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**Written Testimony of
Ellen Brown, President and Chair of the Public Banking Institute,
Before the Senate Committees on Economic Development & Technology and Commerce &
Consumer Protection
On Hawaii House Bill 853,
Relating to the Review and Evaluation of Forming a State-owned Bank.
Hearing in Room 016
On March 23, 2011, at 1:30 pm HST.**

Chairman and members of the committee, thank you for this opportunity to testify. My name is Ellen Brown and I appear today on behalf of the Public Banking Institute (PBI), of which I am President and Chair.

The Public Banking Institute (PBI) is a non-partisan think-tank, research and advisory organization based in Sonoma, California, dedicated to exploring and disseminating information on the potential utility of publicly-owned banks. See <http://PublicBankingInstitute.org>. As a non-profit educational entity with Section 501c3 status pending, it is not our principal role to advocate for legislation, but we hope to be able to supply some useful information.

We have reviewed Hawaii House Bill 853, which proposes to create the Bank of the State of Hawaii on the model of the Bank of North Dakota, currently the country's only state-owned bank. This testimony is submitted regarding that bill.

Eight states have now introduced bills for state-owned banks following the Bank of North Dakota model, including four introduced this year. Besides the Hawaii bill, on January 11 a bill to establish a state-owned bank was introduced in the Oregon State legislature;¹ on January 13 a similar bill was introduced in Washington State;² and on January 20, one was filed in Massachusetts (following an earlier bill that had lapsed).³ They join Illinois,⁴ Virginia,⁵ Maryland and Louisiana,⁶ the latter three for feasibility studies to determine benefits and costs.

¹ House Bill 2972 of 76th Oregon Legislative Assembly, Sponsored by Representative Jenson. <http://www.leg.state.or.us/l1reg/measures/hb2900.dir/hb2972.intro.html>

² HB 1320 <http://apps.leg.wa.gov/billinfo/summary.aspx?bill=1320&year=2011>

³ Kay Khan, Bill H01192 <http://www.malegislature.gov/Bills/187/House/H01192>

⁴ Illinois General Assembly, House Sponsor: Mary Flowers, Bill Status of HB5476 96th General Assembly <http://www.ilga.gov/legislation/billstatus.asp?DocNum=5476&GAID=10&GA=96&DocTypeID=HB&LegID=50515&SessionID=76>

⁵ Robert Marshall, House Joint Resolution No. 62. (Jan. 13.2010) <http://leg6.state.va.us/cgi-bin/legp604.exe?101+sum+HJ62>

⁶ A. Gutierrez. "Maryland State Bank Commission - Study and Report." <http://mlis.state.md.us/2011rs/bills/hb/hb1066f.pdf>; Louisiana HCR111, <http://www.legis.state.la.us/billdata/byinst.asp?sessionid=10rs&billtype=HCR&billno=111>.

The Center for State Innovation⁷ has done thorough analyses of the Washington and Oregon initiatives and their projected benefits.⁸ They also have posted FAQs (Exhibit I).⁹ The Public Banking Institute's FAQs are attached as Exhibit II.¹⁰

The discussion below gives a general introduction to the issues – how Hawaii and other states got into this economic crisis and how state-owned banks can help them get out of it – followed by an analysis of the North Dakota model, its projected benefits for Hawaii, and some alternative possibilities for capitalization.

1. Introduction

(a) The credit problem: The current economic crisis, including cutbacks at federal, state, and municipal levels, is directly related to the lack of liquidity and available credit in the local economy, which has contributed to collapsing state revenues.

When banks are lending, the economy can expand as needed to keep the trading medium (credit) circulating. When banks are not lending, the economy contracts as debt is retired. Defaults are inevitable, because there is not enough money in circulation to pay back the loans that created the money, along with the interest that was not created in the original loan. For our economy to recover from the current crisis, lending needs to increase; and private banks are not filling this role.

The Federal Reserve has extended its easy credit terms to bail out the TBTF (too big to fail) banks that caused the crisis, and to save the federal government from the sort of bond market speculation that devastated Greece and Ireland when they faced severe budget shortfalls. But credit injected into the system at the federal level has been used to shore up the balance sheets of the TBTF banks and for investment in short-term, high-yield instruments rather than to expand credit on Main Street. Local governments and local economies have been left to fend for themselves.

In January 2011, Federal Reserve Chairman Ben Bernanke stated that the Federal Reserve could not grant local governments access to those same easy credit terms that saved the TBTF banks and the federal government from the 2008 collapse. He could not do it, not because the Fed did not have the money (it found \$12.3 trillion for the TBTF banks and associated corporations), but because it was not in his legislative mandate.¹¹

Meanwhile, the contraction of the real estate market that resulted from Wall Street derivatives speculation has severely reduced not only the tax base of local governments but the assets of the

⁷ www.stateinnovation.org

⁸ <http://www.stateinnovation.org/Home/CSI-Washington-State-Bank-Analysis-020411.aspx>

<http://www.stateinnovation.org/Home/CSI-Oregon-State-Bank-Analysis-020411.aspx>

⁹ <http://www.publicbankinginstitute.org/csi-faqs.htm>

¹⁰ <http://publicbankinginstitute.org/faqs.htm>

¹¹ John Nichols. "Fed's 'Backdoor Bailout' Provided \$3.3 Trillion in Loans to Banks, Corporations" *The Nation* (Dec. 2, 2010) <http://www.thenation.com/print/blog/156794/feds-backdoor-bailout-provided-33-trillion-loans-banks-corporations>

mid-sized and smaller banks, limiting their ability to re-infuse local economies with the liquidity required to create jobs and return public revenues to a level at which states and municipalities can maintain key services.¹²

(b) How publicly-owned banks can help generate much-needed local credit.

States are borrowing at about 5% interest while banks are borrowing at the extremely low Fed funds rate of 0.2%. In addition, states have to worry about such things as credit ratings, late fees, and interest rate swaps, which have proven to be very good investments for Wall Street and very bad investments for local governments. How can states tap into the cheap and ready credit lines accessible to banks? By owning a bank themselves.

Banks literally create money when they issue loans. They do not lend their own money or their depositors' money but simply extend credit created on their books, which is extinguished when the loan is repaid. This is the source of over 90% of the money in the U.S. economy. Banks require capital (equity plus earned income) to satisfy bank capital requirements, and they require deposits to create a pool of liquidity from which they can borrow to clear outgoing checks; but neither the capital nor the deposits are actually lent to customers in the process of extending bank credit.

State and local governments across the United States have huge amounts of capital that could potentially be leveraged into loans. They collectively own trillions of dollars' worth of assets accruing by virtue of their citizens' tax dollars.¹³ Besides tax revenues and real estate holdings, they maintain a variety of funds, including pension funds and "rainy day" funds. Instead of investing this money at very modest interest rates in Wall Street financial institutions, the money can be turned into many times that sum in loans – if the state owns a bank.

At an 8% capital requirement, a bank can leverage capital by a factor of 12.5, so long as it can attract sufficient deposits (collected or borrowed) to clear the outgoing checks. By consolidating their assets into their own state-owned banks, state and local governments can leverage their own funds to finance their own operations; and they can do this essentially interest-free, since they will own the bank and will get back any interest they charge to themselves.

2. Review of public banking in practice – The Model of the Bank of North Dakota:

Publicly-owned banks have been successfully implemented and operated in many countries, including Australia, New Zealand, Canada, Germany, Switzerland, India, China and Japan.

In the United States, not much attention has been paid to this alternative until now; but we do have one longstanding model. North Dakota has had its own bank since 1919. It is both the only

¹² http://www.webofdebt.com/articles/nobailout_mainstreet.php
http://www.webofdebt.com/articles/economic_sovereignty.php

¹³ Ellen Brown. "The Mysterious CAFRs: How Stagnant Pools of Government Money Could Help Save the Economy." http://www.huffingtonpost.com/ellen-brown/the-mysterious-cafrs-how_b_585011.html (May 21, 2010)

state to own its own bank and the only state boasting a major budget surplus. It has no debt service this year at all. It also has the lowest unemployment rate in the country, and the most community banks per capita, indicating that the Bank of North Dakota (BND) has helped, not hindered, the local banks. Rather than competing, it partners with them, helping them with lending requirements.

The BND helps fund not only local government but local banks and businesses, by providing funds for loans to commercial banks to support small business lending. From its profits, it contributed over \$300 million to state coffers in the past decade, a notable achievement for a state with a population that is less than one-tenth the size of Los Angeles County.

The BND has a massive capital and deposit base. All of the state's revenues are deposited in the BND by law. The bank also takes municipal government and consumer deposits, but the BND is careful not to compete with local private banks; private citizens account for less than 2% of the BND's deposit base. North Dakota has a population of 647,000, and the BND reports that it has deposits of \$2.7 billion and outstanding loans of \$2.6 billion. That works out to \$4,000 in deposits per capita, and roughly the same amount in loans.

3. Projected Benefits for Hawaii

Hawaii has a population twice the size of North Dakota's. All other things being equal (an issue for determination in the feasibility study being proposed), Hawaii might be able to amass \$5.3 billion in deposits and generate an equivalent sum in loans. That lending capacity could be used for many purposes, depending on the will of the legislature and state law. Possibilities include: partnering with local banks to strengthen their capital bases, allowing credit to flow to small businesses and homeowners where it is sorely needed today; refinancing state deficits at 0% interest (since the state would own the bank and would get the interest back); funding infrastructure virtually interest-free; and rehiring laid-off teachers and employees. See Exhibit III for a transcript of a discussion with Ed Sather (Retired Senior Vice President of Treasury and Trust Services, Bank of North Dakota, 35 years experience) regarding some of the programs instituted in North Dakota.¹⁴

To avoid risk to the bank and to the state, the bank could begin by recapturing federally-guaranteed monies that are now going to Wall Street, for example the interest on VA and FHA loans made to state residents. These proceeds could then be invested in local development and lending needs, including loans to small startup businesses and the local mortgage market.

The analyses of the Washington and Oregon initiatives done by the Center for State Innovation extrapolate from the BND model to project the costs and benefits to those states of setting up state-owned banks.¹⁵ Hawaii's economy is about a third the size of Oregon's and a fifth the size of Washington State's. Benefits projected by the CSI study include:

¹⁴ <http://www.publicbankinginstitute.org/BNDtranscript.htm>

¹⁵ Washington: <http://www.stateinnovation.org/Home/CSI-Washington-State-Bank-Analysis-020411.aspx>
Oregon: <http://www.stateinnovation.org/Home/CSI-Oregon-State-Bank-Analysis-020411.aspx>

(a) Significant job creation. For Washington State, the CSI report estimates that after an initial startup period, a state-owned bank would create new or retained jobs of between 7,400 and 10,700 per year at small businesses alone.

(b) A stronger local banking industry and reduced defaults on loans. (North Dakota has the lowest default rate in the country.)

(c) Increased lending.

(d) More readily available credit for small businesses.

(e) Significant financial dividends returned to state coffers.

The CSI report notes that the rate of return to the state would vary according to whether profits are immediately distributed to state coffers or re-invested. Quoting from the CSI report for Oregon at page 18:

State Dividends

One of the virtues of a state bank is that, while it should primarily be seen as a tool for stabilizing and increasing state lending by providing liquidity to private banks (and as a potential source of leveraged economic development funds), it can also return a portion of its profits to the state. . . . Thus, in flush times the state can choose to plow all bank profits back into the bank, while drawing on them (within reason) in times of fiscal need. For instance, from 2004-2009 the negotiated return from the bank to North Dakota was \$30 million per year; in 2001 the BND returned \$50 million to the state; while in 2000 the bank did not return any profits to the state.

4. Alternative possibilities for capitalizing the bank

One challenge for states struggling with budget deficits is finding the capital to meet bank capital requirements. The conventional alternatives are to draw from the state's general fund or to sell bonds; but the taxpayers are already tapped out, and deficits are already too high.

A second possibility is to tap into idle rainy day funds or pension funds. An examination of state CAFRs (Comprehensive Annual Financial Reports) reveals very large sums sitting in these funds, at least some of which are idle, either not being invested for their intended use or not being invested at all. Some of these funds are unrestricted enough that they can be invested in something like a state bank without causing political frictions. They are also large enough to make them ideal funds to use to capitalize a bank and get lending going.

The BND model suggests a third interesting possibility for capitalization. The BND is set up as a dba of the state: "North Dakota *doing business as* the Bank of North Dakota." That means that technically, all of the assets of the state are assets of the bank, and the bank can count them on its balance sheet.

This does not mean those assets would actually be spent. The capital requirement is just a bank regulation that limits how much a bank can lend.¹⁶ Capital requirements were imposed rather arbitrarily beginning in 1988 by the Bank for International Settlements in Basel, Switzerland, in order to regulate private bank lending. At an 8% capital requirement, a bank with \$8 in capital is allowed to create up to \$100 in “bank credit” on its books. Again, this bank credit has to be backed by sufficient deposits to clear the outgoing checks, but at \$4,000 in deposits per capita (the BND figure), this should pose little problem. For a closer look at the dba option for capitalizing a state-owned bank, see Exhibit IV.¹⁷

Against the costs of establishing a publicly-owned bank, the costs need to be weighed of the alternatives – slashing much-needed public services, laying off workers, raising taxes on constituents who are already over-taxed, and selling off public assets. A state-owned bank can open up viable alternatives to these politically unpopular measures.

¹⁶ http://en.wikipedia.org/wiki/Capital_requirement

¹⁷ Michael Sauvante, “State-Owned Banks. DBA vs. Separate Corporation, Regulatory Oversight and Risks.” <http://www.commonwealthgroup.net/docs/StateBanksDBAvs.Corp.pdf>

Exhibit I - FAQ for Bankers and State Treasury Staff

1. Wouldn't a state bank compete with private banks?

No:

Competing over deposits

Less than 2% of the Bank of North Dakota's deposits come from private individuals. And some state bank legislation would prohibit state banks from taking any private deposits.

It is true that private banks would no longer receive short-term state deposits, but considering that most community banks receive little of this money to begin with and that many states are still requiring 100% to 110% collateral for these funds it is unlikely to have a great effect on private bank profits. And even if collateral requirements are a function of risk aversion brought on by economic downturns, and are thus in the process of easing, it is precisely when the economy slows down that a state bank can provide a boost in lending.

Also, a state bank in the model of the Bank of North Dakota would not only *not* take local and municipal deposits, but would help local community banks secure these deposits through letters of credit.

Competing over loans

While a state bank could be set-up to originate loans, the Bank of North Dakota, as well as most proposed state banks, requires the state bank to operate in a participatory manner. In most cases a state bank would make participation loans with the private banks acting as the originators and servicers of those loans. The Bank of North Dakota does service some residential mortgages, but this is only after a local lender originates the loan and sells it to the Bank of North Dakota for servicing.

Overall competitiveness of banking market

If anything, a state bank helps to keep the banking market strong by supporting small and medium sized-banks (see question #2). In fact, North Dakota has a much smaller Herfindahl-Hirschmann Index (HHI) than such neighboring and comparably-sized states as Montana, South Dakota and Wyoming.¹⁸

¹⁸ The Herfindahl-Hirschman Index is a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. The HHI takes into account the relative size and distribution of the firms in a market and approaches zero when a market consists of a large number of firms of relatively equal size. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. See CSI Washington State Bank Analysis for full HHI figures.

2. How could a state bank help the state banking industry?

Participation loans

A state bank would primarily interact with the banking community through participation loans. These loans would help to increase a private bank's lending power and/or reduce the interest rates charged to borrowers. A state bank could also purchase part or all of a loan after it has been issued, to help a private bank stay within its capital adequacy and portfolio balance requirements. Or the originating bank could hold onto the loan and collect fees for servicing it. And because the state bank has no interest in competing for the origination or refinance of private loans, private banks need not fear that allowing participation will lead to a loss of customers.

Direct bank stock lending

A state bank could also provide capital to private banks through bank stock loans for M&A, capital refinancing or capital expansion.

Banker's bank functions

The Bank of North Dakota acts as a mini-reserve bank for its state and serves the functions of a bankers' bank. It is estimated that there are only around 20-25 bankers' banks in the country and a state bank could help provide private banks with lower cost/higher quality services. At worst, a state bank is simply another option for private banks to work with—they are still free to continue working with private banker's banks as they did before.

3. Won't this just increase regulations on private banks in the state?

No:

This does not add any regulatory hurdles to private banks. A state bank is NOT a financial bailout to private banks, a la TARP. Due to the prudent banking practices of a state bank (which is not pushed into risky lending instruments by stockholder-driven profit-maximization), we would expect that the private banking market would be affected by positive, stabilizing market-driven forces.

4. Wouldn't this put state funds in a significant amount of risk? And wouldn't political interests end up forcing the state bank to make bad loans?

No:

The Bank of North Dakota is staffed by a professional banking staff, not an economic development agency, and a state bank would be run based on prudent financial policies, not high risk practices.

The primary asset of a state bank based on the BND model is participation loans where the loan originator is a private bank. This not only serves the purpose of avoiding competition from a state bank, but it also provides market driven checks and balances against manipulation by political actors.

No loan portfolio is immune to loan failures, and a state bank would inevitably have some loan defaults. The Bank of North Dakota's allowance for loan loss ratio (allowance for loan loss/total loans) in Q3 2010 was 1.79%, while the average allowance ratio for comparably-sized (small- and medium-sized) private banks in the U.S. over the same period was about 2.03%. As with other banks around the world, a state bank would have a loan loss provision and would follow prudent banking practices. Thus, even if some loans held by a state bank fail, a state bank could not only cover its deposits, but provide a profit to both the bank and the state (beyond the deposit interest) – through state dividend payments. In 2009, the Bank of North Dakota showed a profit of \$58 million—including loan defaults. And on average, the Bank of North Dakota has returned over \$30 million per year to the state general fund over the past decade. Analysis suggests that this would be the case in other states as well.

Also, a state bank would work hand in hand with state bank regulators to evaluate its loan portfolio, risk exposure and profitability. A state bank would also be required to meet certain safety and soundness criteria in order to access its own liquidity sources to manage liquidity and interest rate risk (e.g., S&P ratings).

5. Don't we already have economic development programs that do these things?

A state bank is NOT an economic development program, and does not replace current state ED efforts. There is still a need for economic development programs and individuals to put together deals and work with businesses; a state bank can simply be a source of revenue to fund these programs as well as liquidity to help underwrite those deals. And because a state bank has the power to leverage funds (10 to 1 as a rule of thumb) it can increase the state's ability to fund economic development, along with helping to support private banks, consumers and businesses across the lending industry.

6. The state treasurer already gets a good return on the investment pools we use, why change that?

A state bank is NOT a substitute for an investment manager, and we would expect that the treasurer would retain these functions. For example, in North Dakota, BND does not manage the state pension fund investments.

7. How can a state bank act as the state's fiscal agent (concentration bank); wouldn't it be cost prohibitive to set-up that operation?

There is nothing to indicate that a state bank would not be able to handle the functions of a fiscal agent and still be profitable. The Bank of North Dakota has certainly done so for North Dakota. And state banks tend to have much lower overhead than comparable private banks due

to the lack of branch offices, ATM services, marketing costs, etc. Over the last 15 years (1995-2009) the Bank of North Dakota averaged an efficiency ratio of about 28%, while small and medium sized banks in North Dakota averaged about 62%.

No matter the costs of operating the bank, the cost to the state is nil once the bank is up and running; indeed, as noted elsewhere, the bank should generally return money to the state. The primary difference is that while a concentration bank (like Bank of America) is the only bank to benefit from state deposits, a state bank would spread the benefit to small and medium sized banks throughout the state (through participation loans).

Also, as mentioned earlier, a state bank does not replace all functions of a state treasurer's office, and we would expect that the same procedures around investment funds would remain.

8. Would a state bank impair the need for liquidity in state deposits?

No. Just like any private bank, a state bank has to carefully manage liquidity in order to be able to meet all its operational needs. However, this is obviously equally true of any other depository institution a state would use to manage state monies. If state deposits are currently deposited at a private financial institution (say Bank of America), that institution has to manage liquidity so that funds are available to the state to withdraw to meet payroll and other obligations as necessary. A state bank would be no different, and the Bank of North Dakota has demonstrated over the past 90+ years that it can do so capably—and still turn a profit.

9. How much do you need to start a state bank?

There is no set minimum for start-up capital. Of course, a state bank would need to sustain its capital adequacy, so depending on how much state deposits will be held at the state bank, this could drive the capital needs. It seems likely that there will be a transition stage where the state bank's participation loan portfolio grows and there are arguments for growing the capital at a similar rate. Ultimately, a state bank can be thought of as an economic engine that will be greatly impacted by the inflow of state deposits and reinvestment of profits into state bank capital. CSI analysis shows that even after accounting for debt service obligations due to start-up capital, a state bank would still be profitable after a few years and a strong economic tool for a state.

10. Where would the capital come from?

The likely sources of state bank start-up capital are the state General Fund, General Obligation Bonds, or other dedicated state funds.

11. Isn't setting up a state bank just too complex?

While setting up a state bank is more complex than, for example, establishing a single revolving loan fund, and there is only one such bank in the country, there are thousands of banks in operation in the U.S. and new private banks are formed every year. In many ways a state bank would be more straightforward to set-up than a private bank. We expect that a state bank

would have one location, no marketing, very little direct lending and a single source of deposits (the state). A reliance on participation loans would also reduce the need for bank loan officers and loan brokers.

12. Isn't the reason that banks are lending less now due to a decrease in loan demand or good loans?

Not completely:

While a reduction in lending during an economic downturn is in part a reflection of decreased demand for new loans (i.e. businesses holding off expansion plans), some part of the demand curve is directly tied to the cost of debt. As lenders tighten their underwriting standards and increase the interest cost to borrowers, demand for new loans naturally drops. This does not mean that there aren't any "good" loans available, only that there is heightened price sensitivity (especially during less stable economic conditions). CSI analysis shows that banks in North Dakota reduced lending 33%-45% less than comparable states, and we believe that this is in no small part due to the stabilizing effects of its state bank.

13. Sure, a state bank works in North Dakota, but isn't my state completely different, both politically and economically?

Of course every state has a unique political and economic context. However, it is important to note that the Bank of North Dakota has enjoyed the support of both Democratic and Republican administrations and legislators. Sen. John Hoeven, the Republican former Governor of North Dakota, was President of the Bank of North Dakota earlier in his career.

Economically, it is, of course, difficult to separate the health of the lending market in a state from the overall economic health of the state. Over the past two years, North Dakota has been one of the states least impacted by the recession and it is difficult, if not impossible, to know to what extent that is due to the presence of the BND as opposed to other factors. However, attempting to tease apart the economy-lending linkage slightly, analysis has found that the health of North Dakota's small and medium sized bank lending market has been relatively independent of other major components of the state's economic health (namely, the housing markets and oil and gas industries). This provides circumstantial evidence, at least, that the BND has played an important role in supporting the state's lending market.

Exhibit II – PBI FAQs from website

What are publicly-owned banks? Why do we need them?

Public banks are financial institutions owned by government entities, such as cities, states, and nations. The initial capital for a public bank often comes from a government appropriation or the proceeds of a loan arranged for the purpose of making the initial investment, but there are also other ways this money could be acquired (see below).

Both public and private banks do two fundamental things: (1) Keep account of our money, and (2) issue credit (i.e., loans). Money and credit create, slow, or accelerate economic activity. A bank matches borrowers and depositors, and profits from the spread difference between interest paid to get funds (supplied by depositors or other lenders) and interest collected on loans and investments made by the bank. Transaction fees add to profits. If private shareholders own the bank, the profits go into private hands and investment accounts. If government owns the bank, the profits from public funds go into public hands and offset the costs of government operations. Most states dispense their investment funds through revolving loan programs, in which the funds are lent, repaid, and lent again. A “bank” has several significant advantages over this arrangement – advantages that states give away by investing their assets in out-of-state banks and by placing their deposits there.

First, a “bank” can leverage its capital assets. At an 8% capital requirement, \$8 in capital can be leveraged into \$100 in loans. That assumes the bank can come up with the deposits to back the loans; but if it doesn't have the deposits, it can borrow them. And that is a second major advantage of a “bank”: it can borrow deposits from other banks at the Fed funds rate, currently set at a very low 0.2%. Rather than borrowing from Wall Street banks at 5% and having to worry about such things as credit ratings, interest rate swaps, and late fees, the state can fund its projects through its own bank, by backing the loans with its own revenues deposited in the bank interest-free; and until it can acquire the necessary deposits, it can borrow short-term from other banks at an extremely reasonable 0.2%.

Other advantages of public banks are that they serve the public interest and can take a long-term view of public investment strategies. Private banks operate in their own private interest and are concerned with maintaining the positions of management and satisfying their shareholders' requirements for quarterly profits and a healthy stock price.

Publicly-owned banks hold their elected officials accountable for the banks' lending, investment and other operations. A by-product of public banking is to buffer the impact of global recessions and expansions locally.

Would publicly-owned banks provide unfair competition to local privately-owned banks?

No. Witness North Dakota, which currently has the only state-owned bank in the U.S. It also has more local banks per capita than any other state. The Bank of North Dakota (BND) helps local

banks with capital requirements, partners with them and participates in loans. For local banks, “competition” has been coming more from the consolidation of the banking industry, whereby large banks gobble up smaller community and regional banks. This consolidation is reflected in the U.S. Department of Justice’s HHI comparative statistics on the relative competitiveness of major metropolitan and rural banking markets. Recessions threaten smaller banks more than larger, “too-big-to-fail” banks. Thus, a public bank, by placing its deposits with small and regional banks, can actually improve the soundness, security and independence of those banks, adding to competitiveness. When local banks disappear, often decades of knowledge about local lending context disappears with them.

