Discussion draft of the *"Puerto Rico Oversight, Management, and Economic Stability Act."*

April 13, 2016

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Thank you Chairman Bishop and Ranking Member Grijalva for the committee's leadership on Puerto Rico and for the opportunity to speak with you today regarding the Draft Legislation to address Puerto Rico's fiscal crisis. My name is John Miller. I'm Managing Director and Co-Head of Fixed Income at Nuveen Asset Management. I have spent my entire 23 year career researching and managing municipal bonds on behalf of investors, the last 20 with Nuveen. The team that I oversee currently manages over $113 billion of tax-exempt municipals. Within that team, I directly manage approximately $20 billion of the most credit sensitive, high-yield municipal securities. In these roles, I am making investments and transacting in the municipal market every day, and because I do so on behalf of Nuveen's clients, I am also speaking with Financial Advisors to individual investors nearly every day. I highlight this in order to emphasize that I am in continuous contact with the concerns of long-term dedicated municipal bond investors. I have a deep understanding of what drives increases and decreases in demand for municipal bonds over time and through historically significant municipal credit events such as this, as well as how investors evaluate a diverse array of credit risks in the marketplace.

I am not here in an attempt to promote or degrade any specific Puerto Rican security. While Nuveen is invested in a few Puerto Rican bonds in a few of our products, our overall exposure on behalf of clients is relatively small. However, I care deeply about what happens next in Puerto Rico, and what the potential outcomes could mean for the broader municipal bond market, what could constitute a positive or a negative precedent, and what could constitute market contagion risk.

It is important to acknowledge the financial distress that already exists in Puerto Rico, as well as the numerous and complex competing stakeholder claims, the non-payment of which are very likely to trigger a massive amount of prolonged litigation in the near future. Given these worsening conditions, we at Nuveen Asset Management believe the draft legislation has the potential to create a framework under which an orderly, fair and transparent resolution can be achieved for bondholders, while also fostering the conditions necessary for economic growth in Puerto Rico.

It is clear that the marketplace for Puerto Rican bonds is already anticipating a restructuring. The highest valued security, General Obligation or GO debt, is currently priced at between $58 and $64 per $100 of outstanding debt. Yields for Puerto Rico's debt average above 12% while the yields of AAA municipal securities average 2.6%. Current pricing and yields demonstrate the market already recognizes default and debt restructuring are inevitable.

Even while Puerto Rican securities have fallen into this distressed territory, the broader municipal bond market has experienced a consistent and steady appreciation since year-end 2013, and this appreciation has been coincident with steady increases in individual investor

demand as measured by strong municipal bond mutual fund in-flows during each of the last 10 calendar quarters.

Much of the investor base of Puerto Rican securities has shifted from traditional mutual funds to non-traditional or opportunistic hedge funds. According to Morningstar, 75% of municipal bond mutual funds owned some Puerto Rican securities in 2013, versus less than 50% by the end of 2015. This shift in holdings to hedge funds from mutual funds mitigates the risks to retail investors.

In addition to the shifts in investor allocations which have already occurred in anticipation of a Puerto Rican restructuring, the draft legislation serves to substantially mitigate, if not eliminate, the concerns around negative legal precedent for municipal securities. I would highlight the critical difference between a U.S. Territory, which is ultimately subject to the control of the U.S. Congress, versus a State which has sovereignty in its fiscal matters. If the proposed legislation were to become Law, this would be a Territory specific law, and therefore not applicable to 98% of the municipal bonds in the marketplace as they are issued by entities that are on the mainland.

It is our opinion there is no legal, budgetary or market-based reason to believe that this Territorial-specific legislation would set a precedent for even the most fiscally stressed states. Even lower rated states, like Illinois, do not need and would not benefit from restructuring bonded debt. While admittedly Illinois is currently mired in political gridlock which clouds our near-term outlook, the State still has the economic base and fiscal capacity to independently address its budget and pension challenges.

Since the draft legislation began to circulate roughly two weeks ago, the municipal bond market has generally been steady and has actually strengthened, with continued inflows into municipal bond funds across the industry. In addition, Puerto Rican bonds valuations specifically did not move down in reaction to the release of the Draft. In contrast, it was actually the Commonwealth's debt moratorium legislation which served to weaken the marketplace for Puerto Rican securities recently, not the possibility of U.S. Congressional involvement. While the time horizon to measure market reaction has been short lived, we believe the Territorial-specific nature of the legislation, the strength of an independent control board, the transparency and fairness that a more orderly process could bring, would all be features welcomed by the municipal bond market.

Thank you for the opportunity to testify today and I welcome your questions.

Puerto Rico's Course Forward

NUVEEN ASSET MANAGEMENT

MARKET COMMENTARY

FEBRUARY 2016

THE NEXT FEW MONTHS WILL BE CRITICAL TO DETERMINING PUERTO RICO'S FUTURE. With large debt service payments looming in May and July, and Congressional action becoming increasingly likely, events are quickly moving the Commonwealth to a point where the government's stance toward creditors could become more adversarial in the near term. In this paper we briefly review Puerto Rico's current fiscal situation, the Commonwealth's proposals thus far, and what we expect from the federal government.

