



Joint Committee on Financial Services
Testimony of Massachusetts Public Banking in support of S.665/H.1223 An Act to Establish a
Massachusetts Public Bank

Chairs Crighton, Murphy, and members of the committee,

Massachusetts Public Banking is a volunteer organization whose mission is to have the state create a public bank that will address racial, gender, and geographic inequities in financing, support our small businesses and farms, strengthen our municipalities, help address dire climate impacts, and make loans in cooperation with local banks and CDFIs, while working with our state and local agencies and ensuring community input. Partners in the coalition include The Black Economic Council of Massachusetts (BECMA), the Boston Ujima project, and the Black Mass Coalition. Our leadership includes activists, banking experts, attorneys, economists, and community development experts.

Massachusetts Public Banking **strongly supports** favorably reporting S.665/H.1223 *An Act to Establish a Massachusetts Public Bank*.

Existing credit institutions, including commercial banks, cannot resolve the problem on their own given their operating constraints. By contrast, the Massachusetts public bank proposed by this legislation deploys banking capacity to reach credit-worthy borrowers who fall into the chronic financing gap. The public bank will work in cooperation with local private banks, CDFIs, and state-based quasi-public agencies.

to help meet the shortfall in affordable credit.

Establishing the public bank allows the commonwealth to harness the financial power of banking: data provided and explained by financial experts on our team demonstrate the economic advantages of establishing a bank compared to other financing options and the cost savings enjoyed by a public bank compared to commercial banks. Much of the financing will occur through partnerships, including participation loans, with those banks and CDFIs, to the

advantage of those institutions and the borrowers aided by their expertise. The design thus allows the public bank to expand access to credit for underserved borrowers sustainably and with strong safeguards against risk.

The public bank is accountable to the commonwealth through its Board of Directors chaired by the state treasurer or their designee and to the public through its Board of Advisors representing a diversity of interests. Transparency to all parties is ensured by a robust set of provisions on reporting, auditing, and conflict of interest.

We urge the Joint Committee on Financial Services to report these bills with a favorable recommendation for passage in order for the state

The testimony that follows is organized in three parts, discussing the problem that the public bank is meant to address (Part I), the solution the public bank would provide to that problem (Part II), and the ways in which the public bank would complement and strengthen existing private and public lending in Massachusetts (Part III). Our key takeaways are as follows:

I. The Problem: A Structural Shortfall Has Left Deserving Borrowers Starved of Credit and Capital

A. Communities of Color Have Long Had Unequal Access to Credit and Capital

Black-, Brown- immigrant-, Indigenous- and women-owned businesses have long faced unequal access to credit because of discriminatory practices. The combined forces of current racial discrimination and generational disparities in personal and family wealth mean that many businesses owned by people of color are undercapitalized relative to white owned businesses.¹ Functionally, this means that even though almost as many people of color start businesses as do white people, rates of business ownership among people of color are far below the average because more than half of these businesses are unable to stay in business due to lack of affordable financing.² The pre-pandemic estimated capital gap for business owners of color in Massachusetts is at least \$574 million per year.³ Reflecting the fact that this annual gap accrues over multiple years, bridging that gap would require several billions. Nationally, the rates of

¹ See Boston Indicators, [The Color of the Capital Gap](#) page 5.

² See Id.; see also [U.S. Census Bureau 2018 Annual Business Survey](#).

³ See Boston Indicators, [The Color of the Capital Gap](#) page 2. The \$574 million figure is based on pre-pandemic 2019 data including the U.S. Census Bureau, [Small Business Credit Survey Report on Minority Firms](#) and the Federal Reserve Bank of Atlanta, [Small Business Credit Survey Report on Minority-Owned Firms](#). It represents the additional annual amount business owners of color would have received if they had enjoyed a similar access to credit as their White counterparts.

⁴ The Color of The Capital Gap report by Boston Indicators and the Boston Foundation identifies a state public bank as a valuable potential source of increased small business loans for entrepreneurs of color: by collaborating with local funding institutions, a public bank enables them to increase their reach and decrease their lending risk.⁵ The Boston Foundation has formally endorsed creation of a Massachusetts Public Bank.

B. Cities and Towns Require a Lower Cost of Capital to Invest in Infrastructure

Massachusetts cities and towns have relied primarily on the bond market to raise money for capital expenditures for many years, but the bond market has been failing to meet the infrastructure funding needs of local communities.⁶

Because of the limitations of the bond market, more and more cities and towns, especially in low-income areas,

⁸ For a number of reasons, reliance on these commercial bank loans can make it harder for cities and towns to secure cheaper credit from the bond market in the future, indicating that there is an important role for the public bank to play as a collaborator with existing funders.⁹

Despite the existing bond market and private credit sources, cities and towns face acute unmet funding needs, and the pandemic and subsequent economic downturn have worsened the situation by cutting tax revenues significantly. The commonwealth's public housing is one example of the dire need for affordable municipal credit: Massachusetts currently has \$3 billion in public housing capital needs, which doesn't include building a single new unit of public

⁴ Id.

⁵ Id., page 19.

⁶ See Tax Policy Center, [Briefing](#); In 2018, 58% of state and local issuances were revenue bonds, 36% were general obligation bonds, and 6 percent were private placements.

⁷ See [GAO 2012 Report on Municipal Securities](#) page 16. Factors affecting the credit quality, and therefore market value, of a security include municipalities' credit ratings, principal and interest payment histories, and draws on debt service reserves. Credit quality assessments hold greater weight among broker-dealers since the post-2008 collapse and subsequent scarcity of bond insurance.

⁸ See Brookings, [Working Paper on Privatization of Municipal Debt](#): "state and local governments have increased their bank loan obligations from about \$30 billion before the financial crisis to over \$160 billion in late 2016;" see also Federal Reserve Board, [Claim Dilution in the Municipal Debt Market](#): Municipalities with a larger share of bank loans tend to have lower household income and lower debt-to-income.

⁹ See Brookings, [Working Paper on Privatization of Municipal Debt](#); reliance on private bank debt may lead to claimholder conflict between private banks (who have higher priority credit) and pre-existing public bond holders (whose claims on cash flow are diluted), resulting in public bondholders who are less likely to receive the full value of their bonds.

housing.¹⁰ Even assuming a generous \$450 million from the American Rescue Plan Act is allocated to pay for public housing, as CHAPA is currently requesting, this leaves \$2.5 billion in unmet funding needs.¹¹ Similarly, Massachusetts has an estimated \$10.2 billion in unmet drinking water infrastructure financing needs; assuming the Infrastructure Investment and Jobs Act allocates approximately \$1.1 billion to drinking water infrastructure, a significant financing gap persists.¹² Although funding on that scale is beyond the scope of the public bank acting alone, the public bank can be one of several funding sources working to chip away at this gap. The situation is similar for all municipal infrastructure. The public bank, in partnership with other funding entities, can be an important resource for municipal projects.

C. The Pandemic Has Decimated Our Small Business Sector

The COVID-19 pandemic has been a disaster for many small businesses: by the end of 2020, 37% of small businesses in the state had closed their doors, and small business revenue had dropped by 44%.¹³ Those unable to pivot to a low-customer-contact model or allow employees to work from home have been especially hard hit. Federal relief programs like the Paycheck Protection Program (PPP) have channeled aid through private banks which service their established clients first, leaving “unbanked” or “underbanked” businesses out in the cold.¹⁴ These PPP grants illustrate the manner in which the use of established financial can perpetuate disparities: low-income communities received only two thirds of the number of PPP grants provided to high-income communities.¹⁵ Additionally, only 28% of small businesses consisting of 1-4 employees received the entire grant they applied for, compared to 44% of businesses with 5-49 employees and 59% of businesses with 50-499 employees.¹⁶ Furthermore, the distribution of PPP grants heightened racial disparities among small business owners of color, who are less likely to have established relationships with local commercial banks.¹⁷ We are now facing a potential future wave of bankruptcies and closures, falling hardest on low-income and minority communities.

Even taking into consideration the Baker-Polito administration’s economic recovery plan, which allocates \$450 million to economic development with a focus on municipalities hardest hit

¹⁰ See CHAPA, [Priorities for State ARPA Funding](#).

¹¹ Id.

¹² See the [Massachusetts Water Infrastructure Finance Commission Report](#) page 29; see also the [Massachusetts Infrastructure Investment and Jobs Act Fact Sheet](#).

¹³ See Opportunity Insights, [Track the Recovery](#), Boston 25 News, [44 Percent of Boston Small Businesses Shuttered During Pandemic](#), and MassINC, [Mass. Small Business Recovery Survey](#).

¹⁴ See Small Business Economics, [Discrimination in lending? Evidence from the Paycheck Protection Program](#) page 2; “the program was administered using established financial institutions and initially relied heavily on commercial banks to distribute the funding.”

¹⁵ See Federal Reserve Bank of Cleveland, [How Well Did PPP Loans Reach Low- and Moderate-Income Communities?](#). While formally stylized as a loan program, PPP loans were forgivable, and therefore acted as grants. Banks making PPP loans are not subject to credit risk from borrowers. See generally, SBA, [Paycheck Protection Program Loans FAQ](#) (2021).

¹⁶ Id.

¹⁷ See Brookings, [New data shows small businesses in communities of color had unequal access to federal COVID-19 relief](#).

by the pandemic, we know that based on pre-pandemic numbers nationally, 51% of small businesses face unmet funding needs.¹⁸ Furthermore, as we mentioned above, entrepreneurs of color alone in Massachusetts are missing more than \$574 million each year in unmet credit needs.¹⁹ The need for affordable credit is greater than can be solved by a one-time cash influx; furthermore, economic recovery funds are aimed at digging small businesses out of COVID-19-related financial strain, not at meeting pre-pandemic credit needs. Going forward, the public bank can play an important role in working with existing institutions to provide affordable credit to small businesses facing these gaps in credit.

