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Exploring a Public Bank for New Jersey: Economic Impact and Implementation Issues

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POLICY BRIEF

This is the fourth in a series of brief introductions to policy issues that affect the citizens of New Jersey. The purpose of these briefs is to educate the public and alert New Jersey policy makers, both in Washington, DC, and Trenton, NJ. The briefs are not intended to be a comprehensive research project. Rather, they provide a broad overview of an issue, often based on information and reports that already exist, but which may have gone unnoticed.

EXPLORING A PUBLIC BANK FOR NEW JERSEY: ECONOMIC IMPACT AND IMPLEMENTATION ISSUES

Abstract

One grassroots effort that offers an innovative strategy for funding infrastructure projects, as well as for nurturing other local economic development projects, is the public banking movement. New Jersey Governor Phil Murphy supported a state-owned (public) bank in his 2017 gubernatorial campaign and the legislature is now considering the "State Bank of New Jersey Act" (Senate Bill No. 885). This policy brief introduces the activity surrounding efforts to create public banks in the U.S. and reviews the economic feasibility studies completed for the State of Vermont and the City of Santa Fe, New Mexico. Building on those two studies, with a lens on New Jersey, I discuss and estimate the potential economic impact of the proposed New Jersey State Bank. Using the customary empirical methodology (multiplier analysis), I calculate the effects on State Gross Output, Value-Added, Earnings, and Employment. Every $10 million in new lending by the State Bank of New Jersey would yield and additional $16 million - $21 million in state output (Gross State Product), raise state earnings by $3.8 million to $5.2 million, add 60 – 93 new state jobs, and increase state value-added by roughly $9 million – $12 million. Finally, I recommend completion of a New Jersey public bank feasibility study and provide a list of questions and issues for legislators, the State Treasurer, New Jersey policymakers, and the Board of the State Bank of New Jersey.

Introduction

D+ is not a Grade Point Average to be proud of. But that's exactly the GPA on the latest *Report Card for New Jersey's Infrastructure* from the American Society of Civil Engineers (ASCE). According to the Society, a grade in the D range means that 51% – 69% of infrastructure in the system is in poor-to-fair condition and mostly below standard, with a strong risk of failure. By component, New Jersey's worst grade of D- is given to both transit and levees. Other infrastructure grades in the D range are: bridges (D+), dams (D), and wastewater (D). C grades are received by drinking water, hazardous waste, ports, and rail, with energy receiving a C+. The highest grade, a B-, is assigned to solid waste treatment. Further, it would cost 2.5%-to-3.5% of State Gross Product to remedy deficiencies.[1]

New Jersey is not alone. Report cards for most of the 50 U.S. states individually also hover in the C-to-D range. America's overall national report card—also no better—has a GPA of D +.[2] Major U.S. infrastructure category grades are: drinking water (a D grade), roads (D), dams (D), energy (D+), parks and recreation (D+), schools (D+), wastewater treatment (D+), bridges (C+), and ports (C+). Even more disheartening, the U.S. has received a near-failing infrastructure Grade Point Average from the American Society of Civil Engineers in every four-year appraisal since the ASCE started these comprehensive assessments in 1998. ASCE estimates that the United States has a $2 trillion ten-year investment gap.

One grassroots effort that offers an innovative strategy for funding infrastructure projects, as well as for nurturing other local economic development projects, is the public banking movement. In

[1] American Society of Civil Engineers 2016.
[2] American Society of Civil Engineers 2017.

fact, concerns over economic development are the fuel for this national movement. A public bank (or a state-owned bank) is a bank that is owned by a representative government. It is indirectly owned by the people of a locality and therefore operates under the mission of working toward the public interest. The state (or locality) deposits its revenue in its own financial institution rather than banking with a private sector commercial bank. Public banks then invest government funds locally in projects that support economic development efforts and return revenue surpluses to the state. Therefore, public banks offer an institutional mechanism to address the crisis in the quality of public infrastructure as well as unfulfilled demand for credit by small businesses.

Public banking has a long history in the United States.[3] Currently, the only public bank in the United States—and the prototype for the movement—is the Bank of North Dakota (BND).[4] The Bank of North Dakota was established during the Progressive Era in 1919. Despite numerous accounts documenting the BND's longstanding success,[5] this exemplary model has only recently generated serious consideration by other states, including New Jersey.

New Jersey Governor Phil Murphy supported a state-owned (public) bank in his 2017 gubernatorial campaign.[6] Within hours following his inauguration as New Jersey's 56th governor on January 16, 2018, State Senators Nia H. Gill and Richard J. Codey introduced the "State Bank of New Jersey Act" (Senate Bill No. 885). The opening of the bill speaks to movement's key objective, the need for additional credit for state economic development:

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[3] See Brown 2016.
[4] The Puerto Rico Government Development Bank is also a public bank, and other countries have public banks.
[5] See, for example, Fettig 1994, Harkinson 2009, Rapoport 2013, Schneiberg 2013, and Brown 2016.
[6] See Landergan 2017 and Alix 2017.