I don't trust a public bank any more than a private bank. What can be done to ensure ethical management?

The simplest way to eliminate dubious investing by a public bank is to shine light on every deal. Require the posting of all documents relating to public transactions on a website. For each deal, show who is benefiting from it, how many other deals they have sold the SBA, what fees the seller is earning, who is buying, who approves it, how many other deals they have done with this seller, and so on, together with a summary of the amount invested and the terms.

Don't we already have a national public bank in the Federal Reserve, with a network of regional Fed banks around the country? How would a publicly-owned central bank differ from this? How would a publicly-owned state bank differ?

Ownership and control of the Federal Reserve System is a mixture of public and private. A publicly-owned state bank would be 100% owned by the state government, without private shareholders. Its profits would entirely be assets of the state, and its mandate would be to serve the state. The Federal Reserve Act is designed primarily to serve private banking interests. The Federal Reserve System is composed of twelve district banks that play distinct roles as central bank and bankers' bank.

As the central bank of the U.S. government, the Federal Reserve is the government's banker, buying and selling its bonds through “Open Market Operations,” and regulating the national money supply. The Federal Open Market Committee (FOMC) formulates and implements national monetary policy by setting the short- and long-term interest rates for government securities. The FOMC has twelve members, seven selected from the Fed's Board of Governors, and five rotating among the presidents of the Federal Reserve Banks, with the President of the New York Fed serving continuously.

The larger role of the Federal Reserve, however, is as a banker's bank serving private banking interests, supporting the liquidity, standards and safety needs of its member banks. Member banks of the Federal Reserve must subscribe to its stock in an amount of 6% of each bank's capital and surplus, of which only 3% is actually paid in, and the second 3% is subject to call by the Federal Reserve. The profits of the Federal Reserve Bank are split between a statutory 6% dividend to the member national banks and the U.S. Treasury. In 2010, the Federal Reserve Bank

paid \$78.4 billion to the U.S. Treasury.

Fed Chairman Ben Bernanke has declared that extending credit to state and local governments is beyond his legal mandate. For states to have viable credit systems like that underwriting Wall Street and the federal government, they need to set up their own state-owned banks.

How would a publicly-owned bank be different from a privately-owned one?

First, the mission of the publicly-owned bank is to serve the public interest, while that of the privately-owned bank is to serve its shareholders by delivering profits.

Second, the profits of the publicly-owned bank would be returned to the public, with the benefit of increased public services and reduced taxes. Conversely, privately-owned banks increase taxpayer costs through increased costs of interest, etc.

Third, the employees of a publicly-owned bank are public servants earning civil service wages, versus the millions in salaries and bonuses paid at private banks.

Who would benefit from a publicly-owned bank?

The entire Commonwealth, including We the People, the governmental entities to which we belong, and the environment in which we live, according to the priorities that we assign.

How could a publicly-owned bank help an economically struggling state?

Among other things, by (1) issuing badly needed credit at low, or no, cost to the state, thus providing a means of revitalizing infrastructure and other services that are now endangered (50% of the cost of most public projects is estimated to be interest); (2) supporting local and regional banks with programs that address local and regional needs; and (3) providing support for residential and agricultural financing that acts as a bridge during times of economic contraction, as the Bank of North Dakota did during the Great Depression.

Where would the state get the money to start a state-owned bank? Would taxes need to be raised?

The initial capital for a public bank often comes from a government appropriation or the proceeds of a loan arranged for the purpose of making the initial investment, but there are also other ways this money could be acquired. They include (a) reinvesting money from idle state and local funds – funds that must currently be maintained as “rainy day” funds because state and local governments do not have the sorts of instant credit lines available to banks; and (b) setting the bank up as a dba of the state, making all of the assets of the state assets of the bank. The Bank of North Dakota is set up as “North Dakota doing business as the Bank of North Dakota.” For more on these two alternatives, see [here](#) and [here](#).

These options would not entail an increase in taxes. In fact, once the bank was up and running, taxes could probably be reduced, since the profits of the bank would return to the public coffers, and the interest burden on state bonds could be reduced if not eliminated.

Aren't North Dakota's oil revenues responsible for the state budget surplus?

That is no doubt one factor, but many states with oil revenues are floundering. Something else must be contributing to North Dakota's stunning success.

The data shows that the Bank of North Dakota (BND) has contributed more to the state budget over the last 15 years than oil taxes have generated. Over the last decade, the BND has contributed over \$300 million to the state.

More to the point, did the oil companies direct any of their profits to supporting local banks, underwriting mortgages and loans to other businesses and start ups, students and farmers, reduce the cost of municipal bond issues or come to the aid of Grand Forks in its epic fire and flood? No, of course not.

Meanwhile, the oil business itself has been and will be aided by the BND. Because export capacity has been reached, BND has been asked by the state legislature to fund a \$100M loan to build the first petroleum refinery in the U.S. in nearly 40 years. If this legislation passes, oil industry refinement capacity will be expanded because of funds provided by BND.

Wouldn't a government run bank lead to waste and a large bureaucracy?

No -- just as Social Security and Medicare have low overhead, while private insurance rates are going through the roof to support hefty profits for their shareholders.

Aren't public banks a form of socialism?

The Constitution of the United States specifies a number of services that the government is required to provide; for example, a military, a postal service. etc. These services are not based on economic philosophy (capitalism, socialism, etc.); rather, they are sovereign requirements. The Constitution vests Congress with the power "To coin Money, regulate the Value thereof ...". This, too, is a sovereign requirement, and should not be characterized as an economic philosophy.

In the 18th Century, when the Constitution was written, coins were the most prevalent form of money. Today, most money comes from bank credit. Regulating the value of money can only be done today by regulating bank credit, which is properly a public utility. All of our money today is backed only by "the full faith and credit of the United States." The credit of the United States is an asset of the people and is properly dispensed and administered through publicly-owned banks.

Exhibit III - BND Transcript, 2/16/11 call with Ed Sather

Center for State Innovation Conference (CSI) call with Ed Sather (Retired Senior Vice President of Treasury and Trust Services, Bank of North Dakota, 35 years experience), 2/16/11

Introductions...

CSI: As you can see have a very diverse group geographically and in terms of interest, but we're all on this call because we're all, in one way or another, looking for better ways to put public money to work at home in our states to keep community banks lending and small businesses growing. The Bank of ND has been doing this as you know for decades, and there are several variations of a bill that would in effect recreate a Bank of North Dakota like that in your states. So we put this call together with Ed Sather, chiefly for bankers, but also for policy makers at the state level to get their questions answered. Ed is a retired Senior Vice President of Treasury Services at the BND. Ed, I think you retired just last summer, is that right?

Ed Sather: Yes, August 1st.

Host: After 38 years at the bank. And Ed's spent a lot of time in front of state government talking about what the bank does...defending it..advancing it. Maybe Ed will tell us how the bank grew in his 38 years there. But before I give this over to Ed, I wanted to offer a disclaimer. Ed's not an advocate for any of the proposed banks or the bills, he's able to talk about what the BND has done over the last 90 years. But as you put your questions, to him try to frame them in terms of what the BND's experience is because he may not be able to speak to the particulars of the bank bills in your states.

Ed do you want to give us just a minute about your background and then give it back to me, and we'll start with some questions?

Ed: Ok as was said, I was with the bank for 38 years, I joined it 1972. The bank had total assets of \$200 million dollars. When I left last August the bank was \$4 billion dollars. I was in charge of Treasury Services, I was in charge of funding, interest rate risk management, asset liability management and liquidity. I served on the executive committee, the investment committee and the asset liability committee.

CSI: So it's safe to say there isn't a part of the bank you didn't get a look at?

Ed: No, from the treasury side we worked with all the divisions in the bank.

CSI: So why don't we start in Oregon, I know we got a couple of questions that I'd sent on to Ed from Oregon. But why don't we start there either with bank folks or treasury folks with questions for Ed. Who wants to start?

Participant: Hello, I'm, actually a retired banker. I spent 40 Plus years in banking and now on the city council for ...unintelligible....so very interested in what's happening here. And I sent a couple questions here, just a basic questions...I sent just two or three questions and maybe they're repetitions. I'm just coming into the picture here, but being you're the treasury department, there is great interest as to where your funds come from. As I understand you're not an FDIC insured bank so you're looking at funds basically from the state government. How did you expand from \$200 million to \$4 billion? Where does that come from during that period of time primarily?

Ed: Well the bulk of the growth came from the state. The state is the major depositor, the state or state agencies, are about, I'm going to say 90%. North Dakota has been very prosperous the last 10 years with commodity prices and also with the oil revenues, so that the coffers of the state

have been increased dramatically. North Dakota, at the end of the last biennium had a surplus of \$1.2 billion. So the bulk of our funding in deposits comes from the state.

But also, we provide a secondary market, or primary, market in ND in fed funds for ND banks. So on a daily basis we were buying anywhere between 300 and 800 million dollars a day from the banks. We belong to the Fed. We have a line, a discount window.

We're also a member of the Federal Home Loan Bank of Des Moines, which we use for some of our interest rate risk management. We have about \$400 million borrowed from the Home Loan Bank for hedging purposes. Also, in the past, before we had the growth, since we don't compete for deposits in ND, we went to the secondary market. We issued CDs in the secondary market which were bought by the Europeans. This was about \$400 million of which we have paid off, because of the growth of State deposits.

So we look at the state as our deposit base, but we also look at other funding sources to help us with liquidity and interest rate risk management. We don't compete for deposits in the State, but we will go out of state for funding purposes.

Participant: It's a different situation we have here in OR as far as our budget, we have pretty major deficit. I have one other question I don't want to dominate this but...

Ed: Go ahead ...

Paul: I understand you participate in loans quite a bit with the local commercial banks. Is that a reciprocal type of arrangement?

Ed: We've not had to sell loan participations because of the tremendous growth we've had. But we do participate. To give you an example, the basic asset categories for the bank is diversified in four major areas. The largest being bank participations, which is about \$1.1 billion. Student loans is about \$900 million, home loans about \$500 million and agricultural loans is about \$400 million.

So various programs of participations ... (unintelligible)... without looking at selling participation. There was a time in around 2001 that we were approaching a very high loan to deposit ratio and we were thinking about selling participations, but the need did not arise.

Participant: Did you have something more? I'd like to jump in here... A number of our community bankers like the idea of buying loans off the, whatever entity we come up with. Call it a State Bank. So if there's any more that you can speak to on that it would be of interest.

If I could ask a second question? More pressing question. Some of our decision makers are thinking primarily about a revolving loan fund. Call it \$200 million to get going. Could you speak to the management of risk? That's a big driver here, there's some concern about putting public funds at risk in a banking entity and that's something that you've dealt with directly. So the difference between a \$200 million loan fund or capitalizing at a bank and using deposits to have a little bit more size?

Ed: I'm going to have to, because of the banking side. I will say this, I hope I don't offend anyone, but economic development people, it's been my experience anyway, have never seen a loan that wasn't going work. And I don't think that's good for public funds.

I think under the banking structure, you're going to have lending limits, you're going to have capital, and you're going to be regulated, or you should be regulated, by state regulators. And you're going to be looked at as a financial institution. So you're going to have to have underwriting standards that are acceptable. You'll have various committees that will go through and approve the loans, and review the loans and, if necessary, create a loan-loss reserve which can impair some of your capital. But banking structure is more <<<<<15 min>>>>> viable in this structure that has more of the safeguards than just a revolving fund run by a state agency.

Participant: Could you articulate some of the safety features? I feel like I have a pretty good sense, but it keeps coming up.

Ed: We were structured this way. It's a bank, these are loan officers, it's not economic development people. We have underwriting standards, we have a credit review committee which is independent. The loan officers have a legal lending limit which they can approve loans. Above that limit it went to a Loan Committee made up of major lenders. And everything above that went to the Investment Committee which was made up of senior management. If it was above another limit we had an Advisory Board. It eventually went to the Board of Directors which was our Industrial Commission, who are the Governor, the Attorney General, and the Commissioner of Agriculture. It had to go through all those processes to be approved.

And then we had an annual audit by a CPA firm. And every two years the Department of Financial Institutions would audit the bank. And go through a loan loss provision, look over documentation Just like you would any normal financial institution.

Participant: Does the state banking department provide the audit then for your bank as well as the commercial banks?

Ed: Yes. If it's a state charter in North Dakota, the state banking dept will rotate with the FDIC every other exam. But since we're not FDIC insured, the state banking dept audits us every two years and reports to the Industrial Commission.

CSI: That's very helpful, Ed. Did you have a follow up? You had two parts to your question. The first, Ed, was about buying loans. Was that right?

Participant: That community banks could buy loans. If there's a reason not to consider that...

Ed: We never had to utilize that. It's a feature that we looked at. So you could become a conduit where you're taking in loans and selling out participation which a lot of banker's banks do. I know that there is some feelings in the banking community that they've been stiffed a little bit on the credits. But I look at it saying that if the banks are going to participate on a loan, it should be a credit that they understand, that they can manage and can explain it to their committees, and they know how the finance is going to work. If not you're familiar with that type of credit, you should not be participating in it just because someone else made the loan. But if it's part of your program it's certainly could be something you can do. I mean as a financial institution you are set in place to provide and participate in service, so that definitely could be done.

Participant: Ed, you mentioned in response to the first question the fact that competition for deposits or the fact that the bank does not compete for deposits. You mentioned again in your answer to the last question that you got some flak from bankers. Can you talk a little bit about the bank's relationship with North Dakota community banks?

Ed: Well we have a strong relationship. There are 94 banks in North Dakota. Through lending as well as treasury and operations, we have a relationship with at least 85 of those institutions. Now the bulk of the bank's lending programs are not direct. We don't compete for customers. We partner with the community banks. The lead bank, the community bank, makes the loan. Now whether it's a legal lending limit issue, or they want to share the credit risk, or for whatever reason, they participate with us.

We don't compete, and by law, we can do very few loans direct. So we've not going to compete for their customer. We're not going to go out and solicit their customer, try to do home loans, or credit cards, or any of those issues. It's just transparent. In a lot of cases, the borrower doesn't even know that the bank is a participant. That's up to the lead lender. They basically do the servicing and remit payment to us. So we don't compete.

The only loans that we did direct were student loans, and the reason for that is most banks don't

want to do a fixed rate loan for 15 years. And we offered farm real estate loans subject to collateral for up to 25 years. That's another long term, fixed rate loan that the bankers did not want to purchase themselves.

And they like the idea that here's an institution that's not going to compete with them. That's not going to get the financials of their customer, and then realize that this very good customer and try to take that customer away.

So smaller banks were able to service their local customers by participating with us. For an example, with input costs as high as they are, to get an operating loan for a farmer that's \$10 million, the lead bank with a lending limit of \$1 million, they could participate \$9 million of that loan with us. They still service their customer, and retain their customer and deposits and whatever relationship they had with that customer, and we would not compete for that customer. So it's a very good working relationship. A lot of the comments I got from the banks, the smaller banks were able to stay viable and service the needs of their customers even though their customers' needs for additional dollars would increase. By participating with BND, they feel comfortable and were able to service that customer.

So, that's a major concept, that we're not competing. We are partnering with the financial institutions in the state.

CSI: O.K., that's helpful. Ed, you said, when you went through your numbers, you said you had about \$500 million in home loans. Did the community banks originate those, and do they maintain the servicing on service those as well?

Ed: We have one institution in state that wants to do the servicing because they have the volume. But, all of them are originated by the local lender and they sell to us, most of them sell to us, the servicing release. But, we service those credits at the bank. We don't pool or securitize those mortgages, sell them to someone else to service. So they are all serviced by the Bank of North Dakota.

We created a secondary market about 15 years ago because they (local banks) didn't like the idea of selling to the Wells Fargos, or larger regional banks, that were soliciting their customers. So they asked us to provide the secondary market. So we came up with a secondary market. They originate, we purchase, and we service. We have one institution that does their own service.

Participant: Ed, you keep all these on your own books. Have you ever considered securitizing those loans and selling them back North Dakota investors?

Ed: We've never had the request. My feel for that is that most of them don't want to have 30 year mortgages on the books, even if they might have the duration of 10 – 12 years. They just don't like that interest rate margin on a 30 year fixed rate mortgage.

CSI: O.K., any follow-ups?

Speaker: Nope.

Participant: I have a very basic question. I read a lot of material, but I'm not clear on the election process. The Industrial Commission would seem to be completely elected, but the material has confused me as to whether or not the board of directors or your advisory board are elected. Could you go through that for me? And they are not elected, who appoints them?

Ed: O.K. The Industrial Commission is elected every four years. The Industrial Commission appoints a President and approves all Senior Vice Presidents of the Bank. The Commission, which would be a standard Board of Directors, is chaired by the Governor. The Governor appoints an Advisory Board to oversee the operation and make recommendations or suggestions to the bank or to the Industrial Commission about the operation of the bank.

If you want a cross section, the law requires that of the seven member committee, four of them

are bankers. The rest represent agriculture, business and other areas of the state. They are appointed by the governor.

Participant: We just found out about this call yesterday, so I didn't have a chance to submit some banker questions. Some of them have been answered, but some haven't. I just have two. Are there quasi state government state agencies in North Dakota that do loan participations with financial institutions for housing and commercial loans, or is it all done through the banks?

Ed: Well they don't really do participations. North Dakota has a North Dakota Housing Finance Agency. That is a separate agency that issues debt to secondary markets to fund first time home buyers at very attractive rates. They're a separate agency, they do debt financing. What we'll do is that we'll provide them a line of credit so they can warehouse the mortgages before they go to market. So we're doing short term financing. There's also an economic development agency in the state that has some funds to do direct loans.

Then we have some other programs that helps compliment some of the loans that economic development does. They might do buildings, something of that nature. We get involved with the bank by providing a participation in the operating line, equipment, or things of that nature.

Participant: O.K. Another question dealt with deposits. We've heard that this bank would prop up, or give additional deposit dollars to Maine's state chartered banks opposed to nationally chartered banks. Do you deposit any money into the 94 banks in North Dakota?

Ed: No we do not. But here's what we do with the Treasury Service. For liquidity purposes we will establish a line of credit for them that provides fed funds unsecured. So we'll sell them overnight lending up to the limit we establish. We will also, if they want to secure it, we will give them a secured fed funds line for liquidity purposes. <<<30>>> In North Dakota you can use letters of credit from the BND to pledge for public deposits. So for liquidity reasons, we tell banks to release their securities and use our letters of credit so they can increase their liquidity whether they deal with us, or the home loan bank or the fed discount window. So we provide them additional liquidity and funding mechanisms. We also encourage them to become members of the discount window and to belong to the home loan bank. We want them to have all the liquidity that they can, and have all the avenues available to them, but we do not deposit with them.

Participant: O.K. Well our bankers want to belong to the home loan bank, use the services of the banker's banks, a lot of them participate with the fed window. We've been told that this initiative would take deposits from, Wall Street firms and invest them into local community banks. So you don't take any of your excess cash and deposit into community banks in North Dakota.

Ed: No, the mechanism they use here is to participate with that lender and either take out some credit risk, or help them with legal lending limit issues and then provide liquidity but it's provided in the form of a deposit.

Participant: Thank you. And then I just have one more question, and it might not be a fair question for you so you don't have to answer. But one of the bankers who is curious, says the state of Maine, for the next two year budget cycle is facing a \$1billion budget deficit. And they were just wondering, do you have any suggestions on how Maine would capitalize a bank when they are facing that deficit?

Ed: That's an issue you'll really have to look at because if you're going to start an institution, and let's make it simple and say that you're going to use a 10% capital ratio. If you credit a bank for \$1billion, you need \$100 million capital that's another deficit that the state is going to have they're not going to be able to spend. So it kind of compounds the problem. You can go to the secondary if you can issue stock. But, being state owned, we don't issue stock. So, I don't really

have a good answer for you.

CSI: I think if you look, and maybe the Maine folks can share this with you, studies from the center for state innovation model different ways in which a bank can be capitalized. What the costs are in the out years, at 5, 10, 15 and 20, etc. Maybe we can get that to you off the call.

Participant: That would be great. Our bankers deal with this and it's a big concern. We know that when the bank was established in North Dakota, it was 1919. Most of those banks have relied on that service and you've even been able to survive during some tough times, but the economic condition of ND even now is a little bit different than what we have in Maine. Especially relative to your natural resources.

Ed: That's something I'd like to respond to. That's an issue that we've always looked at as we've grown. Our capital ratio was stepping down, and for us to grow capital we have to do it through profits because we don't issue stock. We have to be cognizant of what our capital ratio is. If we're growing too much, we need to shrink, so we have to maintain that capital ratio because we're looked at as an institution safety and soundness. Examiners look at the concentration of credit at community banks that are dealing with the bank of North Dakota. Plus we're also rated by Standard and Poor's, we're rated A plus long term. They come in and review us every year. So it's performance, capital ratios and everything comes into play. So as an institution especially like the bank of ND you just can't grow forever because you have to maintain those ratios.

Participant: You said you do some operational services for the bank. Can you elaborate on that?

Ed: From the Treasury side we did provide liquidity, fed funds and letters of credit. We also provide bond accounting, and safe keeping of securities. And then the operational side, is that we basically clear all the checks in North Dakota. We're like a mini Fed. About 90 banks in the state clear through us. And they use us for coin and currency.

Participant: Did you also do the processing for credit unions as well?

Ed: Yes we will. And matter of fact, recently the corporate issue that's taken place, they're leaving corporate and they're coming to the Bank of North Dakota because the corporate is going to close. Which should make you happy.

Participant: O.K. Thank you very much.

Participant: Can I ask a question on top of what Kathy was asking?

CSI: Sure

Participant: You mentioned as far as the local deposits coming into the smaller community banks, we tried to take a section of the investments from the city and put them into the community banks, but we were not able to without a standby letter of credit. Is that what you're talking about, Ed? The smaller community banks could place deposits from cities and enhance them with that so they could tap into those funds?

Ed: It depends upon if the community banks, and I think today is a prime example. For a community bank to take a public deposit, and if it's a pretty good size deposit, and they have to pledge securities, and they have to go out and buy securities, there really is no interest margin for them. So we suggested that, if you can get those funds and lend those funds out. Don't buy securities, use a letter of credit, I think we charge 1/8 of a percent. Use a letter of credit to pledge for that deposit, and put those funds to work in the community and make good loans with them with better margins and not buy securities you have to pledge.

Participant: So that would make a pretty good deposit base available?

Ed: Yes it would. If they had the loan demand, and they wanted to get public deposits, this is mechanism that can do it and still make the loan.

Participant: What would you take as collateral?

Ed: We take the institution. We will look at the financial performance of the institution and we'll say we'll take this amount. This is your credit limit. This is how much you can do letters of credit with. We do an evaluation of the financial institution. Now the letters of credit do not exceed one year, but you can renew it. We review the financial institution every fall.

Participant: Thank you

Participant: Two questions. I introduced a bill to form as a study commission on this question and there has already been a huge backlash from private bankers.

First question the bankers are saying that whatever the success of North Dakota, that all of it was based on the fact that there was no other way to capitalize banks in North Dakota when it started and that's not the situation here in our state. We've got all these other banks.

Second question. The bankers are completely freaking out over this, so do you think there is any way to win them over or are they just going to be implacably opposed to going down this road?

Ed: Well being a banker, and bankers are afraid of anything that's new, they might perceive it as a threat. I think if you use the North Dakota model and say this is an institution that's not going to take your deposits away. It's going to partner with you. It's going to assist you with participations, liquidity, and you want an ongoing dialog to say we're here to help the community bankers. We're here to assist you, you tell us what you need. You hold forums and you meet with them, and you say we're not going to stand still. What would you like? How can we improve on this? How can we improve on that?

I guess it's a question of education and stressing the idea that it's a partnership. It's here to help the banks. It's not here to compete with you and take away your customers.

Participant: I have one other question. Does the bank have to follow the state consumer lending laws and the safety and soundness laws that exist and regulations that exist for the community banks? Or are you exempt under state law from those? I was thinking of...could they use you for marginal consumer credit that, maybe, you know, don't meet the ability to pay provisions, or something like that? Or do you pretty much follow those guidelines?

Ed: That's the key, and it's my personal feeling that, you operate as a bank. You don't operate as a state agency. You don't make it political. You operate as a financial institution.

The Department of Financial Institutions comes in and examines us as the same way it examines every state chartered bank. They look at loan files, concentrations of credit. They look at everything and examine us the same way they examine another bank because they look at us for safety and soundness.

Participant: O.K. thank you.

Participant: I have one more question. I wasn't quite clear where the excess cash is parked. I understand it isn't put into community banks, but I wasn't clear where you did put it.

Ed: Well that's the other area that I had, I had the investments. We would invest the funds according to our asset liability models where we would see future funding, to make sure that we had adequate liquidity, and to help with interest margin. But, it's invested according to our investment policy in treasuries, or government agencies, things of that nature.

Participant: Thank you.

Participant: I attended the conference last summer or spring. At that time, one of the big things for me, was the excitement about the fact that you were able make capital loans to community banks in North Dakota. <<<45>>> With the new regulations, those capital loans are not going to be able to be considered as tier one capital is my understanding. Do you know how they are addressing that? Can the Bank of North Dakota actually buy common stock in community banks or is there any kind of vehicle that allows you to help a bank with capital?

