Exploring a Public Bank for Vermont

Economic Impacts, Capital Needs, and Implementation

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All mistakes are my own, although you can blame the above person of your choice if you want to.

— Gary Flomenhoft, Burlington, VT
December 2, 2013

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Introduction

Interest in public banking has been growing over the last five years, in the wake of the 2008 financial crisis. People all over the United States and Canada are becoming aware that the current system has some serious structural flaws that continue to put our overall economic health at risk, as documented by Congressional and Independent inquiries. This report explores the possibilities presented by creating a public bank for the State of Vermont, including the potential economic impact from the additional credit a public bank could make available, and some of the needs and issues it would address.

To make the report as objective as possible, we have submitted the findings and analysis to peer review by people who do not necessarily share the author's positive orientation to public banking. Their comments are included in the report. The report's findings demonstrate several positive outcomes for the state if a public bank were in place; this data was derived using a standard input/output analysis (IMPLAN) with rigorously vetted assumptions that leaned toward a conservative approach on loan/deposit ratio. Many of the potential positive benefits related to student loans, municipal bonds, partnership banking, etc. for example, were not factored into the analysis.

The report first traces the structural problems that drive the interest in public banking, and a review of previous efforts in Vermont. Then it identifies gaps in Vermont's capital needs, and limitations of current mechanisms such as bonding and local investment. Next we summarize findings from an IMPLAN input/output analysis on impacts from potential public bank lending based on state cash deposits that could help fill these capital gaps. We compare public banking with current lending practices by state lending agencies, and compare risks of a public bank with current systemic risks. We address all major objections that have been raised so far to the concept of a public bank. We end with a look at North Dakota, which currently has the only public bank in the US, and compare the banking system in North Dakota with Vermont, two states that are similar in latitude, economy, and population. We also take a brief look at the Bank of North Dakota, and issues related to its founding, operation, and governance. Finally we consider other funds that might be available for deposit in a public bank and other funding methods that have been proposed.

Summary of Findings

Economic Impact

- If deposits of state cash funds were used for VEDA and VHFA loans, $236.2 million in public bank lending could result in:
  - **2,535 new jobs**
  - **$192 million in value added** (Gross State Product)
  - **$342 million increase in state output**

- If the state deposits were used to finance state capital expenditures, funding through a public bank could **save close to $100 million in interest costs** on FY2012-13 capital spending. Use of a public bank for state capital finance would return this money to the state instead of paying out of state bondholders.

- In the case of State Capital expenditures, financing through a public bank could **create over 1000 jobs in the first two years**, without the loss of 100-200 jobs per year thereafter.

- Returns on state cash deposits could be equivalent to current returns, but the net return or loss to the state from a public bank would have to be compared to the current interest-only return.

- There is little evidence that a public bank would reduce lending by these banks, since the state has historically kept a low balance in the banks. Even if public bank lending simply replaced existing private bank lending the results would be beneficial.

- Potential Loss of tax revenue from the bank franchise tax would be outweighed by increases in income tax and other taxes.

Capital Needs

- We find that Vermont has on the order of $40 billion in unmet capital needs over the next twenty years, and current approaches are inadequate to meet the need.

- The cost of funds appears to be lower for banks, including a public bank, than for state lending agencies.

- Concern about threats to the state's bond ratings seem to be unfounded.

Risk Management

- Many of the systemic risks of the "Too Big to Fail (TBTF) Banks", now called Global Systemically Important Financial Institutions (G-SIFIs) and the financial system as a whole have not been fully addressed, and alternatives are needed for a diversified and resilient response to future crises.

- There are systemic risks to the current system and also substantial risks to forming a start-up public bank in Vermont. TD Bank is classified as a Domestically Systemically Important Bank (D-SIB) in Canada, subjecting it to international agreements regarding priority of derivative holders, and bail-in methods in case of insolvency. TD Bank has $3.7 trillion in derivative exposure which is 44 times its market capitalization.

- Vermont has generally done a good job of handling financial issues as demonstrated by the low impact on Vermont housing and unemployment due to the 2008 financial crisis.

Implementation

- Due to the issues of capitalization, collateral, political opposition, and the previous track record of public banks in the US we do not recommend a start-up public bank at this time.

- On the issues of capital requirements and collateral we find that VEDA or VSAC both have adequate unrestricted net assets to meet capital requirements for a bank, and adequate holdings of securities to serve as collateral for short-term loans if needed.

- North Dakota's financial success cannot be credited to the oil boom, as the state had outstanding economic results prior to the oil boom in 2007-2008. We cannot determine how much credit is due to the Bank of North Dakota compared to other factors without further study and analysis. A correlation does not necessarily indicate causation, a primary pitfall in

statistical research.

- The structure of the banking system in North Dakota is very different than Vermont in several primary areas. There are significantly more banks in North Dakota, 437 compared to 256 in Vermont, and double the deposit base. Out-of-state banks hold 23% of deposits in North Dakota and 64% in Vermont. The two largest out-of-state banks hold 44% market share in Vermont, while only 16% in North Dakota. These results probably can be attributed to the state bank in North Dakota due to its partnership banking requirements, and role in supporting state-chartered banks.

- The combined operations of VEDA, VHFA, and VSAC are nearly identical to the Bank of North Dakota aside from banking functions.

- We recommend allowing VEDA to operate as a bank with a pilot project by depositing a portion of state funds in VEDA and chartering VEDA as a bank or empowering VEDA as a bank by statute. VEDA would have to add deposit management, check processing and proofing, and cash management to its current services. Since it already functions much like a bank, we do not consider this an insurmountable obstacle.

Background – The Financial Crisis

In the aftermath of the 2008 financial crisis, the too big to fail (TBTF) Wall Street Banks took the $700 billion taxpayer bailout, massive federal reserve loans amounting to some $29 trillion[1], and continued with business as usual. Credit to business did not increase, foreclosures weren't reduced, derivatives continued unregulated, and massive annual bonuses continued to be paid to banking and investment staff, often for the types of risky behavior that drive financial crises. The new wave of Federal Reserve purchases of Treasury bonds and mortgage securities totaling $85 billion per month, referred to as quantitative easing that continues to this day, insures that risky behavior does not result in bank failures.

In fact, the quantitative easing policies have increased the money supply dramatically, allowing new bubbles to form in the financial sector. The burgeoning market for derivatives, interest rate swaps, credit default swaps, and repurchase agreements grows at an unregulated pace and now represents trading volume that is 20 times the size of the global economy. Yet even with all this new money in the system, there has not been a commensurate increase in credit to small business, foreclosure relief, or other signs that the banks are fostering healthy economic activity.

The questionable behavior of TBTF banks only seemed to accelerate day by day as new scandals continued to emerge: Drug Money Laundering by HSBC bank, LIBOR rate fixing, ISDAfix rate fixing, JP Morgan "London Whale" losses, etc. Congressional and third party investigators uncovered massive fraud and malfeasance, with one of the most disturbing examples being Goldman Sachs, showing the bank's contempt for their clients in calling them "Muppets". Goldman was proven to have sold high-risk mortgage-backed securities to their clients, and simultaneously bet against them by selling short, knowing they were worthless. Since the response of the federal government was weak, especially compared with the strong response by FDR in similar circumstances in 1933, people decided to take matters into their own hands and have been exploring a variety of alternatives. Some examples are described below.

"Occupy Wall Street" began their highly publicized occupation on September 17, 2011; On November 5, 2011, people joined a campaign to move millions of dollars from Wall St. to local banks and credit unions during "Move your Money" day; Interest in complementary currencies soared, such as the online currency BITCOIN that went from zero volume in 2008 to over 5 billion in circulation currently[2]; Interest in monetary policy reform was renewed, and old ideas were dusted off such as the 100% reserve proposal of the 1930s by prominent Chicago economists; An IMF economist published *The Chicago Plan Revisited*[3]; Representative Dennis Kucinich introduced a Congressional plan to implement The American Monetary Institute's reforms known as the NEED Act. This bill would have transferred monetary authority back to the Treasury from the Federal Reserve Bank, and require 100% reserve requirements, eliminating the creation of most of the money supply by banks. The idea of public credit money was inspired by California's use of "tax-anticipation" warrants, and there was new-found interest in the history of colonial scrip, Lincoln's Greenbacks, Kennedy's Silver certificates, and other interest-free US Notes[4].

The Public Banking Alternative

It was in this context that Ellen Brown's 2007 book *Web of Debt* explaining the history of the banking system using a clever "Wizard of Oz" allegory became a best seller. *Web of Debt* promoted the concept of public banks, and people turned their attention to the Bank of North Dakota, the only public bank in the continental United States (Puerto Rico also has one). What they discovered was a conservative institution with radical roots in 1919

1 http://www.levyinstitute.org/publications/?docid=1462

2 https://blockchain.info/charts/market-cap?timespan=all&showDataPoints=false&daysAverageString=1&show_header=true&scale=0&address=

3 http://www.imf.org/external/pubs/cat/longres.aspx?sk=26178.0

4 http://en.wikipedia.org/wiki/United_States_Note

that seemed to account for North Dakota's immunity to the financial crisis. Ellen Brown writes, "North Dakota has had the lowest unemployment in the country (or was tied for the lowest unemployment rate in the country) every single month since July 2008…North Dakota is the only state to be in continuous budget surplus since the banking crisis of 2008. Its balance sheet is so strong that it recently reduced individual income taxes and property taxes by a combined $400 million, and is debating further cuts. It also has the lowest foreclosure rate and lowest credit card default rate in the country, and it has had NO bank failures in at least the last decade…It has contributed over $300 million in revenues over the last decade to state coffers"[5]. Naturally people are interested in this kind of performance for their state, especially if the results are not all due to oil. Advocates point out the fact that the Bank of North Dakota was returning revenue to the state prior to the oil boom, and other oil producing states aren't faring as well. The Public Banking Institute[6] was formed to promote the idea of public banks across the US.

For all the reasons mentioned above, legislators, citizens, and many others have been interested in exploring the concept of a public bank for the state, especially since North Dakota and Vermont have nearly identical population size, are both in northern climates, are agricultural states, and are similar in various other ways. But does the idea make sense for Vermont? This report will attempt to take a comprehensive look at the issues and evaluate this question. The North Dakota model may not be right for Vermont, but it may have some useful lessons. The Joint Fiscal Office has briefly reviewed the topic, and the legislature has attempted bills to study the question on several occasions, but none of these study bills have ever passed out of committee. Therefore a coalition of organizations, individuals, and businesses that first came together in 2011 called *Vermonters for a New Economy* decided to conduct a study of their own, which is how this report came about, with funding from the Donella Meadows Institute.

Research Questions

Some of the questions we will attempt to answer are as follows: Could a public bank expand the current lending ability of the state's lending agencies and community banks? What would be the risks, costs, and benefits to the state? What would be the impact on jobs, business, and the state economy? How would public bank returns compare to the existing returns on the state's cash funds? How would it compare with direct use of the funds by the Treasurer for local investment? What is the current cost of money for state lending agencies and would this lower it? What are the risks of creating a public bank compared to systemic risks to state funds that are currently deposited in commercial banks or invested? What are the capitalization requirements for a public bank and are they feasible? What would be the impact on the state banking industry? We will investigate all these questions with a special focus on current financing agencies of the state including:

1. VEDA
2. VHFA
3. VSAC
4. State Capital Bonding

Previous Work

Legislative Efforts

In the legislative session of 2011-12 and 2013-14 bills were introduced in the Vermont House and Senate to study the impact of a state bank in Vermont. House bills were introduced by Suzi Wizowati, and Senate Bills by Anthony Pollina. Testimony has been taken on numerous occasions on the topic. The 2011-12 bills included:

H.0542
An act relating to creating an expert panel on the creation of a state bank

S.0204
An act relating to creating an expert panel on the creation of a state bank

The 2013-14 bills included:

H.0338
An act relating to increasing efficiency in-state government finance and lending operations

S.0055
An act relating to increasing efficiency in-state government finance and lending operations

Other Efforts

Interest in the topic of public banking has been extensive in Vermont for several years. Numerous individuals, organizations, state agencies, and others have addressed the issue. Here is a partial list:

1. The Joint Fiscal Office published an issue brief in 2010 entitled *Preliminary Review of Issues in Adopting a Bank of North Dakota (BND) Model in Vermont.*[7]

5 North Dakota's Economic "Miracle", It's not Oil. http://www.yesmagazine.org/new-economy/the-north-dakota-miracle-not-all-about-oil

6 http://publicbankinginstitute.org/

7 http://www.leg.state.vt.us/jfo/issue_briefs_and_memos/Bank_of_North_Dakota_Model_In_VT.pdf

2. There was testimony by venture capitalist Cairn Cross in 2011 discussing the concept of consolidating the lending functions of VEDA, VHFA, and VSAC in a state bank, entitled *Should Vermont Form a State-Owned Bank?*[8] Consolidation was the focus of the 2013 bills.
3. Demos published a policy brief in 2012 entitled *Putting Vermont Money to Work for Vermont*[9].
4. The Center for State Innovation published a report in Sept 2010 including a comparison of North Dakota and Vermont Banking entitled *Building State Development Banks*[10].
5. There is an active citizen's committee for a Vermont Partnership Bank/State Bank, led by Jim Hogue and Gary Murphy, which has a website for a Vermont Partnership Bank[11]. Members of this grassroots group have been promoting the concept of a state bank since the financial crisis in 2008, doing education, lobbying, research, and recently a Town meeting campaign for a state bank.
6. John Ford posted a website called *Vermont Currency Commons* to provide background material on monetary sovereignty issues[12].
7. There is a coalition called *Vermonters for a New Economy*[13] led by Gwendolyn Hallsmith, which is educating the public about public banking, cooperatives and worker owned businesses, new forms of economic measurement, complementary currencies, and other economic innovations that can help Vermont develop a sustainable economic base. Organizational members include Global Community Initiatives, Gund Institute for Ecological Economics, Gross National Happiness, Green Mountain Valley Exchange, Round Sky Solutions, Vermont Interfaith Action, Vermont Woman Newspaper, Vermont Commons, and the Donella Meadows Institute. There are also hundreds of individual members.
8. Officials from the Public Banking Institute have come to Vermont for meetings and conferences, including Ellen Brown in December 2012, and Executive Director Marc Armstrong on several occasions.
9. Treasurer Beth Pearce formed a "Capital Gaps" study group, now called the Local Investment committee to discuss ways state money can be used for local financing.
10. Numerous articles have been published in the popular press and online.