> a. Access to capital is vitally important for the health, security, and well-being of all individuals and businesses in our State. They are the economic drivers that help New Jersey's commerce run smoothly. The lack of accessible capital, as currently experienced due to the economic downturn, is exacerbating the economic hardships being faced by working families and businesses;
>
> b. By creating a State bank, the State is able to direct economic development policy initiatives in a responsive and efficient manner to benefit citizens of New Jersey;
>
> c. The mission of the State Bank of New Jersey shall be to promote small businesses, fair educational lending, housing, infrastructure improvements, community development, economic development, commerce, and industry in New Jersey. In this role, the bank shall act as a funding resource in partnership with other financial institutions, economic development groups, and guaranty agencies. (Sections 2. a., b. and c.)[7]

This policy brief introduces the activity surrounding efforts to create public banks in the U.S. Since the State of Vermont has progressed toward creation of the first state bank outside of North Dakota, the Vermont story is profiled. Next I review the feasibility studies completed for the State of Vermont and the City of Santa Fe, New Mexico. Building on those two studies, with a lens on New Jersey, I discuss and estimate the potential economic impact of the proposed New Jersey State Bank using economic development multipliers. Finally, I recommend completion of a New Jersey public bank feasibility study and provide a list of questions and issues for legislators, the State Treasurer, New Jersey policymakers, and the Board of the State Bank of New Jersey.

[7] State of New Jersey, 218th Legislature, Senate Bill No. 885

Key Findings

- There is a wide call for public banks across the U.S., including state banks and/or municipal banks, partly as a result of a shortage of credit in some sectors and the need for significant investments in infrastructure.
- The Bank of North Dakota, the widely successful and only state bank in the U.S., serves as a model for the nationwide public bank movement.
- Through an innovative lending program, the State of Vermont has taken measured steps toward creating a state-owned bank.
- The New Jersey Senate has introduced the State Bank of New Jersey Act (Senate Bill No. 885) following a call for a new state bank by Governor Phil Murphy. It has been referred to the Senate Commerce Committee.
- The potential benefits of a state bank can be measured through an economic impact study. Two key, independent feasibility studies about a public bank were completed for the State of Vermont and the City of Santa Fe, New Mexico.
- Using the customary empirical methodology (multiplier analysis), I estimate the potential impact of the proposed State Bank of New Jersey, calculating the effects on State Gross Output, Value-Added, Earnings, and Employment.
- Every $10 million in new lending by the State Bank of New Jersey would yield and additional $16 million - $21 million in state output (Gross State Product), raise state earnings by $3.8 million to $5.2 million, add 60 – 93 new state jobs, and increase state value-added by roughly $9 million – $12 million.

- As with any economic forecast, the impact will depend on the underlying amount of new lending from the bank. As a result, I provide a number of questions and implementation issues to be addressed regarding the existing State of New Jersey banking system and the deposits in a new public bank.
- Many of these questions can be explored and modeled through an independent feasibility study for the State Bank of New Jersey and a draft business plan for the State Bank of New Jersey.
- This policy brief thus makes two recommendations:
  1. **Governor Phil Murphy should charge and/or contract for a team of independent expert consultants to conduct a feasibility study for the proposed State Bank of New Jersey, consultants who are public banking experts themselves or consultants who draw on the expertise of public banking experts; and, in conjunction,**
  2. **Governor Phil Murphy should charge the State Treasurer and the New Jersey Commissioner of Banking and Insurance to work with independent experts on developing a draft business plan for the State Bank of New Jersey. The draft will serve as relevant input for a governed Board of Directors of the State Bank of New Jersey.**

Public Banking Initiatives in the U.S.

The contemporary case for public banks is motivated in part by the underfunding of public infrastructure and community redevelopment by private capital markets as well as Wall Street's risky behavior, especially leading up to the 2008 financial crisis. A recent global study shows that government banks provide finance long-term capital projects in the public sector that private commercial banks fail to provide. Government banks also offer a counter-cyclical, stabilizing influence in the economy.[8] Further, public banks provide direct and indirect (multiplier) impacts such as increases to state GDP, value-added, income, and employment.

The public bank movement is also stirred by small business owners and farmers who claim that bank lending since the Great Recession has been deficient. In fact, based on Federal Deposit Insurance Corporation (FDIC) data of bank balance sheets, small business lending has decreased in both the absolute and relative sense.[9]According to one Harvard Business School study, "A decades-long trend toward consolidation of banking assets in fewer institutions is eliminating a key source of capital for small firms."[10] Further, state-owned banks may be able reduce the cost of public investment by lending at lower interest rates and avoiding asset bubbles with more evened out debt cycles. Some portion of the revenue (surplus) may be returned to supplement state budgets to enable more spending and/or reduce tax rates.

Across the U.S., renewed interest in public banking is widespread, with no geographic or demographic pattern. In the years since the Great Recession (December 2007 – June 2009), over 20 U.S. states have introduced bills to establish state-owned banks and/or to study their economic feasibility.[11] States pursuing measures include highly urbanized states such as Massachusetts, California, and New York, to more rural states such as Maine, Vermont, and

[8] Dutt 2017.
[9] See Mills and McCarthy 2014, Simon 2015, and Wiersch 2015. The FDIC is currently taking tangible measures to address problems with small business lending (https://www.fdic.gov/consumers/banking/businesslending/index.html).
[10] Mills and McCarthy 2014, 6.
[11] See Figart and Majd 2016, Figart 2017, Alix 2017, Tobias 2017, and Dubb 2018.

