent Interest Fund Corporation (also known as the Puerto Rico Sales Tax Financing Corporation), issued COFINA bonds backed by Puerto Rico’s future sales tax revenues, in 2007, 2008, 2009 and 2011. A significant portion of Puerto Rico’s debt stems from these sales tax bonds, originally issued to “plug budget gaps and repay other lenders” (Kuriloff 2015). It is important to note that the Puerto Rico Urgent Fund Corporation is a subsidiary of the Government Development Bank and was created by Law No. 291 of 2006. Thus, this corporation is effectively a government subsidiary which makes its bonds General Obligation Bonds backed by the full faith, credit, and taxing ability of Puerto Rico. However, the corporation asserts that the bonds are only backed by the sales tax revenue of Puerto Rico pointing to yet another future issue to be resolved in the courts.

In addition, many of these COFINA bonds were issued as Capital Appreciation Bonds (CABs). A CAB is a municipal security in which the investment return on an initial principal amount is reinvested at a stated rate until maturity, at which time the investor receives a single payment representing the face value of the bond and all accrued interest (Fudge 2013). CABs often are not callable and if they have a sinking fund (most do not have a mandatory payment provision in the bond indenture agreement), payments to that fund are often not started until after 15 or 20 years into the bond’s life, leaving no debt service to be reported on financial statements (Ayala 2013). Despite the overwhelming risks and costs of CABs, these securities are often enticing to cash-strapped municipalities with a lack of financing options. Despite their appeal, at maturity municipalities face fiscal disaster when they are on the hook for accreted values that can be 10 to more than 100 times what was received at issue (Adelmann 2013; Lusvardi 2012). Given the significant accreted values to be paid in the future, the lack of funds being set aside to service the debt, and the growing liability for Puerto Rico, CABs present a particularly dangerous method of funding for Puerto Rico.

Current COFINA bonds, according to the Commonwealth of Puerto Rico’s Government Development Bank (2015), total over \$15.2 billion and are structured to be repaid from dedicated sales-tax revenue. The COFINA CABs have a face amount of \$3.05 billion with a repayment amount of \$94,722 billion, per the Wall Street Journal’s Reuters Database as shown in Table II. Despite the massive required repayment, Puerto Rico received only \$173.5 million at issue; only 5.7% of the face and less than .02% of the repayment amount. A significant problem is that Puerto Rico reports its debt in its financial statements as the face amount of the bonds, not the repayment amount. In the case of the CAB COFINA bonds, this difference is significant: According to Check on Bond View, an online service that quotes the estimated price of outstanding bonds, these bonds, with a face amount of \$3.05 billion have a total value of only \$16,731.00. According to the June 30, 2014 Basic Financial Statements of the Puerto Rico Urgent Interest Fund Corporation, audited by KPM, a financing deficit of at least \$5,474.5 million has been accumulated. In addition, the bonds have been downgraded twice, on 5/11/2015 and 4/24/2015. After these downgrades, the senior bonds currently carry a credit rating of Caa2 and CCC+, from Moody’s and S&P respectively, while the subordinated bonds have a credit rating of Ca and CC, respectively. It is important to note that the true repayment requirement of the COFINA bonds of \$94,722 billion is deliberately omitted from Puerto Rico’s financial statements, pointing to the extreme unlikelihood of Puerto Rico meeting its debt obligations.

