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I. Introduction

With the United States stock market continuing to reach all-time highs[1] and multiple foreign countries' interest rates at a negative yield,[2] many leading economists predict a recession in the coming years.[3] This fear has caused domestic[4] and international investors[5] to search for security and safety in their portfolio holdings.[6] Investment safety usually comes in the form of low-yield securities.[7] These securities often include

1. *See* Stephen Grocer, *Why Stocks Are Hitting Records as Economic Fears Rise: 'There Is No Alternative'*, N.Y. TIMES (July 11, 2019), https://www.nytimes.com/2019/07/11/business/stock-market-record.html [https://perma.cc/C8WL-MENJ] (outlining how the stock indexes such as the S&P are hitting all-time highs, yet "there's plenty to worry about" if a recession occurs).

2. Eshe Nelson, *$12 Trillion of Negative-Yielding Bonds Are Sending a Clear Message of Distress*, QUARTZ (June 19, 2019), https://qz.com/1647791/12-trillion-of-negative-yielding-bonds-are-a-distress-signal/ [https://perma.cc/3MJQ-78CR] (explaining that "[a]lmost $12 trillion of investment grade corporate and government bonds have negative yields" and "half of all European government bonds have a negative yield").

3. Jonelle Marte, *3 out of 4 Economists Predict a U.S. Recession by 2021, Survey Find*, WASH. POST (Aug. 19, 2019, 5:40 PM), https://www.washingtonpost.com/business/2019/08/19/out-economists-predict-us-recession-by-survey-finds/ [https://perma.cc/KB8U-X2H3] ("Nearly 3 out of 4 economists surveyed by the National Association for Business Economics expect a recession by 2021, according to poll results released . . . .").

4. Amrith Ramkumar & Ira Iosebashvili, *Investors Rush Into Havens as Growth Fears Persist*, WALL ST. J. (Aug. 19, 2019, 8:46 PM), https://www.wsj.com/articles/investors-rush-into-havens-as-growth-fears-persist-11566207002 [https://perma.cc/GZ2B-6ZYK] ("The shift to safer assets is the latest round in investors' yearlong bout with fears that a global slowdown will end the decadelong U.S. expansion.").

5. Michael Wursthorn, *There's No Place Like U.S. in Hunt for Yield*, WALL ST. J. (Aug. 29, 2019, 8:09 PM), https://www.wsj.com/articles/theres-no-place-like-u-s-in-hunt-for-yield-11567080003 [https://perma.cc/V3WN-Y47T] ("In a world dominated by tepid economic growth, mediocre returns and a mountain of negative-yielding debt, foreign investors say they see American assets as a haven . . . .").

6. Phillip Georgiadis, *Stocks Suffer Grueling Month as Investors Reach for Safety*, FIN. TIMES (May 31, 2019), https://www.ft.com/content/7344e9c2-8382-11e9-9935-ad75bb96c849 [https://perma.cc/XN4X-LTTV].

7. *See* Thomas Kenny, *Lowest Risk Bonds: What Types of Bonds Are the Safest?*, THE BALANCE (Oct. 29, 2019), https://www.thebalance.com/lowest-risk-bonds-what-types-of-bonds-are-the-safest-417025 [https://perma.cc/PEE8-E36E] (explaining the benefits of different types of bonds when an investor's "most important consideration" is protection).

municipal bonds.[8] Municipal bond investment is meant to shield investors from the strains of global markets and depressed economic output.[9] However, this shield of investment safety has underlying cracks emanating from an underfunded pension crisis in some cities and states.[10]

As the fear of an economic slowdown continued to rise in 2019, the demand for bonds skyrocketed.[11] In some cases, investors put in orders for 5.5 times the amount of bonds a municipality was issuing.[12] The increasing demand for yield among investors allowed corporations,[13]

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8. *See* Dan Moskowitz, *Are Municipal Bonds a Good Investment?*, INVESTOPEDIA, https://www.investopedia.com/articles/investing/040115/should-you-consider-muni-bonds.asp [https://perma.cc/S3AA-77SZ] (last updated Jan. 19, 2020) (explaining why municipal bonds can be a preferred choice for an investor's bond investments).

9. *See* Jessica Menton, *Investors Pour Money into Bond Funds at a Record Pace*, WALL ST. J. (July 25, 2019, 8:00 AM), https://www.wsj.com/articles/investors-pour-money-into-bond-funds-at-a-record-pace-11564056000 [https://perma.cc/DJD9-ETVV] ("Investors are piling into safe-haven bonds at a record pace, a sign that caution remains despite stocks pushing toward records.").

10. *See* John Coumarianos, *Opinion: Muni Bonds Aren't Risk Free Anymore*, MKT. WATCH (Jan. 17, 2017, 8:36 AM), https://www.marketwatch.com/story/muni-bond-investors-left-holding-the-bag-for-pension-debacle-2017-01-16 [https://perma.cc/5XUD-2YGX] ("Investors are holding the bag for troubled city and state pensions."); *The Pension Crisis: The Case Against Municipal Bonds*, SEEKING ALPHA (Jan. 17, 2017, 5:27 PM), https://seekingalpha.com/article/4037438-pension-crisis-case-municipal-bonds [https://perma.cc/BC33-KTY8] (explaining that "investors are ignoring public pension plan liabilities" when weighing risk of municipal bonds); *see also* Jeffrey B. Ellman & Daniel J. Merrett, *Pensions and Chapter 9: Can Municipalities Use Bankruptcy to Solve Their Pension Woes?*, 27 EMORY BANKR. DEVS. J. 365, 367 (2011) ("But perhaps the single largest problem facing municipalities today is the dramatic and growing shortfall in public pension funds.").

11. Menton, supra note 9; *see* Aaron Weitzman, *At this Pace, It's 'Impossible' for Issuance to Catch Up with Demand*, BOND BUYER (Jan. 10, 2020, 3:14 PM), https://www.bondbuyer.com/news/at-this-pace-its-impossible-for-issuance-to-catch-up-with-demand [https://perma.cc/W2T4-F3ZU] ("Demand for municipal bonds is actually much stronger so far in 2020 than it was to end 2019, illustrated by record inflows into the asset class in the latest reporting week.").

12. *See, e.g.*, Alexandra Scaggs, *Municipal Bonds Are in High Demand and Short Supply. Where Investors Should Look*, BARRONS (June 21, 2019, 5:32 PM), https://www.barrons.com/articles/municipal-bonds-demand-supply-51561152617 [https://perma.cc/3S3C-3MJM] (explaining in a bond sale for the East Bay Municipal Utility District the "tallied up orders" were 5.5 times "the amount of the bonds on offer").

13. *See, e.g.*, Sam Goldfarb, *Deere Sells 30-Year Corporate Bonds at Record Low Yields*, WALL ST. J. (Sept. 3, 2019, 5:48 PM), https://www.wsj.com/articles/soft-manufacturing-data-pushes-treasury-yields-lower-11567527238 [https://perma.cc/K5RQ-MB8H] (explaining that Deere and Walt Disney have sold their corporate bonds at record low interest rates).

universities,[14] and municipalities[15] to sell bonds earning record low interest rates.[16] These factors have cumulatively blinded municipal bond investors to the growing risk of cities' and states' underfunded pension plans[17] that may affect their municipal investments.[18] Investors need to consider the risk of a pension crisis among states or municipalities that are unable to meet the obligations of their pension plans without defaulting on their bond debt.[19]

Proceeding in six parts, this Note examines the implications of underfunded pensions and past municipal bankruptcies on the safety of municipal bond investments and argues that investors inadequately consider this risk when buying municipal bonds. Part II provides background information on the municipal bond market.[20] Part III examines the proliferation of underfunded pensions among the states and the implications of this trend.[21] Part IV assesses the role of underfunded pensions in undermining the safety of municipal bond investments in two of the most significant municipal bankruptcy filings in the last two decades.[22] Part V discusses the two states, New Jersey and Illinois, which are currently facing sizeable underfunded pension obligations and low

14. *See, e.g.*, Gunjan Banerji, *Falling Yields Unleash Flood of Muni "Century Bonds"*, WALL ST. J. (Sept. 13, 2019, 5:30 AM), https://www.wsj.com/articles/falling-yields-unleash-flood-of-muni-century-bonds-11568367003 [https://perma.cc/FFB4-FR6L] (detailing how universities such as University of Virginia and Rutgers are capitalizing on the low rate climate and issuing bonds at "near record lows").

15. *See, e.g.*, *id.* ("Miami-Dade County, Fla., sold almost $400 million in bonds in August for Miami International Airport . . . swapping old debt for taxable debt . . . saved money.").

16. *See id.* ("Bankers and analysts said they are expecting issuance to remain strong in coming months.").

17. Lina Lu et al., *Reach for Yield by U.S. Public Pensions* 2 (Fed. Res. Bank of Bos., Working Paper SRA 19-02, 2019), https://www.federalreserve.gov/econres/feds/files/2019048pap.pdf [https://perma.cc/B6VA-NRQV] ("A public pension plan is underfunded if the present value of its assets is less than the net present value of liability payments to its pension holders.").

18. *See* Spencer Jakab, *Prophet of Muni Market Doom Wasn't Wrong—Just Early*, WALL ST. J. (Oct. 26, 2018, 3:17 PM), https://www.wsj.com/articles/prophet-of-muni-market-doom-wasnt-wrongjust-early-1540554098 [https://perma.cc/RQ34-XX6B] (explaining that Meredith Whitney, who called the financial crisis of 2008, was merely early when predicting a large number of municipality defaults in the future).

19. *See, e.g.*, Heidi Moore, *Detroit, Tip of a Vast Pensions Liability Iceberg,* THE GUARDIAN: OPINION (July 18, 2013, 12:11 PM), https://www.theguardian.com/commentisfree/2013/jul/18/detroit-pensions-liability-iceberg [https://perma.cc/3VQK-N5CN] ("Detroit's bankruptcy is, primarily, a lesson in how cities and states cannot avoid their pension responsibilities without a backlash of biblical proportions.").

20. *See infra* Part II.

21. *See infra* Part III.

22. *See infra* Part IV.

municipal bond ratings, resembling the conditions in other bankrupt municipalities.[23] Part VI summarizes the municipal bond market outlook, focusing on the safety of bond investments in higher-risk municipalities.[24]

II. MUNICIPAL BONDS AND THEIR PROTECTIONS

Municipal bonds are debt securities issued by state and city governments to fund public projects and functions.[25] The municipal bond market began in 1812 when New York City issued a general obligation bond to pay for digging a canal.[26] Great American achievements, such as the Erie Canal and the Golden Gate Bridge, were funded by municipal bond investors.[27] The municipal market began its boom in the mid-1970s when states and cities increasingly sought alternative funding for infrastructure and public service projects.[28] At the end of the first quarter of 2019, there was $3.6 trillion worth of municipal bonds outstanding.[29]

Municipal bonds are highly sought after because they provide tax-free income at the federal level on the interest the bonds pay out to an investor.[30] Moreover, if investors buy municipal bonds in their home state, they will also avoid state and local taxes along with the federal tax break.[31] This benefit provides an enticing option for investors who are looking to enjoy tax-free income, especially if they are in a higher tax bracket.[32]

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23. *See infra* Part V.

24. *See infra* Part VI.

25. U.S. SEC. & EXCH. COMM'N, INVESTORS INFORMATION: MUNICIPAL BONDS, https://www.investor.gov/introduction-investing/basics/investment-products/municipal-bonds [https://perma.cc/9P29-KZYB] (last visited Dec. 10, 2019).

26. Maurie Backman, *Your Complete Guide to Municipal Bonds*, MOTLEY FOOL (Aug. 27, 2019, 5:29 PM), https://www.fool.com/investing/your-complete-guide-to-municipal-bonds.aspx [https://perma.cc/5TBQ-J26W].

27. *Id.*

28. Christine Sgarlata Chung, *Municipal Securities: The Crisis of State and Local Government Indebtedness, Systemic Costs of Low Default Rates, and Opportunities for Reform*, 34 CARDOZO L. REV. 1455, 1458 (2013).

29. Scaggs, *supra* note 12.

30. Rebecca Baldridge, *Weighing the Tax Benefits of Municipal* Securities, INVESTOPEDIA, https://www.investopedia.com/taxes/weighing-tax-benefits-of-municipal-securities/ [https://perma.cc/ZT86-X9QT] (last updated May 30, 2018).

31. *Id.*

32. *Id.*

A. Types of Municipal Bonds

The two most commonly issued municipal bonds are general obligation ("GO") bonds and special revenue bonds.[33] When a municipality issues a GO bond, it is typically backed by the "full faith and credit" of the issuer.[34] GO bonds are not entitled to post-petition interest and are treated as unsecured claims, which may be impaired during a bankruptcy hearing.[35] When a bankruptcy court issues an automatic stay,[36] it almost always applies to GO bondholders.[37] An alternative type of bond, making up one-third of the municipal market, is the special revenue bond.[38] Special revenue bonds are secured or backed by a specific revenue stream from a public project or entity.[39] Some revenue bonds are non-recourse, which means if the bond's revenue stream the bond is backed by no longer produces income, the municipality is not required to pay the bondholders.[40]

A growing trend for municipalities is to secure some GO bonds with statutory liens that tie them to a specific sales tax.[41] These bonds

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33. OFF. OF INV. EDUC. & ADVOC., INVESTOR BULLETIN: MUNICIPAL BONDS: UNDERSTANDING CREDIT RISK, SEC Pub. No. 134, https://www.sec.gov/investor/alerts/municipalbondsbulletin.pdf [https://perma.cc/5C3X-7EKC] (last visited Dec. 12, 2019) [hereinafter UNDERSTANDING CREDIT RISK].

34. *Id*.

35. HARRIET M. WELCH, JORDAN A. KROOP & SHERRI L DAHL, SQUIRE PATTON BOGGS, CLIENT ALERT: MUNICIPAL RESTRUCTURING SOLUTIONS: DETROIT AND BEYOND 20 (2013), https://www.squirepattonboggs.com/~/media/files/insights/events/2013/08/municipal-restructuring-solutions—detroit-and-b__/files/presentation powerpoint/fileattachment/municipalrestructuringsolutionsdetroitandbeyond.pdf [https://perma.cc/H5Q2-5C6Z].

36. The automatic stay applied in Chapter 9 bankruptcy proceedings stops all collection actions against the debtor and its property upon the filing of the petition. 11 U.S.C. § 922(a) (2018).

37. WELCH, KROOP & DAHL, *supra* note 35.

38. Jane Sasseen, *How Puerto Rico's Financial Storms Washing Over the Mainland*, QUARTZ (Mar. 8, 2019), https://qz.com/1557486/puerto-ricos-bond-saga-is-messing-up-mainland-municipal-markets/#site-content [https://perma.cc/N6QP-L65L] (Adam Stern, co-head of research at bond market specialists Breckinridge Capital Advisors, "estimates that special revenue bonds now make up around a third of the $3.8 trillion municipal bond market in the U.S").

