The Demand for Municipal Bonds: Issues for Congress

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August 14, 2015

Congressional Research Service
7-....
www.crs.gov
R44146

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

Municipal bonds are debt securities issued by states, cities, counties, and other government-created agencies to finance capital projects, such as highways, airports, sewers, bridges, schools, hospitals, and other public goods for residents. The municipal bond market is large and varied, consisting of more than an estimated 1.5 million bond types and more than an estimated 55,000 issuers borrowing to finance a variety of civic projects. The U.S. municipal bond market had a total of $3.7 trillion outstanding issuances by year end 2014, reflecting a 3.2% decline from its peak in 2010.

Meanwhile, the outstanding municipal debt associated with financing of capital projects has risen over the last decade. The distressed financial situation of the Commonwealth of Puerto Rico, while not the primary focus of this report, serves as an example of financial distress attributed to an increase in longer-term liabilities. Rising indebtedness levels may have led some municipal bond issuers to curtail new issuances rather than further increase longer-term liabilities.

Various bills that would impact the municipal bond market have been introduced in the 114th Congress.

- The Move America Act of 2015, S. 1186, would create expanded tax incentives for infrastructure projects.
- The Municipal Bond Market Support Act of 2015, H.R. 2229, would increase the annual municipal debt limit that could be exempt from $10 million to $30 million on the amount of tax-exempt obligations a small issuer may issue for a bank to purchase.

In addition, legislation has been introduced to protect taxpayers at the federal level from municipal bond defaults.

- The No Taxpayer Bailouts for Unsustainable State and Local Pensions Act, H.R. 1476, for example, would prohibit the Secretary of the Treasury and the Board of Governors of the Federal Reserve System from providing any financial assistance to state and local government pension plan funds.

Congress generally has supported policies to encourage credit access for state and local public-sector entities. This report informs Congress about various developments related to the demand for municipal bonds. Beginning with investor holding trends, the household share of municipal bondholders has decreased whereas the share of various financial intermediaries holding municipals, particularly depository banking institutions, has increased. Changes in the composition of investors could be related to several types of financial risks (e.g., interest rate, liquidity, default). Likewise, various regulatory developments also influence the profitability of municipal bonds for different bondholder types, and thus their willingness to hold these securities. This report also presents concerns expressed by the Securities and Exchange Commission (SEC) regarding the need for improved disclosures to inform investors about the financial health of municipal issuers and consistent accounting practices.

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Introduction

A municipal bond is a debt security issued by states, cities, counties, and other government-created entities to pay for capital projects, such as highways, airports, sewers, bridges, schools, hospitals, and other infrastructure expenditures. Municipal bond issuers include state and local municipal governments as well as other municipal entities (e.g., utilities, water districts, hospital authorities), and there are more than 55,000 issuers of municipal bonds.[1] The estimate of more than 1.5 million different types of municipal bonds reflects the wide and diverse range of civic projects that are financed in this market.[2] Municipal bonds are also distinguished from other types of bonds (e.g., corporate, U.S. Treasuries) by the tax treatment for individuals. The interest on municipals is generally exempt from federal taxes. Residents who invest in their state or local municipality bonds may also have the interest on these bonds exempt from state or local taxes.[3]

The Municipal Securities Rulemaking Board (MSRB), an independent rulemaking entity established by Congress, provides oversight of the municipal bond markets and participants. The MSRB was created by the Securities Act Amendments of 1975.[4] MSRB is considered to be a self-regulatory organization (SRO), and its rules are approved by the Securities and Exchange Commission (SEC) and enforced primarily by the Financial Industry Regulatory Authority (FINRA), which is another SRO. SROs are subject to SEC oversight and primarily regulate broker-dealers, who earn fees for trading in securities markets.[5] All municipal broker-dealers as well as municipal advisors, who earn fees for advisory services, must register with the MSRB.[6] Generally speaking, the main objective of the MSRB is to promote fairness and transparency in the municipal securities markets.

Following the 2007-2009 recession, state and local public-sector entities have encountered rising fiscal gaps as well as rising indebted levels associated with the financing of long-term capital projects, and thus more distressed financial situations.[7] While fiscal gaps may be narrowed by reducing spending and raising taxes, the proceeds generated by municipal bond issuances are typically designated for the funding of longer-term capital projects. All forms of lending, however, are risky, and bondholders face a range of financial risks. Proper disclosure of risk allows investors to determine whether they want to lend and how much of their funds they may be willing to lose in the event the borrower is unable to repay. In addition to the customary risk and return trade-off assessment, financial intermediaries (e.g., banks, credit unions, insurance

[1] See Municipal Securities Rulemaking Board (MSRB), "How the Market Works," at http://www.msrb.org/Municipal-Bond-Market/How-the-Market-Works.aspx.

[2] The estimated 1.5 million municipal bonds is 20 times the number of corporate bonds. See Commissioner Luis A. Aguilar, *Statement on Making the Municipal Securities Market More Transparent, Liquid, and Fair*, U.S. Securities and Exchange Commission, February 13, 2015, at http://www.sec.gov/news/statement/making-municipal-securities-market-more-transparent-liquid-fair.html.

[3] Not all state and local bond issues are exempt from federal taxes. For example, returns from pension obligation bonds, issued by state and local governments to fund employee pension retirement funds, are taxable at the federal level.

[4] P.L. 94-29, 89 Stat. 97.

[5] See U.S. Government Accountability Office (GAO), *Securities and Exchange Commission: Opportunities Exist to Improve Oversight of Self-Regulatory Organizations*, GAO-08-33, November 2007, at http://www.gao.gov/new.items/d0833.pdf.

[6] See *MSRB Registration*, at http://www.msrb.org/Rules-and-Interpretations/MSRB-Registration.aspx.

[7] The distressed financial situation of the Commonwealth of Puerto Rico, which is not the primary focus of this report, serves as an example of financial distress attributed to a widening fiscal gap.

companies) are also faced with additional regulations affecting the cost and, therefore, the return on municipal bond investments.

This report examines various influences on investors' demand for municipal bonds, with a particular focus on financial institutions; it also discusses policy issues for Congress. The report presents some recent investor holding trends, followed by an overview of various types of financial risks associated with municipal bond investments. In light of the financial risks, it discusses the challenges associated with improved financial disclosures of municipal bonds. Finally, depository banks that choose to hold municipal bonds face added regulatory requirements, which are also discussed given that banks may both lend and facilitate lending in this market. The **Appendix** provides an overview of the fiscal health of state and local municipal issuers since the 2007-2009 recession.

Financial Intermediaries: Institutions and Markets

Financial intermediation is the process of matching borrowers with lenders (i.e., savers). Depository intermediaries, such as banks and credit unions, for example, generally acquire funds from lenders (in the form of checking and savings deposits) and subsequently make loans to borrowers. The aggregate returns from lending activities are distributed between the intermediary (that keeps the loans in its asset portfolio) and the savers (that maintain deposits in the lending institution). Alternatively, financial intermediation may be conducted via the bond and asset-backed securities markets. Bonds are conceptually equivalent to loans. Investors assume the role of lenders when they purchase bonds from issuers, who are essentially borrowing the investment funds.[8] Similarly, investors that purchase financial interests in an asset-backed security, which is created by transforming a pool of numerous bonds into tranches (i.e., sets of tiered payment structures prescribing the sequence that investors are to be repaid and associated investment yields), jointly act as lenders to the underlying pool of borrowers. Financial intermediation activities that occur in the financial markets (rather than facilitated by depository institutions) may be referred to as *shadow banking* activities. All forms of financial intermediation bear the typical risks (e.g., asset market, liquidity, default, systemic) associated with lending.[9]

Trends in Municipal Bond Holdings Following the 2007-2009 Recession

Figure 1 shows that the outstanding issuances in the municipal bond market, as reported by the Federal Reserve, totaled $3.65 trillion in 2014, down from a $3.77 trillion peak in 2010.[10] The municipal bond market grew in size by 24.9% from 2005 to 2010, but decreased by 3.2% from 2010 to 2014. The largest sector holding municipal bonds are household investors, which includes some nonfinancial businesses (e.g., nonprofit organizations). Household investors reduced their market share of municipal bond holdings from 54% to 43% between 2005 and 2014.[11] Households still hold the largest share of municipals, perhaps as a result of the tax advantages for individual investors.

[8] Despite differences in legal status, the terms *bond* and *loan* will be used interchangeably throughout this report; the terms *issuer* and *borrower* will be used interchangeably; and the terms *bondholder* or *investor* will be used interchangeably with *lender*.

