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Establishing Public Banks to Address State and Local Government Fiscal Problems

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Establishing Public Banks to Address State and Local Government Fiscal Problems



Senior Project Submitted to
The Division of Social Studies
of Bard College

by
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December 2016

Abstract

Unlike the Federal Government, which has the unique legal power to issue a national currency, state and local governments (SLGs) depend on their revenue capacity for spending. Thus, the quality of public services provided by SLGs depends on adequate, stable funding and long-term commitments. This paper begins with an evaluation of the general fiscal condition of SLGs, meanwhile discerning specific budget areas that have become particularly distressed, such as education, healthcare, and infrastructure. Chapter 3 deals with how SLGs engage in municipal finance with private financial institutions. Finally, the fourth chapter presents how arranging a system of public banks across the United States can help alleviate fiscal distress for SLGs and redirect credit to promote public welfare.

Acknowledgements

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Lastly, thank you to my beloved family. Mom and Dad, thank you for being the best role models anyone could ask for. Donald, thank you for your kindness and for being one of the only people I can confide in. All of your unconditional love motivates me to work hard so that I can begin to repay you for all of the sacrifices you have made for me.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	4
CHAPTER 2: FISCAL DISTRESS	6
Budget Surplus/Deficit	6
Expenditures	11
Revenue	16
Summary	18
CHAPTER 3: STATE & LOCAL GOVERNMENT MUNICIPAL FINANCE	19
Municipal Bonds	19
Pension Liabilities	21
Predatory Private Finance	26
Failed Infrastructure Deals	27
Interest Rate Swaps	29
Capital Appreciation Bonds	35
CHAPTER 4: PUBLIC BANKING AS AN ALTERNATIVE	37
Case Study: Bank of North Dakota	38
Literature Review	45
Market Shortfalls	47
Establishing State Banks	49
Summary	55
CHAPTER 5: CONCLUSION	58
BIBLIOGRAPHY	59

Chapter 1: Introduction

State and local governments (SLGs) have the right to tax their population in their promises to provide and maintain essential public services. Unlike the Federal Government, which has the unique legal power to issue a national currency, SLG spending depends on their revenue capacity. Thus, the quality of public services depends on adequate, stable funding and long-term commitments. Funding problems (coupled with morally-absent public officials) can lead to emergencies, such as the recent water crisis in Flint, MI, in which the city switched water sources to reduce the shortfall in their water fund.¹

According to the Obama administration, the US has come a long way since the Global Financial Crisis (GFC), noting extensive job growth over 75 straight months and a 75-percent reduction in the annual Federal Government budget deficit.² US corporations are once again making record profits while financial markets are undergoing the second-longest bull market ever, though, they seem to be the only major beneficiaries of the recovery.³ Wage stagnation and worsening inequality is burdening the working classes, especially those living in poverty, as Americans are working longer hours for relatively less pay all while the cost of living becomes evermore expensive.

Occupy Wall Street is one of among several movements that protested growing inequality and rampant white-collar crime after the GFC, albeit with little success. Much of the outcry focused on the fraudulent and unethical behavior of large private financial firms, realizing how the US economy has become dominated by financial rent-seekers trying to extract wealth from the bottom quintiles through debt servitude. Governments can also fall into a debt trap, such as the seemingly perpetual debt that Greece owes to the Troika. SLGs in the US are in a similar predicament, as they too must find revenue to pay excessive interest and fees to creditors. One way to counter the current system of predatory private finance is to develop an alternative mechanism for municipal finance based on a public-utility model of egalitarian and environmentally responsible principles.

This paper begins with an evaluation of the general fiscal condition of SLGs, meanwhile discerning specific budget areas that have become particularly distressed, such as education,

healthcare, and infrastructure. Chapter 3 deals with how SLGs engage in municipal finance with private financial institutions. Finally, the fourth chapter presents how arranging a system of public banks across the United States can help alleviate fiscal distress for SLGs and redirect credit to promote public welfare.

Chapter 2: Fiscal Distress

The National Association of State Budget Officers 2013 Fiscal Survey of the States leads the executive summary with, “...fiscal distress is finally beginning to subside for most states.” There are several ways to tackle this qualitative question. This chapter will assess whether SLGs are under fiscal distress, and to what extent that has had an effect on public institutions and welfare. One method to assess fiscal health is to analyze the surplus/deficit of SLGs – the annual balance of inflows and outflows – and discern expenditure trends in comparison to revenue capacity. Another way is to evaluate SLG receipts of federal assistance, which may signal a lack of ability on behalf of SLG to fulfill obligations. Yet another method would be study the financial performance of SLG using a variety of measures, such as liquidity tests, municipal bond ratings, debt-to-income ratios, and coverage of fixed obligations (e.g. pensions).

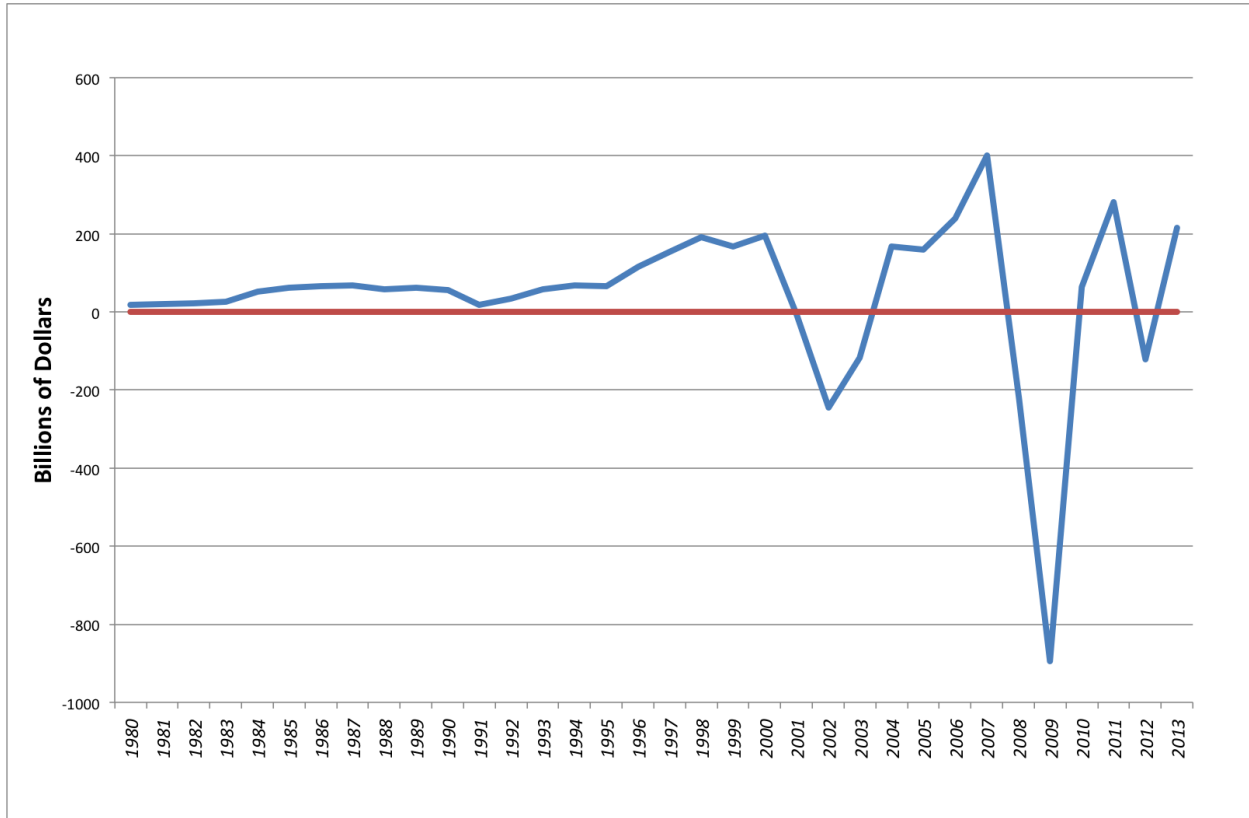
Of course, all of these approaches have their flaws, as they are based on different sets of data coupled with statistical problems. There are countless differences among cities now and in the past, not to mention overlapping jurisdictions, and institutional idiosyncrasies. Different budget items may be managed by different state agencies, which could discrepancies simply due to accounting methods. We must be cautious of statistical incomparability between individual state and local governments and the aggregate numbers. Nonetheless, this chapter will synthesize all of these techniques to survey the fiscal health of SLG, while mentioning the strengths and weakness of such analyses.

Budget Surplus/Deficit

Ten years later and the world is still recovering from the GFC, which wiped out upwards of \$19 trillion of household wealth in the United States alone.⁴ According to U.S. Census Bureau data from the 2012 Census of Governments, between 2007 and 2012, total expenditures for state and local governments increased by 18.2 percent, from \$2.7 trillion to \$3.2 trillion, while total revenue declined 1.1 percent, from \$3.1 trillion to \$3.0 trillion. Moreover, in the same five-year period, total assets decreased to \$5.3 trillion from \$5.4 trillion, while total debt increased to \$2.9 trillion from \$2.4 trillion. Much of the shortfall in the years around the GFC can be explained by

drained SLG tax capacity and inflated expenditures due to automatic stabilizers (e.g. unemployment compensation). Thus, SLGs are fiscally distressed when total expenditures exceed total revenues (i.e. when there is a deficit), in which case they would have to use rainy day funds or implement austerity (raise taxes and cut spending) since they cannot issue their own currency like the Federal Government can.

Figure 1 – State and Local Government Surplus/Deficit



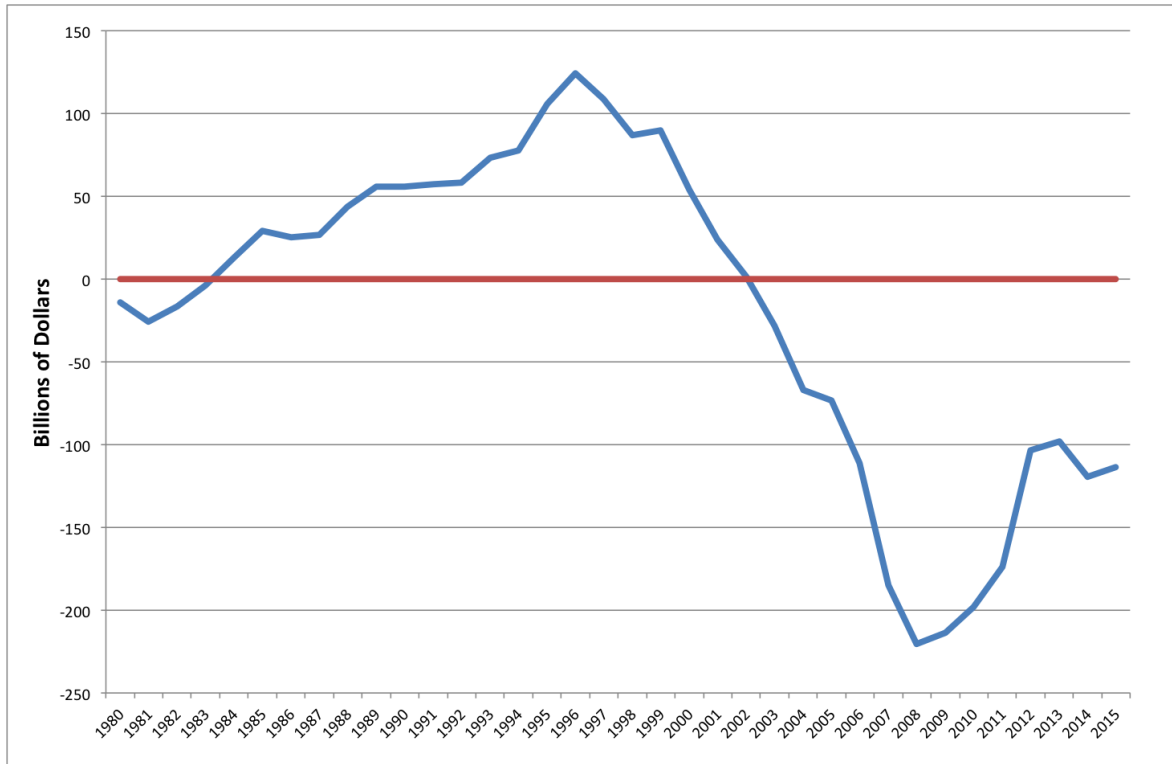
Total revenue minus total expenditure (Census numbers)

Source: <https://research.stlouisfed.org/>

Figure 1 suggests that SLG are back in fiscal health since the GFC, reporting a surplus of \$215.4 billion in 2013. By the same logic, SLG would seem to be fiscally healthy should total revenue exceed total expenditures, thus accumulating cash reserves or an amount available to subsidize future tax reduction. However, before we interpret a surplus as a signal of fiscal health we must consider how the surplus is measured. If a surplus means a positive the level of reserves we must then narrow our revenue measurements appropriately. Total SLG revenue as reported by the Census Bureau includes additions to the assets of state and local government pension funds. However, they should not be considered revenue for general government operations since

pension funds are owed to individuals, not the SLG government. Subtracting pension fund surpluses from total SLG revenue yields general government revenue; although this is a better measure of fiscal health, it is still flawed in measuring the amount of free reserves available.

Figure 2 – SLG Operating Surplus/Deficit

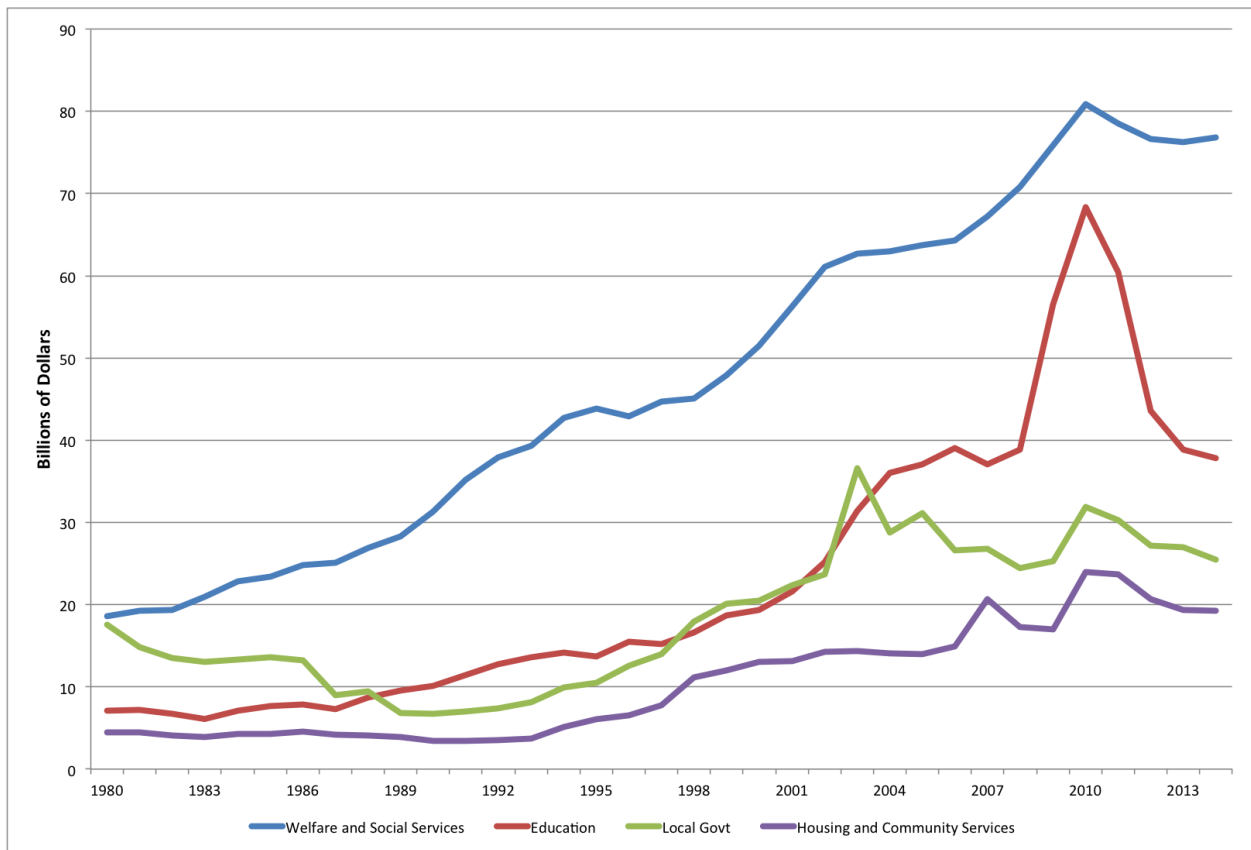


Source: <https://research.stlouisfed.org/>

The general government surplus includes both current and capital expenditures, but only a portion of capital financing (i.e. it includes capital grants, but not net borrowing). Therefore, a positive general government surplus is interpreted as, “the excess of current revenues and grants over all current and capital expenditures.”⁵ [Bahl 1984, p. 37] In other words, whatever revenue is left over can be used for debt retirement or to accumulate reserves. A general government deficit would require SLG to raise revenue (taxes, fees, etc.) or borrow funds to cover capital expenditures. Figure 2 is a better representation of SLG fiscal health by eliminating the aforementioned measurement flaws. Essentially, an operating surplus represents the amount available to finance capital expenditures, reduce taxes, raise expenditures, or accumulate reserves. Rather than having a surplus in recent years, which Figure 1 suggests, SLGs have been

operating in deficit ever since the commodity bubble of 2001. Moreover, SLG budgets have been stagnating in deficits in the past few years, unable to reach balance. SLG budgets were hurt more by the recession than they were helped by the subsequent stimulus. Whatever reserves were accumulated in prior expansionary periods were most likely wiped out by the GFC. SLG have not recovered the provision of resources for critical areas that were cutback in the recession, as they are still about \$8 billion short from a balanced operating budget in 2013, which could mean they are having trouble returning to an operating surplus on their own.