Table II. COFINA Capital Appreciation Bonds

CUSIP	Issuer	Issue	Maturity	Repayment Amt	Face Amt
		Year	Year	\$Million	\$Million
74529JPC3	PR Sls Tx Fin Corp	2011	2041	\$ 1,006,000,000	\$ 3,410,000
74529JPB5	PR Sls Tx Fin Corp	2011	2039	\$ 1,006,000,000	\$ 62,501,000
74529JPA7	PR Sls Tx Fin Corp	2011	2038	\$ 1,006,000,000	\$ 15,141,000
74529JNZ4	PR Sls Tx Fin Corp	2011	2037	\$ 1,006,000,000	\$ 15,512,000
74529JNY7	PR Sls Tx Fin Corp	2011	2034	\$ 1,006,000,000	\$ 5,226,000
74529JMP7	PR Sls Tx Fin Corp	2011	2050	\$ 734,796,000	\$ 28,137,000
74529JMN2	PR Sls Tx Fin Corp	2011	2049	\$ 734,796,000	\$ 32,903,000
74529JMM4	PR Sls Tx Fin Corp	2011	2048	\$ 734,796,000	\$ 38,093,000
74529JML6	PR Sls Tx Fin Corp	2011	2047	\$ 734,796,000	\$ 43,739,000
74529JMK8	PR Sls Tx Fin Corp	2011	2046	\$ 734,796,000	\$ 46,663,000
74529JMJ1	PR Sls Tx Fin Corp	2011	2045	\$ 734,796,000	\$ 53,231,000
74529JMH5	PR Sls Tx Fin Corp	2011	2044	\$ 734,796,000	\$ 47,998,000
74529JMG7	PR Sls Tx Fin Corp	2011	2043	\$ 734,796,000	\$ 46,273,000
74529JMD4	PR Sls Tx Fin Corp	2011	2033	\$ 734,796,000	\$ 4,549,000
74529JMC6	PR Sls Tx Fin Corp	2011	2032	\$ 734,796,000	\$ 2,864,000
74529JMB8	PR Sls Tx Fin Corp	2011	2041	\$ 734,796,000	\$ 2,443,000
74529JMA0	PR Sls Tx Fin Corp	2011	2024	\$ 734,796,000	\$ 10,470,000
74529JLZ6	PR Sls Tx Fin Corp	2011	2023	\$ 734,796,000	\$ 22,402,000
74529JLR4	PR Sls Tx Fin Corp	2010	2039	\$ 1,619,000,000	\$ 31,956,000
74529JLQ6	PR Sls Tx Fin Corp	2010	2038	\$ 1,619,000,000	\$ 45,764,000
74529JLP8	PR Sls Tx Fin Corp	2010	2037	\$ 1,619,000,000	\$ 20,000,000
74529JKT1	PR Sls Tx Fin Corp	2010	2036	\$ 1,824,000,000	\$ 36,743,000
74529JKS3	PR Sls Tx Fin Corp	2010	2035	\$ 1,824,000,000	\$ 28,376,000
74529JKR5	PR Sls Tx Fin Corp	2010	2034	\$ 1,824,000,000	\$ 7,554,000
74529JKQ7	PR Sls Tx Fin Corp	2010	2033	\$ 1,824,000,000	\$ 34,382,000
74529JKP9	PR Sls Tx Fin Corp	2010	2032	\$ 1,824,000,000	\$ 8,742,000
74529JKN4	PR Sls Tx Fin Corp	2010	2031	\$ 1,824,000,000	\$ 14,013,000
74529JHY4	PR Sls Tx Fin Corp	2009	2035	\$ 1,218,000,000	\$ 35,000,000
74529JGR0	PR Sls Tx Fin Corp	2009	2033	\$ 1,218,000,000	\$ 18,552,000
74529JHT5	PR Sls Tx Fin Corp	2009	2034	\$ 4,118,000,000	\$ 86,140,000
74529JHS7	PR Sls Tx Fin Corp	2009	2031	\$ 4,118,000,000	\$ 21,830,000
74529JHR9	PR Sls Tx Fin Corp	2009	2030	\$ 4,118,000,000	\$ 31,186,000
74529JFQ3	PR Sls Tx Fin Corp	2008	2036	\$ 737,047,000	\$ 25,338,000
74529JFP5	PR Sls Tx Fin Corp	2008	2035	\$ 737,047,000	\$ 26,270,000
74529JFN0	PR Sls Tx Fin Corp	2008	2034	\$ 737,047,000	\$ 21,582,000
74529JFM2	PR Sls Tx Fin Corp	2008	2033	\$ 737,047,000	\$ 22,670,000
74529JFL4	PR Sls Tx Fin Corp	2008	2032	\$ 737,047,000	\$ 22,470,000