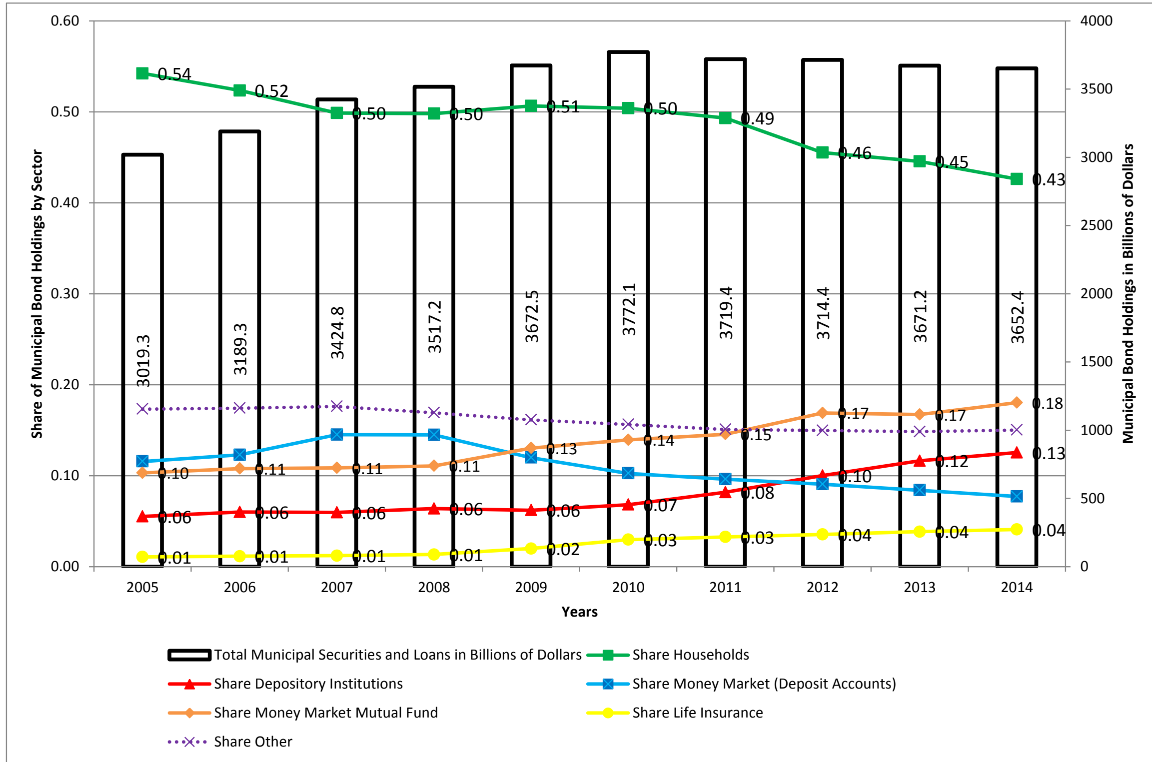
[9] See CRS Report R43345, *Shadow Banking: Background and Policy Issues*, by (name redacted) ; and CRS In Focus IF10202, *Collateralized Loan Obligations (CLOs), Structure, Use, and Implementation of the Volcker Rule*, by (name r edacted) .

[10] Board of Governors of the Federal Reserve System, Financial Accounts of the United States (Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, Historical Annual Tables 2005-2014), Table L.211, at http://www.federalreserve.gov/releases/z1/Current/annuals/a2005-2014.pdf.

[11] See Lisa Lambert, "Households Pull Back More from U.S. Municipal Market: Fed," *Reuters*, June 5, 2014, at (continued...)

Figure 1. U.S. Municipal Bond Market: Total Outstanding and Bondholders, by Sector

2005-2014



Source: Federal Reserve Flow of Funds.

Note: Congressional Research Service (CRS) Computations.

Whereas the household share of municipal holdings declined, the share of municipal bonds held by other financial entities increased. **Figure 1** shows that depository institutions (i.e., banks and credit unions that maintain federally insured deposits) have more than doubled their share of holdings.[12] Life insurance companies have quadrupled their share of holdings from 1% to 4%. As the share of municipal bonds held via money market deposit accounts fell since 2005, the share held via money market mutual funds rose.[13] More time may be needed to determine whether the observed trends in investor composition reflect temporary or permanent shifts.

(...continued)

http://www.reuters.com/article/2014/06/05/us-usa-municipals-idUSKBN0EG27Q20140605; and Robert Slavin, "Data Show Changes in Muni Buying Patterns," *The Bond Buyer*, May 1, 2012, at http://www.bondbuyer.com/issues/121_84/holders-municipal-debt-1039214-1.html.

[12] See Gary S. Corner, Emily Dai, and Daigo Gubo, *Could Rising Municipal Securities Holdings Increase Community Banks' Risk Profiles?*, Federal Reserve Bank of St. Louis, Central Banker, fall 2013, at https://www.stlouisfed.org/publications/cb/articles/?id=2447.

[13] Money market deposit accounts are similar to interest-bearing checking accounts offered by federally insured depository institutions for their depositors that typically may keep relatively large deposit balances. By contrast, funds deposited in money market mutual accounts offered by investment banks are not federally insured. Mutual fund accounts may serve as short-term parking vehicles for investors moving funds between longer-term investments (facilitated by the same investment bank). These accounts, unlike insured money market depository accounts, pay a slightly higher interest rate. Hence, investors wishing to invest in pools of municipal securities may be willing to obtain a higher return by forgoing the added safety net of federal deposit insurance, particularly if they do not perceive higher than usual repayment risks in the municipal bond market. For more information on federal depository insurance and (continued...)

Understanding the Financial Risks Related to Holding Municipal Bonds

The willingness to hold or the demand for municipal bond investments depends upon various factors, including investor appetites for financial risks.[14] This section discusses the different types of financial risks that influence the willingness and therefore the decision to hold municipal bonds. One or more of these types of risks (discussed in no particular order) may influence investors' decisions to hold municipal bonds.[15]

Asset Market Risk

Asset market risk with respect to bond holdings may also be referred to as interest rate risk. For example, suppose a lender makes a loan to a borrower at a fixed interest rate. A rise in market interest rates on the following day reduces the present value of the loan made the day before, meaning that the lender could have earned a higher yield by waiting a day. At times when interest rates are expected to rise, the lenders may want to sell the current loan for cash and originate a new loan the next day at the higher interest rate, thus avoiding ownership of the original asset should it decline in value.

Increased interest rate risk may cause some investors to sell municipal bond holdings. When current interest rates are expected to rise relative to the agreed-upon note rate of existing bonds, the present value (price) of existing bonds will decrease relative to newly issued bonds with higher rates of return (yields). Given that interest rates have remained at historic lows, some investors may have been anxious about holding existing bonds in their portfolios in anticipation of future increases in interest rates that would reduce current bond values.

Liquidity Risk

Economists view the concept of *liquidity* from a variety of perspectives. Liquidity is a term that typically refers to how quickly an asset can be converted to cash. In the context of bond markets, liquidity pertains to how quickly an asset can be bought or sold in the marketplace. *Liquidity risk*, therefore, can refer to holding assets that cannot quickly be converted into cash to satisfy immediate needs or are traded in *thin markets* (i.e., low volume of buying and selling). Financial intermediaries typically assume liquidity risk when holding less liquid loans in their asset portfolios. If investors finance less liquid, longer-term assets (e.g. bonds) with more liquid, shorter-term obligations (e.g., demand deposits) they risk having to incur large losses if they need to liquidate some or all of those assets to repay the shorter-term obligations on time.[16]

(...continued)

institutions, see CRS Report R41718, *Federal Deposit Insurance for Banks and Credit Unions*, by (name redacted).

[14] See Carla Fried, "Municipal Bonds, Stung Again," *The New York Times*, October 5, 2013, at http://www.nytimes.com/2013/10/06/business/mutfund/municipal-bonds-stung-again.html.

[15] U.S. Securities and Exchange Commission (SEC), *Report on the Municipal Securities Market*, July 31, 2012, at http://www.sec.gov/news/studies/2012/munireport073112.pdf.Municis.

[16] See Jose A. Lopez, *What is Liquidity Risk?*, Federal Reserve Bank of San Francisco, FRBSF Economic Letter, October 24, 2008, at http://www.frbsf.org/economic-research/publications/economic-letter/2008/october/liquidity-risk/.

Newly issued municipal bonds tend to be the most actively traded (primary market trading); bond trading after initial issuance, referred to as secondary market trading, declines significantly.[17] The SEC cites studies reporting that one-third of municipals trade only once after initial issuance, the remaining bonds trade only two or three times during their lifetimes, and 5% of all municipals may only trade once every 12 years.[18] Only a small amount of outstanding municipal bonds are purchased or offered for sale on a day-to-day basis, resulting in a thin secondary market for these securities.[19] Hence, municipal bonds trade in small volumes in the over-the-counter market on an irregular basis (in comparison to trading in large volumes on organized exchanges). The thin secondary market is why the municipal bonds are generally characterized as being illiquid (although some municipal bonds may be considered less illiquid relative to others).

The thin secondary market trading volume is why the prices of individual municipal securities must be estimated, which increases the probability of incurring a loss (i.e., rising liquidity risk) under circumstances in which investors unexpectedly needed to liquidate their bond holdings.[20] Prices are frequently determined by observing past trades of bonds that arguably share similar characteristics, which has become easier for individual investors in recent years as a result of the MSRB's Electronic Municipal Market Access website.[21] Consequently, some investors, particularly those anticipating their future cash flow needs, may choose to convert their municipal bonds holdings into assets in which the values do not need to be estimated and, therefore, characterized by lower levels of liquidity risk.

Default Risk

Default risk refers to the risk that borrowers (or bond issuers) will not repay all principal and interest owed or as scheduled. In light of the thousands of issues, municipal bond defaults are likely to be idiosyncratic or unique to the financial conditions tied to the locality or entity where they were issued.[22] The default rate for municipal bonds tracked by the S&P Municipal Bond

[17] Ibid, p. 21.

[18] See Commissioner Luis A. Aguilar, *Statement on Making the Municipal Securities Market More Transparent, Liquid, and Fair*, U.S. Securities and Exchange Commission, February 13, 2015, at http://www.sec.gov/news/statement/making-municipal-securities-market-more-transparent-liquid-fair.html.

[19] See U.S. Securities and Exchange Commission, *Report on the Municipal Securities Market*, July 31, 2012, at http://www.sec.gov/news/studies/2012/munireport073112.pdf.Municis.

[20] See U.S. Government Accountability Office (GAO), *Municipal Securities: Overview of Market Structure, Pricing, and Regulation*, GAO-12-265, January 2012, at http://www.gao.gov/assets/590/587714.pdf; and Burton Hollifield, *SEC Municipal Bond Panel*, Presentation, Washington, DC, April 2013, at https://www.sec.gov/spotlight/fixed-income-markets/fixed-income-markets-municipal-bonds-hollifield.pdf.