39. U.S. SEC. & EXCH. COMM'N, *supra* note 25; 11 U.S.C. § 902(2).

40. UNDERSTANDING CREDIT RISK, *supra* note 33.

41. *See, e.g.*, Karen Pierog, *Chicago Mayor Eyes Big Bond Refunding to Save $200 Million for Budget*, REUTERS (Oct. 21, 2019, 5:46 PM), https://www.reuters.com/article/us-chicago-bonds/chicago-mayor-eyes-big-bond-refunding-to-save-200-million-for-budget-idUSKBN1X02CC [https://perma.cc/7KR7-2AFY] (explaining Chicago—in an attempt to balance its great deficit—issued subordinate lien bonds that gave investors a statutory lien on the city's sales tax in order to receive an investment-grade rating).

allow the municipality to back the bonds with a statutory requirement paid out directly from the annual budget.[42] GO bonds that are backed by statutory liens may be treated as secured claims and therefore are not cut off from post-petition interest.[43] A municipality will issue GO bonds with higher protections to receive a better bond rating and, in turn, a lower interest rate because of the safety the statutory lien gives to the bondholder.[44] The trend of issuing bonds with enhanced protections may seem to be in the bondholders' interest, but it can indicate a municipality's poor financial condition since the municipality gives up dedicated tax revenue streams.[45]

B. Default Rate and Bond Ownership

The apparent safety of municipal bonds for investors is wrapped up in the historically low default rate.[46] The municipality default rate of investment-grade bonds[47] has consistently held at 0.8%.[48] Non-

42. *See* NAT'L ASS'N OF BOND HOLDERS, GENERAL OBLIGATION BONDS: STATE LAW, BANKRUPTCY AND DISCLOSURE CONSIDERATIONS 3, https://www.nfma.org/assets/documents/other.orgs/nabl.gobonds.8.14.pdf [https://perma.cc/FYR3-D6XF] (last visited Dec. 12, 2020) (stating GO bonds can carry "an affirmative statutory requirement to provide for maturing debt service in the annual budget").

43. *Id.* at iii.

44. *See* NAT'L ASS'N OF BOND HOLDERS, GENERAL OBLIGATION BOND PAYMENTS: STATUTORY LIENS AND RELATED DISCLOSURES 8 (Dec. 2017), https://www.nfma.org/assets/documents/RBP/wp_statliens_final_dec2017.pdf [https://perma.cc/9Z83-HAAW] ("The presence of a statutory lien influences the decisions of the various market participants, and is particularly important in the case of obligors with weaker credit profiles or an increased risk of defaulting or entering into bankruptcy.").

45. *See, e.g.*, Martin Z. Braun, *Once-Safest Muni Bonds Tainted as Investors Await Downgrades*, BLOOMBERG (June 20, 2018, 8:28 AM), https://www.bloomberg.com/news/articles/2018-06-20/once-safest-muni-bonds-tarnished-as-investors-await-downgrades [https://perma.cc/FLF7-NG8K] (explaining that Illinois issuance of sales tax bonds continue to take a hit due to the state's financial health); *see also* Chung, *supra* note 28, at 1482 ("Municipal securities issuers also depend upon different, and less elastic, sources of funds for debt repayment.").

46. *See* Chung, *supra* note 28, at 1460–61 ("Municipal securities are marketed to investors as 'widow and orphan' securities—i.e., safe for vulnerable and risk averse investors—because state and local government issuers rarely default or obtain discharge.").

47. James Chen, *Investment Grade*, INVESTOPEDIA, https://www.investopedia.com/terms/i/investmentgrade.asp [https://perma.cc/FNC5-5P7Q] (last updated July 15, 2019) (explaining investment grade bonds are rated as low as BBB- or Baa and indicate a lower risk of credit default).

48. Thomas Kenny, *The Risk of Municipal Bonds*, THE BALANCE (June 25, 2019), https://www.thebalance.com/the-risks-of-municipal-bonds-417146 [https://perma.cc/8SZZ-ZM4Q].

investment grade[49] municipal bonds have had a default rate of approximately 7.94%.[50] Although the default rates are low, they do not accurately reflect the market risk and health of municipalities.[51] Many cities cannot file for bankruptcy without permission[52] and, if available, can only seek Chapter 9[53] bankruptcy to restructure debts.[54] This inability to restructure debt outside of bankruptcy has skewed the default rate positively without taking into account the inner workings of a state's attempt to illustrate health by shifting the burden of bond repayment to the taxpayers in order to maintain the status quo and investment-grade ratings of the state's respective bonds.[55]

Municipal bonds are owned by households, nonprofit organizations, mutual and closed-end funds, banks, broker-dealers, and exchange-traded funds.[56] Households and nonprofits hold the most exposure to municipal bonds, with most citizens buying their state municipal bonds because of the bonds' tax exempt status.[57] Mutual funds carry the second-largest exposure to municipal bonds, followed by banks in third.[58] Therefore, any municipal bond default will likely have an impact across financial sectors.[59]

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49. *What does Investment Grade Mean?*, INVESTOPEDIA, https://www.investopedia.com/ask/answers/what-does-investment-grade-mean/ [https://perma.cc/N8V7-YL23] (last updated May 16, 2019) (explaining that non-investment grade bonds are risky assets and the probability of the issuer repaying the debt is "speculative").

50. Kenny, *supra* note 48 ("From 1970-2011, 7.94% of below-investment-grade municipal bonds defaulted.").

51. Chung, *supra* note 28, at 1461–62.

52. *See Municipal Bankruptcy State Laws*, GOVERNING, https://www.governing.com/gov-data/state-municipal-bankruptcy-laws-policies-map.html [https://perma.cc/E5HR-JMSJ] (last visited Jan. 10, 2020) (outlining the various bankruptcy laws among the states); Vaneeta Chintamaneni, *The Unraveling of an American City: Pensions, Municipal Debt, and Chapter 9 Bankruptcy*, 22 ELDER L.J. 523, 539–40 (2015) ("In 1994, Congress amended Chapter 9 so that eligibility for Chapter 9 was required to be 'specifically authorized,' which means that states must explicitly permit Chapter 9 bankruptcy for cities to be eligible.").

53. 11 U.S.C. § 902 (2018).

54. *See* Chintamaneni, *supra* note 52, at 539–40. (explaining municipalities are only allowed to file for chapter 9 bankruptcy, no other form of restructuring is available).

55. *See* Chung, *supra* note 28, at 1462. ("[Municipal bond] default risk does not tell the whole story for issuers and taxpayers, because it does not capture risks and costs that issuers and taxpayers incur to keep default and discharge rates low.").

56. MUN. SEC. RULEMAKING BD., TRENDS IN MUNICIPAL BOND OWNERSHIP 1–2 (2018), http://www.msrb.org/msrb1/pdfs/MSRB-Brief-Trends-Bond-Ownership.pdf [https://perma.cc/5JUA-ZH34].

57. *Id.*; *see* Baldridge, *supra* note 30 (explaining tax-benefits of municipal bonds).

58. MUN. SEC. RULEMAKING BD., *supra* note 56, at 2.

59. *See id.* (showing the various stakeholders of municipal bonds).

C. *Changing Landscape for Banks' Municipal Bond Ownership*

In the current low interest rate environment,[60] some banks are preparing for the possibility that United States' Federal Reserve interest rate will reach zero.[61] President Donald J. Trump is a proponent of a zero-rate.[62] This forces banks to find substitute sources of revenue to compensate for the smaller interest they receive on loans.[63] Many banks are turning to non-interest dependent fees such as ATM fees, overcharge fees, and monthly service fees to provide a more stable source of income.[64] These fees, along with others, could alienate some customers.[65] Municipal bonds can provide an alternative source of income and healthy returns to banks with limited risk, especially in light of an amendment to liquidity rules.[66]

On August 22, 2018, the three Federal Banking agencies—The Office of Comptroller of Currency, the Federal Reserve Board, and the

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60. James Chen, *Low Interest Rate Environment Definition*, INVESTOPEDIA, https://www.investopedia.com/terms/l/low-interest-rate-environment.asp [https://perma.cc/8MRJ-YMZN] (last updated Apr. 26, 2019) ("A low interest rate environment occurs when the risk-free rate of interest, typically set by a central bank, is lower than the historic average for a prolonged period of time. In the United States, the risk-free rate is generally defined by the interest rate on Treasury securities.").

61. *See, e.g.*, David Benoit, *JPMorgan CEO Dimon Raises Specter of Zero Rates*, WALL ST. J. (Sept. 10, 2019, 4:34 PM), https://www.wsj.com/articles/jpmorgan-ceo-dimon-raises-specter-of-zero-rates-11568147683 [https://perma.cc/K49D-95SD] ("The biggest bank in the U.S. [JPMorgan] is starting to prepare how to make money if interest rates in the U.S. drop to zero . . . Low interest rates squeeze margins banks make on loans. Hitting zero or negative rates raises complex questions about how to charge customers for loans and still make money.").

62. Donald J. Trump (@realDonaldTrump), TWITTER (Sept. 11, 2019, 3:42 AM) https://twitter.com/realdonaldtrump/status/1171735691769929728 [https://perma.cc/XC86-29CY] ("The Federal Reserve should get our interest rates down to ZERO, or less, and we should then start to refinance our debt . . . .").

63. *See* Irina Ivanova, *Bank Fees Around the U.S. Climb to Record Highs*, CBS (Oct. 2, 2019, 6:03 PM), https://www.cbsnews.com/news/bank-fees-hit-a-record-high-this-year-2019/ [https://perma.cc/V5YT-76UQ] ("And now that the Fed is lowering interest rates, which affects how much profit banks can make on loans, banks are likely to try adding or raising their fees . . . .").

64. *Id.*

65. *See* Benoit, *supra* note 61 ("Banks would also have to grapple with whether to charge customers for their deposits without alienating them, a dynamic U.S. consumers and businesses haven't yet dealt with.").

66. *See* James A. Klotz, *Reversal on Banks Rules a Win for Muni Bonds*, FMSBONDS (May 25, 2018), https://www.fmsbonds.com/news-and-perspectives/reversal-on-bank-rules-a-win-for-muni-bonds/ [https://perma.cc/6WZW-C73Y] (explaining that the new HQLAs rule makes municipal bonds an attractive option for banks).

Federal Deposit Insurance Corporation—jointly adopted a rule[67] that amends the agencies respective liquidity coverage ratio ("LCR")[68] applied to banks, and will now treat any municipal bond that is both (1) "liquid and readily marketable"[69] and (2) "investment grade"[70] as level 2B high-quality liquid assets ("HQLAs").[71] The initial rule, which became effective on January 1, 2015, did not consider municipal bonds liquid.[72] The amended rule will allow municipal bonds, as now Level 2B assets, to be discounted at a 50% rate when calculating LCR, meaning if a bank holds $100 in municipal bonds that meet the two-prong criteria, then $50 counts towards the LCR ratio.[73] This regulatory change has made the proper use of municipal bonds an attractive option for safe, partially-liquid income, netting higher interest rates compared to treasuries.[74]

A problem for banks could arise in their lower-rated municipal bond holdings, as there are multiple recent examples of banks' purchasing bonds from low-rated municipal issuers—Illinois and

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67. Liquidity Coverage Ratio Rule: Treatment of Certain Municipal Obligations as High-Quality Liquid Assets, 84 Fed. Reg. 25976 (July 5, 2019) (to be codified at 12 C.F.R. pt. 329, 12 C.F.R. pt. 249, 12 C.F.R. pt. 50). https://www.federalregister.gov/documents/2019/06/05/2019-11715/liquidity-coverage-ratio-rule-treatment-of-certain-municipal-obligations-as-high-quality-liquid [https://perma.cc/W4FC-5X32].

68. The liquidity coverage ratio (LCR) "refers to the proportion of highly liquid assets held by financial institutions, to ensure their ongoing ability to meet short-term obligations. This ratio is essentially a generic stress test that aims to anticipate market-wide shocks and make sure that financial institutions possess suitable capital preservation, to ride out any short-term liquidity disruptions, that may plague the market." Chris B. Murphy, *Liquid Coverage Ratio*, INVESTOPEDIA, https://www.investopedia.com/terms/l/liquidity-coverage-ratio.asp [https://perma.cc/Y2Q9-KXUP] (last updated Dec. 12, 2019).

69. Liquid and readily-marketable means "that the security is traded in an active secondary market with: (1) more than two committed market makers; (2) a large number of non-market maker participants on both the buying and selling sides of transactions; (3) timely and observable market prices; and (4) a high trading volume." 12 C.F.R § 249.3 (2018).

70. Investment grade means "the issuer of a security has an adequate capacity to meet financial commitments under the security for the projected life of the asset or exposure. An issuer has an adequate capacity to meet financial commitments if the risk of default by the obligor is low and the full and timely repayment of principal and interest is expected." § 1.2(d)

71. Liquidity Coverage Ratio Rule: Treatment of Certain Municipal Obligations as High-Quality Liquid Assets (to be codified at 12 C.F.R. pt. 329, 12 C.F.R. pt. 249, 12 C.F.R. pt. 50).

72. Klotz, *supra* note 66.

73. *See* 12 C.F.R. Part 249.21(b)(3) (2018) ("The level 2B liquid asset amount equals 50 percent of the fair value of all level 2B liquid assets held by the Board-regulated institution as of the calculation date that are eligible HQLA.").

74. Klotz, *supra* note 66.

Chicago—in large quantities.[75] These bonds were rated a notch or two above investment-grade.[76] Banks should weigh the risk of downgrade carefully if the purchase of these bonds are for liquidity purposes because low-rated bonds would likely no longer be eligible as HQLAs if downgraded below "investment grade" status.[77]

Despite the August 2018 beneficial rule for municipal bond ownership, the corporate tax cut in early 2018[78] combined with the new accounting standard,[79] have decreased banks' appetite and holdings of municipal bonds sharply.[80] As of the third quarter of 2019, banks'

75. Karen Pierog, *Investors Grab Hefty Yields in Illinois and Chicago Bond Sales*, REUTERS (Mar. 26, 2019, 6:11 PM), https://www.reuters.com/article/illinois-bonds/investors-grab-hefty-yields-in-illinois-and-chicago-bond-sales-idUSL1N21D1PF [https://perma.cc/G6QW-LMMT] [hereinafter *Illinois & Chicago Bond Sale*] (explaining in March 2019, Illinois and its struggling City of Chicago issued over 1.1 billion of GO bonds and Chicago's issuance made up $770 million of the total; Bank of America "beat out eight other bidders for $300 million of taxable bonds and 13 other bidders for $140 million of tax-exempt bonds."); Karen Pierog, *Illinois' Municipal Market Penalty Eases in $750 Million Bond Sale*, REUTERS (Nov. 6, 2019, 5:35 PM), https://www.reuters.com/article/illinois-bonds/investors-grab-hefty-yields-in-illinois-and-chicago-bond-sales-idUSL1N21D1PF [https://perma.cc/ZPD3-FC96] [hereinafter *Illinois Bond Sale*] (explaining in November 2019, Illinois issued $750 million of GO bonds. Despite Illinois "lowest credit rating compared to any other state," and Bank of America bought $450 million of the bonds and Barclays Capital bought $350 million).