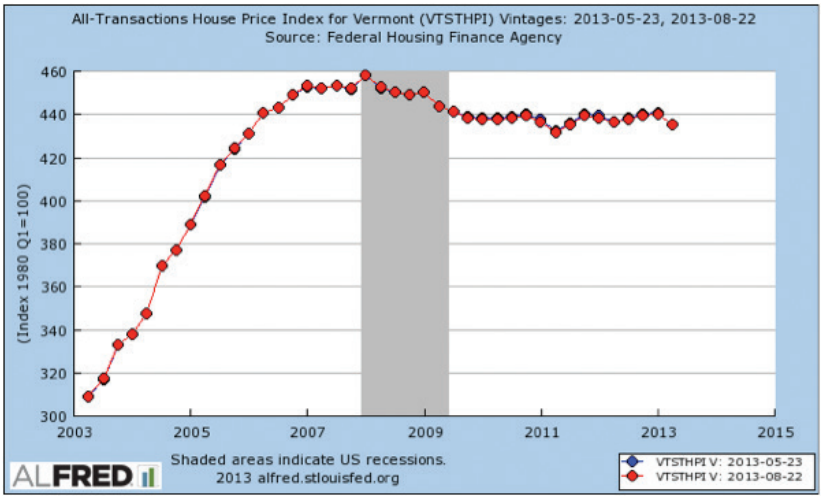
What is the Problem?

When the concept of a state public bank as exists in North Dakota is proposed in Vermont policy circles the question usually asked is "What problem are you trying to solve? A public bank is a solution chasing a problem." The other point often made is that "state lending agencies and banks already provide adequate lending services, we don't need a new government agency." Nonetheless, the perception that we might have unmet capital needs led the State Treasurer, Beth Pearce, to set up an informal group to look at the capital "gaps" the state is facing.

Vermont's banking and housing sector were not affected as severely by the financial crisis in 2008 as elsewhere, due to the fact that Vermont banks did not engage in many of the reckless practices of Wall Street investment banks such as sub-prime mortgages, over-leveraging, robo-signing contracts, derivative speculation, etc. Vermont's housing market was spared the huge drop in prices that were seen elsewhere where there was massive over-construction during the boom. As shown below in figure 1, Vermont housing prices only dropped about 4%, and then leveled off. Unemployment did not spike as drastically in Vermont

Figure 1

Vermont Housing Price Index



8 http://www.stateinnovation.org/Initiatives/State-Banks-Materials/Vermont-bank-testimony.aspx

9 http://www.demos.org/publication/putting-vermont-money-back-work-vermont-introducing-vermont-partnership-bank

10 http://www.stateinnovation.org/Initiatives/State-Banks-Materials/Building-state-development-banks-0910.aspx

11 http://vtpublicbank.com/home/

12 http://currencycommonsvt.org/

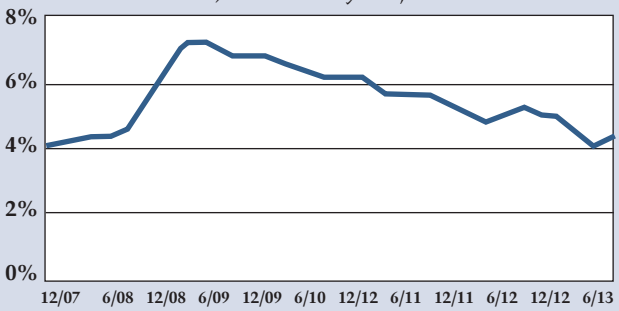
13 http://vtneweconomy.org/

Figure 2

Vermont Unemployment Rate

Jobless Rate is Generally Falling

Vermont unemployment rate since the start of the recession, seasonally adjusted



Source: VT Department of Labor

as elsewhere, jumping only to 7% and later dropping back to 4%, the same as before the crash as shown in figure 2. So relatively speaking, Vermont's banking, housing, and employment survived much better than elsewhere. This speaks highly of the integrity of current banking, housing, and government institutions in Vermont.

Capital Needs in the State

One of the fundamental questions pertaining to public banking is whether there are unmet needs in the state requiring capital financing that is unavailable, and could it be supplemented with additional credit generated by a public bank? State Treasurer Beth Pearce formed a "Capital Gaps" or "Local Investment Group" in her office that meets one or two times monthly. They summarize the capital needs of the state into 10 categories: Municipal, thermal, multi-family, single-family, mobile homes, technology, transportation, commercial, student loans, other. They have been diligently working to meet these needs for the last year, and many initiatives have come from this effort including the concept of Public Purpose ESCOs (Energy Service Company), a $16.5 million sustainable energy program for VEDA, Neighborworks, VHFA, and VEIC (H.395), and a proposed $9 million fund for thermal efficiency and renewable energy work on state buildings. Here is a summary list of these capital gaps and a rough estimate of capital requirements for each of them that are currently not being met.

Thermal Energy

The Thermal Energy Task Force in 2012 calculated that to meet the state's mandate to weatherize 80,000 homes by 2020 would require $267 million in public funds, which would leverage $687 million in private investment.[14]

Renewable Energy

According to the Energy Action Network, to meet a scenario of 80% renewable energy by 2030 would require more than $28.7 billion in Capital over the period from 2013-2020.[15] The state has since created an energy plan to reach 90% renewables by 2050.

Housing

A housing needs assessment was published by VHFA in 2010.[16] The following needs were identified for the period of 2009-2013:

1. Affordable homeownership options for lower income vermonters: 8,205 units.
2. Total additional rental housing units needed by 2014: 4,873

The report provided the following price information: The median price of a newly constructed home in Vermont was $270,000 in 2008. The median price of an existing home sold in Vermont in January through June 2009 was $195,000. An affordable home for median income household is $163,500. Since no cost estimates were given in the report we will have to estimate. Let's be extremely idealistic and assume that 8205 new units are built at the affordable price of $163,500. The total capital needs for 8205 units would be $1.34 billion. To calculate rental units let's assume there are 2 units per $163,500 house. The total cost for new rental housing would be $398.4 million.

Infrastructure

In the area of infrastructure the US Department of Transportation has given Vermont the following ratings in 2010.[17] Some of these ratings came from the Vermont branch of the American Society of Civil Engineers (VTASCE), and Vermont Department of Transportation (VTrans).

Overall . . . . . C-
Bridges . . . . . C-
Dams C
Drinking Water . . . C-
Roads . . . . . D+
Wastewater. . . . . D+

14 http://publicservice.vermont.gov/sites/psd/files/Topics/Energy_Efficiency/TETF/TETF%20Report%20to%20the%20Legislature_FINAL_1_15_13_2.pdf

15 https://www.dropbox.com/s/i70pdzq2xowsi8s/EAN Capital Mobilization Guiding Document 11-6-12.pdf

16 http://accd.vermont.gov/sites/accd/files/Documents/strongcommunities/housing/complete%20final%20report.pdf

17 http://www.vtasce.org/wpcontent/uploads/VTASCE_2011_Infrastructure_Report_Card2.pdf

Bridges

288 of the 2,727 bridges in Vermont (10.6%) are considered structurally deficient. 643 of the 2,727 bridges in Vermont (23.6%) are considered functionally obsolete. VTRANS estimates, in 2008 dollars, that a funding gap exists requiring additional funding of approximately $110 million a year for 20 years to address structural deficiency and age issues.

Dams

To improve the safety of the 112 known poor condition dams, using an average of $150,000 per dam, an estimated $16.8 million is needed.

Drinking Water

EPA estimated in 2007 that Vermont has reported $453 million in drinking water infrastructure needs for Small Community Water Systems only, over the next 20 years. The VTASCE estimates total need in the range of $750 million.

Wastewater

EPA 2008 estimated that Vermont has $218 million in wastewater infrastructure needs over the next 20 years: New Collector Sewers ($76 million), Secondary Wastewater Treatment ($62 million), and Advanced Wastewater Treatment ($58 million).

Roads

45% of Vermont's roads are in poor or mediocre condition. The investment needed to sustain Vermont's transportation system at today's level of performance is estimated to require $4.2 to $8.7 billion beyond currently forecast revenues through 2025.

Others[18]

Vermont has reported an unmet need of $65 million for its parks system.

It is estimated that Vermont schools have $326 million in infrastructure funding needs.

Student Loans-VSAC

According to a Vt Digger Article Oct. 23,[19] due to regulatory changes in 2011, the vast majority of student loans are now in the hands of the federal government. VSAC had been the primary lender for Vermonters pursuing higher education…But now, the lending arm of the organization only gives out about $25 million per year in the state — compared to an estimated $350 million provided by the federal government.

According to a VT Digger Article[20], Scott Giles, president and CEO of VSAC said "VSAC's remaining capital needs are more than met by the private market. He's looking into creating a loan product directed more toward parents of students than students themselves, in which case lending potentially could double. But even still, Giles feels that need could be entirely satisfied by the private bond market.

With its capital needs met, Giles said, VSAC is "agnostic" on the concept of a public bank. Right now there is no problem with student loans, he said, so from the perspective of VSAC's mission, there is no problem a public bank could solve. "That having been said, if the treasurer finds a way we can do this less expensively, we'd be interested," he said, because it would mean VSAC might be able to offer lower-priced loans to students and families."

Emergency Needs–Irene

According to a Huffington Post report the total damage in Vermont from Hurricane Irene was $733 million.[21] If climate change continues to cause disruptive weather events, the costs of rebuilding infrastructure, homes, and businesses will increase. As I'm writing this the worst typhoon in history to make landfall hit the Philippines with sustained winds at 195mph, making it a category 6 if there were such a category.

Unmet Needs Identified by CDBG Report[22]

Housing

As of the end of 2011, there was an estimated $24.9 million of severe unmet housing needs. There is an estimated 800 cases with unmet needs ranging from $1500 in remaining repairs to complete home replacements. There is an estimated $8,995,000 in unmet needs for renovation of flood-damaged housing. There is an estimated $1,000,000 in unmet needs for owners of damaged or destroyed mobile homes to purchase replacement homes. There is $5,773,769 in unmet needs for matching funds for the Hazard Mitigation Grant Program to buyout flood affected housing. There is $883,750 in unmet needs for homebuyer assistance for families and individuals displaced by flooding.

18 http://www.infrastructurereportcard.org/vermont/vermont-overview/

19 http://vtdigger.org/2013/10/23/state-treasurer-prefers-local-investments-public-banking/

20 http://vtdigger.org/2013/10/23/state-treasurer-prefers-local-investments-public-banking/

21 http://www.huffingtonpost.com/2012/08/27/hurricane-irene-damage-statistics-2011_n_1832342.html

22 http://accd.vermont.gov/strong_communities/opportunities/funding/cdbgdr

Economic

As of the end of 2011, there was an estimated $22.2 million in severe unmet business needs. There is $5,426,400 in unmet needs for farms damaged by flooding. These will only be partially met by the allocation of funds for locally initiated projects to meet the remaining needs of affected farmers.

Infrastructure

There is $6,491,328 in unmet needs for matching funds for FEMA Public Assistance Grants. Funds are being allocated for grants or loans to communities that are unable to meet the match requirements for repair or replacement town buildings and alteration or enhancement of buildings that are not eligible for FEMA PA funding.

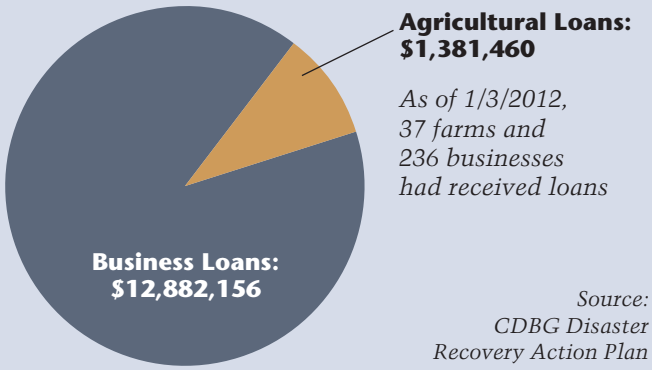
Vermont Economic Development Authority Loans:

According to Vermont's CDBG Disaster Recovery Action Plan (July 20, 2012) (pdf)[23], "In the immediate aftermath to TS Irene, many businesses benefited from funds available through the Vermont Economic Development Authority (VEDA). This resource was consistently praised in meetings across the state." The VEDA program successfully administered: 294 loans averaging $56,297 for a total of $16,551,357 to businesses affected by flooding in 2011. As a result of a request by the Vermont Department of Agriculture, VEDA has agreed to extend the Irene loan program to assist farmers with purchasing feed and potentially use the resource for spring planting needs."

Figure 3

VEDA's Irene Loans

Total loans issued: $14,263,616 as of 1/3/2012



Source: CDBG Disaster Recovery Action Plan

Summary of Capital Needs in the State

The total of $40.8 billion identified here is only a partial list and rough estimate of capital financing needs identified by various official agencies for the next 10-20 years. Public projects are currently financed over time by bonds or paid for directly by appropriations of tax money. There is certainly no sentiment for increasing taxes for public projects. As shown below, state bonding is reaching a limit, and there are limits to local investment by the Treasurer. So where will the money come from?