D. Farmers Need Affordable Financing for Prohibitively High Land Costs

Interviews we carried out with small farmers in Massachusetts indicate a strong need for access to affordable and longer-term credit than afforded by federal programs. Massachusetts farms are historically small and family-run; 94.2% of farms in Massachusetts are small farms, and 79.7% of farms are family or individually owned.²⁰ Farmers face a land cost crisis that predates the pandemic but has worsened since then: Massachusetts has the fourth highest agricultural real estate values in the country, and the average annual net income per farm has been falling steadily since 2020 and into 2021.²¹ Current programs offering assistance are unable to fully address the problem. The Farm Service Agency's Farm Loan officers are not eager to offer credit to farmers looking to purchase high cost land and grow a low-return crop, and FSA loans are disproportionately denied to women farmers and farmers of color.²² Local programs like The Agricultural Preservation Program (APR) and Chapter 61A are relatively inflexible and are both unavailable to small farms under 5 acres, which excludes a significant portion of farms in Massachusetts.²³ Unable to pay mortgages, farmers have been forced to sign year-to-year leases or get priced out of the business altogether.²⁴ Farmers reported that better access to affordable credit with multi-year repayment windows would enable equipment investments and collaborations that could infuse affordable local food into lower-income communities.²⁵

¹⁸ See [Baker-Polito Economic Recovery Plan](#).

¹⁹ See Boston Indicators, [The Color of the Capital Gap](#) page 2.

²⁰ See Mass.gov, [Massachusetts Agricultural Resources Facts and Statistics](#).

²¹ See UMass Amherst Center for Agriculture, Food, and the Environment, [Farm Real Estate Values](#) per 2017 Massachusetts Agricultural Census; see also USDA, [Highlights from the September 2021 Farm Income Forecast](#).

²² See [GAO Report on Agricultural Lending](#); the Biden Administration plans to allocate \$4 billion in Coronavirus aid to [loan forgiveness for farmers of color](#), but the project is [tied up in litigation](#).

²³ See UMass Amherst Center for Agriculture, Food, and the Environment, [Massachusetts Agricultural Data: Most Farms are Small Farms](#); 1-9 acre farms make up almost 33% of Massachusetts farms (the U.S. Agricultural Census does not collect data further disaggregated within the category of 1-9 acres). [Chapter 61A](#) enables farmers to pay lower property taxes on their land in exchange for maintaining a portion of undeveloped land; taxes are assessed based on agricultural value instead of development value. The [APR](#) offers to pay landowners the difference between the fair market value and the agricultural value of the land in exchange for a deed restriction ensuring non-development. The Massachusetts Farm Bureau [APR Survey](#) indicates that the program is too restrictive for many; complaints include barriers to farmer and worker housing, composting, having commercial horse operations, agritourism, and prohibitions on renewable energy.

²⁴ See Edible South Shore, [Priced Out of the Market](#).

²⁵ Per interviews by Nancy Ryan with farm owner Andy Pollock, Silverbrook Farm, N. Dartmouth, MA on 3/11/2021 and farm owner and State Rep. Paul Schmid on 3/24/2021.

E. Women-owned Businesses Face Funding Disparities

The credit gap for women-owned enterprises existed pre-COVID, but it has been exacerbated. Examples of the need for and lack of access to credit are broad. Sixty-two percent of women entrepreneurs depend on their business as their primary source of income.²⁶ Yet only 4% (one out of every 23 dollars) in community bank loans go to women-owned businesses nationally.²⁷ Indeed, even among Small Business Administration (SBA) loans designed to promote access to credit, women owned businesses receive only 40% of the funds received by men owned businesses.²⁸ Overall, women's businesses, that tend to be younger, receive fewer loans for higher rates. A Public Bank will address these inequities.

F. Climate Mitigation Projects Require Multiple Sources of Financing

Low-income affordable housing residents could benefit greatly from the cost savings and energy resilience of solar combined with energy storage. For example, the density of affordable homes in resident owned manufactured housing cooperatives makes them attractive places for solar and other shared energy projects. These are loans in which a public bank could participate with a CDFI to bring clean energy to moderate income homeowners in parks. These projects also involve significant energy cost saving to the residents. Other potential collaborators in these solar and storage projects can include agencies such as Climate Ready Boston, a government initiative to get the City ready for the long-term impacts of climate change.²⁹ There may also be opportunities to partner with private investment companies such as Sunwealth and Blue Hub Capital in financing projects in low-income neighborhoods in Cambridge and Boston.³⁰

Direct loans, participation loans or loans to CDFIs are also required to fund solar panel purchases and to provide upfront capital for solar companies to finance the cost of equipment and labor.³¹ Unlike the private sector, non-profit and public-sector institutions are blocked from monetizing the federal tax incentives that pay for a significant capital portion of a solar project. Through solar power purchase agreements, a nonprofit organization or municipality is paired with a private solar investor who can take advantage of the federal tax programs. The nonprofit organization or municipality "hosts" a solar system and purchases the solar power at a competitive electricity rate from the private sole investor. The "host" has no upfront costs and

²⁶ See SCORE, [Women's Entrepreneurship](#), Spring 2018.

²⁷ See 2014 Senate Report, [21st Century Barriers to Women's Entrepreneurship](#) page 10.

²⁸ *Id.*

²⁹ See [Climate Ready Boston Executive Summary](#).

³⁰ See Boston Globe, [Four Leaders Fighting for Clean Air, Clean Energy, and a Healthy Future for Boston](#).

³¹ A \$200,000 loan participation a NH CDFI thus allowed it to purchase a portion of a royalty loan to Encore Redevelopment LLC, based in Burlington, VT. See [Encore Renewable Energy receives \\$1 million from impact investment funds to expand solar projects in New England](#). Encore is an integrated clean energy company focused on commercial, industrial, and community-scale solar PV systems and solutions for underutilized property.

has the option to acquire ownership of the PV system after five years at a price significantly less than the installation cost. A public bank could make loans to private solar investors to help fund solar projects.

The Problem, Summarized

. Thus, decades of discriminatory treatment leave a racial wealth gap that saddles the Black and Latinx community, driving up their need for capital. The same handicap means that many entrepreneurs of color do not have collateral to offer. Many such businesses are small and/or need technical assistance, attributes that raise costs for banks or fall outside their services. Other businesses in low-income communities or rural areas are slow-growing, requiring affordable financing over a long-term. That kind of lending falls outside the parameters of most commercial banks. Small farms face similar obstacles and are getting priced out of the industry. Women-owned enterprises face similar constraints. Other borrowers, like cooperatives and land trusts, have ownership structures that require tailored attention, again raising obstacles for commercial lenders. Climate change initiatives also face unique challenges in borrowing.

The COVID-19 pandemic has heightened the crisis for each of these communities and has made their financial needs even more acute.

Thus, even those banks most committed to equitable lending today face an impasse: they cannot lend adequately to borrowers who clearly merit credit, but require more capital, entail more risk, and cost more to service.

II. The Solution: A Public Bank Will Provide a Structural Solution to Our Structural Problem

A. The Public Bank Will Harness the Capacity of Commercial Banks

Public banking provides a structural solution to the structural shortfall in lending by fusing the capacity of a bank with the reach of the public.

. Those deposits, reciprocated in

offsetting ways across the network, do the work of money.³² Day in and day out, we use them at the grocery store, to pay our rent, and to receive wages. And because we use deposits as money, we do not require banks to pay us a high rate on these deposits as we do for regular debt and equity claims.³³ By contrast, non-bank lenders need to fund their lending by raising expensive equity and long-term debt.

With a lower cost of capital, banks can lend at lower rates relative to other lenders who do not use the same deposit-based business model.³⁵ This point is illustrated by rates on small business loans. In 2021, banks offered small businesses credit at average annual interest rates between 2.58%-7.16%, while the respective figure for online or alternative lenders is 13%-71%.³⁶ The import of the rate difference is clear: access to bank lending provides credit that is absolutely crucial to borrowers.

Massachusetts can – and should – take advantage of the same business model available to banks.

, in the Massachusetts

Municipal Deposit Trust (MMDT). The public bank will then be able to make financing available at low rates – indeed lower rates than commercial banks can afford to extend.³⁷

³² Networked reciprocity between commercial banks allows each lending bank to issue deposits against loans far in excess of its reserves and other liquid assets. As we detail below, a public bank would enjoy the same networked reciprocity, although the logistics of its deposit issues and settlement would work slightly differently.

³³ Popular willingness to use deposits as money, without expecting interest on them, is furthered by federal deposit insurance provided by the FDIC, but does not depend upon it. FDIC insurance is limited to accounts up to \$250,000 (FDIC, [Deposit Insurance FAQ](#)). Rates on uninsured deposits (about 45% of the US. total, see [FDIC Quarterly Q2 2021](#), p.23, FRED, [Deposits: All Commercial Banks](#)) remain extremely low. Conversely, people do expect interest on treasury securities although they are guaranteed by the full faith and credit of the federal government (the 5-year treasury fluctuated between 1-2.5% in recent years, while yields on large deposits fluctuated between 5-25 bps (see FRED, [Yield on UST 5Y](#); [National Rate on Jumbo Deposits](#) (>\$100k, 1 Month CD). In other words, the yield on deposits is a function of the fact that they offer services as money, not their government guarantee, although that guarantee supports individuals' confidence in the banks. FDIC insurance is not relevant for the public bank, given its low ceiling (\$250,000), as is also the case for the Bank of North Dakota.

³⁴ Kovner and Van Tassel, [Evaluation Regulatory Reform: Banks' Cost of Capital and Lending](#), p. 36 (“The second column (2) indicates that bank WACC-Rf is almost 6% lower than non-bank WACC-Rf on average, reflecting the high leverage and low interest rates of banks relative to non-banks”). “WACC-Rf” denotes that the risk-free rate is subtracted from the weighted average cost of capital (WACC). Given that the 6% figure reflects a comparison between banks and non-banks, the risk-free rate cancels in the calculation. The period studied in the paper is 1996-2017 (page 9).

³⁵ The Federal Reserve [2019 Small Business Consumer Survey](#) (page 4) similarly reports that “...more than half [online lender applicants] saying they experienced high interest rates, and almost a third reporting concerns with unfavorable repayment terms.”