Montana, and states as diverse as Arizona, Colorado, Hawaii, Michigan, Oregon, Pennsylvania, and Washington State. According to the Public Banking Institute, U.S. cities with an interest in local, municipal banks include, for example:

- Allentown, Pennsylvania
- Los Angeles, California
- Oakland, California
- Philadelphia, Pennsylvania
- Pittsburgh, Pennsylvania
- Portland, Oregon
- Reading, Pennsylvania
- Richmond, California
- San Francisco, California
- Santa Fe, New Mexico
- Seattle, Washington
- Tacoma, Washington

The number grows each year.[12]

Table 1 lists 13 U.S. states that are considering establishing a state-owned bank through current (2017 or 2018) legislation and the status of their public bank bills. This is not an exhaustive list of states that have considered legislation to establish or study a public bank. The National Conference of State Legislatures provides a brief history dating to 2010.[13] Of the 13 states with pending legislation in the 2017 or 2018 legislative sessions, eight bills call for establishing a state bank and five call for studying a state-owned bank with the creation of a commission or task force (see Table 1).

[12] An excellent guide for U.S. cities considering a municipal bank is Beitel 2016. See also City and County of San Francisco 2017.
[13] National Conference of State Legislatures 2017.

***Table 1*. U.S. States Currently Considering State Banks and Status as of 4/1/2018**

State	***2017 or 2018 Bill to …***	***Status***
Arizona	Study a State Bank	HB 2446 assigned to committee
Illinois	Establish a State Bank	HB 0454 pending in committee
Maine	Establish a State Bank	LD 237 (SP 83) reported out of committee
Massachusetts	Establish a State Bank	H 3543 pending in committee
Michigan	Establish a State Bank	HB 5431-34 pending in committee
Minnesota	Establish a State Bank	HF 273, SF 1978 pending in committee
New Hampshire	Establish a State Bank	HB 590 referred for interim study
New Jersey	Establish a State Bank	S 885 (18R) pending in committee
New Mexico	Study a State Bank	HJM 17 pending in committee
New York	Study a State Bank	AB 7545, SB 3172 pending in committee
Vermont	Study a State Bank	H 208, S 48 pending in committee
Washington	Establish a State Bank	SB 5464, HB 2456 pending in committee
West Virginia	Study a State Bank	HCR 39 pending in committee

Source: Author's research of state legislative websites and National Conference of State Legislatures (2017).

Progress on the proposed New Jersey bill can be followed through a non-profit advocacy group called "Banking on New Jersey" at www.bankingonnewjersey.org. National progress is regularly updated by the Public Banking Institute at www.publicbankinginstitute.org, a non-profit organization dedicated to educate the public about and support public bank initiatives across the U.S. It is also tracked on the New Jersey's Legislature's website under "Bill Search" at http://www.njleg.state.nj.us/.

Each of the proposed state-owned banks is principally modeled on the Bank of North Dakota. Headquartered in Bismarck, North Dakota, the BND opened on June 20, 1919, capitalized with $2 million through the sale of state bonds (worth almost $29.5 million today).[14] Its primary mission was (and is) is to promote state agriculture, commerce and industry, and stimulate

[14] The value in current dollars was obtained with the inflation calculator from the U.S. Bureau of Labor Statistics at https://www.bls.gov/data/inflation_calculator.htm.

economic development through lending. BND does not directly compete with private banks for individual deposits, and consequently the North Dakota Bankers' Association endorses BND as a complementary institution. Such support by traditional bankers has been lacking in other states. In short, the main features of BND, gleaned from annual reports on its website[15], are:

- All funds of the state and state institutions must be deposited with the bank. (Most deposits come from the state.)
- The deposits are guaranteed by the state, not the federal government (FDIC). (FDIC insurance is limited per account holder up to $250,000.)
- By itself, BND consumer lending is generally restricted to farming-related loans, as opposed to auto loans. Yet over the decades, BND has become a broader lender, holding a large portfolio of federally insured student loans for the benefit of students in the state.
- Most of BND's lending is through active partnerships with other North Dakota financial institutions, including community banks that lend to small businesses and to homeowners for residential mortgages.
- BND also partners with private lenders and public development agencies for community-based loans to stimulate local economic development. One example is a loan program titled Partnership in Assisting Community Expansion (PACE). Businesses and community development associations may borrow for a variety of purposes—playgrounds and day care facilities, expansion of medical facilities, investing in green technology, affordable housing. etc.[16]
- BND has a bank president but its activities are governed by an Industrial Commission (the governor, attorney general, and the commissioner of agriculture). State stakeholders

[15] See BND website and Institute for Local Self-Reliance 2015.
[16] Figart and Majd 2016.

are satisfied with the transparency and accountability of both the governance team and bank management.[17]

- BND transfers about half of its surplus funds (profits) to the legislature, and the usage of bank earnings is at the discretion of the legislature.

Outside of North Dakota, perhaps no state has progressed further to open a state-owned bank than the state of Vermont. Vermont has authorized a new Local Investment Advisory Committee to help steer a new public lending program through a pre-existing economic development authority.

The State of Vermont: Inching Toward a State Bank

Most states have agency-type lending to promote state goals. In New Jersey, for example, the Economic Development Authority (EDA) finances real estate projects (and issues tax credits) for small- and mid-sized businesses and nonprofit organizations. The Higher Education Student Assistance Authority (HESAA) issues state grants-in-aid and student loans. To finance their mission, EDA and HESAA sell bonds through Wall Street financial institutions. Lending to benefit the public interest is certainly within the mission of state government. Yet a state bank is more than that because it is capitalized, all or in part, by accepting deposits from state departments and agencies.