Figure 3 – Federal Grants-in-Aid to SLGs



Source: <https://research.stlouisfed.org/>

Surely the federal government must be aware of its subsector fiscal distress. Indeed, much federal aid was provided to SLG in the American Recovery and Reinvestment Act of 2009, which allocated \$144 billion, or 18% of the total package, to state and local fiscal relief. Figure

3 delineates historical data of federal aid allocated to SLGs, showing increased aid when SLGs needed to secure income, transfer payments, and housing and community services. All three areas saw a sharp uptick in federal aid after the GFC, while generally rising on trend. From 1992 to 2013, revenue from the federal government grew approx. 4 percent as a share of SLG general revenue, from 18 to 22 percent. These findings do not necessarily mean the Federal Government is increasingly trying to rescue SLGs. Federal aid has tapered in recent years, which implies that SLGs have recovered and found some stability. Some SLGs have received less support from the Federal Government. Federal aid for New York has shrunk as a share of revenues for local governments; total federal and state aid combined grew at an average rate of 2.2 percent annually from 2001 to 2011, slower than the rate of inflation (2.4 percent).⁶ Communities would have been hit much harder had the federal government not intervened. It is worth noting that the amount of federal aid given to SLGs after the crisis pales in comparison to the assistance given to megabanks by the Federal Reserve.⁷ While it is good that the Federal Government is increasingly spending on welfare and social services, such a trend may be signaling a deterioration of job and income security. Besides the states with unique advantages (e.g. North Dakota's oil endowment), SLG budgets are spreading thinner and thinner.

Unlike the federal government who issues its own currency, SLGs need revenue to finance spending. Therefore, SLG resort to spending cuts, federal aid, and or borrowing to meet their obligations when they experience shortfalls in the operating budget. Borrowing money over the short-term can be a temporary solution to minor budget problems, but extended shortfalls cannot be solved by continued borrowing and have real implications for communities; pension contributions are not met, infrastructure deteriorates, and public school budgets are cut. Some SLG are even prohibited by law against budgeting for an operating deficit. If austerity and borrowing do not work and the city no longer has enough funds to meet its obligations, the situation can escalate into a crisis or financial emergency, such as defaulting on a bond payment or, filing for Chapter 9 bankruptcy protection. Collapsed revenue sources also have significant ramifications for SLGS, which was the case during the GFC when property tax revenue was wiped out.

While operating deficits signal fiscal distress, an operating surplus may represent (an attempt to return to) fiscal health, enabling SLG to build up cash reserves for precautionary

reasons, such as natural disasters or fluctuations in the business cycle, to retire debt, or to develop human capital and infrastructure. However, an operating surplus for a number of SLG does not imply a healthy fiscal position for all SLG. A surplus in one state may be offset by a deficit in another, and it is possible for an aggregate surplus to exist even if most SLG are financially distressed. Similarly, a state may report a surplus while many of its local governments face fiscal troubles. Excess revenue does not necessarily indicate fiscal health, as it could have been the temporary result of service cutbacks, reductions in capital expenditures and employment, and or deferred compensation. Nonetheless, although looking at the aggregate operating surplus/deficit can hint to the fiscal status of SLGs as a whole, a closer look at the budgets is necessary to better determine the extent of their fiscal distress.

Having looked at SLG budgets as a whole, the next step is to build an understanding of the key budget items that are driving SLG into surplus/deficit. While it is important for SLGs to financially plan for adequate funding sources, attention is directed to expenditures before revenues in the budgetary process, as appropriation bills precede revenue bills in legislatures. If SLG cannot raise the appropriate funds by taxation, other sources of revenue must be found.

Expenditures

Education is the largest budget item for state and local government, representing 27.6 percent of expenses in 2012, according to the aforementioned Census report. Direct expenditure on education is an even greater portion of local government budgets in particular, on average representing 40 percent of total local government expenditures. In 2013, expenditure for education increased by 1.8 percent, to \$599.2 billion from \$588.3 billion in 2012. However, such increases in spending are not going towards improving the infrastructure of education. Rather, from 2007 to 2012, capital spending for education fell 7.9 percent, from \$91.7 billion to \$84.5 billion, with most of the decline occurring in elementary and secondary education.⁸ Thus, the United States seems to be spending more on education to make up for massive cuts to payrolls and resources after the Global Financial Crisis.

Table 1: Rate of growth total revenue (TR) per pupil and total expenditure (TE)

	2012-2013	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008
TR per Pupil	0.2%	0.5%	0.5%	1.8%	3.0%	6.1%
TE per Pupil	1.2%	0.8%	0.3%	1.7%	3.6%	6.4%

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey (State Fiscal)"

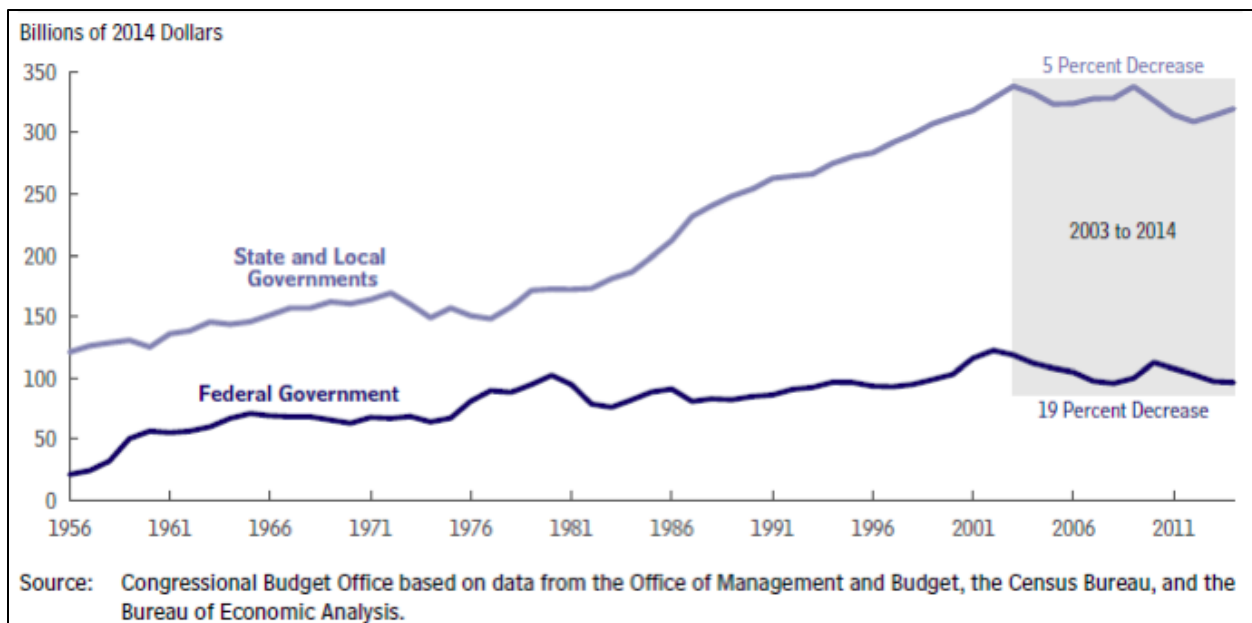
Table 1 shows the growth of total expenditures per pupil exceeds that of total revenues. Rising costs of education are likely to continue in the future, and the stagnation of revenue from education only worsens fiscal strain on state and local governments. Downsizing usually solves funding problems, since education expenditure is mostly for instruction (teacher salaries, textbooks, etc.).⁹ A survey conducted by the Center on Budget and Policy Priorities found that at least 31 states provided less state funding per student in the 2014 school year than in the 2008 school year, while the cuts were over 10 percent in at least 15 states.¹⁰ It has been hard for local governments in particular to raise revenue for education without raising property taxes, considering the fact that, on average, around 46 percent of school revenues in the United States come from state funds. Thus, spending cuts at the state level force local governments to downsize to cover budget gaps. Although education expenditures are growing faster than revenue, the size of the education budget is kept under control. SLGs are the beneficiaries of federal grants for education; the Office of Management and Budget projects education spending for elementary, secondary, and higher education to account 6 percent of total federal discretionary spending in 2015.

SLG budgets are more vulnerable to the expenditures that are not so readily controlled. Public welfare expenditure, consisting of social services and income maintenance, is the second largest budget item for SLGs. According to the 2012 Annual Survey of State Government Finances, total spending rose from \$384.6 in 2007 to \$485.6 billion in 2012, or 26.2 percent, while unemployment compensation expenses more than tripled, from \$28.9 to \$95.6 billion. [ibid] Some states fared worse than others; from 2007 to 2012 spending on public welfare increased at a higher rate on average in Oregon (52.2 percent, from \$3.8 billion to \$5.8 billion) than in any other state, while Texas closely followed (51.3 percent, from \$20.4 billion to \$30.8 billion). Surely welfare programs that provide housing, food, and childcare are expensive, but

being thrifty in this case would result in homelessness, malnourishment, and worse. Controlling public welfare costs is not easy, as aid takes the form of highly mobile, electronic transfer payments (e.g. a social security check, a debit card for groceries). Moreover, high welfare payments can attract people from less generous regions, thereby increasing program participation and costs. For these reasons the Federal Government provides much aid to SLGs for welfare, approximately 20 percent of total federal spending whereas education accounted for one percent.¹¹ Indeed, the federal government takes most responsibility (and should do so for highly-mobile capital) for public welfare through programs like Temporary Assistance for Needy Families that gives states a fixed block grant totaling \$16.5 billion each year.¹² The portion of low-income residents in a state is included in the formula used to provision federal grants. A larger population of lower-income residents could mean a city or state is in fiscal distress, given a lower tax capacity and higher spending requirements. Public welfare would pose a much more serious fiscal challenge for SLG without the federal government stands ready to support them. Certain types of federal grants require states to match funds for certain programs, like Medicaid.

Health care is another large, fast-growing budget item; according to NASBO's 2013 *State Expenditure Report*, 19 percent of general fund expenditures went to Medicaid, growing across the nation at a compound rate of 4.1 percent from 2000-2012.¹³ Health care is particularly expensive in the United States and represents a large burden of debt for many Americans. In 2013 alone almost 2 million people defaulted on their unpaid medical bills, "making health care the No. 1 cause of such filings, and outpacing bankruptcies due to credit-card bills or unpaid mortgages."¹⁴ SLGs are under much fiscal stress from rising health care costs strain resource allocation, especially those with large populations of lower-income residents, despite the federal government's help through Medicare and Medicaid. Indeed, many states are experiencing relatively high growth rates for Medicaid expenditure, which will surely compound into much fiscal strain on budgets as health care becomes a larger part of state budgets. SLGs cannot individually manage healthcare costs by forgoing expansion, slashing payrolls, or cutting benefits, as the true solution involves transforming the U.S. health care system.¹⁵

Figure 4 - Public Spending on Transportation and Water Infrastructure

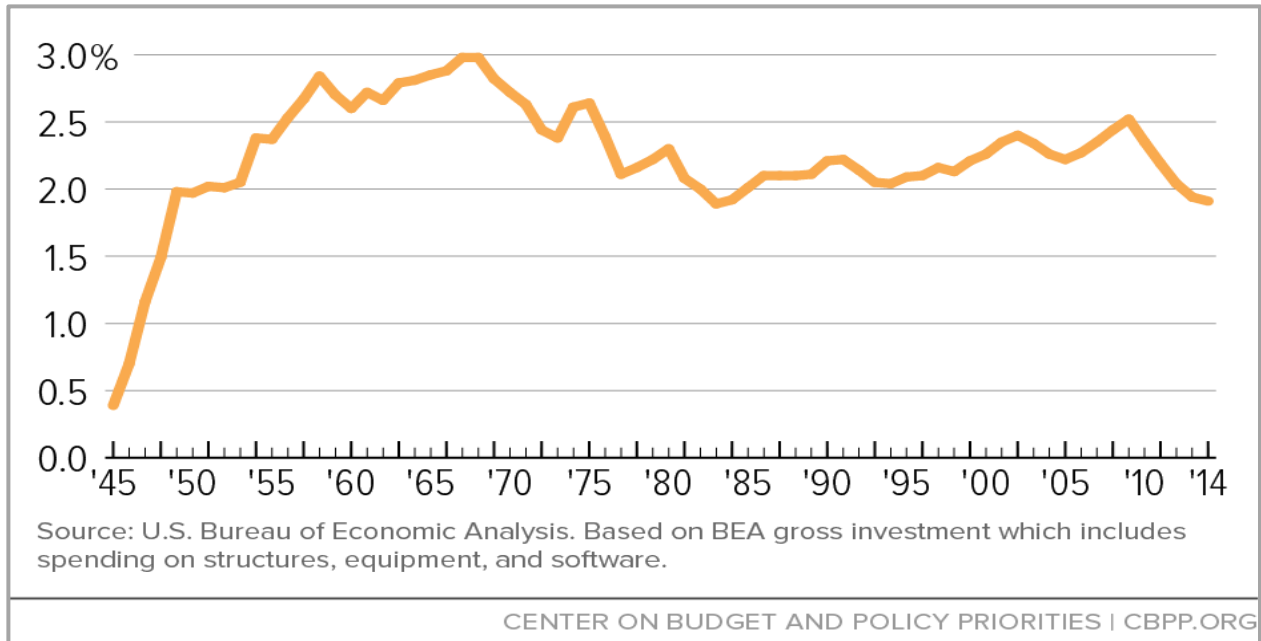


While the few largest budget items for state and local governments - education, public welfare and health care - do not imminently jeopardize fiscal health, these expenditures are still growing quite fast relative to revenue sources. Such trends in large expenditures result in more attention and resources being diverted from other important obligations. So far much of this section has focused state and local government budget items in which spending has increased substantially. Yet, there are important functions that have been deeply neglected, such as infrastructure. It is no secret that America's infrastructure has been in decay, receiving a D⁺ rating from the American Society for Civil Engineers.