³⁶ ValuePenguin, [Average Small Business Loan Interest Rates in 2021: Comparing Top Lenders](#). Annual percentage rates by individual lenders include American Express (business loan) 6.98%-19.97%, BlueVine (business loan) 15%-78%, and Funding Circle 9.49%-30.12%. In addition to the difference in cost of capital, the difference between banks and online/alternative lending rates is attributable in some part to more flexible underwriting compared to very strict underwriting by banks. As discussed below (II.C), the public bank's cost savings, and collaboration with CDFIs would also allow it to responsibly provide more inclusive underwriting.

³⁷ See II.C. for cost savings the public bank would enjoy above and beyond private commercial banks.

Finally, the public bank will enable additional and profitable lending by those banks, as well as community finance development institutions. The legislation directs the public bank to work through participation loans wherever possible. The model will create a uniquely powerful initiative between public and private partners.

To be clear, we support public banking because we believe banking is a critical aspect of our financial system and the strength of the Massachusetts economy.

because private banking alone does not satisfy the banking needs of disadvantaged communities.

Specifically, the bill proposes that the legislature allocate \$200 million in capital, by appropriation or use of the Stabilization Fund, to a newly chartered public bank. The public bank will be well within regulatory requirements (a capital-to-asset ratio of 1-to-11) if it leveraged its capital at a ratio of about 1-to-8.³⁸ In other words, for every dollar in appropriated capital, the public bank will hold \$8 in assets while operating very cautiously. In order to populate the public bank with deposits, the state treasurer will transfer \$1.4 billion in existing state funds from the MMDT. This represents a small portion – under 10% – of total MMDT funds held by the state.³⁹ As discussed below (II.D) the MMDT balances represent “slow money” that is not used for day-to-day payments (e.g., payroll) by the state treasurer. The transfer under the legislation will leave untouched all funds that the state holds in accounts kept for daily transactional business in commercial banks, including under the Move Money program.⁴⁰

(See stylized balance sheet below). Moreover, that financing will come at low rates, given the deposit-based business model that allows significant lending against limited capital.

Three features of the public bank’s design make this possible.

First, compared to commercial banks, the public bank will have lower operating costs. On its liabilities side,

⁴¹ The public bank will also have lower operating costs on its asset side. As above, the public bank will do most of that work through

³⁸ See, e.g., 12 CFR §208.4, Regulation H which will apply to the public bank as a member of the Federal Reserve System (see further discussion II.D below).

³⁹ The Massachusetts [2020 Annual Comprehensive Financial Report](#) (p.82) reports MMDT balances of \$6.85 billion for government-wide total and \$6.9 billion for fiduciary funds. These amounts are exclusive of additional balances in MMDT by local government. Per its [website](#), total current (Nov. 2021) MMDT balances are \$27.4 billion.

⁴⁰ See Section 9(b). Per the [2020 Annual Comprehensive Financial Report](#) (p.82), “fast money” deposits in commercial banks amounted to \$1.35 billion.

⁴¹ As above, the public bank would not interfere with or change the arrangements that the Commonwealth currently has to service its daily transactional work.

intermediaries. As the legislation directs,

⁴² Those entities are expert in finding and supporting worthy borrowers; the public bank will increase their ability to do just that by providing affordable financing. Finally, given that the public bank is part of state government, the public bank will pay lower salaries. It will attract qualified candidates who are passionate about public banking.

Second, the public bank will save on interest costs to its sole shareholder, the state. For the past decade, the MMDT funds have earned a low average return of 1%.⁴³ The opportunity cost of shifting them to the public bank is low, and as discussed below (II.E) will be easily recouped.⁴⁴

Third, given its ownership by the state, the public bank will be able to target a more modest return on equity than the one required by shareholders in private banks. As we detail below, this savings will amount to around 2.8% of assets on an annual basis. That is a large savings that the bank can channel to eligible borrowers by providing them with affordable financing.⁴⁵

In short, the commonwealth can deploy the power of the banking business model by establishing a public bank. But while the public bank will have the capacity that comes with banking, it will lend differently.

Those borrowers are expressly targeted by the bill: Section 12 identifies recipients who are eligible for funding. Eligible recipients include:

- – the food truck or neighborhood hair salon
- , like mechanics and supply stores, that support them

⁴² See Section 14(g).

⁴³ See MMDT Cash Portfolio, [Returns](#) (2013-2020). Data is reproduced below for convenience (a money fund’s returns are expressed as its Net Asset Value or NAV).

	Average	2020	2019	2018	2017	2016	2015	2014	2013
NAV	0.96%	0.70%	2.42%	2.10%	1.20%	0.66%	0.25%	0.18%	0.19%

⁴⁴ For further discussion see II.E. below. In a nutshell, since 2013, the MMDT balances have been earning an average yield of only 1% (see above), such that the opportunity cost of shifting them would be \$14 million annually (= \$1,400*1%). This cost is very small compared to Massachusetts’s total revenue of about 60 billion (see [MA Comprehensive Annual Financial Report \(2020\), p. 48](#)). The cost will also be easily recouped thanks to the new economic activity the public bank’s lending would generate. With a 5% flat income tax rate, new wages of \$280 per year (93 positions at \$30,000) would fully cover the cost. The state also has a 6.25% transaction tax. Given the scope of public bank lending (about \$1,300 million), and comparative figures on employment creation by CDFIs, the cost will be more than offset.

⁴⁵ The term “affordable financing” is defined in Section 13 of the bill.

- the _____ with the know-how to find, vet, and support local entrepreneurs through technical assistance
- _____
- _____
- _____
- _____, and those developing housing or preservation projects when existing funders agree that gap financing is needed

Note that _____ to many borrowers and are therefore listed in Section 12 as well.

_____ . In particular, the public bank will reach entrepreneurs from underserved communities, those subject to historic and current economic inequities, and will also direct funding to women entrepreneurs. The public bank will support cities and towns, like the Gateway Cities, that are striving to build safe infrastructure, including improvements to transportation, food security, and public safety. Looking forward, the bill prioritizes financing to entities that address the impacts of climate change. And cognizant of escalating income inequality, the bill directs support to businesses with equitable wage structures. All funding is to be distributed across Massachusetts to both urban and rural regions, with support extended to smaller towns in the application process.

By deploying the capacity to lend as a bank and reaching those worthy borrowers currently shut out, the public bank represents a potent solution to the chronic shortfall that leaves communities starved for credit. In the next section, we provide further detail on the opportunities for public bank collaboration with existing lenders by casting a spotlight on CDFIs.

B. Spotlight: The Public Bank and CDFIs

One of the key ways the public bank will provide affordable financing is through collaboration with Community Development Financial Institutions, or “CDFIs.” CDFIs are specialized lenders whose mission is to serve the needs of low-and-moderate income (LMI) communities where the high demand for capital is not met by existing banks (see I.A). Certification by the US Treasury requires CDFI activities to be “...purposefully directed toward improving the social and/or economic conditions of underserved people... and/or residents of economically distressed communities.”⁴⁶ One of the keys to CDFIs’ success is the provision of technical assistance and training that helps ensure borrowing is sustainable, and considerably

⁴⁶ See [12 CFR § 1805.201](#) (Certification as a Community Development Financial Institution).

reduces the risk of default.⁴⁷ Technical assistance provided includes financial or credit counseling, homeownership counseling, and business planning and management assistance, and is a formal legal requirement for CDFI certification by the US Treasury.⁴⁸ CDFI rates to borrowers are about the same as bank rates – but they lend to customers typically not served by banks because the banks deem the loans to be too risky or not profitable.⁴⁹ CDFIs promote diversity by increasing lending to persons of color and women (60% and 50% of lending respectively).⁵⁰ Reflecting the close relationship between CDFIs and the communities they serve, CDFIs’ staff and leadership are also highly diverse, setting them apart from the documented lack of diversity in the banking sector.⁵¹

Massachusetts is currently served by 28 CDFIs holding over \$2.2 billion in assets.⁵² The activities of these CDFIs demonstrate there is an unmet demand for financial products that could be provided by the public bank. First, Massachusetts CDFIs are 86% deployed – a remarkably high number.⁵³ For comparison purposes, banks in Massachusetts, on average, deploy under 70% of their funds in loans and leases.⁵⁴ What this means is that CDFIs are getting money into businesses, affordable housing and community facilities. A survey of 15 CDFIs in Massachusetts, conducted this summer, shows that in addition to being fully deployed, over half say that they have urgent or somewhat urgent needs for more capital. A public bank could help meet this need by providing long-term low-cost lending to CDFIs and also lend on larger projects in partnership with them.⁵⁵

⁴⁷ See Swack et al., [CDFI Industry Analysis: Summary Report](#) (2012), p.9. (“To the extent that the CDFI industry could define a common business model, it might be described as follows: CDFIs provide loans that traditional capital markets are unlikely to provide (because they are smaller or more affordably priced, for instance) to borrowers who are unlikely to be served by traditional markets (because they are perceived to be, or in fact are, riskier or are systemically underserved), and yet the CDFIs show strong portfolio performance by providing high-touch “development services” to educate and counsel the borrower. The downside of this business model is that operating costs are driven up because CDFIs market, underwrite, and originate smaller loans, and provide more intensive services.”)

⁴⁸ See [12 CFR §§ 1805.104, 1805.201](#).

⁴⁹ Average CDFI lending rates for 2019 were 6% (See OFN, [Side by Side](#) (2019), p. 5). While average commercial bank rates were slightly lower, it is hard to draw a meaningful comparison between a bank loan and a CDFI loan that bank will not make. If the bank made the same loan, based on a risk-based pricing model, the bank rate would likely be much higher than the CDFI rate. CDFIs have various ways of effectively reducing and managing their risk, including the provision of technical assistance (see note 47) and capital and loan loss reserves (discussed below).

⁵⁰ See OFN, [Side by Side](#) (2019), p. 6. CDFIs are particularly important in serving the Black-owned firms. According to TBF, [The Color of the Capital Gap](#) report (p.17) “Seventeen percent of Black-owned firm applicants applied at CDFIs, compared to 5 percent of White-owned, 4 percent of Asian-owned, and 3 percent of Latinx-owned applicants”. TBF further reports (p.17) that small business lending per capita is much lower in Massachusetts than it is nationally (\$6.64 compared to \$20.79).