74529JFK6	PR Sls Tx Fin Corp	2008	2031	\$ 737,047,000	\$ 23,077,000
74529JFJ9	PR Sls Tx Fin Corp	2008	2027	\$ 737,047,000	\$ 16,415,000
74529JFH3	PR Sls Tx Fin Corp	2008	2026	\$ 737,047,000	\$ 34,723,000
74529JFG5	PR Sls Tx Fin Corp	2008	2025	\$ 737,047,000	\$ 33,212,000
74529JFF7	PR Sls Tx Fin Corp	2008	2024	\$ 737,047,000	\$ 22,407,000
74529JEN1	PR Sls Tx Fin Corp	2007	2038	\$ 499,997,000	\$ 10,226,000
74529JEM3	PR Sls Tx Fin Corp	2007	2037	\$ 499,997,000	\$ 6,139,000
74529JEL5	PR Sls Tx Fin Corp	2007	2036	\$ 499,997,000	\$ 9,772,000
74529JEK7	PR Sls Tx Fin Corp	2007	2035	\$ 499,997,000	\$ 5,926,000
74529JEJ0	PR Sls Tx Fin Corp	2007	2034	\$ 499,997,000	\$ 8,463,000
74529JEH4	PR Sls Tx Fin Corp	2007	2033	\$ 499,997,000	\$ 13,272,000
74529JEG6	PR Sls Tx Fin Corp	2007	2031	\$ 499,997,000	\$ 6,622,000
74529JEF8	PR Sls Tx Fin Corp	2007	2030	\$ 499,997,000	\$ 1,952,000
74529JEE1	PR Sls Tx Fin Corp	2007	2029	\$ 499,997,000	\$ 358,824
74529JED3	PR Sls Tx Fin Corp	2007	2027	\$ 499,997,000	\$ 2,983,000
74529JEC5	PR Sls Tx Fin Corp	2007	2026	\$ 499,997,000	\$ 6,995,000
74529JEB7	PR Sls Tx Fin Corp	2007	2025	\$ 499,997,000	\$ 8,602,000
74529JEA9	PR Sls Tx Fin Corp	2007	2024	\$ 499,997,000	\$ 2,141,000
74529JDZ5	PR Sls Tx Fin Corp	2007	2023	\$ 499,997,000	\$ 725,899
74529JDY8	PR Sls Tx Fin Corp	2007	2022	\$ 499,997,000	\$ 513,217
74529JAQ8	PR Sls Tx Fin Corp	2007	2056	\$ 2,668,000,000	\$ 175,058,000
74529JAP0	PR Sls Tx Fin Corp	2007	2054	\$ 2,668,000,000	\$ 701,475,000
74529JAN5	PR Sls Tx Fin Corp	2007	2047	\$ 2,668,000,000	\$ 107,015,000
74529JAM7	PR Sls Tx Fin Corp	2007	2046	\$ 2,668,000,000	\$ 108,236,000
74529JAL9	PR Sls Tx Fin Corp	2007	2045	\$ 2,668,000,000	\$ 109,430,000
74529JAK1	PR Sls Tx Fin Corp	2007	2044	\$ 2,668,000,000	\$ 110,598,000
74529JAJ4	PR Sls Tx Fin Corp	2007	20432	\$ 2,668,000,000	\$ 112,133,000
74529JAH8	PR Sls Tx Fin Corp	2007	4042	\$ 2,668,000,000	\$ 113,630,000
74529JAG0	PR Sls Tx Fin Corp	2007	2041	\$ 2,668,000,000	\$ 114,698,000
74529JAF2	PR Sls Tx Fin Corp	2007	2040	\$ 2,668,000,000	\$ 15,446,000
74529JBE4	PR Sls Tx Fin Corp	2007	2032	\$ 1,333,000,000	\$ 34,499,000
74529JBD6	PR Sls Tx Fin Corp	2007	2031	\$ 1,333,000,000	\$ 14,498,000
74529JBC8	PR Sls Tx Fin Corp	2007	2029	\$ 1,333,000,000	\$ 26,798,000
74529JBB0	PR Sls Tx Fin Corp	2007	2027	\$ 1,333,000,000	\$ 12,008,000
74529JAB1	PR Sls Tx Fin Corp	2007	2030	\$ 1,333,000,000	\$ 29,299,000
74529JAA3	PR Sls Tx Fin Corp	2007	2028	\$ 1,333,000,000	\$ 30,001,000
				\$ 94,721,773,000	\$3,049,469,940