Vermont took one step closer to establishing a state bank in 2014. Advocates for a public bank in Vermont developed an innovative plan for converting existing economic development agencies

[17] See Figart and Majd 2016.

into a state bank.[18] A coalition of organizers, businesses, and individuals called Vermonters for a New Economy came together, championed in the Vermont legislature by State Senator Anthony Pollina of Middlesex in Washington County, a former advisor to U.S. Senator Bernie Sanders.

Besides introducing bills that would outright establish a state-owned bank, Senator Pollina also introduced bills in the 2011-12 and 2013-14 sessions to study the impact of a state bank in Vermont. Vermonters for a New Economy and the League of Women Voters of Vermont helped raise funds for an economic impact study. The Gund Institute of the University of Vermont and the Political Economy Research Institute at the University of Massachusetts completed the technical analysis for the state bank economic impact study. The resultant report, *Exploring a Public Bank for Vermont: Economic Impacts, Capital Needs, and Implementation,* was released in January of 2014.[19]

Assuming $236.2 million in public bank lending, the Vermont report estimated positive net job creation, additions to output, and savings to state borrowing costs (interest). And the return from loans made by a public bank go back to the state itself, and not to shareholders in other states and countries, keeping more of Vermont money local. Notwithstanding these results, the official recommendation to the legislature was just shy of endorsing a public bank. Instead, the report recommended an alternative approach that draws upon capacity that exists within existing lending agencies, especially the Vermont Economic Development Association (VEDA). VEDA already had the capacity to function as a state depository, with assets comparable to those of the Bank of North Dakota. Therefore, Vermont could charter VEDA as a bank and direct a larger

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[18] The Vermont story is drawn from Figart 2017.
[19] [Vermont] 2014.

portion of state funds to VEDA to lend. Then, over time, a VEDA bank could absorb more state deposits and expand the credit capacity of the state.

The legislature ultimately avoided chartering VEDA as a bank. Instead, the Vermont legislature passed and the governor signed Vermont Act 199 (S.220) in 2014. The legislation created a [Vermont] Local Investment Advisory Committee (LIAC) within the Vermont Economic Development Authority (VEDA). LIAC's goal is to increase economic development activity and create jobs by committing up to 10 percent of the Treasurer's office's average available cash to local investments. The first round of proposals was considered in early 2015. A second round was open until May 2016. Available funding was $3.75 million for housing, energy and neighborhood revitalization projects and $350,000 for municipal infrastructure projects.[20] Those eligible to apply for funds include municipalities, school districts, social services providers, state agencies and authorities, regional planning commissions, and similar organizations. All financing proposals and approvals are noted in LIAC minutes published by the Office of the State Treasurer. As examples, VEDA expended funds to invest in the following: child care subsidies to lower income households and jobs in the child care industry; renewable energy and energy efficiency; and new housing units. LIAC was reauthorized in 2015 and again through July 1, 2018.

[20] Vermont LIAC 2016.

Box 1. Maine’s Seven-Year Legislative Process

Beginning in 2011, Maine House Representative of Portland Diane Russell introduced a public bank bill in successive legislative sessions. The Maine Street Development Bank would be authorized to make, purchase, guarantee, modify, hold, or participate in loans originated by any financial institution authorized to do business in the state. By the end of 2015, the idea for a public bank in Maine had mobilized more than twice as many proponents than opponents at the bills’ public hearings, had generated three in-depth reports on the specific benefits of a state-owned bank, and had inspired 20 submissions of written testimony from legislators, small businesses, and regular citizens touting the benefits of public banking. The 2017 bill presented by Senator David Miramant progressed the furthest, through public hearing with testimony and was reported out of the Committee on Insurance and Financial Services. Representative Russell was key in moving it out of committee toward a floor vote. But there has been no further action.

How to Measure the Economic Impact of a New Public Bank

In weighing the costs and benefits of local development initiatives, economic development analysts assess economic impact, meaning the total effect on economic activity. Public investment in a project, service, or new business entails spending money. This spending supports not just employees in the new project or business, but generates spin-off spending in other businesses throughout the area. Initial spending and employment increases lead to a ripple effect of new rounds of spending and employment increases, leading to a multiplier effect beyond the initial round of spending. Economic impact analysis must capture these ramifications on economic output, business sales, job creation, and other indicators.

The empirical methodology for measuring total economic impact is called multiplier analysis. A multiplier is composed of three effects: (1) the direct effect; (2) the indirect effect; and (3) the induced effect.

- The *direct effect* is the initial money spent to purchase goods and services as well as labor.
- The *indirect effect* traces the backward linkages, meaning in-state spending for goods, services, and new employees by suppliers.
- The *induced effect* traces the forward linkages of employees spending their new income on in-state goods and services for their households.

Thus, an initial spending round has a multiplied effect on economic activity that can be estimated as a series of multipliers.

The majority of economic impact studies seek to estimate the multiplier effects of government spending on a project, such as a government investment in a new road, a museum, a sports stadium, energy development, or a university. Impact studies utilize multipliers from a Regional Input-Output Modeling System from the U.S. Department of Commerce, Bureau of Economic Analysis called RIMS II. RIMS II is a tool used by investors, planners, and elected officials to objectively assess the potential economic impacts of various projects. This model produces multipliers that are used in economic impact studies to estimate the total impact of a project on a region. The idea behind the model is that an initial change in economic activity results in other rounds of spending. For example, building a bridge will lead to increased production of steel and other building materials. The increased production of steel will lead to more iron ore mining. Workers hired due to the increase in economic activity will spend more in the region.