⁵¹ According to 2019 data, 43% of CDFI employees were diverse and 58% were women ([OFN, Side by Side](#) (2019)). These levels are only slightly lower among management and board members: (minority and women management respectively) 40% and 37% (minority and women board members respectively) and 39% and 47%. For an empirical study of lack of diversity in the banking industry, see Committee for Better Banks, [Advancing Racial Justice for Frontline Bank Workers](#) (2021).

⁵² This was the total assets of the 15 CDFIs who participated in the Massachusetts CDFI (2021) survey by Swack and Massachusetts Public Banking.

⁵³ Swack and Massachusetts Public Banking, Massachusetts CDFI (2021). A deployment ratio is defined as loans and leases divided by total assets.

⁵⁴ Massachusetts commercial banks’ average deployment ratio (67.5%) is from [FFIEC’s State Average Report](#) (Sept 30, 2021), Balance Sheet %, Net Loans & Leases (as percentage of assets).

⁵⁵ 86% of survey respondents reported they would like more opportunities to co-lend with banks. 93% are interest in 10 year loans at 3% or lower.

In working with CDFIs the public bank can help address the unmet demand for capital, while still managing risk effectively. By lending directly to CDFIs, for example, the bank benefits from the fact that CDFIs have an excellent track record of serving LMI communities while successfully managing risk, as evidenced by very low losses. Over the past 20 years, CDFIs’ delinquencies and charge-offs have been equivalent to those of banks.⁵⁶ Additionally, CDFIs maintain strong balance sheets, further reducing risk. For example, CDFIs maintain leverage ratios of about 24% as opposed to under 10% for banks.⁵⁷ CDFIs average loss reserves for 2019 (a fund made to absorb losses without reduction to capital) were 2.87% compared to 1.2% by banks. This strong capital position, in addition to funded loss reserves, makes loans to CDFIs very safe investments for the public bank.

In short, a public bank in Massachusetts can collaborate with CDFIs to help plug a large capital gap, particularly in LMI communities. The bank will also be able to effectively manage its risks in this business line.

Table 1: CDFIs’ successful track record in managing risk

Measure	A. CDFIs	B. Commercial Banks
1. Delinquency rate (2019)	1.08% ⁵⁸	0.90% ⁵⁹
2. Delinquency rate (2010-19)	2.26% ⁶⁰	3.50% ⁶¹
3. Cumulative Charge-off (1999-19)	0.76% ⁶²	0.92% ⁶³
4. Leverage Ratio	24% ⁶⁴	10% ⁶⁵
5. Loan Loss Reserves (2019)	2.87% ⁶⁶	1.18% ⁶⁷

⁵⁶ For figures, see Table 1. The delinquency rate measures the portion of loans and leases that are more than 90 days past-due as a percentage of total loans and leases. The charge-off rate measures the portion of actual credit losses on loans as a percentage of total loans and leases.

⁵⁷ A leverage ratio is defined as capital (shareholders equity) divided by total assets. See figure in Table 1.

⁵⁸ See OFN, [Side by Side \(2019\)](#), p.6.

⁵⁹ See FDIC, [FDIC Quarterly Q4 \(2019\)](#), p. 3.

⁶⁰ Calculations based on OFN, Side by Side report figures compiled for the [2010-2019 period](#), and reproduced below for convenience.

	Avg.	2019	2018	2017	2016	2014	2013	2012	2011	2010	2009
CDFI delinq. %	2.29%	1.08%	1.34%	1.81%	1.25%	1.50%	1.70%	2.40%	2.70%	3.50%	5.60%

⁶¹ FDIC [FDIC Quarterly Q4 \(2019\)](#), Chart 4 (figure estimated based on graph).

⁶² OFN, [Side by Side \(2019\)](#), p.5.

⁶³ FRED, [Charge-Off Rate on All Loans](#), All Commercial Banks (figure represents and average across the period).

⁶⁴ OFN, [Side by Side \(2019\)](#), p.5.

⁶⁵ FDIC, [FDIC Quarterly Review Q2 \(2020\)](#), p. 5, core capital (leverage) ratio, Table I-A. Commercial banks’ “total risk-based capital ratio,” which is a more refined measure of risk, was higher at 15.7% (id at 8), but still considerably below CDFIs’ leverage ratio of 24%.

⁶⁶ OFN, [Side by Side \(2019\)](#), p.5.

⁶⁷ FDIC, [FDIC Quarterly Review Q1 \(2020\)](#), p. 8, Table IV-A (“loss allowance to: loans and leases”).

C. The Public Bank Will Have a Powerful Business Model

In this section, we detail the feasibility of the public bank by comparing its operation with the operation of commercial banks.

These cost savings will allow the public bank to provide affordable financing in ways that are not available to private banks acting alone.

The feasibility of the public bank’s business model is best evidenced by reviewing a high-level projection of its financial statements. For ease of reference, a stylized balance sheet of the public bank is included below.

MA Public Bank		
<p>\$1.6 billion About \$1.3 billion in loans (§§ 12-14) and \$300 million liquidity buffer</p>	Assets	<p>\$1.4 billion Deposits (§9) Held by MA Treasurer</p>
	Equity	<p>\$200 million Held by Commonwealth (§8)</p>

Our exercise includes three steps. First, we consider the income statements of private Massachusetts banks to create a baseline for comparison. Second, we project the cost savings the public bank will enjoy relative to private Massachusetts banks. Third, we show how the public bank can use these cost savings to promote affordable finance in ways that are not possible for private banks acting alone.⁶⁸

Step# 1: Baseline: Income Statements from Private Massachusetts Banks

The following income statement figures are taken from the FFIEC’s (Federal Financial Institutions Examination Council) peer group report of all insured commercial banks in

⁶⁸ The paragraphs below use several accounting terms that may not be familiar to readers. A corporation’s income statement includes its income, expenses, and net income over an accounting year. “Income” is revenue received by the corporation. “Expenses” are costs borne by the corporation. “Net income” is the difference between income and expenses. For a bank, most income is derived from interest on loans (“interest income”), and most expenses are associated with operating costs (“non-interest expense”). To get a sense of a bank’s profitability, net income is often divided by equity to produce a “return on equity” (ROE). That ROE represents the rate of return a bank’s shareholders have earned as compensation for their investment. Note that ROE is not expressed as portion of bank assets.

Massachusetts, and is representative of the overall performance of these banks.⁶⁹ The peer group report is a commonly used tool by regulators and bank management. We present average figures from 2018, about one year prior to the beginning of the COVID-19 pandemic. This year was chosen to represent a macroeconomic environment with low, but positive interest rates (average Fed funds rate of 2%).⁷⁰ For ease of exposition, and following the peer group report format, amounts below are expressed as percentage of banks' assets.⁷¹

- Income: Prior to COVID-19, private Massachusetts banks earned a total income of 4.4% of assets. The vast majority of that income (86%) came from the interest income that private Massachusetts banks earned, primarily on their loans and leases. The average rate banks charged from borrowers was also 4.4%.⁷²
- Expenses: Private Massachusetts banks' expenses were 3.4% of assets. The vast majority of expenses (2.7% of assets) were operating costs also known as "non-interest expense" that include wages to employees, leasing branches, IT, marketing, etc.⁷³ Private Massachusetts banks also had a small interest expense of 0.7% to compensate depositors and other creditors. A third type of expense, "provision for credit losses" is made for losses that banks anticipate on their loans. Provision for the year under examination was only 0.1%.⁷⁴
- Net income: Private Massachusetts banks' net income (=income – expenses) amounted to 1% of assets.⁷⁵
- Return on equity: Private Massachusetts banks' return on equity was 8.9% (net income of 1% of assets divided by equity of 11.3% of assets).⁷⁶

This review of the income statement illustrates a basic reality.

⁷⁷ The results of our

Massachusetts CDFI survey suggest most CDFIs cannot afford to pay interest rates greater than 3% even on 5-year debt.⁷⁸ It is easy to see that with loans needing to earn an average rate of

⁶⁹ The peer group report can be accessed on [FFIEC's website](#) (MACOM—All Insured Commercial Banks in Massachusetts, 12/31/18).

⁷⁰ We will be glad to reproduce this analysis with a time series or extend it to include different scenarios if such analysis would be of value to the Committee.

⁷¹ Figures are rounded to the first decimal.

⁷² "Yield on total loan and lease" under Non Int Inc, Exp, Yields.

⁷³ Summary ratios.

⁷⁴ All figures in this paragraph are from the Summary Ratios.

⁷⁵ Summary ratios. For simplicity of exposition, we are using pre-tax net operating income. Net income (after tax) was 0.8%. Return on equity calculations also use pre-tax net operating income as their denominator.

⁷⁶ For "return on equity" see note 68 above. We remind readers that ROE is not expressed as a % of assets, as those cancel out when dividing net income by equity (each of the above being themselves calculated as % of assets).).

⁷⁷ This is not to ignore other reasons, many of which are described in Part I of this testimony.

⁷⁸ 63% of respondents rejected a 3%-5-year rate-maturity mix, choosing lower rates instead as those acceptable to them.

4.4%, loans to CDFIs at 3% would not be commercially attractive to banks.⁷⁹

. As we discuss below, the same basic dynamic applies not only to rates, but to the low levels of risk private Massachusetts banks undertake, and to the relatively short loan maturities they extend.

Step #2: Cost Savings to the Public Bank

As explained above,

Here, we elaborate on these savings, and provide data-based projections on their size. See Appendix for figures, sources of data, and notes.

- **Operating costs:** The public bank's operating costs will be considerably lower than private Massachusetts banks. First,

including paying tellers, operating branches, maintaining sophisticated IT systems, marketing etc.

