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Is a State Bank a Useful Economic Development Tool in the United States?

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Is a State Bank a Useful Economic Development Tool in the United States?

Abstract

The possibility of creating a state bank has received much recent attention in the United States. In 2021, six states introduced legislation to create a state bank; in 2019, similar legislation was enacted in California for municipal banks. This paper develops a framework to evaluate state banking, reviews prior experiences with state banking and related alternatives to traditional private banking and identifies five questions determining the advisability of creating a state bank. The overall goal is to shed some light on whether a state bank can be a useful tool to further state economic development and the welfare of state residents.

JEL-Codes: G210, G280, H700.

Keywords: state bank, public bank, credit allocation, economic development.

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Is A State Bank A Useful Economic Development Tool In The United States?

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Is A State Bank A Useful Economic Development Tool In The United States?

It is not by augmenting the [financial] capital of the country, but by rendering a greater part of that capital active and productive than would otherwise be so, that the most judicious operations of banking can increase the industry of the country.

Adam Smith, *The Wealth Of Nations*, 1776 (Vol. 1, p. 340)

I. Introduction

That banks play a major role in the economy has been recognized for many years. They perform two basic tasks – facilitate transactions and allocate credit – that are essential for a well-functioning economy. The 2008-2009 Global Financial Crisis and the 1929-1939 Great Depression, as well as the above quotation from Adam Smith, remind us that healthy banks and a robust economy tend to go hand-in-hand. Pressures brought by COVID-19 have created an environment conducive to innovative approaches to government finance and for new ways to build capacities that can enhance economic possibilities.

One such radical innovation is the creation of a state bank. In 2021, six U.S. states introduced legislation to create a state bank; in 2019, similar legislation was enacted in California for municipal banks. These legislative initiatives have been spurred by the long-standing concern that private banks operating in private markets are not fully serving the public interest. The concern has been amplified by the disproportionate economic impact of the Pandemic on small businesses and lower income households. Are the two critical tasks being discharged adequately? Can economic performance be improved by creating a state bank? These two questions are explored in this paper with a particular focus on the possibilities for a state bank. We develop a framework to evaluate state banking and review prior experiences with state banking and related alternatives to traditional private banking. The overall goal is to shed some light on whether a state bank can be a useful tool to further state economic development and the welfare of state residents.

The paper proceeds as follows. Section II considers the widespread concern that transaction services and credit are underprovided to some rural or urban communities. In the latter case, underserved communities are often segregated areas comprising people of color with low average incomes, and hence the question looms as to whether underservicing is directly related to racism or a response to underlying economic conditions. While discrimination in terms of disparate outcomes among communities of color is clear, the difficult question is whether discrimination is driven by animus or economics (or some combination of the two). An answer to this question is important for evaluating the role for public banks. Moreover, while financial transaction services have been limited in the past, this problem is being obviated by available technological developments, and thus there is little need for a state bank to provide transaction services to underserved communities. If there is a constructive role to be played by a state bank, it will be in expanded credit allocation.

Section III explores under what circumstances a state bank can allocate credit at lower cost to the existing pool of actual and potential borrowers than a private bank. Our analysis suggests that private banks may have cost advantages due to lower operating costs and a lower cost of borrowed funds. State banks may benefit from lower default rates and greater access to state deposits, both of which lower its cost of lending.

Section IV discusses the lessons to be gleaned from history. We study recent initiatives in six U.S. states and municipalities, a prominent community bank, German state banks, and other public banks. The section concludes with the lessons to be drawn from these banking experiences.

Section V concludes with five questions central to determining whether a state bank is likely to be a useful economic development tool.

II. Underserved Communities: Transaction Services

A. The Problem Of Discrimination: Animus vs. Economics

There is a widespread concern that transaction services and credit are underprovided to some communities. In a 2013 survey reported in *Banking In Color* (National CAPACE, National Urban League, National Council of La Raza, 2014), 19% of survey respondents from Hispanic, African-American, and Asian American & Pacific Islanders communities did not have a banking relationship. Underprovision can be measured several different ways (relative to population) -- bank branches, ATM's, business loans, residential mortgages -- and occurs when one or more of these metrics is relatively low in a certain geographic area or among a certain demographic group. Since transaction services and credit are central to wealth building and economic development, restrictions on services can have severely detrimental consequences.

Underserved communities (UC's) can exist in rural or urban areas. In the latter case, they are often segregated areas comprising people of color with low average incomes, and hence the question looms as to whether underservicing is directly related to race or a response to underlying economic conditions. Discrimination as measured by disparate outcomes among communities of color is obvious. The answer to the question -- is it animus or economics? -- is much less obvious. That answer is important for evaluating the potential role of public banks. If racial discrimination reflects animus, then there will be a profitable investment opportunity that a prejudiced market has overlooked. If economics, then it must be recognized that offering transactions services and credit to the UC's is likely to lead to a sub-par return.¹

The above animus vs. economics analysis focuses on the current situation and does not account

¹ In her analysis of Black banks in *The Color Of Money*, Baradaran (2017, pp. 4-5) makes a similar point about the poor returns from investing in UC's: "The very circumstances that created the need for these [black] banks -- discrimination and segregation -- permanently limited their effectiveness and would ultimately cause their demise. The catch-22 of black banking is that the very institutions needed to help communities escape deep poverty inevitably become victims of that same poverty." Also, see Crain's Chicago Business (2021) for a related story about the circumscribed lending opportunities facing Chicago's last Black-owned bank.

for the effects of past racism that has resulted in relatively weaker economic conditions for affected groups.² When comparing the relative performance of private and public banks in providing banking services, current economic conditions need to be taken as given. It is a separate question as to whether public policies – perhaps through a state bank – should be directed to ameliorate the adverse economic effects of past racist practices.

The key challenge in answering the animus vs. economics question is the identification of an appropriate benchmark. To provide some appreciation of the attendant difficulties, consider the following two non-finance examples. Gneezy, List, and Price (2012) conduct an experimental field study of disparate outcomes in several markets. In the automobile repair market, they find that disabled individuals are quoted prices 30% higher than those received by the abled. On the surface, this is a particularly counter-intuitive result, since there is likely to be some sympathy towards the disabled. In additional experiments, they document that the disparate outcome is economic in the sense that the repair shop owners are exploiting the greater difficulty faced by the disabled in searching for competing offers. The disparate outcome in this case is due to economics, not animus. The ability to access a network and foster competition proves to be the determining factors.

As a second example of the challenges in distinguishing between different sources of disparate outcomes, consider the price of branded laundry detergent (e.g., All, Tide) in low-income and high-income areas. One might suspect that prices would be higher in high-income areas, as those residents are less price sensitive and can absorb higher prices more easily, characteristics that merchants would recognize and exploit. However, branded laundry detergents are more expensive in low-income areas. Missing in the above analysis are two important factors: relative to low-income areas, high-income areas have more super-markets, warehouse clubs, or other grocery stores and these tend to be large, national chains. The first factor results in more competition; the second factor, lower costs from more potent

² Weaker economic conditions could be due to inferior schooling, denied job opportunities or, as emphasized by Massey and Deaton (1993), residential segregation.

buying power by the large chains. Both factors drive-down the price of branded detergent. The source of the disparate outcomes against low-income areas is economics, not animus.

These two examples illustrate the difficulties in assessing the root cause of disparate outcomes and the need to control for confounding factors. Returning to financial issues, the author was not able to find any studies of financial transaction services that adjust for confounding factors. There is an extensive literature on one class of loans – mortgages -- reviewed in the volume edited by Turner and Skidmore (1999) that gives a great deal of attention to confounding factors (such as loan-to-value ratios, other indebtedness, credit scores, and the ratio of housing and debt expenses to income) and the complexity of the mortgage process (advertising and outreach, pre-application inquires, loan approval/denial, loan terms, and loan administration). That volume highlights the challenges of defining a benchmark and notes that “[t]he problem is that these studies have not produced a clear consensus on a set of conclusions.” (p. 2).³ Based on the totality of the evidence, the editors conclude:

... that minority homebuyers in the United States do face discrimination from mortgage lending institutions. Although significant gaps remain in what we know, a substantial body of objective and credible statistical evidence strongly indicates that discrimination persists. (p. 2)

Audit studies (also labeled paired testing) provide a useful alternative assessment tool to statistical/econometric studies of mortgage data. In an audit study, two economically and, with one exception, demographically identical individuals (i.e., “pairs”) apply for mortgage finance. The only important difference is the race or ethnicity of the applicants. Turner and Skidmore (1999, p. 2) summarize the evidence from audit studies as follows:⁴

³ See Bayer, Ferreira, and Ross (2018) for a recent, very careful econometric study of racial and ethnic differences in high-cost mortgages in seven diverse metropolitan areas that controls for a number of confounding variables, especially the role of high-risk lenders.