SLGs have been neglecting their infrastructure, as Figure 4 shows prolonged stagnation in spending along with federal grants since the turn of the century. Such negligence speaks to economic instability in the last decade. State and local governments understand the condition of roads, bridges, schools, water and waste treatment plants, and other physical assets influences economic efficiency and growth. Indeed, state and local governments own over 90 percent of non-defense public infrastructure assets.¹⁶ Alas, infrastructure projects fall in priority to more pressing budget concerns. There is a huge tab - ASCE estimates \$3.6 trillion of investment is needed by 2020 – and spending levels as a share of GDP have hit 30-year lows, as shown by

Figure 5. Although neglecting infrastructure does not signal fiscal distress, it does reflect increasing short-termism and pressure on budgets.

Figure 5 - SLG Capital Spending as a share of GDP



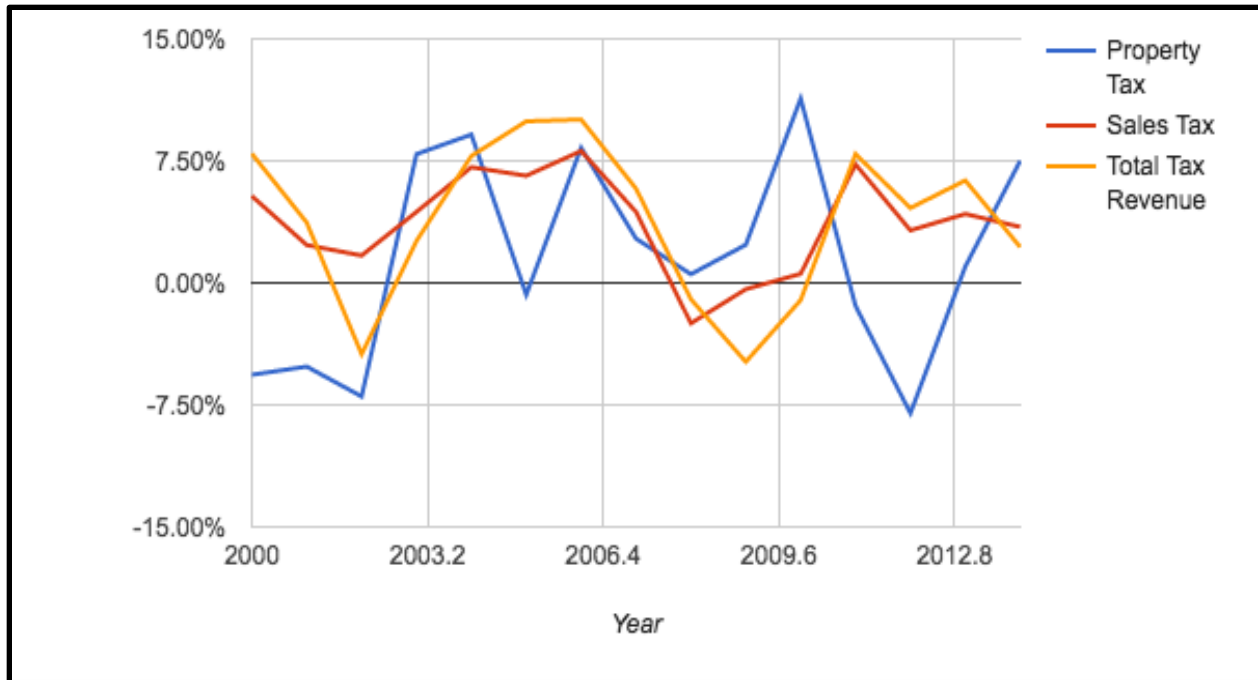
Nonetheless, spending trends in education, public welfare, Medicaid, and infrastructure spending point to fiscal troubles, as vital state and local government functions are being neglected and becoming more expensive. Even small economic shocks may become devastating as SLG budgets become increasingly fragile.

Revenue

SLGs must find additional revenue to finance their ever-increasing expenditures. Typically the main sources of revenue for SLG are taxing property, income, and sales. According to the 2013 Annual Surveys of State and Local Government Finances, taxes represented on average 54 percent of total general revenue for SLGs in the aggregate. One form of tax may be more appropriate than another depending on the demographic and institutional structure of SLG. Progressive taxation, in which higher-income people pay higher taxes so as to redistribute income to lower quintiles, has long been a controversial topic regarding economic inequality. On the other hand, regressive taxation seeks to tax the broader population, thereby extracting more from lower-income people relative to the rich.

Particularly southern states had imposed laws requiring a supermajority vote to change property taxes. In efforts to balance budgets and restore fiscal health, states (Mississippi being the first in 1932) began to extract sales taxes. Headlines read, “House Passes Bill to Insure Relief for Property Tax Payers.”¹⁷ Indeed, regressive taxation sparked class politics, labeled as another attempt by the wealthy to escape paying their fair share and passing the burden unto the poor. Indeed, a recent trend for many states is the increase of sales taxes; two dozen cities and counties in Illinois did the same to fund infrastructure work.¹⁸ SLGs are usually hesitant to change property taxes in fear of businesses and landowners – important revenue sources – leaving. They try hard to persuade companies to settle in their jurisdiction or negotiate with existing companies to stay so as to provide jobs and gain tax revenue, using property/income tax breaks as bargaining chips. Instead, placing the tax at the bottom of receipts makes less noise. However, states concerned with keeping the level of poverty at a minimum should not look to increasing sales taxes as a budget solution, as the burden of the sales tax is heavier for lower-income populations.¹⁹ Alas, the demand for more government spending surpasses the tolerance for higher taxes. These sources of revenue are also cyclical in nature.

Figure 6 - Percentage Movement of SLG Tax Revenue



Source: Census Bureau, State and Local Government Finance

Figure 6 reveals the volatile movement of taxes, as each source of revenue is affected by booms and busts. Indeed, much of the deficit accumulated during the GFC was due to automatic stabilizers, mainly collapsing property tax revenue and ballooning welfare expenditures, but also due to falling sales tax revenue as household savings rates rose to service debt. Such volatility in revenue surely places state and local governments in fiscal distress, considering their budget constraint as a currency user. Government capital projects require fiscal planning and confidence in future revenue streams. When tax revenue falls precipitously, state and local governments must rely on emergency funds and the benevolence of the Federal Government. Thus, SLGs have a hard time achieving fiscal stability, as they are subject to the whims of business cycles. Corporations (e.g. General Electric) have demonstrated they will move business operations elsewhere if terms with the state or local government are not to their liking.²⁰ Additionally, American jobs are easily exported in today's global business landscape, thereby reducing tax capacity.

Summary

Overall, revenues have shown to lag behind the growth of state and local government expenditure for education, welfare, healthcare and infrastructure. Moreover, considering the limitations in changing and extracting taxes, revenue is pro-cyclical, thereby adding uncertainty to medium- and long-term government projects. Meanwhile, SLGs compete with one another to secure existing and new revenue streams by auctioning tax/economic incentives to corporations. The extent of these budget challenges suggests that SLGs are under fiscal distress. Municipal finance is another source of funds available for SLGs, which allows them to avoid raising taxes or cutting spending immediately. The next chapter will explore how SLGs practice municipal finance and the implications of such obligations. There we find how increased financialization has put public funds at risk.

Chapter 3: State & Local Government Municipal Finance

Debt is an attractive option for state and local governments looking for additional funds, given the limitations of other revenue sources, such as the political obstacles in raising taxes. However, debt comes with significant implications for SLG as currency users, that is the requirement to find revenue to service the debt. We must keep in mind that the ability of a SLG to fulfill debt obligations depends on their revenue capacity, since they cannot issue their own currency. This chapter begins with a look at the different debt instruments available for SLGs, and how credit has become increasingly important for budget relief. Moreover, the financial instability of SLGs will be evaluated, which we find to largely be the fault of predatory behavior from Wall Street banks, right now the main source of credit for SLG.

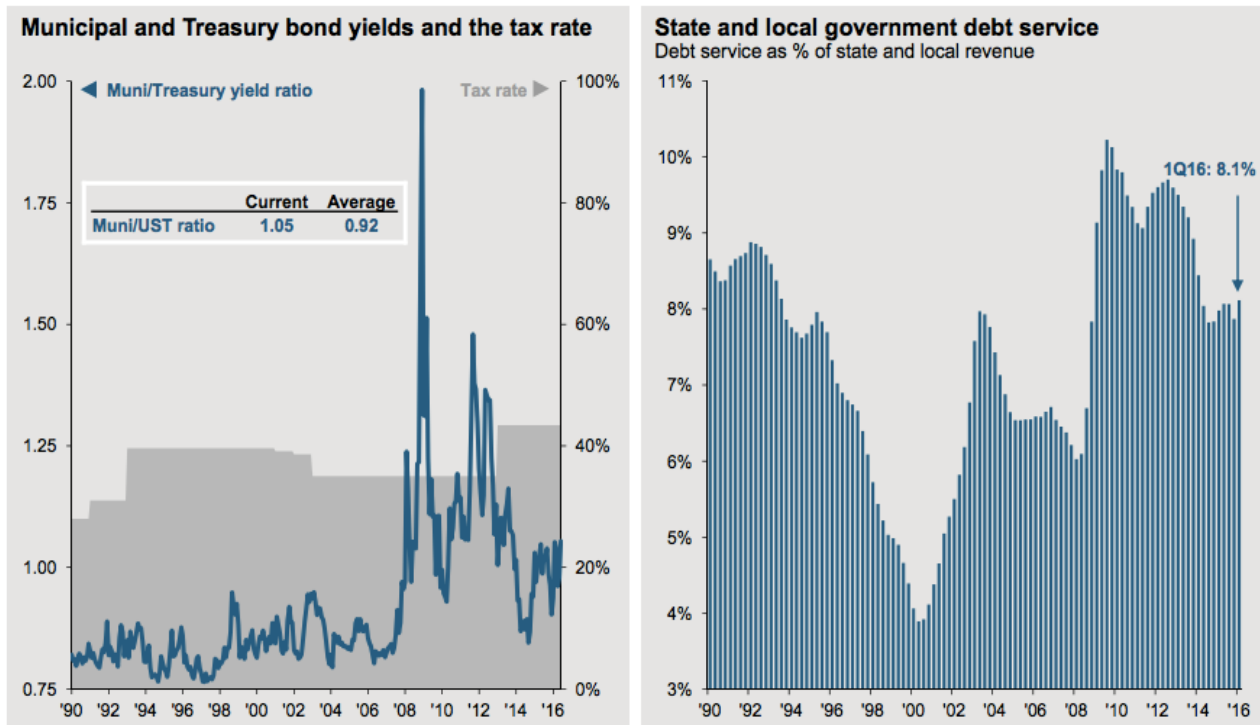
Municipal Bonds

Issuing bonds is an appropriate source of funding for long-term capital projects, as SLG contractors are paid over a number of years for projects that will mainly benefit future generations. Municipal bonds are also attractive to high net-worth individuals seeking tax-exemptions. For example, some investors have been willing to accept interest payments of about 2 percentage points lower than different bond classes on the current tax exemption offered by Minneapolis municipal bonds.²¹ Another demand factor is the credit rating of a particular SLG. Credit risk is often evaluated using the ratings produced by private companies (e.g. Moody's, Standard & Poor), which were found to be fraudulent in the wake of the GFC. Again, considering the budget limitations of SLGs, municipal bonds are not default-proof. Thus, a scenario like the one (wrongly) predicted by Meredith Whitney could occur.²² Investor faith also depends on the expectation of the federal government intervening when SLG solvency is threatened to recover bond payments.

There are limits to debt issuance, as politicians have an incentive to issue far too much because it allows spending without the political constraint of having to tax current voters. From the taxpayer's perspective, debt financing should be limited to long-term capital projects that will provide benefits across generations. An important implication of SLG debt is that, "Either under

standard practice or as required by law or ordinance, debt service most often must be paid first before covering all other expenses of state and municipal governments.”²³ Taxpayers are below bondholders and other creditors in the capital structure, hence they are usually left most of the financial burden should troubles arise in a state or local government’s ability to meet its debt obligations.

Figure 7 - SLG Municipal Finance



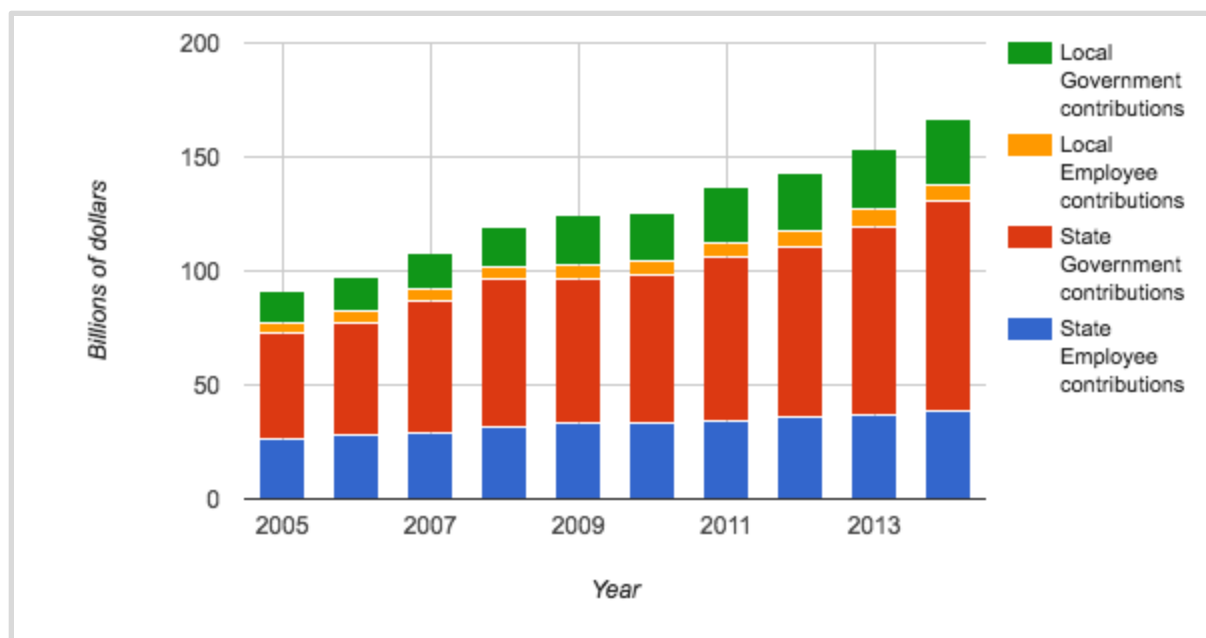
Source: J.P. Morgan Asset Management; (Left) FactSet, Barclays, FRB; (Right) BEA. Guide to the Markets – U.S. Data are as of June 30, 2016.

SLGs have become increasingly burdened by debt, as the total amount of municipal bonds is approaching \$4 trillion in size. [sifma.org/research/statistics] Figure 7 shows more SLG revenue is going towards servicing debt in the last decade, which means less spending for community development, less income for public employees, and more retirement anxiety. Many SLG are still overwhelmed by the large amounts of debt undertaken during and after the Global Financial Crisis. From 2012-2013, Texas had the largest rate of increase in state and local government outstanding debt, from \$186.7 billion to \$270.7 billion (45.0 percent), meanwhile debt rose in the District of Columbia and every state except for Alaska and Montana. [ibid] It is

worth noting that debt service ratios tend to rise sharply during economic crises due to a combination of collapsed revenue and more debt. Most of this debt is in the form of SLG bonds outstanding, although bonds are not the only form of SLG debt owed. The majority of states limit general obligation bonds, a standard financial tool for the public, to either an absolute number or relative to income, current revenues or the general fund.