Ed: Yes. If I didn't mention it, go to the Bank's web site, which is banknd.nd.gov. Now, what we had is legislation authorize the bank to make bank stock. Then the TOPS came out and TOPS became the buzzword. Now since TOPS don't apply to capital one, we can still do bank stock where we take the stock of the individual. So they can still issue bank stock as a mechanism of growing their capital vs the TOPS because of the regulation are not what they used to be.

Participant: That raises a good question for me. In the state of Maine, we have 32 banks and 20 of those banks are mutuals, and the remaining ones are stock based banks. How do you help with capitalization for mutuals?

Ed: I wouldn't be able to respond to that. I really don't know how.

Participant: Are there mutuals in North Dakota?

Ed: Not that I'm familiar with.

Participant: Wouldn't a credit union be the same thing?

Participant: It would be the same as how do you capitalize a credit union?

Ed: We've never capitalized them. They're treated more as a mutual, more as a co-op?

Participant: Yes. That's one of the concerns for a lot of my members because when you only have 32 banks and 20 of them are mutuals it's always an issue for this state. We're kind of unique that way. Alright thanks.

Ed: What I suggest is to find a mechanism for what you can do, if necessary, in conjunction with the department of financial institutions, what you could do to fund them, to help them raise capital. I really don't know the restrictions on what you would have.

Participant: It's very limited for mutuals because they're actually, by their charter, are not-for-profit. We're very fortunate in Maine where all our banks are well capitalized right now, so it hasn't been an issue. But thanks, it was a good point on how to get capital.

CSI: We're at 5 o'clock now, any other questions?

Participant: Ed, in Oregon we've had a pretty rough time with the economy here, a lot of business area has gone downhill and it's had a very significant impact on a lot of the banks. It seems that this is kind of, by forming this bank, this could be an answer to having the community banks being able to be more generous with their lending to try and help small business get back into the picture. You probably haven't had that because your economy has been so good over there. But, how do you control your lending to small business? I'm assuming that most of your staff are experienced bankers who are using the normal credit criteria.

Ed: That's true. We have a "one stop shop" that's located in the bank, that's what we call it. So we've got SBA's in there, CBC's in there. We look at economic development. We all work together to try to partner, and come up with ways we can assist in the financing. The model has changed quite a bit over the years and now it's NO, it's how can we make this work, but also be cognizant of the fact of safety and soundness. So we're trying to help the constituents of North Dakota and the bankers, but also do it under prudent underwriting. So we're always looking for new ways that we can help, that we can assist. We can't do everything, but we try to be proactive and work with the bankers and the associations and the communities.

Participant: Ed, in terms of economic development, and we talked about this peripherally today. But could you just give us a little overview as to where the input and how the focus gets created? Is this really a grassroots thing? How is the state involved in this? And then where the BND gets active in the process? I've not been following the current refinery issue, just wondering in general, what kind of process you see here?

Ed: Well it depends upon where it originates. If it comes through the state economic development agency, they will look at it and generally see what's proposed. We have a great

working relationship with them. They'll initiate a dialog, or a meeting, and say O.K. "This is what we're looking at, this is what we can do. Bank, what can you do? Where do we have to go to be the lead lender?" Things of this nature. We work with them. In most cases, new projects that come in, the contact's going to go to the economic development people. But then they contact us. It's a variety of fundings that they need, so we can see what we can do and how we can help and assist.

At the same time we meet with the economic development people throughout the state. We tell them about our programs, have an open dialog. If they get a request they'll contact us. Saying "we're looking at this. "What do you think? How can you help us? What should we be looking at? What kind of underwriting should we look at? Who do we approach?"

So it's an open dialog. Even if we don't make the loan, we're available to assist them, and help them, make suggestions or recommendations to check SBA, check this, talk to so and so in their community and look at these programs.

Participant: Thank you so much.

CSI: Any final questions?

Ed, your last three answers kept hitting on the same theme of helping and partnering. I was struck that the reaction from the community bankers in some states is sort of panic and I think you're right that when they get a handle on exactly what the Bank of North Dakota does and recognize this as an opportunity to build an institution that partners with their members and that they can have a hand in shaping it, maybe we'll be able to move them.

Participant: Perhaps Ed, if you've got more time, not today but in the weeks to come, we could get you on the phone with folks in individual states.

Ed: I'd be happy to. Just let me know.

CSI: Special thanks to Ed, for your time. And thanks to everyone for getting on the call today.

All: Thanks Ed

Exhibit IV - - State Owned Banks - DBA vs. Separate Corporation, Regulatory Oversight and Risks by Michael Sauvante¹

¹ See Michael Sauvante's bio here <http://www.ceedprogram.com/sauvante.html>

² http://en.wikipedia.org/wiki/Bank_of_North_Dakota

³ <http://www.webofdebt.com/articles/cut-wallstreet.php>

A number of other states, including Michigan, are contemplating the establishment of a state-owned bank similar to that in North Dakota (Bank of North Dakota or BND)², for the purposes of economic development of their respective states. The rationale for forming such a bank is explained in this article by Attorney Ellen Brown *Cut Wall Street out! How states can finance their own recovery*.³

Whether formed as a result of an executive order or by an enabling bill in the state legislature, there is a fundamental question concerning the structural approach to creating a state bank and the ramifications of that structure on jurisdictional oversight and risk factors.

Bank Charters and Regulatory Oversight

Banks are established in the United States through one of two means – they receive a charter (legal permission to be a bank and perform banking functions) from a state regulatory banking agency or from a federal agency. The banks so chartered are called state chartered banks or federally chartered banks. With rare exceptions, the entity granted such a charter is a corporation.

Banks also differ in forms of ownership. In general, if a bank is owned directly by individuals, then it is a free-standing bank that is directly chartered and regulated by one of the two chartering entities. Such a bank may have one or more branches, but would still be considered a single, stand-alone bank.

However, if the owners wish to own two or more banks (not considered branches of one bank), or a bank and some other financial institution, and they wish to do so with one controlling entity, they must form a bank holding company (known in the industry as a BHC). Holding companies in general are stand-alone entities whose principal business is owning other things like other companies, real estate holdings, airplanes, banks and the like.

A bank holding company is a special type of holding company that owns one or more chartered banks and may legally own other types of financial institutions such as insurance companies, investment banks, hedge funds and venture capital funds. The banks and other entities owned by the bank holding company are considered to be its subsidiaries. Such holding companies themselves can be corporations, LLCs or other legal vehicles.

Bank holding companies fall under a different category from free-standing banks and are subject to separate rules and regulations, in particular at the federal level. Bank holding companies currently come under regulatory control and oversight by the Federal Reserve.⁴ That means that a bank owned by a bank holding company has at least two regulators to deal with, whereas stand-alone banks, for the most part, only deal with their chartering agency (plus FDIC).

⁴ Given the current turmoil on Wall Street and the controversies surrounding the big banks and their relationship with the Federal Reserve, Congress is entertaining a number of legislative changes that could well alter the role of the Fed in regulating BHC's and a number of their other activities.

⁵ http://en.wikipedia.org/wiki/Basel_II

⁶ <http://www.legis.nd.gov/cencode/t06c09.pdf> and http://en.wikipedia.org/wiki/Bank_of_north_dakota

All banks (with the exception of the Bank of North Dakota) are further required to come under the oversight of the Federal Reserve Deposit Corporation (FDIC), whether they are free-standing banks or owned by a bank holding company, and are required to contribute to the FDIC fund.

Banks and Their Assets

The number one privilege enjoyed by banks is their ability to create new money, in the form of credit granted to their borrowers. Banking laws permit a bank to create that credit based on the assets of the bank (generally defined by the Basel II Accord⁵). This credit is not extracted from those assets (which remain untouched in the process), nor is it drawn from any other pool of money, but rather the assets serve strictly as the basis for calculating the total amount of new

money that the bank is allowed to issue in the form of credit. That amount (usually a multiple of the assets, typically in the range of 10-12 times the value of the assets) is governed by regulators, and varies from bank to bank.

Thus the bank's assets (not deposits) are the key to its new money creation process, an important factor when contemplating whether a state should establish its own bank as a DBA of the state or as a separate, free-standing entity.

State Bank as DBA

According to North Dakota's statutes, BND is a DBA of the state.⁶ If a state bank is chartered as a DBA of the state (which is a government corporation), then the assets and liabilities of the bank becomes synonymous with the assets and liabilities of the state (i.e., its balance sheet), thereby enabling the state to use all of its assets to determine the amount of new credit it can generate for the state's benefit. No assets would have to be assigned, pledged or transferred into the bank. This would be similar to an existing corporation obtaining a bank charter (like a license) from a regulatory agency, wherein all the corporation's existing assets would automatically be considered the assets of the bank once the charter has been granted.

In the process of creating new credit, the state bank would not be tapping the state's assets in any manner, but rather strictly using them to determine the legal amount of new money credit that the state can issue based on the assets it already owns. For example, Michigan has accumulated considerable assets over its 170-year existence, assets which could translate into several hundred billion dollars in potential new credit for the state.

State Bank as Free-Standing Entity

Should the state elect to establish a free-standing entity (corporation) to be the state bank, it would have to transfer specific assets into the bank for the bank to have any lending ability (as corporations have no assets until assets are transferred into them). Thus the state would have to assign and transfer those assets (whether they were existing state assets or new assets such as proceeds from bonds issued to capitalize the bank) to the bank to enable it to conduct banking business.

In the process, the lending limits of the bank would be constrained to the multiple allowed by regulators. For example, if the bank corporation were capitalized with \$20 million, then it would have an initial lending limit of approximately \$200-240 million, a far cry from the hundreds of billions of dollars under the DBA alternative available to a state like Michigan.

The State as a Bank Holding Company

If the state set up a subsidiary corporation as the bank, then the state would automatically be considered a bank holding company. That would open up a legally complicated question that might require resolution of federal vs. state constitutional issues.

The legal question arises because according to current federal law, all bank holding companies come under the jurisdiction of the Federal Reserve. However, the Federal Reserve is a private corporation owned by other private corporations (the 12 Federal Reserve Banks). The Fed operates under privileges granted to it by the federal government, but it is not a federal agency and therefore does not have the authority of the federal government.

If a state-owned bank is a subsidiary of the state, a private corporation (the Fed) could be construed as having jurisdiction over a sovereign state, an unprecedented scenario. Most states would reject the idea that a private corporation has the right to exercise any control over a sovereign state, likely precipitating a legal battle.

FDIC and the State Bank

An additional area of potential dispute with respect to states' rights relates to whether a state has to join and contribute to the FDIC fund.⁷ The FDIC exists for the purpose of protecting bank depositors from the potential loss of their deposits should their bank fail. This federal agency was formed in response to the problems created by bank failures during the Great Depression.

⁷ <http://en.wikipedia.org/wiki/FDIC>

Originally, participation in the FDIC fund was voluntary but became mandatory in the early 1990s. The Bank of North Dakota was grandfathered as exempt from that requirement. North Dakota self insures its depositors and thus was excluded.

Other states could legitimately claim exemption from that obligation, especially given the precedent of North Dakota. That challenge may well rest on a states' rights question and the fact that states, unlike private banks, are in a completely different legal and financial category than free-standing private corporations. States have the ability to levy taxes, float tax exempt bonds and do a number of things that private corporations cannot. Even their potential bankruptcy comes under a different section of the federal bankruptcy code.

FDIC participation thus seems to be a likely area of contention between the federal government and the states, unless Congress amends the laws pertaining to the FDIC to explicitly exclude state-owned banks from the system.

The Question of Risk

There are two levels to this question. One relates to the very broad risks to the state on implementing such a plan and conversely, of not implementing such a plan. The second level of potential risk to the state relates to the assets that are utilized by the state in the process of enabling this new credit machine (see below).

With respect to the first question, there may be some concern with things like potential inflationary pressures if the state turns on this credit spigot and floods the state with too much money. There is no way to prove this point one way or the other, and a number of historical examples can reinforce both sides of the argument (although more support the benefit side).

What is not in dispute is that the country is in a deep recession, if not depression. The lack of money in any economy is an automatic recipe for further economic problems, and tightening the belt further has never been shown to fix an economy in deep recession/depression. The problem tends to be exacerbated by the fact that in such tight financial times, economic disparities between the haves and have nots grows as those in need lose control over their assets to those with greater abundance, thus sowing the seeds of social instability.

In such times, an economy represents a very deep hole that needs to be filled, before it even remotely approaches conditions that could be considered inflationary. Therefore one would be very hard pressed to build a case that having the state provide a substantial amount of new credit to the state and its citizens can be anything but positive.

Making credit available to county and city governments, school districts and other agencies currently facing heavy debt loads that result in interest and principal payments filling the coffers of out-of-state lenders cannot help but benefit the state by keeping such moneys in-state.

One way to accomplish this is for the state to buy up the bonds and other debt instruments held by out-of-state parties and have the bond issuers pay the state instead. The state could then set whatever interest rate it deems appropriate, which in some cases may mean the difference between the agency being able to continue to support its debt or go into default. Regardless, the state and its citizens benefit by whatever interest is paid, as all of it would go to the state and not outside entities.

We can also look to the model in North Dakota where the state is buying up real estate loans from community banks. The collapse of the real estate market has had a huge negative effect on loan portfolio assets throughout the country, significantly impacting banks' ability to lend. With the Bank of North Dakota buying up these loans from their community banks, those banks are in a better position to provide lending to small businesses and others than they could with those loans still on their books.

In debating the question of systemic risk at the macro level, one factor points unfailingly at the benefits of a state bank: states have a major crisis on their hands and lack of money stands at the very center.

The Question of Risk and State Assets

That still leaves the valid question of potential risk borne by a state with respect to its current assets. To understand this, it's useful to recap the process by which assets enter into the banking equation. As described above, assets are not deployed in the actual credit generating process, with the sole exception that they serve as a value benchmark for determining how much new credit money a bank might issue. The only time the assets really come into the equation and are at risk is when a bank fails. To date, as there is only one government-owned bank in the U.S., which is very healthy, we can only look to failures of private banks and what occurs when they are seized by regulators in order to gauge what could potentially happen to the state's assets.

Private banks can and sometimes do go into voluntary failure mode. However, more often than not, a bank is deemed by a regulator to be no longer viable and one or another of the regulators steps in and seizes the corporation, its charter and all its assets and liabilities. At that point, all the bank's assets are relinquished to the seizing regulators and the former owners no longer have any claim to them. In that case, all the assets are lost, but only because regulators took them, not because they were lost as a result of any kind of banking activities.

Which begs the question, what about a state-owned bank? If assets can only be lost as a result of a bank seizure, can a state bank be seized by regulators? That returns us to the question of whether the bank was established as a DBA of the state or through a separate subsidiary. It is further qualified by whether the state chartered itself or received a federal charter for its bank.

It is highly unlikely that a state would turn to the federal government to charter itself. If it did, it would then be subject to whatever the federal agency would require and place the state under that agency's jurisdiction for its banking activities. If it did so as a DBA, then that scenario would be further clouded with state's rights vs. federal rights issues, setting the state up for a potential jurisdictional dispute.

Given that every state has its own set of banking laws and is fully empowered to charter banks in a manner that it deems best for the state, it is inconceivable that any state would not have its own chartering agency grant the state its bank charter rather than turn to the federal agency.

It is helpful to note that there are no universals in the banking world, just general convention. Each sovereign country, and in our case states as well, decide what their rules will be. In fact, states established banking laws many decades before our federal government did, and as a result, the federal government tends to give a good deal of deference to the states in banking areas.

By chartering itself, the state can oversee its own bank and define any rules, policies, procedures and the like that it determines in its sole judgment is in the best interests of the state. The net result is that if the state charters itself and does so as a DBA of the state, the only external agency that might have any say would be the FDIC, as covered above.

Even if the state participated in the FDIC fund as contemplated in the preceding scenario, it is highly questionable if the FDIC could and would step in to attempt to shut down a state bank if it felt that the state was doing something that violated the mandates of the FDIC regulators.

To do so would mean that the agency would in essence have to seize the whole state and all its assets (remember that the bank is a DBA of the state so the state itself is the bank) in some form of bankruptcy-like proceedings. Nothing like that has even been remotely contemplated before, nor is there any realistic chance of it occurring.

That means that the state would look to itself for regulating its own bank and in this scenario, there would be no other outside party that could step in and seize the state's assets because of its banking activities.

The state could open itself up to seizure if it elects to create a separate corporation to house its banking activities. In that scenario, the bank would have both the Fed and FDIC to contend with, if the previously described states' rights issue were to be ignored.

In that case, if the Fed or FDIC felt the state bank had violated their regulations, it is conceivable that they could step in and seize that stand-alone corporation serving as the state bank. If that happened, only the assets transferred into that subsidiary would be lost to the federal regulators, and no other state assets would be at risk.

Even so, once again this is a highly unlikely situation. Regulators at both the state and federal level have a great deal of autonomy and flexibility when it comes to enforcing their regulations and it is quite improbable that federal regulators would take steps that would almost surely trigger a states' rights legal battle.

Therefore, it seems clear that any approach a state might take in establishing its own bank would not entail any real risk to the state's assets.

Commonwealth Group

Commonwealth Group is the leading consulting firm in the country with respect to the idea of governments, non-profits and unions forming their own banks (and other public benefit financial institutions) and have gathered a team of banking professionals including former regulators, bankers, bank attorneys, consultants, trainers at graduate banking programs and more.

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Exhibit V - Common Questions and PBI Rebuttal

California, encompassing the world's 8th largest economy, does not leverage its credit potential; rather it gives that power away to Wall Street banks, which have failed to supply the credit the state needs to maintain a robust economy. This in turn severely limits the state's choices in response to budget shortfalls, which have been reduced to raising taxes or cutting services (including selling off public assets). Whatever ability the state may currently have to offer credit, such as loan guarantees, is marginally effective because of the size of California's economy and the severity of this credit contraction. A state-owned bank has the capacity to get directly to the heart of the matter.

Establishing a state-owned bank can be accomplished in a few short months, with a few million dollars, and with a lending strategy that is both prudent and keeps money in the State of California.

Once established as a credit generating engine, a state-owned bank will effectively provide a third option to solving the budget shortfalls we face. Loosening credit for Main Street businesses will allow California to better respond to credit contractions caused by Wall Street banks. Increased tax revenues will follow, as well as an annual revenue stream from bank profits - and not more taxes - that can reach to the hundreds of millions of dollars.

Questions/Rebuttal

While I appreciate your effort to develop better financing alternatives for the state, there are a number of things that need to be clarified or corrected in this summary.

1. North Dakota provides a full-faith-and-credit guarantee for the deposits in its bank, and the bank raised its initial capital through a bond issue. Either of these actions would require a constitutional amendment approved by California's voters.

PBI Response - The Public Banking Institute's perspective is that a state-owned bank is not just another financing alternative; it is the means by which California can leverage its credit potential and, specifically, extend credit to California businesses. We ask, why allow Wall Street Banks, after their repeated failures in the past few years, to control the credit extended to our businesses?

PBI is not suggesting raising capital through a bond issue, although this is the prerogative of the state. We are suggesting that existing investment money be used to provide the capital required to start the bank. It's a matter of shifting state investments now sent off to Wall Street to investment in California.

As for guaranteeing the deposits, the deposits in the BND are virtually all from the state itself. The State of North Dakota doesn't have to guarantee its own money, and neither would California if it followed that model.

2. According to its financial statements, the Bank of North Dakota (BND) had deposits of \$3.1 billion in 2010 and paid \$24.4 million in interest on those deposits an interest rate of about 0.8%. For

comparison, the Pooled Money Investment Account paid about 0.65% in 09-10. Thus, BND paid more than the PMIA in this very low interest rate environment. However, sometimes the PMIA has paid a higher interest rate on its deposits than BND—for example PMIA paid 5.1% in 06-07 compared with 4.4% in calendar 2006 and 4.7% in calendar 2007 for BND.

PBI Response - PBI concurs with your figures, but the PMIA manages capital, not deposits. Capital investments get higher returns than deposits. It's the difference between buying bank stock and putting one's money in a bank account.

3. BND's annual equity growth has been strong in recent years—ranging from 16.3% to 21.3% since 2007. However, equity is not to be confused with deposits—the equity of BND is less than one tenth the size of its deposits. Moreover, equity growth generally was much lower prior to 2007—only 1.1% in 2006, for example, and there have been losses—a 12.6% loss in 2002, for example.

PBI Response - The amount of capital BND requires is the prerogative of its Management and Board in compliance with BIS and FASB regulations. PBI would not presume to second guess the merits of capital growth or the reasons for capital contraction, particularly since profits may flow back to the state if they are not assigned as equity. The return on equity (capital) has been noticeably strong – over 20% for each of the last three reported years.

We would like to point out that the State of North Dakota has had no bank failures in over 10 years, unlike the rest of the country. This may be very much tied to the risk management policies of BND, indicating that equity expansion and high ROE may be coupled with prudent and sound business practices, such as measured loan participation with local banks.

4. While BND may very well contribute to North Dakota's economy, the current strong economy in the state probably has a lot more to do with an oil and natural gas boom and a strong world demand for agricultural products (and the large federal subsidies for ethanol).

PBI Response - Until only recently the BND contributed nearly as much to ND's treasury annually as oil and gas revenues, and its stellar profits are independent of oil and gas revenues. If ND's strong economy were due only to booms in oil, gas and agriculture, Pennsylvania and other states experiencing these booms would be enjoying similar results. As it is, North Dakota is the state with the lowest unemployment rate, the lowest foreclosure rate, and a regularly balanced budget or surplus. The Bank of North Dakota is being called upon to finance large oil and gas development projects in order to expand that capacity and is thus playing a significant role in capitalizing on the boom.

California has plenty of resources that need capacity expansion. A state-owned bank in California could readily finance them. To name just a few, we could expand the capacity of renewable energy and sever our ties to carbon based fuels, expand sustainable agriculture and extend our agricultural prowess, and fully fund higher education and realize the benefits of greater intellectual capital. Many of these investments have been proven in the past. Fifty years ago California led the way funding schools and providing low/no cost higher education. Other countries such as Singapore followed, resulting in dramatic increases in their per capita income. If we controlled our money supply, we could return to an era where our society could enjoy the benefits of education without taxpayers bearing the burden of debt. The interest charged could be returned to the state, effectively creating a source of money at no or low cost.

5. California already has a very large and diverse banking sector that runs the gamut from small community banks to giant global banks—it's not clear that we have a shortage of banking services.

PBI Response - California does indeed have a large and diverse banking sector. North Dakota does too. As a matter of fact, North Dakota has the largest number of banks per capita of all the states. The reason this is so is that BND enables and supports the retail bank community in North Dakota. It is a wholesale bank, not a retail bank. BND has one building. No ATMs. No retail presence at all. The community banks in North Dakota specifically partner with BND because 1) BND does not “cross sell” their customers and take their deposits; 2) BND will participate in large commercial loans, thereby improving the community bank’s capitalization ratios and risk profile; and 3) the community banks are able to focus on generating profits from loan origination fees. The net effect of this is that North Dakota has a healthy and robust community banking establishment – one that vocally lends its support to BND.

If the banking sector in California truly is, as stated, large and diverse, and yet access to credit on Main Street is severely limited, this indicates that there may be a disconnect between the original charter of banks, that being to provide credit, and the small amount of credit that is received by small businesses. PBI neither views a credit card, at 24% per annum and personally guaranteed, nor an equity loan, as fair substitutes for a small business loan. If this is the type of credit being offered to small businesses, then there is all the more reason for California to create a state-owned bank that generates affordable credit for Main Street.

6. The PMIA deposits a significant amount of funds in community banks.

PBI Response - North Dakota passed legislation that requires the state to deposit its revenues in the Bank of North Dakota and for municipalities to deposit their revenues in local banks within their tax jurisdiction. If California were to do this, local banks would receive additional deposits that they are not enjoying now. As deposits, these can be used to create additional credit for local communities. Are the PMIA deposits actual deposits or investment vehicles such as CDs?

7. It is misleading to compare BND’s return on *equity* with the return achieved by CalPERS on its *entire* investment portfolio. Despite the recent large loss, CalPERS assets now are recovering, and CalPERS has earned relatively high returns on average over the last several decades. CalPERS has a long time horizon as a pension fund and so can tolerate market ups and downs much better than a bank. The more relevant comparison would be between CalPERS average earnings of around 7% with the interest paid on deposits by BND, which has been much lower. Of course, such comparisons are apples and oranges because of the different investment and risk profiles of the two types of institutions.

PBI Response - ROE is one of the most common performance metrics used to evaluate an investment’s performance. ROE is what the Bank of North Dakota uses to communicate how they are using the public’s investment in the bank. How else is one to communicate profitability? And, if CalPERS funds were to be used to fund the equity in a state-owned bank, would not ROE be a reasonable metric, no matter what the timeline?

The bigger issue we see is that CalPERS funds are invested out of state, with the credit capacity that goes along with that money used by Wall Street banks for their own purposes, including what have proven to be high-risk investments, such as sub-prime mortgages, something in which the BND did not invest. PBI believes that credit generated by public money is a public asset. As a public asset, PBI believes that it should be used in the state in which it originates for the benefit of state citizens, not on Wall Street for the benefit of bankers.