⁴ In a survey of audit studies, Riach and Rich (2002, F480) report that “[c]ontrrolled experiments, using matched pairs of bogus transactors, to test for discrimination in the marketplace have been conducted for over 30 years, and have extended across 10 countries. Significant, persistent and pervasive levels of discrimination have been found against non-whites and women in labour, housing and product markets.”

Paired testing at the mortgage pre-application stage (conducted by the National Fair Housing Alliance) indicates that differential treatment discrimination occurs at significant levels in at least some cities. Minorities were less likely to receive information about loan products, they received less time and information from loan officers, and they were quoted higher interest rates in most of the cities where tests were conducted.

But, as with all empirical work in this area, concerns exist with the evidence and the methodology (Ladd, 1998, 57-58). Perhaps the most important limitation is that audit studies focus on the pre-screening stage, and they are not able to report on the application and approval stages.

In sum, definitive conclusions about racial discrimination *qua animus* are elusive. However, as discussed in the next sub-section, at least as regarding financial transaction services, this issue may not need to be addressed by state banks.

B. A Technological Solution To The Availability Of Transaction Services

Technological possibilities existing in the third decade of the 21st century are making financial transaction services widely available. Pew (2019) reports that 81% of adults have a smartphone; there is no meaningful difference among whites (82%), Blacks (80%), and Hispanics (79%). Mobile banking is the primary method by which bank accounts are accessed, rising from 9.5% in 2015 to 34.0% in 2019. The number of unbanked households has been falling sharply, from 8.2% in 2011 to 5.4% in 2019, a decline of 3.7 million households (FDIC, 2020). Financial transaction services can now be accessed with mobile devices, the internet, and ATM's. While 14% of bank branches have closed since 2008 (National Community Reinvestment Coalition, 2020), they are now largely irrelevant for providing financial transaction services. Indeed, this irrelevance may be a driving factor for branch closures. Since transactions services are more available, they have become less expensive because the competitive network has expanded. The two non-finance examples presented in section II.A highlighted the downward pressure on prices created by competition and networks.⁵

⁵ A less optimistic view of the possible benefits of new technologies is taken by Baradaran (2014) and Herndon and Paul (2020), who favor relying on the infrastructure of the United States Postal System (USPS). While my "field research" is limited, I have visited four post offices in the last year. Three (Boone, North Carolina; Naples, Florida; Saugatuck, Michigan) have no excess capacity for the infrastructure needed to deliver banking services. Chicago's

Table 1 documents the low cost of opening checking accounts with Chase, Citibank, and UnitedOne Bank. The latter is the largest Black-owned bank in the United States. The striking similarities among the services offered, monthly service fees, and waivers of the monthly service fees suggest a richly competitive environment for banking services. Financial transactions – depositing funds, making payments, and obtaining cash -- can be executed easily with access to the internet or ATM’s. Requirements for waiving the monthly fee are low, especially for Citibank. While financial transaction services have been limited in the past, this problem can be and is being obviated by technological developments, and thus there is little role for a state bank to provide transaction services to UC’s.⁶

Table 1. Checking Accounts

Bank	Services Offered	Monthly Service Fee	Waiver Of The Monthly Service Fee
(1)	(2)	(3)	(4)
Chase Total Checking	Electronic payment tools; fee-free Chase ATM’s	\$12	Electronic deposits of \$500 per month
Citibank Basic Banking Package	Electronic payment tools; fee-free Citibank ATM’s	\$12	One electronic direct deposit and one electronic direct payment per month or Account holder 62+ years of age
UnitedOne Bank BankBlack Checking	Electronic payment tools; fee-free UnitedOne ATM’s at 30,000+ locations	\$10	Electronic deposits of \$500 per month and 10 VISA point-of-sale transactions

Sources: Websites for Chase, Citibank, and UnitedOne Bank.

main post office has abundant space but is not convenient to residential centers. Space aside, the record of the USPS in delivering basic mail services does not inspire confidence that it is well-positioned to deliver financial transaction services. Moreover, a public bank providing transactions accounts is rife with conflicts. For example, in the face of a pandemic-like crisis or a deep “normal” recession, intense political pressure would arise to offer relief on overdrafts with, for example, a moratorium. Such relief would be even more likely just before political elections.

⁶ A marquee advertising event is the annual football Super Bowl; a 30 second commercial costs approximately \$5.5 million plus production costs. It is interesting to note that, in 2021, two of the advertisers (Rocket Mortgage and Guarantee Mortgage) provide online applications for mortgages. Citibank views Rocket Mortgage as a significant competitive threat, and it has already “committed to spending significant sums ... investing in new technology to try to compete with online competitors such as Rocket Mortgage and PayPal that make loans and provide payment services without relying on traditional industry players” (New York Times, February 11, 2021a).

III. Underserved Communities: Credit Allocation

A. Factors Determining The Cost Of Lending

The second banking task – allocating credit – is the primary function for which a state bank might have a unique and constructive role to play. This sub-section presents a general framework of the determinants of loan pricing by a bank, be it private or state, and explores under what circumstances a state bank can allocate credit at lower cost to the existing pool of actual and potential borrowers.⁷ Profits from these projects can then fund meritorious projects not supportable by private lending. Absent a cost advantage for a state bank, extending credit to UC's or projects with high social but low market returns via cross-subsidization is unsustainable.

Table 2 contains a list of three factors that determine loan costs – operating costs, loan defaults, and the cost of funds, the latter further divided among private deposits, state deposits, borrowed funds, and equity.⁸ The relative costs between private and state banks are discussed in column 2 and summarized in column 3.

In sum, the analysis in Table 2 suggests that a private bank may have cost advantages due to lower operating costs and a lower cost of borrowed funds. State banks may benefit from lower default rates and greater access to state deposits, both of which lower its cost of making loans.

Table 2. Factors Determining The Cost Of Lending

Factors	Discussion	Advantage
(1)	(2)	(3)
Operating Costs	Many private banks would be larger than a newly-established state bank. Economies of scale and scope suggest that private banks have a cost advantage.	Private
--continued--		

⁷ In broad terms, credit allocation can be direct via lending funds or indirect via subsidizing interest rates or guaranteeing credit issued by another party.

⁸ Deposits are treated separately from borrowed funds because the former are obtained at lower cost and likely benefit from deposit insurance. This treatment is also important because it allows us to consider the special role played by state deposits, a major advantage possessed by a state bank.