While the exact size of the public bank's operating cost savings cannot be projected with certainty, we can get an indication of their scope by studying another public bank, the Bank of North Dakota. We used data from the past decade (income statements 2019, '17, '15, '13, '11) to compare the operating costs of the Bank of North Dakota (BND) to Massachusetts banks. For simplicity of exposition, we calculate each of their operating costs over a given year as a proportion of that year's assets. The data demonstrates that

This difference reflects a much more favorable efficiency ratio to BND compared to private Massachusetts banks.⁸¹ To control for the possibility that the difference in operating cost is driven primarily by a difference in living expenses between the two states, we compared BND's operating costs to those

⁷⁹ Note that lending for non-commercial motivations, like CRA compliance, is very limited in scope. Less than 3% of bank asset counted towards CRA compliance (2016 figures; calculation based on total of \$419 billion counting towards CRA compliance from the [Urban Institute](#), divided by \$16 trillion in commercial bank assets from [FRED](#)).

⁸⁰ See Appendix, Tables 1-2.

⁸¹ The efficiency ratio is calculated as non-interest expense divided by operating income after provision for loss. The lower the efficiency ratio, the more efficient the bank, because it is producing the same amount of interest income (denominator) at a smaller cost (numerator). Over the past decade, BND's average efficiency ratio was only 20.6% compared to private Massachusetts banks' average efficiency ratio of 73% (See Appendix A, Tables 1-2). The national average is 67.7% (see [FFIEC](#), National-All bank in nation, 09/30/2019).

of North Dakota commercial banks over the same period.⁸² The result remains very similar, meaning the operating cost saving is unlikely to be driven by the cost of living differential.⁸³ Nevertheless, to account for two other technical controls, we have adjusted the 2.3% cost saving by dividing it by a margin of safety of 1.4. Even with this adjustment, the cost living differential between states demonstrates that the projected savings on operating costs remain substantial at 1.6% of assets ($=2.3\%/1.4$).⁸⁴ In what follows, we use that lower (and more conservative) estimate.



This represents an additional annual saving of 0.7% of assets compared to Massachusetts private banks.

By meeting presently unmet demand for capital, the public bank will create new jobs and sales in Massachusetts. For every dollar of new income/sales so created, Massachusetts recoups at least 5 cents (income and sales are currently taxed at a flat 5% and 6.25% respectively). Taking the \$14 million in interest on MMDT balances as our benchmark ($=\$1,400 \text{ million} * 1\% \text{ average yield}$), the commonwealth recoups the full interest with only \$280 million in new income and sales ($=\$14 \text{ million} / 5\% \text{ tax rate}$). As discussed below (II.E), this is a high likelihood given the public bank's size (\$1.6 billion) and comparative data from mission lenders.⁸⁵

⁸² During the period under consideration (the 2010s), Massachusetts was 1.2 times more expensive than North Dakota (see Bureau of Economic Analysis, [Regional Price Parities by State and Metro Area](#) ($=108/90$, reflecting the fact that Massachusetts and North Dakota had average values of 108 and 90 percent of the national price level respectively).

⁸³ Private North Dakota banks had average operating costs of 2.6% over the period, which is close to 2.8% private Massachusetts banks. See Appendix Tables 1, 3. North Dakota Banks' efficiency ratio is somewhat lower than private Massachusetts banks, an average of 62.9% compared to 73.4%, but still far above BND's 20.9%. Given that operating costs as % of assets are similar (the numerator in the efficiency ratio), the difference is driven by higher rates on North Dakota bank loans (e.g., due to a less competitive banking market) rather than a cost of living differential.

⁸⁴ The first control we used was to compare the deployment ratio of BND and private Massachusetts banks. That ratio measures the share of loans and leases as a total proportion of a bank's assets. The comparison controls for the fact that loans and leases involve higher operating costs compared to securities and central bank reserves (a bank's main non-loan assets). We find that over the period, BND had a lower deployment ratio than private Massachusetts banks, 58.8% as compared to 69.6%. To eliminate this possibility altogether, we can deflate the difference in operating cost by a margin of safety of 1.18 ($=70\%/59\%$). See Appendix, Table 5. The second control accounts for the possibility that the FFIEC data we are using is not asset weighted. Smaller banks generally have higher efficiency ratios, so the lack of asset weighing could skew the result in that direction. We note that this control is not strictly necessary, because many of the private Massachusetts banks the public bank would support are smaller banks, facing the higher efficiency ratios. Nevertheless, to control for the size effect, we calculated the difference between the 2019 national FFIEC data and 2019 (see note 81) national FDIC data (that has a lower efficiency ratio, and therefore appears to be asset weighted). This leads to a margin of safety of 1.19 ($=\text{the } 67.7\% \text{ FFIEC figure divided by the } 56.7\% \text{ FDIC figure}$ (see [FDIC Quarterly Q2 2020](#), p. 8)). The total margin of safety from the two controls combined is therefore 1.4 ($=1.18 * 1.19$).

⁸⁵ Our calculations on opportunity cost assume the relatively low interest rate environment prevailing during 2013-19 (where data on MMDT yields is available). We believe the basic conclusion would hold in a higher rate environment given the large size of additional tax income relative to the opportunity cost (see II.E for further discussion). We also note that if this were an area of concern for the committee, as the sole shareholder of the bank, the commonwealth could always recoup the opportunity cost of foregone interest by targeting a slightly higher rate of return on its investment. At any event, as our calculations above demonstrate, forgone interest represents a relatively small portion of the public bank's cost savings and does not affect its basic financial model.



For example, by targeting a more modest 5% rather than a 8.9% return on equity, the public bank can save an additional 0.5% of assets annually.⁸⁶

In sum, through lower operating costs, foregone interest on deposits, and a lower return on equity, the public bank’s cost savings compared to private Massachusetts banks are projected at 2.8% of assets annually (see summary in Table 2 below). 2.8% of assets is a large amount. Recall that the net income that guides private banks’ incentives is 1% of assets annually (see previous section). As we describe below, the public bank can use these savings to support affordable financing.

Table 2: All figures as % of assets

	Private MA banks	Public Bank	Net difference
Operating costs	2.7%	0.9% ⁸⁷	1.6%
Interest on deposits	0.7%	0%	0.7%
Net income	1%	0.5%	0.5%
Total	4.3%	1.4%	2.8%

Step #3: Using Cost Savings to Support Affordable Financing

The public bank will use its cost savings to support affordable financing in several ways – providing lower interest loans to eligible borrowers, building up loan loss reserves to responsibly engage in more inclusive lending, and extending maturities through responsible hedging. The following paragraphs provide a broad sense of how these tools may be used, keeping in mind that the specific details, and mix between tools, will be determined by the public bank’s management based on the objectives of its business plan (see discussion in II.E.).



For a CDFI needing credit at 3% or below, the public bank’s ability to provide low-cost debt will facilitate CDFI lending that would not have taken place otherwise.

For example, in the

⁸⁶ Assuming a leverage ratio of 1-to-8, a reduction of 5% in ROE leads to a saving of 0.5% of assets (=5%/8).

⁸⁷ The 0.9% figure was calculated as follows. To provide a margin of safety, the 2.3% difference in operating cost between BND and private Massachusetts banks was deflated by 1.4, resulting in a deflated difference of 1.6% (=2.3%/1.4). The deflated difference was then subtracted from private Massachusetts banks’ operating cost of 2.7% (1.1% = 2.7%-1.6%).

environment discussed above, with a 4.4% average charged on commercial loans, the public bank can price its lending as low as 1.6% (=4.4% – 2.8%), while adding a small amount for expected loan losses (see discussion below).



Such higher perceptions of risk are common (even if they are at times unfounded⁸⁸) with respect to borrowers with limited credit history, lack of collateral, or non-traditional legal status (like cooperatives). These are often the kind of loans most required in underserved communities and private banks shy from making them.

Data shows that loan loss reserves by Massachusetts banks over the 2011-19 period have been only 0.95% of loans and leases. This represents a low tolerance for risk, even in comparison to the national average of 1.44% in reserves.⁸⁹ The data suggests the Massachusetts banks' lending is highly limited to the very safest loans. All things equal, the public bank can lend at similar rates to Massachusetts private banks, while using the 2.8% cost saving to build loan loss reserves, while still maintaining responsible risk management. To give a stylized example, if the public bank lent at 4.4%, over a three-year period, it would accumulate a much higher loan loss reserve of 8.4% (=2.8%*3 years). The public bank could then make loans with capacity to absorb expected losses of 2-3%, while still maintaining risk management metrics that are more prudent than national commercial banks.⁹⁰



: Many borrowers require loans with longer maturities than those offered by private banks.

⁹¹ Meanwhile, less than 14% of private Massachusetts banks loans are for maturities greater than 5%. Private banks are reluctant to make longer-term loans due interest rate risk.⁹² Much in the way that loan loss reserves can mitigate credit risk, interest rate risk can be managed through use of interest rate hedges. And like loan loss reserves, these hedges involve

⁸⁸ While costly, technical assistance provided by CDFIs dramatically reduces expected losses on loans. See discussion of Swack et al., [CDFI Industry Analysis: Summary Report](#) (2012), p.9, in note 47.

⁸⁹ See Appendix, Table 5.

⁹⁰ For reference, over the 2010s, national commercial banks had average loan loss reserves of around 1.68% of loans, while average charge-offs were 0.69% of loans, a proportion of about 1-to-2.5. See Appendix, Table 6.

⁹¹ Michael Swack and Public Banking MA, Massachusetts CDFI Credit Survey (Summer 2021).

⁹² In this context, interest rate risk refers to the risk that a bank with a fixed rate on its assets would face rising costs on its liabilities. As noted above (II.A), the cost of deposit funding (the main form of bank liability) is lower than other forms of debt finance, but banks can still face non-trivial cost increases in a rising interest rate environment. Like credit risk, interest rate risk is subject to prudential regulation.

costs that profit-maximizing banks are often not interested in bearing. The public bank can allocate some of its cost savings to purchase hedges, extend loan maturities, and meet the demand for patient capital. Other uses of the public bank's cost savings which are provided in the bill (Section 13) include taking subordinate positions (which also require higher risk reserves) and providing technical assistance grants to CDFIs.