8. Funding long-term financing for infrastructure projects with short-term deposits in a is risky because even if the deposit base is fairly stable, interest rates can move around a lot over time. Most of BND's longer-term commercial participation loans have variable interest rates. Moreover, funding infrastructure investments through bond sales takes advantage of federal tax exemptions on municipal bond interest—as a tax-exempt governmental entity a state bank (and the PMIA for that matter) are tax-exempt and invest in taxable instruments that carry higher interest rates.

PBI Response - PBI concurs that managing interest rate risk is a major consideration of any well-run bank. The unique attribute of a state-owned bank is that interest gained from any loan is usually returned to the state as profits (sometimes allocated as capital), effectively creating a zero/low cost of money.

The BND may be a well-run organization that has benefited North Dakota over time, but it also grew out of the specific circumstances in that state many years ago. The current California situation is much different. Any evaluation of the potential benefits of a California state bank needs to take those differences into account.

PBI Response - We fail to see the logic in the argument that the world's 8th largest economy is unique, so therefore its money supply should be tethered to and controlled by out of state bankers. Other state and national governments with economies far smaller than ours have leaders who clearly see the importance of controlling their own money supply through control of the levers of credit.

Moreover, PBI thinks the differences with North Dakota are all to California's advantage. California has much more in the way of capital and deposits to put into a bank – we could start a pilot with a bank the size of the BND. It would prove the model in California and we'd still have plenty of ways to grow the capital investment and deposit base.

Furthermore, we think that the banking industry's commitment to interstate banking merely confirms that essential banking functions – extending credit – are common across state lines and that private banking models are not unique from state to state.

A state-owned bank staffed with professional bankers can create a countercyclical credit engine that preserves and extends the flow of credit to California businesses. At the risk of stating the obvious, state legislators already involve themselves in the economic direction of our state, encouraging investment here, penalizing industries there, by using the tax code. While this is an efficient approach to determining our economic direction and providing government funding, its effectiveness is questionable when it comes to budget battles. Budget battles require the full arsenal of alternatives – raising taxes, cutting services, and extending credit. State legislators who do not support the use of public credit are leaving their most effective weapon on the table – it's like showing up at a knife fight with a butter knife. No wonder there is so much consternation in Sacramento when state revenues fall as precipitously as they have. The most effective weapon we have, leveraging our own credit potential, has been outsourced to Wall Street banks.

Exhibit VI - Link to Public Banking in America Legislative Guide

<http://cloud.snappages.com/8b4c3506d1b4d4ec3a752345750368b42852dd73/Legislative%20Guide%20030911%20FINAL.pdf>

Testimony on House Bill 853 before the Senate Committees on Economic Development & Technology and Commerce & Consumer Protection – March 23, 2011

Written Testimony of Sam Munger, Center for State Innovation

Good Afternoon Mr. Chairman and Committee Members. Thank you for the opportunity to submit testimony regarding House Bill 853, establishing a task force to study the creation of the Bank of the State of Hawaii.

My name is Sam Munger. I am the Managing Director of the Center for State Innovation, an independent state policy think tank based at the University of Wisconsin-Madison. As part of our policy work on state financial systems, we conducted analyses of the effects of a state bank in a number of states. We are currently in the process of analyzing a state bank concept in Hawaii. We report some of our preliminary findings below, and expect to publish our final report in April.

Our analysis is essentially an examination of the Bank of North Dakota—which as you’ve probably heard by now is the only state bank currently in operation in this country (though there are numerous examples of publicly-financed banking internationally, including the Development Bank of India, the Brazilian Development Bank (BNDES), and the German Landesbanks)—its relationship to North Dakota banks and effects on lending in North Dakota. We then attempted to extrapolate that relationship and effects to another state’s banking industry, in this case Hawaii.

The basic results of the analysis were as follows:

- 1) First, the Bank of North Dakota seems to have had a positive effect on the banking industry in North Dakota, which outperforms similarly-situated states on a number of key indicators, including various measures of lending, number of banks and bank offices, less bank industry concentration (North Dakota in fact has the least concentrated banking sector in the country), and fewer loans in default.

We also tried to take some account for economic variables such as the strength of North Dakota’s extractive industry and the relative stability of its real estate market and concluded that the strength of the state’s banking industry did not seem to be linked, or not only linked, to those factors. In other words, the oft-repeated contention that the success of North Dakota’s banking sector is due solely, or primarily, to its oil and gas industry is not supported by the data. Moreover, it is worth noting in that regard that there are many states in which extractive industries are as large a part of the state’s economy but whose banking sector is less healthy

and who are generally faring more poorly in overall state economy (e.g., Oklahoma, Louisiana, and of course, Texas).

2) Second, if we extrapolate the effect the Bank of North Dakota has had on that state's banking industry to another state—in this case Hawaii—basically assuming that bank here would have roughly the same relationship to Hawaii banks that the Bank of North Dakota has to North Dakota banks, it would result in:

- Increased lending. A state bank facilitates this in a variety of ways, some of the principle ones being participation loans and buying down interest rates with private community banks, loan guarantees, and letters of credit. This is especially the case during recession and times of tight credit.
- This would result in credit being more easily available to small businesses in this state.
- Increased lending to small business would lead to job creation by those businesses. Based on our preliminary analysis, we estimate that job creation in Hawaii due to increased lending by a state bank would be between 1,300 and 4,200 new or retained jobs at small businesses alone. This figure does not include jobs created in other sectors or indirect or induced job creation due to increased lending.
- In addition, a state bank can return money to the state—either to a rainy day fund or to the general fund—and still be financially viable. Than Bank of North Dakota has returned over \$300 million to that state—not including interest paid to the state on state deposits—over the past decade and remained profitable in real terms. In Hawaii, a state bank capitalized with \$100 million in state money and conservatively run could return almost \$90 million over 10 years (assuming it returned a similar percentage of profits to the state as the Bank of North Dakota) and nearly \$300 million over 20 years. By year 20, the bank could be returning over \$20 million per year to the state general fund.
- Obviously the magnitude of the numbers I've just given is very dependent on the inputs—the amount of capital, how the bank is run, the leverage ratio, etc. and we play out some of those possibilities in our report.

3) Costs

There are costs associated with establishment of a bank like this, including:

- Potential increased risk to state monies, though the experience of North Dakota would seem to indicate that this risk can be managed effectively (see our attached FAQ). Moreover, the losses many state funds experienced in the market as a result of the stock crash in 2007-2008—largely avoided by BND and North Dakota—would suggest that a state bank lowers certain kinds of risk to state money.
- The opportunity cost (or debt service cost) of capital to capitalize the bank
- Lost interest and tax revenue, overhead and other incidentals

However, we should note that we find that the bank would be profitable in a real sense even when all costs, including lost tax revenue, lost interest on state deposits, and the cost of start-up capital, for instance debt service on a bond—are accounted for.

In short, our analysis indicates that the creation of a state bank would have some beneficial effects on the state's economy by making credit more available in the state, would add stability to the state banking industry particularly in times of recession, and could do this in a revenue-positive way.

I invite you to look at our full report for the Washington state bank, which I will submit into the record along with my written testimony, and a short FAQ on state banks that may be helpful in understanding some of the particulars of the concept. Thank you again for the opportunity to submit this testimony. I'd be more than happy to answer any follow-up questions you might have and invite you to send them to me.

FAQ on State Banks

1. Wouldn't a state bank compete with private banks?

No:

Competing over deposits

Less than 2% of the Bank of North Dakota's deposits come from private individuals. And some state bank legislation would prohibit state banks from taking any private deposits.

It is true that private banks would no longer receive short-term state deposits, but considering that most community banks receive little of this money to begin with and that many states are still requiring 100% to 110% collateral for these funds it is unlikely to have a great effect on private bank profits. And even if collateral requirements are a function of risk aversion brought on by economic downturns, and are thus in the process of easing, it is precisely when the economy slows down that a state bank can provide a boost in lending.

Also, a state bank in the model of the Bank of North Dakota would not only *not* take local and municipal deposits, but would help local community banks secure these deposits through letters of credit.

Competing over loans

While a state bank could be set-up to originate loans, the Bank of North Dakota, as well as most proposed state banks, requires the state bank to operate in a participatory manner. In most cases a state bank would make participation loans with the private banks acting as the originators and servicers of those loans. The Bank of North Dakota does service some residential mortgages, but this is only after a local lender originates the loan and sells it to the Bank of North Dakota for servicing.

Overall competitiveness of banking market

If anything, a state bank helps to keep the banking market strong by supporting small and medium sized-banks (see question #2). In fact, North Dakota has a much smaller Herfindahl-Hirschmann Index (HHI) than such neighboring and comparably-sized states as Montana, South Dakota and Wyoming.¹

¹ The Herfindahl-Hirschman Index is a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. The HHI takes into account the relative size and distribution of the firms in a market and approaches zero when a market consists of a large number of firms of relatively equal size. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. See CSI Washington State Bank Analysis for full HHI figures.

2. How could a state bank help the state banking industry?

Participation loans

A state bank would primarily interact with the banking community through participation loans. These loans would help to increase a private bank's lending power and/or reduce the interest rates charged to borrowers. A state bank could also purchase part or all of a loan after it has been issued, to help a private bank stay within its capital adequacy and portfolio balance requirements. Or the originating bank could hold onto the loan and collect fees for servicing it. And because the state bank has no interest in competing for the origination or refinance of private loans, private banks need not fear that allowing participation will lead to a loss of customers.

Direct bank stock lending

A state bank could also provide capital to private banks through bank stock loans for M&A, capital refinancing or capital expansion.

Banker's bank functions

The Bank of North Dakota acts as a mini-reserve bank for its state and serves the functions of a bankers' bank. It is estimated that there are only around 20-25 bankers' banks in the country and a state bank could help provide private banks with lower cost/higher quality services. At worst, a state bank is simply another option for private banks to work with—they are still free to continue working with private banker's banks as they did before.

3. Won't this just increase regulations on private banks in the state?

No:

This does not add any regulatory hurdles to private banks. A state bank is NOT a financial bailout to private banks, a la TARP. Due to the prudent banking practices of a state bank (which is not pushed into risky lending instruments by stockholder-driven profit-maximization), we would expect that the private banking market would be affected by positive, stabilizing market-driven forces.

4. Wouldn't this put state funds in a significant amount of risk? And wouldn't political interests end up forcing the state bank to make bad loans?

No:

The Bank of North Dakota is staffed by a professional banking staff, not an economic development agency, and a state bank would be run based on prudent financial policies, not high risk practices.

The primary asset of a state bank based on the BND model is participation loans where the loan originator is a private bank. This not only serves the purpose of avoiding competition from a state bank, but it also provides market driven checks and balances against manipulation by political actors.

No loan portfolio is immune to loan failures, and a state bank would inevitably have some loan defaults. The Bank of North Dakota's allowance for loan loss ratio (allowance for loan loss/total loans) in Q3 2010 was 1.79%, while the average allowance ratio for comparably-sized (small- and medium-sized) private banks in the U.S. over the same period was about 2.03%. As with other banks around the world, a state bank would have a loan loss provision and would follow prudent banking practices. Thus, even if some

loans held by a state bank fail, a state bank could not only cover its deposits, but provide a profit to both the bank and the state (beyond the deposit interest)—through state dividend payments. In 2009, the Bank of North Dakota showed a profit of \$58 million—including loan defaults. And on average, the Bank of North Dakota has returned over \$30 million per year to the state general fund over the past decade. Analysis suggests that this would be the case in other states as well.

Also, a state bank would work hand in hand with state bank regulators to evaluate its loan portfolio, risk exposure and profitability. A state bank would also be required to meet certain safety and soundness criteria in order to access its own liquidity sources to manage liquidity and interest rate risk (e.g., S&P ratings).

5. Don't we already have economic development programs that do these things?

A state bank is NOT an economic development program, and does not replace current state ED efforts. There is still a need for economic development programs and individuals to put together deals and work with businesses; a state bank can simply be a source of revenue to fund these programs as well as liquidity to help underwrite those deals. And because a state bank has the power to leverage funds (10 to 1 as a rule of thumb) it can increase the state's ability to fund economic development, along with helping to support private banks, consumers and businesses across the lending industry.

6. The state treasurer already gets a good return on the investment pools we use, why change that?

A state bank is NOT a substitute for an investment manager, and we would expect that the treasurer would retain these functions. For example, in North Dakota, BND does not manage the state pension fund investments.

7. How can a state bank act as the state's fiscal agent (concentration bank); wouldn't it be cost prohibitive to set-up that operation?

There is nothing to indicate that a state bank would not be able to handle the functions of a fiscal agent and still be profitable. The Bank of North Dakota has certainly done so for North Dakota. And state banks tend to have much lower overhead than comparable private banks due to the lack of branch offices, ATM services, marketing costs, etc. Over the last 15 years (1995-2009) the Bank of North Dakota averaged an efficiency ratio of about 28%, while small and medium sized banks in North Dakota averaged about 62%.

No matter the costs of operating the bank, the cost to the state is nil once the bank is up and running; indeed, as noted elsewhere, the bank should generally return money to the state. The primary difference is that while a concentration bank (like Bank of America) is the only bank to benefit from state deposits, a state bank would spread the benefit to small and medium sized banks throughout the state (through participation loans).

Also, as mentioned earlier, a state bank does not replace all functions of a state treasurer's office, and we would expect that the same procedures around investment funds would remain.

8. Would a state bank impair the need for liquidity in state deposits?

No. Just like any private bank, a state bank has to carefully manage liquidity in order to be able to meet all its operational needs. However, this is obviously equally true of any other depository institution a state would use to manage state monies. If state deposits are currently deposited at a private financial institution (say Bank of America), that institution has to manage liquidity so that funds are available to the

state to withdraw to meet payroll and other obligations as necessary. A state bank would be no different, and the Bank of North Dakota has demonstrated over the past 90+ years that it can do so capably—and still turn a profit.

9. How much do you need to start a state bank?

There is no set minimum for start-up capital. Of course, a state bank would need to sustain its capital adequacy, so depending on how much state deposits will be held at the state bank, this could drive the capital needs. It seems likely that there will be a transition stage where the state bank's participation loan portfolio grows and there are arguments for growing the capital at a similar rate. Ultimately, a state bank can be thought of as an economic engine that will be greatly impacted by the inflow of state deposits and reinvestment of profits into state bank capital. CSI analysis shows that even after accounting for debt service obligations due to start-up capital, a state bank would still be profitable after a few years and a strong economic tool for a state.

10. Where would the capital come from?

The likely sources of state bank start-up capital are the state General Fund, General Obligation Bonds, or other dedicated state funds.

11. Isn't setting up a state bank just too complex?

While setting up a state bank is more complex than, for example, establishing a single revolving loan fund, and there is only one such bank in the country, there are thousands of banks in operation in the U.S. and new private banks are formed every year. In many ways a state bank would be more straightforward to set-up than a private bank. We expect that a state bank would have one location, no marketing, very little direct lending and a single source of deposits (the state). A reliance on participation loans would also reduce the need for bank loan officers and loan brokers.

12. Isn't the reason that banks are lending less now due to a decrease in loan demand or good loans?

Not completely:

While a reduction in lending during an economic downturn is in part a reflection of decreased demand for new loans (i.e. businesses holding off expansion plans), some part of the demand curve is directly tied to the cost of debt. As lenders tighten their underwriting standards and increase the interest cost to borrowers, demand for new loans naturally drops. This does not mean that there aren't any "good" loans available, only that there is heightened price sensitivity (especially during less stable economic conditions). CSI analysis shows that banks in North Dakota reduced lending 33%-45% less than comparable states, and we believe that this is in no small part due to the stabilizing effects of its state bank.

13. Sure, a state bank works in North Dakota, but isn't my state completely different, both politically and economically?

No. Of course every state has a unique political and economic context. However, it is important to note that the Bank of North Dakota has enjoyed the support of both Democratic and Republican administrations and legislators. Sen. John Hoeven, the Republican former Governor of North Dakota, was President of the Bank of North Dakota earlier in his career.

Economically, it is, of course, difficult to separate the health of the lending market in a state from the overall economic health of the state. Over the past two years, North Dakota has been one of the states least impacted by the recession and it is difficult, if not impossible, to know to what extent that is due to the presence of the BND as opposed to other factors. However, attempting to tease apart the economy-lending linkage slightly, analysis has found that the health of North Dakota's small and medium sized bank lending market has been strong independent of other major components of the state's economic health (namely, the housing markets and oil and gas industries). This provides circumstantial evidence, at least, that the BND has played an important role in supporting the state's lending market.

It is also worth noting that oil and gas production and extraction tax revenues provided \$71 million to the state general fund over the 2007-2009 biennium (the statutory cap), while the Bank of North Dakota returned \$60 million; thus the bank's direct impact on the state budget surplus, anyway, has been almost as great as that of the oil and gas industries.² In sum, these figures suggest that while oil and gas revenues are certainly important to the state's economy and fiscal health, they are not the only factor driving it, and that a state bank likely plays some role as well.

² Source: North Dakota Office of State Tax Commissioner, Comparative Statement of Collections, available at <http://www.nd.gov/tax/genpubs/49thbiennialreport.pdf>.

Washington State Bank Analysis Center for State Innovation – December 2010

In the wake of the financial market collapse of 2009, banks sharply curtailed their lending. Bank lending in 2009 declined more sharply than in any year since 1942, according to FDIC data.¹ This drop-off was particularly pronounced for the largest Wall Street banks; in Washington, for instance, Bank of America SBA loans dropped from 555 in 2007 to 19 in 2009. Overall, lending through the Small Business Administration’s flagship 7(a) program in Washington declined 35% between 2007 and 2009.

This, in turn, has been one driver of current massive and continued unemployment. The reduction in lending has led policymakers to consider a number of reforms designed to increase bank lending, particularly to small businesses which have been the hardest hit by tightening credit standards.

One such measure that has drawn increasing interest is the creation of a state bank modeled after the Bank of North Dakota (BND), currently the only such state bank in the country, to increase liquidity and spur lending and development in a given state. This paper offers some predictions about the effect of a proposed Washington State Bank (WSB) on the state banking industry, job creation and small businesses, and the state budget. While the sample size of one makes it difficult to accurately predict a public bank’s effect on any given state, we have used FDIC bank data and some conservative assumptions to estimate the effects of a BND-like bank in Washington. Highlights include:

- **Job Creation/Retention.** We estimate that a state bank could help create or retain 7,400-10,700 additional small business jobs in Washington, and that about 8,200 jobs would have been supported due to increased loan activity through bank participation loans from a state bank at full lending capacity.

Estimated Effect on WA Small Business Loans and Jobs From an 8.2% Increase in Average Loans due to State Bank	
Increased Amount of Small Business Loans	\$492,058,125
Small Business Jobs Created or Retained	8,212

- **New Lending.** BND helped to sustain a loan to asset ratio for North Dakota banks – a key measure of direct economic impact – by mitigating the effects of the recession on lending, resulting in reductions of 33%-45% less than comparable states. In Washington, this would have resulted in roughly 5.22 to 7.55 percentage points greater loan to asset ratios during the current economic downturn. We also estimate that a state bank in Washington could generate roughly 8.2% or about \$2.6B in new lending activity due to bank participation loans.
- **New Revenue.** A Washington State Bank could generate dividends for the state starting in year 3, and a bank capitalized at \$100M—and conservatively run—could pay total accumulated dividends to the state’s General Fund of \$71M after 10 years, \$206M after 20 years, \$382M after 30 years, and \$675M after 40 years.
- **Return on Equity.** A Washington State Bank would have a positive Return on Equity (ROE) of real profits to the state within 4 years with prudent banking practices.
- **Other Economic Impacts.** The actual effect of a state bank on the state economy and job market would likely be greater than the above estimates, since this analysis does not look at non-small business lending, nor does it try to account for the indirect and induced economic impacts of increased lending.

¹ “Lending Falls at Epic Pace,” *Wall Street Journal*, 2/24/10

I. Introduction

This analysis takes a look at the effect a state bank might have on the state banking industry by helping to provide liquidity and stability, using lending rates as a rough proxy for this effect. Part II compares lending rates in North Dakota small and medium sized banks with the equivalent banks in the comparable states (based on geography, population size and density) of Montana, South Dakota, and Wyoming and finds that loan to asset ratios in North Dakota have averaged over 7 percentage points greater than these states over the period 2005-2009 (so, including years both pre- and post-financial collapse). During the current recession (which started in the 4th quarter of 2007), with the help of BND, North Dakota banks have had the least reduction in loan to asset ratios, compared to neighboring states. This, along with other supporting data, suggests that the Bank of North Dakota has helped to raise and sustain the lending market in North Dakota. We also estimate increased lending due to a state bank based on the amount of participation loans undertaken by the BND.

Part III attempts to provide a rough measurement of the effects of this increase in lending rates on state job creation/retention. We estimate that for every 1 percentage point increase (or sustained) loan to asset ratio in the lending market for small and medium sized banks in Washington, about 1,400 small business jobs in Washington are created or retained.

Parts IV & V look at bank ROA and other financials for four likely sources of bank start-up capital: (1) General Fund Revenue, (2) General Obligation Bond w/20yr maturity payment, (3) General Obligation Bond w/sinking fund, and (4) Bank Stock IPO. It estimates the returns to both the state bank and to the state itself.

State Banks, Generally

It seems first useful to start with some general description of state banks for those who are new to the idea. A state bank is in essence a simple concept—simply put, it is a bank capitalized by state money, that would serve as the repository for state deposits, and would be publicly governed and return a negotiated portion of bank profits to the state. Apart from that, it would operate much as any private bank, though deposits would be guaranteed by the state rather than the FDIC. Currently, only one state has a public state bank—the Bank of North Dakota.

The Bank of North Dakota was formed in 1919 in response to the farm crisis and tightening of credit after the First World War. In North Dakota, all state funds (state tax collections and fees, and for all funds of state institutions) are deposited with the Bank of North Dakota. This does not include pension funds or other trusts managed by the state; rather the deposits are the state's cash – revenue that the state collects before it is spent on payroll, contracts, procurement, etc. Non-state deposits (10-20% of total in the case of the BND) could be accepted from other sources, from private citizens (who account for less than 2% of total deposits for BND) to the U.S. government.

The Bank of North Dakota is governed by the state Industrial Commission, made up of the Governor, Attorney General and Commissioner of Agriculture. A seven-member Advisory Board, appointed by the Governor, reviews the Bank's operations and makes recommendations to the Industrial Commission relating to the Bank's management, services, policies and procedures

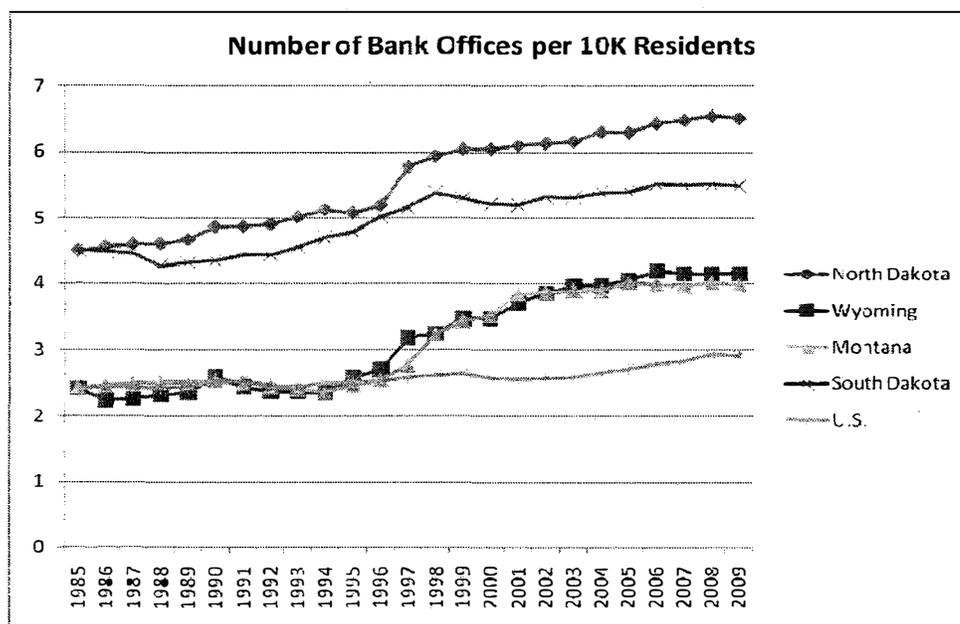
The Bank of North Dakota and, we assume, any state bank, would have a limited portfolio; in that way it is somewhat different than most private banks. One primary activity of the BND is participation lending, participating in loans originated by local banks and credit unions, either by increasing the total size of the loan, buying down the interest rate, or providing loan guarantees. It also performs other banker's bank functions, including check clearing, bond accounting

safekeeping, and providing fed funds lines with excess liquidity. The bank is a participant in the secondary market for residential loans, and also a direct lender for student loans for North Dakotans, thereby decreasing rates, though new student loan origination will decrease markedly due to the recent federal reforms of the student loan market.² Finally, the bank can make capital available to local banks via direct bank stock lending, as well as by purchasing loans from their portfolios. The BND also has a couple of specific lending programs that make low-interest loans available to, for instance, agricultural start-ups and new small businesses. In this way, it leverages the income earned through more lucrative market-driven activities to subsidize economic development activities that may carry somewhat higher risks or where borrowers have difficulty accessing capital.