We also explore how the Commonwealth's competing priorities are likely to stack up against one another given limited resources to pay all obligations in full. General obligation and COFINA (Puerto Rico Sales Tax Financing Corporation) bondholders may soon be engaged in a bitter inter-creditor battle while simultaneously competing with more sympathetic pensioners.

We then consider whether debt restructuring in Puerto Rico actually threatens the stability of the municipal market. Puerto Rico's unique situation will not likely set a broad precedent for either the market or other municipal issuers, but opponents of restructuring have claimed otherwise. We'll demonstrate that Puerto Rico truly is an outlier, and why we think its fiscal distress should stay contained to the island. Regardless of what transpires going forward, untangling Puerto Rico's difficulties will be a lengthy process. Investors should not expect a quick resolution.

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Puerto Rico's Economic Situation Is Critical

Puerto Rico's economic challenges persist, and the catalyst for a turnaround is unclear. The Commonwealth has been in recession since 2006 primarily due to the expiration of federal tax incentives that previously incentivized U.S. firms to operate on island. Between 2009 and 2014, Puerto Rico's real national product declined 2.3%. Puerto Rico's planning board estimates another decline of 0.7% for the current fiscal year.

Unemployment remains very high at 12.2% as of December 2015, and labor force participation remains well below average at 45.5%. Median family income in Puerto Rico is just 34.4% of the U.S., and the poverty rate is an elevated 46.2%. Total nonfarm employment has stabilized, down only 0.3% year-over-year in December 2015, but employment is still 15% below peak levels reached in 2005.

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Since 1898, Nuveen Investments has been a pioneer in municipal bonds, helping to build lasting value for investors.

This municipal bond heritage is reflected in the way Nuveen Asset Management manages portfolios today.*

- 118 years of experience
- 23 credit research analysts
- $104.4 billion in municipal bond AUM

Through ongoing publications, the team is committed to helping investors understand today's pressing issues.

* Nuveen Investments, Inc. traces its history back to 1898. Nuveen's asset management business was established in 1989. Nuveen Asset Management credit research analysts as of 12/31/15 and municipal fixed income assets under management as of 9/30/15. AUM is reported one quarter in arrears.

NOT FDIC INSURED NO BANK GUARANTEE MAY LOSE VALUE

Economic contraction and a lack of job opportunities have encouraged significant out-migration, particularly among working-age residents and young families. Between 2010 and 2015, Puerto Rico's population dropped an estimated 6.7%. Out-migration threatens to permanently erode Puerto Rico's economic base and ultimately the government's ability to structurally balance the budget.

As tax revenues suffered over the last decade, the government relied on tax increases and long-term borrowing to cover annual operating deficits rather than cut expenditures or address inefficiencies, poor tax compliance and corruption. A long history of overestimating revenues and lack of budgetary control only exacerbated the structural budget gap and overreliance on debt to fund operating expenses.

THE GOVERNMENT RELIED ON tax increases and long-term borrowing to cover annual operating deficits rather than cut expenditures.

Following significant rating downgrades into junk territory and growing market concern about debt affordability, Puerto Rico has essentially lost market access to continue borrowing for cash flow. The government recently lowered general fund revenue expectations to $9.21 billion from $9.46 billion for the current fiscal year, and projects the government is at "risk of not having sufficient liquid resources to meet obligations as they come due."

Specifically, the government warned that Puerto Rico may be unable to make the Government Development Bank's (GDB) $422 million debt service payment due May 1, followed by a significant $1.3 billion payment due July 1 for general obligation (GO) and Commonwealth-guaranteed debt.

Restructuring Efforts Fall Short

It is against this context Puerto Rico is struggling to find a sustainable path forward. Months after Governor Alejandro García Padilla declared the Commonwealth's debt unpayable (signaling the potential for future debt impairment), creditors have generally dismissed the government's attempts to demonstrate the severity of Puerto Rico's fiscal gap. Last fall, the governor's working group released a *Fiscal and Economic Growth Plan* (FEGP), providing a multiyear projection of revenues and expenses that identified a cumulative $14 billion financing gap over the next five years. In January, the 5-year gap was revised up to $16.1 billion, and the 10-year financing gap was pegged at nearly $24 billion.

Sizeable multiyear deficit projections underlie the Commonwealth's recent offer to creditors to exchange existing bonds for new securities. The exchange, which we view as highly unlikely to be accepted by creditors outside of a formal restructuring process that includes a means of binding hold-out creditors, would provide holders of $49.2 billion of various classifications of Puerto Rico debt with two new securities: $26.5 billion of base bonds and $22.7 billion of growth bonds. The plan cuts the debt by approximately 46% and includes a moratorium on all debt service through 2018, and then only interest payments until 2021.