76. *Illinois & Chicago Bond Sale supra* note 75; *Illinois Bond Sale*, *supra* note 75.

77. *See* 12 C.F.R. § 1.2(d) (2018) (explaining the requirements for investment grade securities).

78. The federal corporate tax cut of 2018 made banks less in need of the tax-saving benefits of municipal bonds, causing banks to "slash their exposure" of the less attractive securities. Michelle Kaske, *Biggest U.S. Banks Slash Muni-Bond Holdings After Tax Cut*, BLOOMBERG (Aug. 27, 2018, 10:30 AM), https://www.bloomberg.com/news/articles/2018-08-27/biggest-u-s-banks-slash-muni-bond-holdings-after-tax-rate-cut [https://perma.cc/8GTK-JDKA].

79. FASB ACCOUNTING STANDARDS UPDATE, DERIVATIVES AND HEDGING 184 (August 2017), https://asc.fasb.org/imageRoot/38/112270638.pdf [https://perma.cc/3GW4-2NV5]; *see* Tom Kozlik, *Has Bank Municipal Bond Activity Been Affected by the New Hedge Accounting Rules?*, PNC (May 23, 2018), https://www.riverarchcap.com/content/dam/pnc-com/pdf/corporateandinstitutional/MunicipalBond/bank-municipal-bond-5-23-18.pdf [https://perma.cc/AG3Q-24FJ] (explaining the new accounting standard implemented in 2018 allowed banks to reclassify held to maturity securities (municipal bonds) to available-for-sale). Banks can use these new rules to move some of its municipal holdings to their available-for-sale category and then sell off more risky debt. *Kozlik*, *supra.*

80. FED. RES. BD. FIN. ACCT. OF THE U.S. (Dec. 12, 2019), https://www.federalreserve.gov/releases/z1/20191212/html/l212.htm [https://perma.cc/3ARR-KGJX] (showing steady decrease of banks' municipal holdings).

municipal bond ownership continued its decline from its high of $572.6 billion to $469.8 billion.[81]

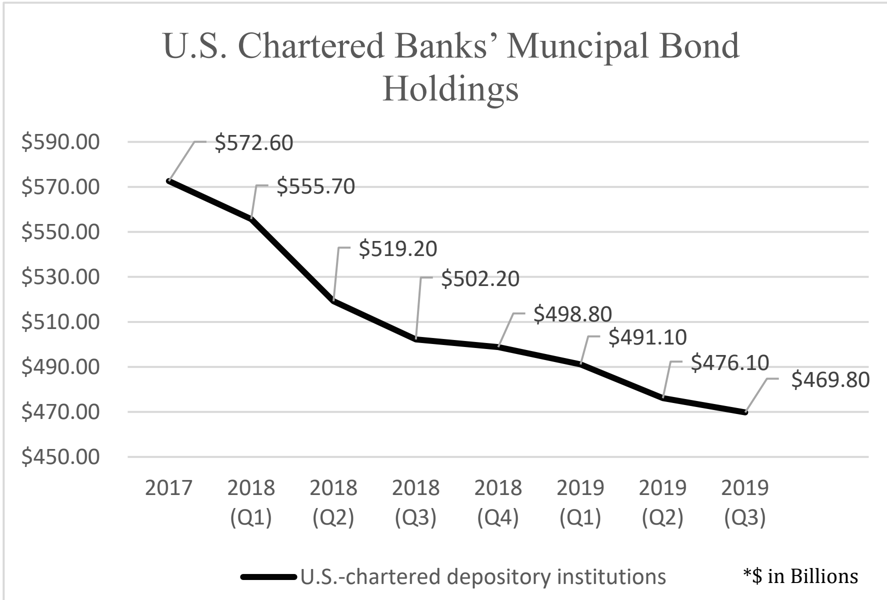

Figure 1[82]

III. THE UNDERFUNDED PENSION CRISIS, "ACHILLES HEEL" FOR BOND HOLDERS

States' underfunded pension liabilities will likely eventually lead to some municipal defaults without intervention.[83] In 2017, there was a $1.28 trillion funding gap in pensions.[84] On a market basis, the total pension debt in the U.S. is over $5 trillion.[85] A healthy pension fund

81. *Id*.

82. Data derived from the Federal Reserve as of the third quarter of 2019. *Id*.

83. *See* Greg Mennis, Susan Banta, & David Draine, *Assessing the Risk of Fiscal Distress for Public Pensions: State Stress Test Analysis* 1 (M-RCBG Associate Working Paper Series No. 9, 2018), https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/AWP_92_final.pdf [https://perma.cc/GE6L-8LSN] (concluding that public pensions "may be more vulnerable to an economic downturn than they have ever been" and "states like New Jersey and Kentucky, which are severely underfunded, are at high risk of insolvency").

84. PEW CHARITABLE TRS., THE STATE PENSION FUNDING GAP: 2017 2 (June 2019), https://www.pewtrusts.org/-/media/assets/2019/06/statepensionfundinggap.pdf [https://perma.cc/CD5G-JSGJ] [hereinafter PENSION FUNDING GAP].

85. PENSION TRACKER, STAN. INST. FOR ECON. POL'Y. RES., https://us.pensiontracker.org/ [https://perma.cc/V5BC-Z63R] (last visited on Jan. 6, 2020); *see* Chuck DeVore, *5.2 Trillion of Government Pension Debt Threatens to Overwhelm State Budgets, Taxpayers*, FORBES

should be maintained at a funded ratio of at least 80%.[86] In states such as Illinois and New Jersey, however, the pension accounts cover approximately 35% of outstanding pension obligations.[87] Pension plan funding methods help to explain this low ratio.[88]

A. Pension Funding

Public employer pension plans for state and local government workers cover approximately 21 million full and part-time workers.[89] State and local governments sponsor more than 55,000 pension plans state employees are enrolled in.[90] These plans are funded by the employee over his career and by the city or state as administrator of the pension.[91] The pension fund itself is considered an unfunded pension plan because it relies on a continuous stream of revenue from its state or local government sponsor.[92] This form of funding allows the employee's contributions to go into a single source that makes investments, the earnings from which pay benefits to the employee when he or she retires.[93] The pensions are funded primarily by investment returns,[94] with employer and employee contributions making up less than one-third of

(May 31, 2019, 3:25 PM), https://www.forbes.com/sites/chuckdevore/2019/05/31/5-2-trillion-of-government-pension-debt-threatens-to-overwhelm-state-budgets-taxpayers/#49c0e767759d [https://perma.cc/U67S-8U5H] (explaining how $5 trillion of pension debt will have negative consequences on state budgets).

86. *See* Ellman & Merrett, *supra* note 10, at 368–69 ("Public pension plans typically are considered to be adequately funded at the 80% level because, ironically enough, public employers are assumed to be more financially stable than private corporations."); *see, e.g.*, U.S. GOV'T ACCOUNTABILITY OFF., GAO 08-983T, STATE AND LOCAL GOVERNMENT PENSION PLANS: CURRENT STRUCTURE AND FUNDED STATUS 18 (2008) (applying a 80% funded ratio when determining if a pension fund is healthy).

87. *See* PENSION FUNDING GAP, *supra* note 84, at 16–17.

88. Ellman & Merrett, *supra* note 10, at 369.

89. URBAN INSTITUTE, STATE AND LOCAL GOVERNMENT PENSION, https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-and-local-backgrounders/state-and-local-government-pensions [https://perma.cc/U8JB-WPNU] (last visited Jan. 20, 2020).

90. *Id.*

91. AM. ASS'N OF RETIRED PERSONS, PENSION CONTRIBUTION REQUIREMENTS 2, https://assets.aarp.org/www.aarp.org_/articles/work/contribution-requirements.pdf [https://perma.cc/2DVT-URA9] [hereinafter PENSION REQUIREMENTS] (last visited Jan. 22, 2020).

92. Julia Kagan, *Unfunded Pension Plan*, INVESTOPEDIA, https://www.investopedia.com/terms/u/unfunded-pension-plan.asp [https://perma.cc/54JT-77J5] (last updated July 28, 2019).

93. PENSION REQUIREMENTS, *supra* note 91, at 2.

94. *Id.* (explaining investments make up approximately 68% of contributions towards a pension fund.).

the combined total.[95] Therefore, pension funds rely on a healthy market to meet their obligations to retirees.[96]

At least once every two years,[97] actuaries calculate the total cost needed to sustain the pension in full or the Annual Required Contributions ("ARC").[98] The ARC is composed of many factors, with the most influential being the assumed rate of return.[99] The assumed rate of return is the rate at which the fund expects to earn on its investments during the year.[100] Unlike corporate pension plans regulated by the Employee Retirement Income Security Act ("ERISA"), there is no regulator for state and local government plans;[101] therefore, there is generally no federal legal obligation for the state to make the contributions set by the actuary unless required by state and local law or mandate.[102] For this reason, the state may have no obligation to make up

95. *Id.*

96. Heather Gillers, *The Risk Pension Funds Can't Escape*, WALL. ST. J. (Feb. 20, 2018, 8:00 AM), https://www.wsj.com/articles/public-pensions-are-still-betting-more-than-half-of-all-assets-on-stocks-1519131600 [https://perma.cc/PN89-JWYT] (explaining the "vulnerability" of pensions is from the "significant risk from one basic investment: stocks").

97. Statement No. 27 of the Governmental Accounting Standards Board NO. 116-C 1, 4, paragraph 9 (Nov. 1994), https://www.gasb.org/resources/ccurl/44/286/GASBS-27.pdf [https://perma.cc/9HFC-DSDG] ("[The Government Accounting Standards Board mandates] for financial reporting purposes, an actuarial valuation should be performed at least biennially.").

98. *Id.* at 4, fn. 5 ("[The ARC] is based on a projection of covered payroll for the period to which the ARC will apply. Some employers make contributions based on projected covered payroll; others contribute based on budgeted or actual covered payroll for the year. Any of those measures of covered payroll, consistently applied, is acceptable for calculating annual pension cost and the NPO [net pension obligation], if any."); *see also* PENSION REQUIREMENTS, *supra* note 91, at 2 ("These actuaries calculate the cost associated with new benefits earned in that year (also called the "normal cost") plus any additional amount that might be required to make up for shortfalls that have developed in the past."); *see generally* Ellman & Merrett, *supra* note 10, at 374–75 ("Unlike the strict accounting rules of private-pension plans, established by the Financial Accounting Standards Board ("FASB"), GASB is much more flexible.").

99. *See* Ellman & Merrett, *supra* note 10, at 369 ("These funding shortfalls are further compounded in many cases by the unrealistically optimistic assumptions used to calculate funding status in the first place.").

100. PENSION REQUIREMENTS, *supra* note 91, at 2.

101. Ellman & Merrett, *supra* note 10, at 373 (2011) ("Neither ERISA nor the PBGC have any role in the creation, administration, modification, enforcement, or termination of public pension plans."); *see* Chung, *supra* note 28, at 1486 ("The regulatory and financial reporting regimes applicable to municipal securities issuers and municipal securities offerings also make the market less transparent, and more opaque in terms of risk, compared to other market segments.").

102. *See, e.g.*, Yvette Shields, *Funded Ratios Erode for Downstate and Suburban Illinois Pension* Funds, BOND BUYER (Aug. 6, 2019, 3:03 PM), https://www.bondbuyer.com/news/funded-ratios-for-downstate-and-suburban-illinois-pension-funds-erode [https://perma.cc/QHV8-L9G5] (explaining Illinois has a state mandate to reach a 90% funded ratio within the next few years).

the difference when pension contributions fall short of meeting the funding needs.[103] Pensions become unhealthily underfunded in two ways: (1) when the plan sponsor does not contribute the ARC amount or (2) when the assumed rate of return ends up being above the actual investment return causing a shortfall regardless of the contribution.[104]

Regarding the first way, during the 2008 recession, pension assets fell from $3.2 trillion to $2.3 trillion.[105] Since 2008, the majority of states and local governments have fallen short in making their ARC payments to their pension funds, causing remaining obligations for each year to turn into liabilities.[106] Regarding the second way, the overestimation of the assumed rate of return is broadly scrutinized by scholars and market participants.[107] Pension funds may overestimate their assumed rate of return to allow the state or city to make lower contributions in a given year.[108]

The funds also use a discount rate[109] equal to the assumed rate of return when calculating the total underfunded status.[110] Therefore, the

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103. *See* Ellman & Merrett, *supra* note 10, at 373 ("[F]ederal law generally does not require municipal governments to maintain the funding or report on the funded status of their pension plans.").

104. *See* PENSION FUNDING GAP, *supra* note 84, at 16–17 (explaining ways pension funds begin to become underfunded).

105. PENSION REQUIREMENTS, *supra* note 91, at 3.

106. *Id.*

107. *See* CONFERENCE OF PUBLIC EMPLOYEE RETIREMENT SYSTEMS, *THE CASE FOR NEW PENSION ACCOUNTING STANDARDS* 12, (May 2019), *https://www.ncpers.org/files/The%20Case%20for%20New%20Pension%20Accounting%20 Standards_May%202019.pdf* [https://perma.cc/2GQZ-XCPW] ("Though there are many finance officers and city council members across the country who have complaints to make about Governmental Accounting Standards Board (GASB) rules, most of these complaints have to do with the issue of funding levels and assumed rates of return.").

108. *See* Ellman & Merrett, *supra* note 10, at 369 ("These funding shortfalls are further compounded in many cases by the unrealistically optimistic assumptions used to calculate funding status in the first place."); Chintamaneni, *supra* note 52, at 528 ("In addition, in recent decades municipalities used overly optimistic projections for rates of return and economic forecasts.").

109. Discount Rate is the "valuation method used to estimate the value of an investment based on its expected future cash flows, [and] the viability of a project or an investment by calculating the present value of expected future cash flows using a discount rate." Jim Chappelow, *Discount Rate*, INVESTOPEDIA, https://www.investopedia.com/terms/d/discountrate.asp [https://perma.cc/TNY7-VHSH] (last updated Jan. 29, 2020).

110. *See* Jamie Lenney, Bryan Lutz, & Louise Sheiner, *The Sustainability of State and Local Government Pensions: A Public Finance Approach* 5 (July 14, 2019), https://www.brookings.edu/wp-content/uploads/2019/07/lenney_lutz_sheiner_MFC_Final.pdf [https://perma.cc/VCU9-YFAZ] ("State and local governments have typically chosen to use a discount rate equal to the assumed rate of return on risky plan assets.").

pension funds are assuming the investment return for the year, typically 7–8%, will continue indefinitely, going against standard financial principles that use a risk-free rate of return.[111] Using the assumed rate of return as the discount rate causes the plan's overall health to appear better on paper by lowering its total expected liabilities[112] even while many plans continuously fail to meet their set assumed rate of return.[113] In 2019, pension plans expected an average return of 7.25% from their investments,[114] but some realized at least half a percentage point less.[115] Even when pensions met their assumed rate of returns, many funds' liabilities continued to grow.[116]

When pension funds begin to lower their assumed rate of return, which in practice equals their discount rate,[117] the health of the pension

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111. *See id.* ("[S]tandard financial principles of valuation suggest that a stream of future payments should be discounted at a rate which reflects the probability that the payments will be honored (i.e. at a rate reflecting the riskiness of future stream of payment."); REPORT OF THE STATE BUDGET CRISIS TASK FORCE 16 (St. Budget Crisis Task Force January 2014), https://www.volckeralliance.org/sites/default/files/attachments/state_budget_crisis_task_force.pdf [https://perma.cc/7D7L-RT6V] ("Economists and financial analysts generally discount future payments using rates that reflect the risk associated with the promised payments, relative to the broader market. Since most public pension benefits have strong legal protections, the appropriate discount rates should be comparable to other low risk assets.").