Factors	Discussion	Advantage
(1)	(2)	(3)
Loan Defaults	<p>Lending is risky business, and loan defaults are expected. A state bank may be better embedded into neighborhoods and thus have superior knowledge about its customers that results in better monitoring, and hence may suffer fewer loan defaults. The lower are expected defaults, the lower is the cost of making a loan.</p> <p>This advantage may be attenuated if a state bank extends high-risk loans in UC's that are correlated with lower incomes and weaker credit ratings or if a private bank is better positioned to enforce contracts ex-post.</p>	State
Cost Of Funds		
<ul style="list-style-type: none"> ■ private deposits 	There is no obvious advantage enjoyed by one type of bank versus the other, assuming that both private and state deposits are covered by the deposit insurance system.	None
<ul style="list-style-type: none"> ■ state deposits 	<p>In the course of discharging its routine tasks, a state generates a large amount of core deposits. Usually, they are deposited in a private bank. State deposits channeled to a state bank would be an important and inexpensive source of funds for a state bank.</p> <p>Transferring funds from a private to state bank may have an opportunity cost if the state receives banking and other services as compensation for the deposits. This opportunity cost would effectively raise the cost of state deposits at a state bank. However, private discussions with five financial officers in public institutions, private banks, and private businesses did not uncover any substantial benefits flowing from bank deposits.</p>	State
<ul style="list-style-type: none"> ■ borrowed funds 	<p>Borrowings from investors in the form of certificates of deposit (CD's) or other financial instruments or from other banks would likely be backed either implicitly or explicitly by the full faith and credit of the state. Due to the fiscal stresses that exist in many states, the interest cost of CD's and other bonds would likely be higher than those for private banks.</p> <p>Independent of the risk premium due to fiscal stress, large private banks would also have access to borrowed funds at a relatively lower interest rate because of their size and of a greater probability that they would receive a bailout under the "too big to fail" doctrine. These benefits would not accrue to small and medium private banks.</p>	Private
<ul style="list-style-type: none"> ■ equity 	It is frequently alleged that the amount of equity capital carried by private banks is a burdensome cost that a state bank can largely avoid. There is an element of validity to this concern. But the conclusion that private banks are disadvantaged does not bear-up under closer scrutiny. This allegation is labeled the "Excessive Equity Cost Misconception;" it is considered in detail in Section II.B.	None

B. The Excessive Equity Cost Misconception

This sub-section is an aside that considers the frequently alleged concern that the amount of equity capital carried by private banks is a burdensome cost that a state bank can largely avoid (Brown, 2013, p. 365; Mettenheim and Butzbach, Olivier, 2017, p. 40). To analyze the cost of equity, consider three scenarios of a bank needing \$300 to fund its lending activities:⁹

- Scenario A: The bank attracts \$300 of checking account deposits through vigorous advertising and offering gift cards for new accounts. It pays no interest on these deposits, but it does offer transaction services. Assume that the costs of providing these services, as well as the advertising and gift cards, amounts to \$30, or 10% of the funds obtained.
- Scenario B: The bank attracts \$300 by issuing a certificate of deposit (CD) with a maturity of 30 days. The interest rate that the bank must pay for this non-transaction deposit is 10%.
- Scenario C: The bank attracts \$300 by issuing bank equity. There is no maturity associated with equity, as these funds are permanently inside the bank. Bank equity is expensive, and investors require an expected return of 15% in the form of expected dividends and capital gains.

Given the above data, it would seem that Scenario C should be avoided because of the relatively high expense associated with bank equity. This is the germ of truth in the Excessive Equity Cost Misconception. However, there are two important features that distinguish equity from the deposits or borrowings and are fundamental to a proper analysis of the true cost of equity. First, equity capital is permanently within the bank, while deposits and borrowings are free to exit. Permanent funding is a large benefit to the bank relative to potentially transient deposits and borrowings. During the 2008-2009 Global Financial Crisis, two of the most prominent casualties – Bears Stearns and Lehman Brothers – suffered debilitating exoduses of borrowed funds. Similar stresses affected money market mutual funds during the Global Financial Crisis and the Pandemic, but they were rescued both times from bankruptcy by Federal Reserve intervention (New York Times, 2021b). The higher return paid on equity for its very long (infinite) maturity is, in effect, an insurance premium for the bank.

⁹ These scenarios are based on the assumptions that reserves and capital ratios are in excess of the bank's targets for checkable deposits, non-transaction deposits, and capital and that regulatory requirements are the same for state and private banks. Regulations specifically affecting a state bank would be determined in the enabling legislation. Details have not generally been provided in the legislation introduced to date. Insofar as the regulations are aimed to preserve the safety and soundness of financial institutions, they are likely to be quite similar for state and private banks.

Equity finance confers a second insurance benefit. In its normal operations, a bank generates revenues against which there are many claimants – workers, vendors, depositors, borrowers and, lastly, equityholders. This priority list shows that equityholders are the claimants on the residual funds available in the bank after all other claims have been satisfied. If no funds remain, then equityholders do not receive any dividends. This priority structure is a second form of insurance for banks that flows from equity. It is clearly undesirable for equity investors, who must be compensated for this risky, residual status with a higher expected return.

It might be argued that, since many state banks are backed by the full faith and credit of the state in which they operate, equity-as-insurance is not needed (Brown, 2013, pp. 378-379). This perspective is not sensitive to the fact that banks fail. Even the storied Bank of North Dakota (the one extant state bank in the United States; Jacobs, 2018; Chirinko, in process) and the German state banks (discussed in Section IV) posed default risks to the taxpayers backing those institutions. Risk is omnipresent in banking, and some group has to bear its potentially adverse effects, be it taxpayers or equityholders.¹⁰

Deposits, borrowings, and equity each add to the liability side of the bank's balance sheet. Each must receive a return in the form of some combination of transaction services, interest payments, dividends, and capital gains. Maturity and payment priority compensate for any differences in the nominal value of these payments.¹¹ In those cases where the state has contributed equity – either directly through a transfer during the start-up phase or indirectly through retained profits – but is not receiving any payments for these assets, the proper interpretation of these non-payments is as a subsidy from the state taxpayers to the state bank, not as a benefit of organizing a state bank.

¹⁰ The optimal allocation of risk between taxpayers and equityholders depends on the capacity for bearing risk and the salience of and subsequent reactions to risk. Both characteristics are relatively greater for equityholders.

¹¹ The returns on deposits, borrowings, and equity discussed in the text are, of course, arbitrary. As the bank draws on these various sources to optimize its balance sheet, the returns will change until, adjusted for the effects of maturity and priority (as well as taxes), they are approximately equal.

IV. Lessons From Prior Public Banking Experiences

A. Recent U.S. State And Local Initiatives, 2019 And 2021¹²

There is a great deal of recent interest by state legislatures in starting a public bank either at the state or municipal level. This sub-section reviews seven recent initiatives, six of which were introduced to legislatures in 2021. Information is summarized in Table 3.¹³ (Unless otherwise noted, quotations and citations in this sub-section are from the URL's presented in the Online Appendix.)

Before turning to those reviews, we discuss the important issue of the legal organization of a state bank. A state bank can be organized as an entity separate from and owned (in whole or in part) by the state. In this case, the state bank is sometimes referred to as a "government instrumentality" (e.g., government sponsored enterprises such as Fannie Mae and Freddie Mac), and their liabilities are not backed explicitly by the state government. This separation may raise the cost of borrowed funds for the state bank. However, the legal and financial liabilities of the sponsoring government are unclear, claims for financial support from distressed creditors are subject to litigation, and a state bailout is always a possibility. Alternatively, a state bank can be organized as part of the state's administrative apparatus, would be "doing business as" (DBA) a bank, and would benefit from the state's financial resources. These organizational structures have different implications for the risk being borne by the state and ultimately its taxpayers. Should the separate state bank face financial distress and need to be reorganized or liquidated, taxpayers would lose, at most, the value of their capital investments and deposits. However, under the DBA structure, all state assets would be jeopardized.

¹² This sub-section is not comprehensive. Thrift institutions – savings and loan associations, mutual savings banks, and credit unions – have been excluded because they tend to lend only to households. Three states that had examined the merits of introducing a state bank – Vermont (2010) and Maine (2011) -- are not included and Oregon (2010) and Hawaii (2012) are only mentioned in passing because these initiatives are somewhat dated. The experience of North Dakota is more relevant. Space constraints prevented its inclusion here; see Chirinko (in process) for a discussion of the Bank of North Dakota. Lastly, American Samoa has a state/territorial bank, but the island's size and unique location suggest that its experience will not be too Informative for the 50 states.

¹³ Hawaii is included in Table 3 but not analyzed in the text because that legislation only created a working group to explore the possibility of creating a state bank. A similar exploration had been undertaken in 2012.

Table 3. Recent U.S. State Initiatives, 2019 & 2021

State	Public Bank		Status of Legislation
	State	Municipal	
(1)	(2)	(3)	(4)
California		xxx	Enacted
Illinois	xxx		Introduced
Massachusetts	xxx		Introduced
New Mexico	xxx	xxx	Introduced/Explored
New York	xxx		Introduced
Oregon	xxx		Introduced
Washington	xxx	xxx	Introduced/Explored
Hawaii, Legislation to create a working group to consider a state bank			Explored

Sources: The Public Banking Institute maintains a website with a wealth of current information: <https://www.publicbankinginstitute.org/legislation-local-groups-by-state/> . URL's to the legislation from the eight states listed in Table 3 can be found in the Online Appendix.