Finally, a state bank typically returns a portion of its profits to the state general fund or Rainy Day fund. In the case of the BND, the size of this “state dividend,” explained in more detail below, is set by negotiation between the Legislature and the bank’s Governing Board. The amount has varied from year to year (from as little as 0 in some years to up to \$50 million in others), but over the past 10 years has averaged \$29.4 million (about 72% of bank profits) and totaled almost \$300 million.

II. Effects on State Banking Market

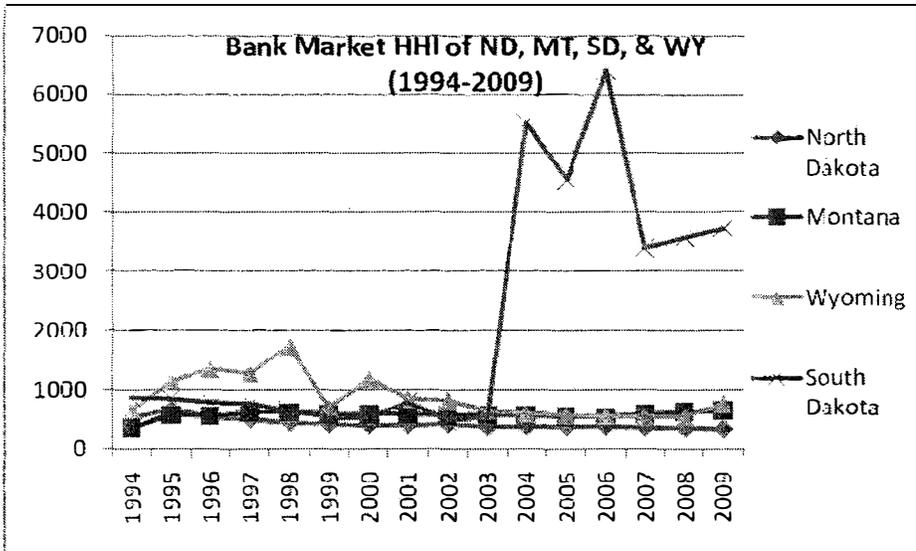
This section examines the possible effects of a state bank on the state banking market. We attempt to gauge these effects by comparing the lending markets and state banking in North Dakota to similarly-situated states. The bottom line is that on a variety of indicators, North Dakota’s banking system appears healthier than that of nearby states.³ For instance, North Dakota has both more bank offices per capita and less market concentration than comparator states or the US average. In fact, over the last 25



years, North Dakota has had the greatest number of bank offices per capita, compared to like states in both total population and population density. And it has more than double the U.S. average.

² Post-federal reform, the Bank of North Dakota will continue to service existing student loans but will cease to originate federally-subsidized loans through the Federal Family Education Loan (FFEL) program. The bank will continue to originate state-subsidized supplemental student loans through its Dakota Education Alternative Loan (DEAL) program, but this activity is likely to be a much smaller component of the bank’s work.

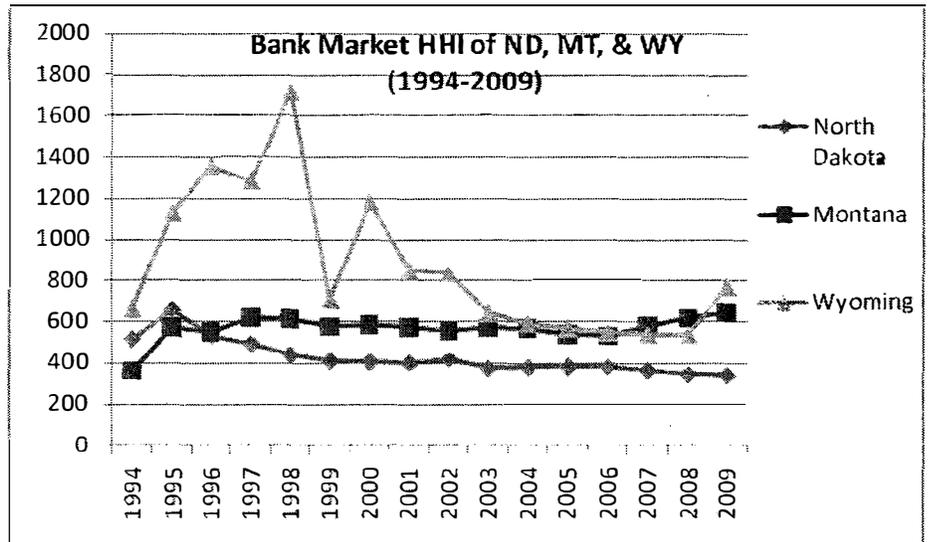
³ Based on FDIC data for small and medium sized banks in relevant states, with outliers removed to more accurately compare the banks that would actually interact with a state bank. See Appendix 1 for how the data was cleaned.



Similarly, for the last 14 years, North Dakota has had the lowest Herfindahl-Hirschmann Index⁴ (HHI)—a measure of market concentration used by the Federal Reserve—and in 2009 it was more than 300 points (or 47%) less than its closest comparator, Montana. While none of the bank markets outside of South Dakota would be considered moderately concentrated, the notably low concentration (and therefore greater competitiveness) of the North Dakota bank market may be indicative of the influence of the state bank. The extra leveraging ability that

the state bank provides through participation loans, the increase in municipal deposits from letters of credit, and the other supports that a state bank can provide as a banker’s bank are all critical in helping to strengthen small and/or young banks. These indicators would seem to suggest that BND has been effective in broadening and strengthening the banking market, leading to robust competition.

Removing South Dakota—which has had a surge in bank concentration over the past 5 years or so—from the chart to the right provides a better look at the difference between North Dakota and its comparator states.



Bank Branching Laws

North Dakota was a late adopter of bank branching laws; the state did not deregulate statewide branching through mergers & acquisitions (M&A), interstate banking, and statewide de novo⁵ branching until the 1980’s and 90’s, well after most states. While this history may have played some role in driving the current large number of bank offices and low market concentration—particularly vis-à-vis South Dakota, which abolished bank branching restrictions quite early—

⁴ The Herfindahl-Hirschman Index is a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. The HHI takes into account the relative size and distribution of the firms in a market and approaches zero when a market consists of a large number of firms of relatively equal size. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

Markets in which the HHI is between 1000 and 1800 points are considered to be moderately concentrated and those in which the HHI is in excess of 1800 points are considered to be concentrated. Transactions that increase the HHI by more than 100 points in concentrated markets presumptively raise antitrust concerns under the Horizontal Merger Guidelines issued by the U.S. Department of Justice and the Federal Trade Commission. See *Merger Guidelines § 1.51*.

⁵ De novo banks are state chartered banks in operation for 5 years or less.

it would not seem to explain North Dakota’s variation from the other comparator states, most of whom were similarly late deregulators.

Year Statewide Branching Permitted in ND & Comparator States			
States	Statewide Branching through M&As	Interstate Banking	Statewide De Novo Branching
North Dakota	1987	1991	1996
Montana	1990	1993	1997
South Dakota	1960*	1988	1960*
Wyoming	1988	1987	1999
Average of States that Deregulated After 1960	1986	1987	1990

* For states that deregulated before 1960 the dates is listed as 1960.

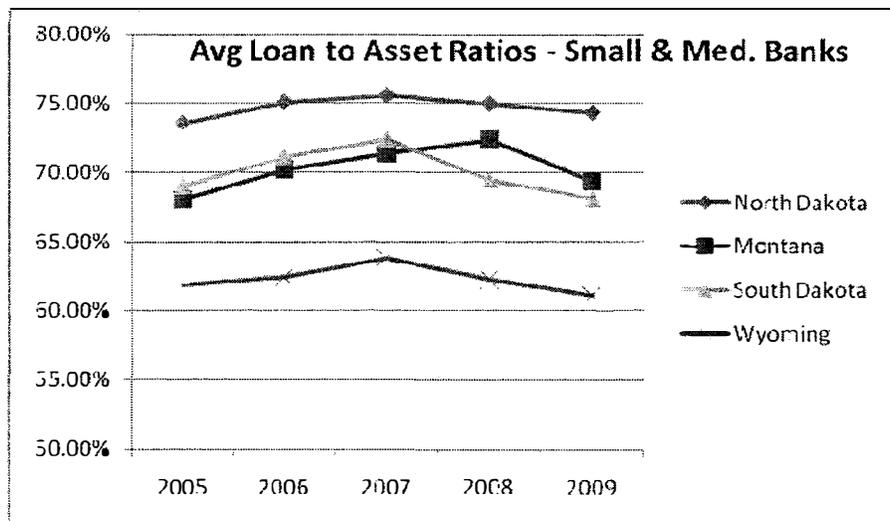
Source: Demyanyk, Ostergaard, and Sorensen. (December 2007). *U.S. Banking Deregulation, Small Businesses, and Interstate Insurance of Personal Income*. The Journal of Finance, Vol. LXII, No. 6.

For instance, as can be seen from the table above, Montana deregulated its branching laws after North Dakota. In fact, North Dakota is largely in line with the national average of states that deregulated after 1960.

Lending Rates

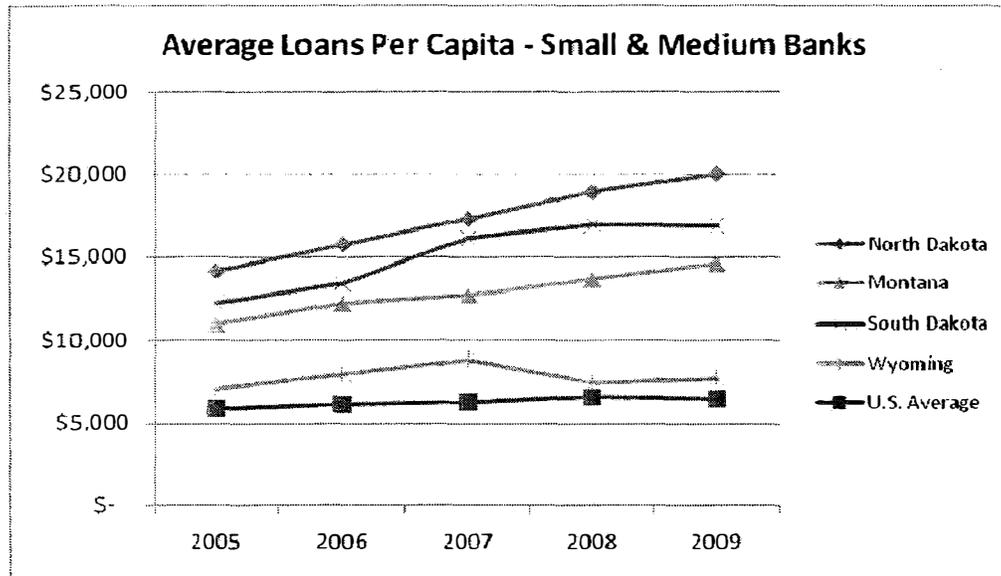
Over the last five years, small and medium sized banks in North Dakota had higher loan to asset ratios (4.4 to 12.4 percentage points greater) and more loans per capita (14% to 121% greater) than similarly situated states. To provide some sense of the economic and employment effects of a state bank, we attempted to quantify the effect of a state bank on the lending rates of small and medium sized banks in its state. We’ve compared the 5-year average lending rates of North Dakota banks with assets<\$10B versus the same category of banks (see Appendix 1 for how data was cleaned) in states that are roughly comparable in location, total population, and population density (Montana, South Dakota, and Wyoming in this case).

Obviously, this is an imperfect way to parse out the specific effects a state bank has on a state’s banking community, but should provide at least some gauge of its effect. As can be seen from the loan activity charts (see Appendix 2 for data), North Dakota banks in the aggregate had significantly higher average loan to average asset and average loan per capita rates than the comparator states.



The previous chart shows the spread between North Dakota and its comparator states, with the average loans to average asset ratios from small and medium sized banks in North Dakota, over the last five years, at 4.42 percentage points greater than its closest comparator (Montana), 7.16 percentage points greater than the average of the like states, and 6.57 percentage points greater than the U.S. average.

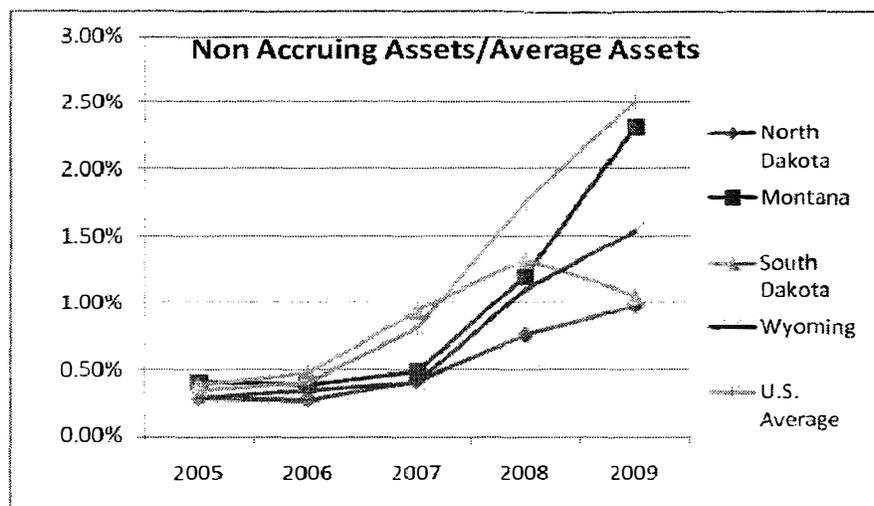
North Dakota also outperforms comparator states and the U.S. in loan activity per capita (see chart to the left), as its average loans per capita over 5-years is 14% greater than its closest comparator (South Dakota), 35% greater than Montana, and a whopping 121% greater than Wyoming and 175% greater than the U.S. average.



While it is hard to attach a specific figure to the effect, the above lending figures provide some support for the claim that a state bank helps to grow and stabilize the loan market in its state.⁶ This presumably results from the added liquidity and high rate of participation loans helping to increase or retain loans.

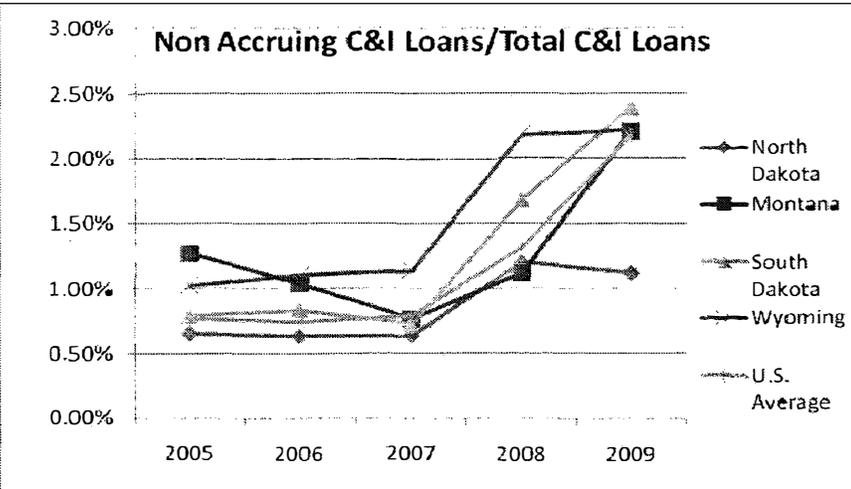
Loan Strength

Over the last five years, small and medium sized banks in North Dakota had 26% to 44% less assets put into non-accrual status (typically when payment in full of the principal is not expected to happen and the account is 90+ days past due) and 34% to 45% less C&I loans put into non-accrual status than the comparator states. Another effect that a state bank should have on the state banking market is to help make loans more secure. One way to measure the security of loans is to look at the number of loans moved into non-accrual status. In theory, a state bank that provides participation loans should spread the risk and reduce the number of loans that a bank would have to put into non-accrual. The “non-accrual” charts look at non-accruing assets over average assets in small and medium sized banks in North Dakota and comparator states. We find that North Dakota banks on average have a lower percentage of non-accruing assets, 26% less than its closest comparator (Wyoming) and 54% less than the U.S. average. This is again, we believe, indirect evidence of the effectiveness of a state bank in supporting the state lending market.



⁶ It should be noted that this is a comparison of small and medium sized banks to other small and medium sized banks. Mega banks (banks with assets > \$100B) have far worse loan to deposit ratios and have reduced lending even more since the economic downturn.

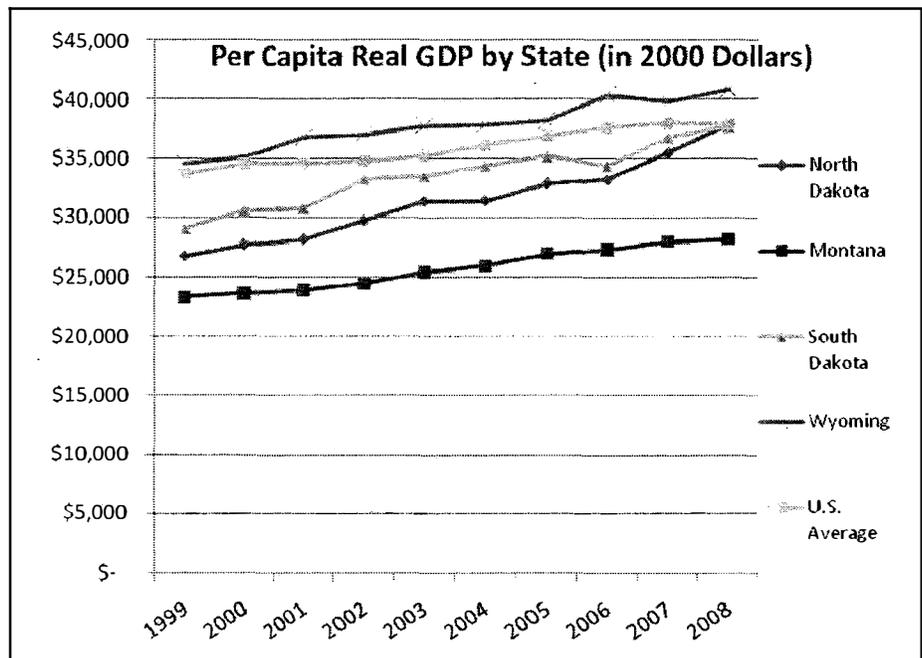
As most of the participation loans that a state bank would take part in would be commercial and industrial (C&I) loans,



we’ve also looked at non-accruing C&I loans as a percentage of total C&I loans (see chart to the left). By this measure, North Dakota clearly had the safest C&I loans in 2009. Over the last 5 years, North Dakota had 34% fewer non-accruing loans than its closest comparators, Montana and South Dakota. And compared to Wyoming, North Dakota averaged 45% less. In 2009, the numbers are even greater, as North Dakota’s ratio was about half of the comparator states and U.S. average.

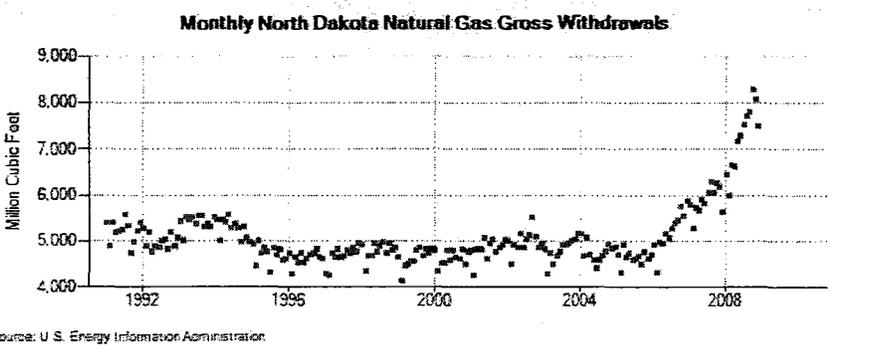
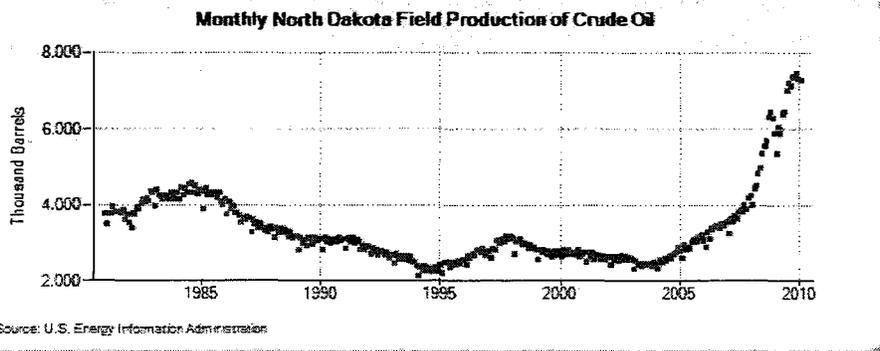
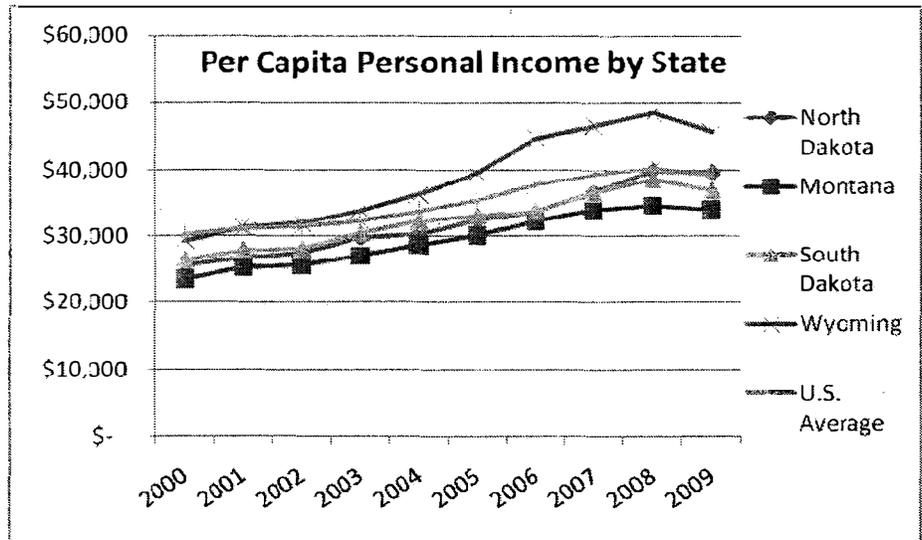
It’s the Economy, Stupid (or is it?)

It is, of course, difficult to separate the health of the lending market in a state from the overall economic health of the state. Over the past two years, North Dakota has been one of the states least impacted by the recession and it is difficult, if not impossible, to know to what extent that is due to the presence of the BND as opposed to other factors. However, attempting to tease apart the economy-lending linkage slightly, we find that the health of North Dakota’s lending market has been largely independent of other major components of the state’s economic health (here, the housing markets and oil and gas industries). This provides circumstantial evidence, at least, that the BND has played an important role in supporting the state’s lending market.



To begin with, North Dakota’s per capita real GDP and personal income (reasonable indicators of overall state economic health) have tracked—and for the most part, been lower than—those of its closest neighbors, particularly Wyoming.

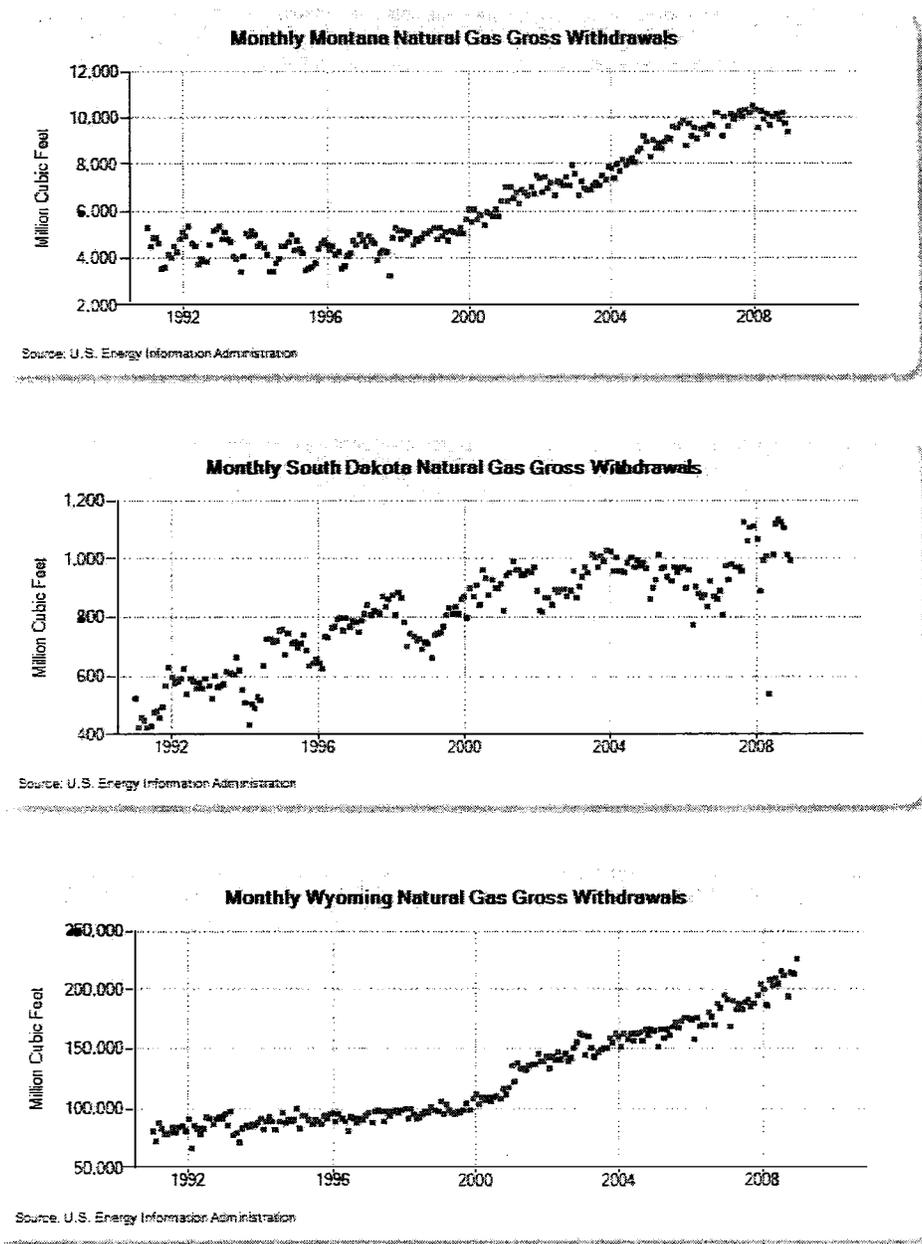
There is a slight uptick in these indicators in 2006, when an oil and gas boom in the western part of the state helped strengthen the state’s economy (as the charts below show, production of oil and natural gas increased dramatically starting in 2006 and 2007). The strength of North Dakota’s extractive industries—generally less affected by recession—could well be one piece of the explanation of the state’s general economic health and the health of its lending market in particular.