[21] See Electronic Municipal Market Access (EMMA) website at http://www.emma.msrb.org/.

[22] See Jason Appleson, Eric Parsons, and Andrew Haughwout, "The Untold Story of Municipal Bond Defaults," *Liberty Street Economics*, August 15, 2012, at http://libertystreeteconomics.newyorkfed.org/2012/08/the-untold-story-of-municipal-bond-defaults.html.

Index, for example, was 0.144% in 2012, 0.107% in 2013, and 0.17% in 2014.[23] In light of infrequent default experiences, municipals are considered to be historically safe investments.[24]

The Federal Reserve Bank of New York has found that reports by major bond rating agencies about municipal bond defaults only include rated bonds, but inclusion of the unrated portion of the market significantly increases the number of municipal default frequencies.[25] Furthermore, several state and local municipalities experienced financial distress episodes following the 2007-2009 recession. Some municipal bond issuers saw lower tax revenues and higher expenditures.[26] Some municipalities saw their credit ratings downgraded due to growing indebtedness, frequently associated with underfunded pensions.[27] Some general obligations were cut to junk (low grade, high default risk) bond status;[28] since 2008, some issuers have filed for Chapter 9 bankruptcy.[29]

When an issuer's credit rating is low, bond insurance may be purchased to help attract investors.[30] The financial guaranty insurance industry, that is, monoline (bond) insurers, provides insurance against the default risk of municipal bonds and asset-backed bond issuances. After 2007,

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[23] See S&P Dow Jones Indices, McGraw Hill Financial, *Energy-Related Municipal Bonds Help Push the S&P Municipal Bond Index Default Rate to a 3-Year High in 2014*, Fixed Income Update, New York, NY, January 2015, at http://www.spindices.com/documents/research/fixed-income-updates-muni-bond-default-rate-dec-2014.pdf; and Robert Slavin, "Defaults Reached Record in 2014," *The Bond Buyer*, January 13, 2015, at http://www.bondbuyer.com/news/markets-buy-side/defaults-reached-record-in-2014-1069491-1.html; and Liz Farmer, "S&P Defends Higher Municipal Credit Ratings," *GOVERNING*, October 9, 2014, at http://www.governing.com/news/headlines/gov-credit-rating-upgrade-increase-reasons.html.

[24] For example, see National Association of State Budget Officers, "2014 Fact: State and Municipal Bankruptcy, Municipal Bonds, State and Local Pensions," Winter 2014, at http://www.nasbo.org/sites/default/files/pdf/Bankruptcy-Bonds-Pensions%20Fact%20Sheet.pdf.

[25] A rated bond is one that has received from an independent bond rating agency a grade based upon the issuer's financial strength and ability to repay the principal and interest in a timely manner. A database consisting of both rated and unrated municipal bonds shows that 2,521 municipals defaulted over the 1970-2011 period, compared with 71 defaults reported by a private ratings agency. See Jason Appleson, Eric Parsons, and Andrew Haughwout, *The Untold Story of Municipal Bond Defaults*, Federal Reserve Bank of New York, Liberty Street Economics, August 15, 2012, at http://libertystreeteconomics.newyorkfed.org/2012/08/the-untold-story-of-municipal-bond-defaults.html.

[26] See the **Appendix**.

[27] For example, see Brian Chappatta and Tim Jones, "Chicago Cut to 3 Levels Above Junk by Moody's on Pensions," *Bloomberg*, March 5, 2014, at http://www.bloomberg.com/news/2014-03-05/chicago-cut-to-3-levels-above-junk-by-moody-s-on-pensions.html.

[28] See Christine Albano, "Puerto Rico and Detroit: Investors Tread Fine Line Between Value and Concern," *The Bond Buyer*, September 23, 2013, at http://www.bondbuyer.com/issues/122_184/puerto-rico-and-detroit-investors-tread-between-value-and-concern-1055832-1.html.

[29] Some municipalities that have filed bankruptcy include Gould, AK (April 2008); Vallejo, CA (May 2008); Westfall Township, PA (April 2009); Washington Park, IL (July 2009); Central Falls, RI (August 1, 2011); Boise County, ID (September 8, 2011); Harrisburg, PA (October 2011); Jefferson County, AL (November 9, 2011); Stockton, CA (June 28, 2012); Mammoth Lakes, CA (July 3, 2012); San Bernardino, CA (August 1, 2012); and Detroit, MI (July 18, 2013). See "Which American Municipalities Have Filed for Bankruptcy?" *PBS NEWSHOUR*, February 8, 2014, at http://www.pbs.org/newshour/updates/municipalities-declared-bankruptcy/; Micheline Maynard, "Detroit Is Eligible For Bankruptcy, And City Pensions Are At Risk," *Forbes*, December 3, 2013, at http://www.forbes.com/sites/michelinemaynard/2013/12/03/detroit-is-eligible-for-bankruptcy-and-city-pensions-are-at-risk/.

[30] Bond insurance guarantees bond purchasers (i.e., investors) that interest payments will be made on time and principal will eventually be returned if the issuers default. Municipalities facing financial difficulties, therefore, may still receive high credit ratings for their bond issuances if they purchase bond insurance from a highly rated monoline insurance company. Monoline insurers are not allowed to provide life, automobile, or property insurance; they may only provide guarantees for financial obligations. The insurance may be provided either in the form of a traditional insurance policy, which would be subject to state insurance regulation, or in the form of a credit default swap, which is a financial contract not subject to capitalization requirements that may be traded on the open market. See CRS Report RL34364, *Bond Insurers: Issues for the 110th Congress*, by (name redacted) and (name redacted)

monoline insurers experienced losses on mortgage-backed securities guarantees resulting in a loss of their AAA ratings.[31] Some investors may be less comfortable holding insured municipal bonds in light of reports about some bond insurers that are still recovering from previous financial losses.[32]

In the 114th Congress, the No Taxpayer Bailouts for Unsustainable State and Local Pensions Act (H.R. 1476) was introduced to prohibit the Secretary of the Treasury and the Board of Governors of the Federal Reserve System from providing any financial assistance to state and local government pension plan funds. If the source of financial stress for many municipalities is related to the funding of municipal employee pensions, then this bill would prevent the federal government from acting as the ultimate guarantor for municipal investors. This bill could encourage some municipalities to apply available funds to cover pension liabilities and fund more non-pension liabilities via borrowing, thereby shifting more default risk to non-pension liabilities where it may still be possible to request federal assistance.

Systemic Risk

Bond markets, as with all financial asset markets, are also vulnerable to *systemic risk* crises. A systemic risk crisis can occur in the municipal bond market when bondholders suddenly lose confidence (or panic) about the likelihood of repayment and simultaneously rush to sell or liquidate their municipal securities holdings.[33] Given that municipals trade infrequently and their prices are estimated, investors may not be able to obtain timely market information about changes in issuer default risk or changes in overall market perceptions of default risk. Although investors can obtain information about the risks associated with their bond holdings, (e.g., the financial statements of the bond issuers or on-site inspections of the progress of a municipal project), recurring announcements of various municipals' fiscal problems may influence bondholders' perceptions of risk exposure. Growing pessimism can suddenly manifest itself in the form of a market retrenchment—often referred to as a systemic risk *run* or *flight-to-quality* event—when investors suddenly attempt to liquidate their bond holdings before issuers become insolvent.[34]

The Financial Stability Oversight Council (FSOC), established to identify risks to the financial stability of the United States, provided an assessment in its annual report regarding the potential of a systemic risk crisis in the municipal bond market generated specifically by the debt crisis in Puerto Rico.[35] Puerto Rico has outstanding municipal debt totaling more than $70 billion, and the credit rating agencies have downgraded the issuances to junk status.[36] According to the FSOC,

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[31] See Wells Fargo, "Deterioration of Monoline Insurance Companies and the Repercussions for Municipal Bonds," *Wells Fargo Advantage Funds*, November 2008, at https://www.wellsfargoadvantagefunds.com/pdf/whitepapers/monoline_insurance_muni_bonds.pdf.

[32] See Oliver Renick and Maria Bonnello, "Bond Insurance Then & Now: The Revival of an Industry," *The Bond Buyer*, April 30, 2014, at http://www.bondbuyer.com/issues/123_83/bond-insurance-then-and-now-revival-of-industry-1062071-1.html.

[33] During the 1800s, episodes of economic contraction, including the Panic of 1873, were characterized by municipal bondholder panics. See Mayraj Fahim, *Municipal Bonds Have Been Issued by U.S. Local Governments Since 1812*, City Mayors Foundation, 2012, at http://www.citymayors.com/finance/bonds.html#Anchor-47383.

[34] An investors' run in the municipal bond market is analogous to a bank run in which depositors suddenly withdraws their funds out of a bank that is believed to be insolvent or unable to repay.

[35] See U.S. Financial Stability Oversight Council, *Annual Report*, 2015, at http://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/2015%20FSOC%20Annual%20Report.pdf.

[36] See Mary Williams Walsh, "S&P Lowers Puerto Rico Debt to Junk Status," February 4, 2014, at http://dealbook.nytimes.com/2014/02/04/s-p-lowers-puerto-rico-debt-to-junk-status/?_r=0.

evidence of an erosion of investor confidence in the broader municipal bond market stemming from financial challenges idiosyncratic to Puerto Rico has not been observed. As long as investors do not consider the financial distress of one or more municipal issuers to be indicative of the broader financial health of other issuers, then it may be possible to avoid a systemic risk panic in the broader municipal securities market.