Among the seven states examined here, the **State Of California** is unique in enacting legislation, Assembly Bill 857 on October 2, 2019, that repealed the prior prohibitions on municipalities and counties from opening a public bank and from depositing their funds in such an institution. This act

... authorize[s] the lending of public credit to public banks and authorize[s] public ownership of public banks for the purpose of achieving cost savings, strengthening local economies, supporting community economic development, and addressing infrastructure and housing needs for localities. It is the intent of the Legislature that public banks shall partner with local financial institutions, such as credit unions and local community banks, and shall not compete with local financial institutions.

Public credit is not defined in the legislation, but it would seem to refer to the funds held by various state agencies. The public bank is intended to undertake an aggressive lending program aiding local economies and communities that complements those undertaken by credit unions and local community banks and meeting “infrastructure and housing needs.” Before submitting an application for a public bank, a study must be conducted that details start-up costs, the required amount of initial capital, “a downside scenario that considers the effect of an economic recession on the financial results of the proposed public bank,” and “how the proposed governance structure of the public bank would protect the bank from unlawful insider transactions and apparent conflicts of interest.” The public banks authorized by this legislation are to be owned by municipalities and counties, not the State Of California.

In 2010, interest in a state bank surfaced in the **State Of Illinois**. Illinois Representative Nekritz contacted the University of Illinois' Institute of Government & Public Affairs (IGPA) about the prospects of establishing a state bank. IGPA was not encouraging for several reasons:

- Illinois already has a very broad and deep financial network.
- A state bank would likely compete with community banks, who would be expected to resist vigorously.
- The report recognized that, in many instances, small businesses had difficulty in obtaining credit, but linked those problems to high levels of risk. There was no obvious market failure regarding small business lending.
- Concern was expressed about preventing the bank from operating for the political or personal advantage of public officials.

Representative Nekritz did not pursue the matter further.

However, Representative Flowers began to introduce legislation successively over many years to create a state bank. Such legislation (HB0089) was introduced again on January 14, 2021,

For the purpose of encouraging and promoting agriculture, commerce, and industry, the State shall engage in the business of banking, and for that purpose shall maintain a system of banking owned, controlled, and operated by it, under the name of The Community Bank of Illinois.

Farmers are to enjoy loans that are 1% below the Bank's base rate, though the legislation does not specify how the base rate is determined.

There would be close relations between the Bank and the State of Illinois. The Bank is to be managed by the State of Illinois Department of Financial and Professional Regulation, and its advisory board is appointed by the Governor. All state funds must be deposited in the Bank, and income resulting from these deposits must remain in the Bank. Since the State of Illinois is doing business as the Community Bank of Illinois, Illinois taxpayers are at risk in the case of financial distress and that risk is stated explicitly -- "[a]ll deposits in The Community Bank of Illinois are guaranteed by the State." There is a close relationship between the Bank and elected officials. "[W]hen the balance in the General Revenue Fund is insufficient to meet legislative appropriations, [State officials may] execute and issue on behalf of the State evidences of indebtedness on the State General Revenue Fund." Of particular concern is that "The Department [to which Bank management reports] may in turn direct The Community Bank of

Illinois to make loans to the General Revenue Fund by the purchase of the evidences of indebtedness at those rates of interest as the Department may prescribe.”

The Commonwealth of Massachusetts has had two separate legislative initiatives concerning a state bank. In 2010, legislation was introduced that “... authorized a Commission to study the feasibility of establishing a bank owned by the Commonwealth or by a public authority constituted by the Commonwealth.” The report (Commission, 2011) listed four potential benefits of a Massachusetts state bank: (1) stabilizing the state’s economy, (2) providing local businesses improved access to credit, (3) helping fund state government through profits, and (4) augmenting the lending capacity of community banks. The report confirmed that there was evidence (from the experience of the Bank of North Dakota) supporting the fourth benefit. However, the report found that data did not support the three other stated benefits. Regarding placing state funds in a state bank, the Commission expressed concern about the amount of equity capital needed to start the bank and the financial capacity of a bank to service the state’s transactions needs, especially concerning negative, intra-day balances. The Commission confirmed that small businesses faced difficulties obtaining credit but believed that those needs would be better serviced by other state and quasi-state agencies. The overall conclusion was that “The Commission finds no compelling rationale, at this time, to establish a state-owned bank in Massachusetts.”

However, after a long hiatus, interest has reemerged in Massachusetts, and nearly identical legislation (H1223 and S665) has been introduced on February 18, 2021. Seventeen goals are listed that range widely:

- ensuring that public bank deposits finance economic activity within the commonwealth,
- supporting various groups (cities and towns, small and medium enterprises especially in underserved communities, rural business, state-chartered banks, worker-owned coops, women-owned enterprises),
- providing economic development assistance (affordable financing and housing, job creation, sustainable agriculture, state-based public, quasi-public and non-profit agencies),
- addressing social issues (food insecurity, the historic and current economic inequities experienced by the state’s communities of color and women, climate change).

The board of directors consists of nine members, eight appointed by the state treasurer, as well as the state treasurer or the state treasurer's designee. Initial capitalization (over a four-year period) would be \$200 million matched by \$50 million of Commonwealth bank deposits. "All deposits and other liabilities of the Bank shall be guaranteed by the full faith and credit of the commonwealth."

Legislation (House Bill 236) has been introduced in **The State Of New Mexico** on February 2, 2021 to create The Public Bank Of New Mexico. The bank would receive a permanent deposit of \$50 million from the state treasurer. These funds are not to be withdrawn, and thus are effectively equity capital. The state investment officer would also deposit \$50 million. The public bank would engage in normal lending by a bank with an emphasis on supporting the development of small businesses throughout the state, presumably ones that have had difficulty obtaining credit from private banks. This lending is meant to complement existing lending programs, not necessarily pursue new credit initiatives. Several members of the board of directors are to have experience with infrastructure development for communities. Since the public bank would be created as a governmental instrumentality, it would be distinct from the State of New Mexico, which would not be directly responsible for the bank's financial liabilities.

The Public Bank Feasibility Study was undertaken by the **City Of Santa Fe** in 2016. Some weaknesses in city financial management were addressed by changes in the Santa Fe Treasury Office. As a result of this study, the city has a framework for establishing a municipal bank but has not moved forward with this initiative.

New York State has three bills pending in its legislature pertaining to the creation of a state bank (Assembly Bill 3309, Senate Bills 1055 and 1762). There is a great deal of overlap among the three bills; here we focus on the text of A3309, introduced on January 22, 2021.

"The mission of the bank is to use New York's depository assets in ways that afford most efficient use of taxpayer revenues and public resources for the benefit of the people and economy of the state."

"...[t]he legislature intends to create the empire state public bank as a legacy institution that amasses sufficient capital reserves to address opportunities now and in the future."

This public bank would invest in infrastructure, lend to students, businesses, communities, and low-income areas, and partner with extant institutions. The legislation expresses concerns about “institutional safety and soundness” and the need for “insulation from political influence.” Default risk would be borne by the state; “[a]ll deposits in the Bank are guaranteed by the state.”

Legislation (Senate Bill 339) has been introduced in the **State Of Oregon** on January 11, 2021 to create the Bank of the State of Oregon with the following purposes:

- (a) To support the economic development of this state by increasing access to capital for businesses and farms within this state in partnership with local financial institutions.
- (b) To provide stability to the local financial sector, and not in any way to compete with community banks, credit unions or other financial institutions.
- (c) To reduce the costs this state pays for basic banking services.
- (d) To fund governmental operations with a portion of the bank’s earnings.

Funding for the state bank would be from state deposits:

The State Treasurer shall deposit moneys the State Treasurer receives under ORS 293.265 with the bank in an amount the Bank of the State of Oregon Board determines is necessary to allow the bank to fulfill the bank’s duties and functions under sections 1 to 11 of this 2021 Act.

Default risk is borne by Oregon taxpayers:

Deposits in the Bank of the State of Oregon are guaranteed by the State of Oregon. ... designated as “The State of Oregon, doing business as The Bank of the State of Oregon.”