Source: Thompson-Reuters Data Base, provided by the Wall Street Journal

The required payments for debt maturity are beginning to mount, exponentially increasing Puerto Rico's liquidity issues. In the fiscal year that ended June 30 last year, the island collected \$1.42 billion of sales-tax revenue. Nearly 50% or approximately \$670 million of that revenue was used to offset COFINA bonds, according to the US Treasury. Taking steps to bolster its revenue, Puerto Rico has increased its sales tax from 7% to 11.5%, the highest in the U.S., and moved on April 1, 2016 to a value added tax system. Despite these steps, Puerto Rico's first default occurred on August 3, 2015 when it failed to make a \$58 million payment on its Public Finance Corporation (PFC) bonds (Kuriloff 2015). Its second default of \$800 million occurred on July 1 of this year. The increased likelihood of default is reflected in increased yields with senior COFINA bonds maturing in 2040 last trading with an average yield of 9.3 percent while subordinate bonds yielded approximately 15 percent.

Puerto Rico's debt issues are compounded when considering the impact on its public pension system. Puerto Rico's Employees Retirement System, covering 119,975 employees, is only 0.7% funded with a shortfall of \$44 billion as of December 2015 (Kaske 2015c). While the pension fund represents government employees who only make up 3.3% of the population, its liabilities represent 63% of Puerto Rico's 2014 Gross National Product of \$69.201 billion and 42% of the 2014 Gross Domestic Product of \$103.675 billion. The pension system is poised to run out of money by 2020, which would leave the government on the hook for more than \$2 billion in benefit payments the next year alone (Kaske 2015c). That's equal to about one-fourth of this year's general-fund revenue. A disastrous factor not included in these projections is that the market value of the bonds held is a fraction of their stated values, meaning that the pension fund will run out of funds substantially sooner than expected.

In 2008 in order to strengthen its position, according to the Thompson Reuters database, the pension fund issued three different tiers of zero coupon pension obligation bonds (rated BBB- at issue) with a value of \$2.947 billion. Today, Moody's rates these bonds Ca, according to bondview.com. The bonds are to be repaid from contributions that the commonwealth and municipalities make to the retirement system with absolutely no guarantee from the Commonwealth of Puerto Rico. At maturity, in 2058, these bonds call for a repayment of \$3.841 billion while the pension fund received only \$71.3 million from the CABs at issue as shown in Table III. However, the market value of these bonds today is only \$10,853 based on values taken from bondview.com.

Table III. Value of Bonds Issued by Puerto Rico's Pension Fund

Sale Date	Issuer	Amount of Issue (\$ Million)	Amount at Maturity (\$ Million)	Amount Received (\$ Million)	Value on 24-Dec-15
1/29/2008	Puerto Rico Employee Retirement System	1,588,811	1,700,450	12.948	\$ 4,020.00
5/8/2008	Puerto Rico Employee Retirement System	1,058,635	1,833,660	57.808	\$ 5,954.20
6/26/2008	Puerto Rico Employee Retirement System	300.203	307.09	0.539	\$ 878.90
Totals		2,647,746	3,534,417	71.295	\$10,853.10

Sources: Thompson-Reuters Database; <http://www.bondview.com/price-check/bond>

In addition, during the fiscal year ended June 30, 2011, the Pension System received a special contribution of approximately \$163 million from the Puerto Rico Infrastructure Financing Authority, an instrumentality of the Commonwealth. Surprisingly, this entire contribution of \$163 million was invested in bonds issued by the Puerto Rico Sales Tax Financing Corporation (COFINA Bonds) which are intended to provide a 7% accretion rate with maturity dates between 2043 and 2048. These sales tax bonds are carried as assets on the Pension Fund’s financial statements at an accreted value of \$270 million per the Thompson-Reuters database. However, as can be seen from Table IV, these bonds have a market value of \$3,490, representing only .001% of the stated value on the balance sheet, per bondview.com, an online bond quote service.