Disclosing and Evaluating Municipal Bond Risks

The Securities Act of 1933 requires full disclosure of material financial information about securities sold and granted in the securities market.[37] The federal government, however, is limited in its ability to regulate the municipal bond market even though it is a national market due to concerns associated with federal-state comity.[38] The Securities Exchange Act of 1934 created the Securities and Exchange Commission (SEC), giving it broad authority over the securities markets *with the exception of the municipal securities market*.[39] The Securities Acts Amendments of 1975, commonly referred to as the Tower Amendment to the Securities Exchange Act of 1934, prohibits the federal government from requiring

> any issuer of municipal securities, directly or indirectly through a purchaser or prospective purchaser of securities from the issuer, to file with the [Securities and Exchange] Commission or the [Municipal Securities Rulemaking] Board prior to the sale of such securities by the issuer any application, report, or document in connection with the issuance, sale, or distribution of such securities.[40]

Issuers of municipal bonds are not required to register their securities and thus are not subject to SEC disclosure requirements. The SEC does not have the authority to require state and local municipalities to follow the Generally Accepted Accounting Principles (GAAP) for state and local municipalities, established by the Governmental Accounting Standards Board (GASB).[41] Compliance with GASB rules by state and local municipalities is voluntary. Individual states can pass statutes to require compliance with GASB or other preferred accounting methods. For example, the SEC has noted that the state of New Jersey has passed a state law requiring its

[37] 15 U.S.C. §77a et seq.

[38] The federal tax exemption for municipal bonds was originally not intended to provide financial assistance to states; instead, it is rooted in the separation of federal and state governments, specifically the intergovernmental tax immunity doctrine as prescribed by the Tenth Amendment of the U.S. Constitution. See Ronald P. Bernardi, Justin Formas, and Allison White, *Tax Exempt Municipal Bonds: The Case for an Efficient, Low-Cost, Job-Creating Tax Expenditure*, Bernardi Securities, Inc. Municipal Bond Specialists, December 2011, at http://www.lumesis.com/pdf/Bernardi-Securities-Inc-White-Paper.pdf. In the Pollock vs. Farmers Loan Trust (1894) decision, the Supreme Court upheld protection of states from federal interference with their respective borrowing ability; see Joy A. Howard, "Municipal Bond Disclosure—History, Requirements and Services Provided by WMFS," WM Financial Strategies, at http://www.munibondadvisor.com/Disclosure.htm. In *Baker v. South Carolina (56 USLW 4311 (April 20, 1988))*, however, the Supreme Court "held that there is no constitutional barrier to the imposition of Federal income taxes on interest received by holders of state and local government obligations." For more information, see Bruce F. Davie and (name redacted), "Tax -Exempt Bonds After the South Carolina Decision," *Tax Notes*, June 27, 1988, p. 1573.

[39] 15 U.S.C. §78a et seq.

[40] P.L. 94-29; 15 U.S.C. §78o-4(d).

[41] The SEC has the authority to require publicly listed private-sector companies to follow GAAP accounting standards, established by the Financial Accounting Standards Board (FASB), when preparing their financial statements. See CRS Report RL34087, *FEMA Disaster Housing and Hurricane Katrina: Overview, Analysis, and Congressional Issues*, by (name redacted) .

localities to use statutorily mandated accounting methods as opposed to a nationally recognized accounting standard, such as those issued by the GASB.[42]

Because municipal issuers do not have to meet standard SEC disclosure requirements, disclosure practices may vary by jurisdiction, state requirements, and type of security offerings (e.g., general obligation bonds, revenue bonds). Accounting practices are inconsistent across state and local governments. State definitions of budget items may vary considerably, making the ability to compare risks across municipal jurisdictions less effective.[43] Conflicts of interests that may exist between the issuer, underwriter, and other principals may not be sufficiently disclosed at an initial offering. Disclosures at new offerings may lack sufficient information about the existence of bank loans or other municipal obligations owed by the issuer. Investors may also be vulnerable to improper disclosures if municipal bond credit rating changes, particularly in municipal markets that trade infrequently. Such issues suggest that investors are unable to accurately determine how much default risk they would assume when considering municipal bond investments.

Complicating matters, bondholders may be unsure whether they rank first or last in payment priority should an issuer become insolvent.[44] In accordance with the Tenth Amendment of the U.S. Constitution, the federal government may not grant a bankruptcy petition for a municipality without permission from the state because bankruptcy is a federal process. Some 26 states allow municipalities to file for bankruptcy.[45] For states that have not enacted laws specifying whether it or its local public-sector entity can declare bankruptcy, bondholders would not know the order of payment priority in case of an asset liquidation episode, possibly prompting some of them to sell their municipal bonds. In cases where state and local courts may favor pension funds over bondholders, it becomes particularly important for bondholders to be fully aware of the repayment risks.

Meeting various disclosure standards may be considered burdensome particularly for smaller municipal issuers. For example, issuers pay standardization and transmittal requirements for data.[46] Standardization of the reporting cycle, (i.e., quarterly or monthly) may be expensive if, for example, financial statements were required to be audited and credit ratings had to be updated at each interval.[47] Generally speaking, small financial entities (e.g., community banks, credit unions,

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[42] See U.S. Securities and Exchange Commission, "SEC Charges State of New Jersey for Fraudulent Municipal Bond Offerings," press release, August 18, 2010, at http://www.sec.gov/news/press/2010/2010-152.htm; and Government Finance Officers' Association of New Jersey, "Standard Setter Amends N.J. Pension Accounting," *The Report*, vol. 2, issue 1, (winter 2012), at http://c.ymcdn.com/sites/www.gfoanj.org/resource/resmgr/Winter_Newsletter.pdf.

[43] National Association of State Budget Offices (NASBO), "Budget Processes in the States," summer 2008, at https://www.nasbo.org/sites/default/files/BP_2008.pdf; NASBO, "A Note About State Deficits/Shortfalls," at http://www.nasbo.org/about-nasbo/press-room/glossary-terms; E. Matthew Quigley, Amanda Lydon "Dealing with Deficits: How New England States are Managing the Fiscal Crisis," Federal Reserve Bank of Boston, fall 2002, no. 29, at http://www.bostonfed.org/economic/neff/neff29/defecits.pdf; and National Conference of State Legislatures, *NCSL Fiscal Brief: State Balanced Budget Provisions*, October 2010, at http://www.ncsl.org/documents/fiscal/statebalancedbudgetprovisions2010.pdf.

[44] See Mary Williams Walsh, "Judge Approves Bankruptcy Exit for Stockton, California," *New York Times*, October 30, 2014, at http://dealbook.nytimes.com/2014/10/30/judge-approves-bankruptcy-exit-for-stockton-calif/?emc=edit_dlbkpm_20141030&nl=business&nlid=69190179&_r=0.

[45] See Annette Thau, *Notes on the Current State of the Muni Bond Market*, American Association of Individual Investors, May 2012, at http://www.aaii.com/journal/article/notes-on-the-current-state-of-the-muni-bond-market.touch.

[46] See Bond Dealers of America, "Advocacy—Priorities in 2014," at http://www.bdamerica.org/advocacy.

[47] See U.S. Securities and Exchange Commission, Commissioner Elisse B. Walter, "Key Note Address at the National Association of Bond Lawyers (NALB) 35th Bond Attorney's Workshop," San Antonio, TX, October 28, 2010, at http://www.sec.gov/news/speech/2010/spch102810ebw.htm.

small bond issuers) typically lack the volume of transactions commensurate with the compliance costs of various industry regulations compared with their larger competitors.

Regulatory Actions to Improve Municipal Market Disclosures

The SEC has brought attention to the need to improve disclosure practices of state and local governments in light of alleged omissions of material information that investors may have found necessary to fully understand the risks associated with municipal bond investments.[48] The SEC may still enforce federal securities antifraud provisions against municipal issuers when pertinent financial information is withheld from or misrepresented to investors in violation of SEC Rule 15c2-12.[49] The SEC has suggested recommendations designed to improve transparency and liquidity in the municipal securities markets.[50]

Although federal disclosure requirements may not be imposed on municipal issuers, broker-dealers that facilitate the buying and selling of municipal bonds are regulated. The Municipal Securities Rulemaking Board was established as an independent entity in 1975 by the Tower Amendment to issue regulations and rules for the municipal bond broker-dealers. The MSRB has authority to make rules regulating the municipal securities activities of securities firms and banks that underwrite, trade, and sell municipal securities, as well as municipal advisory activities of municipal advisors. Title IX of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act)[51] expanded the MSRB's jurisdiction, which had included broker-dealers (that earn fees for trading municipal securities), to also include the regulation of municipal advisors (that earn fees for advisory services) and establish rules for their activities.[52]

On March 10, 2014, the SEC's Division of Enforcement created the Municipalities Continuing Disclosure Cooperation Initiative (MCDC).[53] The MCDC provides issuers and underwriters the opportunity to self-report any material misstatements in bond offering documents (within the last five years of any primary offerings) as well as to comply with continuing disclosures as required by SEC Rule 15c2-12.[54] The objective of MCDC is to encourage issuers to voluntarily correct misrepresentations rather than wait for them to be detected, thereby increasing transparency in the

[48] See CRS Legal Sidebar, *SEC Charges States with Fraud for Understating Municipal Bond Exposure*, by (name redacted). A list of SEC charges and sanctions against states and municipalities for improper disclosures of risk to investors may be found on the SEC's "Office of Municipal Securities" website under "Cases & Materials," at http://www.sec.gov/municipal.

[49] 17 C.F.R. §240. There are certain exemptions from Rule 15c2-12. See Municipal Securities Rulemaking Board, "SEC Rule 15c2-12: Continuing Disclosures," at http://www.msrb.org/msrb1/pdfs/SECRule15c2-12.pdf.