Table 1

Summary of Capital Needs

Thermal Energy	$267,000,000
Renewable Energy	$28,700,000,000
Homes	$1,340,000,000
Rental Housing	$398,400,000
Bridges	$2,200,000,000
Dams	$16,800,000
Water Systems	$750,000,000
Wastewater Treatment	$218,000,000
Roads	$6,450,000,000
Parks	$65,000,000
Schools	$326,000,000
Irene Unmet Needs	
Housing	$24,900,000
Business	$22,200,000
Infrastructure	$6,491,328
VEDA	-$16,551,357
Total	**$40,768,239,971**

Limitations on Fulfilling Capital Needs

Debt Per Capita State Guideline – Future Debt Capacity Risk

According to the State of Vermont Capital Debt Affordability Advisory Committee Sept. 2013 report[24], "Vermont's projected debt per capita is projected to exceed the projected Moody's median for its Peer Group during fiscal years 2015-2021, inclusive (see "Historic and Projected Debt Ratios" on page 12). Based upon a very preliminary analysis, this implies that to stay in compliance with the debt per capita guideline the State would need to otherwise decrease its current and future issuances to approximately $134,760,000 for the fiscal year 2016-2017 biennium and $67,380,000 annually in years 2018- 2024."

"The capital fund, too, could be headed for trouble as shifts in the bond market threaten to erode the state's borrowing capacity. According to one projection, Vermont will have to shave $52 million from its next two-year capital bill. Doing so would leave lawmakers with

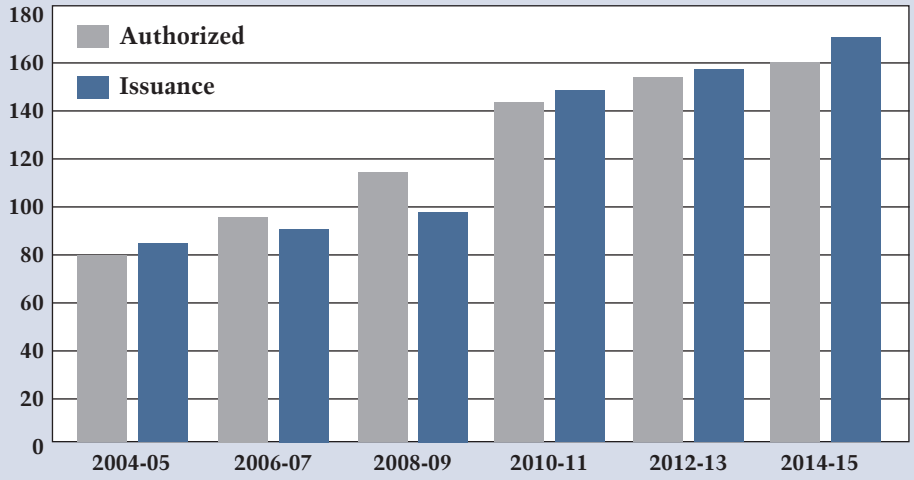
23 ibid

24 http://www.vermonttreasurer.gov/debt-management/capital-debt-affordability

Figure 4

Vermont State Bonding 2004-2015

In millions of dollars



Note: Annual issuances do not include refunding bonds. Authorized but unissued debt has been carried forward and employed in subsequent years' bond issuances.

Source: Capital Debt Affordability Advisory Committee

just $108 million in borrowing capacity in fiscal years 2016 and 2017 — well short of the $138 million that legislative analysts say will be needed to pay for the projects forecast to need funding"[25] — Peter Hirschfield, Vermont Press Bureau. So according to these statements, the state's bonding capacity appears to be at its limit. Investigating options for additional credit would seem to be prudent.

Figure 5

Projected General Obligation Debt Service and Debt Outstanding

In thousands of dollars

Fiscal Year Ending	G.O. Debt Service	G.O. Bonds Outstanding
6/30/2013	69,099	546,060
6/30/2014	74,819	578,210
6/30/2015	71,473	613,880
6/30/2016	75,363	643,620
6/30/2017	79,083	672,585
6/30/2018	83,514	700,225
6/30/2019	89,479	724,855
6/30/2020	94,390	747,280
6/30/2021	100,815	765,640
6/30/2022	104,274	782,720
6/30/2023	108,562	797,590
6/30/2024	112,129	810,855

Source: Debt Affordability Report 2013. Capital Debt Affordability Advisory Committee[26]

Limitations on Treasurer Local Investment

The Treasurer has been able to direct a total of $16.5 million of state operating funds into sustainable energy investments in VEDA, VHFA, Neighborworks, and VEIC. Legislative bill H.395 was necessary to do this. Another $9 million fund is proposed for thermal efficiency and renewable energy on state buildings. Legislative approval will once again be required. These are great examples of local investment with state funds, and show tremendous initiative and creativity by the State Treasurer and the local investment committee. Treasurer Beth Pearce has publicly stated a preference for these kinds of local investments over a public bank.[27] So how would the two methods compare, and is there any limitation on use of state cash funds for local investment?

Liquidity needs for state operating funds are likely to limit the amount of funds the Treasurer can direct to local investment. Some of these investments are up to 10 years, or even longer for housing loans, which severely restricts the liquidity of these funds. To cover liquidity needs, a public bank can borrow from other banks using the federal funds rate (currently 0.09% with fed target of 0-.25%).[28] They can borrow from the discount window of the Federal Reserve Bank, ideally at the primary credit discount rate (currently .75%),[29] or from the repurchase market (currently .09%),[30] all of which the Treasurer cannot do. The requirement for legislative approval for use of these funds is another impediment. A public bank could make these kinds of investments as a matter of course without legislative approval. A public bank could direct as much credit as

25 http://rutlandherald.com/article/20131026/NEWS03/710269941/1004

26 http://www.vermonttreasurer.gov/debt-management/capital-debt-affordability

27 http://vtdigger.org/2013/10/23/state-treasurer-prefers-local-investments-public-banking/

28 http://www.newyorkfed.org/markets/omo/dmm/fedfundsdata.cfm

29 http://www.frbdiscountwindow.org/currentdiscountrates.cfm?hdrID=20&dtlID=

30 http://wsj.com/mdc/public/page/2_3020-moneyrate.html

desired within fed reserve requirements, capital ratios, and prudent banking towards investment in-state lending agencies by partnering with them. A bank can also expand the amount of credit available through leveraging, which the Treasurer and lending agencies cannot do. Let's assume the Treasurer could direct 10% of state cash funds to local investment. Based on the FY2013 average balance of $357.9 million that would be $35.8 million. The remaining $322.1 million will remain in TD Bank, People's Bank, and Fidelity funds for them to invest in any manner they choose. There is no requirement for them to use these funds for local investment aside from CRA requirements of banks.

Based on our public bank loan analysis, Nov 2013, a public bank could leverage $357.9 million of state funds into $236.2 million in new credit in the first several years. The Treasurer would receive a similar return on state funds as now, but with the entire amount leveraged into local investment. $236.2 million is significantly more than the estimated Treasurer's local investment potential of $35.8 million.

Vermont Public Bank Loan Projections

Summary of Findings from Input/Output Analysis

We investigated the potential credit that could be made available by depositing State daily cash funds in a public bank. In our loan analysis report of Nov. 2013 we made the following main findings:

1. Based on the state of Vermont's 2013 unrestricted cash funds, we estimate a public bank could make loans equal to 66% of state funds on deposits, or $236.2 million in credit for economic development in the state of Vermont. This would expand the total credit supply available for state lending agencies by $236.2 million.

2. This new credit would be at low cost to the state because a public bank does not have to borrow money first by selling bonds. It makes loans directly based on deposits. Interest would return to the state both on deposits and on loans. The Treasurer's office would receive interest on its bank balance as they do now, and the bank would receive interest on loans. The state would essentially be loaning money to itself. Currently state lending agencies pay interest on bonds and commercial paper, and receive interest on loans. Interest payments on loans by TD Bank and People's bank in Vermont, based on state fund deposits, do not return to the state but to the bank and its shareholders.

3. If used for VEDA and VHFA loans, $236.2 million in public bank lending could result in:
   a. **2,535 new jobs**
   b. **$192 million in value added** (Gross State Product)
   c. **$342 million increase in-state output**

4. If used to finance state capital expenditures, funding through a public bank could **save close to $100 million in interest costs** on FY2012-13 capital spending, due to most interest payments no longer leaving the state.

5. In the case of State Capital expenditures, financing through a public bank could create over 1000 jobs in the first two years, without the loss of 100-200 jobs per year thereafter.

Comparisons of Public Banking With Current System

Comparing the Cost of Funds for VEDA, VHFA, VSAC with VT Banks

It is impossible to do justice to the question of how the cost of funds for banks compared to lending agencies, without more study. Each agency contacted provided mountains of information that could be used to determine their current cost of funds. Interest rates and market conditions are changing daily, and rates a few years ago are no longer current. Rates may not be comparable because some agencies borrow short-term funds and some borrow long-term. This is especially true for VHFA as their mortgage loans can be for 20-30 year terms. Information in annual reports may reflect interest rate costs that were higher several years ago, when the borrowing was done, so may not be current. We can't possibly do justice to this topic in the time allotted.

We can try to compare the costs by looking at annual reports and comparing the same figures for all. A public bank would have the same operational methods as any other bank, so should have a similar cost of funds. Their loans are based mostly on their deposits, although they do borrow some funds also. So their cost of funds is mainly the cost of paying interest to depositors. These interest rates are currently very low. Lending agencies do not have depositors, so must borrow money by selling bonds, commercial paper, and other notes. This would appear on the surface to be a more expensive proposition, so let's examine the figures.

We took the following data from the Vermont Department of Financial Regulation (DFR) for seven state chartered banks, and annual reports for VEDA, VHFA, and VSAC. For banks we took interest costs on deposits and borrowed funds divided by deposits and other liabilities. For lending agencies we took financing costs divided by total liabilities. This may not include all the same financing costs for each, but is based on the best available information, and we've tried to use the same basic formula for all of them. For state chartered banks we calculate an average cost of funds of .592% currently, for VSAC we calculate 2.25%, for VHFA 4.247%, and for VEDA 1.28%. (Table 2)

The cost of funds is affected by the length of the term

for borrowing. VEDA generally borrows short-term funds using commercial paper, which currently have an interest rate of .18%. According to Chief Financial Officer David Carter there are also bank fees of .75% bringing the direct cost of borrowing to .93%. He thanks the Federal Reserve for the current low cost of funds. For VSAC there are exceptional risks, such as 15% of loans are not paid back according to CFO Mike Stuart, and their loans are in the 10-15 year range.

VHFA borrows for longer terms, which is reflected in their higher financing costs. To provide loans for housing requires especially long term funds such as for 20-30 years, which are more expensive. So would it be fair to compare VHFA cost of funds with a bank? Looking at the loan distribution of Vermont banks we find that 83.6% of their loans are real estate loans, and 50% for 1-4 person residential loans, in other words home mortgages. This is what you would expect from banks, as real estate has the largest need for financing. So like VHFA these are long-term 20-30 year loans. Now compare the banks' cost of funds at .592% with VHFA's calculated cost of funds at 4.247%. VHFA has provided updated information based on their current rates that their cost of funds is closer to 3.13-3.63%. This is not to disparage VHFA, as they don't have the deposit base of banks. They are on the receiving end of interest rates, and banks are on the giving end. VHFA is only allowed a 112 basis point margin for loans or 1.12%. But this is precisely why a public bank might have a lower cost of funds than state lending agencies.

The mystery is how do banks turn short-term deposits such as savings, time deposits, and demand deposits into 30-year mortgage loans? Dave Adams, CFO of VHFA explains, "Having worked at a bank for 30 years, I can attest that they do not make 30 year mortgage loans from short-term demand deposits. While they do leverage their deposits to some degree, most institutions perform financial modeling to match the duration of their assets to liabilities, and the related cost to their desired return on investments. To the degree a financial institution has a large enough deposit base, or unrestricted cash reserves, they can use that to support a lending program sized to match those reserves and cash flows generated from the return on investments. Generally their cash flow projections and investments are geared to the worst-case scenario. To that end, any mortgage loans they put in portfolio are generally shorter term (say 5, 7 or 10 year maximum terms) or have adjustable rates that change typically every 1,3 or 5 years. Most of what constitutes portfolio lending includes personal loans, chattel loans, and/or credit cards. Longer-term loans are sold in the secondary market and not funded from bank deposits. Currently VHFA has also had to move in that direction."[31]

So this just confirms that banks have methods to finance loans that lending agencies do not, and may explain why banks' cost of funds appear to be lower than lending agencies. A public bank will have access to deposits and all the other methods that private banks have, that lending agencies do not.

Table 2

Cost of Funds
(From Annual Reports)

	Amount	%
7 VT financial inst. (from DFR) (1000s) 2012		
Interest on Deposits	$16,178	
Interest on Borrowed Funds	4,239	
Interest on federal funds purchased and securities sold under agreement to repurchase	1,928	
Total interest expense	**$22,345**	**0.592%**
Savings and time deposits	$2,691,641	
Demand Deposits	$562,177	
Other Liabilities	$519,978	
Total deposits and liabilities	**$3,773,796**	
VSAC (1000s) 2012		
Interest on debt	$11,963	
Other loan financing costs	$29,730	
Total loan costs	**$41,693**	**2.248%**
Total liabilities (bonds, notes, Treasuries)	**$1,854,803**	
VHFA 2013 (1000s)		
Financing costs, including interest expense and amortization of bond premium and discount, net	$23,726	4.247%
Total current liabilities	$28,655	
Total non-current liabilities	$530,027	
Total liabilities $558,682		
VEDA 2013		
Interest on commercial paper and notes receivable	**$1,912,521**	**1.282%**
Commercial paper	$131,300,000	
Notes Payable	$17,854,729	
Total Liabilities	**$149,154,729**	

31 Email 11/22/2013

Table 3

Loan Distribution Of Vermont Financial Institutions
Year Ended December 31, 2012 (DFR)

Real Estate Loans	
Construction and Land Development	2.96%
Secured by Farm Land	0.64%
Secured by Residential Properties	
1-4 Family Residences	49.66%
5 or more Family Residences	5.08%
Secured by Non-Farm/Non-Residential Properties	25.25%
Total Real Estate Loans	**83.60%**
Other Loans	
Loans to Finance Agricultural Production 0.12%	0.12
Commercial and Industrial Loans 8.33%	8.33
Loans to Individuals 2.71%	2.71
All Other Loans 8 6.49%	6.49
Total Other Loans	**17.66%**

Table 4

Estimate of Current VHFA Borrowing Costs

Program	Interest Rates	Points	APR*	
Conventional	4.625	0.25	4.647	0.046 - .0112 = 0.0353
Government	4.25	0	4.250	0.043 - .0112 = 0.0313
RD Assist	4.75	0	4.750	0.048 - .0112 = 0.0363
VA Assist	4.75	0	4.750	0.048 - .0112 = 0.0363
FHA Assist	4.75	0	4.750	0.048 - .0112 = 0.0363

**VHFA COF: subtract 112 basis points*

Comparison of Public Bank Financing with State Capital Finance Bonding

From the FY 2012 Comprehensive Annual Financial Report (CAFR) we can estimate the interest cost of state bonding. Taking the total outstanding bonds of $519.5 million and dividing by debt service interest, we get an average interest rate of 3.81%. We can compare that to the calculated cost of funds for Vermont banks of .592%. As we showed in our public bank loan report, if a state bank financed the capital finance bill for 2012-13, the interest payments would mostly remain within the state, which amounts to $100 million over twenty years.