The **State Of Oregon** had commissioned a 2010 study examining the possibility of starting a state bank. No recommendations were reached; rather, a series of questions for further consideration were posed.

Washington State had Senate bill 5188 introduced on February 10, 2021. A market failure by private banks in meeting the financing needs of local and tribal governments is stated. The state bank/cooperative is intended to assist UC communities, especially with regard to infrastructure, housing, and economic investments and alleviate the market failure:

The legislature finds that a Washington state public financial cooperative would provide opportunities for local and tribal government entities to competitively finance a broad array of public infrastructure and economic development projects, including housing, at competitive rates with low administrative costs. A state public financial cooperative will complement the existing banking system by filling gaps that the system cannot or will not fill, and it will be uniquely positioned to provide specialized technical assistance to the diverse needs of local and tribal government entities.

The legislation is specific about the benefit of using state/local/tribal funds and is very sensitive to the potential risks from a bank on state finances. Like New Mexico, the Washington state bank would be a government instrumentality. Substantial distance is created explicitly between the liabilities of the bank and state resources:

It is the purpose of this chapter to establish a Washington state public financial cooperative to act as a financial conduit that, without creating state debt, can receive funds from state, local, and tribal government entities, issue and make loans to those entities, and issue bonds in a manner that does not create state debt, to help facilitate access to needed capital by local and tribal government entities on reasonable terms and rates.

Bonds issued under this chapter must be issued in the name of the cooperative. The bonds are not obligations of the state of Washington, may not create state debt, and are obligations only of the cooperative payable from the special fund or funds created by the cooperative for their payment. Such funds are not public moneys or funds of the state of Washington and at all times must be kept segregated and set apart from other funds.

While bonds cannot be issued in the name of the state of Washington, the initial equity capital will come from a state appropriation, and hence the state will bear some distress risk.

The Washington State Treasurer conducted a comprehensive study of state banking and concluded that the risk/return tradeoff was not favorable (Davidson, 2018, p. 54). The city of **Seattle** commissioned a 2018 study, but it was generally not encouraging about moving forward with a municipal bank, especially regarding the start-up process.

B. Chicago's ShoreBank

ShoreBank was a mission-driven, community bank that had a major positive impact in the area it served. Its mission was to invest in and revitalize inner-city communities. Founded in 1973, it focused its lending in the South Shore community in the southeastern part of Chicago. The area was in transition from predominantly white to predominantly Black residents and, while income was declining, the community was not in a parlous condition. Despite its social mission and thus occasional extension of credit to high-risk borrowers, ShoreBank was successful and apparently earned a rate of return on its assets comparable to similar financial institutions (Taub, 1988, Table 7.1). This profitability was due in part to depositors attracted to its mission and, in part, to its superior knowledge of the community.

ShoreBank was in business for 35 years and had grown substantially, having assets of \$2.6 billion prior to liquidation. There were two reasons for its financial distress (Taub, 2010). The bank had expanded from its original area to undertake similar mission-driven, community banking in Chicago's Westside, rural Arkansas, Cleveland, Detroit, the Upper Peninsula of Michigan, and the Pacific Northwest and with affiliates in 30 countries. The bank expanded beyond its competency. The Great Recession was a second contributing factor. As with most recessions, communities of color are more adversely affected, which had a severely negative effect on ShoreBank's cash flow. Its application for support from the federal Troubled Asset Relief Program (TARP) was denied, and it was liquidated by the FDIC in 2010.

C. German State Banks

Public savings banks play a very prominent role in Germany. They are divided between local savings banks (*sparkassen*, owned by municipalities and counties) and state savings banks (*landesbanken*, owned by the *sparkassen* and the state (*land*) in which the *landesbanken* operates). The mission of the savings banks has changed markedly over time. Originally, it echoed those found in several of the U.S. public banking initiatives:

The savings banks were originally conceived not as commercial profit-making concerns but rather as state institutions with obligations to provide banking services to less well-off members of the community, to furnish credit on favourable terms to public authorities, and to finance

local investment of benefit to the region in which the savings bank was located.” (Edwards and Fischer, 1994, p. 103)

In recent years, the local savings banks tend to have retail customers, lend to small business, and place their surplus funds with the state savings banks. The latter focus their lending on medium and large firms. The operations of the local savings banks tend to be restricted to the state in which they are located. No such restrictions apply to state savings banks; however, they are the house banks for their own state governments and provide banking services (e.g., payments processing, investment of surplus funds) to the local savings banks in their home regions.

State savings banks (hereafter, state banks) have moved far from their original mission, driven largely by competition over market share with the other two main groups in the German banking system – cooperative banks and commercial banks.¹⁴ In 1969, a market-oriented reform plan was introduced by the president of the national association of savings banks and was enthusiastically endorsed by the Federal Economics Minister. In recent years, the operations of state banks are quite similar to those of private banks and include wholesale banking, securities trading, underwriting, and international business. As a result of a wave of consolidations, there are now only five German state banks, four of which are among the top nine banks in Germany (measured by assets in 2017). They are viewed by some policymakers and commentators as a counterweight to the monopoly power presumably enjoyed by large private banks.

The liabilities and equity of the state banks had been guaranteed by their home state until 2005. Sinn (1999, Sections 3.2 and 3.3) argues forcefully that this guarantee was responsible for their expansion. These guarantees clearly had value. In 2005, the guarantees were terminated (based on a 2001 agreement), and the debt ratings of the 10 state banks in existence at that time fell sharply.¹⁵ Fitch

¹⁴ Deeg (1999, Chapter 2) and Sinn (1999, Chapter 2 and Appendix 1) describe the historical evolution of state savings banks and other key players in the German banking system.

¹⁵ The removal of the guarantee had two opposite effects on bank risk-taking: 1) an increase due to lower charter value and 2) a decrease due to increased market discipline by bank creditors. Fischer, Hainz, Rocholl, and Steffen (2014) find that risk-taking increased in state savings banks, suggesting that the charter channel dominates the market discipline channel. The guarantee was also removed for local savings banks. Körner and Schnabel (2013) argue that the second channel will not be operative for these banks; their empirical results are consistent with this prediction. However, Gropp, Gründl, and Güttler (2014) obtain the opposite result, finding that bank risk-taking

reports the following declines in rating notches for [n] state banks: a decline of 4 notches [for 2 state banks], 5 [5], 6 [2], 7 [1] (Körner and Schnabel, 2013, p. 13).¹⁶ Sinn estimates that the cost of state bank loans is increased by approximately 20 basis points when the debt rating is lowered one notch on a 5-year bond, and increased by approximately 14 basis points for a 10-year bond. This state support may have led to a classic moral hazard problem, where a bank feels free to take undue risks because it is backstopped by the financial resources of the state. Many of the state banks have received financial assistance from their states. As a result of unprofitable real-estate speculation, the State Bank Of Berlin needed a capital injection of \$2 billion and a loan guarantee of \$26 billion (Hau and Thum, 2009, Section 2.2). The spectacular failure of the West State Bank (the state bank of North Rhine-Westphalia) cost taxpayers and savings banks \$23 billion (Inverardi, 2012, p. 1).

D. Other Public Banks

This subsection examines the experiences of public banks that are, for the most part, not organized by the state at the sub-national level, but rather at the national level or that have a large percentage of government ownership. In an important and often-cited article, La Porta, Lopez-de-Silanes, and Shleifer (2002) posit two views of government ownership: the development view (DV) where government involvement solves market failures, attenuates financial frictions, and directs economic resources to social outcomes ignored by private enterprise, and the political view (PV) where government involvement directs resources to non-economic political objectives. They document the pervasiveness of government ownership of banks around the world and find that greater government ownership is associated with slower subsequent financial system development, economic growth, and productivity growth. This evidence is interpreted as largely favoring the PV.

decreased. They emphasize that local savings banks responded to the removal of the guarantee by altering the composition of liabilities and taking on more equity, which they interpret as another form of market discipline.

¹⁶ The impact of this policy change cannot be assessed directly by examining changes in interest rates on state bank bonds (before and after the guarantee was removed) because of anticipation effects. The decision to remove guarantees effective July 18, 2005 was made four years earlier on July 18, 2001. State banks could and did issue bonds during this four-year interval and still enjoyed the benefits of the state guarantee.