D. The Public Bank Will Effectively Control Credit and Liquidity Risk

Current regulatory requirements will ensure the soundness of the public bank. Most basically the bank will be supervised by the Massachusetts Division of Banks, according to the same basic set of rules that apply to other state banks.⁹³ The public bank will also be subject to federal regulation by the Boston Fed.⁹⁴

In speaking of the bank's soundness, it is common to distinguish between credit risk and liquidity risk. Credit risk concerns the risk that a bank's lending entails relative to the bank's capital (the excess of assets over liabilities) and its loan loss reserves. With a leverage ratio of 1-to-8, the public bank's capital position will be robust, and safer than the average private commercial bank.⁹⁵ Furthermore, savings on operating costs will allow the public bank to build additional loan loss reserves, above and beyond its capital. Data show that the business model of Massachusetts private banks precludes lending with virtually any credit risk, because their loan loss reserves are small so as to maximize profitability.⁹⁶ The public bank will be able to set aside additional loan loss reserves. Thus, it can engage in more inclusive lending practices responsibly.⁹⁷

: its initial capital stands, loan loss reserves, and prudent leverage ratio all stand as a bulwark to such losses. We also note that even the full amount of

⁹³ Section 3(g) of the bill subjects the public bank to regulation and examination by the Massachusetts Division of Banks ("the bank commissioner"). That provisions includes a number of small and highly technical modifications that would apply to the public bank relative to other state banks. These modifications do not change any of the key features of the regulatory framework.

⁹⁴ Section 3(c) of the bill authorizes the public bank to become a member of the Federal Reserve System, which, as a state bank, would subject the public bank to additional regulation by the Federal Reserve. See §§12 USC 324-5 (State Banks as Members). See also, CRS, [Who regulates Who?](#) An Overview of U.S. Financial Supervision (2010), p.33.

⁹⁵ The public bank's leverage ratio of 1-to-8 (12.5%) is meaningfully greater than private commercial banks average ratio of 1-to-10 (10%). For the commercial bank data, see note 65 above. 2019 data was used to avoid accounting for temporary regulatory changes made during the COVID-19 crisis.

⁹⁶ See discussion in notes 89, 90 and references made there.

⁹⁷ See discussion in II.C.

⁹⁸ The legal rule, formally known as "prompt corrective action," formally applies to FDIC insured depository institutions (See 12 U.S. Code § 1831o), which covers virtually the entire field of US financial regulation. While the public bank will not be insured by the FDIC (see discussion below), there's little doubt the same regulatory approach would be taken by the Massachusetts Division of Banks and Boston Fed.

bank deposits and capital represents a tiny fraction of the commonwealth's total liabilities (\$1.6 billion compared to \$104 billion).⁹⁹ This means that even if the exceedingly unlikely probability that the public bank lost that total, the amount at issue is far too small to impact the state's credit standing.

Instead of focusing on remote hypotheticals, we encourage the Committee to look at a risk that is already material. That is the risk of shutting out a large portion of Massachusetts citizens from credit and opportunity.

As for liquidity risk, the public bank's design establishes effective management, ensuring its ability to meet its liabilities (deposits) as they fall due.

¹⁰⁰ The fact that the public bank will have a single depositor (or a single major depositor) does not present problems.¹⁰¹ Mapping the logistics, which differ somewhat from that adopted by commercial banks, clarifies that point.

The deposit base of a commercial bank is typically broad and includes many depositors whose receipt of funds from other banks can be offset against deposit transfers to depositors in other banks. Deposit transfers require the payor's bank to transfer central bank reserves¹⁰² to the bank of the payee. However, while payors in one bank are constantly calling on their banks to transfer reserves to the banks of payees, that bank is also taking in reserves as its other depositors are receiving payments from depositors in other banks. As a result of this reciprocity, a significant amount of bank credit in the form of deposit liabilities can be effectively offset between banks, allowing banks to hold an amount in reserves which is only a fraction of their deposits. That networked reciprocity is a key aspect of banks' ability to engage in maturity transformation (funding long-term assets with short-term liabilities).

Given its single depositor, the public bank will initially receive balances (\$1.4 billion) from the MMDT: the public bank's account at the Boston Fed will be credited with \$1.4 billion representing the same sum in deposit liabilities to the treasurer.¹⁰³ As it is making loans to its

⁹⁹ See Commonwealth of Massachusetts, [Comprehensive Financial Report](#), p. 24 (total liabilities for total primary government).

¹⁰⁰ Bank examinations (including by the Massachusetts Division of Banks) use a standardized system known as CAMELS. The "L" in the acronym stands for liquidity. See MA Division of Banks, [Regulatory Bulletin](#). For discussion of basic regulatory authority, see notes 93, 94.

¹⁰¹ The legislation provides that, after the public bank is well-established and has been deemed by the state treasurer to have the requisite capacity, it could accept deposits of longer-maturity funds (over 180 days) from municipalities, quasi-publics, or the commonwealth. See Section 9(e).

¹⁰² Central bank reserves are balances commercial banks hold in accounts with their regional Federal Reserve bank (e.g., the Boston Fed) to manage their liquidity. They are not to be confused with "loan loss reserves" (see discussion in I.I.C above) that protect a bank's capital.

¹⁰³ In balance sheet terms, +\$1.4 billion reserves (Assets); +\$1.4 deposits to Massachusetts treasurer (Liabilities). For simplicity, we are abstracting from the additional \$200 million transfer to be made for the bank's capital. In balance sheet terms, that transaction would involve +\$200 million in reserves (Assets); +\$200 million in shareholders' equity (held by Massachusetts).

borrowers (e.g., for a total of \$1.3 billion), the public bank will simply transfer reserves to the private banks holding those borrowers' accounts.¹⁰⁴ This is entirely workable.

In turn, when the treasurer uses the public bank deposits to make transfers to payees in other banks, the public bank will transfer reserves to the private banks where those payees hold their accounts.¹⁰⁵ Here, the same basic logic of networked reciprocity that works for private banks will hold for the public bank. While the treasurer will at times make payments (so the public bank will transfer out reserves), it will also be receiving payments from depositors in other banks (so the public bank will gain reserves). For example, taxpayers' payment to the commonwealth will be drawn on the wide array of private banks currently operating in the commonwealth. As the public bank presents these checks to the various banks, the public bank will be receiving reserves against the checks. Reserves will therefore remain networked; the state deposit base serves analogously to the customer base of a commercial bank.

The business of the commonwealth will produce some differences in pacing; those differences do not affect the offsetting logic. For example, some payments to the treasurer (e.g., income taxes) may be concentrated around particular dates while the treasurer will have to meet payment demands at other times. Like all banks facing temporary mismatches in their liquidity, the public bank will have tools designed for the problem. First, like all banks, the public bank will hold a portion of its assets as a liquidity buffer (reserves and securities) to handle relatively short-term fluctuations.¹⁰⁶ Second, like all banks, the public bank will have access to short-term interbank markets where it can lend excess liquidity, and borrow in times of a liquidity deficit. Third, like all banks, the public bank will have access to the Federal Reserve's discount window (Federal Reserve Act, Sec. 10B.) where banks facing a liquidity shortage can borrow against a broad range of collateral (including commercial loans).¹⁰⁷

For over a century, the Bank of North Dakota, whose deposit base also consists of public deposits, has proved liquidity management under this model can work successfully.¹⁰⁸ Indeed, under the proposed legislation,

. Instead, the

¹⁰⁴ In balance sheet terms, +\$1.3 billion loans (Assets); -\$1.3 billion reserves (assets).

¹⁰⁵ In balance sheet terms, -reserves (assets); -deposits to Massachusetts treasurer (liabilities).

¹⁰⁶ As mentioned in note 84, private Massachusetts banks had a slightly higher deployment ratio than BND (69% to 58%). This represents an additional margin of liquidity for MDT. This is a difference of degree rather than a difference in kind. As noted below, the additional liquidity is likely attributed to BND's need to handle "fast money" which is not relevant for the Massachusetts public bank.

¹⁰⁷ Indeed, public bank borrowing in interbank markets would be simpler than it is for most banks given the Massachusetts state guarantee (Section 10 of the bill).

¹⁰⁸ See [BND's 2019 Annual Report](#). "BND's primary deposit products are interest-bearing accounts for state and political subdivisions". The BND's deposit base is slightly broader insofar as it includes deposits by local government. However, these deposits add relatively little diversity (e.g., subject to similar tax calendars) and should not change the thrust of the analysis. (For the option of municipal deposits by the Massachusetts public bank, see note 101).

funds targeted for the public bank are “slow money” that are set aside from funds used for daily transactional purposes.¹⁰⁹ As above, the commonwealth has upwards of \$10 billion located in the MMDT; even in the most recessionary times, that money will be available before the commonwealth need contemplate using public bank deposits.¹¹⁰ In other words, the funds to be handled by the Massachusetts public bank are the very slowest tranche of the slow money. In distinction, the BND handles all North Dakota’s deposits, including its fast money.¹¹¹ If the BND can successfully manage the fast money, the Massachusetts public bank’s task is surely possible.

The bill provides a second feature that even private banks do not enjoy. While the treasurer is free to use its public bank deposits during the year, the average of \$1.4 billion in deposits must be maintained across the year.¹¹² This means that even if the public bank might have to borrow in interbank markets, potential lenders (and regulators) will know deposits will be replenished (indeed, exceeded) within a relatively short period. No private bank, and not even the BND, has that safeguard. Indeed, private banks are subject to potential runs by uninsured depositors to which the reliance on a public deposit base is immune.

Although operating with a single deposit base presents slightly different logistics, the same logic of networked reciprocity of deposits holds for the public bank as for commercial banks. In turn, the temporary liquidity mismatches that all banks encounter will be handled by the standard tools, a combination of liquidity buffers and interbank borrowing, backstopped by the Fed’s discount window. Finally, the BND’s practice for over a century is a proof of concept. Indeed, special features in the bill – limiting deposits to a fraction of slow money, and the minimum average annual balance requirement – will make liquidity management by the Massachusetts public bank simpler and more particularly reliable.

E. The Public Bank Is An Affordable Project for the Commonwealth

Using current municipal bond yields as a measure of borrowing costs, funding the initial \$200 capital will amount to around \$3 million a year.¹¹³ Second, there is the opportunity cost in forgone interest on the \$1.4 billion currently held in the MMDT. Using the 2013-2020 average MMDT yield of 1%, revenues could decline by

¹⁰⁹ See Section 9(b).