112. *See* Lenney, Lutz & Sheiner, *supra* note 110 at 5 ("With lower discount rates, pension debt is typically much larger than stated in annual government accounting statements and most plans are far from being fully pre-funded – i.e. assets are well below the present value of future benefit payments."); Ellman & Merrett, *supra* note 10, at 369 ("If more realistic (or at least more conservative) discount rates are used, the underfunding of public-pension plans becomes even more pronounced.").

113. *See, e.g.*, Rob Kozlowski, *Chicago Policeman Fund Returns 4.5% for Fiscal Year*, PENSIONS & INVS. (Oct. 3, 2019, 12:02 PM), https://www.pionline.com/pension-funds/chicago-policemen-fund-returns-45-fiscal-year [https://perma.cc/3R9N-NGJJ] (explaining that in 2019 the police fund in Illinois fund fell short of its "policy benchmark returns of 6.1%" only gaining 4.5% on investment returns).

114. Amit Sinha, *Low Interest Rates are Compounding the Big Problems Facing Pension Funds*, MKT. WATCH (Sept. 3, 2019, 9:16 AM), https://www.marketwatch.com/story/low-interest-rates-are-compounding-the-big-problems-facing-pension-funds-2019-08-30 [https://perma.cc/THA4-6Q9D].

115. *See* Liz Farme, *Amid Concerns of Recession, Pension Plan Returns Fall Short*, GOVERNING (Aug. 16, 2019, 4:00 AM), https://www.governing.com/week-in-finance/gov-pension-plan-returns-falling-short-expectations.html [https://perma.cc/S7B5-AKBN] ("Plans with more than $1 billion in assets earned a median return of 6.79 percent for the fiscal year ending June 30, according to the firm Wilshire Trust Universe Comparison Service.").

116. *See* Heather Gillers, *The Long Bull Market Has Failed to Fix Public Pensions,* WALL ST. J. (Apr. 10, 2019, 5:30 AM), https://www.wsj.com/articles/why-the-longest-u-s-bull-market-has-failed-to-fix-the-nations-public-pensions-115548886 [https://perma.cc/E963-TC6C] (explaining the benefit of the "10-year-long-bull market" has failed to fix the underlying issues of pension funds).

117. *See, e.g.*, Jeffrey N. Saret, Barbara Zhan & Subhadeep Mitra, *Investment Return Assumptions of Public Pension Funds*, PENSIONS & INVS. (Mar. 23, 2017, 1:00 AM), https://www.pionline.com/article/20170323/ONLINE/170319953/investment-return-

fund dims.[118] Each tenth of a percentage point decrease in the assumed rate of return causes an estimated 1–1.5% increase in the total pension obligation,[119] thereby increasing the difference municipalities must reconcile each year.[120] A municipality or state will commonly use two strategies to make up for underfunding in a pension plan: (1) issue more debt to cover the hole, or (2) increase its contributions through its taxing power.[121]

Under the first strategy, some states have turned to a new form of bond, pension obligation bonds ("POBs"), to make up for inadequate contributions or investment returns.[122] States issue POBs to shore up underfunded pension obligations, issuing municipal bonds under the belief that investment returns on the borrowed money will outpace the fixed interest rate on the bond payments.[123] POB issuance has preceded the bankruptcies of Stockton, California; San Bernardino, California; and Puerto Rico.[124] Many experts disfavor this type of issuance, arguing that

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assumptions-of-public-pension-funds [https://perma.cc/6749-EEMR] ("The $311 billion California Public Employees' Retirement System saw its funded status fall four percentage points to 69% and reduced its assumed investment rate of return to 7% from 7.5%.").

118. *See, e.g.*, Samantha Marcus, *N.J. Is Facing a $1.2B Public-Worker Pension Time Bomb*, NJ.COM (Sept. 8, 2019), https://www.nj.com/politics/2019/09/nj-is-facing-a-12b-public-worker-pension-time-bomb.html [https://perma.cc/4ZW6-Y5DS] (explaining after Chris Christie tweaked the pension assumed rate of return by half a point the state's actuarially recommended pension contribution increased by 390.3 million).

119. Clive Lipshitz & Ingo Walter, *Commentary: A Roadmap for Preventing U.S. Public Pension Funds from Becoming a Taxpayer Burden*, PENSIONS & INVS. (Aug. 5, 2019, 12:00 AM), https://www.pionline.com/industry-voices/commentary-roadmap-preventing-us-public-pension-funds-becoming-taxpayer-burden [https://perma.cc/8V4A-QR6Y].

120. *See, e.g.*, Marcus, *supra* note 118 (showing that when the assumed rate of return lowers, as it did in New Jersey, for the pension plan, the obligations for the state or local government sponsor increases).

121. *See* Brian Chappatta, *Pension Obligation Bonds May Soon Have Their Moment*, BLOOMBERG (Oct. 10, 2019, 5:00 AM), https://www.bloomberg.com/news/articles/2019-10-10/pension-obligation-bonds-may-soon-have-their-moment [https://perma.cc/ZX9D-5NPT] (predicting pension obligation bonds will likely be used in the future as an alternative to increasing contributions).

122. Sarah Breitenbach, *Despite Risks, State and Local Governments Turn to Pension Obligation Bonds*, PEW (Aug. 12, 2015), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/08/12/despite-risks-state-and-local-governments-turn-to-pension-obligation-bonds [https://perma.cc/Z34Q-H373].

123. *Id.*

124. *See* Erick Schulzke, *Pension Obligation Bonds: Risky Gimmick or Smart Investment?,* GOVERNING (Jan. 2013), https://www.governing.com/topics/finance/gov-pension-obligation-bonds-risky-or-smart.html [https://perma.cc/AG9Q-VT5C] ("The bonds took on some notoriety this past summer when two California cities, Stockton and San Bernardino, went bankrupt."); *see also* Marc Joffe, *Local Governments Beware: Pension Obligation Bonds Are a Risky Response to Rising CALPERS Bills*, REASON FOUND. (Dec. 12, 2018), https://reason.org/commentary/pension-obligation-bonds-are-a-risky-response-to-rising-calpers-bills/ [[https://perma.cc/WJ6B-5WSR] ("Indeed, issuers could be in for a

municipalities' assumed investment return rates typically do not exceed the cost of paying back the loan,[125] and the issuance itself reflects the negative health of the issuer.[126] Despite their unsafe nature, distressed municipalities continue to issue POBs to willing buyers.[127]

Under the second strategy, state and local governments typically increase the tax burden of their citizens to help maintain pension funding.[128] Usually, there is only so much a tax base can sustain before a state or city sees citizens leaving at a higher rate than moving in.[129] One

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repeat of the fiasco that befell Puerto Rico, which issued POBs at the beginning of the 2008 crash—a move that contributed to the commonwealth's bankruptcy.").

125. *See* Schulzke, *supra* note 124 ("Over the years, returns on POBs have often fallen below the interest rate the state or locality paid to borrow the money, digging the liability hole even deeper."); GOV'T FIN. OFFICERS ASS'N, *Pension Obligation Bonds* (Jan. 2015), https://www.gfoa.org/pension-obligation-bonds [https://perma.cc/Y33X-8K63] ("The Government Finance Officers Association (GFOA) recommends that state and local governments do not issue POBs.").

126. *See* Alicia Munnell, Jean Puererr Aubry & Mark Cafarelli, *An Update on Pension Obligation Bonds*, CTR. FOR RETIREMENT RESEARCH BOS. C. (July 2014), https://crr.bc.edu/wp-content/uploads/2014/07/slp_40.pdf [https://perma.cc/Z9GX-6JSQ] ("The results show that governments are more likely to issue POBs if the plan represents a substantial obligation to the government, they have substantial debt outstanding, and they are short of cash . . . financial pressures play a major role."); Alicia Munnell, *Be Wary of Pension Obligation Bonds*, MKT. WATCH (Apr. 15, 2015, 6:01 AM), https://www.marketwatch.com/story/be-wary-of-pension-obligation-bonds-2015-04-15 [https://perma.cc/HFK4-7J7J] ("Despite the risks, the data show that the issuance of a POB is driven not by careful planning among well-funded plans or by restructuring for sustainability among underfunded plans but rather by great financial stress among plans that have not been paying their pension bills.").

127. *See* Keeley Webster, *Pension Bonds Are Staging a Comeback in California,* BOND BUYER (Sept. 26, 2019), https://www.bondbuyer.com/news/pension-bonds-are-staging-a-comeback-in-california [https://perma.cc/6AHP-T3QS] (explaining low interest rates have caused a "new influx" of POB issuance, with hundreds of millions issued by California municipalities since 2007).

128. *See, e.g.*, Elizabeth Campbell, *Chicago Seeks Tax Hike to Avert Insolvency for Pension Fund*, BLOOMBERG (Aug. 3, 2016, 1:34 PM), https://www.bloomberg.com/news/articles/2016-08-03/chicago-seeks-tax-hike-to-avert-insolvency-for-largest-pension [https://perma.cc/M4H8-JKUE] (explaining Chicago is using tax hikes in utilities to try to keep the city's largest pension fund from insolvency).

129. *See, e.g.*, Kate Linebaugh, *Detroit's Population Crashes*, WALL. ST. J. (Mar. 23, 2011, 12:01 AM), https://www.wsj.com/articles/SB10001424052748704461304576216850733151470 [https://perma.cc/E3MZ-HN8D] (explaining Detroit's population declined by 25% in the years before its bankruptcy); Shawn M. Carter, *People are Fleeing from New Jersey More Than Any Other State*," CNBC (Jan. 11, 2019), https://www.cnbc.com/2019/01/11/why-people-are-fleeing-new-jersey-more-than-any-other-state.html [https://perma.cc/YB5M-VWX] ("New Jersey became the No. 1 state to move away from in 2018, according to new data from moving and relocation company United Vans Lines."); Matt Vasilogambros, *Why Are Residents Leaving in Illinois in Droves*, GOVERNING (June 19, 2019, 8:39 AM), https://www.governing.com/topics/finance/sl-illinois-sees-population-decline.html [https://perma.cc/H59R-URHW] ("Illinois' population has declined by 157,000 residents over the past five years, making it one of only two states — West Virginia is the other — to

of the most common taxes is a property tax, because it is easy for a governor to place.[130] However, it can have a stifling effect on the housing market in the respective area.[131]

B. Pensions' Investment Concerns

Concerns about the risky investment portfolios of pensions that rely heavily on alternative investments have spanned at least two decades.[132] In the early 2000s, pensions poured large amounts of money into hedge funds.[133] In 2001, the Securities Exchange Commission issued a speech warning stating that pension plans' movement into hedge funds, presents many reasons to be cautious.[134] These investment concerns dealing with hedge fund investment included conflict of interest,[135] lack of regulation,[136] and lack of transparency.[137]

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lose people over the past decade."); *see also* Elizabeth S. Goldman & Stewart E. Sterk, *The Impact of Law on the State Pension Crisis*, 54 WAKE FOREST L. REV. 105, 115 (2019) ("Because the population is mobile, a state whose tax burden becomes high relative to that of its neighbors risks losing those taxpayers in the best position to shoulder that burden.").

130. *See* Greg Hinz, *Pensions Sucking Up Half of Property Tax Hikes*, CHI. BUS. (July 31, 2008, 7:00 AM), https://www.chicagobusiness.com/article/20180731/BLOGS02/180739969/pensions-soaking-up-half-of-property-tax-hikes [https://perma.cc/7GXA-DDHW] ("[T]he cost of worker pensions is soaking up a larger and larger share of your property taxes, on average 45 cents of every extra dollar levied by school districts, city halls and other local government statewide between 1996 and 2016.").

131. *See, e.g.*, A.K. Thompson, *Property Taxes Stunt Chicago's House Price Growth*, FIN. TIMES (July 11, 2019), https://www.ft.com/content/e579e7a2-9d88-11e9-9c06-a4640c9feebb [https://perma.cc/M52L-C3WA] ("[A]gents and brokers say the seemingly relentless increase in Chicago's property taxes in recent years is one of several factors sucking dynamism from the market, which has long struggled to keep pace with other leading US metropolitan areas, such as New York and San Francisco.").

132. Paul F. Royle, Director, Div. of Inv. Mgmt of Sec. & Exch. Comm'n., Risks and Opportunities for Public Pension Plan*s*, Keynote Address before the Public Funds Symposium (July 17, 2001), https://www.sec.gov/news/speech/spch507.htm [https://perma.cc/L3AF-9GD9].

133. *See, e.g.*, Justin Dini, *Off the Beaten Track*, INST. INV. MAG. (Apr. 30, 2001), https://www.institutionalinvestor.com/article/b15134g1jpzkpd/off-the-beaten-track [https://perma.cc/E59Q-R2EZ] (outlining the various pensions increasing investments in alternatives including, one of the largest, CalPERS).

134. Royle*, supra* note 132.

135. *Id.* ("[T]he nature of hedge fund investments and the relative lack of regulation mandates that you conduct adequate due diligence when considering these types of investments.").

136. *Id.* ("Another problem is potential conflicts of interest. Consultants hired to identify hedge fund investments are sometimes involved on some level in servicing the hedge funds they promote.").

137. *Id.* ("High debt and secrecy have become parts of the hedge fund culture. Many hedge fund managers make money because they are privy to information others do not have.").

Some pensions have started to retreat from hedge funds,[138] but from 2007 to 2017, alternative investments in pensions increased from making up 9% to 27% of total assets in public pension investment portfolios.[139] Pension funds' risky investments and behavior[140] are largely attributed to the severity of their underfunding status and the persistence of low interest rates.[141] The combination of both factors account for an estimated one-third of public pension funds' total risk,[142] with nearly 12% due to underfunded status alone.[143]

C. The Legal Protections of Pensions

As pensions are pushed towards insolvency by missed contributions, the fund's obligations to current and future pensioners need to be restructured.[144] Current pensioners, however, have significant protections that inhibit impairment of any future payments.[145] There are four main types of protections given to enrolled pensioners among the states: (1) common-law contractual, (2) common-law contractual and state statutory; (3) state statutory; and (4) state constitutional.[146]

138. *See, e.g.*, Rob Copeland, *New Jersey Backs Away from Hedge Funds*, WALL ST. J. (Apr. 3, 2016, 6:48 PM), https://www.wsj.com/articles/new-jersey-backs-away-from-hedge-funds-1470264516 [https://perma.cc/2M89-WNB4] ("New Jersey's move is an about-face for a state that had been one of the more enthusiastic proponents of hedge funds, scattering billions of dollars across managers . . . . But the state's hedge-fund investments collectively were down 3% through the end of May for the calendar year and 6% for the fiscal year.").