Several subsequent studies with less aggregate data are also consistent with the PV. In their study of Spanish savings banks, Illueca, Norden, and Udell (2014) find a positive relation between regional political influence and ex-ante risk-taking and ex-post loan defaults. In her study of Italian public banks, Sapienza (2004) documents that these banks charge lower interest rates than private banks to firms that are financially similar, and this differential is greater for firms politically connected to the public bank. Moreover, firms that have access to private credit nonetheless borrow from public banks. De Bonis (1998, Table 5) reports lending by Italian public sector banks is seven times greater to all levels of government than by private sector banks and is concentrated in loans to local governments. This body of work suggests that public banks are responsive to political pressures.

A government guarantee is another means by which governments can support the banks they own. Brown and Dinc (2011) report that bank defaults are less common for public banks than private banks. Caprio and Martinez Peria (2001) show that public ownership of banks tends to increase the likelihood of banking crises, suggesting that these banks take-on more risks as a result of a government guarantee. While not focusing specifically on public banks, the study by Faccio (2006) of 20,202 publicly-traded firms in 47 countries finds that financially distressed firms that are politically connected are relatively more likely to receive a bailout. Gropp, Hakenes, and Schnabel (2011) present evidence that government guarantees lead to increased risk-taking only by public banks and conclude that public banks are more likely to expect bailouts. These results suggest that a state bank's legal organization – separate or DBA status – may be unimportant because a state bank is likely to have access to state financial resources in the event of financial distress.

Political influence seems to matter a great deal, but it does not necessarily indicate corruption and resource misallocation (as evaluated by a social metric, not a private one). A finding in support of the PV does not imply that public banks are not fulfilling their mission. One of the motivations for a state or any public bank is that certain important needs are not being met by private markets. Thus, one would expect that, in addressing social objectives, government-influenced banks would tend to have poorer economic outcomes evaluated by traditional metrics. Sinn (1997) has labeled this mechanism the “Selectivity

Principle.” In a democratic society, the economically disadvantaged gain access to resources through the agency of the public sector that, in part, controls resources via banks. The returns from this support are not expected to meet the market test.

The PV view must be divided between the self-serving political view (SSPV) and the unexploited opportunity political view (UOPV). To differentiate between these two views, some papers have relied on electoral cycles, which are usually determined independent of any economic or political considerations. Dinc (2005) reports that public banks increase their lending in election years relative to private banks. Englmaier and Stowasser (2016) provide evidence for German savings banks that are controlled by county-level politicians systematically adjust lending policies in response to local electoral cycles. Using plant-level data for Brazilian manufacturing firms, Carvalho (2014) reports that, just before competitive regional elections, bank lending expands at favorable terms. On balance, this body of work suggests that the SSPV is most relevant.

There are not many studies of governance issues pertaining to public banks, but two studies are useful for our analysis of state banks. Public banks have a broad social mission, and hence their board of directors has members with a wide-range of experiences. This breadth may be problematic. In their study of German public banks, Hau and Thum (2009) find that less financial and managerial expertise among board members is linked to poor economic performance during the 2008-2009 financial crisis. For a state bank, there would appear to be an important tradeoff between broad community representation and narrow financial expertise. De Haan and Vlahu (2016) present an exhaustive survey of bank corporate governance and conclude that “...some of the empirical regularities found in the literature on corporate governance of non-financial institutions (e.g., the positive (negative) association between board independence (size) and performance) do not hold for banks” (p. 266). They trace these empirical results to differences in regulations, capital structure, and complexity/opacity between financial and non-financial institutions, characteristics that also apply to public banks.

E. Lessons Learned

While there are a wide range of issues discussed in this section, six appear particularly germane to the subject of starting a state bank:

1. **Deposits** held by the state treasurer are an attractive source of funds. It should be noted, however, that not all state funds would be eligible for transfer to a state bank because of various laws dictating how government funds can be deposited and invested.
2. **Economic development** is a key motivating factor for starting a state bank. It takes the form of assisting small businesses, students, and UC's or targeting critical sectors that will lead to sustained growth. Five of the seven recent U.S. state initiatives mention infrastructure investment.
3. **Risk** is inherent with any bank, and financial distress has occurred in several instances. The legislation introduced in the State Of Washington explicitly recognizes and emphasizes the inherent risks with a state bank and attempts to insulate taxpayers from the negative effects of a financially distressed state bank. Even in the proposed legislation for the State of Washington, the initial equity capital injection by the state would be vulnerable and could lose value if the state bank becomes financially distressed. Risk is impossible to avoid.
4. **Equity** is one way to attenuate (but not eliminate) distress risk by providing a permanent source of funds. However, the equity required to start a bank might strain state finances.
5. **“Mission Creep”** and **political influence** are ongoing concerns. The histories of Chicago's ShoreBank and the German state banks, as well as the recent legislation from Massachusetts with its 17 goals, highlight how risk-bearing, the associated moral hazard, and mission creep can impede a state bank from fulfilling its original goals and can lead to financial distress.
6. **Private bank competition** is a potential concern. Forming partnerships, focusing on underserved market gaps, and providing liquidity and other banking services (to small banks) can attenuate concerns.

V. Summary And Five Remaining Questions

A. Summary

Can economic performance and citizen welfare be improved by creating a state bank? The framework and evidence presented above indicates that an affirmative answer depends on its capabilities in allocating credit and extending loans. The analysis delivered a mixed verdict as to whether a state bank is in a better position to provide unique and valuable benefits to the community relative to private banks. The advisability of creating a state bank and whether it can be a useful economic development tool with future promise hinges on five questions examined below.

B. A Useful Economic Development Tool With Future Promise?

i. What Are The Net Benefits Of State Deposits?

Our analysis highlighted that a crucial factor favoring the creation of a state bank is the transfer of the state deposits from private banks. These deposits are a sizeable and stable source of inexpensive funds, and they are arguably the backbone of the success of the Bank of North Dakota.¹⁷

The pool of funds available in, for example, Illinois is extensive, \$7.4 billion as of December 31, 2021. These funds are placed in the Illinois Public Treasurers' Investment Pool, which is also known as The Illinois Funds (Illinois State Treasurer, 2020, p. 1):

...a local government investment pool operated by the Treasurer for state and local government agencies.

This program provides a critical service for state and local agencies, enabling them to pool their money and invest in a safe, liquid investment vehicle that exceeds industry benchmarks.

Created in 1975, The Illinois Funds was the first local government investment pool established in the nation.

The Illinois Funds is comprised of over 1,500 participating entities, holding approximately 3,000 accounts with net assets of approximately \$7 billion.

These assets are invested in very liquid, short-term assets, and the Fund must conform to SEC Rule 2a-7, which stipulates that the average, dollar-weighted maturity of the portfolio be 60 days or less. As of the end of 2020, the average maturity of the Illinois Funds was 58 days. Thus, the return on these assets will be close to the return on money market funds.¹⁸

These deposits, however, are not necessarily "free money." If transferred to a state bank, they come with three costs:

¹⁷ According to the Bank of North Dakota's president, one of the two key elements to the Bank's success is "[o]ur funding model, our deposit model is really what is unique as the engine that drives that bank. And that is we are the depository for all state tax collections and fees. And so we have a captive deposit base, we pay a competitive rate to the state treasurer (Harkinson, 2009, p. 4).

¹⁸ As of December 31, 2020, the monthly effective yield was 0.094%. This figure may not provide an accurate assessment of the normal return on Illinois Funds assets given the historically low interest rates prevailing in 2020. Nonetheless, restrictions imposed by Sec Rule 2a-7 ensure that the yield on Illinois Funds assets will be very low.

- The provision of financial transactions services for the state.
- The foregone value of non-transaction services received from private banks in which state funds had formerly been deposited, less any fees paid by the state. However, private discussions with five financial officers in public institutions, private banks, and private businesses did not uncover any substantial benefits flowing from bank deposits.
- The destabilizing effects of withdrawing state deposits from private banks, especially smaller institutions with limited access to alternative sources of finance such as the interbank market.