In analyzing the economic impact of a public bank, we are not dealing with direct government spending or tax expenditures. Instead, a public bank would be increasing the amount of credit or lending available. The question is, then: How much new output and new earnings are created for every dollar of new lending in an economy? Any new lending from the public bank would have a multiplied effect. For example, loans for economic development projects would in turn spur spending on goods and services with those directed loans. Further, income generated from new jobs would result in more household spending, with potentially much of that spending on goods and services inside the state.

RIMS II multipliers are based on 2007 national benchmark input-output data and 2015 regional data. These updated multipliers were released in December 2016. RIMS II multiplier tables for any state or county are available for a fee from the Bureau of Economic Analysis at https://www.bea.gov/regional/rims/rimsii/. One can also purchase multipliers by specific industry. The relevant RIMS II industry for measuring the impact of a public bank is "Federal reserve banks, credit intermediation, and related activities" (Industry 44). The industries in the RIMS II model align with standard industry codes (NAICS) for data collection.[21]

Lessons from Two Public Bank Feasibility Studies in Vermont and Santa Fe

The Public Banking Institute (PBI) was formed in 2011 as a national nonprofit organization to educate the public about the benefits of public banking. PBI provides information about proposed legislation and other types of initiatives. For example, PBI points interested readers to economic and fiscal impact studies for proposed public banks in several U.S. states. In general, most of these studies are penned by (nonpartisan) advocacy organizations, not independent economic experts. Examples of such studies include:

[21]For more information about RIMS II, consult the user guide, or BEA 2013.

- The Pennsylvania Project study of a Pennsylvania Partnership Bank[22]
- Dēmos analyses of a proposed public banks in Washington, Oregon, Maryland, and Hawaii[23]
- Center for State Innovation analyses of a Maine State Bank and Washington State Bank.[24]

The projections produced by these studies are positive. The methods are sound. Yet the empirical work was not conducted by independent experts, and is therefore vulnerable to criticism. A better approach has been comprehensive studies by independent consultants—experts directly commissioned to produce objective quantification of a public bank initiative. This section therefore reviews the most extensive economic feasibility studies for public banks. Two such studies directly relevant for New Jersey's State Bank initiative are:

1. The State of Vermont study; and
2. The City of Santa Fe feasibility study.[25]

Deliberately excluded is a 2011 report from a commission of 21 members charged by the legislature in the State of Massachusetts to produce a feasibility report. The commission was vulnerable to the opposite criticism; instead of being composed of public bank advocates, its composition was weighted toward traditional banking perspectives. The commission included: government officials; representatives from industry, small business, and the Massachusetts Bankers Association; and one university professor. The commission conducted six meetings and

[22] The Pennsylvania Project, Inc. n.d.
[23] See, for example, Judd and McGhee 2011.
[24] Center for State Innovation 2011a and 2011b.
[25] [Vermont] 2014 and [Santa Fe, City of] 2016.

held three public hearings. The *Report of the Commission to Study the Feasibility of Establishing a Bank Owned by the Commonwealth*[26] provides relevant background information but does not empirically estimate economic impact in terms of state output and jobs. Instead, the report relies heavily on a cost-benefit analysis from the New England Public Policy Center of the Federal Reserve Bank of Boston.[27] The Massachusetts Commission's findings echoed those of the Center: the Bank of North Dakota model was not a good fit for Massachusetts, and further there were sufficient state programs, agencies, and financial institutions to meet the state's credit needs. Thus, it recommended that the legislature *not* pursue a public bank.

The Vermont and City of Santa Fe economic feasibility studies sought input from the community, yet their state-of-the-art economic impact analyses by experts in the field are truly independent from partisan and big business influence. Each of the two studies investigates the potential credit that could be made available by depositing state (or city) daily, unrestricted cash funds in a public bank. Both studies find that public bank lending would *not* replace ("crowd out," in economic parlance) private lending. The Vermont feasibility report, for example, found a public bank would add to total lending in the state. This makes sense if the lending by private banks targets different constituencies and/or flows to out-of-state investments. According to the report:

> A fundamental question we have tried to answer is whether or not credit created by a public bank in Vermont would be new credit that was not previously being loaned by private banks. We have provided evidence that it would be, and have done a projection of the impact of $236 million of new loans in the state of Vermont, showing the job and output metrics are significant.[28]

[26] [Massachusetts] 2011.
[27] Kodrzycki and Elmatad 2011.
[28] [Vermont] 2014, 27.

Finally, economic projections are based on multipliers from input-output tables published by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) for banking and credit industries as well as state and local wage and salary data. Table 2 arrays the estimated economic impact results for the State of Vermont and the City of Santa Fe. To allow a direct comparison across the two jurisdictions, I converted the empirical estimates for total new credit (or lending) to $1 million. In sum, the results should be interpreted as follows: Every $1 million in new credit from a public bank would yield 8 – 11 new jobs and over $1 million in new state (or city) output.

Table 2. **Estimated Economic Impact of a Public Bank in Two Jurisdictions**

Every $1 million of new credit or lending would yield …

	State of Vermont	City of Santa Fe[29]
New jobs	10.73	8.22
New value added (GSP)[a]	$812,870	$799,600
New state output[b]	$1,448,000	$1,600,000

[a]Gross State Product (GSP) is the market value produced by the labor and property (all industries) located in a state, of all industries in the state, minus intermediate goods. It is analogous to the widely used Gross Domestic Product (GDP) indicator for the U.S. and other countries.
[b]State output—a larger amount—is equal to gross receipts, or the total value of goods and services produced by an industry. Because gross output includes sales to other industries, it can be duplicative in nature.