Pension Liabilities

Figure 8 - Pension Funding Ratios by State



Source: US Census Bureau

An immense pool of resources, total pension obligations across the United States exceeded \$3.79 trillion in FY 2014, representing over 20 percent of GDP that same year. Public pensions are threatened to the extent that their assets are unable to meet future liabilities at a discount rate without either huge investment returns or cash injections. When pension funds experience falling returns or stagnating revenue while liquidity needs increase as a result of future retirements, state and local governments may not be able to continue contributing enough. They may also feel pressured to invite risk to improve the yields of investment portfolios and find their way out of the financial crisis.

Figure 8 shows us that employee contributions to both state and local government pension funds have stagnated for the past decade, which speaks to how real wage growth (income revenue growth) has remained flat. On the other hand, state and local government contributions have risen since the passing of the GFC, giving the impression of recovery, yet it is not so clear that such a trend indicates fiscal health. Many states pension funding ratios fell below 80 percent, suggesting that pension funds are being squeezed.²⁴ Indeed, the state pensions with the lowest funding ratios (i.e. CT, NJ, IL, KY) have been recently facing fiscal distress. Connecticut has recently watched General Electric leave and is currently facing a \$266 million shortfall for fiscal 2016; it is even trying to tax Yale's endowment for additional revenue.²⁵

According to census accounting conventions, unfunded retirement obligations are not included in the total debt reported by state and local governments. Surely public employees expect their full payout from the government, so states must have stable income to meet such scheduled obligations. Unlike the case for Social Security, a federal program, state and local government pension funds cannot always pay any bill when it comes due. Subsector governments cannot consistently tolerate lackluster investment returns, nor continually fail to make required contributions, or else fund solvency and credibility are threatened. Pension contributions must continue grow in order to fill the large funding gap. Under current accounting standards used by public pension funds, the total value of unfunded liabilities is calculated by discounting total liabilities using the assumed return on the investments held by the plan. Based on this method, "state and local plans today are about 74 percent funded and have unfunded liabilities of about \$1.4 trillion."²⁶ However, corporate pension plans are not allowed to discount their liabilities using an assumed return on investment, nor can most public employee pensions in other countries. If state and local government pension plans were to change their method according to the recommendations of the Actuarial Standards Board, which discounts the plan's future benefit payments using the interest rate from a risk-free investment (e.g. Treasury bonds), the total value of unfunded liabilities would be closer to \$5 trillion, with funding ratios of just 39 percent. Thus, pension funding may be in worse shape than SLGs tend to report.

Meanwhile, employee retirement revenue collapsed (dropping 67.7 percent, from \$533.3 billion to \$172.0 billion) alongside interest earnings (falling 44.6 percent, from \$91.9 billion to \$50.9 billion).²⁷ Many cities and wealthy towns throughout New York, such as Southampton,

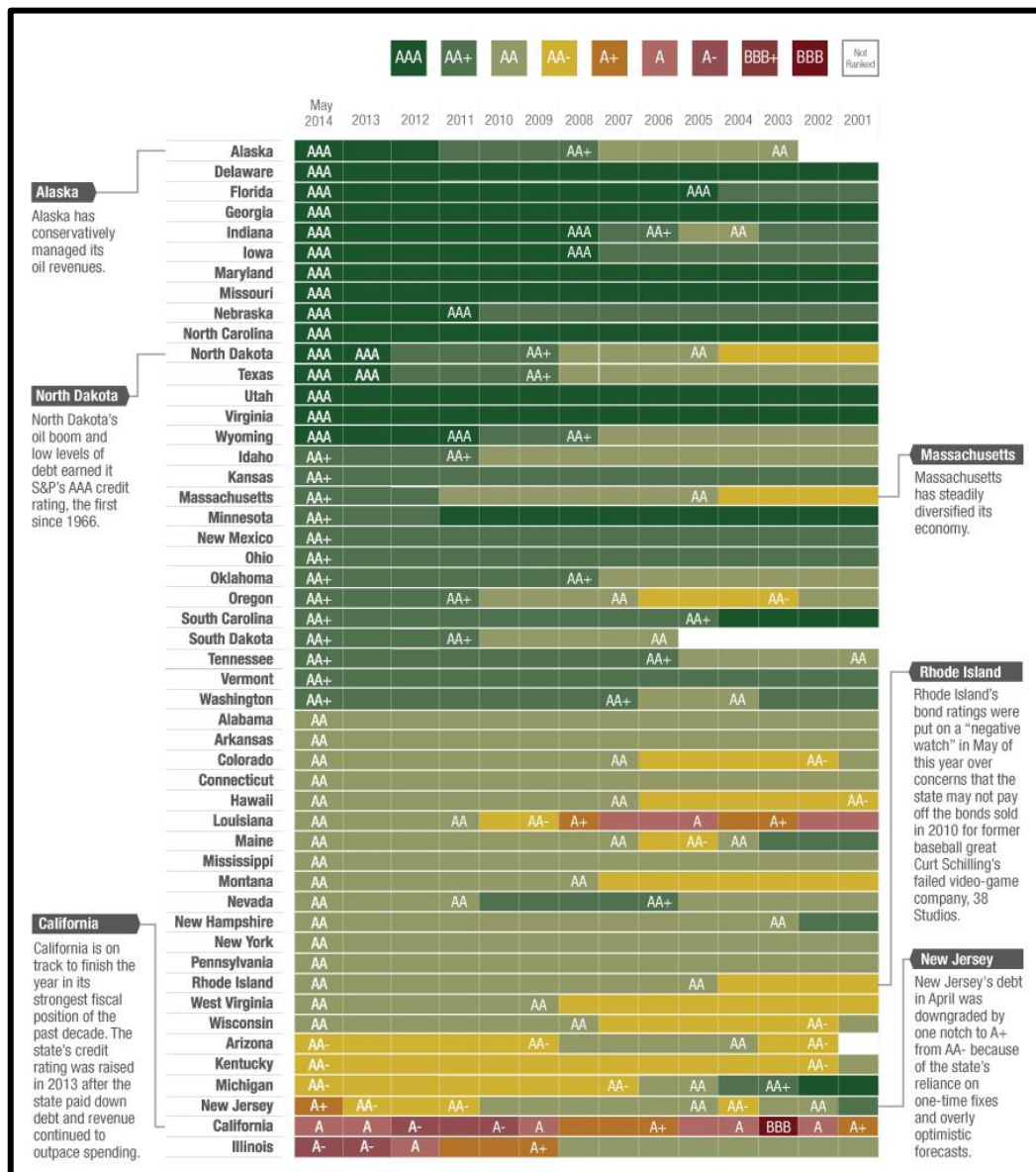
East Hampton, Nassau and Suffolk, and major public employers like the Westchester Medical Center and the New York Public Library, “...are all managing their rising pension bills by borrowing from the very same \$140 billion pension fund to which they owe money.”²⁸ Essentially, New York’s borrowing plan allows public employers to reduce their short-term pension contributions in return for higher payments later on. The eagerness to borrow on behalf of state and local governments speaks to their struggle in meeting pension obligations. However, using debt as a budgetary sleight-of-hand is not wise and threatens the long-term solvency of these funds, especially if a state is betting that the performance of financial markets will improve later on to the extent required to ease funding concerns.

Unfunded liabilities have become a significant share of gross state product (GSP), exceeding 10 percent in Mississippi, Kentucky and Illinois. Plenty of states are behind on funding levels, as only Arkansas, Mississippi and Tennessee paid their actuarially required contribution in FY 2010, meanwhile Kentucky contributed only 58 percent of what was necessary. Illinois, Missouri and Kentucky all contributed less than what was required for the majority of the past 14 years. Therefore, if rates of return are lesser than what was assumed, due to either market corrections or recessions, the amount of unfunded liabilities may increase. For example, CalPERS reported a meager 0.6% total investment return for the 2015-2016 fiscal year, compared to its return assumption of 7.5%. Not only is CalPER’s assumption rate abnormally high, especially considering the low-rate environment maintained by central banks across the globe, they have also tried to mislead their beneficiaries (and taxpayers) about its investment returns by selectively reporting performance so as to maintain appearances.²⁹

The St. Louis Federal Reserve bank recognizes the recent investment landscape has been characterized by exceptionally low returns on investment (ROI). At the trough of the GFC in FY 2009, median investment returns across public pension systems was –19.1 percent, surely putting a large dent into investment strategies and portfolios. The Illinois State Employees' Retirement System (SERS) only yielded 3.1 percent over the five-year period ending in FY 2011, whereas it had assumed a noble rate of return of 7.75 percent over the same period (most public pension systems used to assume an 8 percent rate of return on investments). Since around 80 percent of aggregate public pension revenue in FY 2011 came from investment returns, lowering return assumptions will significantly increase estimates of unfunded liabilities.³⁰ More than two-thirds

of state retirement systems have been cutting ROI assumptions to their lowest levels since the 1980s, “a shift that portends greater hardships for employees and cash-strapped governments as Americans age.” Even slight cuts to ROI assumptions results in workers being asked to pay significantly more for retirement; according to Jean-Pierre Aubry, assistant director at the Center for Retirement Research at Boston College, a drop of one percentage point in the assumed rate of return may boost pension liabilities by 12 percentage points.³²

Figure 9 - State Government Credit Rating 2001-2014



Plan sponsors are concerned by new pension reporting rules mandated by the Governmental Accounting Standards Board's (GASB) Statement No. 68. Since June 15 2014, state and local balance sheets have been required to reflect unfunded pension liabilities, moving such information from the footnotes to the forefront. Looming solvency threats may do damage to a state's credit rating, therefore quick action (or creative budgeting) is necessary to prevent credit degradation. Illinois has faced several credit downgrades over the past six years, mainly due to their underfunded pension system. Standard & Poor's credit analyst Robin Prunty commented at the time Illinois fell to A- in 2013, "the downgrade reflects what we view as the state's weakened pension funded ratios and lack of action on reform measures intended to improve funding levels and diminish cost pressures associated with annual contributions."³³ Illinois took another hit in October 2015 when its credit rating fell one notch to BBB⁺. Granted, the poor performance of Illinois' fiscal and pension affairs is not representative of the rest of the United States. To the contrary of other fiscal health indicators, Figure 9 shows many states have top-notch credit ratings, suggesting they are not in danger of insolvency. Missouri, North Carolina, and Virginia are the three states that have held their AAA credit rating for 50 years or more, in the meantime withstanding several crises. In 2013, North Dakota and Texas joined the AAA club thanks to oil revenue, whereas in the next year New Jersey was downgraded from AA- to A+. Nonetheless, no state is impervious to the dangers that arise from out-of-control pension obligations and credit degradation.

One strategy for fiscally distressed states has been to issue more municipal bonds Pension obligation bonds (POB) allow states to use credit instead of their own funds to cover their unfunded liabilities. The state government issuing the POB will not have to contribute their own to cover unfunded liabilities so long as they are able to earn a rate of return on their investments that is higher than the interest rate of the bond. However, often times the return on investment (ROI) falls short of expectations, thereby leaving SLG exposed. A 2010 study by the Center for Retirement Research at Boston College found that most POBs issued in the previous decade had negative yields, while only the POBs issued before 1996 or during "dramatic stock market downturns" had positive returns.³³ Thus, it seems the POBs were not as useful and safe as the banks claimed them to be. Illinois already pays a hefty market penalty on their \$26.5 billion outstanding municipal bonds for its fiscal woes. Therefore, any changes to interest rates or further credit degradations could put the state in crisis.

Concerns are grounded in the fear of spending cuts to service debt. For example, in 2010, local government leaders in California announced a statewide petition concerned with the state government diverting or borrowing money from the local government public transit funds, as the director of the League of California Cities notes, “...continued state raids and borrowing of local government funds have put these vital local services at risk.”³⁴ Moreover, excessive debt issuance can actually cause state revenue to fall, as the total amount of tax exemptions increase. Beside these fears associated with debt, SLGs are also vulnerable to exploitative financial practices in dealing mainly with Wall Street firms.

Predatory Private Finance

Wall Street has much to gain from state and local government borrowing, taking the role of deal mediators and financial specialists. SLG capital investment today is minimal despite the low-rate environment of the last decade, which makes credit cheaper. It seems they are reluctant to ramp up spending on aging roads, bridges and buildings, despite the favorable interest rates. According to an article in *The Wall Street Journal*, “New government-bond issues have dropped to levels not seen in the past 20 years.” The total value of municipal bonds issued for new projects last year is about \$140 billion, which is 53% lower than in 2006 and 21% lower than in 1996. So far this year municipal borrowing is up to about \$95 billion, slightly higher than at this time last year. Despite the resounding notion from mainstream media that the U.S. economy has recovered, SLG currently hold about the same amount of debt as they had when they emerged from the recession, largely due to stagnant revenue growth, and therefore must cut back spending and investment so as to keep their financial liabilities under control. According to *The National Association of State Budget Officers*, state spending will rise by 2.5 percent in fiscal 2017, down from 5.5 percent this year.³⁵

To be sure, SLGs are not cutting back on new bond issues because their economies are flourishing, or because they’ve run out of new project ideas. Rather, it seems more likely that SLGs are scarred by both the large budget cuts they endured at the height of the GFC and their stagnant revenue growth coupled with rising costs. In May this year, transportation officials in California announced a 28 percent cut to construction plans from now until 2021. Meanwhile, officials in Florida went 5 years without approving any new borrowing for the state’s main construction program, which entails a long list of projects for public schools and universities, and

effectively limited new debt from \$1.4 billion in 2007 down to \$275 million. According to a study by McKinsey Global Institute released in June, the U.S. must increase infrastructure spending by 0.7% of GDP between now and 2030 to meet its transportation, water, power and telecommunications infrastructure needs. So far, rather than investing in maintaining infrastructure and capital projects, SLG have been preoccupied with underfunded employee pensions and other budget shortfalls. Moreover, SLG are receiving fewer federal grants for capital investment; grants for 2016 are expected to total less than \$68 billion, down from \$90 billion in the aftermath of the GFC. [ibid]

Failed Infrastructure Deals

A few recent infrastructure deals have even been rejected by communities; the North Carolina House of Representatives recently passed a bill to cancel a 50-year toll road contract. The residents of North Carolina did not want, "...to pay tolls to commute to work when residents in southern suburbs have access to more free lanes built when the state had more funding available for highways."³⁶ Private parties behind such infrastructure projects try to extract more return from SLG bonds, since the money from tolls would be used to pay the bonds. North Carolina in this case does not have an easy way out of this bad deal, which has yet to the state's senate. If they choose to cancel the deal now they must pay a \$250 million dollar fee to bondholders according to the cancellation clauses. Those who back the bill to cancel the infrastructure project admitted they plan to delay other projects delayed so as to defray the cost.

Otherwise, the North Carolina will have to ignore their residents' objections and go through with the deal, which will likely go bankrupt, as virtually all private toll firms have done. There is reason to believe that investors behind such deals for toll road contracts have little interest in the project's success, since the federal government generally guarantees the bonds. However, the guarantees often protect bondholders rather than the residents,

*...if and when the private toll road or tunnel partner goes bankrupt, taxpayers are forced to pay off the bonds while absorbing all loans the state and federal governments gave the private shell company and any accumulated depreciation. Yet the shell company's parent firms get to keep years of actual toll income, on top of millions in design-build cost overruns...*³⁷

North Carolina is not the only case of a failed public/private infrastructure partnership. Often times the traffic projections for road projects by private firms are vastly overestimated, "A 2006

study of 26 American P3 toll facilities found that "the average overestimate of revenues for each toll road for each year of the first five years of operation was 109 percent – more than double actual revenues." (Truthout.org) For example, Aecom and ARUP were tasked with projecting traffic for a highway project in Australia received several complaints from bondholders; Aecom projected vehicle traffic would double to approximately 100,000 vehicles per day when the project changed the free public road to a public-private toll way. In reality the actual annual toll income was \$7.5 million, as opposed to ARUP's projection of \$107 million.