Table IV. Value of COFINA Bonds Held by Puerto Rico’s Pension Fund

Value of the Bonds	CUSIP	Muni Issue Size	Issue Year	Coupon Type	Maturity Date
\$ 60.10	29216MBM1	\$ 300,203,000	2008	ZERO COUPON	7/1/2030
\$ 940.36	29216MAZ3	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2034
\$ 940.36	29216MAY6	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2033
\$ 87.00	29216MAX8	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2032
\$ 943.60	29216MAW0	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2031
\$ 99.40	29216MAV2	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2030
\$ 105.90	29216MAU4	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2029
\$ 112.80	29216MAT7	\$ 1,059,000,000	2008	ZERO COUPON	7/1/2028
\$ 115.60	29216MAB6	\$ 1,589,000,000	2008	ZERO COUPON	7/1/2028
\$ 85.00	29216MAA8	\$ 1,589,000,000	2008	ZERO COUPON	7/1/2028
\$ 3,490.12		\$ 10,891,203,000.00			

Sources: Thompson-Reuters Data Base; <http://www.bondview.com/price-check/bond>

According to the US Treasury, as of 2014, Puerto Rico’s three public pension funds held just \$2 billion in net assets, including the questionable sales tax bonds valued at \$240 million, against a combined estimated pension liability of \$46 billion. In 2013, as part of the total Employee Retirement System (ERS) legislation pension reform, employer contributions increased from 10% of payroll to over 20% which brings total employee and employer contributions to 30% of payroll. However, even with the legislative reform, the fact remains that with the Commonwealth’s current deficit, the pension fund is only .7% funded. In 2013, Puerto Rico was forced to pay the current pension amounts due by prematurely selling \$1 billion of the pension fund assets. At this rate of depletion and with the lack of contributions by Puerto Rico, the funds will be exhausted well before the projected 2020 date, inevitably forcing the cessation of pension payments all altogether.

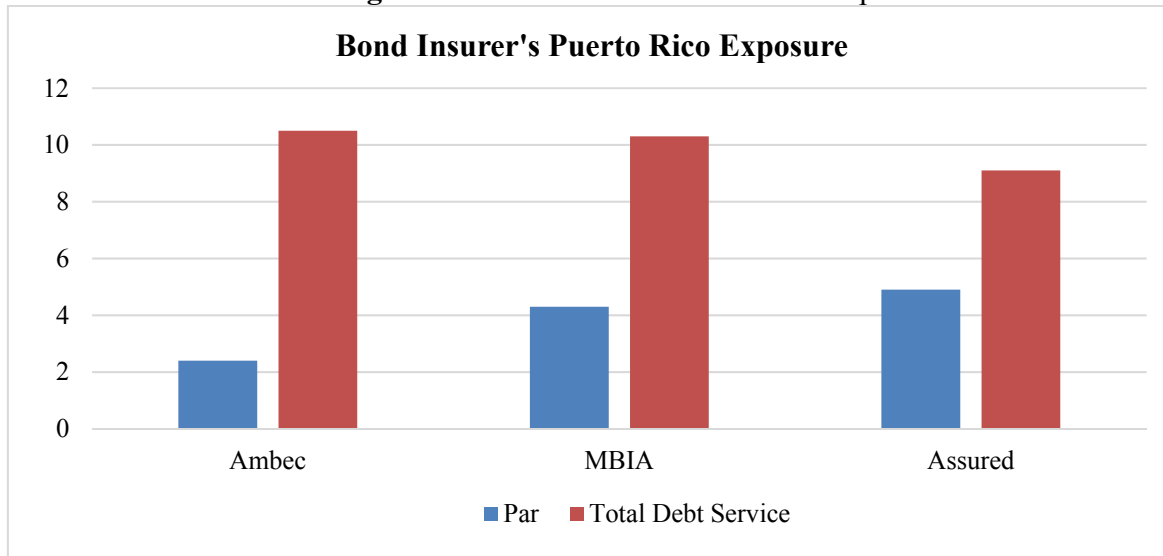
II. Puerto Rico’s Impending Default & Possible Solutions