However, neither the generally lower per capita GDP and personal income nor the oil and gas boom in 2006 appears to have had much effect on lending rates at small and medium sized banks in North Dakota, which remained higher than the comparators throughout. In 2006, average loan to asset ratios in North Dakota did rise by 1.5 percentage points compared to 2005, but even in 2005 (before the oil boom) they were already noticeably greater (7.5 percentage points) than the average of the neighboring states. By the end of 2007, when the oil boom was in full swing, the difference in loan to asset ratios between North Dakota and the average of its bordering states was actually down to 6.8 percentage points, not a significant difference from pre-boom (about 70 basis points) and in the opposite direction one would expect if they were being driven by the oil and gas boom. From 2005 to 2007, the difference between the loan to asset ratios of small and medium sized banks in North Dakota and the U.S. average fell from 7.5 to 6.6 percentage points. It

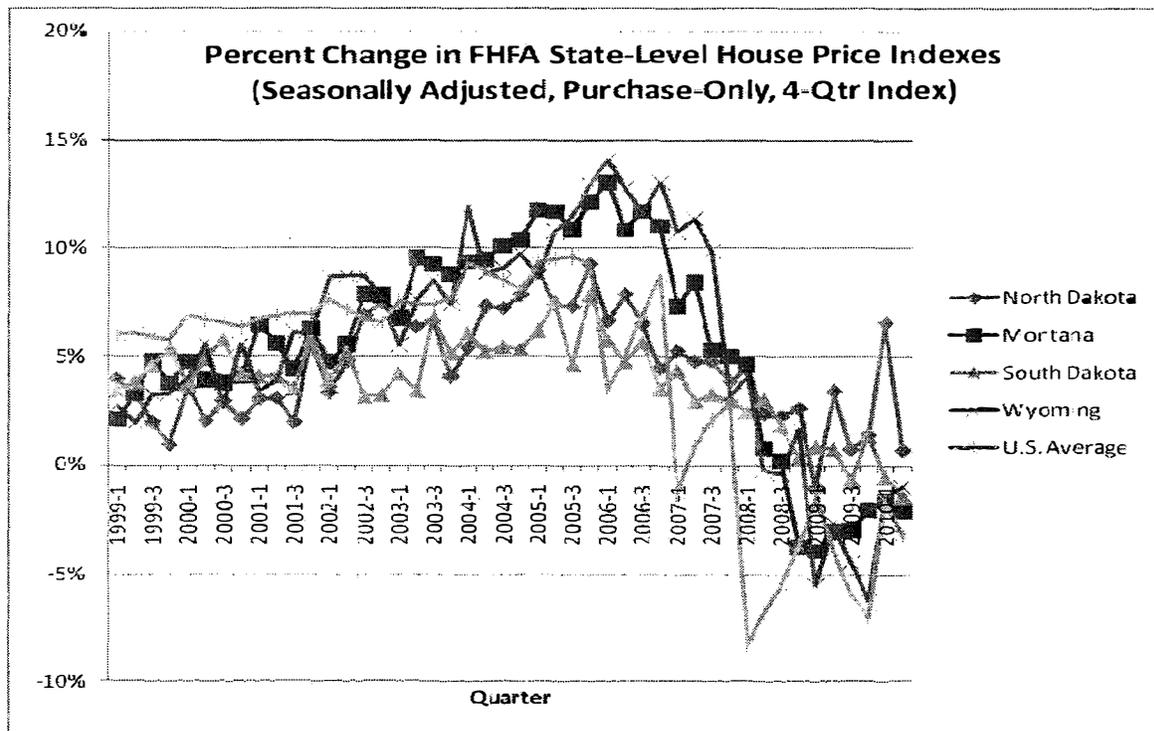
seems likely that larger, mostly out of state, banks were the big loan generators for the oil and gas exploration companies as they ramped up operations in the state; thus the effect on smaller, in-state banks (the BND’s target audience) was minimal.

Moreover, it should also be noted that most of the comparator states also had large, albeit generally more gradual, increases in natural gas production during the same period.



In short, neither the small upswing in overall economic indicators like per capita GDP and per capita personal income (still generally lower than those of its neighbors), nor the boom in crude oil and natural gas production, seems to have greatly affected the loan to asset data for in-state small- and medium-sized banks.

It is also true that North Dakota was less affected by the real estate market crash than other parts of the country.



However, while the previous chart shows that the North Dakota housing market had a softer rise and fall than its neighboring states, it is also clear that the state was not unaffected by the housing bubble.⁷ North Dakota housing prices do appear to have rebounded more quickly in the first quarter of 2010 than those of its neighbors but, as noted above, bank lending rates have remained relatively higher—and relatively constant—throughout the past five years, not tracking the real estate crash or the state housing market’s price swings.

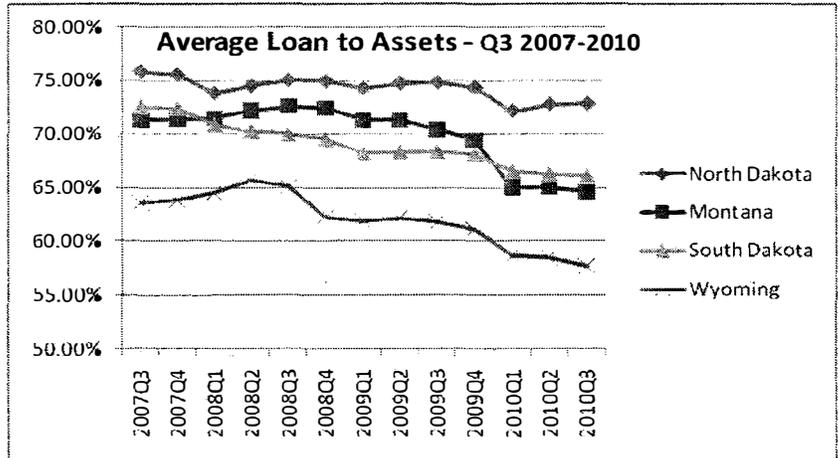
Where the North Dakota loan markets have really shined is in response to the economic downturn of 2009. In fact, the loan to asset ratios of North Dakota banks versus similar state banks rose to 4.92 to 13.19 percentage points greater than the comparators in 2009. The average growth in housing prices from the first quarter of 2009 to the second quarter of 2010 for North Dakota was about 2 to 5.5 percentage points higher than its comparator states. These figures suggest that neither the state’s strong extractive industries nor its somewhat more stable real estate market fully explains that strength.

Estimating the Effect of State Bank on Lending Rates Part 2

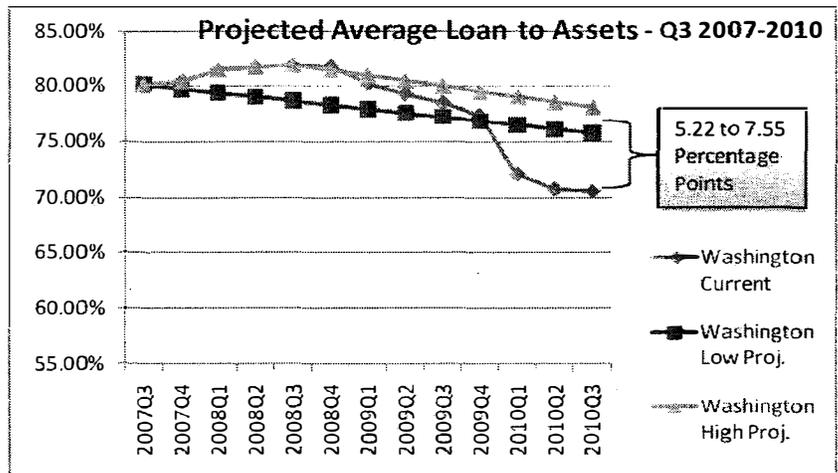
We estimate that a fully functioning state bank in Washington in 2010 could have helped to sustain direct lending by between 5.22 and 7.55 percentage points in the third quarter of 2010. While data to calculate the precise effect of the BND on lending in North Dakota does not exist, nor does the sample size of one allow us to confidently project the effect of a state bank on lending in other states, one relatively straightforward (and rough) way to estimate this effect is to compare the change in loan to asset ratios of banks in North Dakota to those in similar states from pre-recession to current quarterly data. The assumption here is that a state bank would have helped to stabilize the lending market in its

⁷ The Bank of North Dakota is a big player in the residential mortgage secondary market (about \$500M for a state with a total population of about 650K in 2009, 300K housing units and 200K homes owned in 2008). It is possible that the state bank, which generally followed an atypically prudent loan investment strategy with regard to real estate (i.e. avoiding credit default swaps and high risk mortgage loans), may have had some leveling effect on prices.

state during an economic downturn. Here we examine the drops in loan to asset ratios of small and medium sized banks in North Dakota to its comparator states from the 3rd quarter of 2007 to the most recent FDIC data, 3rd quarter 2010 (the recession officially began in the 4th quarter of 2007). We find that over the last 12 quarters (3 years) North Dakota banks on average reduced their loan to asset ratios by 4%, compared to about 9% for comparator states. And not all of the state averages show a decrease immediately following the beginning of the recession. When looking at the high-points, we see that the comparator states' LTA's dropped from 9 to 12 percent during the recession (see chart to right). This means that North Dakota's reduction in LTA's was about 33%-45% of the reduction seen across the comparator states.



How might this translate to Washington? Theoretically, had a Washington state bank mitigated the effects of the recession on the state's lending market in the same way it appears that BND did in North Dakota, the state's average loan to asset ratios would have fallen to 75.78% to 78.11% (from about 80% in Q3 of 2007 or 82% at its high in Q3 of 2008), rather than to their current level of 70.57% in Q3 of 2010. In other words, loan to asset ratios would have been 5.22 to 7.55 percentage points higher, with resulting increases in the absolute amount of lending (see right chart).



Another way to gauge the increase in lending due to a state bank is by estimating the absolute increase in loan activity due to new participation loans from a state bank. In North Dakota, total net loans in the third quarter of 2010 for small and medium banks were about \$13.45B. In the same period, the Bank of North Dakota had participation loans of about \$1.16B. BND estimates that their loans generally cover about 50% of the overall loan amount; thus, roughly \$2.32B in loans was issued with the help of BND. This amount is an 18.87% increase over the \$12.29B in net non-participation loans for the banks in North Dakota (subtracting out the \$1.16B for their share of the participation loans).

To estimate the proportion of loans that would be in some sense “new loans” – that is, loans that would not have been made without the participation of state money and would not have been made by another bank—and the amount that would be made to in-state lenders, we extrapolate data drawn from a recent survey of community banks and bankers in New Mexico.⁸ That survey found that:

- 57% of new loans were non-replaceable (i.e., does not replace money that would have been used for loans by these banks even absent the state's money)
- 82% of new loans would not have been made by other banks, and

⁸ Popp, Anthony V. & Widner, Benjamin. (March 12, 2009). *New Mexico's Public Funds Investment Policies: Impact on Financial Institutions and the State Economy*. Arrowhead Center, New Mexico State University. As far as we know, this is the only publicly-available data of its type.

- 93% of new loans were likely to be made to in-state borrowers/businesses

Discounting by these factors, an 18.87% overall increase in lending would result in about 8.2% “new” lending activity in the state, a not insignificant increase. While we stress that these estimates are just that—estimates, and rough ones at that—we believe that they provide some sense of the scale of new lending that one might attribute to participation loans due to a state bank.

A Note on Direct Bank Stock Lending

Another way that a state bank makes capital available to private state banks is through direct bank stock purchases and lending. BND has estimated that they have a total bank stock portfolio of \$150-\$160M. This portfolio is from their bank stock and trust preferred securities financing loan programs. These “loans” are typically for bank M&A, capital refinancing, or capital expansion. Loans that expand private banks’ capital would presumably result in increased lending by those banks. If we assume that on average banks leverage the expansion capital at a 10% leverage ratio, then BND’s \$150M of direct bank stock lending could potentially create up to \$1.5B in additional lending. To estimate how much of this would be new lending (that is, lending that the private banks would otherwise not have done), one would need to discount for other sources of bank stock loans available to the small and medium sized banks in the state as well as other factors. In any event, the economic impact of direct bank stock lending from a state bank on the overall loan activity of the state is both positive and potentially very significant.

III. Small Business Jobs Created or Retained

This section looks at how an increase in lending would affect small businesses, an engine of economic growth and job creation. Bottom line, we estimate that Washington would have created or retained about 7,400-10,700 more small business jobs with the help of the additional lending generated by a state bank. Via a slightly different method, we estimate that state bank at full loan capacity would have resulted in 8,200 additional jobs created or retained in Washington during the 3rd quarter of 2010 due to participation loan activity.⁹

We arrive at these figures by looking at how the estimated increase in lending activity—and thus, the capital available to small businesses to expand or begin operations—due to the presence of a state bank would impact job creation by small businesses in the state. We use Small Business Administration (SBA) data to derive an estimate of one job created or retained per \$31,801 in small business C&I loans or \$121,374 in small business real estate loans.¹⁰

⁹ To be clear, this is the number of additional jobs that a hypothetical Washington with a fully-functioning state bank with a full loan portfolio (so, post-start-up period) would have compared to the current Washington due to increased loan activity. Thus, it is not a per year increase, in the sense of 10,000 additional jobs being created in year 1 of state bank, then another 10,000 in years 2, 3, etc. On the other hand, this estimate does not represent a one-time economic boost like, say, a large construction project in which several hundred jobs are created for the duration of the project but then disappear. The additional job creation and economic activity, etc. would be a sustained increase over the baseline, sans state bank, economy. This, of course, necessarily implies some number of new jobs created or retained each year. Our method of estimating job creation does not allow us to break out the per year number; to know that, we would need other data such as the rate of turnover in the state bank’s loan portfolio.

¹⁰ SBA 7(a) loans are roughly analogous to private Commercial & Industrial (C&I) Loans. SBA 504 Loans are effectively small business Real Estate Loans.

Small Business Loan to Job Conversion Estimates	
SBA 7(a) Loans (2/2009-5/2010)	
Approved (Total SBA 7(a) Loans)	\$15,838,836,235
Jobs Created or Retained (Reported by SBA)	592,928
Estimated Jobs Created or Retained (discounted by 16%*)	498,060
Loan AMT/1 Job Created or Retained	\$31,801
SBA 504 Loans (2/2009-5/2010)	
Approved (SBA Backed Portion)	\$5,614,730,000
Total Loan Amt (40% SBA Portion + 50% Bank Portion, but not 10% Downpayment)	\$12,633,142,500
Jobs Created or Retained (Reported by SBA)	104,084
Loan AMT/1 Job Created or Retained	\$121,374
*SBA7(a) job numbers discounted by 16% to account for overestimates highlighted by the SBA OIG in <i>Review of Controls Over Job Creation and Retention Statistics Reported by SBA under the American Recovery and Reinvestment Act of 2009 - ROM-10-04.</i>	

Using that conversion factor, we estimate that for every 1 percentage point increase (or not decrease) in loans to assets for the small and medium banking market in Washington, about 1,400 jobs are created or retained. Thus, if we take our estimate that by September of 2010, a state bank in Washington could have helped to sustain a loan to asset ratio of roughly 5.22 to 7.55 percentage points greater than present, that difference in lending would translate into 7,400-10,700 additional small business jobs created or retained by the support of a fully functional Washington state bank (see the calculator to the right to test the affect of various assumptions regarding increased lending).¹¹

Alternatively, using the increase in new lending activity due to participation loans, which we estimated earlier at 8.2%, we find that if the total average net loans in September of 2010 by Washington small and medium sized banks had been 8.2% greater due to participation loans from an Washington state bank, around 8,200 additional small business jobs would have been created or retained (see following table).

Washington Small Business Jobs Calculator - Jobs Created or Retained Per Percentage Point Increase in Loan to Asset Ratio	
Total Average Assets in Washington Small & Medium Sized Banks in 9/2010	\$ 44,235,476,250
Percent Higher Loan to Asset Ratio Projected due to a State Bank	1%
Increased Amount of Total Loans	\$ 442,354,763
Increased Amount of Small Business Real Estate Loans	\$ 54,070,699
Increased Amount of Small Business C&I Loans	\$ 30,966,513
Increased Amount of Small Business Jobs due to Real Estate Loans	445
Increased Amount of Small Business Jobs due to C&I Loans	974
Estimated Total Effect on Small Business Jobs due to a State Bank	1,419

¹¹ As this analysis does not take into account non-small business lending, nor does it try to factor in the indirect and induced economic benefits to increased small business lending, it seems likely that the actual effect on jobs in the state would be even greater.

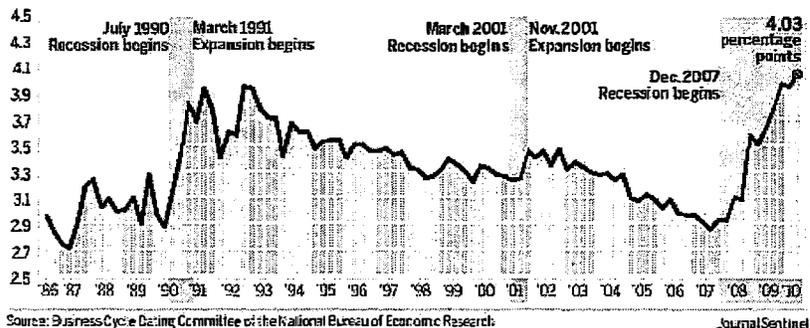
Washington Small Business Jobs Created or Retained From an 8.2% Increase in Average Loans	
Total Average Net Loans in Washington Small & Medium Sized Banks in September 2010	\$31,215,065,500
Percent Higher Average Loans due to a State Bank	8.2%
Increased Amount of Total Loans	\$2,559,635,371
Increased Amount of Small Business Real Estate Loans	\$312,873,933
Increased Amount of Small Business C&I Loans	\$179,184,192
Increased Amount of Small Business Jobs due to Real Estate Loans	2,578
Increased Amount of Small Business Jobs due to C&I Loans	5,635
Estimated Total Effect on Small Business Jobs due to a State Bank	8,212

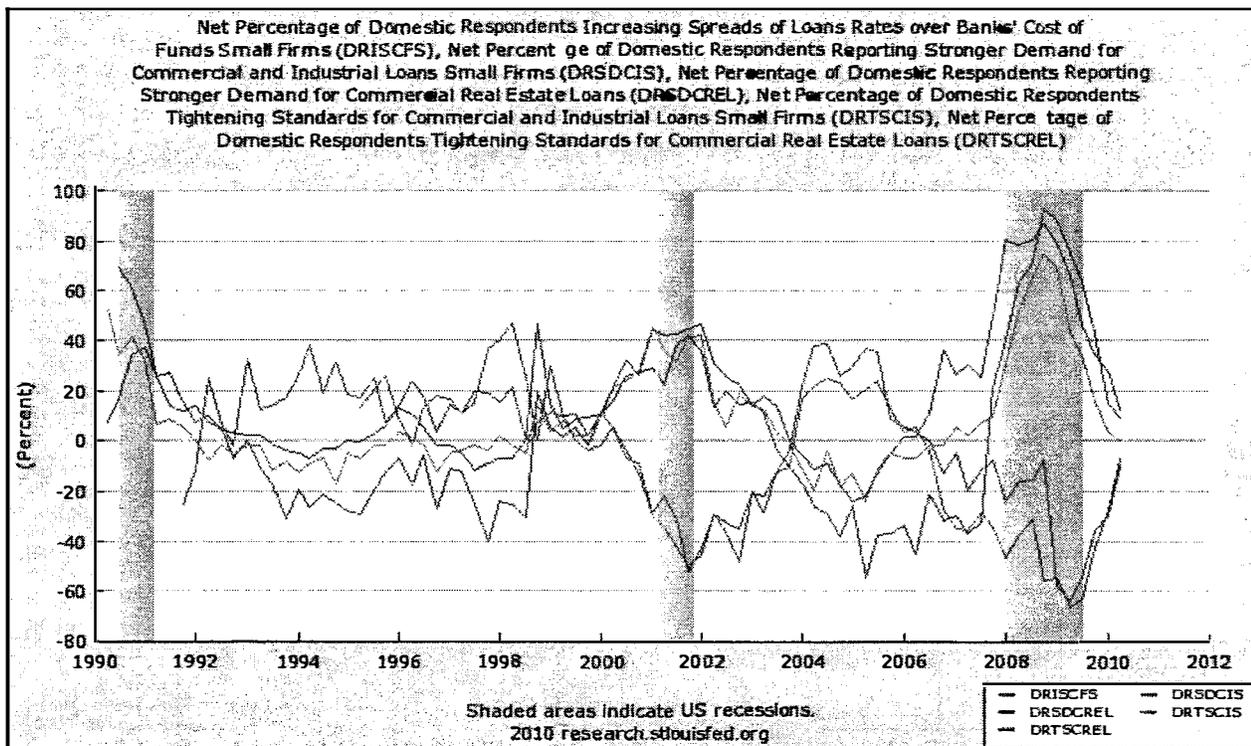
A significant open question, and one that has been debated extensively over the course of the recession—and current fledgling recovery—is whether there is sufficient demand on the part of small businesses such that the increased access to funds generated by a state bank would actually result in additional lending. The brief look we have taken at North Dakota and the BND over the course of this paper seems to suggest that, at least in that state, there has been demand for the increased liquidity the BND provides. At least, it seems clear that the BND has had little or no difficulty assembling and maintaining its loan portfolio.

In addition, we believe that there is at least anecdotal evidence that there is demand for small business loans that is currently going unmet (see, e.g., “Slump in small-business lending vexes Washington”, *Bloomberg Businessweek*, 6/29/10; “Lending Falls at Epic Pace,” *Wall Street Journal*, 2/24/10; “Bernanke: \$40B in small biz loans disappears”, *CNN Money*, 7/12/10; “Small business loans lacking”, *Milwaukee Journal Sentinel*, 7/19/10; “Small business owners await Congress to loosen credit”, *Pittsburgh Post-Gazette*, 8/5/10). One reason for this may be that many U.S banks are under pressure from regulators to reduce risk, and one of the main ways that banks have done so is by reducing the amount of higher risk assets on their books, including certain small business loans. This is done by tightening credit standards and increasing the cost of debt for small businesses; this cost is currently at the highest point since the Fed began tracking it (see chart to the right).

Not spreading the wealth

The difference (known as the spread) between the Fed funds rate – the target interest rate set by the Federal Reserve – and the interest rate on commercial and industrial loans of \$100,000 to \$1 million is at its highest point since the Federal Reserve began tracking the numbers.





Moreover, Federal Reserve data shows a strong inverse relationship between bank loan spread and tightening underwriting standards on the one hand and demand for new loans on the other (see chart above). Note that changes to demand happen right *after* the bank polices occur, as loan demand reacts to the change in banking policies. This suggests that the decrease in demand for loans is being driven at least in part by tightened credit rather than simply suppressed economic activity.

Whether banks are increasing the cost of small business loans due to risk-averse bank regulators or because of internal business decisions, a state bank (which would also operate outside of FDIC regulation) that contributes to lower loan to value ratios for commercial bank loans via participation lending will reduce risk and should lead to a reduction in the spread and an increase in total lending. And, assuming that the demand is there, this should bring increased small business lending and ultimately the creation of new small business jobs.

IV. Returns to the Bank

There is evidence that a state bank would help to strengthen the lending market in its state and thereby increase the amount of jobs created or retained due to that economic activity. We now assess the cost of this economic engine – both to the state bank and to the state itself. We find that with prudent banking practices, Washington could expect a Return on Assets (ROA) for a state bank of around 1% until all start-up debt obligations are expired, after which the ROA would be closer to 1.74%.