Sometimes state infrastructure projects fail over things completely out of the SLG's control. At first, the \$3.8 billion public-private highway contract given to Indiana Toll Road Concession Company in 2005 seemed promising for both the state and the private sector, especially considering the 75-year timespan of the deal. The company was given the responsibility to manage the state-owned highway, and in return was allowed to keep the collected tolls. During the GFC, traffic volumes in Indiana fell and the company's debt almost doubled to \$6 billion after eight years, until it finally went bankrupt in 2014.³⁸ It seems nearly impossible for such long-term infrastructure projects to succeed if there is another economic crisis every decade or so. State and local governments need financial stability to ensure the work on such projects continues. Such situations are burdensome for both parties struggling during economic crises.

Then, in May 2016 CalPERS announced its 10 percent stake in the Indiana Toll Road Concession, as the fund's first purchase in U.S. transportation as part of a new program focused on infrastructure investments. Unions are understandably concerned with how their retirement savings are invested, and have long fought public-private partnerships inviting profit-driven firms with cost-cutting plans that hurt quality and compromise the safety. The fund is essentially investing in a business that has a horrible track record and relies on speculation of economic and traffic conditions. Moreover, CalPERS is a new investor in the transportation sector, where no American private toll firms are still in operation under the same management. To be clear, the fund is not investing in new construction, rather in a restructuring of a deal gone bad. Nonetheless, the 10 percent stake in the toll road company is a risky investment that may have negative consequences or employees' retirement savings.

Despite there being laws that limit state debt issuance, the financial sector finds a way to suck more revenue from public coffers. Since SLG are now reluctant to issue more new debt, private firms have changed their profit strategy. Instead of extracting interest from municipal debt, private financial firms have begun charging more fees for their services and products. Such a shift in the source of profits for financial firms has significant implications for capital projects and pension funds. The Public Banking Institute's What Wall Street Costs America project estimates the total level of fees charged by Wall Street across all 50 states to be around \$4 trillion. New Jersey has been hit particularly hard, paying about \$701 million in fees to Wall Street banks in 2015 alone. Not only are states paying service and transaction fees to Wall Street, they are also paying termination fees to exit from complicated investment arrangements, such as interest rate swaps.³⁹ The old-fashioned way SLG used to finance their project was to sell standard fixed-rate debt, like 30-year bonds. Starting in the 1990s and intensifying in the early 2000s, Wall Street banks convinced SLG to use other, more complicated financial instruments that would supposedly save governments millions of dollars while hedging risk.

Interest Rate Swaps

In addition to extending credit, private banks also offer SLGs financial products like interest rate swaps. Many states, municipalities, and school districts have found themselves stuck in bad investments made with Wall Street firms, wishing they had stuck with simplicity. Since 2005, the cost of the NJ's banking fees ballooned from \$10 million to \$600 million in 2014, and \$701 million in 2015. Under Governor Chris Christie, New Jersey is paying banks \$720 million to terminate \$4.2 billion of interest rate swaps, which are essentially bets on future interest rate movements pitched to municipal borrowers as a way to protect against rising interest rates on variable-rate bonds.⁴⁰ The municipality ultimately enters into an agreement with Wall Street firms to swap payments of the floating-rate with payments of the fixed-rate. First the government would issue variable-rate bonds to then be combined with bond insurance, for which they would pay dealers an annual fee.

However, a closer look at the contracts reveal numerous risks for the borrower, such as termination risk, basis risk, counterparty risk, and credit risk. When it finally came time to swap the rates, the banks usually would pay an amount according to a bond index rather than the actual cost of the government's new floating-rate debt; such discrepancies become significant in long-

term contracts. NJ treasury spokesman Christopher Santarelli admits, "These derivatives of over \$4 billion have been considered to be toxic by market participants and the administration," in other words a large, unpredictable liquidity risk on its books. [ibid] Termination clauses help to guarantee income for Wall Street investors, thereby limiting their downside in the swap deal while keeping all of the upside. Even worse, such clauses are usually prompted when SLG fall under fiscal distress, thereby compounding financial trouble.

Detroit is another victim of Wall Street's interest rate swaps, as the city was persuaded to hedge interest-rate risk on some of the \$1.45 billion of pension debt Detroit right before the GFC. When interest rates did not rise like Detroit had bet on, the city was faced with significant financial trouble as their deal with Wall Street turned sour. In December 2013, Detroit paid UBS AG and Bank of America Corp's Merrill Lynch Capital Services a total of \$85 million, plus up to \$4.2 million in costs, to end the interest-rate swaps, which is actually much less than what was originally proposed. Moreover, Detroit received a \$285 million loan from Barclays PLC, partially to pay the termination and legal fees, while \$120 million of the loan would be used to improve city services, thus adding to their \$18.5 billion of debt at the time.⁴¹ In this case, the banks also demanded to be protected against any downsides. Naturally, the banks used a complicated formula to determine the value of the contract if terminated before the end of 30 years, known as the "termination payment."⁴² Depending on how early the SLG would seek to cancel the deal, the termination payment could turn out to be tremendous. Despite their size, these payments have gone mostly unnoticed, as they are simply hidden inside other bond issues that convert the swaps back to the basic deals the governments should have done in the first place. Mistakes are simply refinanced in the municipal market; In 2014, Detroit filed for bankruptcy due to fiscal distress, as public officials panicked to restructure the budget. When worse came to worst, the first to receive payments were Wall Street banks.⁴³

Even though SLGs often hire municipal advisors to help negotiate with the banks, such professionals were unregulated and unlicensed until the Dodd-Frank Act reforms, able to access information only through the bankers (who often recommend advisors for the job). Many advisors and bankers convinced governments that suing a bank is unwise, else the bankers would punish governments by driving up the costs of future deals; they scared governments with the threat of refusing to sell their bonds or to make markets. For example, Kevyn Orr, Detroit's

state-appointed emergency manager, was reluctant to force its terms on the creditors who object to the city's debt restructuring, as doing so might risk the loss of \$816 million pledged by philanthropic foundations and the state of Michigan to ease retiree pension cuts. [ibid] SLGs are somewhat protected from such exploitation by the Securities and Exchange Commission's (SEC) "fair dealing" rule, which requires that, "...in the conduct of their municipal advisory activities, municipal advisors must deal fairly with all persons and not engage in any deceptive, dishonest, or unfair practice."⁴⁴ However, a city cannot solely enforce the fair dealing rule, not to mention that regulators often failed to persecute large financial firms for criminal behavior.⁴⁵ Nonetheless, the banks have the upper hand in these deals, allowing them to establish favorable clauses at the expense of the SLG.

Not only did Wall Street cost SLGs hundreds of millions of dollars, but many poor households also suffered by being denied public services to help repay municipal debt. In 2014, Detroit became the first major American city to enact mass water shutoffs, affecting some 46,000 poor households who could not afford the sharp price hikes in their water bills in recent years. City residents' delinquent water bills were not the main cause of fiscal distress, especially when compared to the fees and penalties paid to Wall Street Banks. Indeed, interest rate swaps along with other complex financial instruments were a large contributing factor in Detroit's financial crisis, as the Detroit Water and Sewage Department had to borrow \$537 million in 2012 to pay termination penalties to banks on water swap contracts. Such predatory finance is part of the reason why Detroit has hiked rates on water bills by nearly 120 percent in the last decade, whereby almost half of that revenue now goes toward servicing debt. Punishing residents, around 40 percent of which live below the poverty in Detroit, through water price hikes instead of Wall Street con men is wrongheaded. The crisis in Detroit is part of a much larger systemic problem, as other nearby SLG have experienced similar exploitation.⁴⁶

About 1,600 Baltimore homes had their water shut off by May last year, which is an expected result when the residents had to endure a 42 percent rate hike in the three previous years alone. Rudy Chow, the director of Baltimore's Department of Public Works, tried to justify the rate hikes by noting the \$40 million in delinquent bills. The damage Wall Street banks have done to Baltimore far outweighs that of the delinquent water bills. A closer look at Baltimore's finances reveals the city had paid much more than \$40 million to Wall Street to

escape toxic deals regarding interest rate swaps. Federal support for infrastructure in Baltimore had been diminishing, along with city revenue, leaving the city with a tight budget. Baltimore's officials, led by mayor Martin O'Malley in 2002, signed on the deal with prospects for saving money on water, sewer and other projects, and much like the officials in New Jersey and Detroit they later realized it was a financial trap. The huge risks associated with these financial deals were revealed when the GFC hit, whereby states and cities across the U.S. became over indebted to Wall Street banks. Of course, the banks had secured their position by writing termination clauses into the contracts, leaving SLGs fiscally distressed with large, unnecessary financial liabilities (i.e. interest rate swaps and variable-rate bonds) and high penalties. By mid-2015, the total cost for all of Baltimore's interest rate swaps approached \$200 million (\$43 million in penalties and \$56 million in interest payments alone for water and wastewater swaps), not including the huge losses on the city's auction rate securities – essentially variable-rate bonds that reset interest rates every specified period. Despite less than 38 percent of the delinquent water bills belonging to residential accounts, the city shut off water to over 3,000 households, typically the poorest residents in the area, leaving them to pay Wall Street's bill. On the other hand, only two businesses had their water shut off, making it clear that Baltimore punished residents for a crisis that was by no means their fault, while the financial perpetrators got to walk away. [ibid]

Yet another municipality, Jefferson County in Alabama, fell victim to Wall Street's predatory financial products. Like the other SLGs during the GFC, Jefferson County's tax revenues collapsed, meanwhile their liabilities grew out of control thanks to the interest rate swaps and other derivatives provided by Wall Street to finance a sewer project. Matt Taibbi describes the dealings as, "... A mob of corrupt local officials and morally absent financiers got together to build a giant device that converted human shit into billions of dollars of profit for Wall Street..." The finance director of Jefferson County was given the power to raise sewer rates, so as to reassure creditors that the debt will be repaid. In 1996, the average monthly sewer bill for a family of four in Birmingham was only \$14.71, until such deals with financial wizards on Wall Street resulted in sewage bills as high as \$64 per month (an increase of about 400 percent over a few years), a large burden for poor communities on top of the other hardships during the GFC. However, County officials realized they could not continue to raise rates lest

they anger voters, so they went to Wall Street banks looking for financial products to help “reduce” mounting interest, that is, interest rate swaps.⁴⁷

Like the other aforementioned victims, Wall Street firms changed Jefferson County’s municipal bonds from a fixed rate to an adjustable rate, and then, for a large fee, swapped interest rate payments so as to “protect” the County from ballooning interest rates. The leader in the swap deals was JPMorgan Chase & Co., one of the largest U.S. banks. According to the Securities and Exchange Commission (SEC), the bank led underwriters in the transactions and provided \$5.6 billion in related derivatives. When the GFC hit, the insurance companies that were underwriting the County’s debt had gone belly up, thus triggering clauses in the swap contracts that required payments of over \$800 million in just four years, while annual debt payments spiked from \$53 billion to \$636 million. The County defaulted on about \$3.1 billion securities backed by sewer revenue in November 2011, marking the biggest municipal bankruptcy on record. JPMorgan did not want the County to file for bankruptcy, since alternatives would have provided more profits for the bank, such as refinancing, which requires the unraveling of the toxic swaps. Nonetheless, the GFC made the municipal bonds more expensive and required early repayments well beyond Jefferson County’s affordability, while the interest-rate swaps provided no protection. [ibid]

Why did these deals fail to protect SLGs? The swaps were supposed to offer SLG protection against spikes in interest rates, as the borrower, who has exposure to a floating interest rate, pays a fixed rate of interest while the counterparty pays a floating rate based on a principal amount. Wall Street firms convinced SLG that interest rates were going to rise and offered these swaps to offset such risks, since higher interest rates means higher debt servicing costs for SLG. Although interest rates did rise leading up to the GFC, they were then slashed immediately, thereby leaving SLGs to pay relatively high interest rates on their bonds. The only way SLGs could take advantage of the zero interest rate policy (ZIRP) set forth by the Fed was to pay more penalties to Wall Street firms so as to refinance their outstanding bonds. In September 2014, Chicago paid a \$36 million penalty to terminate an interest rate swap so that it could refinance the underlying debt at a lower rate. In fact, the precipitous fall in interest rates caused the termination penalties on these swap deals to rise tremendously, which goes to show how well the

banks protected themselves in these deals, while trying to extract as much as possible from governments regardless of the public welfare and economic outcomes.

The swaps only provide protection if the two variable rates - the rate you pay to bondholders versus the rate you receive from the bank - are equal, which was not the case in many of the aforementioned deals. However, in the swap contracts, rather than match the interest rate SLGs had to pay to bondholders, the banks instead paid the municipalities a lesser rate tied to the London Interbank Exchange Rate (LIBOR). When it came time to swap interest rates, Jefferson County received much less than from JPMorgan than what it owed to bondholders, making the swaps completely ineffective. Keep in mind that since several major global banks have paid hundreds of billions of dollars in fines to the SEC for cases in which they were caught manipulating the LIBOR. After the GFC, public officials in Baltimore and several other cities filed a lawsuit against the major banks involved in the city's liability of hundreds of millions of dollars in interest-rate swaps and adjustable rate bonds connected to LIBOR.⁴⁸ Names of major banks included Bank of America, JPMorgan Chase, Citibank, HSBC Bank, Deutsche Bank and Credit Suisse, all of whom the city claims had under-reported rates, thus allowing them to pay less on the interest rate swaps held by several SLGs.⁴⁹

In 1997, the United Kingdom prohibited local governments from investing in interest rate swaps and other derivatives, which were seen by the Parliament as having an unlawful stigma. Back in the 1980s, several municipal authorities (e.g. Hammersmith & Fulham) speculated on interest rates using swaps, until the state intervened and deemed such activities to be outside the municipality's jurisdiction and unenforceable by banks involved. The U.K. understood that such activities were too risky for local governments, who are vulnerable to economic shocks. Local governments often misunderstand the risk elements involved when dealing with derivatives. Even the lawyer who advised Jefferson County officials on bond sales admitted he could not understand the math on the interest rate swaps, "Neither I nor anybody in the Jefferson County Commission -- or for that matter, I'm not even sure that the JPMorgan people we deal with -- really understand how swaps are priced in the global financial market." [ibid] Indeed, municipal borrowers did not understand the risk of the bond auctions failing.

Capital Appreciation Bonds

Another municipal financial instrument is the capital appreciation bond (CAB), which is similar to a zero-coupon bond in that the principle and the interest of the loan are paid in one lump sum on the bond's maturity date (or at a specified time). These long-term bonds have compounding interest, thereby SLG are left with large outstanding liabilities grows sharply as unpaid interest accumulates. CABS have left schools districts in particular with large financial burdens. For example, the \$105 million in CABs issued by Poway Unified School District in San Diego County promise to pay a total of \$877 million in interest over 40 years (about 835%).⁵⁰ The West Contra Costa School District near San Francisco has \$2.5 million CABs outstanding that promise to pay \$34 million in interest, or 1,360%.⁵¹ Essentially, these districts are betting on economic conditions improving in the next decades, making these long-term financing deals significantly risky considering the unstable nature of the U.S. economy. In 2012, according to data collected by the Los Angeles Times, school districts across California had borrowed nearly \$3 billion using CAB to finance capital projects, maintenance and materials. In total the bonds promise to pay over \$16 billion to creditors, while most limit the ability to refinance.⁵² Since then, California state officials have discouraged the use of CABs.