The exchange offer proposes that holders of GO, sales tax-backed and other securities would exchange their bonds for differing amounts of base bonds, thus yielding varying levels of haircuts for different classifications of bondholders. The base bonds would be guaranteed by a new securitization of various government revenues and provide Puerto Rico with a lower, more level debt service structure. The growth bonds would only be paid if Puerto Rico's economic activity and resultant revenue collection meets or exceeds certain benchmarks.

In our view, there is little chance bondholders will readily exchange their securities in numbers sufficient to generate the savings contemplated by the Commonwealth. We believe the exchange offer is actually the Commonwealth's attempt to demonstrate to Congress the futility of reaching an orderly adjustment of debts outside the confines of a formal debt restructuring process supervised by a control board and/or federal courts.

Congress May Be Ready to Act

Until recently, it was unclear if Puerto Rico would generate enough momentum to motivate Congress to address the island's distress. U.S. lawmakers, now educated on Puerto Rico's precarious situation, may finally be ready to act. House Speaker Paul Ryan promised that Congress would address Puerto Rico's crisis by March 31, and his intent to get new legislation passed appears to be serious.

Initially, the division between Republicans and Democrats was clear. Republicans rejected anything considered a bailout for Puerto Rico and advocated further austerity measures. In contrast, Senate Democrats sent a letter to House leadership at the end of January urging quick passage of legislation granting the Commonwealth access to Chapter 9 bankruptcy. The letter said any bill that does not include bankruptcy would not be a "real solution" for Puerto Rico. U.S. Treasury Secretary Jack Lew

has been clear about the current administration's support for both funding equity for federal programs and access to a broad debt restructuring regime.

Several Republican bills were proposed at the end of 2015. One granted the Commonwealth access to Chapter 9 if Puerto Rico agreed to a strong fiscal control board. Another called for a control board and provided additional aid. Given recent Congressional hearings and statements from ranking members, we expect additional legislative proposals to emerge soon. Senate Finance Committee Chair Orrin Hatch announced his intention to bring another bill in the near term and meet Speaker Ryan's March 31 deadline for Congressional action. Additional hearings are scheduled in February.

We expect legislation providing a fiscal control or fiscal stabilization board with broad authority to be introduced and considered in the near term. Puerto Rico's long record of poor fiscal management, overlaid on a sprawling web of interconnected events and overly complex debt structure, demonstrates the need for federal intervention.

We now believe Congressional action appears both likely and necessary. A strong federal control board now seems to be inevitable and the opposition on the island has softened. External control and enforcement is likely the only way Puerto Rico can achieve structural reforms, implement difficult but necessary budgetary realignment, establish the conditions for economic growth and reestablish credibility with investors and thus access to the traditional municipal market.

THE COMMONWEALTH HAS ATTEMPTED a consensual debt restructuring, but we are not surprised that these efforts have not yet gained sufficient traction with creditors.

The debate is not about whether a control board is necessary, but about how much authority the board should be given. The structure and authority of the new oversight entity must be carefully crafted to respect Puerto Rico's right to self-governance and hopefully be oriented toward establishing a foundation for future economic growth. Governmental reforms, improving fiscal policies, tax compliance and financial reporting are all critical to restoring credit quality and market credibility.

It remains unclear if legislation establishing a control board will be paired with a legal framework to adjust Puerto Rico's long-term debt and pension liabilities. The Commonwealth has attempted a consensual debt restructuring, but we are not surprised that these efforts have not yet gained sufficient traction with creditors, especially in light of the initial proposal.

Given the wide variety and complexity of Puerto Rico's debt obligations, the diversity of bondholders and interests involved, and the competing security pledges, realists will acknowledge there is little to no hope of a consensual resolution. Without some mechanism to bind holdout creditors, either through some form of bankruptcy or a broader collective action clause that would allow a majority bondholder vote to impose terms on holdouts, Puerto Rico is destined for years of litigation.

Treasury officials estimate it could take a decade to untangle competing creditor claims if the situation devolves into a web of competing litigation. Years of litigation and inter-creditor disputes will only stifle economic growth and accelerate out-migration, further diminishing the tax base available to pay off creditors.

We believe the final legislation must include a path for Puerto Rico to restructure these liabilities. We don't advocate for restructuring authority lightly. As investors, we prefer political solutions that avert restructurings whenever possible. Yet we believe when an issuer reaches the point where debt reduction becomes inevitable, any delay only serves to engage in value destruction through additional unsustainable borrowings, economic contraction and/or population loss due to reduced government services.

Thus the restructuring – painful as it may be – provides greater value to creditors than lobbying for maintaining the status quo. Puerto Rico's recent trend of increasingly expensive and onerous debt to bridge one fiscal year to the next offered the Commonwealth little chance of addressing its core problems: economic contraction, a declining population, a bureaucratic and inefficient government and a back-ended debt structure requiring annual cycles of painful budgetary decisions coupled with new and/or higher taxes. As municipal asset managers and creditors, we are reluctant to support any adjustment of debts by issuers, but we believe it is both inevitable and necessary for Puerto Rico.