139. Liz Farmer, *Pensions Have Tripled Their Investment in High-Risk Assets. Is It Paying Off?*, GOVERNING (May 8, 2019, 4:00 AM), https://www.governing.com/topics/finance/gov-public-pension-investment-returns-alternative.html [https://perma.cc/GJ23-FMGA].

140. Risky investments and behavior are defined as a pension's choice to invest in risky assets as a "reach-for-yield" that include investments such as real estate and hedge funds. Lu et al., *supra* note 17, at 1.

141. *Id.* ("We find that funds on average took more risk when risk-free rates and funding ratios were lower, which is consistent with both the funding ratio and the risk-premia channels.").

142. *Id.*

143. *Id.* at 37 ("On average across states, the risk component associated with underfunding represented about 12 percent of the total risk in 2016.").

144. *See* Ellman & Merrett, *supra* note 10, at 369–70 ("If municipalities are going to solve their financial challenges, addressing these substantial pension liabilities in some fashion will be necessary.").

145. *See* Diane L. Dick, *Bondholders vs. Retirees in Municipal Bankruptcies: The Political Economy of Chapter 9*, 92 AM. BANKR. L.J. 73, 87 (2018) ("In effect, these legal protections mean that public pension plan sponsors are obligated to provide promised benefits whether or not they have adequately funded the plan, and regardless of how plan investments have performed.").

146. PEW CHARITABLE TRS., LEGAL PROTECTIONS FOR STATE PENSION AND RETIREE HEALTH BENEFITS 3 (2019),

Michigan, New York, Illinois, Arizona, New Mexico, Louisiana, and Arkansas have state constitutional provisions which protect pension holders.[147] These state protections should be a concern for investors because courts are unwilling to budge on the interpretation of pension impairments pre-bankruptcy.[148]

Alternatively, when a state attempts to reform its pension system for future pensioners and fails, the outcome can tend to lower the credit rating of the state.[149] This failure creates a snowball effect on the cost for future bond issuance because the lower credit rating increases the yield a state will be forced to pay on its bonds.[150] The legal and political safeguards that both maintain pensioners' benefits and stall reform for future pensioners are important factors to be weighed when investing in municipal bonds.[151]

Nevertheless, pension reform is a necessary step to municipal health.[152] It can look different depending on the state, but the trend seems to be similar to the corporate model.[153] One example is in New Jersey, where Governor Stephen Sweeney proposes to allow pensioners to

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https://www.pewtrusts.org//media/assets/2019/05/prs_legal_protections_for_state_and_local_pension_and_retiree_medical_benefits_brief_final.pdf [https://perma.cc/46LV-VLYS] [hereinafter LEGAL PROTECTIONS FOR PENSIONS].

147. *Id*.

148. On May 8, 2015, the Illinois Supreme Court unanimously ruled that a pension law meant to scale back pension benefits unconstitutional. *See In re* Pension Reform Litig., 32 N.E.3d 1, 22 ("The General Assembly may find itself in crisis, but it is a crisis which other public pension systems managed to avoid and, as reflected in the SEC order, it is a crisis for which the General Assembly itself is largely responsible."). On December 3, 2018 the Kentucky Supreme Court unanimously struck down a pension law meant to reform pensions and lower cost striking a blow against the then-Governor attempt to address underfunded pension concerns. *See* Bevin v. Commonwealth *ex rel.* Beshear, 563 S.W.3d 74, 78 (Ky. 2018); *see also* Dick, *supra* note 145, at 87 ("Public pensions are famously viewed as "untouchable" outside of bankruptcy.").

149. *See, e.g.*, Kelly Nolan, *Illinois Dinged by Downgrade*, WALL ST. J. (June 11, 2013, 7:03 PM) https://www.wsj.com/articles/SB10001424127887323495604578539701130962058 [https://perma.cc/L5J6-9JJ3] (explaining when Illinois failed to pass pension overhaul both Fitch Ratings and Moody's Investors Service cut the state's rating on its GO Bonds).

150. *Id.*

151. *See* Dick, *supra* note 145, at 87 (explaining how legal protections create an obligation for the city to pay into the plan regardless of any factor).

152. *See* Chintamaneni, *supra* note 52, at 550–51 ("While the fate of public pensions in municipal bankruptcy is uncertain, the need for reform in the operation and protection of public pensions is clear from the growing number of cities with public pension crises.").

153. Elizabeth Bauer, *No, Public Pension Reform Experiments Have Not Failed*, FORBES (Aug. 16, 2019, 8:42 AM), https://www.forbes.com/sites/ebauer/2019/08/16/no-public-pension-reform-experiments-have-not-failed/#a303d4e5bf72 [https://perma.cc/55E6-LEU2] (explaining the states are experimenting with a "cash balance plan," as they try to move away from traditional "defined-benefits" pension plans).

receive traditional pension benefits up to $40,000 of their salary.[154] After this point, any additional earnings will be placed in a hybrid cash-balance savings plan, similar to a 401k,[155] that would guarantee a 4% return for workers even if the investments perform worse.[156] These types of proposals are crucial to solving mounting pension obligations in some states.[157]

IV. WHAT INVESTORS SHOULD LEARN FROM MUNICIPAL BANKRUPTCIES

To better appreciate the complete relationship between underfunded pension plans and municipal bond safety, investors must understand how pension obligations lead municipalities into default.[158] The two largest municipal bankruptcies—Detroit and Puerto Rico—reveal red flags that investors should be aware of when buying municipal bonds and the settlement outcomes that undermine the safety of municipal bond investments.[159]

A. Detroit

Detroit's bankruptcy came at a time when city pensions were $3.5 billion underfunded.[160] Detroit's pension problem fermented over

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154. Tony Howley, *Sweeney's Pension Proposal is What Our State Needs*, NORTHJERSEY.COM (Aug. 17, 2019, 5:38 AM), https://www.northjersey.com/story/opinion/contributors/2019/08/17/sweeneys-pension-proposal-what-nj-needs-howley/2030764001/ [https://perma.cc/7AWD-97VL].

155. *Id.*; *see* Julia Kagan, *401(k) Plans: The Complete* Guide, INVESTOPEDIA, https://www.investopedia.com/terms/1/401kplan.asp [https://perma.cc/2D92-2GNB] (last visited Dec. 18, 2019) ("A 401(k) plan is a tax-advantaged, defined-contribution retirement account offered by many employers to their employees.").

156. Howley, *supra* note 154.

157. *See* Chintamaneni, *supra* note 52, at 550–51 ("While the fate of public pensions in municipal bankruptcy is uncertain, the need for reform in the operation and protection of public pensions is clear from the growing number of cities with public pension crises.").

158. *See* Dick, *supra* note 145, at 91 (explaining the role pensioners play in underfunded plans as they relate to bondholders).

159. *See* Matt Krantz, *Detroit Bankruptcy Rattles Muni Bond Investors*, USA TODAY (July 19, 2013, 1:07 PM), https://www.usatoday.com/story/money/markets/2013/07/19/detroit-muni-bond-investors/2568039 [https://perma.cc/G5ZE-QZ3H] ("Detroit's bankruptcy protection filing is introducing the word fear to the vocabulary of investors who have sought shelter in the municipal bond market.").

160. *See* Memorandum in Support of Statement of Qualifications Pursuant to Section 109(c) of the Bankruptcy Code at 2-3, *In re* City of Detroit, Mich., 504 B.R. 97 (Bankr. E.D. Mich. 2013).

decades.[161] Michigan's constitutional amendment that protected payments to pensioners made it impossible for Detroit to reform how it paid pensioners who were already in the system.[162] In 2005, Detroit issued $1.44 billion in 15-year, floating-rate quasi-POBs[163] to fund the growing gap within the city's pension funds for firefighters, police, and general employees.[164] Once the financial crisis took its toll on pension accounts, the quasi-POB payments Detroit owed ballooned and continued to represent a substantial percentage of the city's revenue.[165]

In addition to Detroit's increasing pension obligations, by 2011, Detroit had 100,000 vacant buildings, including homes and businesses.[166] The city lost one-quarter of its population over the decade.[167] It was an unprecedented collapse of an American city, with 60% of its peak population gone.[168] At the time, Detroit citizens faced one of the highest property tax burdens of any city.[169] As the city neared bankruptcy in 2012, it was considered, the most dangerous city in America for the fourth year in a row,.[170] Detroit's violent crime rate was five times the national

161. Dick, *supra* note 145, at 100 ("Like its bankrupt peer cities in California, Detroit's major creditors included participants in the city's almost entirely unfunded retiree health plan, participants in underfunded pension plans, and capital market creditors.").

162. The Michigan Constitution states: "The accrued financial benefits of each pension plan and retirement system of the state and its political subdivisions shall be a contractual obligation thereof which shall not be diminished or impaired thereby." MICH. CONST. ART. IX, § 24.

163. Dick, *supra* note 145, at 101 (explaining the bonds were called Certificate of Participation ("COP") bonds but functioned the same way as POBs. Detroit could not issue POBs to shore up its pension fund because it had reached its constitutional debt limit. Therefore, it issued these COPs to "sidestep" laws enabling it to not call the issued bonds debt on its balance sheet.).

164. *Id.* at 100–01.

165. CITY OF DET.., PROPOSAL FOR CREDITORS 27–28 (2013), https://detroitmi.gov/sites/detroitmi.localhost/files/2018-05/City%20of%20Detroit%20Proposal%20for%20Creditors1_0.pdf [https://perma.cc/429Z-6LHQ] (outlining the City of Detroit's large, pre-petition, COP liabilities by 2013).

166. Monica Davey, *The Odd Challenges for Detroit Planners,* N.Y. TIMES (Apr. 5, 2011), https://www.nytimes.com/2011/04/06/us/06detroit.html [https://perma.cc/XH2N-GWSV].

167. Scott Martelle, *The Collapse of Detroit*, L.A. TIMES (Mar. 27, 2011, 12:00 AM), https://www.latimes.com/opinion/la-xpm-2011-mar-27-la-oe-martelle-detroit-20110327-story.html [https://perma.cc/UD7Y-NM6U].

168. *Id.*

169. *See* Declaration of Kevyn D. Orr in Support of the City of Detroit, Michigan's Statement of Qualifications Pursuant to Section 109(c) of the Bankruptcy Code at 4–5, *In re* City of Detroit, Mich., No. 13-53846, 2013 WL 6331931 (Bankr. E.D. Mich. July 18, 2013).

170. Daniel Fisher, *Detroit Tops the 2012 List of America's Most Dangerous Cities*, FORBES (Oct. 18, 2012, 1:26 PM), https://www.forbes.com/sites/danielfisher/2012/10/18/detroit-tops-the-2012-list-of-americas-most-dangerous-cities/#401eef3c2931 [https://perma.cc/CTE3-HA4V].

average.[171] Nevertheless, the police force had let go of 200 officers, nearly 10% of its total force,[172] and the fire department lost fourteen of its firefighting engines.[173] With citizens feeling unsafe in their own homes[174] and police officers holding an "Enter At Your Own Risk" rally,[175] Detroit had no choice but to file for Chapter 9 bankruptcy on July 18, 2013.[176]

B. Puerto Rico

Puerto Rico also experienced a huge pension crisis.[177] In 2016, Puerto Rico had $2 billion in assets among its pension funds compared to $45 billion in pension liabilities.[178] Residents left Puerto Rico in record amounts, shrinking a tax base necessary to cover the territory's growing obligations.[179] On July 1, 2016, Puerto Rico declared its intention to

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171. *Id*.

172. *See id*. (stating that the City of Detroit cut some 200 officers from its 2500 strong police force).

173. Rod Meloni, *Detroit Fire Department Is Forced to Make Big Cuts, Eliminating Several Engine, Ladder Companies*, CLICKONDETROIT (July 2, 2012, 11:14 PM), https://www.clickondetroit.com/news/2012/07/03/detroit-fire-department-is-forced-to-make-big-cuts-eliminating-several-engine-ladder-companies/ [https://perma.cc/EQ2H-36NF].

174. *Id*. (noting that one citizen stated "I'm constantly on guard here due to the fact that police aren't what they should be, the Fire Department is not what it should be").

175. *Enter at Your Own Risk: Police Union Says 'War-Like' Detroit is Unsafe for Visitors*, CBS DET. (Oct. 6, 2012, 11:57 AM), https://detroit.cbslocal.com/2012/10/06/enter-at-your-own-risk-police-union-says-war-like-detroit-is-unsafe-for-visitors/ [https://perma.cc/V227-7KM4].

176. Bankruptcy Petition, *In re* City of Detroit, Mich., No. 13-53846, 2013 WL 6331931 (Bankr. E.D. Mich. July 18, 2013); *see* Monica Davey & Mary Walsh, *Billions in Debt, Detroit Tumbles into Insolvency*, N.Y. TIMES (July 18, 2013), https://www.nytimes.com/2013/07/19/us/detroit-files-for-bankruptcy.html [https://perma.cc/SFV2-7PL2] ("Detroit, the cradle of America's automobile industry and once the nation's fourth-most-populous city, filed for bankruptcy on Thursday, the largest American city ever to take such a course.").

177. *See* Nick Brown, *Puerto Rico's Other Crisis*; *Impoverished Pensions*, REUTERS (Apr. 7, 2016, 3:10 PM), https://www.reuters.com/investigates/special-report/usa-puertorico-pensions/ [https://perma.cc/6NE4-3HH9] (explaining Puerto Rico's pension crisis perpetuated by leaders characterized as "eternal optimists").

178. Nick Timiraos, *Puerto Rico's Pensions: $2 Billion in Assets, $45 Billion in Liabilities*, WALL ST. J. (Aug. 25, 2016, 4:20 PM), https://www.wsj.com/articles/puerto-ricos-pensions-2-billion-in-assets-45-billion-in-liabilities-1472156434 [https://perma.cc/A9MT-3WFP].

179. *See* Alan Yuhas, *Economic Exodus Means Two-Thirds of Puerto Ricans May Soon Live in States*, GUARDIAN (July 2, 2015, 7:00 PM), https://www.theguardian.com/world/2015/jul/02/puerto-rico-economy-exodus-us-mainland [https://perma.cc/5QGQ-WZU4] ("Facing a crisis of monumental proportions at home, tens

default on its GO bonds for the first time.[180] Puerto Rico's then-Governor Ricardo Nevares argued that funding teachers, emergency personnel, and other critical functions should take priority over Puerto Rico's obligation to its bondholders.[181] The night before Puerto Rico declared it was going to default, then-President Barack Obama signed the Puerto Rico Oversight, Management, and Economic Stability Act ("PROMESA").,[182] which allowed the island to stop making payments to its bondholders.[183] PROMESA created a committee to oversee the restructuring of all of Puerto Rico's debt.[184]

Shortly after PROMESA was formed, a 10-year-old boy was shot in the head near the pool of a popular hotel in Puerto Rico,[185] casting light on the high crime rate the territory was facing.[186] Puerto Rico had seen massive layoffs to teachers, police, and firefighters over the prior years.[187] By 2017, Puerto Rico's underfunded pensions increased to $50 billion, and its total debt was $74 billion.[188] With no possible way to

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of thousands of people are fleeing a Caribbean island in search of a better life in the United States.").