[50] See Commissioner Luis A. Aguilar, *Statement on Making the Municipal Securities Market More Transparent, Liquid, and Fair*, U.S. Securities and Exchange Commission, February 13, 2015, at http://www.sec.gov/news/statement/making-municipal-securities-market-more-transparent-liquid-fair.html.

[51] P.L. 111-203.

[52] For an overview of these regulatory changes, see U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Testimony on Enhanced Investor Protection After the Financial Crisis—MSRB's Implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Investor Protection, Enhanced Investor Protection After the Financial Crisis, 112th Cong., 1st sess., July 12, 2011, at http://www.msrb.org/msrb1/pdfs/TestimonyonImplementationofDodd-FrankandInvestorProtection.pdf.

[53] See U.S. Securities and Exchange Commission, "SEC Launches Enforcement Cooperation Initiative for Municipal Issuers and Underwriters," press release, March 10, 2014, at http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541090828.

[54] See U.S. Securities and Exchange Commission, "SEC: Municipalities Continuing Disclosure Cooperating Initiative," at http://www.sec.gov/divisions/enforce/municipalities-continuing-disclosure-cooperation-initiative.shtml.

municipal bond markets. The deadline for self-reporting was September 10, 2014, for underwriters (broker-dealers) and December 1, 2014, for issuers.[55]

In addition, the GASB has announced Statement 67 and Statement 68 to further define the requirements for the reporting of accounting and financial information related to municipal pension funding.

- Statement 67, Financial Reporting for Pension Plans, pertains to disclosures primarily for pension beneficiaries and other stakeholders. Examples of information likely to be of concern to beneficiaries include items such as total (employee and employer) pension contributions, predicted rates of returns, and overall performance trends. Statement 67 amends existing Statement 25 to require greater disclosures about material ("decision-usefulness") pension fund details in the notes that accompany the financial statements as well as in the required supplementary information. Statement 67 went into effect for fiscal years beginning after June 15, 2013.[56]
- Statement 68, Accounting and Financial Reporting for Pensions, pertains to disclosures primarily for taxpayers and creditors.[57] Statement 68 amends existing Statement 27 to require that the reporting of pension liabilities occur in the official, accrual based financial statements (rather than mentioned as supplementary information). Statement 68 went into effect for fiscal years beginning after June 15, 2014. This requirement is likely to result in the reporting of larger expenses and liabilities for states and municipalities, arguably providing more complete financial representations.[58]

Although greater transparency and more complete disclosures arguably may be more beneficial for investors, investor reactions are difficult to predict. Some municipal investors may be comfortable with the level and types of financial risks held in their portfolios as long as they are made fully aware; others may be less comfortable. Better disclosures may attract some investors but deter others because risk appetites and tolerance levels are diverse, thus making it difficult to predict how credit flows to municipalities would change with greater transparency. Likewise, it is ambiguous whether improved disclosures would decrease or increase the need for possible federal government intervention, perhaps in the form of financial guarantees. Greater transparency theoretically would be expected to reduce bondholder speculation and, therefore, the possibility of a financial panic. In contrast, greater transparency might reduce the demand for municipal

[55] The SEC has standardized possible settlement terms for various violations, but no assurances are offered with respect to individual liabilities. As reported by the SEC, the issuers will not face any monetary penalties and underwriters will face monetary penalties based on the amount of the offering. For those that do not self-report but are found to be in violation of the Rule, SEC gives no guarantees as to the terms of the settlement.

[56] GASB, *Summary of Statement No. 67 Financial Reporting for Pension Plans—An Amendment of GASB Statement No. 25*, Norwalk, CT, http://www.gasb.org/cs/ContentServer?site=GASB&c=Pronouncement_C&pagename=GASB%2FPronouncement_C%2FGASBSummaryPage&cid=1176160219444.

[57] GASB, *Summary of Statement No. 68 Accounting Financial Reporting for Pensions—An Amendment of GASB Statement No. 27*, Norwalk, CT, http://www.gasb.org/cs/ContentServer?site=GASB&c=Pronouncement_C&pagename=GASB%2FPronouncement_C%2FGASBSummaryPage&cid=1176160219492.

[58] GASB Statement 71 amends paragraph 137 of Statement 68 to add further clarification on transition issues from Statement 27 to Statement 68. GASB, *Summary of Statement No. 71 - Pension Transition for Contributions Made Subsequent to the Measurement Pension Transition for Contributions Made Subsequent to the Measurement*, Norwalk, CT, November 2013, http://www.gasb.org/cs/ContentServer?c=Pronouncement_C&pagename=GASB%2FPronouncement_C%2FGASBSummaryPage&cid=1176163785801.

securities, and federal government interventions might still be necessary to reassure investors and support the flow of credit to public-sector entities.

Congressional Efforts to Improve Transparency

The Public Employee Pension Transparency Act (H.R. 1628) and its companion bill of the same name (S. 779) were introduced in the 113th Congress. These bills proposed to foster greater disclosure by encouraging use of reporting requirements specified in the bills for state or local government employee pension benefit plans. The bills would have also removed the federal tax exemption on municipal bond yields during any period in which the issuing locality failed to comply with reporting requirements. In addition, the bills would have exempted the United States from any liabilities associated with shortfalls in any state or local government employee pension plan. These bills may have resulted in increased transparency, but it is unclear whether they would have increased or decreased investor participation in the municipal bond market.

Incentives for Depository Bank Holdings of Municipal Bonds

When deciding whether to hold municipal bonds, all investors, including financial institutions, typically consider their rates of return (or yields) as well as the various types of risk factors previously discussed. In addition, the total profitability for institutional investors would be affected by the funding costs (i.e., the cost to borrow the funds necessary to purchase municipals), the tax treatment, and the safety and soundness costs to hold municipal securities (as reflected in related capital requirements). Some of the legislative and regulatory factors that influence banks to hold municipal bonds are listed below.

- Congress passed the Community Reinvestment Act (CRA) of 1977 to encourage federally insured banking institutions to make sufficient credit available in the local areas in which they were chartered and acquiring deposits.[59] Banks have a wide variety of options to serve the credit needs in the geographical area where they acquire deposits.[60] During CRA examinations, banks may receive CRA consideration for holding municipal bonds that promote economic development in their assigned local areas.
- Although the interest from municipal bond investments is not subject to federal tax when held by individuals, the interest is subject to federal taxes when held by banks. The Tax Equity and Fiscal Responsibility Act of 1982[61] limited the interest deduction on municipals for banks to 85%; the Deficit Reduction Act of 1984[62] further reduced the deduction to 80%. The Tax Reform Act of 1986 eliminated the interest deduction on municipals for banks, but exemptions were made for

[59] P.L. 95-128, 12 U.S.C. §2901-2908. For more information, see CRS Report R43661, *The Effectiveness of the Community Reinvestment Act*, by (name redacted).

[60] Rather than impose lending quotas, banks receive Community Reinvestment Act (CRA) ratings. A favorable CRA rating may allow a bank to get permission from its primary regulator to engage in prospective profit opportunity, such as a future merger.

[61] P.L. 97-248.

[62] P.L. 98-369.

"qualified tax-exempt obligations" up to a $10 million annual limit.[63] Specifically, banks must pay taxes on the interest income earned from municipals, but they may deduct 80% of the costs incurred to fund municipals that satisfy certain regulatory requirements.

- Under Basel III capital requirements for banks, the dollar amount of municipal bond holdings are multiplied by an assigned *risk weight* that is subsequently used in the calculation of the required capital reserves a bank must maintain. The current risk weight assigned to a general obligation bond backed by the full faith and credit of the public-sector entity is 20%; the risk weight is 50% for issuances that are expected to be repaid with revenues from a project rather than general tax funds.[64] Should the status of a particular set of municipal securities change to nonperforming, the risk weight applied to the outstanding balance for troubled bank loans increases to 150%, resulting in greater capitalization pressures. For example, suppose a banking institution is holding a set of municipal bond obligations that experience a ratings downgrade such that the securities are no longer investment grade.[65] Because the secondary municipal bond market is not liquid, disposal of these riskier assets is unlikely to occur quickly, especially if the market value of these securities declines. Banking institutions would need to increase their regulatory capital against the value of the downgraded assets until they have been sold or written off the balance sheet as losses.

Congress has shown willingness to foster greater credit access for public infrastructure spending for possible economic stimulus. For example,

- The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) included provisions allowing for the temporary issuance (before January 1, 2011) of a tax-credit bond, the Build America Bond (BAB), which paid bondholders (including banks) a federal tax credit equal to 35% of taxable interest. This development coincides with the observed rise in the share of bank municipal holdings in 2009 (as shown in **Figure 1**), because the after-tax interest income earned from BABs would increase for banks relative to traditional municipal bonds.
- The Move America Act of 2015 (S. 1186), introduced in the Senate, proposes to "expand tax-exempt private activity bonds and create a new infrastructure tax credit," which allows states to pursue infrastructure projects.[66]
- The Municipal Bond Market Support Act of 2015 (H.R. 2229) was introduced on May 1, 2015. H.R. 2229 would increase the annual municipal debt limit that

[63]P.L. 99-514. For more information, see Peter Fortune, "The Municipal Bank Market, Part I: Politics, Taxes, and Yields," Federal Reserve Bank of Boston, *New England Economic Review*, September/October 1991, at http://www.bostonfed.org/economic/neer/neer1991/neer591b.pdf; and Howard P. Estes, Jr., *Municipal Bonds: Good News for Community Banks*, Spotts Fain, February 13, 2014, at http://www.spottsfain.com/publications/295-municipal-bonds-good-news-community-banks.

[64] For a discussion of bank asset risk weighting and an example, see CRS Report R42744, *U.S. Implementation of the Basel Capital Regulatory Framework*, by (name redacted).