Priorities Compete: GO, COFINA and Pensions

The absolute size of Puerto Rico's true fiscal gap is still unknown. The impact of future expenditure cuts and potential economic growth will hopefully moderate the $16 billion five-year gap projected by the governor's working group. However, even if the gap is reduced, it's clear to most that Puerto Rico will struggle to fully fund all general obligation (GO) and guaranteed debt while leaving COFINA obligations and pensions unimpaired.

We see GO, COFINA and pensions as the three main expenditures in direct competition for the government's limited resources. It is difficult to envision a scenario that avoids an inter-creditor legal battle between GO and COFINA bondholders, and we see all creditors in direct competition with pension beneficiaries.

GO and COFINA bondholders' interests are in direct opposition. GO debt benefits from a constitutional first priority on Commonwealth resources, but the COFINA corporation was constructed with the intention of exempting sales tax revenues from the definition of available resources for GO debt.

If GO debt is ever impaired in a future default, potentially as soon as this year, Puerto Rico will face lawsuits from GO investors demanding the government reclassify sales/VAT taxes to be considered available revenues to be redirected to GO debt service first.

Similarly, should the government attempt to divert sales tax revenues away from COFINA to GO debt, COFINA bondholders will litigate to protect their revenue pledge. It does not escape notice that the current debt restructuring proposal contemplates replacing COFINA's arguably successful securitization structure with a new securitized debt structure – essentially threatening to blow up one securitization in favor of another.

GO and guaranteed debt and COFINA debt represent the two largest categories of tax-supported debt. Given that these two together represent over 60% of tax supported debt and as the government is saying it can only afford to fund a much smaller fraction of current debt service, it is unlikely both will emerge from this process unscathed. Some creditors and on-island politicians have argued passionately that the constitutional priority of GO debt must be upheld and the rule of law cannot be set aside. However, we believe many market commentators and some Puerto Rican elected officials too liberally interpret the Puerto Rico Constitution to mean that GO bonds and other forms of guaranteed public debt cannot be restructured. A plain reading of the constitution reveals there is no such protection from an adjustment of the terms of Puerto Rico's constitutionally guaranteed debt.

The Puerto Rican constitution clearly establishes that GO and guaranteed debt have first priority on available resources. Existing statutes further support the constitutional priority establishing priority norms for the disbursement of public funds. Payment of principal and interest on debt service is specified as the first priority, specifically senior to expenditures for health, safety, education, welfare and retirement systems, which all rank third on the priority list. This should not, in our opinion, be read to describe anything other than a year-to-year prioritization of debt service coming due for the purposes of constructing a budget.

We believe Puerto Rico could theoretically implement a restructuring process for GO and Commonwealth-guaranteed debt, reduce the principle amount outstanding through that process and assert that their constitutional burden is met by making the now-reduced public debt the first budgetary priority. In other words, the constitution says only that public debt has a first priority on resources – whether that debt represents legacy debt at 100-cents on the dollar or restructured debt at 50-cents on the dollar. It is silent as to the adjustment of public debt.

IT IS DIFFICULT TO ENVISION a scenario that avoids an inter-creditor legal battle between GO and COFINA bondholders, and all creditors are in direct competition with pension beneficiaries.

The constitutional first priority on available resources for the benefit of public debt does not, in our opinion, preclude the possibility of debt restructuring or impairment. Puerto Rico could attempt to restructure constitutionally guaranteed obligations and subsequently argue that the new debt will maintain a first payment priority, post-restructuring. Puerto Rico has warned for years of the potential need to reprioritize essential services ahead of other obligations, including the public debt. In practical terms, this means subverting the "priority norms" established by law to the extent resources are insufficient to meet both debt service and the cost of providing essential services.

Though some observers point to the constitution and priority norms as evidence GO debt cannot be impaired, this idea has been undermined repeatedly by the territory's own risk disclosure statements in investor communications. For example, in March 2014, officials disclosed that "to the extent Commonwealth resources are diverted to such essential services, there is no assurance that the Commonwealth will have sufficient revenues to pay debt service on GO debt."

More recently, in the unaudited draft *Fiscal 2014 Basic Financial Statements*, the government stated it may amend the Organic Act that establishes these priorities or enact new emergency legislation that could include a debt moratorium on the payment of debt service. In short, Puerto Rico has been signaling to investors for years its intention to reprioritize essential services over debt.

Whether pension payments will be prioritized over debt is not yet apparent. In the government's first debt restructuring proposal to creditors, both GO and COFINA bonds received significant haircuts while pensions were notably absent. Puerto Rico's pension obligations are virtually entirely unfunded and growing rapidly. As of June 30, 2014, the unfunded pension liability is estimated at $43.6 billion across three retirement systems. The Employees Retirement System has the largest liability, at $30.2 billion, and the lowest funded ratio at 0.42%. Pension costs will soon be funded on a pay-go basis, increasing budgetary pressure. By fiscal 2018, pay-go pension payments could reach $2 billion per year, or nearly 20% of general fund revenues.