Sources: Author's calculations based on studies in Vermont (2014) and Santa Fe (2016).

One of the key benefits of a public bank is to save in interest costs compared with borrowing from a private commercial bank. A public bank whose mission is to serve the state and not shareholders can have a lower interest rate spread between holding deposits and issuing loans.

[29] The Santa Fe study estimated economic impact for Santa Fe County based on customary methodology and BEA data. Since BEA multipliers are not available for individual cities, the consultant utilized city receipts data to make adjustments to derive a lower estimate for the city. The countywide impact estimates are greater than for the City of Santa Fe alone because dollars that are not spent in the city may still circulate through businesses in the county.

Borrowing costs would be lower. Two additional findings from the feasibility reports in Vermont and Santa Fe are important:

- Vermont would save $100 million in interest costs on borrowing for capital spending over a 20-year period (or $5 million per year on average).
- The City of Santa Fe study projects a 1.5% lower interest rate for economic development projects than from traditional commercial lending.

Economic Impact of a New Jersey State Bank

The size of the Vermont economy is substantially smaller than the New Jersey economy. Gross State Product is $31.09 billion in Vermont versus $575.3 billion in New Jersey.[30] A feasibility study for the New Jersey State Bank would likely generate far greater increases in employment, value added, and state output in absolute terms.

To provide preliminary estimates of the impact of a public bank in New Jersey, I purchased current RIMS II tables for the 50 U.S. states for the proper industry for analyzing a public bank. The RIMS II industry unit of analysis for new lending is “Federal reserve banks, credit intermediation, and related activities” (industry 44). This was the industry selected in the Vermont and Santa Fe feasibility studies. The New Jersey multipliers are arrayed in Table 3 (Type I) and Table 4 (Type II).

[30] BEA 2017.

***Table 3*. New Jersey Type I Multipliers for Estimating the Impact of a Public Bank**

TYPE I FINAL DEMAND EFFECTS:				TYPE I DIRECT EFFECTS:	
[1]	[2]	[3]	[4]	[5]	[6]
Output (dollars)	Earnings (dollars)	Employment (jobs)	Value-added (dollars)	Earnings (dollars)	Employment (jobs)
1.5872	0.3838	6.0042	0.8928	1.7779	2.0919

Source: BEA RIMS II 2018.

The four demand effect multipliers are multiplied by the dollar value of sales (or output) in the industry—in this case, loans. The two direct effect multipliers are not applied to the sales as described below. Here is how to interpret each of the Type I multipliers for a new state bank:

- The output multiplier in column [1] represents the change in the value of output that occurs in all industries within New Jersey for each additional dollar of output delivered to final demand by a state bank.
- The earnings multiplier in column [2] represents the total dollar change in earnings of households employed in all industries within New Jersey for each additional dollar of output delivered to the final demand by a state bank.
- The employment multiplier in column [3] represents the total change in the number of jobs that occurs in all industries within New Jersey for each additional million dollars of output delivered to final demand by a state bank.
- The value-added multiplier in column [4] represents the total dollar change in the value added that occurs in all industries within New Jersey for each additional dollar of output delivered to final demand by a state bank.

- The earnings multiplier in column [5] represents the total dollar change in earnings of households employed by all industries within New Jersey for each additional dollar of earnings paid directly to households employed by a state bank.
- The employment multiplier in column [6] represents the total change in the number of jobs in all industries within New Jersey for each additional job created by a state bank.

The Type II multipliers in Table 4 are larger because they include the induced effects, or the forward linkages of spending from wages on in-state goods and services. The interpretation of the six multiplier columns is the same as in Table 3, except that the effects are larger.

***Table 4*. New Jersey Type II Multipliers for Estimating the Impact of a Public Bank**

TYPE II FINAL DEMAND EFFECTS:				TYPE II DIRECT EFFECTS:	
[1]	[2]	[3]	[4]	[5]	[6]
Output (dollars)	Earnings (dollars)	Employment (jobs)	Value-added (dollars)	Earnings (dollars)	Employment (jobs)
2.0777	0.5209	9.3405	1.1798	2.4133	3.2542

Source: BEA RIMS II 2018.

With some simple multiplication, we can translate these multipliers to show the potential impact of the State Bank of New Jersey, displayed in Table 5. The estimated effects in Table 5 do not include the two direct effects multipliers. It is premature to estimate the number of employees in a New Jersey State Bank or their earnings. This data should be supplied in a future feasibility study and a draft business plan for the State Bank of New Jersey.

Table 5. **Estimated Economic Impact of a New Jersey State Bank (Final Demand Effects)**

Every $1 million of new credit or lending would yield …

New Gross State Output	$1,587,200 to $2,077,700
New State Earnings	$383, 800 to $520,900
New Employment	6 to 9+ new jobs created
New Value-Added	$892, 800 to $1,179,800

Every $10 million of new credit or lending would yield …

New Gross State Output	$15,872,000 to $20,777,000
New State Earnings	$3,838,000 to $5,209,000
New Employment	60 to 93 new jobs created
New Value-Added	$8,928,000 to $11,798,000

Source: Author estimates based on RIMS II 2018.