180. Heather Long. *Puerto Rico Makes Historic Default*, CNN (July 1, 2016, 3:05 PM), https://money.cnn.com/2016/07/01/investing/puerto-rico-defaults-general-obligation-bonds/index.html [https://perma.cc/G72G-4A5J].

181. *See id*. ("This administration continues to take historic steps to ensure the residents of Puerto Rico continue to receive essential services while the commonwealth continues to face a delicate financial situation,' a spokesman said.").

182. Puerto Rico Oversight, Management, and Economic Stability Act ("PROMESA"), Pub. L. No. 114-187, 130 Stat. 549 (2016) (codified at 28 U.S.C. 2101 (2018)); *see also* Nick Timiraos & Bryan Tau, *President Obama Signs Puerto Rico Debt-Relief Bill*, WALL ST. J. (June 30, 2016, 5:45 PM), https://www.wsj.com/articles/president-obama-signs-puerto-rico-debt-relief-bill-1467321998?mod=article_inline [https://perma.cc/SD6Q-44KB] (explaining the actions of the White House and what the Debt Relief bill would mean for Puerto Rico).

183. Timiraos & Tau, *supra* note 182.

184. *Id.*

185. *Child Killed at Puerto Rico Sparks Concerns over Rising Murder Rate,* GUARDIAN (July 5, 2016), https://www.theguardian.com/world/2016/jul/05/puerto-rico-hotel-child-murder-rate [https://perma.cc/VHK2-CSJD].

186. *Id.*

187. *See* Michael A. Fletcher, *Already Deep in Debt, Puerto Rico Now Faces a New Crisis*, WASH. POST (Mar. 27, 2015), washingtonpost.com/news/wonk/wp/2015/05/26/already-deep-in-debt-puerto-rico-now-faces-a-new-crisis/?arc404=true [https://perma.cc/L9RN-8CT5] (explaining the looming collapse of the island's healthcare system); Alan Yuhas, *Economic Exodus Means Two-Thirds of Puerto Ricans May Soon Live in States*, THE GUARDIAN (July 2, 2015, 7:00 PM), https://www.theguardian.com/world/2015/jul/02/puerto-rico-economy-exodus-us-mainland [https://perma.cc/4D5H-XHUR] ("Unable to pay its $73bn debt, Puerto Rico has begun closing schools and watching its healthcare system collapse and 45% of its people living in poverty.").

188. Martin Z. Braun & Johnathan Levin, *Debt Island: How $74 Billion in Bonds Bankrupted Puerto Rico*, BLOOMBERG (May 15, 2017, 5:00 AM),

continue to maintain public services, pension payments, and bond payments, Puerto Rico's then-Governor filed for bankruptcy on May 2, 2017.[189]

C. Bondholders in Bankruptcy

For bondholders, the primary lesson of Detroit and Puerto Rico's bankruptcy was that pensioners come before bondholders, and Wall Street loses.[190] In Detroit, Federal Court Judge Steven Rhodes showed concern for pension holders when making his final ruling: "[the] court emphasizes that it will not lightly or casually exercise the power under federal bankruptcy law to impair pensions."[191] In Detroit's final settlement, pensioners received at least 60% of their pensions owed,[192] with no more than 4.5% individual cuts to city retirees.[193] In contrast,

https://www.bloomberg.com/news/articles/2017-05-15/debt-island-how-74-billion-in-bonds-bankrupted-puerto-rico [https://perma.cc/ULL3-7WJY].

189. Letter to Fin. Oversight & Mgmt. Bd. to Restructure Debts under Title III of PROMESA (2017), https://assets.documentcloud.org/documents/3696507/Puerto-Rico-s-Letter-on-Debt.pdf [https://perma.cc/SFT2-FJWU]; *see* Heather Long, *Puerto Rico Files for Biggest US Municipal Bankruptcy,* CNN (May 3, 2017, 2:50 PM), https://money.cnn.com/2017/05/03/news/economy/puerto-rico-wants-to-file-for-bankruptcy/index.html [https://perma.cc/P64P-GWXF] ("It's the biggest municipal bankruptcy filing ever in the US. Puerto Rico currently owes its creditors a whopping $70 billion, far higher than Detroit's $18 billion bankruptcy in 2013.").

190. *See* Michael Aneiro, *Seven Lessons from Detroit's Bankruptcy for Muni Investors*, BARRONS (Oct. 24, 2014, 4:42 PM), https://www.barrons.com/articles/seven-lessons-from-detroits-bankruptcy-for-muni-investors-1414183339 [https://perma.cc/3HPK-9KBS].

191. Michigan pension holders are protected by a clause in their state constitution. MICH. CONST. ART. IX, § 24. As part of Detroit's initial bankruptcy filing was a plan to cut pension payments, and the Ingham County Circuit court initially ruled that cutting pensions was a violation of the State's constitution. PRELIMINARY INJUNCTION, Webster v. State, No. 13-734-CZ (Mich. Cir. Ct. July 18, 2013). Although in Federal Bankruptcy Court, Judge Rhodes allowed the pension cuts holding that "accrued benefits" were not protected, because federal bankruptcy court, preempts state court's jurisdiction. *In re* City of Detroit, Mich., 504 B.R. 97, 154 (Bankr. E.D. Mich. 2013); *see also* David A. Skeel, Jr., *The Education of Detroit's Pension and Bond Creditors*, 2 PENN WHARTON PUB. POL'Y INITIATIVE 1, 3 (2014), http:// publicpolicy.wharton.upenn.edu/live/files/166-a [https://perma.cc/QG9H-BG8G] ("Because the U.S. Constitution authorizes Congress to enact bankruptcy laws, and the municipal bankruptcy law that Congress has enacted permits a city to restructure its ordinary debts, the unfunded portion of a pension can be restructured even if state law seems to say pensions are sacrosanct.").

192. David Skeel, *Fixing Puerto Rico's Debt Mess*, WALL ST. J.: OPINION (Jan. 15, 2016, 7:29 PM), https://www.wsj.com/articles/fixing-puerto-ricos-debt-mess-1452040144?mod=article_inline [https://perma.cc/VVE7-3NK9].

193. Aneiro, *supra* note 190 ("[Bank of America] notes that city pensioners were minimally impaired, with cuts of no more than 4.5% and the elimination of annual COLA increases.").

Detroit's GO bondholders received only 41% of their owed obligations.[194]

In Puerto Rico, under the bankruptcy settlement, 61% of retirees would see no reduction in their pensions,[195] and cuts to monthly pensions totaling more than $1,200 would be capped at 8.5%.[196] However, GO bondholders received just 55% of their investment back,[197] causing a downgrade for GO bonds in Puerto Rico.[198] The outcome of both settlements reflects the unequal displacement of the payback to bondholders and pensioners, which legally had the "same priority."[199] This preference is largely due to politicians who, when deciding settlements, place a higher value on pensioners than bondholders.[200]

Not only did bondholders receive a smaller percentage of their claims than pensioners, but the underlying safeguards for some of their bonds also changed during Puerto Rico's bankruptcy.[201] In particular, the bankruptcy completely shifted the market's understanding of how

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194. Skeel, *supra* note 192.

195. Karen Pierog, *Puerto Rico Oversight Board Reaches Deal over Retiree Pensions*, REUTERS (July 12, 2019, 5:43 PM), https://www.reuters.com/article/us-usa-puertorico/puerto-rico-oversight-board-reaches-deal-over-retiree-pensions-idUSKCN1TD2RZ [https://perma.cc/SXC9-QRWZ].

196. *Id.*

197. *Id.*

198. Notice to Shareholders, *Recent Dev. Highlights Pertaining to the Commonwealth of P.R and the UBS and P.R. Inv'rs Families of Funds (Each, a "Fund" and Collectively, the "Funds")*, UBS (Aug. 23, 2019), https://www.ubs.com/us/en/wealth-management/information/puerto-rico-funds/_jcr_content/rightpar/innergrid/xcol1/teaser/linklist/link.0689094754.file/bGluay9wYXRoPS9jb250ZW50L2RhbS9hc3NldHMvd21hL3ByL2RvYy9jb21tb253ZWFsdGgtcHJvbWVzYS11cGRhdGUtMDgyMzE5LnBkZg==/commonwealth-promesa-update-082319.pdf [https://perma.cc/AP3Q-9W5H] ("Fitch Ratings ('Fitch'), Moody's Investors Service ('Moody's'), and S&P Global Ratings ('S&P') have downgraded the general obligation bonds ('GOs') of the Commonwealth of Puerto Rico as well as the obligations of certain Commonwealth agencies and public corporations.").

199. Skeel, *supra* note 192.

200. *See In re* City of Stockton, California**,** 526 B.R. 35, 39 (Bankr. E.D. Cal.), aff'd in part, 542 B.R. 261 (B.A.P. 9th Cir. 2015). (In Stockton, California bankruptcy, the judge allowed pensions to be modified. In an oral opinion, the judge said the California Public Employee's Retirement System "has bullied its way about in this case with an iron fist insisting it and the municipal pensions it services are inviolable. The bully may have an iron fist, but it also turns out to have a glass jaw."); Although, the pressure from CALPERS made the politicians decide not to reduce pensions at all, and the bondholders took most of the cuts. Marc Lifsher & Melody Petersen, *Judge Approves Stockton Bankruptcy Plan; Worker Pensions Safe*, L.A. TIMES (Oct. 30, 2014, 1:13 PM), https://www.latimes.com/business/la-fi-stockton-pension-court-ruling-cuts-20141029-story.html [https://perma.cc/5LUT-ZMW5].

201. Alexandra Scaggs, *Puerto Rico's Bankruptcy Case Casts a Shadow on Billions in Municipal Bonds*, BARRONS (May 23, 2019, 9:48 AM), https://www.barrons.com/articles/municipal-special-revenue-bonds-review-court-ruling-puerto-rico-chicago-51558554529 [https://perma.cc/85YU-JA8D].

special revenue bonds are viewed during a municipality's bankruptcy.[202] Before Puerto Rico's insolvency, special revenue bonds were continuously paid out by a municipality during the bankruptcy period.[203] This changed when the First Circuit Court of Appeals denied the special revenue bondholders relief during bankruptcy, calling continued payments permitted but not required.[204] On July 31, 2019, the First Circuit denied rehearsing *en banc* and issued an opinion affirming its holding on special revenue bonds.[205] The impact of Puerto Rico's bankruptcy on the safety of special revenue bonds[206] caused rating agencies to review their grades on special revenue bonds for potential downgrades.[207]

D. *Warnings for Municipal Bond Investors from Municipal Bankruptcies*

The bankruptcies of Detroit and Puerto Rico reveal two overarching themes:[208] first, the red flags investors should look out for when determining the risk for an investment in municipal bonds;[209] and second, the underlying preferential treatment for pensioners over bondholders in bankruptcy settlements.[210]

The red flags an investor should look for before investing in municipal bonds become apparent as a municipality nears closer to default.[211] A state or local government with a high underfunded pension liability leads to a decreasing population, an increasing tax, and

202. *Id.*

203. *Id.*

204. *In re* Fin. Oversight & Mgmt. Bd. for P.R., 919 F.3d 121, 132 (1st Cir. 2019) ("In sum, Sections 928(a) and 922(d) permit, but do not require, continued payment during the pendency of the bankruptcy proceedings.").

205. *In re* Fin. Oversight & Mgmt. Bd. for P.R., 931 F.3d 111, 115 (1st Cir. 2019) ("Section 922(d) commands that "application of pledged special revenues" be done in a manner "consistent" with section 928—which in turn provides that liens on special revenues "shall be subject to the necessary operating expenses" of the project or system."); *see also* Assured Guar. Corp. v. Fin. Oversight Bd., No. 19-391, 2020 WL 129573, at (U.S. Jan. 13, 2020) (indicating the Supreme Court of the United States denied certiorari on the case).

206. *See* Sasseen, *supra* note 38 (explaining the uncertainty and fear Puerto Rico has caused the municipal bond market as it relates to special revenue bonds.).

207. Scaggs, *supra* note 201 (explaining that Moody's is reviewing "$14 billion of municipal special-revenue bonds and that Fitch is reviewing "seven series of special-revenue bonds" in response to Puerto Rico ruling).

208. *See supra* Part IV.A–B.

209. *See supra* Part IV.A–B.

210. *See supra* Part IV.C.

211. *See supra* Part IV.A–B.

increasing crime rate, all accompanied by decreasing coverage of essential services.[212] The red flag—a decline in essential services—is critical to the likelihood of a municipal bond default.[213] In Detroit's bankruptcy hearing in 2013, when weighing whether or not to approve Detroit's Chapter 9 filing, Judge Rhodes stated: "It is the City's service delivery insolvency that the Court finds most strikingly disturbing in this case."[214] In another hearing in 2014, Judge Rhodes stated: "[The service insolvency] is inhumane and intolerable, and it must be fixed."[215] When these red flags are present and eventually present themselves as unmet essential services, the chance of a municipality bankruptcy filing occurring and being accepted rises.[216] The length of such bankruptcy may depend on the municipality's ability to right its essential services.[217]

The second theme, preference for pensioners, has been evident through the outcomes in municipal bankruptcy cases.[218] Investors should heed this risk of being subordinated in payout preference as they were in Detroit and Puerto Rico.[219] When a municipality defaults, investors will not come out whole, and the protections their bonds allegedly have and payments they expect could continue to change as more defaults occur in the future.[220]

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212. *See, e.g.*, Shields, *supra* note 102 (explaining Illinois state mandate to increase its funding for pensions has caused municipal bond rating downgrades as well as cuts to essential services).

213. Stephen Fehr, *'Service-Delivery Insolvency' is Changing Municipal Bankruptcy*, PEW CHARITABLE TRS. (Feb. 23, 2017), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2017/02/23/service-delivery-insolvency-is-changing-municipal-bankruptcy [https://perma.cc/F7LQ-EF7E].

214. *In re* City of Detroit, Mich., 504 B.R. 97, 170 (Bankr. E.D. Mich. 2013); *see also* Fehr, *supra* note 213 ("Neither city could pay their unsustainable debts, but officials' failure to curb violent crime, spreading blight and decaying infrastructure was even more compelling to the federal bankruptcy judges who decided that Stockton and Detroit were eligible to file for Chapter 9.").

215. *In re* City of Detroit, 524 B.R. 147, 262 (Bankr. E.D. Mich. 2014).