> **WE BELIEVE THE GOVERNMENT** will attempt to keep pension liabilities free from impairment and prioritize these payments above debt service, regardless of current statutes that prioritize debt service ahead of annual pension costs.

Preserving pension security is one of the administration's stated objectives. We believe the government will attempt to keep pensions free from impairment and prioritize these payments above debt service, regardless of current statutes that prioritize debt service ahead of annual pension costs. Threats to enact new legislation reversing the priority of payments support this. Additionally, the administration's current debt restructuring proposal does not include any changes or reductions for pension beneficiaries. We believe Puerto Rico intends to leave pension benefits untouched while attempting to impose haircut on all other long-term liabilities, even those with a guarantee and a dedicated pledged revenue.

Contagion Risk Is Low

Municipal investors are asking if a Puerto Rico restructuring will negatively impact the broader market. Growing evidence suggests Puerto Rico is now effectively separated from the traditional high yield market, let alone the overall municipal market. We believe most institutional investors understand Puerto Rico's unique situation, and the coming debt restructuring will not create widespread negative credit implications for other issuers.

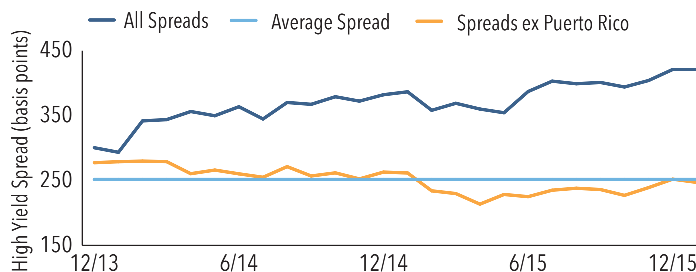
Municipal investors should note that recent debt adjustments in a handful of California cities, Detroit and other jurisdictions did not disrupt the market. Detroit filed for bankruptcy protection on July 18, 2013, and on that day the AAA Municipal Market Data (MMD) 30-year yield was 4.03%. By December 31, 2015, the AAA MMD yield rallied by 121 basis points to 2.82%. As of this writing on February 19, 2016, AAA MMD stands at 2.78%, 125 basis points tighter than the day Detroit filed for bankruptcy.

Simultaneously, Puerto Rico's stance toward financial market creditors became increasingly hostile, from proposals to restructure debt and the beginning of what we expect will be a string of ongoing defaults. Municipal investors, rightly, continue to differentiate between individual pockets of credit stress and the much healthier overall market. We see no reason this will change based on how Congress addresses Puerto Rico's situation.

Market differentiation between Puerto Rican bonds and other high yield municipal bonds started even before the rating agencies downgraded Puerto Rico debt to below investment grade in 2013. Since then, divergence between Puerto Rico and the rest of the high yield market can been seen in credit spreads, fund flows and total returns.

Exhibit 1 shows credit spreads for high yield indices with and without Puerto Rico. Since the beginning of 2014, high yield credit spreads excluding Puerto Rico securities narrowed 30 basis points, while spreads including Puerto Rico securities widened over 120 basis points. The market has clearly identified elevated risk for Puerto Rico debt, while spreads for other high yield municipals are more in line with historic norms.

Exhibit 1: Spreads Including Puerto Rico Have Widened



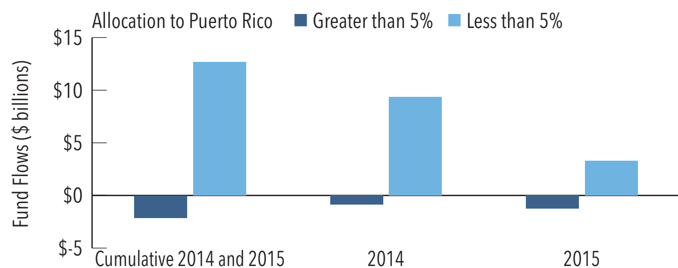
Source: Barclays Capital. Data from 12/31/13 to 1/31/16. Past performance is no guarantee of future results.

Investors have already differentiated between funds with and without Puerto Rico holdings. The difference in net flows for funds with elevated Puerto Rico exposure versus funds with minimal Puerto Rico exposure is notable. Since the beginning of 2014, funds with a less than 5% allocation of net assets to Puerto Rico reported inflows of $12.6 billion, equivalent to 40% of beginning assets under management (AUM), as shown in Exhibit 2. Over the same time period, high yield funds with more than 5% allocated to Puerto Rico have experienced outflows totaling 8.75% of AUM. This trend of diverging

investor flows was sizable, orderly and largely unnoticed by market participants.

High yield municipal funds with less than 5% allocation to Puerto Rico now represent double the AUM of high yield municipal funds with more than 5% exposure to Puerto Rico. At the start of 2014 that figure was only 28% more in AUM.

Exhibit 2:
High Yield Funds Including Puerto Rico Experienced Outflows



Source: Morningstar Direct.