¹¹⁰ See discussion in II.A, note 40.

¹¹¹ See North Dakota Century Code, [6-09-07](#) (“All state funds and funds of all state penal, educational, and industrial institutions must be deposited in the Bank of North Dakota by the persons having control of such funds or must be deposited in accordance with constitutional and statutory provisions.”).

¹¹² See Section 9(a) and Section 1, definition of “Minimum Average Annual Balance.”

¹¹³ This figure represents October 2021 yields of around 1.45% on 20-year municipal bonds with AA rating (accessed through [FMS bond Inc.](#)). According to our projections (II.C above), the return on equity on the commonwealth’s shares in the public bank would considerably exceed this cost of borrowing, but we are assuming the public bank will retain its net income for expansion and building up of additional loss reserves.

around \$14 million ($=1\% \times \1.4 billion).¹¹⁴ The total estimate for reduction in fund balances at the end of the year is therefore \$17 million. That amount is only 0.2% of the commonwealth's \$61.5 billion in total annual revenue.¹¹⁵

The modest fiscal cost of the bill will be recouped, and likely considerably exceeded through its increase of economic activity in the state, and consequently, an increase in the tax base. By supporting sustainable credit to underserved communities, the public bank will create new jobs and sales. These jobs and sales are taxable at a rate of 5% (individual income) and 6.25% (sales taxes).

An increase of only \$340 million in taxable economic activity will suffice to cover the \$17 million cost ($=\$17 \text{ million} / 5\% \text{ tax rate}$). With public bank assets of \$1.6 billion, and over \$1 billion in lending, achieving this breakeven amount is a high probability.

While a formal projection of the fiscal impact is beyond our current scope, a simple calculations will help inform such future analysis. The record of mission lenders elsewhere suggests the likelihood of full recoupment of cost by documenting the quantitative relationship between amounts lent and economic development created. Opportunity Finance Network, a national CDFI association, reports that since its inception, its members created or retained 1.75 million jobs while providing about \$83 billion in cumulative finance, reflecting an average lending outlay per job of about \$47,500 ($=\$83 \text{ billion} / 1.75 \text{ million jobs}$).¹¹⁶ Using the same ratio, with over \$1 billion in lending, the public bank would create or help retain about 21,000 jobs ($= \$1 \text{ billion} / \$47,500$). Using the conservative assumption that all jobs involved are low-income jobs at \$40,000 annually, these jobs will generate a total of nearly \$840 million in wages per year. That amount would flow from increased production and sales by businesses providing employees with new consumption power and generating further sales and income from their spending. Tax benefits to low-income earners (like the Earned Income Tax Credit) make the income tax from initial wage creation somewhat complex to forecast. At the same time, we believe that using standard economic impact analysis (including multipliers) will demonstrate that the \$840 million increase in wages, and its various ripple effects on income and sales, would generate an increase in state revenue far in excess of the \$17 million cost described above (that is, it will increase the tax base by at least \$340 million in taxable income and sales). Such economic impact analysis will demonstrate that the small cost of the bill will be more than fully recouped by the commonwealth in the form of increased taxation capacity.

F. The Public Bank's Governance Structure Ensures Accountability

The public bank's proposed governance ensures inclusive participation in its decision making and rigorous accountability for its operations. The decision makers who will direct the operations of the bank will be populated by representatives of the very same collaborators and

¹¹⁴ See discussion in I.I.C.

¹¹⁵ See [2020 MA Comprehensive Annual Financial Report](#), p. 46.

¹¹⁶ OFN, [Side by Side \(2019\)](#), p. 6.

beneficiaries the bank is intended to support and by experts who can ensure the bank is lending in line with its goals. This comprehensive feedback loop is embedded throughout the governance structure of the bank.

The bill provides robust opportunities for public comment in the form of an internet-based comments portal, created by the Board of Advisors, for the public to share their concerns regarding their need for loans. The Board of Directors, CEO and staff will all have direct access to the public comments to ensure that the public's voice is heeded, and the Board of Advisors will address the public's concerns via the comments portal at its quarterly meetings.¹²¹ The Board of Advisors will also directly represent a broad array of public concerns and will address concerns raised by the public on the comments portal and at annual joint meetings with the Board of Directors.

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¹¹⁷ See Section 4(a).

¹¹⁸ See Section 4(b).

¹¹⁹ See Section 4(g).

¹²⁰ See Section 7(a).

¹²¹ See Section 7(b).

¹²² See Section 11.

III. The Public Bank Will Complement and Strengthen Other Lenders in Massachusetts

A. The Public Bank Will Work With Private Banks, Credit Unions, and CDFIs

The creation of this public bank will not take business from any existing banks, CDCs, or CDFIs. The public bank won't have branches or ATMs. It won't be competing with commercial banks for deposits and or any services.¹²³ Under the bill, it will be prohibited from taking deposits from people, businesses, or even treasurer deposits held in private banks (its only deposits will come from a small portion of MMDT balances).¹²⁴ On the lending side, by its very design, the loans the public bank will hold are ones commercial banks are not interested in underwriting. Instead, the public bank will work alongside the existing financial infrastructure in Massachusetts to help meet currently unmet credit needs.

The small size of the public bank reinforces its noncompetitive role as collaborator: it will only have assets of around \$1.6 billion compared to commercial banking's \$350 billion.¹²⁵ The bill directs the Bank to collaborate with private Massachusetts banks and CDFIs. The proposed legislation instructs that “[t]o the extent possible, the Bank’s provision of lending and de-risking under Section 13(a) shall be conducted through participation lending programs, with Massachusetts banks and community development institutions originating and servicing the loans.”¹²⁶ The bill continues, “[t]he Bank shall partner rather than compete with those entities to strengthen them and to expand affordable financing in the commonwealth.”¹²⁷ These participation loans allow local banks to benefit from origination fees and from being able to work with a lender to make a larger loan— without the threat of being taken over by a larger bank. Similarly, the legislation ensures that the bank can work in tandem with Massachusetts’ important state agencies promoting affordable housing and local development like MassDevelopment and Mass Capital Growth Corporation, in order to increase their reach.

B. The Public Bank’s Activities Have No Considerable Overlap with Existing Credit Programs

Although Massachusetts has several credit programs, there is no considerable overlap between these programs and the public bank. In some instances, the public bank will address credit needs that are distinct from those of the existing programs. In other instances, the public bank’s mission is more similar to an existing program, but that program is extremely limited in its scope. In such instances, the bill (Sections 12 and 14) authorizes and even prioritizes public

¹²³ See Sections 3(a), 9.

¹²⁴ See II.A. The bill allows the public bank to accept deposits from municipalities under certain conditions, including that they will be longer-term deposits. Such longer-term municipal balances are currently kept in MMDT and will not be in competition with commercial banks.

¹²⁵ See [Total Assets for Commercial Banks in Massachusetts](#).

¹²⁶ Section 14(h). A “participation loan” is defined as “a loan in which the Bank shares in funding or overseeing an advance of credit under a written agreement between the originator of the loan and the Bank.” Section 2.

¹²⁷ Section 14(g) (emphasis added).

bank collaboration with quasi-public entities to bolster their capacity. In our view, the strongest testimony about the need for a collaborative approach comes from community development practitioners with decades of experience in the commonwealth. We note especially the written testimony of Mr. Bob Van Meter, former chief executive of LISC, a CDFI:

“There are other institutions and players and it is also true that access to capital is not the only challenge facing small business, but the Public Bank will meet needs that Mass Growth Capital and other small business lenders are not able to meet alone. It will collaborate with other lenders by participating in loans and providing lower interest funds that can bring down the total cost to the borrower.”

In this section we provide further detail by briefly surveying two existing programs: Mass Development and Mass Growth. Our figures use 2020 annual financial and OPMO reports and (the most recently available).¹²⁸

1. Mass Development

Mass Development provides loans and guarantees to facilitate economic development and industrial growth in the commonwealth. During 2020, typical borrowers and guarantee recipients included charter schools, emerging technology companies, and community services (health, elderly services) seeking real-estate finance.

- The scale of lending and guarantees by Mass Development is small compared to the public bank, which is designed to have lending capacity of around \$1.3 billion.¹²⁹ While Mass Development’s balance sheet appears large at first sight – \$507 million – its loan portfolio is much smaller, \$87 million, with only \$65 million providing long-term credit. Total guarantees outstanding are difficult to decipher from the annual report, but appear to be comparable to or smaller than the loan portfolio.¹³⁰
- Mass Development’s activities as a commercial lender are especially small whereas commercial lending will be an important business line for the public bank (through collaboration with CDFIs and community banks). During 2020, Mass Development provided only \$6 million in commercial loans and guarantees (out of a total of \$33 million).¹³¹
- Mass Development does not provide substantial technical assistance to private borrowers, whereas the public bank will facilitate technical assistance on a large scale through its

¹²⁸ The Office of Performance Management and Oversight (OPMO) provides annual reports on the performance of quasi-public entities engaged in economic development. The 2020 report is available [here](#).

¹²⁹ See II.A.

¹³⁰ See Massachusetts Development Finance Agency, [Financial Statements \(FY 2020\)](#), page 17 (the loan figure is the sum of loans receivable (current and noncurrent), and the small business recovery loan fund). The relative volume of guarantees to loan activity is estimated based on the [OPMO FY2020 MassDevelopment Report Attachment available here](#) (“Loans & Guarantees” tab).

¹³¹ See Mass Dev, [OPMO FY2020 MassDevelopment Report Attachment](#) (“Loans & Guarantees” tab).

support of CDFIs. During 2020, Mass Development’s technical assistance was under \$1 million, and provided almost exclusively to cities.¹³²

In sum, there is no considerable overlap between Mass Development’s activities and the public bank. Mass Development does not collaborate with CDFIs, its involvement in commercial lending is relatively small, and its overall lending is on a considerably smaller scale.