We can compare the two scenarios using the chart below and bank cost of funds estimate. Currently the state sells bonds on Wall St. and pays $19.8 million in interest annually that goes mainly to bondholders out-of-state. This results in job losses as estimated by Tom Kavet in his 2011 capital finance report. If capital finance was provided by a public bank, the .592% interest on deposits of state funds would be paid to the Treasurer's office, and the 3.81% interest on bonded debt would be paid to the public bank instead of out-of-state bondholders. Therefore, both the interest payments and the loan returns would stay within the state, and could be recycled to the state Treasury or add to bank assets and used for future loans.

Table 5

Vermont Bonding and Interest Expense
2012 CAFR

Item	Amount
General Obligation Bonds	$506,256,565
Special Obligation Bonds	$13,260,000
Total Obligation Bonds	$519,516,565
Debt service	$72,390,391
Primary Govt Debt service interest	$19,775,783
% interest	3.81%

Comparison to Current Returns on State Deposits

According to Treasurer Pearce, "for short-term operating funds, rates have ranged from .26% to 5.7% since 2001 with an average rate of about 2.3%. This average is skewed due to the post-Great Recession period. In developing our actuarial liabilities, our independent actuaries use 4% as a rule of thumb for a "long-term look at a short-term rate." The federal funds effective rate has averaged over 5% since 1959".[32] There is no reason a public bank could not provide comparable interest payments on the state's daily funds. The legislation for the Bank of North Dakota requires it. However, Vermont funds are currently generating revenue for private banks, while a public bank would generate revenue for the state from these funds. Perhaps a public bank would return a lower interest rate on the state's funds. The earnings of the public bank from loans that might be returned to the state would also have to be considered. These loans would also generate jobs and economic multiplier effects as shown in our loan study. Our loan study found 1000-2550 jobs, and up to $342 million increase in total output from economic development loans to VEDA and

32 Email communication Nov. 12, 2013

VHFA. The net return or loss to the state from a public bank would have to be compared to the current interest-only return.

Comparison of Systemic Risks for Current System with Public Bank Risks

It is important to evaluate the risk of a new venture such as a public bank, and it is also justified to ask if there are systemic risks to state funds deposited in commercial banks or invested, due to fundamental problems with the financial system that have not been corrected since the crash of 2008.

Financial Crisis Inquiry Commission

The Commission was created to "examine the causes, domestic and global, of the current financial and economic crisis in the United States." This independent, 10-member panel was composed of private citizens with experience in areas such as housing, economics, finance, market regulation, banking and consumer protection. The Commission summarized their conclusions about the financial crisis as follows:[33]

We conclude:

- This financial crisis was avoidable.
- Widespread failures in financial regulation and supervision proved devastating to the stability of the nation's financial markets.
- Dramatic failures of corporate governance and risk management at many systemically important financial institutions were a key cause of this crisis.
- A combination of excessive borrowing, risky investments, and lack of transparency put the financial system on a collision course with crisis.

The government was ill prepared for the crisis, and its inconsistent response added to the uncertainty and panic in the financial markets.

- There was a systemic breakdown in accountability and ethics.
- Collapsing mortgage-lending standards and the mortgage securitization pipeline lit and spread the flame of contagion and crisis.
- Over-the-counter derivatives contributed significantly to this crisis.
- The failures of credit rating agencies were essential cogs in the wheel of financial destruction.

The Senate Permanent Subcommittee On Investigations

The Senate Permanent Subcommittee On Investigations conducted a series of four hearings on Wall Street and the Financial Crisis: *Hearing One: The Role of High Risk Home Loans; Hearing Two: The Role of Bank Regulators; Hearing Three: The Role of Credit Rating Agencies.; Hearing Four: The Role of Investment Banks.* They detailed 29 findings of fraud, incompetence, high risk, and self-serving behavior in the financial crisis.

G-SIFIs

A joint paper by the FDIC and Bank of England was written in December 2012 entitled *Resolving Globally Active, Systemically Important, Financial Institutions*[34] (G-SIFIs). G-SIFI is another name for "Too Big to Fail" (TBTF). TD Bank and People's bank are not considered G-SIFIs, but TD Bank is considered a "Domestically Structurally Important Bank" (D-SIB), by the Canadian Office of Superintendent of Financial Institutions (OSFI)[35]. The frameword of G-SIFIs was extended to D-SIBs by the Basel Committee on Banking Supervision of the Bank of International Settlements on October 20, 2012.[36] The OSFI is imposing a one per cent risk weighted capital surcharge by January 1, 2016 to address the additional risk.[37]

There at least two concerns about G-SIFIs and D-SIBs in case of a bank failure: first that derivative holders will be reimbursed prior to depositors, and second that bank deposits will be converted to equity in the form of bank stock instead of cash, which has been termed a "bail-in". The new rules are explained by Dr. Mark J. Roe, professor of corporate law and corporate bankruptcy at Harvard Law School explains,

> *"Chapter 11 bars bankrupt debtors from immediately repaying their creditors, so that the bankrupt firm can reorganize without creditors' cash demands shredding the bankrupt's business. Not so for the bankrupt's derivatives counterparties, who, unlike most other secured creditors, can seize and immediately liquidate collateral, readily net out gains and losses in their dealings with the bankrupt, terminate their contracts with the bankrupt, and keep both preferential eve-of-bankruptcy payments and fraudulent conveyances they obtained from the debtor, all in ways that favor them over the bankrupt's other creditors. Their right to jump to the head of the bankruptcy repayment line, in ways that*

33 http://cybercemetery.unt.edu/archive/fcic/20110310173535/http://www.fcic.gov/report/conclusions

34 http://www.bankofengland.co.uk/publications/documents/news/2012/nr156.pdf

35 http://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/adv-prv/Pages/DSIB_nr.aspx

36 http://www.bis.org/publ/bcbs233.pdf

37 http://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/adv-prv/Pages/DSIB_nr.aspx

even ordinary secured creditors cannot, weakens their incentives for market discipline in managing their dealings with the debtor because the rules reduce their concern for the risk of counterparty failure and bankruptcy".

What this means is that derivate and repurchase agreement holders will be reimbursed prior to normal bank depositors even if depositor's accounts are collateralized as Vermont's funds are in TD Bank. There is a great deal of controversy about whether derivative holders will actually go to the "head of the line", but the risk exists.

The other concern raised since the Cypress banking crisis is the concept of a "bail-in", namely converting depositors' money into bank stock instead of cash in case of a bank failure. Since the Dodd-Frank bill prohibits future bailouts, a "bail-in" is considered a possible scenario in the future. Some say that technically a bank deposit becomes property of the bank, and therefore they can legally convert it into bank stock instead of cash. Here is the clause from the FDIC and Bank of England bank report:

"The unsecured debt holders can expect that their claims would be written down to reflect any losses that shareholders cannot cover, with some converted partly into equity in order to provide sufficient capital to return the sound businesses of the G-SIFI to private sector operation." -Resolving Globally Active, Systemically Important, Financial Institutions, coauthored by the FDIC & the Bank of England, December 10, 2012, Page ii.[38]

TD Bank National Association, US a subsidiary of TD Bank, Ontario, is rated number 19 in derivates held by the US Office of the Comptroller of the Currency (OCC) in their Quarterly Report on Bank Trading and Derivatives Activities Second Quarter 2012[39]. Their total derivatives are listed at $69.68 billion. TD Bank Canada, the holding corporation for all TD subsidiaries, has derivative exposure of $3.77 Trillion as of Q3 of 2012. This compares with their total assets of $835.1 Billion, stockholder equity of $49.4 Billion, and market capitalization of $85.4 billion taken from Morningstar. If $85.4 billion represents an approximation of the market value of the company, that means their derivatives are equal to 44 times the value of the company. Does this put Vermont state deposits in TD Bank at risk? Derivatives such as credit-default-swaps were at the heart of the Lehman Brothers and AIG failures, so there is some cause for concern for TD's derivative exposure.[40]

Table 6

Notional Amount of Derivative Contracts[41]

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, June 30, 2012

Rank: **19**
Bank Name: **TD Bank National Association**
State: **Delaware**

Total Assets	$195,943,000,000
Total Derivatives	$69,680,000,000
Total Futures (Exch Tr)	$0
Total Options	$0
Total Forwards (Otc)	$9,633,000,000
Total Swaps (Otc)	$57,714,000,000
Total Options (Otc)	$1,594,000,000
Total Credit Derivatives	$740,000,000

Table 7

Canadian D-Sib Derivative Exposure[42]

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, June 30, 2012

Bank	Q3 - 2012$ Derivative Exposure - Trillions
Royal Bank	$7,210,000,000,000
TD Bank	**$3,770,000,000,000**
Bank of Montreal	$3,680,000,000,000
ScotiaBank	$2,710,000,000,000
CIBC	$1,730,000,000,000
National Bank (Per Financial Statement)	$1,044,000,000,000
Total	$20,144,000,000,000

38 http://www.bankofengland.co.uk/publications/documents/news/2012/nr156.pdf

39 http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/dq212.pdf

40 http://www.forbes.com/sites/halahtouryalai/2013/03/28/risk-is-back-americas-big-banks-are-knee-deep-in-derivatives/

41 http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/dq212.pdf

42 http://ws1.osfi-bsif.gc.ca/WebApps/Temp/be4455f5-e2e3-4fe5-abf1-407b3828fc1aFinancialData.aspx

Table 8

Toronto Dominion-TD Market information[43]

Morningstar

Bank	Q3 - 2012$ Derivative Exposure - Trillions
Quarterly	2013-07
Market Capitalization	**85,400,000,000**
Shares Outstanding	924,000,000
Total Assets	835,101,000,000
Deposits	562,156,000,000
Total Liabilities	785,682,000,000
Stockholders' Equity	49,419,000,000

Risks Of A Public Bank

Former banker and now venture capitalist Cairn Cross provided the following comments:

"Assuming Vermont has $350MM of monies that can be deposited into a public bank we will still need about $35MM of capital to start the bank in order to have a tier one capital ratio that is reasonable. This $35MM would have to come out of the state budget as an appropriation. Frankly since the bank would be a start-up entity I would suggest closer to double that amount of capital but for the purposes of this exercise let's use $35MM. A reasonable return on capital is in the 15% range so this would suggest if the bank was run well it might make a profit of $5MM. Let's assume that the state bank can come up with a minimum of $35MM of capital to start and convince the legislature and the administration to place all state monies on deposit in the bank. Let's assume that miraculously during the first year the bank is able to operate as well as BND (which has been honing its operations for more than 80 years). The Vermont state bank will make a profit of about $5MM and return perhaps 1/3rd of that to the state treasury. I must admit that from where I sit there is a fairly big risk here in this strategy of a Vermont state bank given the returns that could be likely in my paragraph above. "

Could a public bank be profitable? If public lending programs were not profitable, then why did the federal government take most school loans away from VSAC and other state student loan agencies? According to Scott Giles, Director of VSAC, "Feds wanted to capture the funds themselves so they eliminated the program and placed restrictions on alternative programs that would compete with their revenue source (they make about $50 billion each year on student loans net of servicing and defaults)"[44].

Mr. Cross has a great deal of experience analyzing risk and possible returns, especially for start-ups. We have no doubt that his is an accurate assessment. Public bank profits may be low or non-existent the first few years. The Bank of North Dakota didn't return money to the state until 1945, 26 years after it was founded, but the performance of a public bank doesn't hinge on profitability. There are many additional economic benefits of new credit generated by the bank. We have already shown that by financing capital improvements, the state could save up to $100 million in interest payments leaving the state just for two years of bonding and generate over 1000 new jobs. If used for VEDA or VHFA lending we projected over 2000 new jobs and increase of $342 million in total output. No one asked if VEDA made a profit on its hurricane Irene loans. A public bank can have broader priorities than a private bank in its decision-making.

In the history of the Bank of North Dakota (BND) it is reported that a focus on profitability rather than lending, led it to be called the "Bank of No Deal" until the late 1980's. At that point they created the Vision 2000 and the Growing North Dakota Program[45], which changed the focus to economic development, and revitalized the bank and the state. Therefore, we do not agree that the lack of potential profit by a start-up public bank is a significant impediment.