Given Puerto Rico’s financial struggles, heaping levels of debt, use of capital appreciation bonds, and intertwined debt issues, continued impending defaults are inevitable. While many solutions have been proffered including bankruptcy, the issuance of a superbond, insurance coverage, revenue diversion, and debt restructuring, the viability of each option is

questionable. A collapse of the Puerto Rico debt market would have far reaching implications to its other general obligation bonds, and the funds holding those bonds throughout the U.S. However, the defaults have already mounted. Although Puerto Rico did meet its 2015 obligation to its General Obligation Bonds (\$326.7 million) as well as \$383 million in debt maturity, it did so by sacrificing its January 1 bond payment of \$37.3 million to the Puerto Rico Infrastructure Financing Authority as well as \$400 of the \$422 million of the May 3rd payment due to the Puerto Rico Development Bank (Tiriraos 2016). Immediately following this default the Governor of Puerto Rico, Alejandro Garcia Padilla, stated that Puerto Rico would not make the \$800 million payment due in July on its most senior bonds (Tiriraos 2016). This is all in addition to having missed the August 3, 2015 bond payment of \$58 million on its Public Finance Corporation (PFC) bonds (Kuriloff 2015). Puerto Rico is simply choosing on which bonds to default in order to meet its constitutional obligation on the GO bonds. While this is a temporary solution, it forces the value of all non-GO bonds down to pennies on the dollar and simply postpones the eventual collapse of Puerto Rico's bond market.

In addition, under United States law, there is currently no bankruptcy protection for American states or territories and a US bailout has proven to be unfavorable among voters and taxpayers. However, according to Kaske with Bloomberg (2015, Sept 11), lawmakers and the Supreme Court are now considering establishing new bankruptcy protections for territories to address Puerto Rico's issues and, according to Wirtz, Timiraos, and Kiriloff with the Wall Street Journal (2015), the US Treasury has considered and subsequently rejected the issuance of a "superbond" to aid in restructuring. One major issue that is providing a significant stumbling block is that the inability to declare bankruptcy forces Puerto Rico to seek a restructuring with its bondholders. As the law requires a consensus to restructure, the subordinated debt holders are in a position to block any restructuring until they are satisfied with their protections.

While some have suggested that insurance coverage be used to aid with funding, only three of the seven bond issues are insured. The insured portion represents only 51.6% of the outstanding bonds, 39% of which are the senior bonds. As can be seen from Figure I, the exposure to the insurance companies who insure these bonds is large. Although there are no current interest payments due and therefore, no immediate risk of default, the large accreted values due at repayment combined with the lack of funding by Puerto Rico creates substantial long-term risk for the insurers. However, Puerto Rico will be still be left with a significant balance of liability in the event of a default.

Figure I. Bond Insurer’s Puerto Rico Exposure

Source: Bloomberg: <http://www.bloomberg.com/news/articles/2015-09-04/puerto-rico-balloon-payments-seen-as-risk-for-some-bond-insurers>

Another option being considered, according to Aaron Kuriloff of the Wall Street Journal (2015), is the use of sales tax revenue as a source of funds for looming interest payments. This would only serve to compound the problems for these failing bonds to which those sales taxes are pledged, reducing the price even further. In addition, holders of these bonds have already told the government that they will sue to block any action to divert sales tax revenue from the bonds.

Puerto Rico has virtually no options other than a complete restructure of all debt. However, the Obama Administration rejected a bailout of more than \$70 billion of debt (Kaske & Braun, 2016), a figure that appears to be some \$16 billion short of the recently revised estimate according to Aaron Kuriloff of the Wall Street Journal. In addition, any restructure will require an agreement by the bondholders and should consider its impact on bond insurers. Despite challenges inherent in a U.S. led restructuring, on June 29, 2016, three weeks after the House overwhelmingly backed the measure, the U.S. Senate passed the PROMESA Act, the Promise Act in Spanish, on a bipartisan 68-30 vote in order to offer aid to Puerto Rico. According to NBC News, the vote came only two days before Puerto Rico was due to make a \$2 billion payment to creditors. According to Bloomberg, Puerto Rico still failed to make almost half of that debt payment, which included \$780 million on general obligation bonds, its fourth default. Only \$380 million of this sum is covered by their insurers (Gillers & Timiros 2016). In addition, the Government Development Bank defaulted on an additional \$9.9 million in interest on September 1, 2016 before being placed in a state of emergency.