Implications for a State Bank and State Financial Institutions

Whether the new lending created by a state bank is $10 million or $100 million or $1 billion or more depends on the amount of reserves the state bank has and chooses to lend. It is all about leveraging the power of a lending dollar. Any new loan monies are spent on goods and services, and that revenue is deposited into bank accounts and is available to be loaned out again. New lending spurs new spending and new deposits, expanding credit capacity statewide through various rounds of loans and spending.

Economists use a “deposit expansion multiplier” to estimate the total creation of new rounds of spending (money) created by deposits that are loaned out. Suppose, for instance, that the required reserve ratio or r—or the percent of state banks deposits that must be held onto to meet liquidity needs—is 10%. This is actually a conservative percentage compared with large commercial banks. The deposit expansion multiplier (found as 1/r) is a maximum of 10, depending on how many deposits “leak” out of state. This means that $1 billion of lending from the State Bank of New Jersey could generate as much as $10 billion in new credit capacity, through successive rounds of lending and spending. These subsequent rounds would tend to be higher for a public bank than if the state’s funds were deposited into a private bank with many out-of-state investments.

A specific Bank of New Jersey required reserve ratio would be based on state policy and a draft business plan. But one thing is certain: the potential positive impact of the State Bank of New Jersey could be sizeable. Governor Phil Murphy has recommended a $37.4 billion spending plan in his Fiscal Year 2019 state budget proposal. State appropriations represent a flow of funds, some of which could pass through the state bank instead of other financial institutions. This amount does not include the revenues collected by independent agencies, authorities, and higher education institutions.

Thus, to begin, if only 25% of unrestricted cash funds of state departments and agencies were deposited with the State Bank of New Jersey in a phase one period and 25% of unrestricted cash funds of other state institutions are deposited with the State Bank of New Jersey in a phase two period, the amount of new lending could multiply far greater than the hypothetical economic impact estimated in Table 5 above. The percentage of required deposits in the State Bank of New Jersey could well be higher than 25%, yielding an even greater economic impact.

Looking at assets rather than flows, New Jersey currently deposits more than $1 billion in commercial banking institutions.[31] The type of financial institutions in the state are varied, and presented in Table 6.

***Table 6*. Number of New Jersey Financial Institutions by Type as of 2/3/2018**

Type	Number
National/Out-of-State Commercial Banks	42
State Commercial Banks	36
State Savings Banks	32
State-Chartered Credit Unions	15
Federal or Out-of-State Savings and Loans	13
Other, e.g. Trust companies	3
Total Financial Institutions	141

Source: New Jersey Department of Banking and Insurance 2018a and 2018b.

Nevertheless, despite 141 financial institutions in the state, the banking industry has become more and more concentrated. In the U.S., the percentage of industry assets held by the top five firms has increased since 1991, according to statistics from the New York Federal Reserve. In 2017, it was nearly 50%.[32] Consolidation in the New Jersey financial industry mirrors trends nationwide. The number of New Jersey chartered banks has decreased since 2014, according to the New Jersey Department of Banking and Insurance (DOBI).[33] The percentage share of assets of the top five New Jersey chartered firms in the industry, known as a "concentration ratio," is 55%, as shown in Table 7. Finance exemplifies a highly concentrated industry.

[31] Reitmeyer 2016.
[32] Federal Reserve Bank of New York 2017.
[33] New Jersey Division of Banking and Insurance 2016b.

***Table 7*. Largest Five New Jersey Chartered Banks at the End of 2016**

Largest 5 New Jersey chartered banks at the end of 2016:

Investors Bank (Short Hills)	27.6%
Provident Bank (Jersey City)	11.3%
Lakeland Bank (Newfoundland)	6.0%
ConnectOne Bank (Englewood Cliffs)	5.3%
Oritani Bank (Washington Township)	4.8%

Source: Author calculations based on New Jersey DOBI 2016a.

The distribution of State of New Jersey cash balances is not spread across the state's financial institutions. Certainly, a large number of institutions have state funds, but the balances are small. And those who do not hold state funds may hold municipal deposits, and deposits of state authorities, agencies, and higher education institutions. With that said, in reality, the bulk of the State of New Jersey's average cash balances (over $1 billion) are with the largest national commercial banks such as Well Fargo and Bank of America; Wells Fargo alone held over 90% of State of New Jersey cash management funds at the beginning of 2017. As noted in other feasibility studies, these national commercial banks target different kinds of markets with their loans than public banks. So while they may lose some deposits, they are less likely to be directly competing with a New Jersey State Bank to provide loans.

One billion dollars could indeed be leveraged to spur lending for New Jersey needs. The state would also save money in lower interest costs, if modeled after public banks such as the Bank of North Dakota. Here is one mathematical example of cost savings from an infrastructure loan through the Bank of New Jersey. Assume a bond is issued for $1 billion for a 20-year term:

- At 4.0% fixed interest through a commercial bank, interest payments would sum to approximately $454.4 million.

- At 2.0% fixed interest from the Bank of New Jersey, interest payments would sum to approximately $214.1 million.

Recommendations and Implementation Issues

In order to open a State Bank of New Jersey, the state legislature needs to pass and the governor needs to sign a bill that becomes law. While the bill is being considered, there are two measured steps that, if followed now, would help a state bank hit the ground running. This policy brief thus makes two recommendations:

1. **Governor Phil Murphy should charge and/or contract for a team of independent expert consultants to conduct a feasibility study for the proposed State Bank of New Jersey, consultants who are public banking experts themselves or consultants who draw on the expertise of public banking experts; and, in conjunction,**
2. **Governor Phil Murphy should charge the State Treasurer and the New Jersey Commissioner of Banking and Insurance to work with independent experts on developing a draft business plan for the State Bank of New Jersey. The draft will serve as relevant input for a governed Board of Directors of the State Bank of New Jersey.**

Not all of the questions outlined below may be answered by a feasibility study alone. Some may require consultation between the New Jersey Legislature and the Governor's Office, with the assistance of the State Treasurer and Commissioner of Banking and Insurance. Still others may ultimately require discussions among the Board members of the State Bank of New Jersey.