Quantifying these three costs are important to confirm that state deposits are truly cheap money. When a full evaluation is completed, it is likely to show that there will a substantial net benefit to the state bank from state deposits. With lower costs in extending loans, a state bank will be able to pursue social lending on a sustainable basis.

ii. **How Vulnerable Are Taxpayers To State Bank Risk?**

State banking is risky business. The histories examined in Section IV document that failure is not infrequent and risk is omnipresent. The state faces three sources of risk:

- Liability risk. To attenuate liability risk, the state might commit its resources to guarantee the state bank's liabilities. In that case, this guarantee will lower funding costs and increase the bank's surplus. If retained within the bank, this surplus will have adverse competitive effects for private banks. If returned to the state, this surplus is a clear benefit. But these benefits must be balanced against the increased risk that the state and its taxpayers would now bear.
- Equity risk. Since the state bank is owned by the state, the initial equity capital must be provided by the state. To be comparable to the Bank of North Dakota, an Illinois State Bank, for example, would need \$6 billion of equity capital, 14% of Illinois' 2022 proposed budget.¹⁹ This substantial sum is at risk, though the risk is capped by the value of the initial investment.
- Legal risk. This occurs if the state bank is legally connected to the state, especially if it operates under the "doing business as" structure.

The costs associated with these risks need to be evaluated and quantified.

¹⁹ The Bank of North Dakota's startup capital in 1919 was \$2 million, corresponding to \$364 million in 2020 (inflated by the growth in nominal GDP). The State Of Illinois' 2019 population is 16.6 times larger than that of North Dakota, and the comparable figure for an Illinois State Bank would be \$6 billion.

iii. Why Will A State Bank Have Better Success Supporting Underserved Communities?

One of the two key motivations for a state bank is that it will be able to assist underserved communities, especially in providing loans and credit. (Somewhat cynically, there are concerns that funding from a state bank may be a means of circumventing balanced budget restrictions in 49 states, especially concerning infrastructure investments.) Offering such assistance has been an ongoing policy goal for at least five decades. In 1964, President Johnson initiated actions in his War On Poverty and in the Economic Opportunity Act. The latter created work-training programs (including the Job Corps) and urban & rural community action programs. This same set of policy concerns has faced the Community Development Financial Institutions Fund (created in 1994), numerous enterprise zones, and many other federal, state, and local government policy initiatives, the most recent of which is the Opportunity Zone Program created in 2017. Unfortunately, place-based programs “... often fail to benefit the places and people they are intended to aid” because they are poorly targeted and poorly tailored to community needs (Pew, 2021, p. 1).²⁰ Will a state bank be more successful in overcoming past obstacles supporting underserved communities? There are surely many meritorious projects that deserve support. However, the advantage of pursuing these policy goals via a state bank, rather than direct legislation, remains to be established.

iv. Can A State Bank Correct Market Failures?

A second prominent motivation for a state bank is that it will correct market failures and promote economic development.

Small businesses are allegedly caught betwixt and between large and small banks when attempting to obtain credit. Large banks find small businesses unattractive because opportunities are limited to cross-sell products and information is costly to acquire. Small banks do not have

²⁰ See Bartik (2020) and Austin, Glaeser, and Summers (2018) for recent and comprehensive reviews of place-based policies and the possibilities for constructive policy actions.

the financial resources to fill the void. Why large banks do not seize these opportunities by, for example, creating a separate small business division, remains puzzling.

The financial sector may fail to support small banks who do not have access to national capital markets. Similar to the German state banks, a U.S. state bank could provide liquidity and other banking services to smaller banks. In addition, a state bank could reduce credit risk by pooling loans from different small banks. How important are these alleged market failures in a state with a well-developed financial infrastructure?

In many states, the financial sector is dominated by a few large institutions that ration loans or extend them on relatively unfavorable terms. The creation of a state bank would expand the competitive landscape. Firms and households would have more banks to choose from and, as the non-financial examples in Section II.A documented, the ability to access alternatives is very important in securing low-cost loans.

How many states are affected by these market failures and can a state bank eliminate them?

v. **How Can A State Bank Be Insulated From Political Interference?**

There is a substantial concern about the politicization of credit and “mission drift.” The histories of the Chicago ShoreBank and the German state banks give pause. In his chapter on “The challenge of keeping public banks on mission,” Scherrer (2017, p. 244) is a bit pessimistic: “[p]lacing the mission drift in this larger framework precludes any easy panacea for keeping public banks to their public purpose.” Jacobs (2018, p. 11, commissioned by the Bank) begins his history of the Bank of North Dakota by noting that “[t]he Bank of North Dakota is a financial institution, of course, but it is also a political institution.” Moreover, the three members of the board of directors are all elected officials. Despite these political pressures, the Bank of North Dakota has prospered. As the Bank’s president, Eric Hardmeyer, states in an interview in the *American Banker* (2011):

If you are going to have a state-owned bank, you have to staff it with bankers. If you staff it with economic developers you are going to have a very short-lived, very expensive experiment. Economic developers have never seen a deal they didn’t like. We deal with that every day.

It is still not clear how the politicians have been kept at bay in North Dakota. While the sustained profitability of the Bank of North Dakota is impressive, the general applicability of this model may be limited because, in many states, the financial sector is better developed and the population is much larger than the 762,000 residents who live in North Dakota. Nonetheless, the Bank's impressive performance and its ability to largely stay on mission over its 100+ year history suggest it may be possible to keep political interference to an acceptable minimum.

References

- American Banker, "Reluctant Role Model: The Bank of North Dakota," *American Banker* (April 1, 2011).
- Austin, Benjamin, Glaeser, Edward, and Summers, Lawrence, "Jobs for the Heartland: Place-Based Policies in the 21st-Century," *Brookings Papers on Economic Activity* (Spring 2018), 151-255.
- Bank of North Dakota, *From Surviving To Thriving: 2019 Annual Report* (Bismarck: Bank of North Dakota, 2019).
- Baradaran, Mehrsa, "It's Time for Postal Banking," *Harvard Law Review Forum* 127 (February 24, 2014), 165-175.
- Baradaran, Mehrsa, *The Color Of Money: Black Banks And The Racial Wealth Gap* (Cambridge and London: Harvard University Press, 2017).
- Bartik, Timothy J., "Using Place-Base Jobs Policies to Help Distressed Communities," *Journal of Economic Perspectives* 34/3 (Summer 2020), 99-127.
- Bayer, Patrick, Ferreira, Ferenando, and Ross, Stephen L., "What Drives Racial and Ethnic Differences in High-Cost Mortgages? The Role of High-Risk Lenders," *Review of Financial Studies* 31/1 (2018), 175-205.
- Brown, Ellen H., *The Public Bank Solution: From Austerity to Prosperity* (Baton Rouge, Louisiana: Third Millennium Press, 2013).
- Brown, C.G., and Dinç, I.S. "Too many to fail? Evidence of regulatory forbearance when the banking sector is weak," *Review of Financial Studies* 24/4 (2011), 1378–1405.
- Caprio, G. and Martínez Pería, M. S., "Avoiding disaster: policies to reduce the risk of banking crises," in E. Cardoso and A. Galal (eds.), *Monetary Policy and Exchange Rate Regimes: Options for the Middle East* (Cairo: The Egyptian Center for Economic Studies, 2001), 193-230.

Carvalho, Daniel, “The Real Effects of Government-Owned Banks: Evidence from an Emerging Market,” *Journal of Finance* 69/2 (April 2014), 577-609.

Chirinko, Robert S., “The ‘Secret Sauce’: Understanding the Success of the Bank of North Dakota,” University of Illinois at Chicago (in process).

Commission to Study the Feasibility of Establishing a Bank Owned by the Commonwealth, *Report* (August 8, 2011).

Crain’s Chicago Business, “Chicago’s last Black-owned bank got millions in government deposits – then had to give them back,” (December 22, 2021).

Davidson, Duane A, “Study Of The Studies: A comprehensive review of state, municipal, city, and public banking,” A Report from the Office of the Washington State Treasurer (updated, November 29, 2018).

Deeg, Richard, *Finance Capitalism Unveiled* (Ann Arbor: University Of Michigan Press, 1999).