California's Treasurer, Bill Lockyer, likens CABs to the toxic financial products that were significant factors in the GFC. He notes, "[Wall Street] has done this kind of thing on the private investor side for years, then the housing market and now its public entities." [ibid] The compound interest on these long-term bonds makes them many times more expensive, in some cases to as much as 10 or 20 times the principle. Ultimately, the financial burden of such deals falls on taxpayers and poor communities if the government cannot repay the loans; local districts contribute about 80% of the funds for school construction projects, while the state usually contributes the other 20%, with little to no role by the federal government. Much of the burden falls disproportionately on low-income, rural school districts, as those with less taxable wealth are often hit with higher fees and thereby receive less for their education dollars. In 2014, the state of New York decided to expand pre-K education by spending about \$1.5 billion over the next five years, while school districts across the nation pay double that amount (\$3-4 billion) every year on fees alone to Wall Street firms. [ibid]

Our school districts should not be subject to predatory financial practices, especially since they have been recently forced to slash teacher salaries, arts programs, and other meaningful services. Such important public services must be protected from financial exploitation if we want stability and prosperity for future generations. SLGs rely on municipal finance for capital development and sometimes as an alternative to raising taxes/cutting spending. Predatory municipal finance can have real consequences for communities, such as Baltimore and Detroit shutting off water for thousands of residents.

Indeed, Wall Street banks do not seem to care if their financial “services” negatively impact SLGs and taxpayers, so long as they can craft the contracts and products in a way that minimizes their losses. An alternative for municipal finance is needed to Wall Street banks.

Chapter 4: Public Banking as an Alternative

Currently, the only option for most SLGs to engage in municipal finance is through private banks and financial firms that seek profits for their shareholders and to maintain solvency. These financial institutions have been known to use fraud as a business model, and are not so much interested in the public good, as the nature of their services is to prioritize private profits for shareholders.⁵³ SLGs have paid unnecessarily high amounts for financial services; the cities of New York, Los Angeles, and Chicago do nearly \$600 billion of business (including pension funds) with Wall Street every year, with LA having spent more than twice as much on banking fees than street services in FY 2013.⁵⁴ As explained in aforementioned examples, big private banks in some cases have put SLG public funds at risk of excessive debt.

Figure 10 – Share of Total Domestic Deposits Held by Small Banks vs. Large Banks,

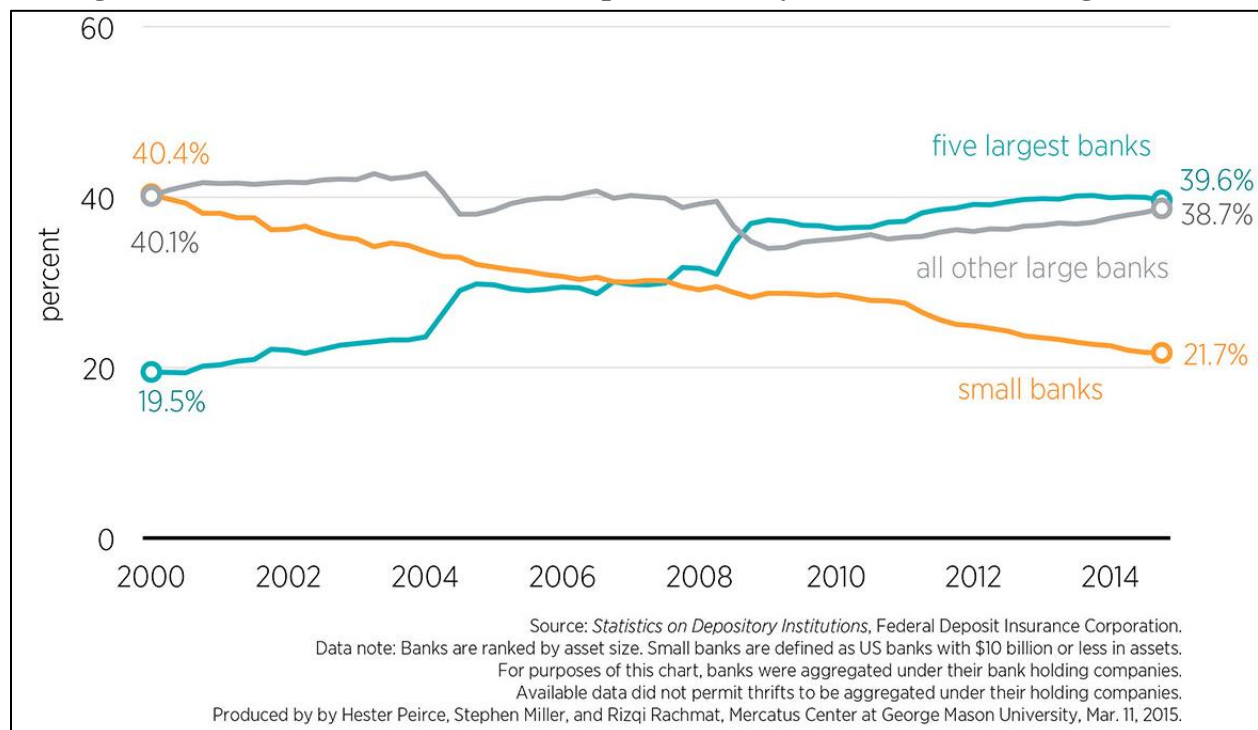


Figure 10 reveals that private banking is dominant in the United States, as a select few banks control the majority of assets, in part due to the deregulation of the financial sector along with numerous mergers and acquisitions in recent decades. The five largest banks in Q4 2014 held 46 percent of US banking assets, an increase of 28 percent from Q1 2000, while small banks' share of US banking assets has fell from 30 to 18 percent.⁵⁵ Alas, SLGs usually turn to such large financial institutions for municipal finance instead of smaller banks.

Moreover, there is no established medium for public financial officials in SLGs to apply collective bargaining practices against Wall Street in negotiating municipal finance deals. Finance staff can be hesitant, sometimes even obstructionist, in efforts to lower banking fees. There have been many instances in which public officials were found to be in cahoots with the private banks, not to mention many such individuals have been or will be employed by Wall Street. Some public officials have taken stands against Wall Street, such as the Board of Supervisors of Santa Cruz County in California, who voted last year to refuse any new business with banks convicted of felonies for the next five years. A more effective mechanism for SLGs to take a stand against financial exploitation would be to establish a public bank.

While the private banking model seeks profit for certain shareholders, the public banking model would see that the wealth they generate is reinvested in the community. This chapter will discuss some past and current forms of public banking, identify ways in which public banks can benefit SLGs and their communities, and end with thoughts on where and how public banks can be instituted in the United States.

Case Study: Bank of North Dakota

Only one state-owned bank currently exists in the United States - the Bank of North Dakota (BND). Legally, the state of North Dakota is doing business as the BND, requiring state funds to be placed in the bank, with a mission “To deliver quality, sound financial services that promote agriculture, commerce and industry in North Dakota.” (<https://bnd.nd.gov/mission/>)

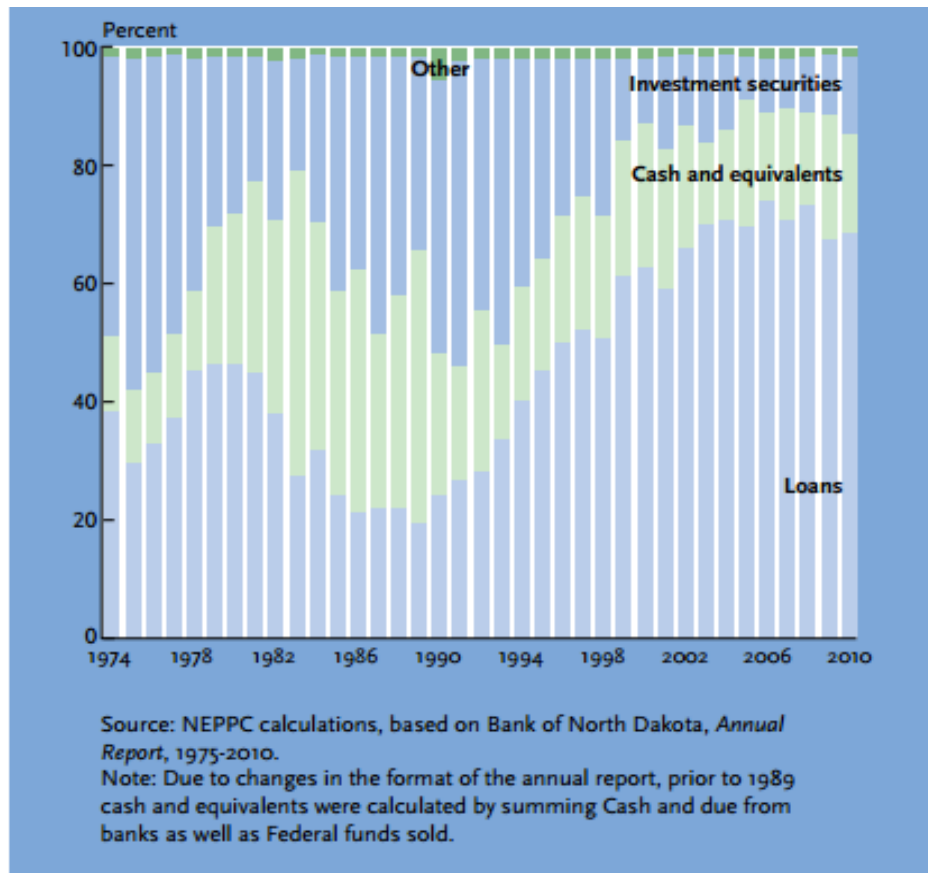
The BND was founded in July 1919, and has since served as a tool for the state to appropriate funds when needed through the budget process or state law. Its founding came after an economic recession sparked anti-big-bank and anti-big-business sentiment. The major

proponents were farmers whose incomes had been suppressed due to exploitative practices of rentiers both in- and out-of-state, eventually developing a populist movement that pressured public institutions to support agriculture. Today the BND is under the oversight of the Industrial Commission of North Dakota, which is composed of the governor, the attorney general, and the agricultural commissioner. The BND is also subject to an independent audit annually, while virtually their entire budget is controlled by the state legislature. Such checks to power were thoughtfully incorporated into the BND's legal structure so as to give SLG government taxpayers a mechanism to defend themselves from usurious and fraudulent behavior from powerful private financial institutions. It is worth mentioning the financial process regarding the bank's inception; the \$2 million of municipal bonds issued by ND proved to be inadequate several years later, then prompting the public sequestration of funds from banks in western North Dakota, followed by 18 bank failures in the following three weeks. So as to not drive out small local banks, the BND was restricted from opening branches, engaging in retail banking, or focusing on commercial lending instead of farm real estate loans. Some barriers to retail banking were removed over time, as the BND was allowed to offer basic checking and savings accounts and other retail banking services (e.g. tax-deferred savings, certificates of deposit, foreign exchange) to North Dakota residents, though not certain products such as ATM cards, debit cards, credit cards or online bill pay. Moreover, the BND operates only in Bismarck, leaving plenty of room for private banks.⁵⁶

Specifically, the operating policy directs the Bank to be “helpful to and to assist in the development of state and national banks and other financial institutions and public corporations within the state and not, in any manner, to destroy or to be harmful to existing financial institutions.” Indeed, the public bank has been very useful for the state's financial and economic needs, especially during crises and panics. During times as desperate as the Great Depression, the BND facilitated the state's public payroll, exchanging teachers' warrants for pay in full whereas cashing them elsewhere would have returned 15 percent less. Farmland in North Dakota foreclosed during the 1930s was sold back to the original owners (at below market price) in the next decade. In fact, the BND increased the amount of loans and letters of credit to North Dakota banks in need of liquidity during the GFC, albeit at a limited capacity given its own liquidity needs and its other funding obligations. Fortunately, North Dakota dodged the worst of the GFC, otherwise federal intervention may have been necessary. The public bank also aids the

state in economic development, issuing its first Federally-insured student loan in 1967. (<https://bnd.nd.gov/history-of-bnd/>)

Figure 11 - Breakdown of BND's Assets



Over time the BND has shifted its focus from managing state investments and providing services to local banks in the 1940s and 50s to participating in student, commercial, and residential mortgage loans in the 90s, as shown by Figure 11. In 2015, BND's assets totaled \$7.4 billion, with approximately \$4.34 billion in their total lending portfolio and \$5.8 billion in deposits.⁵⁷ Most of the bank's deposits come from the state government agencies. Thus, the BND maintains a large loan portfolio, the majority of which involves other community banks, while 50 percent of the portfolio is guaranteed by federal and state institutions. Many loans are originated by the state's private sector and partially funded by the BND; local financial institutions originated \$3.9 billion of the Bank's business and agricultural loans. Indeed, the BND coincides with a robust system of local financial institutions. In 2014, North Dakota had

more banks and credit unions per capita than any other state, and almost six times more than the country as a whole. By participating in these loans, BND expands the lending capacity of North Dakota's community banks, giving them added strength in competing against big out-of-state banks. Moreover, locally owned banks and credit unions with under \$10 billion in assets account for only 29 percent of deposits nationally, whereas in North Dakota they control 83 percent of the state's market.⁵⁸ It is important to note that the BND was not designed to push out private financial institutions. To the contrary, the Bank's early policy sought to prevent harming the state's existing financial institutions.⁵⁹

Since 1971, the BND has generated a profit each year, and often times produced a high ratio of return on assets (ROA) compared to similarly sized private banks. The public bank enjoys certain advantages over its private counterparts, such as their tax-exempt status. However, unlike private banks, the BND's deposits are not insured by the Federal Deposit Insurance Corporation, only by the full faith and credit of ND. Nonetheless, the BND is a prime example of how public banks can thrive. Compared to other similarly sized banks across the nation, the BND had experienced fewer defaults and lower loan delinquency during the GFC. In fact, there have been no bank failures in North Dakota since October, 2000.⁶⁰ Only this year did ND's economy fall, ending the state's 15-year streak of revenue growth and budget surplus during which they cut hundreds of millions of dollars of income and property taxes for individuals and businesses. ND is facing \$1 billion budget shortfall due to falling state revenue collections resulting from the collapse in oil and natural gas prices.⁶¹ ND's governor, Jack Dalrymple, has called for a significant budget reduction, subjecting 67 out of 73 state agencies to budget cuts, except for the BND. There have been major events going on in ND, specifically the protests against the Dakota Access Pipeline (DAPL). State committees recently approved an emergency request to borrow \$6 million to cover the cost of law enforcement at the DAPL site, which will come from the BND (likely at a low interest rate).⁶² Besides a large endowment of state funds, the BND also enjoys tax-exempt status and paying around 25 basis points lower interest rate on deposits than their private counterparts. Nonetheless, the public bank has proven to be resilient and sustainable, considering the tough economic times recently befalling ND.