Cross continues, *"The capital requirement is entirely different. Capital is not formed from deposits but must be raised from stockholders or in the case of a state bank would presumably be appropriated by the state of Vermont because the state would be the sole stockholder. Considering the state bank is expected to have more than $300MM of deposits it would need a minimum of approximately $30MM of appropriated equity capital to operate within normal banking parameters. However, I suspect the state-banking commissioner would require a start-up state bank to "over capitalize" at inception. Perhaps they would require 15% ($45MM) or 20% ($60MM) of state appropriation to grant a charter? It seems to me disingenuous to not start any discussion of a state bank without mentioning the appropriation required to adequately capitalize the bank. In a legislative session in which there is expected to be a $75MM gap between revenue and expenses I expect a request for even $30MM of appropriation to start a state bank will be dead on arrival."*

43 http://quotes.morningstar.com/stock/td/s?t=TD

44 Email communication Nov. 21, 2013

45 http://www.umanitoba.ca/afs/agric_economics/ardi/vision.html

"The next thing in the report that jumps out at me is Beth Pearce's statement that occasionally the bank deposits in the state treasury fell to $20MM. The report makes the assumption that a state bank could simply borrow on a short-term basis the funds necessary to provide liquidity to the state treasury. However, a chartered bank is subject to leverage requirements. A bank that borrows money from the fed cannot simply borrow all the money it needs. Instead it typically borrows and pledges securities (on the asset side of the balance sheet) as collateral. In the report the assumption is that $300MM+ of deposits need a 30%+ reserve. This reserve would be cash. There would be no investment assets. Let's assume the bank lends out the non-reserved money to various projects and companies around the state (in the report this is the $236MM figure). Still no investment securities. Now let's assume that Beth Pearce needs $280MM of the deposits to make necessary payments (in other words she is taking the balances down to $20MM). Where will the bank get that money? It has no investments to borrow against. It has loans it has made that can be collected over time but these loan assets are not adequate collateral for the federal reserve to lend a bank money. The bank under the report scenario has only $90MM or so in cash. This is the second critique of the report. It is structurally impossible to run an actual bank (such as the bank of North Dakota) under these assumptions. There is simply not a way to both lend out the money (thereby generating the benefits noted in the report) and also simultaneously provide the liquidity the state requires. TD bank can do it because it has a huge global balance sheet. It can simply whisk the money into the state when Beth needs it."

"I have other issues but these two are showstoppers. I have trouble believing the state will appropriate the necessary capital to capitalize the bank. And I don't believe the bank under the scenarios discussed in the report can provide both the benefits of lending money to projects and businesses and simultaneously provide liquidity necessary. There is simply a flaw in the business model."

On these two issues of capitalization and collateral for loans, we have no reason to question this analysis, and feel that the obstacles could be difficult in forming a brand-new, start-up public bank with the need to raise capital from public funds and collateral for short-term loans.

Another risk to the formation of a brand-new public bank is opposition from the banking industry. The Independent Voter Association (IVA) was an association of bankers and others opposed to the Bank of North Dakota (BND) during its formation. "Beginning in 1920, the IVA and its allies undertook a campaign of systematic challenges in the courts, the legislature, the polls, and the press to undermine the sale of the bonds that would ensure the success of League programs"[46] [Non-Partisan League that formed the BND]. Due to requirements added to the BND, all of their loans are made through local banks, which is why they are referred to as a "partnership bank". They act as a mini-fed within the state of North Dakota, and the local banking industry is highly supportive. But it didn't start out that way. The Vermont Banker's Association and others have testified against having the legislature even study the issue of a public bank. Therefore, it could be expected that they will oppose any efforts to form a start-up public bank in Vermont, and in case it was started anyway, would work to ensure its failure.

Although public banking is widespread around the world, the track record of public banks in the US does not provide confidence of success. "The Bank of North Dakota was not the first state-owned bank to be created. Seven states had established wholly owned state banks. Three failed. Three were occasionally profitable but were eventually liquidated. Only South Carolina's bank was profitable but that also was closed before the turn of the century. North Dakota learned from these earlier attempts at state-owned banking."[47]

Major Concerns/Objections to a Public Bank

Capitalization and Collateral

One of the major concerns with starting a public bank is the aversion by the public for taxation or general obligation bond sales to capitalize the bank. Reading the requirements in the Department of Financial Regulation (DFR) literature, we find that the minimum capital required for a bank is actually $250,000, but the DFR recommends a minimum of $6 million. In addition, the bank is expected to have a 10% Tier One leverage capital ratio after three years. In practice Cairn Cross points out that a bank with $300+ million in deposits may need capitalization of 15-20% or $45-60 million, and adequate collateral for short term loans from pledging securities (on the asset side of the balance sheet).

Looking at the balance sheets below for state lending agencies we find the following figures. If these agencies were banks, and if bank capitalization must be in unrestricted net assets, then to meet the DFR requirement of 10% Tier One leverage Capital, VEDA could support deposits of $218.8 million, and at 20%

46 http://banknd.nd.gov/about_BND/prairie_public_history_of_BND/the_counter_insurgency.html

47 http://banknd.nd.gov/about_BND/prairie_public_history_of_BND/bonds_and_boycotts.html

could support $109.4 million. VHFA has minimal unrestricted assets. At 10% VSAC could support deposits of $403.8 million, and at 20% could support $201.9 million. All agencies appear to have adequate securities to provide collateral for short-term loans.

It seems that VSAC and VEDA each could fulfill DFR requirements or higher to become banks with current capital. VEDA in particular has many of the characteristics of a bank except for taking deposits, and describes itself in its annual report as most similar to a financial institution. Their financial statements are already prepared in a format identical to banks. Converting VEDA into a depository bank for state funds through charter or statute might be the most expeditious way to make use of state funds for credit creation. They already have the track record and structure to do banking in Vermont.

The DFR application for banks in Vermont states that FDIC insurance is a requirement for VT chartered banks. VEDA currently appears to self-insure by providing for credit risk management by maintaining allowances for loan losses ("reserves") on specific loans receivable where a loss is determined to be probable. It also maintains general reserves that are estimated based on historical loss experience, economic conditions, industry concentration and expectation of future events that would adversely affect VEDA borrowers. It may be necessary for VEDA to insure with FDIC unless formed by statute and then perhaps it would not need to fulfill the DFR requirement.

Table 8

Capital Assets and Securities of Vermont Lending Agencies

VEDA June 30, 2013	
Unrestricted	**$21,813,617**
Restricted	$26,756,497
Total Net Position (assets)	$48,570,114
Restricted Investments	$26,667,069
Notes receivable	$176,927,972
Total Securities	**$203,595,041**
VHFA June 30, 2013	
Invested in capital assets	$810,000
Restricted for bond resolutions	$81,300,000
Unrestricted	**$4,559,000**
Total net assets	$86,669,000
Certificate of deposit	$100,000
Investments	$28,834,000
Mortgage backed securities	$136,940,000
Current portion of mortgage backed securities	$2,952,000
Total Securities	**$168,826,000**
VSAC June 30, 2012	
Restricted	$113,884,000
Unrestricted	**$40,386,000**
Net investment in capital assets	$677,000
Total net position	$154,947,000
Cash and investments	**$333,862,000**

Loss of Bank Franchise Tax[48] on State Deposits

Bank Franchise tax is 0.000096 monthly on deposits in lieu of Corporate income tax. That is .001152 annually. FY2013 average state deposits in TD BankNorth were $236,227,319. According to Treasurer Beth Pearce, the average 2013 state balance held in People's Bank was $76,942,566[49] for a total at both banks of $313,169,885. Applying the annual franchise tax to that amount totals $360,771.

Comparison of Bank Franchise Tax To Taxes From Economic Development Loans

Our bank loan study estimated a $192 million increase in value added (Gross State Product) from $236 million in new credit used for economic development loans. State Product is also equivalent to total state income, although personal income is less. Just as an estimate if we assume it is all personal income we can compare the gain to the loss. Adjusted gross income (AGI) is 1.96% less than total income[50]. So adjusted gross income would be $188.2 million. If we apply the average effective Vermont income tax rate of 3.08%[51] to the increase in AGI from new credit we get an increase in income tax revenue of $5.8 million. The gain of $5.8 million is sixteen times greater than the loss of $360,771.

Comparison of Bank Franchise Tax to Taxes from State Capital Spending

We could use a portion of the estimated $236.2 million in new credit of a public bank for state capital spending such as for the FY2012-13 capital finance budget. Tom Kavet's 2011 JFO memo on the impact of FY2012-13 state capital spending calculated an increase of $49 million in 2012 Personal Income from $95 million in 2012 capital finance spending[52]. AGI from $49 million would be $48.3 million. Applying the tax rate of 3.08% results in income tax revenue of $1.5 million. This also

48 http://www.state.vt.us/tax/majorvttaxesfranchise.shtml

49 Email Nov. 12, 2013

50 Thin Slices: Examining Aspects of Vermont's Tax Base, Blue Ribbon Tax Commission March 2010 (http://www.leg.state.vt.us/jfo/blue_ribbon_tax.aspx)

51 ibid

52 http://www.leg.state.vt.us/jfo/capital_bill.aspx

substantially exceeds the loss of bank franchise tax revenue, and is from only $95 in capital finance, not the whole $236.2 million.

Either economic development or capital finance loans would generate much greater tax revenue than the loss of bank franchise tax. The concern about loss of bank franchise tax seems to be unfounded.

Concern About the State's Bond Rating

The Bond rating measures the probability of the timely repayment of principal and interest of a debt obligation by the issuer.[53] The states with the lowest grades typically have trouble keeping their spending in line with their tax revenues. – Stephen C. Fehr[54]
Based on the tax calculation above, tax revenues from public bank lending will increase state tax revenues substantially by up to $5.4 million. Also, if used for capital finance we found that public bank loans could reduce the loss from payment of interest on bonds by up to $100 million over 20 years.[55] An increase in tax revenue and/or a decrease in interest payments do not seem like a formula for reducing bond ratings. This could only lower bond ratings if Vermont increased spending more than the increase in net revenue. Vermont has retained its S&P AA+ bond rating since at least 2001.[56] There is no reason to think the implementation of a public bank will change the state legislature's appropriations. This fear seems to be unfounded.

TD Bank and People's are already doing adequate lending in Vermont, why change?

CRA ratings

"The Community Reinvestment Act (CRA) is a US federal law designed to encourage commercial banks and savings associations to help meet the needs of borrowers in all segments of their communities, including low- and moderate-income neighborhoods. Congress passed the Act in 1977 to reduce discriminatory credit practices against low-income neighborhoods, a practice known as redlining." —*Wikipedia*

People's United Bank (formerly Chittenden Bank) advertise their "outstanding" CRA ratings since the enactment of the CRA law in 1977. Most recently People's United Bank received an outstanding CRA rating from the Office of Thrift Supervision October 5, 2009 in Vermont.[57] As an example they cite a recent project in Vermont: The A. W. Richards Affordable Housing ($5.9 million in construction loan and equity-bridge finance). Chittenden Bank had a long history of community banking in Vermont, and we would certainly hope People's would continue their excellent track record of lending.

TD Bank (Formerly BankNorth) received an outstanding CRA rating from the Office of the Comptroller of the Currency (OCC) December 31, and 2011 for Vermont.[58] BankNorth was also a long established bank in New England, and we would hope that TD would continue their excellent track record in Vermont. TD Bank and People's Bank are both exceeding their requirements under the CRA in underserved communities and are good citizens by this definition. Is their lending adequate to the financing needs of the state? The list of capital financing needs would suggest it is not. In any case, if TD and People's bank continue their existing lending, then the additional credit added by a public bank would be beneficial. The question is, would public bank credit be additional, or would it simply reduce private bank lending proportionately, due to the withdrawal of state funds, and simply replace it? We will investigate this question next.

53 http://www.vermonttreasurer.gov/debt-management/state-bond-ratings

54 S&P State Credit Ratings 2001-2012, (http://www.pewstates.org/projects/stateline/headlines/infographic-sp-state-credit-ratings-20012012-85899404785)

55 VTBank-prelim11-4complete.pdf, Vermonters for a New Economy

56 http://www.pewstates.org/projects/stateline/headlines/infographic-sp-state-credit-ratings-20012012-85899404785

57 http://apps.occ.gov/toolkit/crareslt.aspx

58 ibid

Table 10

Vermont Lending Volume

January 1, 2008 – December 30, 2010

Assessment Area (2010)	% of rated loans # in MA/AA	Home Mortgage		Small Loans to Business		Small Loans to Farms		Community Development Loans		Total Reported Loans		% of Area Rated Deposits in MA/AA
		#	$(000s)	#	$(000s)	#	$(000s)	#	$(000s)	#	$(000s)	
Full Review: Burlington, VT	52.93	905	184,780	1,036	136,882	33	1,409	38	124,363	2,012	447,434	39.05
Limited Review: Non-MSA VT	47.07	1,321	199,972	1,461	167,989	39	1,599	14	28,316	2,835	397,876	60.95

Table 11a

Loan Originations within the Burlington-South Burlington VT MSA Assessment Area

1/1/07 - 6/30/09 (Dollars in thousands)

Loan Type	Combined AA By Number	Burlington MSA AA Number	Burlington MSA AA Percent	Combined AA By $ Amount	Burlington MSA AA $ Amount	Burlington MSA AA Percent
HMDA-Related	12,168	1,063	8.7%	$2,208,162	$219,979	10.0%
Small Business	10,653	1,594	15.0%	$1,749,645	$269,391	15.4%
Total	22,821	2,657	11.6%	$3,957,807	$489,370	12.4%

Table 11b

Loan Originations Within the Non-MSA Vermont Assessment Area

1/1/07 - 6/30/09 (Dollars in thousands)

Loan Type	Combined AA By Number	Non-MSA VT AA Number	Non-MSA VT AA Percent	Combined AA By $ Amount	Non-MSA VT AA $ Amount	Non-MSA VT AA Percent
HMDA-Related	12,168	2,030	16.7%	$2,208,162	$341,492	15.5%
Small Business	10,653	2,350	22.1%	$1,749,645	$291,700	16.7%
Total	22,821	4,380	19.2%	$3,957,807	$633,192	16.0%

Public Bank Lending Would Just Replace Existing Private Bank Lending and No New Credit Would Be Created Within The State

"If the bulk of the state money is presently in TD then it is important to note what the loan to deposit ratio is presently for TD in Vermont. I suspect that the loan/deposit ratio is the same or close to the same as whatever the Banking Commissioner's report says it is for the rest of the banks in the state. So most of the $230MM or so of money that could be lent in a new state bank is probably already being lent by TD. TD is comprised of the old BankNorth system and has pretty deep roots in the communities and a fairly big lending presence. So I think the premise of the study is flawed based on the premise that the $230MM represents somehow new money to the financial system in Vermont", says Cairn Cross.