In order to help the fiscally ailing territory, the PROMESA Act lowers the minimum wage to \$4.25 an hour for workers in Puerto Rico who are 24 and under. It also establishes a seven member oversight board that will supervise Puerto Rico's bond restructuring and that can force the island to balance its budget. According to Steve Mufson of the Washington Post, on August 31, 2016, the White House named seven members to the PROMESA oversight board. The members include both Puerto Ricans and Americans with bankruptcy, banking, private

equity, insurance, Social Security, and law experience. The PROMESA oversight board will be primarily responsible for creditor negotiations in an attempt to relieve the Commonwealth of its \$72 billion in debt obligations and its \$43.7 billion pension fund shortage. While the government of Puerto Rico must still create and pass a budget and relief plan, should the inevitable impasse be reached between the government and its creditors, the oversight board has the power to impose a settlement. While the PROMESA oversight board provides many beneficial fiscal changes, the measures may serve to increase outmigration further multiplying Puerto Rico's financial problems.

III. Conclusion

Given the complexity of Puerto Rico's intertwined debt burden, there may be no viable solution other than a complete debt restructure orchestrated under the powers of the PROMESA oversight board. However, it is important that the board consider its impact on the citizens of Puerto Rico and resulting outmigration. The necessary debt restructuring is likely to touch nine separate Puerto Rican governmental agencies who are involved with the debt issue. According to Bloomberg's Brian Chappatta, the debt issued by these nine entities comprises 86% of the total debt load for Puerto Rico. The debt holdings of these nine agencies are outlined below. These bonds are all reported at their face values and the amounts reported do not reflect the significant paybacks associated with the capital appreciation bonds nor their market values.²

2

- 1) The Puerto Rico Government Development Bank holds \$7.7 billion in debt. These bonds trade for \$0.32 cents on the dollar with an effective yield of 1600%.
- 2) The Puerto Rico Highways and Transportation Authority holds \$5.4 billion in debt. These bonds trade for an average yield of 29.4%.
- 3) The Puerto Rico Pension Fund holds \$2.8 billion in debt. These bonds owe, but are not paying, \$13.9 billion in interest each month and have an average yield of 21.9%.
- 4) The Puerto Rico Convention Center District Authority holds \$397.7 million in debt. This debt, insured by FGIC and rated Caa3 by Moody's, matures in 2023 and has an average yield of 21%. The \$2.65 billion of these bonds that were issued as CABs have an issue amount of \$2.65 million but a market value of only \$10,853.
- 5) Puerto Rican General Obligation Bonds provide the Commonwealth with a debt level of \$12.9 billion. These bonds, following the recent default of \$780 million, are trading at \$0.675 cents on the dollar. They have a yield of 12.3% which equates to an equivalent 21.8% yield for corporate bonds for investors in the highest tax bracket.
- 6) The Puerto Rico Public Building Authority has a debt level of \$4.2 billion and an average yield of 11%.
- 7) The Puerto Rico Sales Tax Financing Corporation (COFINA bonds) has a debt load of \$16 billion. Yields range between 9.7% and 15.8% depending on the maturity of the bond. However, of the \$16 billion, \$3.1 billion of these bonds were issued as CABs. Although these CABs have a face value of \$3.1 billion, they have a repayment amount of over \$94.7 billion.
- 8) The Puerto Rico Electric Power Authority has some \$8.6 billion in debt and its bonds maturing in 2030 yield approximately 11%.
- 9) The Power Rico Aqueduct and Sewer Authority has a debt load of \$3.6 billion and its bonds have an average yield of 9.2%.

In conclusion, Puerto Rico is in serious trouble and will not be able to emerge on its own. The PROMESA oversight board will be forced to order a restructuring that will make no one happy and be challenged in courts for years to come. This restructure will have to be formed soon as the Puerto Rican debt is on the verge of collapse. This problem is compounded by the simple fact that the reported debt does not reflect the true amount owed because of the use of CABs. The big winners will be the consultants and attorneys who will be advising all sides in these workouts. The losers will be the people of Puerto Rico who will face higher taxes, school closures, and loss of jobs as their government struggles to match revenue with expenditures, most certainly a requirement of the federal oversight committee. United States mutual funds and hedge funds who hold these securities also face billions in losses that will ultimately have to be passed on to their shareholders.

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