De Bonis, Riccardo, “Public sector banks in Italy: past and present,” Bank of Italy (1998).

De Haan, Jakob and Vlahu, Razvan, “Corporate Governance Of Banks: A Survey,” *Journal of Economic Surveys* 30/2 (2016), 228-277.

Dinc, I. Serdar, “Politicians and banks: Political influences on government-owned banks in emerging markets,” *Journal of Financial Economics* 77 (2005), 453-479.

Edwards, Jeremy, and Fischer, Klaus, *Banks, finance and investment in Germany* (Cambridge: Cambridge University Press, 1994).

Englmaier, Florian, and Stowasser, Till, “Electoral cycles in savings bank lending,” *Journal of the European Economic Association* 15/2 (2016), 297-354.

Faccio, Mara, “Politically Connected Firms,” *American Economic Review* 96/1 (March 2006), 369-386.

Federal Deposit Insurance Corporation (FDIC), *How America Banks: Household Use of Banking and Financial Services, 2019 FDIC Survey* (Washington: FDIC, October 2020).

Fischer, Markus, Hainz, Christa., Rocholl, Jörg., and Steffen, Sascha., “Government Guarantees and Bank Risk Taking Incentives,” CESifo Working Paper No. 4706 (February 2014).

Gneezy, Uri, List, John A., and Price, Michael K., “Toward an Understanding of Why People Discriminate: Evidence from a Series of Natural Field Experiments,” NBER Working Paper 17855 (February 2012).

Gropp, Reint, Gründl, Christian, and Güttler, Andre, “The impact of public guarantees on bank risk taking: Evidence from a natural experiment,” *Review of Finance* 18/2 (2014), 457-488.

Gropp, Reint, Hakenes, Hendrik, and Schnabel, Isabel, “Competition, Risk-shifting, and Public Bail-out Policies,” *The Review of Financial Studies* 24/6 (June 2011), 2084–2120.

Harkinson, Josh, 'How the Nation's Only State-Owned Bank Became the Envy of Wall Street,' *Mother Jones* 27 (March 2009).

Hau, Harald, and Thum, Marcel, "Subprime crisis and board (in-) competence: private versus public banks in Germany," *Economic Policy* 24/60 (October 2009), 701–752

Herndon, Thomas, and Paul, Mark, "A public banking option as a mode of regulation for household financial services in the US," *Journal of Post Keynesian Economics* 43/4 (2020), 576-607.

Illinois State Treasurer, "The Illinois Funds," (December 31, 2020).
<https://stories.opengov.com/illinoistreasurer/published/Byeg8Cjz7>

Illueca, Manuel, Norden, Lars, and Udell, Gregory F., "Liberalization and Risk-Taking: Evidence from Government-Controlled Banks," *Review of Finance* (2014), 1217-1257.

Inverardi, Matthias, "Germany waves goodbye to WestLB as bank broken up," Reuters (July 1, 2012).
<https://www.reuters.com/article/us-westlb-breakup/germany-waves-goodbye-to-westlb-as-bank-broken-up-idINBRE8600FX20120701>

Jacobs, Mike, *The Bank Of North Dakota: From Surviving to Thriving – the First 100 Years* (Bismarck, North Dakota: The Dakota Institute Press of Bismarck State College, 2018).

Körner, Tobias, and Schnabel, Isabel, "Abolishing Public Guarantees in the Absence of Market Discipline," *Ruhr Economic Papers* #437 (August 2013).

Kodrzycki, Yolanda K. and Elmatad, Tal, "The Bank of North Dakota: A model for Massachusetts and other states?" New England Public Policy Center, Federal Reserve Bank of Boston, Research Report 11-2 (May 2011).

Ladd, Helen F., "Evidence on Discrimination in Mortgage Lending," *Journal of Economic Perspectives* 12/2 (Spring 1998), 41-62.

La Porta, Rafael, Lopez-de-Silanes, Florencio, and Shleifer, Andrei, "Government Ownership of Banks," *Journal of Finance* 57/1 (February 2002).

Massey, Douglas S., and Denton, Nancy A., *American Apartheid: Segregation and the Making of the Underclass* (Cambridge and London: Harvard University Press, 1993).

Mettenheim, Kurt, and Butzbach, Olivier, "Back to the future of alternative banks and patient capital," in Christoph Scherrer (ed.), *Public Banks in the Age of Financialization: A Comparative Perspective* (Cheltenham U.K. and Northampton U.S.A.: Edward Elgar Publishing, 2017), 29-50.

National CAPACE, National Urban League, and National Council of La Raza, *Banking In Color: New Findings on Financial Access for Low- and Moderate-Income Communities* (Washington: National Council of La Raza, 2014).

National Community Reinvestment Coalition, "Bank Branch Closure Update (2017-2020)," Digital edition: <https://ncrc.org/research-brief-bank-branch-closure-update-2017-2020/> .

New York Times, “Jane Fraser Has to Fix Citigroup. It Will Be a Tough Job,” (February 11, 2021a).

New York Times, “Money Market Funds Melted in Pandemic Panic. Now They’re Under Scrutiny,” (April 23, 2021b).

Pew Research Center, Internet & Technology, “Mobile Fact Sheet,” (June 12, 2019):
<https://www.pewresearch.org/internet/fact-sheet/mobile/>

Pew Charitable Trusts, “How States Can Direct Economic Development to Places and People in Need,” February 2021.

Riach, Peter A., and Rich, Judith, “Field Experiments of Discrimination in the Marketplace,” *The Economic Journal*, 112 (November 2002), F480-F518.

Sapienza, Paola, “The effects of government ownership on bank lending,” *Journal of Financial Economics* 72/2 (2004), 357-384.

Scherrer, Christoph, “The challenge of keeping public banks on mission,” in Christoph Scherrer (ed.), *Public Banks in the Age of Financialization: A Comparative Perspective* (Cheltenham U.K. and Northampton U.S.A.: Edward Elgar Publishing, 2017), 243-256.

Sinn, Hans-Werner, “The selection principle and market failure in systems competition,” *Journal of Public Economics* 66 (1997) 247-274

Sinn, Hans-Werner, *The German State Banks. Global Players in the International Financial Markets* (Cheltenham U.K. and Northampton U.S.A.: Edward Elgar Publishing, 1999).

Smith, Adam, *An Inquiry into the Nature and Causes of The Wealth of Nations* [Original edition, 1776] Edited and with an Introduction, Notes, Marginal Summary, and Index by Edwin Cannan (Chicago: The University of Chicago Press, 1976).

Taub, Richard P., *Community Capitalism* (Boston: Harvard Business School Press, 1988)

Taub, Richard P., “Commentary: After Shorebank,” LISC Institute for Comprehensive Community Development (December 2, 2010):
<http://archive.instituteccd.org/news/1732>

Turner, Margery Austin and Skidmore, Felicity (eds.), *Mortgage Lending Discrimination: A Review of Existing Evidence* (Washington: The Urban Institute, June 1999).

Online Appendix:
Sources For Recent U.S. State Initiatives, 2019 & 2021,
Listed in Table 3

California:

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB857

Illinois:

Discussions with IGPA personnel

<https://legiscan.com/IL/text/HB0089/2021>

Massachusetts

Commission (2011); the Commission's report relied heavily on Kodrzycki and Elmatad (2011)

<https://malegislature.gov/Bills/192/HD3247>

New Mexico:

<https://nmlegis.gov/Sessions/21%20Regular/bills/house/HB0236.pdf>

New York:

A3309: <https://www.nysenate.gov/legislation/bills/2021/A3309>

S1055: <https://www.nysenate.gov/legislation/bills/2021/s1055>

S1762: <https://www.nysenate.gov/legislation/bills/2021/S1762>

Oregon:

<https://olis.oregonlegislature.gov/liz/2021R1/Downloads/MeasureDocument/SB339/Introduced>

Washington:

<http://lawfilesexternal.wa.gov/biennium/2021-22/Pdf/Bills/Senate%20Bills/5188-S.pdf?q=20210211180922>

<https://www.capitolhillseattle.com/2018/11/what-it-would-take-to-create-a-seattle-muni-bank/>

Hawaii

https://www.capitol.hawaii.gov/session2021/bills/HB240_HD1_.PDF