216. *See* Fehr, *supra* note 213 (stating that service insolvency is a persuasive factor for a judge in allowing a municipality to successfully file for bankruptcy).

217. *Id.*

218. *See* Dick, *supra* note 145, at 77 ("Many chapter 9 debtors have simply chosen to be more generous to their employees and retirees, even if it requires cramming down a plan that severely impairs the rights of other creditors.").

219. *See supra* Part IV. A-B; *see also* Skeel, *supra* note 192 ("Bankruptcy can work, but bankruptcy laws need to be changed to ensure fair treatment of creditors.").

220. *See* Krantz, *supra* note 159 ("Detroit's bankruptcy protection filing is introducing the word fear to the vocabulary of investors who have sought shelter in the municipal bond market.").

V. How Municipalities Pitch Investors

Like Detroit and Puerto Rico, some states face major pension problems.[221] Two states in particular, New Jersey and Illinois, are currently showing red flags that should concern investors about their municipal bond holdings.[222] These states are experiencing budget deficits, vendor defaults, and troubling cuts to necessary public services in order to pay for pension liabilities.[223]

A. The Struggling States with the Highest Pension Obligations

In 2019, Illinois had the worst fiscal health of any state.[224] Further, Illinois is ranked as the third-worst state in its pension plan funding percentage,[225] while holding the nation's largest pension debt.[226] Illinois's adjusted net pension liability is $240.8 billion as of June 2018, which is five times the total state revenue.[227] On top of its pension

221. *See* Andrew B. Dawson, *Beyond the Great Divide: Federalism Concerns in Municipal Insolvency*, 11 HARV. L. & POL'Y REV. 31, 34 (2017) ("As more municipalities are sinking into financial distress, weighed down in large part by unsustainable legacy costs, there have been an unprecedented number of municipal bankruptcy filings."); *see also* T. Leigh Anenson, Alex Slabaugh & Karen E. Lahey, *Reforming Public Pensions*, 33 YALE L. & POL'Y REV. 1, 12 (2014) ("Even with an optimistic rate of return on pension fund investments, projections estimate that plans in seven states will be insolvent by 2020 and plans in half the states will be broke by 2027.").

222. *See* Michael Cembalest, J.P. MORGAN PRIVATE BANK, THE ARC AND THE COVENANTS 4.0 2, https://www.jpmorgan.com/jpmpdf/1320746272624.pdf [https://perma.cc/8TBS-6C53] ("Illinois and New Jersey come closest in my view to deteriorations in pension finances that are practically irreversible.").

223. *See* Adam Schuster, *Illinois Public Services Being Cut to Pay Unsustainable Pension Cost*, ILLINOIS POL'Y, https://www.illinoispolicy.org/reports/illinois-public-services-being-cut-to-pay-unsustainable-pension-cost/ [https://perma.cc/M8HS-YF8B] (last visited Dec. 26, 2019) ("Public pensions are already eating away Illinois government services, increasing by more than 500% during the past 20 years as spending on core services including child protection, state police and college money for poor students has dropped by nearly one-third since 2000.").

224. Olivia Gonzalez, *Ranking the States by Fiscal Condition: Illinois*, MERCATUS CTR. (Oct. 22, 2018), https://www.mercatus.org/publications/50-ranking-states-fiscal-condition-illinois [https://perma.cc/VJ36-K297] ("Illinois performs poorly on just about every metric that goes into calculating its overall rank.").

225. *By the numbers: Illinois ranks 3rd worst on pension plan funding,* CTR. SQUARE (Sept. 6, 2019), https://www.thecentersquare.com/illinois/by-the-numbers-illinois-ranks-rd-worst-on-pension-plan/article_16e71256-cf2f-11e9-9586-fbb02740d006.html [https://perma.cc/W88P-W32F].

226. *Id.*

227. Pisea Chea, *Research Announcement: Moody's- US States' Pension Liabilities Fall in Fiscal 2018 amid Higher Investment Returns*, MOODY'S INVS. SERVS. (Sept. 17, 2019), https://m.moodys.com/research/Moodys-US-states-pension-liabilities-fall-in-fiscal-2018-amid—PBM_1195186 [https://perma.cc/8ZLR-MSM2]. Other sources state the pension

liability, the state has $25.8 billion in POBs outstanding.[228] By 2020, Illinois's required contributions to pensions will total $9.3 billion, one-quarter of Illinois' general funds budget.[229] Illinois likely has three options to begin to fill the underfunded gap: (1) a 25% tax hike; (2) a 689% increase in contributions; or (3) an 11.9 % assumed rate of return.[230]

In some of Illinois's cities, pensions have become so underfunded that the worst-off pensions are allowed to compel the state Comptroller to withhold tax revenue from municipalities and reallocate that revenue to their cities' pension plans.[231] This pension-intercept law[232] has

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liability for Illinois at 137.3 billion at the end of fiscal 2019. *Illinois' Unfunded Pension Liability Rises to $137.3 Billion,* REUTERS (Dec. 4, 2019, 6:37 PM), https://www.reuters.com/article/us-illinois-pensions/illinois-unfunded-pension-liability-rises-to-137-3-billion-idUSKBN1Y82ZP [https://perma.cc/Z7UY-PA5D]. The "real" number is likely somewhere in between depending on one's discount rate chosen. *See* Thomas J. Healey, Commentary, *A Note on the Discount Rate*, PENSIONS & INVS. (Oct. 8, 2019, 10:00 AM), https://www.pionline.com/industry-voices/commentary-note-discount-rate [https://perma.cc/F7A4-4AQZ] ("Using expected future return on assets, the total liability of U.S. state pension plans is about $1.4 trillion (according to the Pew Charitable Trusts), while utilizing a risk-free rate of 2% yields a liability estimate of more than $4 trillion (according to the American Legislative Exchange Council as well Moody's Investors Service). Again, the average 10-year return as of June 30, 2018, for the country's three largest public plans was 5%.").

228. *Illinois' Pension Bonds: The Other $26 Billion Obligation You Shouldn't Ignore*, ILL. POL'Y https://www.illinoispolicy.org/reports/illinois-pension-bonds-the-other-26-billion-obligation-you-shouldnt-ignore/ [https://perma.cc/2WD8-QPAQ] (last visited Dec. 19, 2019); *see also Statement No. 27 of the Governmental Accounting Standards Board, supra* note 97 ("The ARC does not include payments of pension-related debt. Therefore, those payments should not be included in annual pension cost.").

229. Dan Hynes, DIGGING OUT: THE RAUNER WRECKAGE REPORT 7, (Feb. 7, 2019), https://www2.illinois.gov/IISNews/19698-Digging_Out_-_The_Rauner_Wreckage_Report.pdf [https://perma.cc/653T-7859] ("The state's largest obligation, pensions, continues to take up a greater and greater share of the state budget.").

230. Cembalest, *supra* note 222, at 2; *see also* Natasha Frost, *US States Hope Legalization of Weed Will Solve Their Pension Crisis*, QUARTZ (Dec. 12, 2018), https://qz.com/1493246/illinois-new-jersey-look-at-legalized-weed-to-fund-pension-crisis/ [https://perma.cc/JU8F-WN5J] (explaining that some states are looking to marijuana legalization as a way to help their pensions funds).

231. Caitlin Devitt, *Intercept Law Puts Distressed Illinois Cities in the Crosshairs for Added Oversight*, FORBES (May 1, 2018, 2:04 PM), https://www.forbes.com/sites/debtwire/2018/05/01/new-pension-intercept-law-puts-distressed-illinois-cities-in-the-crosshairs-for-added-oversight/#6384a9fa61d7 [https://perma.cc/M68F-MWTX].

232. Public Act 1495, 96th Gen. Assemb., Reg. Sess. (Ill. 2016); *see also* Amanda Kass & Andrew Crosby, LIFE PRESERVERS OR ANCHORS? AN EXAMINATION OF STATE INTERVENTION IN MUNICIPAL PENSION FUNDING IN ILLINOIS 1, GOV. FIN. RES. CTR. (July 2019), https://gfrc.uic.edu/wp-content/uploads/sites/188/2019/07/2019July_Life-Preservers-or-Anchors.pdf [https://perma.cc/QQJ3-TSC2] ("Starting in fiscal year (FY) 2016, the enforcement mechanism allows the State Comptroller to intercept state sharing revenue if

wreaked havoc on Illinois' struggling cities as near depleted pensions intercept city revenues that would normally go toward essential services and payroll.[233] With pensions in Illinois wavering at 35% funded,[234] the intercept law has been used by pension funds in the cities of Harvey, North Chicago, Chicago, and East St. Louis.[235] What was meant to hold municipalities accountable for underpaying their pension plans has caused these cities to become more cash-strapped and fiscally insolvent than ever before.[236]

Similarly, New Jersey has $239 billion of outstanding and anticipated debt.[237] Of that debt, $45.16 billion is in municipal bonds, and the state needs $115 billion to cover future outstanding payments to the state pension fund.[238] Taxpayers are expected to be burdened by $99.6 billion to support the underfunded public pension system in the state.[239] New Jersey would have to raise its contributions by 521% or increase its tax revenues by 22% to begin to close the underfunded gap—but the vital change has yet to occur.[240] The Governor of New Jersey, Phil Murphy, expects to make pension contributions of only 70% of the

municipalities' contributions to their police and fire pension funds fall short of what their contributions are supposed to be under state law.").

233. *See, e.g.*, KASS & CROSBY, *supra* note 232, at 1 ("Harvey finds itself pushed to the brink by a new law that allows pension funds to compel the state Comptroller to withhold state tax revenue that traditionally would go to the city.").

234. PEW CHARITABLE TRS., *The State Pension Funding Gap: 2017* 4 (June 2019), https://www.pewtrusts.org/-/media/assets/2019/06/statepensionfundinggap.pdf [https://perma.cc/LB4M-CMCY].

235. *See* Yvette Shields, *Chicago Loses First Round in Pension Fund Intercept Litigation*, BOND BUYER (June 7, 2019, 2:59 PM), https://www.bondbuyer.com/news/chicago-loses-first-round-in-pension-fund-intercept-litigation [https://perma.cc/CGD4-U69Q] (explaining a Chicago firefighter pension fund filed a $24 million claim for their pension funded at 26.5%); Yvette Shields, *Cash-Strapped East St. Louis Joins Illinois Pension Intercept Illinois*, FIDELITY.COM (Sept. 19, 2019, 5:03 PM), https://fixedincome.fidelity.com/ftgw/fi/FINewsArticle?id=201909191703SM______BND BUYER_0000016d-4ad5-d046-a3fd-cff7c3af0000_110.1 [https://perma.cc/2EU5-HTFD] (explaining that the East St. Louis Firefighters submitting a pension intercept request of 2.2. million to the comptroller as their pension is only 11% funded).

236. Frank Shafroth, *The Fiscal Firebomb Looming for Small Cities in Illinois*, GOVERNING (July 2018), https://www.governing.com/columns/public-money/gov-illinois-pensions.html [https://perma.cc/JM4X-LHFP] ("A state law meant to hold municipalities accountable for pension payments may actually worsen a coming fiscal crisis.").

237. Ashley Balcerzak, *How Deep Is NJ in Debt? Very, Very Deep but Not as Bad as 2017*, USA TODAY (June 3, 2019, 6:04 AM), https://www.northjersey.com/story/money/2019/06/03/new-jersey-state-debt-report-analysis/1301540001/ [https://perma.cc/MV4H-TSZA].

238. *Id.*

239. *Id.*

240. Cembalest, *supra* note 222.

recommended ARC amount each year[241] and by 2023 pay the full recommended amount.[242] This promise came after Governor Murphy raised the assumed rate of return for New Jersey pensions[243] after then-governor Chris Christie's office previously lowered the return rate to reflect a more realistic assumption.[244] Murphy's action has allowed the state's pension funds to appear healthier and, in turn, has lowered the state's contributions.[245]

Both Illinois and New Jersey's pension obligations are massive and they alone cause concern for the future viability of the states.[246] However, just as in Detroit and Puerto Rico, the pension obligations are one piece of a larger puzzle.[247] Pension viability does not tell the full story of what is going on inside these states.[248] To view the other red flags pointing towards bankruptcy, all an investor must do is look closely at cities within the two states.[249]

B. The Reality Facing Citizens in Illinois and New Jersey

In Harvey, Illinois, employees in City Hall were left without air conditioning and threatened to leave work, citing unbearable conditions

241. Balcerzak, *supra* note 237.

242. *Id.*

243. Christian Hetrick, *Phil Murphy Reverses Chris Christie's Change to Pension System*, OBSERVER.COM (Mar. 2, 2018, 5:21 PM), https://observer.com/2018/03/murphy-reverses-christie-pension-system-change/ [https://perma.cc/54VN-EARY] ("Gov. Phil Murphy's administration reversed a change made by Chris Christie to New Jersey's pension system that would have forced state and local governments to pay hundreds of millions of dollars more into the ailing pension system next year.").

244. Robert Snyder, *New Jersey Lowers Assumed Rate of Return to 7%*, PENSIONS & INVS. (Dec. 21, 2017, 12:00 AM), https://www.pionline.com/article/20171221/ONLINE/171229973/new-jersey-lowers-assumed-rate-of-return-to-7 [https://perma.cc/LMB7-TQ36] ("The New Jersey Pension Fund's assumed rate of return has been reduced to 7% from 7.65% by state Treasurer Ford M. Scudder, the second rate cut he has enacted this year.").

245. Hilary Russ, *New Jersey Treasurer Resets Public Pension Rate of Return*, REUTERS (Mar. 1 , 2018, 6:30 PM), https://www.reuters.com/article/us-new-jersey-pensions/new-jersey-treasurer-resets-public-pension-rate-of-return-idUSKCN1GD6MF [https://perma.cc/A5T4-4TAN] ("The switch to a higher assumed rate means that the state, and participating local governments in New Jersey, will for now escape the higher costs that arise when investment return assumptions are lowered.").

246. Cembalest, *supra* note 222, at 2.

247. *See supra* Part III.C.

248. Shafroth, *supra* note 236.

249. *See id*. (explaining the fiscal trouble facing smaller cities in Illinois).

because the city failed to pay its electricity bill on time.[250] On another occasion, the non-emergency 911 number was cut off for three days because the city was $14,000 in arrears on its phone bill, leaving citizens and possible alarm systems calling for help with no response.[251] Even one of Harvey's trash vendors allegedly demanded a check in full on the steps of City Hall to continue services.[252]

In concurrence with vendor defaults,[253] massive layoffs continue to occur in Harvey each year.[254] In 2018, due to a successful pension intercept request from the Harvey's firefighter pension plan,[255] forty police and fire employees were let go, representing nearly half of Harvey's force.[256] Therefore, Harvey's firefighters' attempt to secure their pensions resulted in a significant amount of firefighters in the department being fired.[257] All the while, Harvey maintains one of the highest per capita crime rates in the state.[258] Furthermore, Harvey's citizens face unbearable tax hikes, represented by approximately 4,000 outstanding property tax bills.[259] Harvey has even defaulted on GO bonds multiple times during the past three years.[260] Even so, the city

250. Zak Koeske *Harvey Officials Are Scrambling After Police and Fire Non-emergency Phone Lines were Disconnected for Nonpayment*, CHI. TRIB. (Aug. 23, 2019, 12:08 AM), https://www.chicagotribune.com/suburbs/daily-southtown/ct-sta-harvey-phone-line-disconnection-st-0825-20190823-j6sncdhz5rhbtfmkfqx7rxfyp4-story.html [https://perma.cc/736E-FYXQ].