[65] For example, see Darrell Preston, Elizabeth Campbell, and Brian Chappatta, "Chicago Faces $2.2 Billion Bank Payout After Rating Cut to Junk," May 13, 2015, at http://www.bloomberg.com/news/articles/2015-05-13/chicago-faces-2-2-billion-bank-payout-after-rating-cut-to-junk.

[66] See The United States Senate Committee on Finance, "Wyden and Hoeven Introduce Move America Program to Boost Infrastructure Investment," press release, May 4, 2015, at http://www.finance.senate.gov/newsroom/ranking/release/?id=27efdfd3-33b3-4524-9cde-0ef0bc875a95.

could be exempt from $10 million to $30 million on the amount of tax-exempt obligations a small issuer may issue for a bank to purchase.[67] The bill also would allow for a higher increase in the annual inflation adjustment. Banks would be able to increase their investment in tax-exempt municipal securities up to the higher limits. The reduction in federal tax liabilities would increase the expected rate of return of municipal bond investments for banks, possibly increasing their incentive to hold more bonds.

Liquidity Requirements for Depositories

In September 2008, the short-term overnight funds market collapsed when financial institutions suddenly refused to make short-term loans to other financial institutions after reports of other distressed financial institutions, an example of a systemic risk event.[68] The panic response by numerous financial institutions to discontinue their participation in financial markets arguably prompted the Federal Reserve to intervene and provide liquidity to the financial system.[69] The Federal Reserve and other federal banking agencies proposed strengthening liquidity regulations, calling for depository banking institutions with $10 billion or more in assets to hold more *high quality liquid assets* (HQLA) in their portfolios.[70] In the final rule, the qualifying liquid assets have been defined over various ranges (i.e., level 1, level 2A, and level 2B), with level 1 being the most liquid, followed by level 2A and then level 2B being least liquid.[71] The federal banking regulators did not include municipal bonds in any of the HQLA definitions because they observed a wide range of liquidity characteristics for municipal bonds, making it difficult for this class of securities to collectively meet the liquid and readily marketable requirements.

On April 16, 2014, several Members of Congress requested that the Federal Reserve include municipals as part of HQLA.[72] The exclusion of municipal bonds from HQLA eligibility may discourage banks from increasing their municipal holdings, possibly increasing the funding costs for state and local governments. On May 4, 2015, H.R. 2209 was introduced "to require the appropriate federal banking agencies to treat certain municipal obligations as level 2A liquid assets, and for other purposes." Because some municipal bonds may trade in relatively more

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[67] See Letter from American Hospital Association, Bond Dealers of America, and Independent Community Bankers of America et al. to Honorables Tom Reed, John Larson, Richard Neal, Randy Hultgren, Members of the U.S. House of Representatives, September 19, 2014, http://www.icba.org/files/ICBASites/PDFs/ltr091914.pdf.

[68] *Systemic risk* often refers to a sudden loss of confidence (or panic) by financial market participants following a liquidity disruption, a default, a decline in asset prices, or even an *expected* decline in asset prices. Systemic risk runs are often discussed in the context of banking panics, when depositors suddenly attempt to withdraw their deposits from banks before they fail or become insolvent. A systemic risk run, however, may occur in any financial market. Systemic risk would also be analogous to a heightened level of *headline risk*, discussed in U.S. Government Accountability Office, *Municipal Securities: Overview of Market Structure, Pricing, and Regulation*, GAO-12-265, January 2012, at http://www.gao.gov/assets/590/587714.pdf.

[69] See CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by (name redacted)

[70] See Board of Governors of the Federal Reserve System, "Federal Reserve Board proposes rule to strengthen liquidity positions of large financial institutions," press release, October 24, 2013, at http://www.federalreserve.gov/newsevents/press/bcreg/20131024a.htm; CRS Report R42744, *U.S. Implementation of the Basel Capital Regulatory Framework*, by (name redacted); and CRS In Focus IF10208, *The Liquidity Coverage Ratio (LCR)*, by (name redacted)

[71] See U.S. Department of Treasury, OCC, the Federal Reserve System, and the FDIC, "Liquidity Coverage Ratio: Liquidity Risk Measurement Standards," 79 *Federal Register* 197, October 10, 2014, pp. 61440-61541, at http://www.gpo.gov/fdsys/pkg/FR-2014-10-10/pdf/2014-22520.pdf.

[72] Fifteen Members of Congress from the New York congressional delegation sent the comment letter. See Comment Letter to the Board of Governors of the Federal Reserve System, at http://www.federalreserve.gov/SECRS/2014/May/20140515/R-1466/R-1466_050614_129464_560420342526_1.pdf.

liquid markets compared with others, this bill would allow for a specific subset of municipal bonds satisfying a criteria for liquid and readily-marketable securities to be included in the level 2A HQLA asset definition. The Federal Reserve has issued a proposed rule to allow some municipal bonds with acceptable liquidity characteristics to satisfy one of the HQLA definitions; however, other banking regulators still view municipal bonds to be illiquid for the intrinsic purposes of the rule.[73] If the other federal regulators choose not to adopt rules similar to the Federal Reserve's rule, then holdings of municipals by bank depositories or depository subsidiaries would not apply toward their HQLA requirement even if it can be applied at the bank holding company level.

The Dodd-Frank Wall Street Reform and Consumer Protection Act

The Dodd-Frank Act contained provisions that arguably may influence bank purchases of municipals. One provision is related to the use of credit ratings.[74] The Dodd-Frank Act removed the use of credit ratings from regulatory guidance, and banks now face new guidelines for determining investment grade securities that can be held in their portfolios.[75] An investment grade security is defined as one in which "the issuer of the security has an adequate capacity to meet financial commitments under the security for the projected life of the asset or exposure."[76] Banks must perform credit risk due diligence for the municipal securities they hold, showing that issuers meet the definition of investment grade. Banks may continue to use credit agency ratings in their assessments, but only as a factor among a variety of factors (such as various market comparisons and economic data trends, similar in nature to some of the credit spreads discussed previously) that should be considered. Hence, the costs to hold some municipals, particularly smaller issuances by smaller localities for unique projects, may have risen in cases where regulated institutions must perform additional due diligence to authenticate the risk levels.[77] Furthermore,

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[73] See Board of Governors of the Federal Reserve System, "Regulation WW: Liquidity Coverage Ratio: Treatment of U.S. Municipal Securities as High-Quality Liquid Assets," press release, May 21, 2015, at http://www.federalreserve.gov/newsevents/press/bcreg/20150521a.htm; and Andrew Ackerman and Victoria McGrane, "Fed Is Expected to Shift on Muni Bonds," *The Wall Street Journal*, April 15, 2015, at http://www.wsj.com/articles/fed-is-expected-to-shift-on-muni-bonds-1429232200.

[74] See EMMA, "Understanding Credit Ratings," at http://emma.msrb.org/EmmaHelp/UnderstandingCreditRatings.aspx. Credit ratings may also be used to help determine municipal bond prices. A strong credit rating allows issuers to pay lower yields to investors. Investors holding lower- and non-rated bonds (that generally trade even less frequently than higher-rated municipals) expect to be compensated higher rates of return.

[75] § 939A. See U.S. Department of the Treasury, Office of the Comptroller of the Currency (OCC), "Alternatives to the Use of External Credit Ratings in the Regulations of the OCC," *OCC Bulletin 2012-18*, June 26, 2012, at http://www.occ.gov/news-issuances/bulletins/2012/bulletin-2012-18.html; Christopher McBride, "Investing in Securities Without Relying on External Credit Ratings," *Community Banking Connections*, Federal Reserve System, Second Quarter 2013, at http://www.communitybankingconnections.org/articles/2013/Q2/Investing-in-Securities-Without-Relying-on-External-Credit-Ratings.cfm; and Federal Deposit Insurance Corporation (FDIC), *Investment Securities—New Rules for Assessing Credit Risk*, 2014 FDIC Chicago Region Regulatory Conference Call Series, https://www.fdic.gov/news/conferences/chicago_region/2014-04-24.pdf.

[76] See U.S. Department of the Treasury, OCC, "Alternatives to the Use of External Credit Ratings in the Regulations of the OCC," 77 *Federal Register* 35253-35259, June 13, 2012.

[77] The SEC also issued a rule that arguably could narrow the array of securities that money market funds would be permitted to purchase. See "Removal of Certain References to Credit Ratings and Amendment to the Issuer Diversification Requirement in the Money Market Fund Rule," at http://www.sec.gov/rules/proposed/2014/ic-31184.pdf; and Kyle Glazer, "SEC Proposal to Remove Rating References from MMF Rule Sparks Concerns," *Bond Buyer*, October 21, 2014, at http://www.bondbuyer.com/news/washington-securities-law/sec-proposal-to-remove-rating-references-from-mmf-rule-sparks-concerns-1067207-1.html?utm_campaign=daily%20briefing-oct%2022%202014&utm_medium=email&utm_source=newsletter&ET=bondbuyer%3Ae3226527%3A1048240a%3A&st=email.

tens of thousands of municipal bonds are nonrated to reduce borrowing costs, meaning that it may become more challenging for banks to determine whether the bonds are investment grade.[78] As a result, the demand for the highest credit quality municipal bonds may increase whereas the demand to hold bonds by more financially vulnerable issuers may fall.