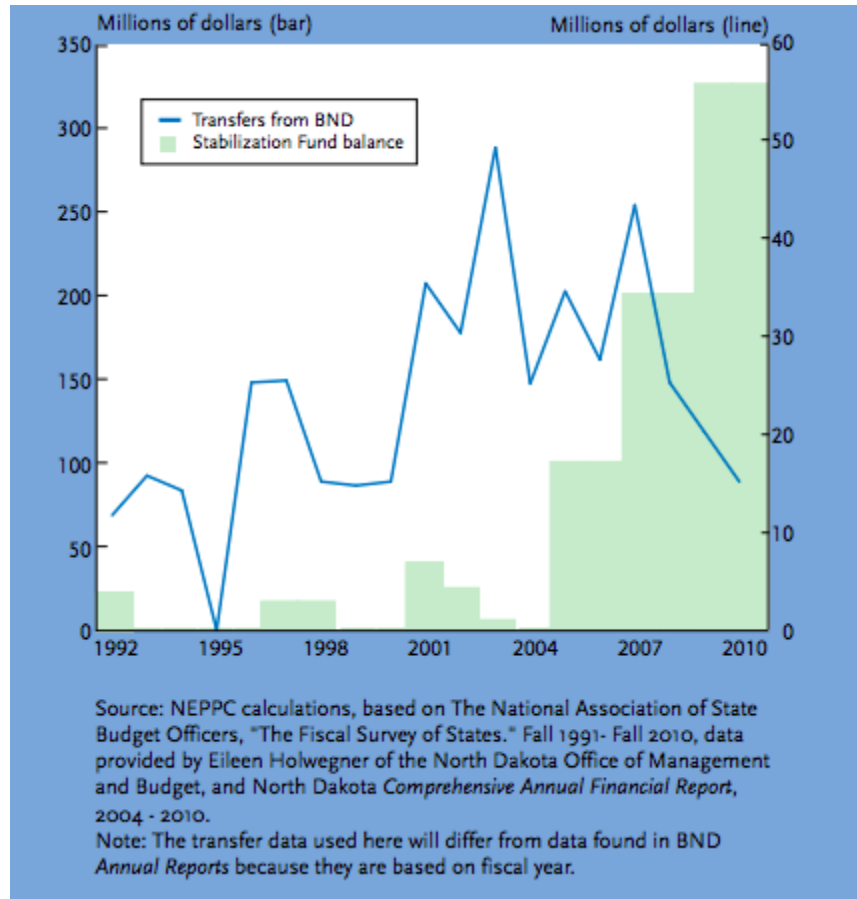
It is hard to quantify the fiscal benefits provided by the BND just by looking at the state's past economic performance/resilience, since North Dakota receives much revenue from its oil

endowments. Regardless, the BND is a state-owned bank that partners with more than 100 North Dakota financial institutions, promoting the development of the agriculture, commerce and industry, and stabilizing the state economy by improving access to credit for local businesses. For example, the BND's Flex Pace loan program allows local communities to provide assistance to borrowers regarding job retention, technology development, retail and other small business services. According to the BND's 2010 Annual Report,

The need for Flex PACE funding was substantial, growing by 62 percent to help finance essential community services as energy development spiked in western North Dakota. Commercial bank participation loans grew to 64 percent of the entire \$1.022 billion portfolio.

BND revenue from successful investments, essentially the state's return on equity, can be used to patch state budget shortfalls, save for moments of intense fiscal stress. Even then, the BND maintains important functions, such as clearing checks for both banks and credit unions, providing coin and currency, and holding an Automated Clearing House system that allows local banks to offer direct deposit and automated payment services to their customers. The aforementioned report estimates a total of \$318 million in short-term credit lines were provided to 95 financial institutions in 2010. Indeed, at times the BND can serve as a kind of mini Federal Reserve for its network of local financial institutions.

Figure 12 - Transfers to the North Dakota General Fund and Stabilization Fund



ND maintains stabilization funds, like most states, as a precautionary measure. The BND is not infallible, hence there should be an alternative safety net. Indeed, the state relies more often on the fiscal stabilization fund for moments of fiscal distress so as to preserve the BND’s liberty in its lending decisions, since diverting funds to stabilize state budgets may hinder their ability to supply credit to the private sector. In fact, the BND has repeatedly made transfers to the state’s stabilization fund, as shown by Figure 12, demonstrating significant revenue-generating capabilities. From 1971 to 2009, transfers of profits from the BND comprised, on average, 0.75 percent of state expenditures, the local maximum being 1.82 percent in 1996. [ibid] Each year state legislatures negotiate with the Bank’s Governing Board to determine how much profit should be contributed to state funds, as set forth in the Bank’s initial policy, “... (3) To

redeposit in the State, so far as is consistent with the operations of the bank... to the end that loans need not be called in..." [ibid] In the last 20 years, BND has contributed \$385 million to the general fund. Such contributions to state funds have certainly helped the state government fill small budget gaps and increase safety nets, thanks to the BND's ability to earn income by locally investing state revenues. Though, the Bank will withhold from making contributions should they face increased risk and uncertainty, which has been the case since the Bank has not made contributions to ND's general fund since 2009. [ibid]

Although we cannot fully attribute the success of the North Dakotan economy to the performance of the BND, nonetheless, the bank has symbiotic relationships with private banks and businesses, and helps generate revenue for the state government. The bank's continuous transfers to government safety nets, liquidity provisions to local banks during crises, and emergency funding of jeopardized capital projects are all functions that serve to stabilize revenue streams and commercial activity. The state should maintain alternative sources of emergency funding and fiscal safety nets so as not rely heavily on a public bank, since neither party is a currency issuer.

While the BND is a good example of how public banks can provide revenue streams to state governments and credit to local businesses, there are certain features in the bank's arrangement that are unique to ND. For example, the BND is not subject to federal oversight because of its relatively small size and lack of FDIC insurance. Keeping in mind the implications of the Dodd-Frank Act in regards to "systemically important institutions," a public bank in, say, California would be a much larger operation that may warrant federal oversight. Yet, without a state bank, many billions of dollars in Californian tax revenue channeled through large private banks flow out of state or are used for speculative bets. State-owned banks also redirect government funds flowing out-of-state back to productive circuits inside communities. Grand Forks, ND is one city that has benefitted from such public finance; in February 2016, they became eligible for a \$15 million loan from the BND to finance city projects. The loan is for a 30-year period at a 2 percent interest rate, which are great terms relative to deals with the private sector. Through private banking the municipality typically hires an investment advisor to help determine the appropriate credit options while taking into consideration the potential risks associated with different forms of credit.

Instead of having to pay fees to investment banks, SLGs could use a public bank to buy their bond issues at favorable terms. A municipality could get a loan from the state-owned bank for an affordable housing development, infrastructure investment, or worker co-ops, in which case more state funds and future revenue are recaptured. Indeed, the creditor and debtor relationship would be symbiotic, as the public bank would be interested in the success of local government and community projects. The future revenue from productivity would go towards developing long-term capital pools as a significant source of funding. According to a study by Karl Beitel at the Roosevelt Institute, “The total potential recapture by a Municipal Bank between 2008 and 2020 comes to \$930.3 million, or an average of \$68 million per year,” for the city of San Francisco.⁶³

While there are other examples of strong public banks in history, establishing these institutions through SLGs in the United States is a unique endeavor, considering the limitations of such sub-governments in regards to currency issuance and defending against systemic crises. Having established some precedent of successful state-owned banking, the next step is to examine the means states have to set up these public financial institutions and how they should be structured so as to build symbiotic institutional relationships that use SLG funds for local economic development.

Literature Review

The vast majority of the limited literature on public banks features cost-benefit analyses on the efficiency of state-owned banks versus private banks. Indeed, many statistical studies have found that state-owned banks are less efficient than their private counterparts and hinder financial development, based on the orthodox theory that the market best allocates credit. Other findings conclude that politics has a major influence on the way public banks lend, thereby producing inefficiencies. Sapienza (2004) uses a dataset on state-owned banks in Italy to study the efficiency of their credit allocation. Her results show that, “state-owned banks charge systematically lower interest rates to similar or identical firms than do private banks,” and that such institutions tend to give more discounts on interest rates to provinces with similar political affiliations and larger-sized firms. She ascribes to the political view of state-owned banks, which considers them to be a mechanism for supplying political patronage, to explain for their lower profitability and bias toward party affiliation and larger firm size.⁶⁴

Coelho (et al. 2013) found that the entry of public banks in local markets in Brazil had little effect on private banks, suggesting they do not compete much with each other. The impact of the second public bank entrant on existing banks' private profits was equivalent to that of the fifth private entrant, suggesting that private banks are more competitive public banks (which was to be expected). Their study also revealed that public banks have higher operating costs and spend more per bank account, thus corroborating the notion that public banks are less efficient, yet this may not necessarily be true if interest paid on deposits are included, as the state bank would not have to pay such interest.⁶⁵ Rather than creating more state-owned banks, Andrianova (et al. 2008) suggest improving regulatory institutions to foster the development of private banks and ultimately reduce the role of state banks in the economy. The study assumes public banks to be less efficient in their lending and investment decisions (coinciding with the political view), and the results show that, "the share of state control over bank assets is inversely related to institutional quality, as measured by the overall quality of regulation... and stringent disclosure requirements." (p. 244) From their analysis they conclude that improving regulations and transparency is more effective than instituting public banks to foster financial and economic development.⁶⁶

Any analysis of public banking should seek to explain *why* state banks exist. The aforementioned studies would likely agree with the view that state-owned banks are driven by political motives, which implies they are inherently inefficient and should not try to allocate capital. Yet, all public policy has political motives; the next section provides examples of how the government already intervenes to produce more favorable outcomes. Orthodox theory champions free markets in its prescription for less government intervention; this is the same thinking that led to the GFC, in which banks securitized toxic loans to investors with the help of fraudulent credit ratings.⁶⁷ Banks, along with money, are considered simply as intermediaries facilitating the investment of savings. Therefore, it is believed that with more deregulation financial institutions will be better able to diversify (socialize) risks and innovate. To the contrary, heterodox theory considers state-owned banks to be a response to market gaps and institutional deficiency.

Market Shortfalls

Surely there is a difference in missions between public, non-for-profit banks and private, for-profit banks. The former is concerned with allocating credit to locally productive activity for a public purpose, while the latter seeks to allocate funds such that private profits are maximized. Coelho (et al.2013) describe this difference in purpose as “product differentiation,” as state banks in Brazil are structured to promote the development of rural credit and mortgages. In Brazil’s case, the Banco do Brazil requires 50 percent of all demand deposits to be allocated to rural credit (i.e. financing capital to farmers), which is much less profitable given the higher delinquency costs and when taking into consideration attractive opportunity costs (e.g. derivative trading). Agriculture is just one of the several sectors private banks tend to avoid.

Other shortfalls in the way the free market allocates credit concern various types of discrimination, especially in the home mortgage market. Mortgage lending is lengthy in nature, as loan officers must gather much personal information on borrowers, such as income, net worth, and credit history, often times through face-to-face interaction. Other factors include the principal amount of the loan, the value of the property, and any macroeconomic trends computed by models. Considering middle-class wage stagnancy and over indebtedness, to the point where almost 46 percent of Americans have said they do not have enough money to cover a \$400 emergency expense, many loan applicants have some characteristic that could lead to denial.⁶⁸ Indeed, many do not meet the criteria, while minorities are denied credit disproportionately; in Manhattan, 14.1 percent of white applicants are denied whereas 33.3 percent of black applicants and 24.7 percent of Hispanic applicants are denied. In addition to those denied based on credit criteria, there is also much discrimination throughout the process.⁶⁹ Wheeler and Luke (2015) charge that, on average, Black Americans are denied more frequently than their White counterparts on loan applications, controlling for factors relating to creditworthiness and default risk.⁷⁰

Furthermore, the solicitation of loans to customers is discriminatory, as real estate developers systematically avoid new developments around certain neighborhoods - a practice known as red-lining. Low-income communities are routinely segregated from amenities and retail resources, often where housing is of poor quality, economic and educational opportunities are out of reach, and concentrated poverty promotes the decay of social and physical

environments.⁷¹ Meltzer and Schuetz (2011) found that, in NYC, when compared to White communities, Black community zip codes had retail stores of smaller size and density, lower diversity in food service, and zero upscale chain groceries.⁷² The absence of retail development in minority communities makes every-day life harder, property values also suffer, thereby perpetuating high denial rates for mortgage loans.

There are government agencies that aim to support neglected communities, such as the Federal Housing Administration (FHA), which makes credit more available to low-income applicants. Indeed, in 2013 black Americans comprised 37.9 percent of NYC's FHA loan applicants, whereas 19.7 and 18.9 percent of the loan applicants were Hispanic and white, respectively. The disproportion of denial rates for FHA applications in NYC is significantly less than that of the private market aforementioned, yet still high.⁶⁷ Such an institution is an example of how the government can use its faculties to promote public welfare, in this case by allocating credit to communities in need. More stimulus is necessary for moving toward a fairer and equitable system of homeownership; again to use New York as an example, "over 41 percent of white New Yorkers are homeowners, while only 26.5 percent of black New Yorkers and 16.1 percent of Hispanic New Yorkers own their own homes."⁷³

However, the FHA alone is not enough to defeat the systemic problems regarding homeownership. According to a Zillow report, the average denial rates on FHA loans nationwide are only slightly lower than the ratios shown in Figure 13, 24.3 percent of blacks, 20.5 percent of Hispanics, and 14.2 percent of whites are denied. Thus, while the FHA can make impacts on local communities like NYC, the public agency does not have enough power or resources to systematically rebalance the scales. In fact, the Federal Home Loan Bank (FHLB) has moved away from providing targeted support to the US housing finance system. Initially, the FHLB limited membership to mortgage-oriented institutions, namely thrifts and insurance companies, until the 1980s thrift crisis and a series of deregulation that expanded FHLB membership to include more diversified depository institutions, such as commercial banks and credit unions. Loan advances were no longer limited to the use of mortgage finance, hence commercial bank members are able to use advances to fund virtually any type of financial asset. Today, the vast majority of FHLB loans go to the largest private banks, to which Frame (2016) admits, "Such institutions do not need FHLB access as they can issue in public debt markets

and... borrow from the Federal Reserve's Discount Window."⁷⁴ Hence, it seems private banks are usurping FHLB loans to augment their profits.

The solution to such market failures is not the orthodox prescription of deregulation, which often leads to excessive risk-taking. Nor will (surface-level) improvements to regulatory institutions and transparency end the massive flows of credit accruing to the largest financial institutions and investors (e.g. Dodd Frank).⁷⁵ Private financial institutions cannot be expected to fulfill such a role, as their core business models and lending practices are based on profit-maximization. They can expect to make much higher returns by selling opaque financial products and speculation, which is easier to do in deregulated environments. Rarely does their maximizing self-interest align with promoting public welfare, unless the government plays a role. Even the self-proclaimed venture capitalist firms receive help from government agencies, as Mazzucato (2014) notes.⁷⁶ Rather than increase regulation in an attempt to get private firms to do something, there is another, more direct option to improve local credit allocation.

Establishing State Banks

An effective way to stimulate credit-starved, local communities is to establish a mechanism that makes low-cost credit more accessible for socially productive purposes. Government itself is a unique social institution with the power to tax and make markets, and thus is capable of allocating resources based on egalitarian principles and more ecologically sound urban development. The individual size, form, and orientation will vary from bank to bank, considering the social, economic and industrial differences among the fifty states. Therefore, such structural decisions should be left to the discretion of state governments and its representative agencies. Nonetheless, the purpose of the state bank should be to redistribute credit to distressed communities while investing in a green future.

Beitell (2016) outlines the organizational structure of municipal banks, regarding capitalization and redistributive lending initiatives that increase public utility. He posits two options state governments have for creating their own municipal financial institution; the first would be to use local ordinances or a voter-approved charter amendment to directly establish a fully-developed, state-owned depository institution that makes loans to other state agencies and offers retail banking services. The other option would be a longer, multi-step process in which

state governments first establish a limited non-depository institution then expand operations over time. Rather than directly charter a full-size depository institution, which would require tough legal compliance, state governments should initially establish an independent non-depository financial organization tasked with making long-term residential and infrastructure investments. The latter method is more politically strategic, but also technically viable, as it is easier to add departments to the foundation of a municipal finance institution. Over time, after these institutions prove to be successful, hopefully state legislators would be more open to approving the charter of a depository institution. Indeed, establishing a good track record for public banking helps build momentum for other finance initiatives. For example, postal unions and civil rights groups, along with figures like the U.S. Postal Service inspector general and senator Bernie Sanders, can use the success of state banking to warrant the expansion of USPS financial operations, a move that would make USPS relevant again and protect low-income communities from predatory payday lenders and check-cashing outlets.⁷⁷ Nonetheless, aside from the different political implications between the two options, the institutional and ownership structure of state bank remains the same.