High yield returns without Puerto Rico have also outperformed each year since 2013 and the difference has increased each year. Based on the S&P High Yield Municipal Index, high yield returns without Puerto Rico were 1.47% and 4.29% higher in 2014 and 2015, respectively, than the index when Puerto Rico is included.

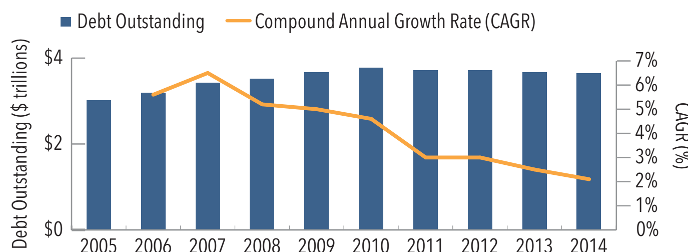
A Threat to Tax-Exemption Is Possible

We don't see Puerto Rico creating contagion for the municipal market via investor reticence over purchasing securities from mainland states, other municipal issuers scrambling to seek debt relief or a general increase in municipal borrowing costs.

However, market contagion is possible in the form of threats to the municipal bond tax exemption. The longer Puerto Rico remains unaddressed by Congress and unable to appropriately restructure its debts and unfunded pension liabilities, the longer Puerto Rico will remain in the headlines. As this plays out, the potential only grows for some members of Congress to view Puerto Rico's profligate spending and use of debt to fund government services as representative of the entire municipal market.

Of course, any curtailment of the municipal tax exemption on the basis of Puerto Rico's debt abuse would be wholly unfair to the rest of the market. Puerto Rico spent much of the last 10 years issuing billions in debt to pay maturing debt and fund government services, while overall municipal debt outstanding remained more or less constant. Exhibit 3 shows the total municipal debt outstanding from 2005 through 2014.

Exhibit 3:
Total Municipal Debt Outstanding Has Remained Constant



Source: Securities Industry and Financial Markets Association. Most recent data available.

From 2005 through 2010, municipal debt outstanding grew from $3 trillion to $3.77 trillion as the housing market boom created abundant property taxes, permit fees and other revenues related to robust residential growth. This growth also created the need for new schools, roads, bridges and expanded water and sewer treatment capacity. Since the onset of the recession, however, municipal debt outstanding actually declined to $3.65 trillion. Issuers slowed the pace of capital investment, and refunding transactions – rather than new money issuance for projects – represented the majority of municipal debt issuance. From 2005 through 2014, total municipal market debt outstanding grew at a 2.1% compound annual growth rate (CAGR). This period included several years of healthy capital investment to accommodate residential growth.

We think this manageable trend in municipal debt issuance speaks to municipal market issuers' long-standing history of using municipal bonds – and the benefit of municipal tax exemption – to responsibly invest in the country's critical infrastructure. Puerto Rico and a limited number of other municipal issuers that rely on municipal bonds to maintain government spending do not represent the broader market, nor do they indicate the general health of states and municipalities.

While Puerto Rico's approximately $70 billion of debt makes the Commonwealth one of the largest issuers of municipal bonds, it represents just 1.9% of municipal debt outstanding. Reducing or eliminating the municipal tax exemption based on the actions of Puerto Rico is like treating a sprained toe by removing the patient's leg.

Could Puerto Rico Set a Negative Precedent?

We do not believe a broad debt restructuring in Puerto Rico would lead states struggling with budgetary challenges (such as Illinois, New Jersey and Pennsylvania) to clamor to restructure their own debt. Puerto Rico attempting to restructure its obligations won't encourage other states to do the same. The magnitude of Puerto Rico's debt and the lack of an economic

base to service long-term liabilities makes it a significant outlier in comparison to other states. The "Illinois is next" argument misleadingly suggests that Illinois – admittedly the least creditworthy U.S. state – is comparable to Puerto Rico in terms of financial stress and capacity to meet its obligations.

Comparing key credit metrics for Puerto Rico and Illinois, as shown in Exhibit 4, reveals this argument to be quite lacking.

Exhibit 4: Illinois Is Not Comparable to Puerto Rico

	Puerto Rico	Illinois
Economic and Demographic Data		
2015 Population (est)	3,474,182	12,859,995
GDP	$103.1 B	$745.9 B
Unemployment Rate (Dec 2015)	12.2%	5.9%
Labor Force Participation Rate	45.5%	65.9%
Number of Households	1.2 M	4.8 M
Median Household Income	$19,686	$57,166
Mean Household Income	$30,756	$76,521
Total Household Income	$38.2 B	$365.7 B
Poverty Rate	46.2%	14.4%
Taxation Rates		
Sales Tax	11.5%	6.25%
Individual Income Tax	7% - 33% (graduated)	3.75% (flat)
Liabilities		
Net Tax Supported Debt	$55.5 B	$34.5 B
Unfunded Pension Liabilities	$43.6 B	$111.0 B
Comparative Ratios		
Net Tax Supported Debt / Total Household Income	145.4%	9.4%
Net Tax Supported Debt & Unfunded Pension Liabilities / Total Household Income	259.6%	39.8%
Net Tax Supported Debt / Gross Domestic Product	53.8%	4.6%
Net Tax Supported Debt & Unfunded Pension Liabilities / Gross Domestic Product	96.1%	19.5%

Sources: BEA.gov, BLS.gov, U.S. Census, State of Illinois FY2014 CAFR, Commonwealth of Puerto Rico FY2013 CAFR, Commonwealth of Puerto Rico Financial Information and Operating Data Report, November 6, 2015, Moody's 2015 Debt Medians, Federal Reserve Bank of St. Louis.