The average loan/deposit ratio for VT financial institutions is 85% taken from the "Condensed Statement Of Condition Of Vermont And National Financial Institutions Domiciled In The State Of Vermont".[59] That is equivalent to a reserve rate of 15%. The combined total of TD BankNorth and People's

59 http://www.dfr.vermont.gov/banking/depository-trusts/financial-institution-reports

Bank deposits of state funds for 2013 is $313,169,885. Applying the average loan ratio for VT banks of 85% amounts to **$266,194,402** in loans based on state government funds. TD BankNorth had $2.57 billion in deposits in Vermont as of June 30, 2013; so expected lending of 85% would be $2.18 billion. People's had $2.62 billion in deposits in Vermont as of June 30, 2013, so expected lending of 85% would be $2.23 billion. We will compare this to actual loans if data is available.

Table 12

Average Loan/Deposit Ratio For Vermont Domiciled Banks From DFR

Institution	Loans and Discounts	Demand Deposits	Savings and Time Deposits	Total Deposits
Total All	$4,244,164	$801,943	$4,188,517	$4,990,460
Loans/Deposits	85.05%			

TD BankNorth had $2.57 billion in deposits in Vermont as of June 30, 2013, and $178.3 billion total. The state government's average deposits in TD bank in FY2013 were $236.3 million. That is 9.2% of TD BankNorth's deposits in Vermont and .13% of their total deposits. People's had $2.62 billion in deposits in Vermont as of June 30, 2013, and $22 billion total. FY2013 average state government deposits were $76.9 million in People's Bank, which comprises 2.9% of People's Vermont deposits, and .35% of People's total deposits. If the State government withdrew all its 2013 funds from these two banks, TD BankNorth would retain 90.2% of Vermont deposits, and People's would retain 97.1%.

What would happen if the state government withdrew its cash funds from the two banks? Apparently, this is not just a hypothetical question. According to Treasurer Beth Pearce's July 26, 2013 memo to Senator Pollina, "As a final note, the choice to deposit funds with TD BankNorth is based entirely upon the advantageous interest rate the State currently receives on creditable balances. With the political instability in Washington and the current extremely low interest rate environment, this has been the optimum approach in the short term. Historically, we have left a very small balance with the bank, and instead invest in a range of money market and other short-term investments such as certificates of deposit and short-term Treasuries and agencies."

This seems like an eminently sensible approach for the Treasurer to take in order to maximize returns to the state. However, it means that the question of a public bank has nothing to do with the balance of state funds in TD BankNorth. If the State has historically kept a low balance in TD Bank, then TD BankNorth's lending in Vermont has nothing to do with the level of state funds deposited there. This also means that putting State cash funds into a public bank will have little impact on existing TD and People's lending within the state. Therefore, this contradicts the claim that public bank lending will not create new credit within the state. Our loan analysis is supported, and $236.2 million of public bank lending would be mostly additional new credit within the state, and all the benefits we predicted might be realized.

One scenario in which these banks might reduce their lending is if the public bank duplicates existing loan programs offered by them, and "crowds out" their lending by reducing lending opportunities. It should be a criterion of the public bank that it does not duplicate their loan programs in order to add to existing credit. Based on the huge capital needs of the state it should be feasible for a public bank to do so. Private banks generally invest in private goods, while a public bank could invest more in public goods.

For the sake of discussion, let us assume that all of the State's deposits in the two banks result directly in new credit creation by the banks, and withdrawal of state funds eliminates this lending immediately. This seems farfetched, as banks don't start and stop lending programs overnight, but this is the scenario proposed by critics of public banking, so we will look into it.

In this worst-case scenario, withdrawal of $313.2 million state funds from TD and People's reduces lending by 85% or $266.2 billion. In our loan analysis we projected that a public bank could make loans equal to 66% of the state's cash balance of $357.9 billion or $236.2 billion.

In this case predicted public bank lending of $236.2 million would replace $266.2 million of TD BankNorth and People's lending. As demonstrated by VEDA's $16 million response to hurricane Irene, state lending agencies are very responsive to local needs, perhaps more so than a private bank. A public bank, like a benefit corporation, can have criteria in addition to profit and can focus more on the identified needs of the state, such as public infrastructure. Furthermore, we have demonstrated that lending for state capital financing could save $100 million in interest costs leaving the state over 20 years, as shown by our analysis of Kavet's 2011 report on state capital financing for FY2012-13 bonding alone. Finally, the returns from loans made by a public bank go back to the state, and not to bank shareholders in Ontario, Connecticut, or wherever they may live, keeping more of our money local. This revenue can then be recycled into more loans or payment to the state.

So in conclusion, on the question of a public bank creating new credit or not, we find no evidence to support critics, and find that public bank lending will mostly add to existing credit within the state. Furthermore, even if public bank lending simply replaced existing lending by private banks, the results would still be highly beneficial.

Other Issues

"Again if the group wants to make a meaningful impact on Vermont I suggest consolidating the V entities and wringing out costs. I also suggest doing away with the state's onerous licensed lender law pertaining to commercial lending transactions which makes it difficult for many innovative lenders to do business in Vermont and therefore keeps capital from Vermont businesses that need it in order to expand. There is a revolution in commercial lending happening outside our borders driven by non-bank financial technology firms and Vermont is not part of this revolution because our antiquated laws discourage it. With all due respect I'd like to see the group focus their efforts on this rather than a public bank which will take decades to establish operations which are large enough and profitable to have a meaningful impact on the state but will meanwhile expose the state to risk." – Cairn Cross

A Look at North Dakota

"Is it the Oil?"

It might be worth evaluating the claim of public banking advocates that the success of North Dakota is due to the state bank and not to oil. The North Dakota Statistical Department and Bank of North Dakota Annual report had the following information from 2003-2012. It is observable from the increase in extraction and revenue that the shale oil boom began in the 2007-2008 time frame. Clearly the bank was making a profit prior to 2007. A simple correlation also shows a high degree of correlation between BND income and state oil revenues. As the oil industry boomed, state bank revenue increased significantly, although not at the same rate.

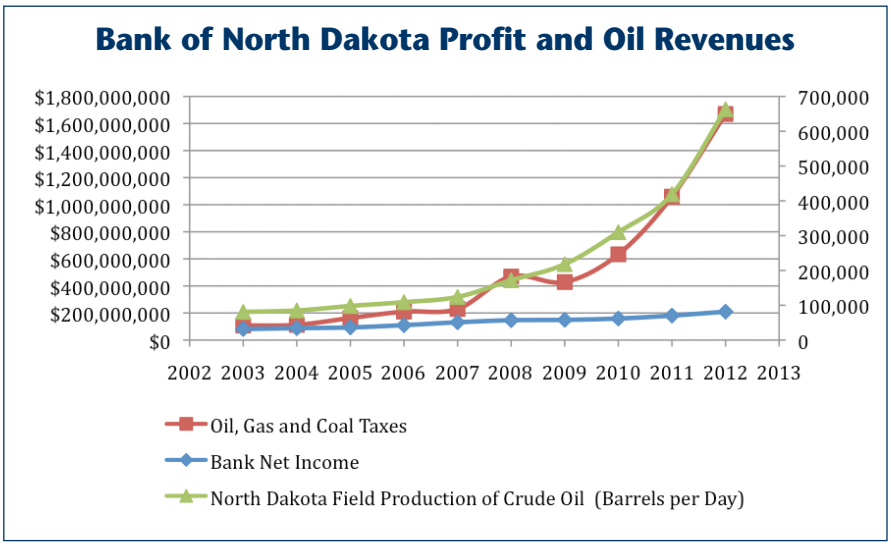
Table 13

North Dakota State Bank Income and Oil Industry Data

Year	BND Net Income	Oil, Gas and Coal Taxes	North Dakota Field Production of Crude Oil (Barrels per Day)
2012	$81,594,000	$1,670,059,257	663,000
2011	$70,335,000	$1,059,467,528	419,000
2010	$61,851,000	$633,445,059	310,000
2009	$58,083,000	$428,669,882	218,000
2008	$57,044,000	$469,244,783	172,000
2007	$51,086,000	$230,118,178	124,000
2006	$42,854,000	$210,169,616	109,000
2005	$36,357,000	$162,919,498	98,000
2004	$34,216,000	$112,454,541	85,000
2003	$31,694,000	$107,448,761	81,000

Correlation coefficient between BND Net income and FF Taxes = .922
Correlation coefficient between BND Net income and Crude Oil Production = .919

Figure 6

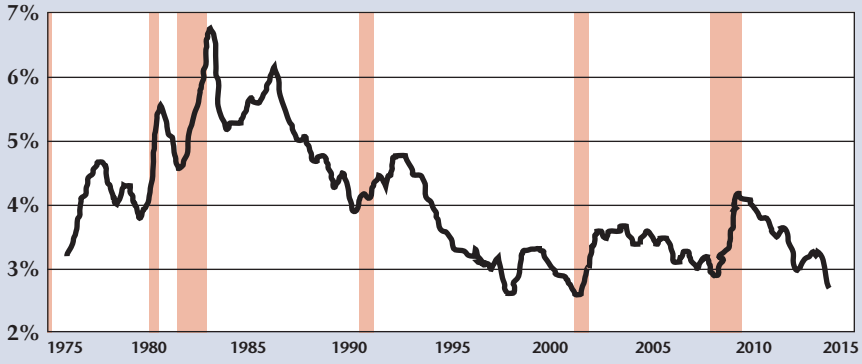


Unemployment

North Dakota has had a historically low unemployment rate, except for the early 1980s. The decline from 1992-1998 might be attributed to the Vision 2000 and the Growing North Dakota Program[60], which put $39 million into economic development over two years, and reorganized the state bank. Unemployment was declining prior to and during the first year of the boom in 2007, but spiked upward during the financial crisis in 2008 at the same time the oil boom was taking off. After the financial crisis, the unemployment level began to decline back to historically low levels, but didn't reach the low-

60 http://www.umanitoba.ca/afs/agric_economics/ardi/vision.html

Figure 7



Shaded areas indicate U.S. recessions

Source: http://research.stlouisfed.org/fred2/series/NDUR

est level of 1998 and 2002. So the low unemployment rate cannot be attributed solely to oil, since the unemployment rate was at similarly low levels prior to the oil boom. The correlation between oil production and unemployment is -.18 which is a very low correlation. A perfect correlation would be -1 which would mean as oil production increased, the decrease in the unemployment rate was exactly correlated. So other factors are at play. Can it be attributed to the state bank? That is hard to determine without a multiple regression analysis that is beyond the scope of this study, but other states with oil are not doing as well as North Dakota.

Comparison of Economic Indicators Between North Dakota and Vermont

In looking at the 2009 comparison of Vermont and North Dakota by the Center for State Innovation (CSI) the most noteworthy figure is the difference in economic development lending by the Bank of North Dakota at $1.33 billion compared with $102 million by VEDA. The figure for economic development lending is the total commercial and agricultural loan portfolio outstanding for VEDA compared to the Bank of North Dakota as of 2009. The ten to one differential is significant. The following information is from Cairn Cross' testimony of 2010.[61] VHFA had a residential mortgage loan portfolio of approximately $681MM, compared to $509MM in residential mortgages for the BND, making them fairly similar in home lending. As for VSAC, it had $2.29B in school loans in 2009 compared to the BND's $776M in school loans. The Bank of North Dakota (BND) made the first federally insured student loans in the United States starting on August 10, 1967. BND only provides loans to North Dakota citizens, while VSAC also services students from out-of-state. This might account for the higher loan volume of VSAC in 2009. However, since the federal government took over much of student loan lending, VSAC now has only $1.65B in outstanding school loans as of FY2012. In FY 2012 BND reports $1.1B in school loans, so it's getting closer to VSAC.

North Dakota has a perennial budget surplus, which some attribute to the Bank of North Dakota returning $340 million to the state treasury from 1997-2009,[62] including $30 million in 2009. The other significant difference is in bonding and the structure of the banking industry, which we'll discuss next.

North Dakota vs. Vermont Bonding

Advocates of public banking have made the claim that North Dakota does not need to do bonding because of credit available from the state bank. This statement

Table 14

Comparison of North Dakota and Vermont [63]

	Vermont	North Dakota
Population	622,000	647,000
General Fund Budgets (2009)	$1.1b.	$1.56b.
Unemployment (%, 2010)	6.2	3.2
Budget Deficit	($24 m.)	$400 m.
Banks (2009)	22	102
Deposits held by out-of-state banks (%, 2009)	65	24
Total State Loan Portfolio (2009)	$3,100 m.	$2,619 m.
Commercial/Econ. Development Lending (2009)	$102 m.	$1,333 m.
Net State Banking Revenue (2009)	($21 m.)	$30 m.

Source: Building State Development Banks, CSI[63]

61 Cairn Cross, Should Vermont Form a state-owned bank? http://vtdigger.org/2010/01/25/expert-testimony-should-vermont-form-a-state-owned-bank/

62 http://www.bloomberg.com/news/2011-11-17/north-dakota-s-state-run-bank-adds-millions-to-treasury-spurs-imitators.html

63 http://www.stateinnovation.org/Initiatives/State-Banks-Materials/Building-state-development-banks-0910.aspx

is false. Although the state of North Dakota has had no general obligation bonded debt since fiscal year 1998, they maintain three times the level of state bonding as Vermont. The outstanding balance on revenue bonds is shown from 2003-2012, reaching $1.83 billion in 2012. Vermont's bonding reached $504 million in 2012 and is expected to be $546 million in 2013.