Estimating Bank ROA

We first estimate the Return on Assets (ROA) of a Washington State Bank. ROA is equal to Net Income/Average Assets. We calculate Net Income for a state bank by the following formula: Net Income = Total Interest Income¹² – Total

¹² In order to better estimate the effects that policymakers and bank officials can have on the overall return, we broke down Total Interest into Interest Income from Loans and Interest Income from Non-Loan Assets.

Interest Expense + Total Noninterest Income – Total Noninterest Expense – Provision for Loan Loss.¹³ A state bank modeled after BND would have a large percentage of its loan portfolio made up of bank participation loans and much of its expenses based on the average market rates. This would presumably result in its financial performance being closely connected to the health and performance of small and medium sized banks in its state. Thus, for the purposes of this analysis, we assume a more-or-less direct correspondence between the performance of a state bank and the banks in its state, and we extrapolate relevant data by assuming a proportional relationship: Bank of North Dakota/North Dakota Small and Medium Banks = Washington State Bank/Washington Small and Medium Banks. The results of that

Based on 15-yr Averages (1995 through 2009)	Interest Income (as % of Loans)	Interest Income (as % of Non-Loan Assets)	Interest Expense (as % of Liabilities)	Noninterest Income (as % of Assets)	Noninterest Expense (as % of Net Int. Inc. + Nonint. Inc.)	Provision for Loan Losses (as % of Loans)
North Dakota Small & Medium Banks	7.58%	4.34%	2.99%	1.01%	62.24%	0.42%
Bank of North Dakota	6.40%	2.96%	3.18%	0.44%	28.09%	0.24%
Ratio of BND vs North Dakota Banks	0.8451	0.6823	1.0615	0.4318	0.4514	0.5704
Washington Small & Medium Banks	7.79%	3.69%	3.22%	0.88%	60.83%	0.79%
Washington State Bank Estimates	6.58%	2.52%	3.42%	0.38%	27.46%	0.45%

calculation, using these ratios and primarily 15-year averages of average YTD FDIC data, are summarized in the above table (see Appendix 3A for how the variables were derived).

We then apply the net income percentage estimates for a Washington State Bank (see above) to medium and small Washington banks (assets < \$10B), which we assume are the primary market for a bank that effectively expands the leveraging power of private banks.¹⁴ Using a reasonable range of assumptions, that is a leverage ratio between 7% (BND's leverage ratio) 10% and a loan to assets ratio of 65% to 75%, we estimate an ROA for an Washington state bank of around 1.4-1.7% (see box to the right for sample calculation of upper ROA end).¹⁵ This range is slightly higher than the average post-tax ROA for small banks (about 1.2%) but that may be partially explained by the fact that a state bank would be tax-exempt and

BANK ROA EXAMPLE

So, for example, if Loans are 75% of Assets, and Equity Leveraged \$10 in assets and \$9 in liabilities (Liabilities = Assets – Equity) for every \$1 in equity, then Net Income =
 $(\text{Assets} \times 0.75 \times 0.065796 + \text{Assets} \times 0.25 \times 0.025182)$
 $- (\text{Assets} \times 0.90 \times 0.034152)$
 $+ (\text{Assets} \times 0.003810)$
 $- (\text{Assets} \times 0.028715 \times 0.274574)$
 $- (\text{Assets} \times 0.75 \times 0.004514)$
 OR
Net Income = Assets*0.017446
 And since ROA = Net Income/Assets,
ROA = 0.017446 or 1.74%

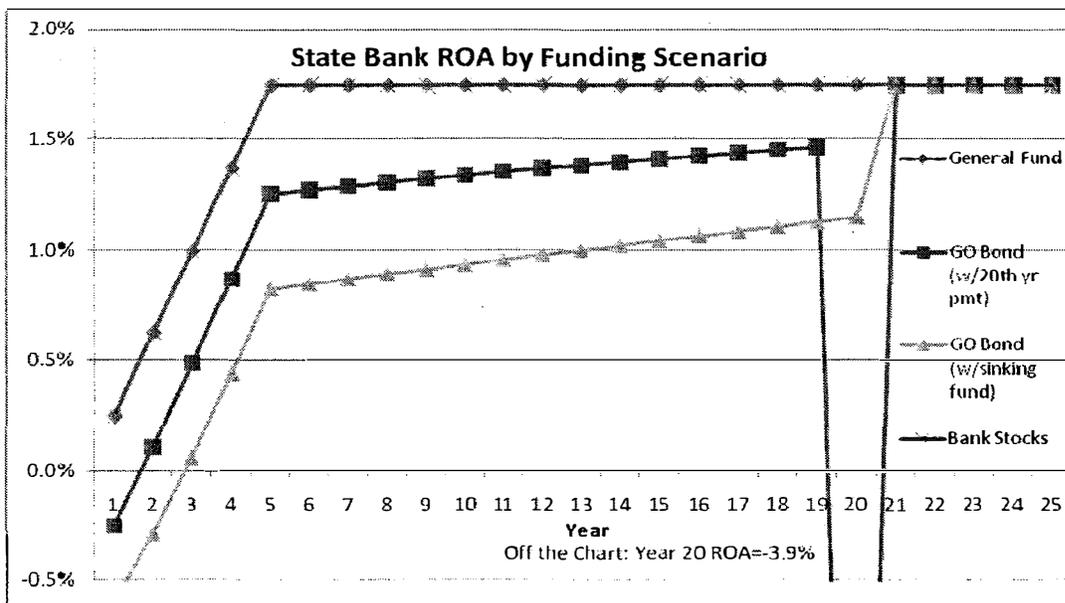
¹³ Note that net income is usually calculated as Bank Net Income = Total Interest Income – Total Interest Expense + Total Noninterest Income + Securities Gains (Losses) + Extraordinary Gains – Total Noninterest Income – Provision for Loan Loss – Applicable Income Taxes. But because recent FDIC data (2005-2009) indicates that securities gains/losses are extremely small for medium and small sized banks (that is, those with assets less than \$10B) in Washington, a mean of -\$18,000, and relatively small for BND (.01% of assets) we have not included securities gains/losses in the following calculation. BND also had zero extraordinary gains over the last 5 years and does not pay income taxes, thus those variables are irrelevant to the calculation.

¹⁴ The basic calculation is: Estimated Net Income for OR State Bank = Total Interest Income (Loans*6.58%+ Assets that are Not Loans*2.52%) – Total Interest Expense (Liabilities*3.42%) + Total Noninterest Income (Assets*0.38%) – Total Noninterest Expense [(Net Int. Inc.+Nonint. Inc.)*27.46%] – Provision for Loan Loss (Loans*0.45%)

¹⁵ The calculation finds, as one would expect, the higher loan to asset ratio, the greater the return (as loans have both a higher risk and return). But it also shows that a smaller leverage ratio (smaller capital to assets or inversely greater assets to capital) returns a smaller ROA and greater ROE. This is because as assets grow, the denominator (assets) grows faster than the numerator (net income) in the ROA calculation.

would almost certainly have very low noninterest expenses (see Appendix 3A).

And this estimate is very much in line with the ROA generated by the Bank of North Dakota, which averaged 1.87% over the past 5 years (figures in Appendix 3B). Once the cost of capitalization from a general obligation (GO) bond is factored in, the bank’s effective ROA actually falls somewhat below the industry average (see chart to the right).



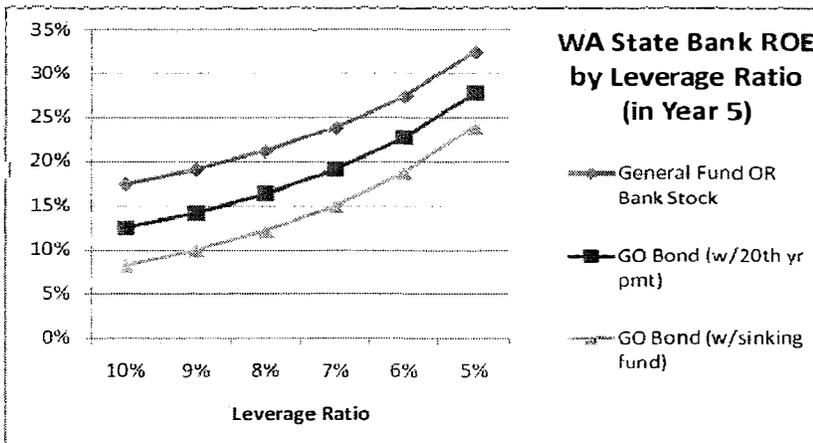
Some argue that while a state bank could become profitable over time, creating the bank in the first place would be cost prohibitive and result in a true loss to the state. We find this not to be the case. Even including the cost of start-up capital for the bank in the form of payment on a GO bond in bank net income (though the state would technically be the entity responsible for repaying the debt), we still estimate that after taking into account bond payments on a 20-year bond with a 5% coupon rate and sinking fund with a 3.2% interest rate, the bank would have an ROA that would grow from 0.82 in year 5 to 1.15% in year 20.

Funding Scenarios

While we believe that a GO bond with a sinking fund is the most likely source of capital for a state bank, this is by no means the only option. For starters, there is no requirement that we are aware of that there be a sinking fund; the bond principal could be paid off in one lump sum when the bond matures. The state could also use general funds for bank start-up capital. While there are obvious political difficulties attendant on this option, it also reaps the greatest returns as the bank is effectively created with no debt obligations. Another option is to raise capital

A Note on Leverage Ratios

The leverage ratio (capital/assets) is one of the biggest decisions a bank makes. The larger the leverage ratio, the less assets there are for every dollar of capital – which is less risky, but also less profitable. This is because at the end of the day, a bank makes a return off of its profit generating assets (like commercial loans), not its core capital. So, all else equal, the more you leverage capital (a smaller leverage ratio), the more assets you have and the more profits you make. But with more rewards comes more risk, and a bank’s capital is a critical cushion when assets default. The chart below shows a state bank’s ROE for the four likely capital sources by leverage ratios of 5-10% (other variables are held constant). The General Fund and Bank Stock scenarios yield the same ROE’s as neither scenario incurs a debt service cost to the bank itself.



through the sale of bank stock, much like a private bank would. Some start-up funds from the state would also be required in order for the state to earn dividend payments; however, this would also mean that the state would hold shares in the bank which could very well appreciate over time. Pension or other state investment money could also provide bank startup capital, either by investing pension funds in bank stock or by using them in lieu of general funds through some dedicated fund.

V. Returns to the State

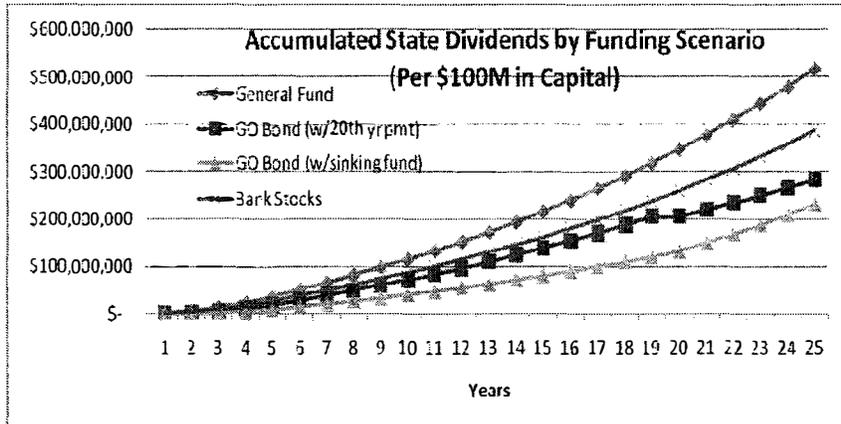
While we have found that a state bank in Washington could stabilize the banking market, would likely contribute to job creation, and would be financially self-sustaining, policymakers and the public will presumably want some estimate of the bottom-line costs and returns to state taxpayers. We find that after a relatively short start-up phase (3-5 years), the state could not only be getting an annual dividend, but that even after taking into account the opportunity cost of capital, lost tax revenue and other costs of a state bank, it is still a revenue positive economic development tool.

State Dividends

One of the virtues of a state bank is that, while it should primarily be seen as a tool for stabilizing and increasing state lending by providing liquidity to private banks (and as a potential source of leveraged economic development funds), it can also return a portion of its profits to the state. In the case of the Bank of North Dakota, the amount returned the state’s general fund is determined by the Industrial Commission (which is composed of the Governor, the Attorney General, and the Agriculture Commissioner and governs the bank’s operations) and bank leadership in negotiation with the state legislature. Thus, in flush times the state can choose to plow all bank profits back into the bank, while drawing on them (within reason) in times of fiscal need. For instance, from 2004-2009 the negotiated return from the bank to North Dakota was \$30 million per year; in 2001 the BND returned \$50

Another Note on Funding Sources

As discussed above, the source of the state bank’s start-up capital is a critical early decision, and has a great effect on the amount returned to the state. Looking at the below chart, we see that the funding scenarios that rely on state funds (e.g. the general fund and bank stock) return the greatest dividends, as the bank is effectively free from debt service obligations. The bank stock scenario is really only lower than the general fund scenario as it requires 25% less state funds and therefore gets 25% less state dividends. The bond scenarios show that requiring a sinking fund will keep the accumulated dividends the lowest during the first 25 years of operation. It should also be noted that even after the bonds mature in year 20, the general fund and bank stock scenarios accelerate at a quicker rate, as they have built up more capital to compound returned earnings off of.



State Dividend Example

A \$100M general obligation (GO) bond issuance, with a 5% coupon rate, 20-year term & 3.20% IR on a sinking fund; bank policies that result in a 10% leverage ratio and 75% loan to asset ratio (graduated increase from 15% to 75% over 5 years); and state dividend of 70% of profits per year would result in the following *accumulated* dividends to Washington:

Year 5	\$8,520,630	Year 25	\$232,016,049
Year 10	\$39,695,522	Year 30	\$361,285,155
Year 15	\$79,927,806	Year 35	\$528,111,443
Year 20	\$131,848,971	Year 40	\$743,406,583

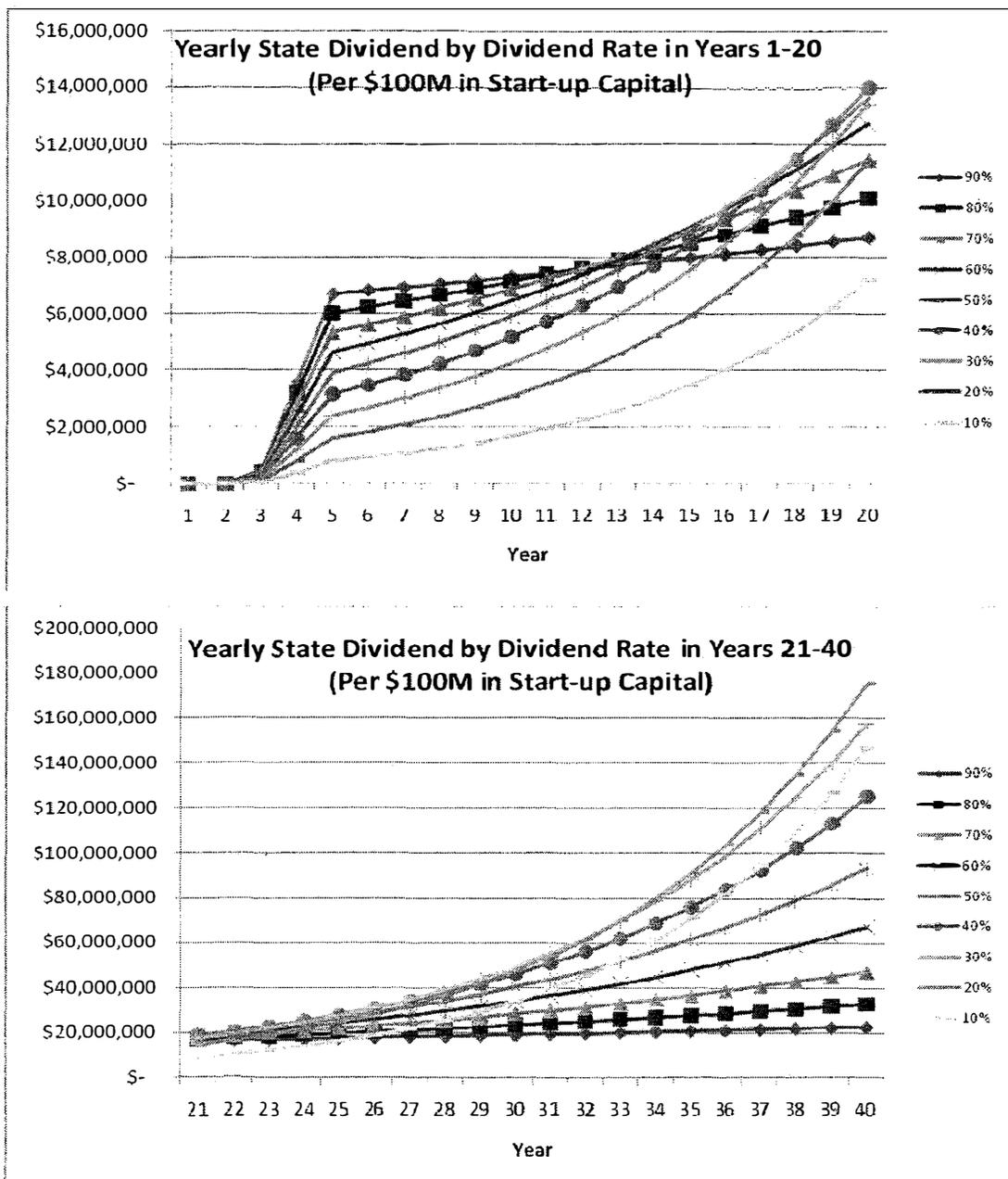
Dividends would be sent to the state starting in year 3. The state ROE (state dividends as a percent of state bank equity) is positive starting in year 3, and would be about 5.8% in year 5, 6.5% in year 10, 7.3% in year 15 and would remain at about 12.2% in years 21 and on (after bond maturity).

Profit projections include the cost of debt and are per \$100M in GO bonds (thus, if the state capitalized the bank with a \$200M GO bond you would multiply the projections above by 2).

million to the state; while in 2000 the bank did not return any profits to the state.

Since the return to the state—or state dividend as we call it here—is set by bank and the legislature on a yearly or biannual basis, any projection regarding return to the state is obviously completely contingent. And, of course, returning a greater percentage of the profits to the state in the short term hurts bank profitability in the long-term and the converse. That said, under most scenarios, the bank’s return to the state would be positive starting in year 3, and would ramp up quickly thereafter, such that if the bank returned an average of 70% of profits (the average return to the state from the BND over the past decade was 72%), by year 5 the bank would have cumulatively returned over \$8.5 million to the state per \$100 million in start-up capital and by year 10, almost \$40 million (see the State Dividend Example box on previous page).

The below yearly state dividend charts illustrate both of these points (both charts assume a GO bond with a sinking fund). For instance, by year 5 (when the bank had fully assembled its loan portfolio) a state bank could return anywhere from less than \$1M to close to \$7M per year to the state general fund depending on whether the state chose to take



very little (10%) or almost all (90%) of the state bank's profits. However, by year 40, if the bank consistently returned most profits to the state, the year-by-year return would be only about \$20mm compared to the \$175mm in dividends if the state let the bank keep and accrue most of its profits (see Appendix 4 for the data behind these charts).

In the chart years 1-20, we see that the higher the dividend rate, the greater the state's yearly dividend in the early years (the first 11 years). But as the state bank's capital grows more slowly with a high state dividend, the lower dividend rate numbers start to return a higher profit such that even with the lower rate going back to the state the absolute amount of state dividend becomes greater. The crossover for many of the dividend rates happens in years 12-18. The trend continues in years 21-40, but with more steady growth rates.¹⁶

These are clearly very long timeframes to be planning out for, and to some extent the above charts are simply meant to show the general effect of the dividend rate on the amount returned to the state. However, like any bank, a public state bank would take some time to start-up operations, to assemble its loan portfolio, and to mature its operations, and it is over the (relatively) long haul that such a bank would both maximize its efficacy and return the most to the state. The Bank of North Dakota has been in operation for over 90 years, progressively increasing both the magnitude of its operations and its return to the state.

Real Profits to the State

The state dividends described above are the amount of money that would go back into a state general fund, and thus clearly important from both a budgetary and political perspective, but this is not a perfect measure of financial return. A more complete accounting would encompass the overall profits of the state bank (since it is an entity of the state in its entirety after all) along with the estimated loss in interest income due to moving state deposits from demand deposit accounts with higher yields (estimated to be about 0.25% or 25 basis points greater) and lost income tax revenues from moving the deposits into a nontaxable financial institution, as well as the cost of start-up debt service as described above.¹⁷

With those amounts included, actual net profit to the state would be about \$6.6 million per \$100 million in start-up capital (assuming the leverage ratio, etc. outlined above) and net state ROE would be around 6.65%. Since this analysis is meant to inform

policymakers, we have set-up a fiscal impact calculator that allows one to set capital, leverage ratio, loan to asset ratio, state dividends, bond coupon rate, bond term, and bond sinking fund interest rate (based on capitalization from a bond

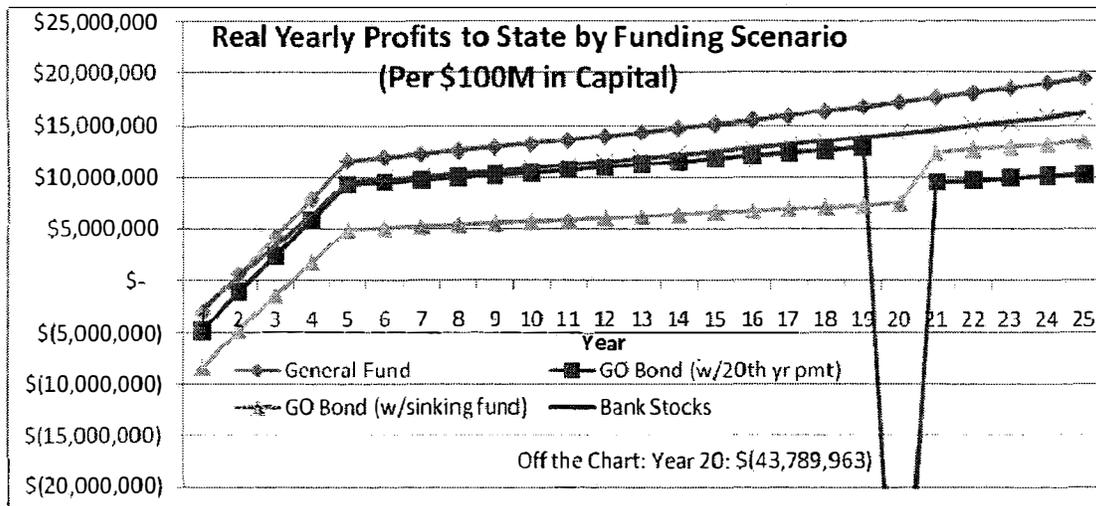
State Bank Fiscal Impact Calculator	
Capital	\$ 100,000,000
Leverage Ratio	10%
Loans to Assets	75%
State Dividend	70%
Bond Coupon Rate	5.00%
Bond Term (in Years)	20
Bond Sinking Fund IR	3.20%
Interest Income	\$ 55,642,160
Interest Expense	\$ (30,737,192)
Nonint. Income	\$ 3,809,936
Nonint. Expense	\$ (7,884,365)
Provision for Loan Loss	\$ (3,385,593)
Net Income (Before Bond Payments)	\$ 17,444,946
Bank ROA (Before Bond Payments)	1.74%
Bank ROE (Before Bond Payments)	17.44%
Bond Interest Payment	\$ (5,000,000)
Bond Sinking Fund Payment	\$ (3,533,403)
Net Income (After Bond Payments)	\$ 8,911,543
Bank ROA (After Bond Payments)	0.89%
Bank ROE (After Bond Payments)	8.91%
State Dividend	\$ 6,238,080
State Dividend ROE	6.24%
Loss in Interest Income	\$ (1,674,772)
Loss of Income Tax Revenue	\$ (589,298)
Actual Profits to State	\$ 6,647,474
Actual State ROE	6.65%

¹⁶ We have not adjusted for inflation and would expect flatter curves but the same underlying points with inflation factored in.

¹⁷ This does not take into account potential savings from reduced fiscal agent fees, which would offset some of this cost.

with a sinking fund; see Appendix 3C for conversion ratios). This calculator is not an accurate tool for projecting out multiple years, but it does demonstrate how decisions by policymakers and bank officials regarding bank set-up and operations can affect the returns to the bank and the state itself (double click on the previous table to input values). For example, you can see that by changing the leverage ratio from 10% to 9%, all else equal, the actual state ROE would rise to over 8%.