Illinois is certainly not a model of state governance and fiscal responsibility. But the size of the state's economy and tax base, and its comparatively low sales and income tax rates, demonstrate the state has far more flexibility to address its long-term obligations than Puerto Rico. The state's diverse economy ranks fifth overall in the U.S. in terms of gross domestic product (GDP), and fourth in per capita income among the 10 most populous states. Though the state's recovery has lagged the U.S., it is still growing modestly, unlike Puerto Rico.

The scope of Puerto Rico's challenges far outstrips those of Illinois once debt and unfunded liabilities are indexed to the respective government's economies and resident incomes. Debt and unfunded pension liabilities represent just 19.5% and 39.8% of Illinois GDP and total household income, respectively. Puerto Rico carries debt and unfunded pension liabilities representing 96.1% and 259.6% of GDP and total household income, respectively. Simply put, Puerto Rico is much more leveraged

than even Illinois, the lowest-rated U.S. state. It is inappropriate to compare them interchangeably in the context of the need for federally sanctioned debt relief.

A political impasse has left Illinois operating without an adopted budget almost nine months into the fiscal year. The budget standoff has resulted in a growing accounts payable balance and reduced liquidity, and distracted state leaders from addressing pension underfunding, which remains a serious threat to the state's long-term financial stability and structural budget balance. Failing to pass a budget and address pensions has undoubtedly weakened the state's ability to withstand the next economic downturn. Illinois deserves its lowest-rated state designation.

But Illinois' budget stalemate, while detrimental to the state's economy, is a political battle rather than a crisis caused by economic contraction or a fundamental inability to afford long-term obligations. The state's budget gap for fiscal 2017 is now projected to increase to $5.6 billion, or 17% of estimated revenues. While not insignificant, this budget gap is far from insurmountable. Increasing the individual income tax rate by 1.25% to 5.0% (from 3.75%) would generate more than $4.1 billion in new revenue, and go a long way to close the annual revenue gap. The mathematical gap in Illinois is not nearly as wide as the political chasm. While restructuring debt seems both appropriate and unavoidable for Puerto Rico, it is not the appropriate tool for Illinois and would provide the state with little budget relief.

Some argue that Puerto Rico's indebtedness is overstated in comparison to mainland U.S. states, as Puerto Ricans pay no federal income tax and therefore don't feel the burden of the U.S. government's debt. Once again, we believe this argument is designed to mislead rather than inform. It inappropriately equates two very different types of debt: municipal debt issued by state and local governments and sovereign debt of the United States.

Unlike state and local government debt, sovereign debt of the United States is not truly amortized with regular principal payments. Rather, sovereign debt is very often rolled into new debt offerings with only the interest cost borne in the budget. Sovereigns tend to attempt to maintain their debt outstanding within a specific range of economic output (such as GDP), allowing the nominal amount of debt to grow over time but remaining within a measure of affordability as determined by economic activity. Thus any attempt to lump total federal government debt outstanding into state debt profiles is an attempt to inflate state indebtedness to give Puerto Rico's debt the veneer of affordability.

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A more appropriate way to consider the impact of the federal government's debt is to consider annual interest cost, which in fiscal year 2015 amounted to $402.4 billion. On a per capita basis, the annual interest cost on federal debt was $1,252 in fiscal year 2015 – or just 4.2% of Illinois' per capita income. The federal government's debt is not an oppressive fiscal constraint on the U.S. states and taxpayers. Nor does it make Puerto Rico's debt load magically affordable.

It is similarly inappropriate to contend Puerto Rico's debt burden is artificially inflated in comparison to the states because it includes all debt issued for underlying municipalities and schools, whereas Illinois' total debt does not. This is also a spurious argument because debt issued and guaranteed by Puerto Rico's general government and the GDB

is their responsibility and supported by their revenues. In contrast, all Illinois taxpayers are not responsible for debt issued by every underlying school district or county.

When the affordability of Puerto Rico's debt burden is debated, some claim that the Commonwealth doesn't fully capture all economic activity and their debt, and pensions would be affordable if only they boosted tax compliance. While we agree that Puerto Rico does a poor job of tax compliance and collection, we're not convinced that improvements in this area alone will suffice.