251. *Id.*

252. *Id.*

253. *Id.*

254. Zak Koeske, *Harvey Lays off 40 Police and Fire Employees, Union Officials Say,* CHI. TRIB. (Apr. 10, 2018, 4:25 PM), https://www.chicagotribune.com/suburbs/daily-southtown/ct-sta-harvey-layoffs-st-0411-story.html [https://perma.cc/D25X-R6S9].

255. Zak Koeske, *Harvey Reaches Pension Fund Repayment Agreement; State to Cease Witholding Tax Revenues*, CHI. TRIB. (July 24, 2018), https://www.chicagotribune.com/suburbs/daily-southtown/ct-sta-harvey-pension-agreement-st-0725-story.html [https://perma.cc/2TUS-SV3H] ("Harvey City Council unanimously approved a repayment agreement Monday with its police and fire pension funds, effectively resolving a months-long dispute over withheld state tax revenues that Harvey claimed had placed it on the brink of financial collapse and forced it to lay off 40 public safety workers.").

256. Koeske, *supra* note 250.

257. *Id.*

258. John Dodge, *The 10 'Most Dangerous' Towns in Illinois, CBSCHICAGO* (Dec. 16, 2014, 12:11 PM), https://chicago.cbslocal.com/2014/12/16/the-10-most-dangerous-towns-in-illinois/ [https://perma.cc/RJS6-N7JU].

259. Shafroth, *supra* note 236.

260. The Editorial Board, *Have We Got a Muni Bond for You*, WALL ST. J: OPINION (May 10, 2018, 7:02 PM), https://www.wsj.com/articles/have-we-got-a-muni-bond-for-you-1525993374 [https://perma.cc/33DM-C54L] ("Harvey has already defaulted on eight debt service payments over the past two years.").

cannot seek bankruptcy without permission from the state, leaving it with insurmountable obligations and declining revenues.[261]

Similarly situated to Harvey, is Camden, New Jersey, where the Camden's School District plans to close schools and layoff approximately 300 teachers,[262] as the city faced a $27 million budget deficit in 2019.[263] Since 2016, the city has suffered a "dirty water problem"[264] with lead leaking into the city's public water and the cost of repair too high to afford.[265] Schools have been forced to include a special line in their budget for water coolers and paper cups each year to provide clean water.[266] Despite having one of the worst murder rates in America,[267] police layoffs have occurred sharply in the past in Camden.[268]

All the red flags of prior bankruptcies currently exist in Illinois and New Jersey today, and there is no easy solution.[269] The conditions in Harvey and Camden reflect the conditions in many cities in Illinois, New Jersey, and other underfunded states that are forced to make cuts to

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261. *Id.* ("Under Illinois law, cities cannot file for Chapter 9 bankruptcy, which provides a venue for impairing contracts.").

262. David Madden, *Camden Teachers Union: School Closings and Cuts Could be Coming*, KYW NEWSRADIO (Apr. 9, 2019, 5:04 PM), https://kywnewsradio.radio.com/articles/news/camden-teachers-union-school-closings-and-cuts-could-be-coming [https://perma.cc/F5R9-U9LP].

263. *See* Stephen Danley, *The Camden Education Crisis We All Knew was Coming*, RUTGERS U.CAMDEN: LOC. KNOWLEDGE BLOG (Apr. 3, 2019), https://danley.camden.rutgers.edu/2019/04/03/the-camden-education-crisis-we-all-knew-was-coming/ [https://perma.cc/K5EZ-TFQH] (explaining the 27-million-dollar deficit is the start of "financial crisis" for the school district).

264. Greg Adomaitis, *How 1 N.J. District Has Beaten its Dirty Water Problem— for 14 years*, NJ.COM (Mar. 31, 2016), https://www.nj.com/camden/2016/03/this_nj_citys_school_water_crisis_predates_newark.html [https://perma.cc/7NDQ-CPW5].

265. *Id.*

266. *Id.*

267. Mike Maciag, *Why Camden, N.J., the Murder Capital of the Country, Disbanded Its Police Force*, GOVERNING (June 2014), https://www.governing.com/topics/public-justice-safety/gov-camden-disbands-police-force-for-new-department.html [https://perma.cc/AG8Q-E7CD].

268. *See* Jason Laday, *Camden Police Layoff Plan Approved by State, Layoffs to Begin April 30*, NJ.COM (Jan. 2, 2013), https://www.nj.com/gloucester-county/2013/01/state_approves_camden_police_l.html [https://perma.cc/7A4M-7MNQ] (explaining in 2013, 265 police officers lost their jobs).

269. *See* Matt Egan, *How Illinois became America's Most Messed-Up State*, CNNBUSINESS (July 1, 2017, 8:51 AM), https://money.cnn.com/2017/06/29/investing/illinois-budget-crisis-downgrade/index.html [https://perma.cc/HM3J-X2FP] (explaining Illinois' low bond rating and pension liabilities "signals a heightened risk of default").

essential services to meet obligations for pension funds.[270] While politicians are making efforts to close the underfunded pension gap,[271] if the economy falls into a recession, it is hard to imagine how New Jersey or Illinois will be able to handle their obligations as cities within the states are already essentially bankrupt.[272] Defaults have significant consequences for municipal bond investors, and if municipalities in New Jersey or Illinois file for bankruptcy, the cumulative effect on the market could be significant.[273]

VI. CONCLUSION AND RECOMMENDATION

Underfunded pensions diminish the safety of investments in municipal bonds in part because they lead to a lower prioritization for bondholders should the municipality file for bankruptcy.[274] As pensions are increasingly underfunded, ratings are lowered for the municipality's bonds,[275] creating higher interest rates for any debt issued by the municipality.[276] The higher interest rate means the municipality's debt

270. *See, e.g.*, Shields, *supra* note 102 (explaining that Illinois state mandate to increase its funding for pensions has caused municipal bond rating downgrades as well as cuts to essential services).

271. *See, e.g.*, Gregory Pratt, *Chicago Mayor Lori Lightfoot Holds Final Budget Town Hall on City's $838 Million* Shortfall, CHI. TRIB. (Oct. 2, 2019), https://www.chicagotribune.com/politics/ct-lori-lightfoot-final-chicago-budget-town-hall-20191003-pvytdkx4vfahbcbgix2utyos4y-story.html [https://perma.cc/YF7Q-PLBK] (outlining Mayor Lightfoot's budget meeting intended to solve the deficit problem caused largely by pension obligations).

272. Mennis, Banta & Draine, *supra* note 83, at 1.

273. *See* Krantz, *supra* note 159 ("Detroit's bankruptcy protection filing is introducing the word fear to the vocabulary of investors who have sought shelter in the municipal bond market.").

274. *See* Dick, *supra* note 145, at 77 ("Many chapter 9 debtors have simply chosen to be more generous to their employees and retirees, even if it requires cramming down a plan that severely impairs the rights of other creditors.").

275. *See, e.g.*, Robert Steyer, *Moody's Cuts New Jersey's Credit Rating on Budget, Pension Funding Concerns*, PENSIONS & INV. (Mar. 28, 2017, 1:00 AM), https://www.pionline.com/article/20170328/ONLINE/170329882/moody-s-cuts-new-jersey-s-credit-rating-on-budget-pension-funding-concerns [https://perma.cc/R77H-PDJZ] ("Moody's Investors Service cut New Jersey's general obligation bond rating by one notch due to 'the continued negative impact of significant pension underfunding, including growth in the state's large long-term liabilities, a persistent structural imbalance and weak fund balances,' the firm said.").

276. *See, e.g.*, Karen Pierog, *Illinois Hangs on to Low Investment-Grade Credit Rating*, REUTERS (June 4, 2019, 5:22 PM) https://www.reuters.com/article/us-illinois-ratings/illinois-hangs-on-to-low-investment-grade-credit-rating-from-moodys-idUSKCN1T52VX [https://perma.cc/5FXT-XBMK] ("The rating, which affects about $30.2 billion of outstanding debt, remains the lowest among U.S. states at a notch above the junk level due largely to Illinois' huge unfunded pension liability and chronic structural budget deficit.").

management obligation increases,[277] leaving less state revenue to deal with the pension shortfall.[278] In turn, a city ends up in a vicious cycle where its only means to catch up on pension contributions is to raise revenue with higher taxes or issue more debt.[279] In most cases, cities increase taxes to raise revenue that provides limited improvement in tackling the underfunded pension obligations.[280] Tax increases also drive residents to leave municipalities, resulting in a smaller base from which to raise revenue.[281] By the time a municipality files for bankruptcy, its underfunded pension obligation is massive, its crime and tax rate is high, and its essential services have faced major cuts and setbacks.[282]

The bull market has masked both pension insecurities and the insolvent cities within states.[283] Continued investment returns above 7% are unlikely as research firms call for a reevaluation of investors' expected yearly returns in the investment market.[284] With pension funds

277. Balcerzak, *supra* note 237.

278. *Id*.

279. *See, e.g.*, Rob Kozlowski, *Chicago Mayor Proposes $10 Billion in Bonds to Improve Pension Funding*, PENSION & INVS. (Dec. 12, 2018, 12:00 AM), https://www.pionline.com/article/20181212/ONLINE/181219858/chicago-mayor-proposes-10-billion-in-bonds-to-improve-pension-funding [https://perma.cc/T9XM-A9P9] (explaining that then-mayor Rahm Emanuel proposed issuing $10 billion in municipal bonds specifically to improve Chicago's pension funding); Shayndi Raice & Heather Gillers, *Chicago Mayor Searches for Answers to Gaping Budget Hole*, WALL ST. J. (Aug. 29, 2019), https://www.wsj.com/articles/chicago-mayor-faces-huge-budget-shortfall-11567079128 [https://perma.cc/FV39-6Z3V] (providing that Mayor Lightfoot proposes a variety of different taxes to ease to underfunded pension gap).

280. *See, e.g.*, Hal Dardick & Juan Perez Jr, *Despite Rahm Emanuel's Tax Hikes. City Pension Debt Grew by $7 Billion Since 2015. Here's Why.*, Chi. Trib. (Oct. 3, 2019, 9:57 AM) https://www.chicagotribune.com/investigations/ct-chicago-city-pension-fund-growth-20191003-tdb6ah5u6vdk7gh3zrn6p65wgu-story.html [https://perma.cc/6UB4-9M2V] (explaining that despite a "record-high" property tax increase, a water and sewer tax increase, and a higher 911 emergency fee pension, deficits have still grown).

281. *See supra* Part II.A.

282. *See, e.g.*, David Uberti, *The Death of a Great American City*, THE GUARDIAN (Apr. 3, 2014), https://www.theguardian.com/cities/2014/apr/03/the-death-of-a-great-american-city-why-does-anyone-still-live-in-detroit [https://perma.cc/FV39-6Z3V] (explaining the reasons Detroit failed).

283. *See* Anthony Mirhaydari, *Pension Plans Are in Trouble (and Tt's Going to Get wWrse)*, PITCH BOOK (Nov. 15, 2017), https://pitchbook.com/news/articles/pensions-plans-are-in-trouble-and-its-going-to-get-worse [https://perma.cc/B56U-UCJS] ("Many public and corporate pension plans are underfunded, with obligations outpacing assets, despite recently enjoying one of the greatest, most persistent equity bull markets in history.").

284. *See, e.g.*, Tim Koller, Mekala Krishnan, & Sree Raaswamy, *Bracing for a New Era of Lower Investment Returns*, MCKINSLEY & COMPANY (July 2016), https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/bracing-for-a-new-era-of-lower-investment-returns [https://perma.cc/J6V7-3F6W] ("We believe that this golden age is now over and that investors need to brace for an era of

relying so heavily on investments, if a recession were to occur and the assumed rate of return for pensions is forced below 5%, the underfunded portions of the most stressed funds would likely amount to unsustainable liabilities.[285] Municipalities within underfunded states may be left with no choice but to file for Chapter 9 bankruptcy to restructure debt.[286]

Nevertheless, municipal bonds can still be viewed as a positive investment for individuals because of their tax benefits and yield.[287] They are also useful tool for banks to purchase as assets for liquid capital purposes as well as income.[288] There are healthy, high-rated municipal bonds outstanding within states that are managing their pension funds responsibly.[289] However, the desire for "safe" risk-averse return in a low interest environment tends to push investors into less safe bonds that net a higher interest rate.[290] In these cases, investors should monitor the municipalities in which their investments are issued and follow the states' pension liabilities and reforms, because credit rating agencies look closely at a state's pension health when assessing ratings.[291] Credit agencies also use a lower discount rate when calculating a state's total pension liability;[292] therefore, numbers reported by the pension plan or media may not reflect the metrics the credit agencies apply.[293] A state rated a notch or two above investment-grade, like Illinois, is most vulnerable to a rating change, which would have a large impact on the pricing and liquidity of its issued bonds.[294]

Overall, municipal bond investors should heed the red flags of past bankruptcies and prepare for a higher default risk if the economy

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substantially lower investment returns… [and] project that total real returns in the next 20 years could be between 4.0 and 6.5 percent for US equities . . . .").

285. Cembalest, *supra* note 222.

286. Mennis, Banta & Draine, *supra* note 83 at 3.

287. *See* Bladridge, *supra* note 30 (explaining tax-benefits of municipal bonds).

288. *See supra* Part II.C.

289. *See* Pension Funding Gap, *supra* note 84, at 6–7 (explaining states like South Dakota and North Carolina are managing their pension funds appropriately).

290. *See supra* Part I.

291. Nolan, *supra* note 149.

292. *See* Healey, *supra* note 227 (explaining credit rating agencies find pension plans have larger total pension liabilities then the plans report, because they use a smaller discount rate).

293. *Id.*

294. *See*, *e.g.*, Karen Pierog, *Seller's Market Seen Aiding Illinois and Chicago Bond Issues*, REUTERS (Mar. 25, 2019, 6:05 AM), https://www.reuters.com/article/us-illinois-bonds/sellers-market-seen-aiding-illinois-and-chicago-bond-issues-idUSKCN1R60ZA [https://perma.cc/7KVE-BKA4] ("Budget measures, including the use of one-time revenue and a more than $800 million reduction in contributions to the state's woefully underfunded pensions, could push Illinois closer to a junk credit rating.").

slows or pension reforms fail to matriculate quickly enough to fix the massive pension liabilities facing some states and municipalities.[295]

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295. *See* Mennis, Banta & Draine, *supra* note 83, at 2–3 (explaining the future viability of vulnerable states with exceedingly large pension debts).

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