One provision that arguably may have less influence on bank purchases of municipals is the Volcker Rule. The Volcker Rule prohibits banking entities from proprietary trading activities or the buying and selling of one or more financial instruments for short-term resale (less than 60 days) to benefit from short-term price movements or to realize short-term arbitrage profits. Trading on behalf of customers is permitted so long as the banking entity does not retain beneficial ownership of the instrument.[79]

In a comment letter to the federal banking regulators, the MSRB reported that approximately three-fourths of the firms underwriting and trading municipal securities in FY2011 were covered by a proposed version of the Volcker Rule.[80] The federal bank regulators amended the initial proposal, which exempted municipal bonds from the final rule.[81] The final rule that implements the Volcker Rule still permits banks to engage in the proprietary trading of U.S. government, agency, state, and municipal security obligations.[82] Hence, it is unlikely that any future declines in municipal bond purchases by banks would be attributed to the Volcker Rule.

[78] See "Non-Rated Municipal Bonds—Understanding the Risks and Opportunities," at http://www.piperjaffray.com/pdf/02-1624_nonratedmunicipalbonds.pdf.

[79] Compliance with the Volcker Rule would require banks to either hold any securities purchases for more than 60 days or limit their broker-dealer or *market-maker* activities. A market-maker purchases and maintains an inventory of securities for investor clients. Suppose a bank incorrectly forecasts the future short-term municipal securities demands of its clients. In this case, demonstrating compliance with the Volcker Rule may depend upon the ability to determine whether the short-term securities trades were made for the benefit the bank (proprietary trading) or its customers (market making). Banks could choose to reduce their inventory of securities (for short-term trades) to minimize risks of non-compliance, thereby reducing the overall liquidity for securities that trade in thin secondary markets. Non-bank institutions may possibly offset the decline in short-term trading by banks, which may help maintain some liquidity in affected securities markets. For more information, See CRS Legal Sidebar WSLG766, *What "Proprietary Trading" is Covered by the Volcker Rule?*, by (name redacted) .

[80] See Letter from Alan D. Polsky, Chair, Municipal Securities Rulemaking Board, to Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Securities and Exchange Commission, January 31, 2012, at http://www.msrb.org/msrb1/Industry-Letters/MSRB-Comment-Letter-on-Volcker-Rule.pdf.

[81] See Municipal Securities Rulemaking Board, "MSRB Responds to Adoption of Volcker Rule by Federal Regulators," press release, December 10, 2013, at http://www.msrb.org/News-and-Events/Press-Releases/2013/MSRB-Responds-to-Adoption-of-Volcker-Rule-by-Federal-Regulators.aspx.

[82] See Board of Governors of the Federal Reserve System, Commodities Futures Trading Commission, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Securities Exchange Commission, "Agencies Issue Final Rules Implementing the Volcker Rule," press release, December 10, 2013, at http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20131210a3.pdf.

Appendix. The Financial Health of Municipal Bond Issuers

The fiscal status of issuers is essential to understanding the overall health of the municipal bond market. This section presents aggregate statistics about revenues, expenditures, and outstanding debts of state and local governments (before and after the 2007-2009 recession) that may issue municipals to fund expenditures.[83] Although state and local governments do not issue all municipal bonds, the data collected by the U.S. Census Bureau Governments Division are used in this report for brevity. The composite statistics should not be interpreted to mean that an aggregate fiscal health diagnosis would apply equally to all municipal bond issuers. A state could be experiencing a budget crisis while local governments within the same state may be financially sound. Conversely, a state may maintain a better financial situation than some of its localities. The tax (revenue-generating) policies and expenditure patterns also vary for all state and local public-sector entities. Hence, the aggregate data would not capture the financial health of each locality, but the trends may help identify the broad challenges faced by municipal bond market issuers.

Public-sector entities generally have *current (annual) operating budgets* that are determined by current revenues and expenses. Current revenues are generated by items such as taxes, fees, user charges, and intergovernmental aid. Current expenses include items such as employee salaries, payment for services, and interest payments on debt. For the most part, state and local governments are required to balance their current operating budgets. Short-term liabilities that are incurred and repaid within a year would not show up in the year-end financial statements.[84] Long-term obligations expected to be repaid over a period greater than one year and funded by municipal bonds would typically appear in the *capital budget*. The payment of annual interest on long-term liabilities, however, should appear in the operating budget. For example, suppose a public-sector entity has a long-term financial obligation to pay for an infrastructure project. Annual interest payments to creditors such as municipal bond holders would be accounted for in the current operating budget; the total obligation would appear in the long-term capital budget.

Using U.S. Census Bureau's data, **Figure A-1** shows the aggregate trends in state and local governments' current revenues collected from their *own sources* (e.g., taxes, general revenues), current revenues that include federal government appropriations, and current expenditures. All years are measured by fiscal years (between July 1 and June 30) rather than calendar years. For the most part, current state and local government revenues have been able to meet current expenditures with the help of federal government funding. From FY2000 to FY2007, current revenues from own sources tracked current expenditures rather closely. The gap between current revenues from own sources and current expenditures was narrowing. After FY2007, however, the trend in aggregate current revenue fell below the trend in current expenditures. The trend in current revenues stopped declining by FY2009, but the gap between current revenues and current expenditures has since widened significantly.

In early 2014, credit rating agencies downgraded the credit quality of an estimated 20% of state and local governments.[85] Downgrades typically translate into higher borrowing costs for state and

[83] The U.S. Census Bureau estimates that the United States consists of approximately 90,000 municipalities (i.e., states, counties, cities, special tax districts, U.S. territories, such as Washington, DC, and Puerto Rico).

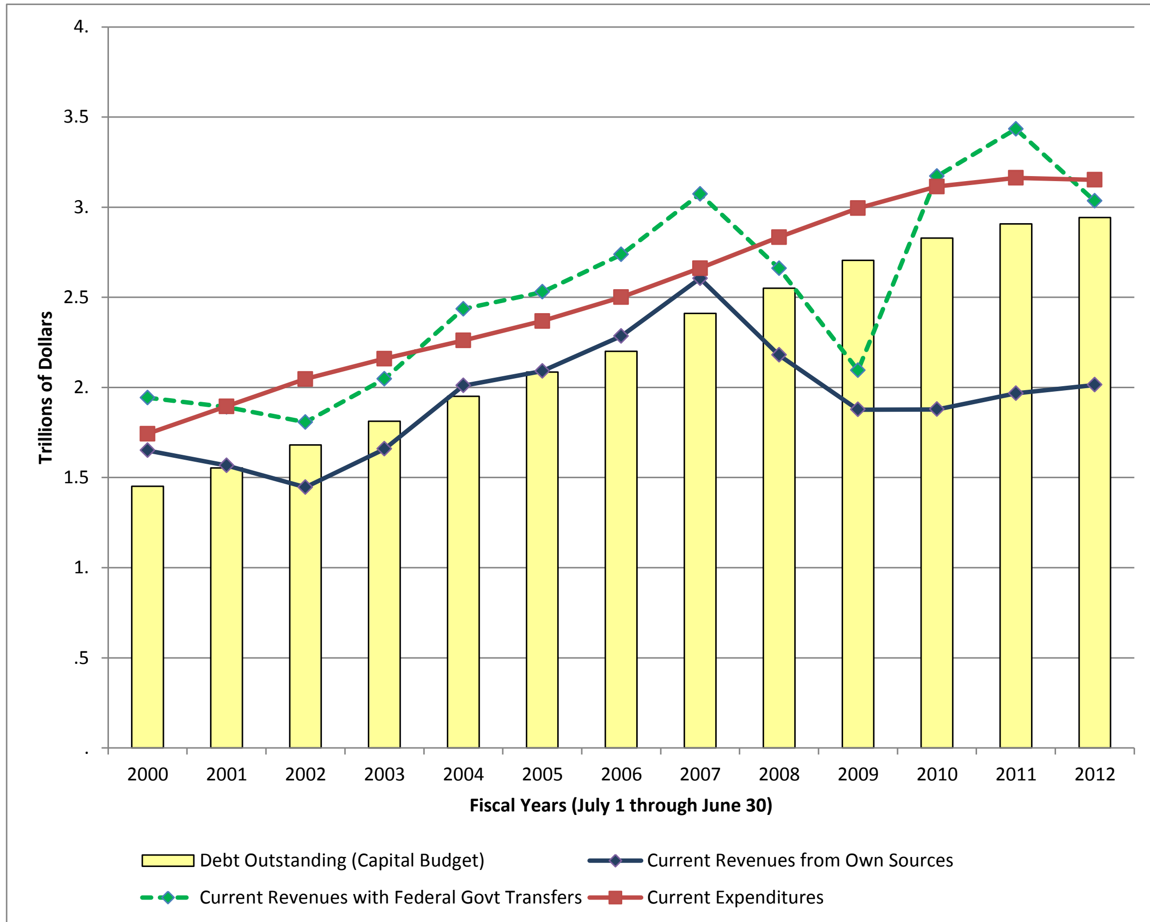
[84] See CRS Report R41735, *State and Local Government Debt: An Analysis*, by (name redacted). Municipal *notes*, which may mature within a year or less, may be issued for short-term cash management reasons.

[85] Some private-sector analysts of the municipal bond market analysts have collected more recent proprietary data and (continued...)

local municipalities to finance their expenditures. Closing the gaps may ultimately require state and local governments to either raise taxes, reduce spending, or both. In the meantime, state and local public-sector entities appear to have the ability to cover their operating expenses (in absence of periods of recession) after factoring in revenues from the federal government.

Figure A-1. State and Local Government Finances Summary: Total Revenues, Expenditures, and Debt Outstanding

FY2000-FY2012



Source: The Congressional Research Service using data from the U.S. Census Bureau Governments Division.