To illustrate this, in Exhibit 5 we compare Puerto Rico to three of the U.S. mainland's lowest-rated states: Pennsylvania, New Jersey and Illinois.

Exhibit 5: Puerto Rico's Debt Is Higher Than Lower-Rated U.S. States

	Pennsylvania	New Jersey	Illinois	Puerto Rico
Debt	$14.3 B	$37.0 B	$34.5 B	$55.5 B
Unfunded Pension Liabilities	$20.6 B	$37.3 B	$111.0 B	$43.6 B
Personal Income	$358.0 B	$313.4 B	$375.2 B	$38.2 B
GDP	$662.9 B	$549.1 B	$745.9 B	$103.1 B
Debt and Pensions-to-GDP Ratio	5.3%	13.5%	19.5%	96.1%
Debt and Pensions-to-Personal Income Ratio	9.7%	23.7%	38.8%	259.6%

Sources: Comprehensive Annual Financial Reports for Pennsylvania, New Jersey, Illinois and Puerto Rico; U.S. Census Bureau; Federal Reserve Bank of St. Louis.

As Exhibit 5 shows, Puerto Rico's debt and pension leverage is much greater than any of the lowest-rated mainland states, particularly in the context of each government's economic output and resident income. Simply increasing tax compliance will not reduce this over-leverage. Puerto Rico's real problem is indebtedness, not tax compliance.

This certainly does not mean that governmental reforms, expenditure cuts, improved tax compliance and collections, employee layoffs and government downsizing are not needed. Puerto Rico's budget projections will improve with greater austerity and fiscal discipline, but we still believe the magnitude of fixed costs outweighs the savings that can be achieved through cuts and efficiency improvements.

Moreover, with an outsized portion of Puerto Rico's employment derived from Commonwealth and local government employment (23.9% in Puerto Rico versus 13.5% for the mainland U.S.), extensive austerity will likely exacerbate the Commonwealth's economic contraction. We expect most creditors will continue to object to Governor García Padilla's plans to restructure Puerto Rico's debts, but our analysis continues to show that the territory's debts are unsustainable and require adjustment.

Finally, it is unclear whether a framework for the adjustment of state obligations through the federal court system would pass constitutional muster. Unlike Puerto Rico – a U.S. territory subject to the direct oversight of, and potential intervention by, Congress – states are sovereign entities with certain protections from federal interference specifically spelled out in the U.S. Constitution.

While legal opinions are mixed on this subject, many argue a federal bankruptcy regime for states wouldn't pass legal and constitutional muster because:

- Such a federal regime would violate principles of both state sovereignty and federalism.
- States opting to enter into any such hypothetical framework would necessarily be acting in direct violation of their own constitutions and/or contract laws.

Moreover, the sole instance of which we are aware of the U.S. government discharging state debt (according to a Fall 2011 *American Bankruptcy Law Journal* article) followed the civil war when the federal government nullified the debt issued by the former confederate states. This nullification occurred via a constitutional amendment specifically targeted to debt raised for the purposes of insurrection or rebellion against the United States. This implies there was no path to discharging the debt of U.S. states available through the balance of the U.S. Constitution.

In short, Puerto Rico accessing a Congressionally-approved restructuring regime is not a precursor to U.S. states following suit because:

- U.S. states, as sovereign entities, are likely constitutionally ineligible for federally supervised restructuring.
- U.S. states are significantly financially healthier than Puerto Rico and have far greater revenue flexibility, both in terms of rate headroom and the wealth and scope of their economies.
- Aside from not needing a federal restructuring regime, U.S. states have shown no inclination to ask for any such legislation and would likely oppose it.

Swift Action Will Help Build Confidence

We believe the best outcome is for the Puerto Rico situation to be resolved as quickly as possible. The faster the Puerto Rican government is forced to implement much needed structural reform and fiscal discipline, the earlier traditional institutional investors will view Puerto Rico as a defensible investment. Puerto Rico must show it can achieve and maintain financial discipline and an affordable debt structure to regain access to affordable and sustainable lending for infrastructure investment.

As a U.S. territory, Puerto Rico is not a true sovereign. It may be state-like, and there are good arguments for the Commonwealth to receive federal funding on parity with other states. However, as a territory it does not enjoy the same responsibilities and advantages as states. Puerto Rico is a sub-sovereign entity over which the U.S. Congress has oversight. When warranted, Congress should act to resolve various financial, economic and/or humanitarian crises within the territories.

Years of litigation and inter-creditor disputes will only stifle economic growth and accelerate out-migration, further diminishing the tax base available to pay off creditors. At present, too many unknowns prevent investors from reaching a reasonable degree of confidence in the territory or any particular security pledge. This lack of certainty will keep Puerto Rico locked out of the market until a path to sustainability and economic growth emerges. We believe this will not happen until Congress enters the void and brings with them a sense of order and path forward for Puerto Rico. ■

For more information, please consult with your financial advisor and visit nuveen.com.

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RISKS AND OTHER IMPORTANT CONSIDERATIONS

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