State governments can charter an organization, such as a legal benefit or non-profit corporation (depending on state law) that has a foundational set of public policy goals (i.e. investing in affordable housing and green energy projects). Specifically, as Beittel suggests, the state bank would be defined as a Bank Holding Company per USC 12, Sec. 1841, which would make it subject to oversight by the Federal Reserve. Like the BND, state banks across the nation would hold public funds, mainly those of, but not limited to, state and local government agencies and community organizations. The state bank may receive its initial capital from the government's general fund, or from any interest being earned on funds held in government investment pools. Not all states have a cash surplus readily available to create a bank, in which case a direct appropriation of money from the general fund or a new bond issuance may also be options. Furthermore, the state bank should not require continued government subsidy for its existence, only an initial lump sum of money for its establishment. Thereafter, government agency funds would be held as deposits at the bank. Deposits at the state bank would be considered liabilities, while its assets include loans and securities. Subsequent revenue earned on loans and secondary market activity may then accumulate to equity, thereby allowing the state bank to make more loans and issue deposits while maintaining the same capital ratio. State

banks can use their stock of Treasuries as collateral to borrow Fed Funds, which would be necessary should the bank be denied access to the Federal Reserve’s Discount Window.

Once the state bank is funded and running it can immediately make loans to any organization or individual it deems creditworthy for any project that coincides with their public policy goals. Moreover, there need not be a transfer of existing funds at the inception of a loan, as the state bank, much like its private counterparts, can credit accounts simply using computer keystrokes. There is no technical obstacle to issuing deposits, unless imposed politically, so long as there are willing creditors and debtors. Banks do not lend out reserves, as there is no pool of money (besides the Fed Funds market) sitting somewhere waiting to be transferred. Rather, in today’s capitalist economies, reserves (deposits at the Fed) help to facilitate payments systems. Reserves stabilize gaps between inflows and outflows after daily operations, which is also the purpose of interbank lending in the Federal Reserve System, since banks can lend more even while reserves decrease. Fractional reserve banking requires that banks hold a fraction of their demand deposits at the central bank. However, this is a politically imposed restriction that misconstrues how banks create money. Indeed, loans create deposits, which then circulate inside and outside of the Federal Reserve System.

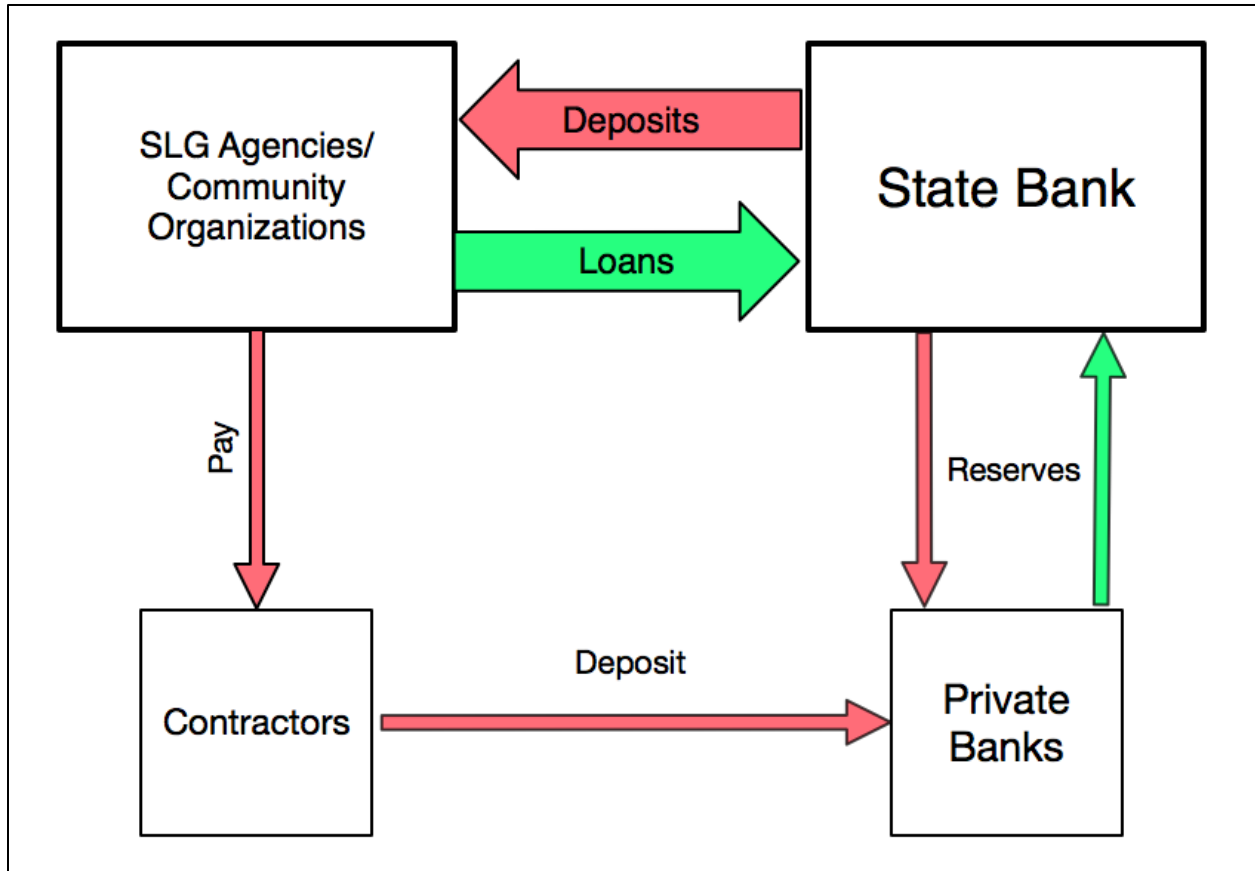
Table 2 – State Bank Balance Sheet

Assets	Liabilities
Reserves (Cash, U.S. Treasuries)	Deposits
Loans	Non-deposit liabilities
Bonds and securities	Equity

A state bank can operate similarly; if it were to make a million dollar loan to an affordable housing developer, the operation would be to simultaneously create an asset and a liability on their balance sheet. As shown in Table 3, the loan becomes an asset and the housing developer’s million dollar deposit a liability. The developer could then write checks to pay

contractors, which would likely be presented at another bank, in which case the state bank would owe reserves to other banks, and vice versa. Deposits are either converted to cash, thus entering physical circulation and reducing reserves, or circulate virtually in the computerized banking system whereby reserves are credited and debited. While reserves are used for clearing, capital is held against loans just in case catastrophe hits. Capital held at state banks can be used as collateral to borrow reserves (central bank deposits). These liquid assets would be used to make secondary markets and facilitate low-cost payments systems for low-income communities. State banks would only hold cash should they manage local depository institutions. Unless deposits (created by loans) are converted to cash and taken out of the digital system, banks in the aggregate cannot readily reduce their reserves, except by buying Treasuries from the Fed. Hence, membership to the Federal Home Loan Bank and access to the Federal Reserve's Discount Window would greatly help state banks perform all depository financial services and extend short-term lines of credit.

Figure 14 - Institutional Relationships



Having established the structure of the state bank’s balance sheet and its sources of funding, the next step is to discern its relationships with other public and private institutions. SLG agencies and community organizations that would benefit from having an account at the state bank include funds and trusts for affordable housing, education and social investment, worker unions and cooperatives, and other non-profit, community institutions. Once an account is opened, those institutions with formulated ideas for capital projects will be able to receive credit. The state bank could also purchase or underwrite any new SLG debt issuance. Ideally, the terms of the loans would be simple and cheap, as state banks are not looking to optimize returns. Therefore, complex financial products – those involving speculation and usurious fees – are not necessary. SLGs should not have to deny certain communities essential public services

for the sake of repaying ballooning debt. Moreover, low interest rates in turn help to reduce default rates.

Figure 14 depicts the state bank's operations with public and private institutions. The bank would have the deepest bonds with the SLG agencies and community organizations whose funds make the deposit base. Deposits (the bank's liabilities) are issued in making loans (the bank's assets). SLG agencies could then write checks to pay contractors and third parties, who in turn present the check to be deposited or cashed at their private bank, in which case the state bank then owes reserves to private banks. Rather than try to gain direct access to the Fed Funds market, which entails passing regulatory requirements set forth by the Fed and FDIC, state banks may use the Clearing House Interbank Payments System (CHIPS) for reserve lending to settle their payments at the end of the day. The bank can also work with institutional investors; mortgages and commercial loans originated by the state bank, whose risks have been properly assessed, can be securitized and sold to a variety of institutional investors (e.g. pension funds, Real Estate Investment Trusts, insurance companies, etc.) Recognizing that the loans originated by the state bank will likely charge a lower interest rate than those of the private sector, Beitel notes, "...only a small portion of any given pension fund or endowment is likely be allocated to this class of assets." Securitization would not be a major activity for state banks since they are not seeking profit. Moreover, secondary markets should have boundaries, as the state bank has no business supporting out-of-state housing and small businesses. Neither should the state bank deal with opaque financial products that may be toxic, like the many mortgage-backed securities that failed in 2007. Besides directly loaning to organizations, the state bank can also partner with community banks to help ensure that local communities receive credit by participating in originated mortgages by local financial institutions, much like Fannie and Freddie and the BND. Local banks could also benefit by being matched with individual homebuyers through the state bank. Nonetheless, the state bank must prioritize allocating credit to promote public welfare over secondary market dealings.

Summary

Establishing a state bank tasked with managing the funds of and making loans to SLG government agencies would improve credit access for the communities that need it most. Not only could there be more investment in the states' housing and infrastructure (particularly in larger-scale affordable housing and ecologically sustainable developments), but also a significant amount of savings as a result of having more alternatives to Wall Street for municipal finance. While the orthodox economists consider the tendency of state banks to charge lower interest rates as a political inefficiency, others consider it to be a testament to the fact that state banks are less predatory than their large, private counterparts. Nonetheless, there are several challenges to arranging and maintaining state banks across the United States.

First, each state has unique legal structures and economies that have different implications for establishing a state bank. Such an institution in, say, California would look vastly loan portfolio than one in Nebraska. Public banks in states with large urban centers and diverse industries will have an easier time issuing and underwriting credit than such institutions in rural states in the mid-west. Those based in urban environments may focus more on developing affordable housing, whereas agriculture will be more pertinent elsewhere. Each state bank will have a unique lending portfolio that carries different risks. Thus, some state banks may require more capitalization or liquidity than others to hedge their unique risks.

Another challenge is to establish safeguards against conflicts of interest and political corruption. It is important that the state bank is supervised in a manner that keeps the organization committed to supporting disadvantaged communities. Therefore, those governing the bank should be appointed by the state governor for a limited term upon meeting certain criteria that demonstrates professional expertise, while the director of such a board would be serve limited terms. The bank management would have a large degree of autonomy in deciding how loan portfolios are composed so as to best meet the unique needs of the local communities. Corruption and conflicts of interest can be fought with full transparency regarding the state bank's lending decisions and risk exposure, along with independent audits and periodical reports so that governing boards are held accountable to their constituents. Since the governor would hold the power to appoint board members, the bank would be mainly owned by the state government. Other individuals may be allowed a degree of ownership as well, albeit

subordinate to that of the state. Using voter-approved ballot measures to guide bank activities can be an effective safeguard against political corruption and deregulation. For example, the state bank can require approval by at least two-thirds of its shareholders/constituents to make any changes to the legal structure of the bank. Other safeguards involve independent audits and portfolio reviews or leverage limits. Regardless, state officials and bank managers need to be held accountable so that the needs of the communities and institutions whose tax dollars and funds are held at the state bank are prioritized.

Since the establishment of state banks would mean a huge loss of fee revenue for the large financial institutions on Wall Street, there is always the risk that politicians may be pressured by powerful private interests to deregulate or defund the state bank. The fact that state banks tend to charge lower interest rates on loans is not necessarily an inefficiency, rather demonstrates the bank's ability to reduce fees and debt servicing costs. However, there is the risk that the state bank may fail, maybe along with other financial institutions when the next systemic economic crisis happens, or due to the uncertainty inherent to long-term investing. Remember, SLGs are not currency issuers, and therefore cannot readily bail out institutions like the Federal Government or Federal Reserve can. Hence state officials may have to decide whether to bail out the state bank if things turn sour. State banks can also fall in trouble if the Federal Reserve enacts severe rate hikes, as doing so would cause severe financial disruption, much like how the Volcker Experiment in the 1980s helped push the majority of thrifts into insolvency. The chances of default will rise significantly if the state bank is deregulated to allow more asset classes in its investment portfolio so as to improve returns. Let us not forget where speculative activities led the world's economies in 2007; state banks cannot allow the same thing to happen to them.

State banks do not need to preoccupy themselves with returns, since they are not trying to make private profits. The way they promote public welfare is by giving state and local government a lower-cost alternative for municipal finance, thereby saving SLGs money, and by allocating credit for noble purposes, such as affordable housing and ecologically sustainable infrastructure development. Allowing state governments to develop their own monetary entity helps mobilize resources for the public purpose. Private, for-profit institutions do not have to fail for state banks to succeed; rather the two entities can coexist, as is the case in North Dakota. The

former cannot be expected to self-regulate or solve disproportionalities in credit allocation, as orthodox economists profess. History reveals that the interests of powerful, for-profit firms hardly coincide with the public interest (e.g. environmental degradation, massive home foreclosures). Minsky found stability to be destabilizing, as private financial institutions increase leverage and lower underwriting standards (increasing risk), eventually moving from hedge financing to Ponzi financing.⁷⁸ Since private spending and lending are mainly pro-cyclical, a public bank can help stabilize the finances of SLGs and various agencies.

Chapter 5: Conclusion

Many SLGs have not recovered from the GFC as robustly as corporations and financial markets in the last decade. Rather, they face substantial fiscal pressure from stagnating revenue and ever-increasing expenditures. A greater portion of SLG funds is flowing to private financial institutions in the form of interest and banking fees, thereby inducing even more fiscal strain from subsequent austerity measures. Governments should not be forced to withhold essential goods and services (e.g. water, healthcare, etc.) or stop important capital projects to repay debt. Paying financial rent should not come before protecting public welfare. The numerous failed financial deals suggest SLGs have a hard time controlling monetary operations if they keep turning to the money managers on Wall Street for municipal finance and investment.

Government safeguards should be put in place to redirect the flow of credit towards the local communities they are meant to represent and serve. States can charter their own financial institution with the task of providing low-cost credit for projects aimed at improving public utility. Recognizing the nature of credit creation in the US banking system, the state bank will be able to make loans immediately and without continual funding support from the state government. Hence, caution is needed in constructing the legal framework so that labor unions and other community organizations are involved and adequately represented in its management; they must be able to resist unnecessary and damaging deregulatory pressure.

The scope of this paper is limited to setting the theoretical foundation for a state bank. Further research could study how such an institution would operate in a particular state or region. Yet more questions need to be addressed. In which areas should state banks compete with private retail and commercial banks? Should the state bank be prohibited from certain financial activities? How would a state bank in a metropolis operate differently than one in a mainly rural state? How would their balance sheets differ? Nonetheless, any further analysis should explore how best to structure a state bank.

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