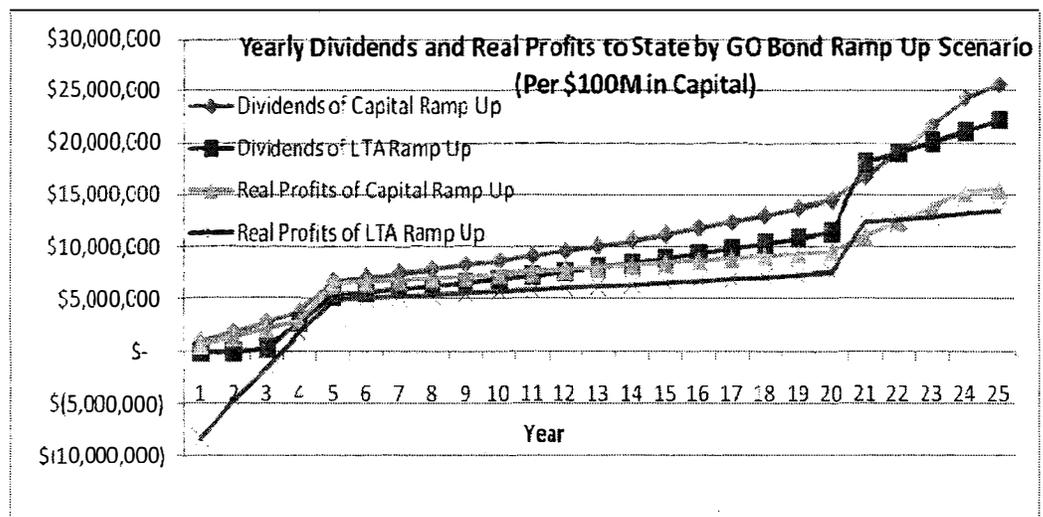
The chart below shows actual net profits to the state over a 25-year period based on the four start-up capital scenarios (and discounting the profits back to the state by 3% per year to account for inflation). As mentioned earlier, we assume



a 5-year start-up period, over which the loan to asset ratio gradually ramps up to account for the fact that it will take time to generate the participation loans this analysis is based on. To simplify the applicability of the estimates to other capital amounts, the profits are projected per \$100M initial start-up capital. The below chart of real profits highlights three important points: 1) the loan to asset ratio greatly affects profits during the start-up phase, 2) the year 20 maturity has opposite effects on the two bond scenarios, and 3) the general fund scenario is the most “profitable” to the state, even after taking into account the opportunity cost of the funds. It should be noted that while the general fund scenario returns the greatest real profits to the state, it does not come without some drawbacks, namely that 1) the funds are all from state coffers (unlike the bond scenarios) and 2) while the state gets the dividends it does not have stock shares that can appreciate over time like the bank stock scenario.

Ramping Up Capital

Given that it will take some time for the bank to ramp up its lending, some have suggested a phased capitalization period as well.



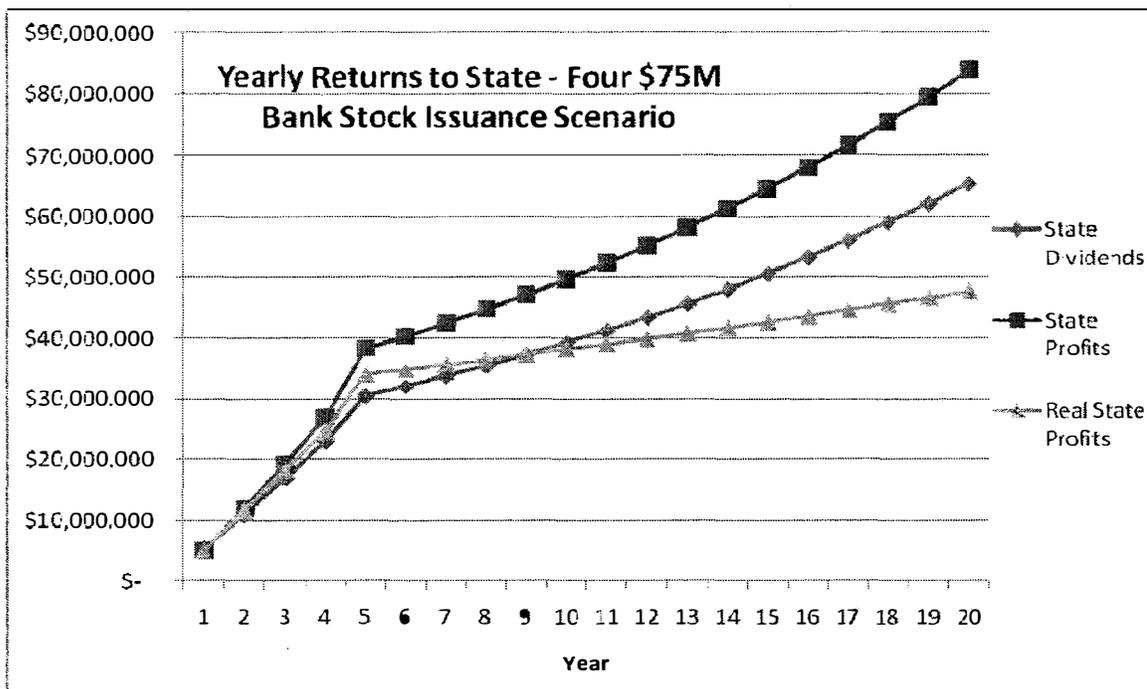
This could be done, for

instance, by issuing four bonds during the first four years of operation: rather than a \$100M bond in year 1, the state would issue \$25M in year 1 and another \$25M in years 2, 3, & 4. This scenario returns a slightly higher state dividend

and real profit per year (see above chart). Enacting four bonds, e.g., as opposed to one arguably presents more of a political hurdle, but does result in a greater return due to the higher loan to asset ratio over the early years of the bank.

Multiple Bank Stock Scenario

Also, take the example of a state bank created in Washington from a total of \$300M in bank stock issuances (which could be, in part, capitalized through state pension funds), with capital investment ramped up gradually (\$75M in capital per year for the first 4 years), 75% state ownership, and assuming 75% LTA for years 5 and on and an average 70% state dividend.



In this scenario, accumulated state dividends would cover the initial state investment of \$225 (75% of \$300M) in about 9 years. Even real state profits, which grow more slowly than state dividends, would pay back the initial start-up capital in year 9. Real annual state profits show that even after accounting for inflation, there is a strong return to the state. In fact, the \$225M state investment returns real profits of over \$34M in year 5, \$38 in year 10, \$42 in year 15, and \$47M in year 20. So by year 20, the state would be getting a real yearly return of about 21% on the initial investment by the state. And presumably the \$225M in bank stock that was purchased in years 1-4 could have appreciated, especially if dividends remain relatively large and stable (see State Dividend Example).

State Dividend Example

A \$225M state investment from pension funds; bank policies that result in ramped up capital; a 10% leverage ratio; up to 75% loan to asset ratio; and state dividend of 70% per year would result in the following *accumulated* dividends to Washington:

Year 5	\$86,636,429	Year 25	\$1,171,572,041
Year 10	\$264,338,134	Year 30	\$1,664,485,363
Year 15	\$493,668,378	Year 35	\$2,300,607,187
Year 20	\$789,627,054	Year 40	\$3,121,544,577

VI. Conclusion

This analysis is a first—and admittedly simplified in many respects—effort to estimate the effect of a Washington State Bank on the state’s fiscal health, banking industry, and small businesses. While we were forced to make a number of assumptions, in each case we have endeavored make those as conservative as possible. With more time and the application of more powerful analytical tools, a more comprehensive analysis of the economic impact of a state bank is certainly possible. This first step does, however, strongly suggest that a state bank would have a positive effect on state revenue and could effectively strengthen the banking industry and create and sustain jobs through a revenue positive investment in a state bank.

Questions for Further Consideration

Some of the decisions that policymakers will have to make when designing a state bank:

- 1) **Start-up Capital:** As mentioned in our analysis, there are many pros and cons to the sources of start-up capital that go beyond the return on equity to the state. Will the most profitable scenarios be politically feasible? Are there other effects to the state from increasing its portfolio of GO bonds? Could the bonds or stock sale be designed in a way that promotes the health of the state pension funds as well? Will the start-up phase see a ramping up of loan to assets or capital itself?
- 2) **Deposits:** Where will the deposits come from? Will they only be from the state itself? What amount of state deposits will be put into the bank and under what schedule (similar to the capital ramp up decisions)? How can in-state small and medium sized banks best utilize the depository services and letters of credit this banker’s bank would provide?
- 3) **Loans:** What limitations will be put on loans and other economic development tools for the bank? Are only participation loans going to be allowed? Will the bank be allowed to purchase real estate loans from the secondary market, like BND does? Will there be provisions for loans targeted toward specific economic development purposes, such as agricultural start-ups or venture capital investments (again, similar to BND), or even clean energy or infrastructure projects that fit with the goals of the state? How can in-state small and medium sized banks best utilize the participation loans and correspondent lending services?
- 4) **State Dividend:** This is another subject that we have looked at in the analysis, and while we find that higher dividends make the quickest return to the state, lower dividends grow the state bank’s capital and eventually result in higher profits in out years. Policymakers will have to answer the question, is it better to get a return right away or build up a pool of funds that can be leveraged to help future generations? The Bank of North Dakota has been around for over 90 years, how best can a state bank in Washington be designed in a way that your great-grandchild can benefit from its positive economic impact in the 22nd Century?

APPENDICES

Appendix 1 – Cleaning the Data

In order to more accurately compare the banks that we believe a state bank would work with, we started isolating outlier banks based on their loan to deposit ratios (LTD). We found that there were bank trusts with 0 LTD's and credit card processing facilities with well over 400% LTD. We also removed retail store credit card banks as well as banks that are part of a megabank holding company; the financial institutions that we removed from the analysis are listed below:

Financial Institution	State	Big Bank Holding Company	Average Loan to Deposits	Years Removed
Davidson Trust Co.*	Montana	No	0%	2001-2009
U.S. Bank National Association MT (fka First Bank Montana, National Association)	Montana	U.S. BANCORP	86%	1995-2001
Wells Fargo Bank Montana, National Association (fka Norwest Bank Montana, National Association)	Montana	WELLS FARGO & COMPANY	67%	1995-2002
Frontier Trust Company, FSB	North Dakota	No	0%	2000-2006
U.S. Bank National Association ND* (fka First Bank National Association ND; fka First Bank, Federal Savings Bank)	North Dakota	U.S. BANCORP	4774%	1995-2009
Wells Fargo Bank North Dakota, National Association (fka Norwest Bank North Dakota, National Association)	North Dakota	WELLS FARGO & COMPANY	69%	1995-2003
Axsys National Bank (fka Fingerhut National Bank)	South Dakota	No	8.45%	1996-2003
Citibank USA, National Association (fka Hurley State Bank)	South Dakota	CITIGROUP INC.	268%	1995-2005
Department Stores National Bank*	South Dakota	CITIGROUP INC.	31%	2005-2009
First Bank of South Dakota (National Association)	South Dakota	U.S. BANCORP	232%	1995-1997
Green Tree Retail Services Bank	South Dakota	No	12192%	1996-2002
Target National Bank* (fka Retailers National Bank)	South Dakota	No	1469%	1995-2009
Wells Fargo Bank South Dakota, National Association (fka Norwest Bank South Dakota, National Association)	South Dakota	WELLS FARGO & COMPANY	197%	1995-2003
Wells Fargo Financial Bank (fka Dial Bank)	South Dakota	WELLS FARGO & COMPANY	2545%	1995-2008
Community First Bank	Washington	No	NA	1997
Continental Savings Bank	Washington	No	NA	1996
ShoreTrust Bank	Washington	No	0%	1995-1996
Wells Fargo Bank Wyoming, National Association (fka Norwest Bank Wyoming, National Association)	Wyoming	WELLS FARGO & COMPANY	93%	1995-2002
<i>*2010 data removed in quarterly analysis but not reflected in LTD averages here. NA=Not Available.</i>				

For the U.S. Averages, we eliminated all banks with LTD's of less than 0.5% (those that round down to 0%) and those with LTD's of greater than 200%.

Appendix 2 - Average Loan to Asset Ratios and Loans Per Capita for North Dakota and Like States

Average Loan to Asset Ratios for ND and Like States					
	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09
North Dakota	73.61%	75.12%	75.58%	75.00%	74.33%
Montana	68.07%	70.25%	71.37%	72.43%	69.41%
South Dakota	69.10%	71.19%	72.41%	69.51%	68.13%
Wyoming	61.89%	62.44%	63.84%	62.30%	61.14%
U.S. Average	66.11%	67.85%	68.94%	69.72%	68.17%

Average Loans Per Capita for ND and Like States					
	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09
North Dakota	\$14,135	\$15,792	\$17,299	\$18,960	\$20,074
Montana	\$10,975	\$12,197	\$12,647	\$13,670	\$14,608
South Dakota	\$12,217	\$13,393	\$16,158	\$16,983	\$16,887
Wyoming	\$7,089	\$7,970	\$8,839	\$7,434	\$7,716
U.S. Average	\$5,871	\$6,143	\$6,297	\$6,599	\$6,467

Average Loan to Assets by Quarter	2007Q3	2007Q4	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1	2010Q2	2010Q3
North Dakota	75.88%	75.58%	73.79%	74.51%	75.04%	75.00%	74.27%	74.76%	74.81%	74.33%	72.11%	72.78%	72.82%
Montana	71.35%	71.37%	71.49%	72.20%	72.59%	72.43%	71.29%	71.31%	70.41%	69.41%	65.00%	65.03%	64.59%
South Dakota	72.56%	72.41%	70.86%	70.19%	69.98%	69.51%	68.21%	68.29%	68.33%	68.13%	66.49%	66.27%	66.11%
Wyoming	63.58%	63.84%	64.53%	65.67%	65.06%	62.30%	61.92%	62.20%	61.78%	61.14%	58.70%	58.49%	57.74%
Washington	80.11%	80.43%	81.44%	81.69%	81.89%	81.80%	80.21%	79.28%	78.46%	77.37%	72.10%	70.79%	70.57%

Appendix 3(A, B, &C) – Calculations & Variables

Appendix 3A – How the Above Variables Were Derived

1. **Total Interest Income:** Interest Income as a percentage of average net loans, in order to take into account the greater return on loans and allow for policymakers to adjust the loan to asset ratio accordingly. BND Loan and Non-Loan Averages are derived from averaging net loans; all others from averaging average YTD loans.
2. **Total Interest Expense:** Interest Expenses as a percentage of average liabilities, in order to take into account a more nuanced effect of the leverage ratio . . . a smaller leverage ratio not only increases assets compared to capital but also liabilities compared to assets (a 10% leverage ratio results in \$9 liabilities for every \$10 in assets or 9/10 or 90% liabilities to assets, but a 5% leverage ratio would result in 19/20 in liabilities over assets or 95%).
3. **Total Noninterest Income:** Total noninterest income as a percentage of average total assets.
4. **Total Noninterest Expense:** We extrapolate the total noninterest expense by utilizing the standard efficiency ratio, which is noninterest expense/(net interest income + noninterest income). BND has a very low efficiency ratio (which is very good) due in large part to not needing branches and not needing to spend a lot of money on marketing their services. As the state bank and a banker's bank, they avoid much of the overhead seen in private banks. We would expect the same efficiency advantages for a state bank in Washington.
5. **Provision for Loan Loss:** This loan loss is as a percentage of average loans, and acts as a small counterbalance to the higher rate of return, by factoring in a cost to the higher risk of having a larger loan to asset ratio.
6. **Interest Cost of General Obligation Bond:** The other likely funding mechanism for the bank's start-up capital is a General Obligation Bond. For this bond issuance we assume a 20-year maturity and a 5% coupon rate.
7. **Sinking Fund for General Obligation Bond:** Although the state has recently outperformed the blended benchmark, to be conservative we averaged the last 109 months of blended benchmark yields to estimate an annual compounded return of 3.2% on a GO bond sinking fund. For simplicity, we assume the bond will be retired at its maturity and will not have the principle paid down beforehand.
8. **Bank Assets:** Based on capital and leverage ratio (Capital/Leverage Ratio).
9. **Return on Assets (ROA):** Based on leverage ratio and loans/assets (see above for details).
10. **State Dividend:** The percentage of bank profits returned to the state.
11. **Loan to Asset Ratio:** Over the last 5 years, the Bank of North Dakota had an average of about 77% loan to assets. In order to take into account a start-up phase, we assume the following loan to assets: 15% in year 1, 30% in year 2, 45% in year 3, 60% in year 4, 75% in years 5-40.
12. **Loss of Interest Income:** We assume a slightly lower rate of return for deposits in the state bank. We use 0.25% or 25 basis points less interest earned by depositing in state bank vs. commercial banks as a rule of thumb, see Hearings on WA SB 3162 [cite to record].
13. **Loss of Tax Revenue:** The state bank is not taxed, so this would be a loss of business and occupation (B&O) taxes on revenue from in-state private banks (and some out-of-state banks with offices inside Washington) derived from state deposits. Here we estimate the tax losses based on the allocation of state deposits (34.47% to in-state banks), the average percentage of liabilities that are deposits (about 74%), the average 15 years of total interest income (8.69% of deposits) for in-state banks and loan interest income for out-of-state banks, the amount of first mortgages (as a percentage of earning assets for in-state banks and loans for out-of-state banks) which count as tax exemptions, and the B&O tax rate for financial firms (1.8% of gross income).
14. **State Deposits:** For BND's 15-yr average, deposits make up 74.43% of liabilities. For the Washington model, we assume that all deposits will be state deposits.

Appendix 3B – BND ROA for the Past 4 years

Bank of North Dakota ROA					
	12/31/2006	12/31/2007	12/31/2008	12/31/2009	MEAN
Return on Average Assets (Annualized)	1.99%	2.04%	1.86%	1.57%	1.87%

Appendix 3C – Conversions used to calculate fiscal impact on state

Assets = Capital/Leverage Ratio

Liabilities = Assets - Capital or [(Capital/Leverage Ratio) - Capital]

Loans = Loan/Assets*Assets or [(Loan/Assets)*(Capital/Leverage Ratio)]

Non-Loan Assets = {Capital/Leverage Ratio - [(Loan/Assets)*(Capital/Leverage Ratio)]}

State Deposits = Liabilities*0.83245329 or [(Capital/Leverage Ratio) - Capital]*0.83245329

Appendix 4 – Yearly State Dividends based on Dividend Rate - Data Table

Years 1-20

Yearly State Dividends - Bond Issue with Sinking Fund Scenario (\$100M in Start-up Capital, 10% Leverage Ratio, Rising Loan to Asset Ratio up to 75%, & 20-yr Bond w/5% Coupon Rate + 3.2% Sinking Fund IR)										
State Dividend	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
90%	\$-	\$-	\$500,102	\$3,580,278	\$6,717,930	\$6,835,123	\$6,954,362	\$7,075,680	\$7,199,115	\$7,324,703
80%	\$-	\$-	\$444,535	\$3,188,560	\$6,034,978	\$6,245,538	\$6,463,444	\$6,688,953	\$6,922,330	\$7,163,849
70%	\$-	\$-	\$388,968	\$2,795,320	\$5,336,342	\$5,615,618	\$5,909,511	\$6,218,784	\$6,544,243	\$6,886,735
60%	\$-	\$-	\$333,401	\$2,400,557	\$4,621,940	\$4,944,458	\$5,289,481	\$5,658,580	\$6,053,435	\$6,475,842
50%	\$-	\$-	\$277,835	\$2,004,271	\$3,891,694	\$4,231,146	\$4,600,206	\$5,001,458	\$5,437,709	\$5,912,011
40%	\$-	\$-	\$222,268	\$1,606,463	\$3,145,523	\$3,474,763	\$3,838,466	\$4,240,237	\$4,684,061	\$5,174,340
30%	\$-	\$-	\$166,701	\$1,207,131	\$2,383,348	\$2,674,389	\$3,000,971	\$3,367,434	\$3,778,646	\$4,240,074
20%	\$-	\$-	\$111,134	\$806,277	\$1,605,088	\$1,829,094	\$2,084,361	\$2,375,254	\$2,706,744	\$3,084,495
10%	\$-	\$-	\$55,567	\$403,900	\$810,666	\$937,944	\$1,085,206	\$1,255,588	\$1,452,721	\$1,680,804
State Dividend	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
90%	\$7,452,482	\$7,582,491	\$7,714,767	\$7,849,350	\$7,986,282	\$8,125,602	\$8,267,353	\$8,411,576	\$8,558,316	\$8,707,615
80%	\$7,413,795	\$7,672,462	\$7,940,153	\$8,217,184	\$8,503,881	\$8,800,580	\$9,107,632	\$9,425,396	\$9,754,247	\$10,094,572
70%	\$7,247,151	\$7,626,430	\$8,025,558	\$8,445,574	\$8,887,572	\$9,352,701	\$9,842,173	\$10,357,262	\$10,899,308	\$11,469,721
60%	\$6,927,725	\$7,411,140	\$7,928,288	\$8,481,522	\$9,073,361	\$9,706,498	\$10,383,815	\$11,108,396	\$11,883,537	\$12,712,768
50%	\$6,427,685	\$6,988,338	\$7,597,894	\$8,260,618	\$8,981,148	\$9,764,526	\$10,616,235	\$11,542,233	\$12,549,001	\$13,643,584
40%	\$5,715,937	\$6,314,222	\$6,975,129	\$7,705,214	\$8,511,716	\$9,402,635	\$10,386,806	\$11,473,989	\$12,674,968	\$14,001,653
30%	\$4,757,849	\$5,338,852	\$5,990,804	\$6,722,369	\$7,543,269	\$8,464,412	\$9,498,041	\$10,657,890	\$11,959,375	\$13,419,789
20%	\$3,514,966	\$4,005,513	\$4,564,521	\$5,201,544	\$5,927,469	\$6,754,704	\$7,697,388	\$8,771,632	\$9,995,797	\$11,390,806
10%	\$1,944,698	\$2,250,025	\$2,603,289	\$3,012,017	\$3,484,917	\$4,032,065	\$4,665,117	\$5,397,561	\$6,245,003	\$7,225,496

Appendix 4 (Continued) – Yearly State Dividends based on Dividend Rate - Data Table

Years 21-40

Yearly State Dividends - Bond Issue with Sinking Fund Scenario (\$100M in Start-up Capital, 10% Leverage Ratio, Rising Loan to Asset Ratio up to 75%, & 20-yr Bond w/5% Coupon Rate + 3.2% Sinking Fund IR)										
State Dividend	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30
90%	\$16,539,582	\$16,828,114	\$17,121,680	\$17,420,366	\$17,724,264	\$18,033,463	\$18,348,055	\$18,668,136	\$18,993,801	\$19,325,147
80%	\$17,273,493	\$17,876,163	\$18,499,860	\$19,145,318	\$19,813,297	\$20,504,580	\$21,219,983	\$21,960,346	\$22,726,540	\$23,519,466
70%	\$18,043,369	\$18,987,666	\$19,981,383	\$21,027,105	\$22,127,555	\$23,285,597	\$24,504,245	\$25,786,671	\$27,136,212	\$28,556,381
60%	\$18,719,904	\$20,026,175	\$21,423,597	\$22,918,531	\$24,517,781	\$26,228,626	\$28,058,854	\$30,016,795	\$32,111,360	\$34,352,084
50%	\$19,100,344	\$20,766,366	\$22,577,707	\$24,547,041	\$26,688,150	\$29,016,017	\$31,546,931	\$34,298,603	\$37,290,290	\$40,542,925
40%	\$18,880,562	\$20,856,785	\$23,039,858	\$25,451,432	\$28,115,425	\$31,058,258	\$34,309,115	\$37,900,239	\$41,867,245	\$46,249,476
30%	\$17,618,563	\$19,770,047	\$22,184,258	\$24,893,281	\$27,933,114	\$31,344,156	\$35,171,736	\$39,466,719	\$44,286,182	\$49,694,173
20%	\$14,687,183	\$16,736,919	\$19,072,717	\$21,734,497	\$24,767,754	\$28,224,331	\$32,163,306	\$36,652,003	\$41,767,141	\$47,596,145
10%	\$9,213,272	\$10,659,798	\$12,333,434	\$14,269,839	\$16,510,268	\$19,102,454	\$22,101,626	\$25,571,681	\$29,586,550	\$34,231,772
State Dividend	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40
90%	\$19,662,273	\$20,005,280	\$20,354,271	\$20,709,350	\$21,070,624	\$21,438,200	\$21,812,188	\$22,192,700	\$22,579,851	\$22,973,755
80%	\$24,340,058	\$25,189,280	\$26,068,131	\$26,977,646	\$27,918,893	\$28,892,980	\$29,901,053	\$30,944,297	\$32,023,941	\$33,141,252
70%	\$30,050,875	\$31,623,582	\$33,278,598	\$35,020,228	\$36,853,005	\$38,781,702	\$40,811,336	\$42,947,190	\$45,194,824	\$47,560,088
60%	\$36,749,165	\$39,313,514	\$42,056,802	\$44,991,517	\$48,131,015	\$51,489,587	\$55,082,519	\$58,926,166	\$63,038,021	\$67,436,800
50%	\$44,079,271	\$47,924,074	\$52,104,238	\$56,649,016	\$61,590,211	\$66,962,401	\$72,803,178	\$79,153,415	\$86,057,551	\$93,563,897
40%	\$51,090,394	\$56,438,009	\$62,345,357	\$68,871,025	\$76,079,733	\$84,042,974	\$92,839,725	\$102,557,229	\$113,291,861	\$125,150,083
30%	\$55,762,558	\$62,571,982	\$70,212,935	\$78,786,961	\$88,408,001	\$99,203,911	\$111,318,159	\$124,911,734	\$140,165,283	\$157,281,514
20%	\$54,238,642	\$61,808,164	\$70,434,085	\$80,263,835	\$91,465,421	\$104,230,296	\$118,776,631	\$135,353,046	\$154,242,858	\$175,768,925
10%	\$39,606,315	\$45,824,685	\$53,019,368	\$61,343,648	\$70,974,877	\$82,118,254	\$95,011,190	\$109,928,376	\$127,187,627	\$147,156,658