Table 15

Revenue Bonds-North Dakota

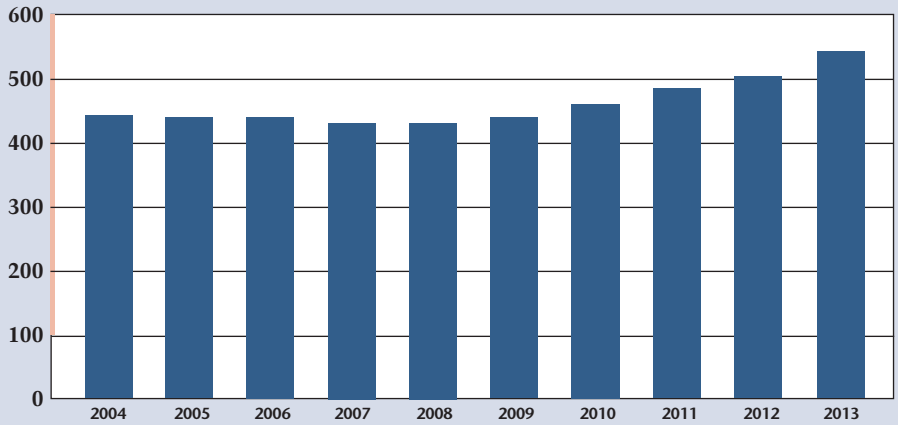
	Total Primary Government ($000)
2003	$1,500,372
2004	$1,557,889
2005	$1,586,970
2006	$1,692,521
2007	$1,699,230
2008	$1,805,163
2009	$1,720,591
2010	$2,040,361
2011	$1,903,722
2012	$1,830,580

Source: North Dakota Statistical Information Section

Figure 8

State of Vermont General Obligation Bonds Outstanding

FY 2004-2013 (in millions of dollars)



Source: http://www.vermonttreasurer.gov/debt-management/capital-debt-affordability

Comparison of the Banking Industry in Vermont and North Dakota

(See also Appendix A&B)

The presence of the Bank of North Dakota seems to make a significant difference to the structure of the banking industry in the state. An article by the Institute for Local Self-Reliance (ILSR) explains how the BND partners with local community banks to create a robust local banking sector.[64] BND is forbidden by its charter to originate loans directly and does all its lending through local partner banks. The apparent result of this is that North Dakota has 97 total banks with 437 branches, while Vermont has 24 banks with 256 branches. The ILSR article points out that North Dakota has four times the US average number of banks per capita, and small and medium banks account for 72% of the market compared to 30% nationally. Total deposits in North Dakota Banks of $23 billion are nearly double the deposits in Vermont banks of $11.7 billion.

A remarkable difference is found in the June 30, 2013 FDIC Share of Deposit (SOD) reports for North Dakota compared with Vermont. Market share for out-of-state banks in North Dakota is found to be 23.4% compared to 63.9% in Vermont. Furthermore, market concentration is also significantly higher in Vermont than North Dakota. Two banks, People's United Bank from Connecticut (formerly Chittenden Bank) and TD Bank from Ontario (formerly BankNorth) each hold 22% market share for a combined total of 44.3%. In North Dakota the market is more decentralized with the top two out-of-state banks holding only 16% of deposits. The top two Vermont in-state banks, Merchants and Northfield, hold 15.6% in Vermont. The top two in North Dakota hold 12.8%. Is there any reason to favor in-state banks? The primary reason given is that profits of out-of-state banks generally leave the state, while those of state chartered banks are less likely to leave, and local banks are more rooted in and committed to the community. This commitment was the theme of the famous Jimmy Stewart film, *It's a Wonderful Life.*

64 http://www.ilsr.org/rule/bank-of-north-dakota-2/

Outside Ownership of Vermont's Assets

The pattern of the banking sector being dominated by out-of-state companies is consistent with a prevailing economic pattern in Vermont, which has been likened to a "leaky bucket". Out-of-state companies, primarily from Canada, own most of the profitable resources of the state (listed below), which is more typical of an undeveloped third world colony than a modern state. Vermont prides itself on its "buy local" culture, but banking and other industries extract profit from the state on a large scale. This does not seem to be compatible with the self-reliant ethic of the state.

- Gaz Metro(Quebec) owns 100% of Vermont's natural gas company-Vt Gas
- Gaz Metro(Quebec) owns GMP and CVPS-70% of VT electrical utilities, which gives
- Gaz Metro(Quebec) majority control of VELCO-transmission lines
- Trans Canada (Ontario) owns the vast majority of Vt hydro power-580MW-dams on the CT and Deerfield Rivers. All power generated is sent to Massachusetts none to VT.
- OMYA (Swiss) owns most of the mineral rights in VT
- Ice River Springs (Ontario) bottles over 90% of Vermont's bottled water in Pittsfield, MA
- Over $1 billion dollars leaves the state annually to pay for energy like motor fuel & heating oil
- Vermont charges no tax or extraction fees for use of natural resources[65]
- TD BankNorth (Ontario) has 22% market share of deposits in Vermont and
- TD BankNorth (Ontario) receives 2/3 of Vermont state cash funds as deposits ($236 million), which it can use to leverage credit globally.

Table 16

Vermont and North Dakota Bank Totals

State	Total Banks	Total Branches	Total Deposits ($000)
North Dakota	97	437	$23,099,190
Vermont	24	256	$11,745,641
Difference	446%	171%	197%

Comparison of VEDA and BND

(See appendix C)

A comparison of VEDA and BND finds that they are very similar in their mission and their economic development loan programs. Both have the mission of providing financial services to industry, commerce and agriculture. Both institutions provide financing for farms/ranches, business, community water facilities, and natural disasters. Some major differences are that VEDA cannot accept deposits, and BND is much larger, but VEDA can originate loans while BND cannot. BND provides housing and student loans, while VEDA does not. BND has had 80 years to develop and lists 2012 assets of $6.15 billion, with a total loan portfolio of

65 http://www.ncsl.org/research/fiscal-policy/state-energy-revenues-update.aspx

Table 17

Out-of-state Headquartered Banks

State	Number of Banks Instate	Instate Branches	Instate Deposits ($000)	Market Share	Largest Market Share	Top Two Market Share
North Dakota	8	80	$5,397,326	23.4%	9.3% (Wells Fargo)	16.16% (Wells Fargo & US Bank)
Vermont	10	140	$7,503,277	63.9%	22.41% (People's)	44.28% (People's & TD Bank)

Table 18

In-state Headquartered Banks

State	Number of Banks Instate	Instate Branches	Instate Deposits ($000)	Market Share	Largest Market Share	Top Two Market Share
North Dakota	89	357	$17,701,864	76.6%	7.0% Bell State	12.8% Bell State & Gate City)
Vermont	14	116	$4,242,364	36.1%	11.2% (Merchants)	15.6% (Merchants & Northfield)

$3.28B, total deposits of $5.0B, and total equity of $463.6 million. VEDA started in 1974, and reports FY2013 assets of $208.6M, loans receivable of $176.9M, and net equity of $48.6 million.

The combined operations of VEDA, VHFA, and VSAC are nearly identical to the Bank of North Dakota aside from the role that BND plays as the depository and clearinghouse for state funds. The following would apply to VEDA if it was to serve as a bank: "The public bank would presumably have to provide the same level of sophisticated deposit services the state presently enjoys with its current commercial banking relationships. This would require the state bank to invest heavily in technology and human resources capable of deposit management, check processing and proofing, cash management and so forth", says Cairn Cross. These would be new services provided by VEDA, and they would need time to get these functions up and running by perhaps phasing them in slowly over time.

Lessons Learned from BND about Bank Governance and Oversight

(Source: BND via Marc Armstrong, PBI)

1) Clear charter/vision/principles for the bank that are actively referenced during decision-making processes.

2) "The Bank of North Dakota is successful because we are partners with North Dakota's financial institutions, not competitors." This was so important that one of the bank's founding principles was "to be helpful to and to assist in the development of state and national banks and other financial institutions and public corporations within the state and not, in any manner, to destroy or to be harmful to existing financial institutions." This directive continues to guide every decision made at the bank today.

3) The Board of Governors (Industrial Commission) has high visibility in-state politics. The members of the Commission are the Governor, the Attorney General and the Agriculture Commissioner of the State. The Governor is the Chairman, and a quorum for the transaction of business consists of the Governor and one additional member.

4) Professional bank management. There is no room for politicians involved in the management of the bank.

5) Strong Advisory Board comprised of many private bankers.

One item could be added:

6) Public review of the loan programs every year, with input on how loan programs should grow/shrink and at what rate. Should renewable energy loan programs grow at a faster rate than sustainable agriculture? This should be a public discussion.

Other Funds That Might Be Available for Deposit in a Public Bank In Vermont

According to the 2012 Vermont CAFR[66], page 34-35, there are $620,259,005 in just cash and cash equivalents in Primary Government accounts, and another $169,774,896 in component units (these are spun-off agencies that nevertheless, are really part of government, and are counted in the CAFR). That is $790,033,791 just in this one line item, which could be easily redeposited into a State Public Bank.

This is before adding in taxes: $128,009,387; loans and net receivables: $25,595,083 + $248,786,611 (those component units, again); Federal grants receivable: $195,984,460 + $30,380,0145; Other Receivables, net: $42,188,090 + $78,336,301; Investments (easily "reinvested into a public bank, with less volatility, which is something to factor into any analysis): $22,190,306 + $165,236,213; Other Current assets: $1,301,695 + $18,845,440. The above partial list is only for current assets.

There is also another list of nearly $5 billion in non-current assets. Of course, these assets will not be realized in a single year, but over what time frame? And how much is usable to make loans? These are open questions. Note this does not include any capital assets, which are not monetizable, but which could, and are, used as collateral when obtaining loans from private banks. This represents about $3 billion more. There may be some double counting in the above lists, but this can be sorted out to determine the potential of other funds for deposit in a public bank.

Other Financing Efforts

There are many routes to mobilizing local capital for priority local purposes. The Capital Mobilization committee of Energy Action Network along with VEDA, VT bankers, state, NGOs, energy sector, private investors, etc have discussed the new CT "Green Bank" (CEFIA: http://www.ctcleanenergy.com) set up to finance renewable energy projects with $60MM in capital from state, banking, private capitalization. They agreed to chart a course for a VT version of a "Green Bank" with Bob Barton (Catalyst Financial) leading the effort, according to Will Raap[67].

66 http://finance.vermont.gov/reports_and_publications/CAFR

67 email communication Nov. 23, 2013

Summary

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

Furthermore, we have demonstrated that lending for state capital financing could save $100 million in interest costs leaving the state over 20 years, as shown by our analysis of Kavet's 2011 report on state capital financing for FY2012-13 bonding alone. Finally, the return from loans made by a public bank go back to the state, and not to shareholders in Ontario, Connecticut, or wherever they may live, keeping more of our money local.

The capital financing needs of the state are significant, at an estimated $40.5 billion over 20 years, and current bonding and local investment methods may be reaching their limit. A public bank is simply another method to expand the credit capacity of the state. It's not free money. While lending agencies pay interest on bonds, commercial paper, and notes, a bank pays interest on deposits and other liabilities, but these costs appear to be lower.

The Vermont Banker's Association and others have testified against having the legislature even study the issue, and there seems to be a certain amount of hysteria attached to the issue of public banking. When the Bank of North Dakota was formed, bankers sabotaged the effort by trying to prevent the sale of bonds. Hopefully our loan study and this report have shed some light on the subject and reduced some of the fear of the unknown. Based on this analysis, it is our recommendation that Vermont does not start from scratch with a new public banking agency. The impediments to capitalization, lack of collateral for short-term loans, risk of a brand-new public venture, and major opposition from some quarters would make this a formidable undertaking.

Instead, we suggest taking advantage of the extraordinary capacity contained in the three existing lending agencies that are the equivalent of the Bank of North Dakota already. In particular we believe that VEDA has the capacity to function as a state depository, which would give them an additional source of credit by leveraging deposits into new loans. They appear to have adequate capital and collateral. This is just one more tool in their toolbox, and perhaps not such a big leap for an agency that functions much like a bank already. In addition they can partner with other lending agencies and local banks in the state to multiply the effectiveness of state credit. A portion of state funds could be directed to VEDA to establish the banking function as a pilot project. Over time, with experience, a VEDA bank could absorb additional state deposits, perhaps someday handling all of them. We sincerely hope the legislative and executive branches of government will consider this proposal seriously to address the urgent capital needs of the state, by redirecting state cash funds to a VEDA bank in order to expand credit within the state.

About the Author

Gary Flomenhoft has a Master's degree in Public Policy and a certificate in Ecological Economics from the University of Maryland, where he was fortunate to study with Herman Daly, one of the founders of the field. He is currently an Affiliate Research Fellow with the Gund Institute for Ecological Economics at the University of Vermont. Gary was Director of the Green Tax and Common Assets Project from 2005-2013, which developed new revenue plans for the state based on environmental charges, rent on common assets, and subsidy reform. He has worked in the public, private, non-profit and academic sectors and started three businesses and one NGO.