Consultants and academic experts both within New Jersey and across the U.S can provide assistance with framing any empirical investigations.[34] The proposed State Bank of New Jersey Act (Senate Bill No. 885) is silent on many of these questions.

Questions would include:

- What are the unmet state needs in economic development and infrastructure, and what is the estimated cost of those needs? The latest New Jersey Capital Improvement Plan[35] may serve as a starting point, but may not include every item to remedy all infrastructure deficiencies or other "wish list" investments in areas of economic development.
- Where are deposits of all the state assets currently held, and what are the balances of all of the state liquid assets by financial institution?
- Utilizing a number of specific empirical assumptions about the size of deposits in the State Bank of New Jersey and lending scenarios, what is the estimated economic impact of the State Bank of New Jersey on Gross State Product, Employment, Earnings, and Value-Added?
- How will the State Bank of New Jersey be capitalized initially? Through issuing public bonds?
- Who will be required to deposit liquid funds in the State Bank of New Jersey? Only state departments in the executive branch of government? Would state authorities, agencies, and state-supported higher education institutions be required to deposit funds in the State Bank of New Jersey, and under what conditions (e.g., if they seek state appropriations or loans from the State Bank of New Jersey)?

[34] One national consultancy is Public Banking Associates, found at https://www.publicbankingassociates.com/.
[35] State of New Jersey Commission on Capital Budgeting and Planning 2015.

- What percent of unrestricted and/or restricted funds must be deposited into the State Bank of New Jersey? In other words, what is the average daily balance requirement for state departments and agencies?
- How would the phase-out or phase-down funds transfers from commercial banks, state chartered banks, and credit unions be timed?
- How would the mission of the State Bank of New Jersey in proposed legislation guide a business plan, and what would be that drafted business plan?
- Under what circumstances might the State Bank of New Jersey award grants?
- Would the State Bank of New Jersey make loans to New Jersey cities and municipalities?
- What would be the State Bank of New Jersey's lending policy for small businesses?
- What financial education or related services would the State Bank of New Jersey provide besides lending? Would those services be provided directly or through contracts to non-profit institutions in the state?
- Would the State Bank of New Jersey conduct joint lending with any private commercial bank? Would the bank enter into public-private partnerships?
- What is the intended relationship between the State Bank of New Jersey and the state Community Development Financial Institutions (CFDIs)?
- What is the intended relationship between the State Bank of New Jersey and the New Jersey Higher Education Student Assistance Authority (HESAA)? Could the state bank issue loans directly to students and their families at below-market interest rates? Unlike current federal and private loans, could student loan debtors renegotiate the terms of their loans if interest rates were to fall? Could debtors (students and their families) have

their loans cancelled upon a declaration of personal bankruptcy or death of the student or young alumni?

- What is the intended relationship between the State Bank of New Jersey and state economic development agencies such as the Economic Development Authority (EDA), the Casino Reinvestment Development Authority (CRDA), and the New Jersey Educational Facilities Authority (EFA)?
- What is the intended relationship between the State Bank of New Jersey and currently managed state/public pension funds?
- What are the legal requirements for insuring State Bank of New Jersey deposits? Proposed legislation dictates that all deposits are insured by the state, meaning subject to state regulation. State regulation should be sufficient if the bank is not accepting deposits from individuals. But federal regulation through the Federal Deposit Insurance Corporation may be required for housing (mortgage) loans. Alternatively, the State Bank of New Jersey could contract to build and manage its own affordable housing developments.
- What is the state bank's liquidity policy? In other words, what would be the State Bank of New Jersey's required reserve ratio on deposits? And of the excess reserves available for lending, what percent of those would be targeted for lending? Could this percent change over time? Currently, the Federal Reserve of the United States' reserve requirements depend of type of account and size of institution (in deposit dollars).
- What is the target interest rate spread between paying interest (if any) on deposits and the interest rate charged for various loans?

- Would the State Bank of New Jersey draft an investment policy consistent with social responsibility standards?
- What is the State Bank of New Jersey's draft business plan? While the constitution of the Board is legislated, operations are not. There are numerous operational questions that would be guided by a business plan, such as:
    - Where would the physical structure of the bank be located as the official place of business and headquarters for bank management and employees?
    - What would be the administrative structure of the bank? What number and kinds of employees would be needed to run day-to-day operations?
    - What kind of banking operations software be required?
    - How will the bank's own financial assets be managed?
    - What is the bank's Code of Ethics?
    - How will the bank communicate with government officials, businesses, and the public at large?
    - Will the bank conduct an iterative review of its mission and business plan, and revise them over time? Must the New Jersey legislature approve of a revised mission?
- Proposed legislation calls for regular bank reports, examinations, and independent financial audits of the State Bank of New Jersey. Following clean audits, under what circumstances, when, and how much would State Bank of New Jersey revenues be returned to the state general fund for alternate use?

While these may not be a complete list of questions or issues to be explored, having answers to them will help a State Bank of New Jersey open efficiently following passage of legislation.

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