Capital budgets are typically used to finance long-term investments, such as infrastructure and education, among other things. Municipal bonds are typically issued to finance long-term investment expenditures that would be expected to appear in the capital budgets. **Figure A-1** shows the outstanding balance of aggregate debts that will be repaid over periods lasting longer than one year. From 2000 to 2012, the outstanding debt levels of U.S. state and local governments

(...continued)

report that the gap between revenues and expenditures still has not begun to narrow. See Tom Kozlik and Alan Schankel, "We are Seeing Cracks in the U.S. State Sector and an Unprecedented Multi-Year Run of Credit Deterioration by Some Local Governments," Janney Fixed Income Strategy, *Municipal Bond Market Monthly*, September 16, 2014, at http://www.janney.com/File%20Library/Fixed%20Income/Janney-MBMM-September-2014.pdf.

doubled from $1.45 trillion to $2.94 trillion. The rise in aggregate revenues, however, has not kept pace with the rise in outstanding aggregate debts. Aggregate own-source revenues for the states and local governments over the 2000-2012 period increased from $1.65 trillion to $1.97 trillion, representing a 22.0% increase. When federal transfers are included in aggregate revenues, the increase from $1.94 trillion to $3.03 trillion represents an increase of approximately 56.2%. Hence, the aggregate debt outstanding of state and local governments grew at a faster pace over the last decade than aggregate revenues. Rising capital budget obligations may translate into greater debt outstanding and, therefore, greater financial risk for municipal bond investors.

Another important source of rising state and local obligations may arguably be unfunded pension liabilities.[86] Reliable estimates, however, are difficult to obtain because certain public-sector entities choose not to disclose these liabilities in their capital budgets.[87] The Census Bureau reports that total annual contributions into state and local pension systems are currently trending below total annual payments made to beneficiaries, as shown in **Figure A-2**.[88] Furthermore, the earnings on pension fund investments are extremely volatile, making it difficult to rely on them to cover annual shortfalls consistently. The assets in local pension funds consist primarily of nongovernmental securities (e.g., corporate stocks and bonds, foreign and international securities, mortgages, and other high-risk investments). Municipal pensions also invest in real estate, which is found in the *total other investments* category. Less risky investments (e.g., U.S. federal government securities, cash, and shorter-term liquid assets) comprise a significantly smaller share of the pension fund portfolio. The higher financial risk associated with the longer-term investments explain the fluctuations of investment earnings.[89]

[86] Estimates regarding the underfunding of pensions range from $1 trillion (see SEC Commissioner Daniel M. Gallagher, "Remarks at Municipal Securities Rulemaking Board's 1st Annual Municipal Securities Regulator Summit," speech, May 29, 2014, at http://www.sec.gov/News/Speech/Detail/Speech/1370541936387) to approximately $4 trillion (see Cory Eucalitto, "Promises Made, Promises Broken-The Betrayal of Pensioners and Taxpayers," State Budget Solutions, September 3, 2013, at http://www.statebudgetsolutions.org/publications/detail/promises-made-promises-broken-the-betrayal-of-pensioners-and-taxpayers).

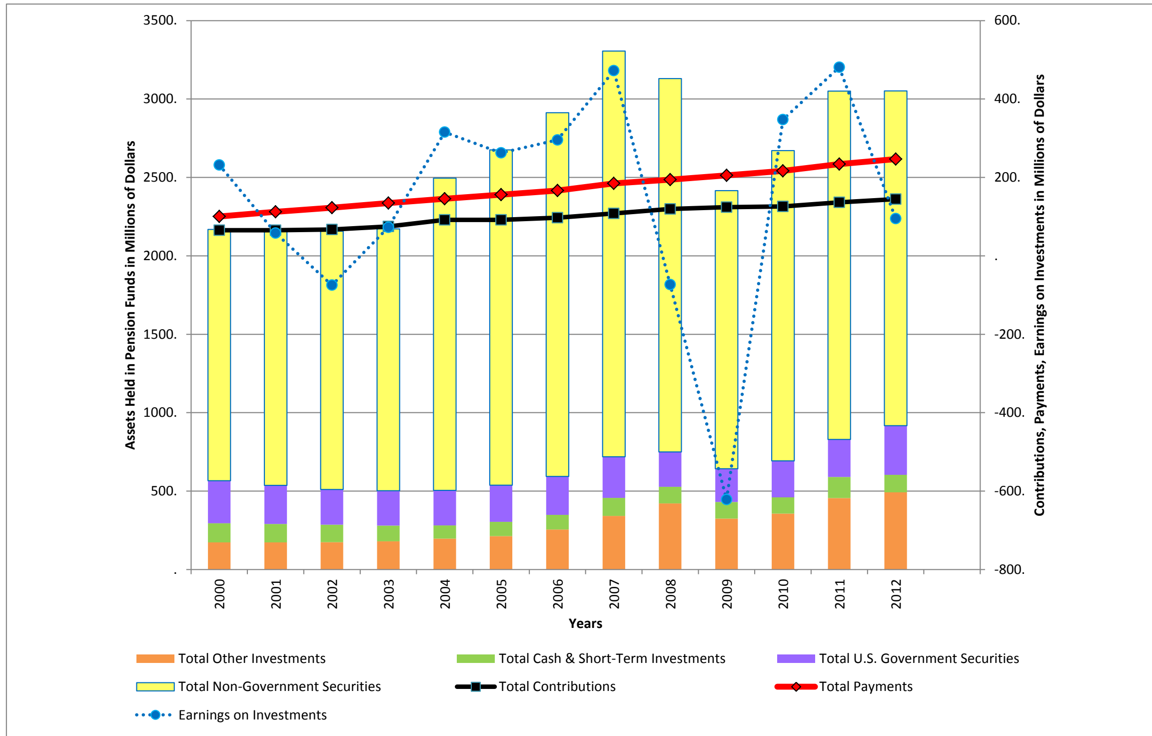
[87] The reporting treatment of long-term retirement obligations, addressed by the Government Accounting Standards Board, would suggest that numerous public-sector entities have reported these liabilities as supplementary notes that accompany accounting statements rather than reporting them in the financial statements.

[88] The U.S. Census Bureau defines a public-employee pension system as one that is financed by a separate accounting fund (of the administering government), excluding pay-as-you-go insurance plans. See Ceci Villa Ross and Paul Villena, "Annual Survey of Public Pensions: State-Administered Defined Benefit Data Summary Report: 2013," U.S. Census Bureau, August 2014, at http://www2.census.gov/govs/retire/2013_summary_report.pdf.

[89] Municipal localities depend upon the fluctuations in earnings on investments to cover annual pension fund payouts. Some state and local governments issue pension obligation bonds (POBs) to cover pension fund shortfalls. When an investor purchases a POB, the locality uses the proceeds to make its required employee retirement contributions (i.e., defined benefit retirement funds). Ideally, the earnings from high-risk investments (e.g., stocks) would be sufficient enough to cover the anticipated pension fund payouts as well as the initial principal and interest owed to POB investors. See Alicia H. Munnell et al., *Pension Obligation Bonds: Financial Crisis Exposes Risks*, Center for Retirement Research at Boston College, State and Local Pension Plans, Issue in Brief no. 9, January 2010, at http://crr.bc.edu/wp-content/uploads/2010/01/SLP_9-508.pdf.

Figure A-2. Aggregate State Pension Fund Annual Contributions, Payments, and Portfolio Holdings

2000-2012



Source: U.S. Census Bureau Governments Division.

Note: CRS Computations.

Tax-advantaged qualified tuition programs, also known as 529 college savings plans, may be considered another source of rising indebtedness for some states.[90] The 529 plans allow for a contributor (e.g., a parent) to establish a savings account for a beneficiary (e.g., the child) in which withdrawals are not subject to federal, state, and local taxes as long as the distributions are used to pay for qualified higher education expenses.[91] Tuition for a specified number of academic semesters, attendance to designated public institutions within the locality, and other requirements are examples of qualified higher education expenses eligible for the tax benefit. In addition, some 529 plans function as prepaid tuition plans, allowing contributors to pay future education expenses at current or present day prices.[92] States or local governments provide their full faith and credit guarantee for the 529 plans they sponsor.[93] The state or local municipality bears the tuition inflation risk if the earnings on the invested contributions do not fully cover the future (higher)

[90] See Georgia's Path2College 529 Plan, "National College Savings Survey Shows Increase in 529 Plan Savings," press release, June 26, 2014, at https://www.path2college529.com/news/pr-6-26-2014.shtml.

[91] See CRS Report R42807, *Tax-Preferred College Savings Plans: An Introduction to 529 Plans*, by (name reda cted) ; and Ron Lieber, "College Plans You Thought Were Safe," New York Times, April 1, 2011, at http://www.nytimes.com/2011/04/02/your-money/paying-for-college/02money.html?pagewanted=all&_r=0.

[92] See U.S. Securities and Exchange Commission, "Antion to 529 Plans," at http://www.sec.gov/investor/pubs/intro529.htm.

[93] Some 529 savings plans are invested in private accounts and are, therefore, unrelated to government budget issues.

education costs. In response to concerns about rising education costs, some states have closed their 529 tuition plans to new participants, put plans on hold, and suspended operations.[94]

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Acknowledgments

The authors acknowledge the contributions made by (name redacted), Sean Hoskins, and (name redacted).

[94] See Christina Couch, "College 529 Prepaid Tuition Plans At Risk," *Bankrate.com*, at http://www.bankrate.com/finance/college-finance/college-529-prepaid-tuition-plans-at-risk-1.aspx. See Michael A. Olivas, "Developments in 529 Prepaid Tuition Plans (PTP) and College Savings Plans (CSP) Since 2003," University of Houston Law Center, September 2010, at http://www.law.uh.edu/ihelg/monograph/10-05.pdf; and the National Conference of State Legislatures, "Risks of 529 Prepaid Tuition Plans," May 22, 2014, at http://www.ncsl.org/research/education/saving-for-college-529-plans.aspx.

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