Appendix A

FDIC Share of Deposit (SOD) Report for Vermont, June 30, 2013

Institution Name	State HQ	Bank Class	State/ Federal Charter	June 30, 2013 Outside of Market No. of Offices	Outside of Market Deposits ($000)	Inside of Market No. of Offices	Inside of Market Deposits ($000)	Inside of Market Market Share
People's United Bank	CT	SB	Federal	378	19,365,774	42	2,632,403	22.41%
TD Bank, National Association	DE	N	Federal	1,300	175,751,289	35	2,568,284	21.87%
Wilmington Trust, Nat'l Assoc.	DE	N	Federal	30	875,593	1	0	0.00%
Berkshire Bank	MA	SB	State	70	3,528,871	7	318,938	2.72%
Mascoma Savings Bank	NH	SB	Federal	9	506,145	9	253,759	2.16%
Lake Sunapee Bank, FSB	NH	SB	Federal	20	773,694	8	147,608	1.26%
NBT Bank, National Association	NY	N	Federal	160	5,856,598	3	48,975	0.42%
TrustCo Bank	NY	SB	Federal	137	3,883,202	1	9,687	0.08%
KeyBank National Association	OH	N	Federal	1,054	66,588,696	13	709,681	6.04%
RBS Citizens, National Association	RI	N	Federal	981	75,105,020	21	813,942	6.93%
TOTAL						**140**	7,503,277	63.89%
Merchants Bank	VT	NM	State	0	0	33	1,315,260	11.20%
Northfield Savings Bank	VT	SB	State	0	0	13	513,427	4.37%
Community National Bank	VT	N	Federal	0	0	14	445,111	3.79%
Union Bank	VT	NM	State	4	71,858	12	404,118	3.44%
Passumpsic Savings Bank	VT	SB	State	4	122,750	6	330,162	2.81%
The National Bank of Middlebury	VT	N	Federal	0	0	7	251,560	2.14%
The Bank of Bennington	VT	SB	Federal	0	0	4	215,266	1.83%
Peoples Trust Company of St. Albans	VT	NM	State	0	0	6	211,681	1.80%
The Randolph National Bank	VT	N	Federal	0	0	9	148,904	1.27%
The Brattleboro Savings and Loan Association	VT	SB	State	1	5,031	2	136,165	1.16%
Wells River Savings Bank	VT	SB	State	0	0	6	131,630	1.12%
Ledyard National Bank	VT	N	Federal	7	264,503	1	69,937	0.60%
The First National Bank of Orwell	VT	N	Federal	0	0	2	40,489	0.34%
Connecticut River Bank, Nat'l Assoc.	VT	N	Federal	10	226,416	1	28,654	0.24%
TOTAL						**116**	4,242,364	36.11%
TOTAL				**4,165**	**352,925,440**	**256**	**11,745,641**	**100**

Appendix B

FDIC Share of Deposit (SOD) Report for North Dakota, June 30, 2013

Institution Name	State HQ	Bank Class	State/ Federal Charter	June 30, 2013 Outside of Market No. of Offices	Outside of Market Deposits ($000)	Inside of Market No. of Offices	Inside of Market Deposits ($000)	Inside of Market Market Share
Wells Fargo Bank, Nat'l Assoc.	SD	N	Federal	6,271	922,015,757	22	2,146,243	9.29%
U.S. Bank Nat'l Assoc.	OH	N	Federal	3,116	233,752,363	24	1,587,300	6.87%
BNC National Bank	AZ	N	Federal	3	90,239	12	592,314	2.56%
Bank of the West	CA	NM	State	618	45,421,175	8	475,631	2.06%
Dacotah Bank	SD	SM	State	23	1,236,193	8	457,970	1.98%
Frandsen Bank & Trust	MN	NM	State	33	1,114,759	4	106,335	0.46%
Bremer Bank, Nat'l Assoc.	MN	N	Federal	7	486,473	1	30,226	0.13%
Armed Forces Bank, Nat'l Assoc.	KS	N	Federal	75	1,134,859	1	1,307	0.01%
Total						**80**	**5,397,326**	**23.4%**
Bell State Bank & Trust	ND	NM	State	11	596,501	10	1,626,960	7.04%
Gate City Bank	ND	SB	Federal	4	70,114	29	1,333,146	5.77%
First International Bank & Trust	ND	NM	State	6	138,275	16	1,157,424	5.01%
Bremer Bank, Nat'l Assoc.	ND	N	Federal	3	291,763	15	1,009,370	4.37%
American Bank Center	ND	NM	State	0	0	13	863,484	3.74%
Alerus Financial, Nat'l Assoc.	ND	N	Federal	4	292,732	10	770,181	3.33%
Starion Financial	ND	NM	State	2	67,654	12	769,629	3.33%
First Western Bank & Trust	ND	SM	State	1	29,366	3	627,553	2.72%
Dakota Community Bank & Trust, Nat'l Assoc.	ND	N	Federal	0	0	12	580,905	2.51%
Choice Financial Group	ND	NM	State	1	16,347	9	565,984	2.45%
Bremer Bank, Nat'l Assoc.	ND	N	Federal	3	233,505	6	509,924	2.21%
American State Bank & Trust Company of Williston	ND	NM	State	0	0	2	457,887	1.98%
Western State Bank	ND	NM	State	3	166,693	8	383,753	1.66%
First National Bank & Trust Co. of Williston	ND	N	Federal	0	0	5	356,385	1.54%
Bank Forward	ND	NM	State	3	40,114	10	341,276	1.48%
Lakeside State Bank	ND	NM	State	0	0	5	281,561	1.22%
First State Bank of North Dakota	ND	NM	State	0	0	8	238,918	1.03%
United Community Bank of ND	ND	NM	State	0	0	4	238,824	1.03%
Ramsey National Bank	ND	N	Federal	0	0	8	227,315	0.98%
Cornerstone Bank	ND	NM	State	0	0	4	190,713	0.83%
The Dakota Western Bank	ND	SM	State	0	0	4	183,850	0.80%
Kirkwood Bank & Trust Co.	ND	NM	State	0	0	5	179,658	0.78%
American Federal Bank	ND	SB	Federal	8	216,063	5	172,952	0.75%
Northland Financial	ND	NM	State	0	0	4	168,796	0.73%
Great Plains National Bank	ND	N	Federal	0	0	5	163,977	0.71%
Unison Bank	ND	NM	State	2	11,713	1	155,237	0.67%
First United Bank	ND	NM	State	0	0	6	140,038	0.61%
Security First Bank of North Dakota	ND	NM	State	0	0	5	131,342	0.57%

Appendix B

FDIC Share of Deposit (SOD) Report for North Dakota, June 30, 2013, *cont'd.*

				June 30, 2013				
				Outside of Market		Inside of Market		
Institution Name	State HQ	Bank Class	State/ Federal Charter	No. of Offices	Deposits ($000)	No. of Offices	Deposits ($000)	Market Share
First Nat'l Bank and Trust Co. of Bottineau	ND	N	Federal	0	0	2	128,876	0.56%
VISIONBank	ND	NM	State	0	0	2	124,664	0.54%
First State Bank	ND	NM	State	0	0	3	124,380	0.54%
Dakota Heritage Bank of North Dakota	ND	NM	State	0	0	8	123,166	0.53%
The Bank of Tioga	ND	NM	State	0	0	1	116,577	0.50%
United Valley Bank	ND	NM	State	3	86,491	3	113,611	0.49%
The Goose River Bank	ND	NM	State	0	0	3	105,449	0.46%
BlackRidgeBANK	ND	NM	State	8	205,165	3	102,684	0.44%
McKenzie County Bank	ND	NM	State	0	0	1	99,844	0.43%
Union State Bank of Hazen	ND	NM	State	0	0	5	97,750	0.42%
The Citizens State Bank of Finley	ND	NM	State	0	0	3	96,504	0.42%
The First State Bank of Munich	ND	NM	State	0	0	3	96,192	0.42%
Sargent County Bank	ND	NM	State	0	0	3	91,306	0.40%
State Bank & Trust of Kenmare	ND	NM	State	0	0	2	90,942	0.39%
Garrison State Bank and Trust	ND	NM	State	0	0	1	86,595	0.37%
KodaBank	ND	NM	State	2	38,070	2	83,090	0.36%
Citizens State Bank - Midwest	ND	NM	State	1	15,585	4	78,342	0.34%
The Union Bank	ND	NM	State	0	0	3	77,247	0.33%
Peoples State Bank of Velva	ND	NM	State	0	0	2	76,222	0.33%
McIntosh County Bank	ND	NM	State	0	0	2	69,680	0.30%
Commercial Bank of Mott	ND	NM	State	0	0	1	69,481	0.30%
First State Bank of Harvey	ND	NM	State	0	0	2	68,501	0.30%
First State Bank of Golva	ND	NM	State	0	0	3	67,805	0.29%
Farmers State Bank of Crosby, N. D.	ND	NM	State	0	0	1	66,883	0.29%
Farmers and Merchants State Bank	ND	NM	State	0	0	1	65,769	0.28%
Union State Bank of Fargo	ND	NM	State	0	0	3	65,054	0.28%
Peoples State Bank	ND	NM	State	0	0	2	62,147	0.27%
First National Bank	ND	N	Federal	0	0	2	61,768	0.27%
Liberty State Bank	ND	NM	State	0	0	1	60,900	0.26%
Lincoln State Bank	ND	NM	State	0	0	3	59,256	0.26%
Security State Bank, Wishek, ND	ND	NM	State	0	0	3	56,991	0.25%
The Farmers & Merchants State Bank of Tolna	ND	NM	State	0	0	2	55,731	0.24%
North Country Bank	ND	NM	State	0	0	5	55,470	0.24%
First Security Bank - West	ND	NM	State	0	0	2	55,340	0.24%
Merchants Bank	ND	NM	State	1	32,160	1	54,796	0.24%
Heartland State Bank	ND	SM	State	0	0	3	54,054	0.23%
The Citizens State Bank at Mohall	ND	NM	State	0	0	3	53,583	0.23%
Strasburg State Bank	ND	NM	State	0	0	1	52,847	0.23%
The First and Farmers Bank	ND	NM	State	0	0	2	52,019	0.23%

Appendix B

FDIC Share of Deposit (SOD) Report for North Dakota, June 30, 2013, *cont'd.*

Institution Name	State HQ	Bank Class	State/ Federal Charter	June 30, 2013 Outside of Market No. of Offices	Outside of Market Deposits ($000)	Inside of Market No. of Offices	Inside of Market Deposits ($000)	Inside of Market Market Share
First State Bank of Cando	ND	NM	State	0	0	3	50,021	0.22%
Stock Growers Bank	ND	NM	State	0	0	1	49,923	0.22%
State Bank of Bottineau	ND	NM	State	0	0	1	49,506	0.21%
Farmers Security Bank	ND	NM	State	0	0	1	43,447	0.19%
State Bank of Lakota	ND	NM	State	0	0	1	43,095	0.19%
The National Bank of Harvey	ND	N	Federal	0	0	1	40,128	0.17%
Bank of Turtle Lake	ND	NM	State	0	0	1	37,462	0.16%
Bank of Hazelton	ND	NM	State	0	0	1	37,283	0.16%
Citizens State Bank of Lankin	ND	NM	State	0	0	4	36,769	0.16%
Bank of Glen Ullin	ND	NM	State	0	0	1	36,343	0.16%
First Financial Bank	ND	NM	State	0	0	3	36,078	0.16%
First State Bank of Wilton	ND	NM	State	0	0	2	33,904	0.15%
Rolette State Bank	ND	NM	State	0	0	1	33,395	0.14%
McVille State Bank	ND	NM	State	0	0	3	33,350	0.14%
Grant County State Bank	ND	NM	State	0	0	2	29,257	0.13%
Harwood State Bank	ND	NM	State	0	0	1	28,309	0.12%
Kindred State Bank	ND	NM	State	0	0	1	27,118	0.12%
Turtle Mountain-state Bank	ND	NM	State	0	0	1	24,740	0.11%
Peoples State Bank, Fairmount, ND	ND	NM	State	0	0	2	23,970	0.10%
Quality Bank	ND	NM	State	0	0	2	22,989	0.10%
The Farmers and Merchants National Bank of Hatton	ND	N	Federal	0	0	2	20,092	0.09%
Bank of Hamilton	ND	NM	State	0	0	1	16,127	0.07%
						357	17,701,864	76.6%
Number of Institutions in the Market: 97								
TOTALS				**10,212**	**1,207,800,129**	**437**	**23,099,190**	**100**

Appendix C

Comparison of VEDA to Bank of North Dakota

	BND	VEDA
Mission	*"To deliver quality, sound financial services that promote the development of agriculture, commerce and industry in North Dakota."*	*"To provide loans and other financial support to Vermont industrial, commercial and agricultural enterprises."*
Programs:		
Lending	yes	yes
Banking	yes	no
Treasury	yes	no
Student Loans	yes	no (VSAC)
Loan Programs	Farm/Ranch Financing	ACC - Agricultural Credit Corporation
	Business financing	Business (Manufacturing, tourism, retail and service, not-for-profit, other)
	Residential Real Estate	no (VHFA)
	Bank stock/trust Preferred securities financing loan programs	no
	Students loans (DEAL)	no (VSAC)
	Government guaranteed loans for lenders	no
	Community water facility	State Drinking Water Program
	no?	State Infrastructure Bank
	no?	Brownfield revitalization
	no?	Export Assistance
Lending	**Farm/Ranch Financing Programs**	Farm Ownership/Operating Loans
	Farm and Ranch Participation	yes
	Beginning and Established Farmer/Rancher Financing Programs	yes
	Livestock Retention and Improvement Programs	yes
	Farm Income Diversification, Value-Added Equity Financing, and Irrigation Programs	yes
	Guarantee Loan Programs for Farmers and Ranchers	yes
		Commercial Financing
	Business Financing Programs	yes
	Commercial Bank Participation Loan	yes
	Small Business	yes
	Guarantee Programs for Businesses	yes
	Business Incentive Programs	yes
	New Venture Capital Program	Revenue Bond Program
	yes	Vermont Capital Access Program
	no?	Business Energy Conservation Loan Program
	no?	
	Government Guaranteed Loans for Lenders	
	Government Guaranteed Loan Purchase Program	no?
	SBA Loan Purchase Program	yes?
	Community Water Facility and Health Information Technology Funds	**State Drinking Water Program**
	Community Water Facility Revolving Loan Fund	yes
	Health Information Technology Fund	no?
	Residential Real Estate Financing Program	no (VHFA)
	Bank Stock/Trust Preferred Securities Financing Loan Program	no

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