2. Mass Growth Capital Corporation

Mass Growth provides debt financing for small businesses, and focuses its activities on minorities, females, veterans and underserved communities. It offers technical assistance to borrowers (nearly \$3 million during 2020) in ways that resemble the CDFIs that will be one of the main recipients of public bank support.¹³³

Although Mass Growth’s mission is similar to the public bank, the scale of Mass Growth’s operations is comparatively small. Its lending portfolio for 2020 was only \$33 million, with \$24 million being long-term (total assets were \$54 million).¹³⁴ Due to legal restrictions, Mass Growth is very limited in its ability to borrow to fund its activities, and must therefore rely on appropriations.¹³⁵ For this reason, the public bank’s ability to collaborate with Mass Growth through loan participations could considerably increase Mass Growth’s capacity.

C. The Current Legislation Is Distinct From An Earlier Proposal And Should Be Considered Anew

In 2011, a special commission considered a public banking proposal in response to the 2008 financial crisis and recommended against the proposal in its final report.¹³⁶ The 2011 proposal was unlike this proposal in three fundamental ways: the purpose of the institution, the size of the institution, and the institution’s cash management system. Because the two proposals differ in such important areas, the investigation into the 2011 proposal does not functionally apply to the current legislation and requires consideration with entirely fresh eyes.

In the aftermath of the 2007-9 financial crisis, the main purpose cited under the 2011 initiative involved macro stabilization of the state’s economy.¹³⁷ Conversely, a key goal of the present legislation is to expand affordable financing in underserved communities, especially through cooperation with Community Development Financial Institutions (CDFIs) and other intermediaries. That goal has no mention in the 2011 Commission Report. In rejecting the 2011 bill, the Committee Report cited a study by the Boston Fed finding the Bank of North Dakota (the only public bank operating in the U.S.) did not in fact contribute to macroeconomic

¹³² See Mass Dev, [Financial Statements \(FY 2020\)](#), page 32.

¹³³ See [OPMO FY2020 MGCC Report Attachment available here](#) (“Technical Assistance” tab).

¹³⁴ Massachusetts Growth Capital Corporation, [Financial Statements \(FY 2020\)](#), page 7.

See also [OPMO Mass Growth Report \(FY 2020\)](#), page 3

¹³⁵ [M.G.L. Ch. 40W, § 3\(i\)](#).

¹³⁶ See the [2011 Commission report](#).

¹³⁷ *Id.*, pages 7-8.

stabilization of the state’s economy. What was then cited as a reason for rejection has no bearing on the current bill.¹³⁸

Furthermore, this legislation proposes a much smaller public bank than previously considered: only \$200 million in capitalization, and \$1.6 billion in assets, compared to a \$30 billion bank (with \$3.6 billion in capitalization) contemplated in the 2011 study.¹³⁹ Indeed, the 2011 Commission Report cited the large cost of capitalizing the public bank as one of the main considerations in objecting to the bill.¹⁴⁰ In contrast, the smaller size of the public bank in this 2021 legislation is a function of the difference in goals. This bill is not designed to stabilize the state economy, but rather to address the unmet credit needs of underserved communities. The public bank contemplated in this bill is scaled to meaningfully contribute to those needs. Given its small size, it is not expected to affect the commonwealth’s finances.¹⁴¹

Lastly, this legislation proposes a structure with far fewer logistical hurdles for managing the state treasurer’s deposits than the 2011 initiative. The public bank described in this bill will hold only \$1.4 billion in deposits, which is a small fraction of total funds managed by the treasurer.¹⁴² Even more importantly, those funds will not be transferred from commercial banks where the treasurer maintains deposits requiring complex operations (payroll, taxes, etc.), also known as “fast money.” The 2011 Commission Report was concerned that recreating such operations at the level of a public bank would be complex and costly.¹⁴³ Instead, the \$1.4 billion of public bank deposits under the 2021 legislation will be transferred from the Massachusetts Municipal Depository Trust (MMDT), a prime money market fund handling “slow money” that does not involve operational complexity.¹⁴⁴ This operational simplification saves on cost and complexity compared to previous iterations.¹⁴⁵

Conclusion

Despite the strength of the Massachusetts economy for some, we are long overdue for structural reform that enables the commonwealth to fulfill the unmet financial needs of our communities. The public bank will help our state become more resilient in the face of economic downturns and climate impacts and will help the state address unmet financing needs of communities of color, women, small businesses, and farmers in cooperation with our state

¹³⁸ Id., pages 3, 7.

¹³⁹ Id., page 9.

¹⁴⁰ Id., page 3. The capitalization figure mentioned in the report is \$3.6 billion and was scaled based on historical figures for the Bank of North Dakota. Assuming a 1-to-10 leverage ratio, such a bank would have had approximately \$36 billion in assets, making it one of the largest banks in the commonwealth. The fear of industry opposition to such a large bank was another consideration the 2011 report gave in rejecting the plan.

¹⁴¹ See II.E for further detail.

¹⁴² See notes 39-40 above.

¹⁴³ See the [2011 Commission report](#), page 9.

¹⁴⁴ See II.A, II.E for further detail.

¹⁴⁵ Note that given the large size of the public bank anticipated in the 2011 discussions, all of the treasurer’s balances at the time (and many billions more) would have had to be transferred to that public bank.

agencies, local banks and CDFIs. Public funds should work for the public—always. By providing a safe depository and a development-oriented lending operation owned by the commonwealth, the Bank will empower the citizens of Massachusetts to harness the power of modern finance in support of their own economic well-being. We urge you to favorably report An Act to Establish a Massachusetts Public Bank. Thank you for your time and consideration.

Respectfully submitted,

MASSACHUSETTS PUBLIC BANKING

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Appendix

Table 1: Private Massachusetts Banks' Operational Efficiency

	Average	MA Banks '19 (% of assets)	MA Banks 17 (% of assets)	MA Banks '15 (% of assets)	MA Banks '13 (% of assets)	MA Banks '11 (% of assets)
A.1. Efficiency ratio (from peer report)	73.4%	72.4%	72.1%	75.0%	75.8%	71.8%
A.2. Efficiency ratio (=B/C)	76.8%	76.7%	73.8%	77.2%	78.3%	77.9%
B. Non-interest expense	2.8%	2.6%	2.7%	2.8%	2.8%	3.0%
C. Operating income (=Sum C)	3.6%	3.4%	3.7%	3.6%	3.6%	3.9%
C.1. Net interest income	3.0%	2.9%	3.1%	3.0%	3.0%	3.2%
C.2. Non-interest income	0.6%	0.6%	0.6%	0.6%	0.7%	0.8%
C.3. Provision for loan loss	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Source: Data from peer group average report can be accessed on [FFIEC's website](#) (MACOM—All Insured Commercial Banks in Massachusetts, 12/31/19; 12/31/17; 12/31/15; 12/31/13; 12/31/11).

We have compared our internally calculated efficiency ratio (row A.2.) to the official ratio in the group report (row A.1.). The small difference between the two is likely attributable to small items not included in our spreadsheet (like amortization of non-tangible assets). The efficiency ratios included in the testimony are the official ones (which are slightly lower, and hence, more conservative in estimating the difference with BND). The equivalent items were also not included in the BND figures below (Appendix Table 2).

Table 2: Bank of North Dakota Operational Efficiency

	Average	BND '19 (thousands)	BND '19 (% of assets)	BND'17 (thousands)	BND' 17 (% of assets)	BND '15 (thousands)	BND '15 (% of assets)	BND '13 (thousands)	BND '13 (% of assets)	BND '11 (thousands)	BND '11 (% of assets)
A. Efficiency Ratio (=B/C)	20.9%	18.0%	18.0%	17.5%	21.3%	17.0%	16.7%	27.7%	27.9%	23.4%	22.9%
B. Non-interest expense (operating cost)	0.45%	\$ 37,090	0.5%	\$30,886	0.4%	26,668	0.4%	\$ 36,172	0.5%	\$21,494	0.4%
C. Operating income (=Sum C)	2.14%	\$ 206,139	2.9%	\$176,170	2.1%	\$ 157,322	2.1%	\$ 130,387	1.9%	\$91,829	1.7%
C.1. Net interest income	2.25%	\$ 205,223	2.9%	\$181,835	2.6%	\$ 162,134	2.2%	\$ 122,965	1.8%	\$97,918	1.8%
C.2. Non-interest income	0.10%	\$ 6,916	0.1%	\$6,335	0.1%	\$7,688	0.1%	\$ 7,422	0.1%	\$4,911	0.1%
C.3. Provision for loan loss	0.13%	\$ 6,000	0.1%	\$12,000	0.2%	\$ 12,500	0.2%	0	0.0%	\$11,000	0.2%
D. Assets		\$7,058,432	1	\$7,003,302	1	\$7,407,942	1	\$6,873,409	1	\$5,375,073	1

Source: Data from the Bank of North Dakota's annual reports, available [on its website](#).

Table 3: North Dakota Banks Operating Efficiency

	Average	ND Banks '19 (% of assets)	ND Banks '17 (% of assets)	ND Banks '15 (% of assets)	ND Banks '13 (% of assets)	ND Banks '11 (% of assets)
A.1. Efficiency ratio (peer report)	62.9%	62.4%	63.4%	61.5%	63.2%	64.2%
A.2. Efficiency ratio (B/C)	64.6%	64.5%	64.4%	62.5%	64.0%	67.6%
B. Non-interest expense	2.6%	2.7%	2.6%	2.6%	2.5%	2.7%
C. Operating income	4.0%	4.1%	4.1%	4.1%	3.9%	4.0%
C.1. Net interest income	3.7%	3.8%	3.7%	3.7%	3.5%	3.7%
C.2. Non-interest income	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
C.3. Provision for loan loss	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%

Source: Data from peer group average report can be accessed on [FFIEC's website](#) (NDCOM—All Insured Commercial Banks in North Dakota, 12/31/19; 12/31/17; 12/31/15; 12/31/13; 12/31/11).

We have compared our internally calculated efficiency ratio (row A.2.) to the official ratio in the group report (row A.1.). The small difference between the two is likely attributable to small items not included in our spreadsheet (like amortization of non-tangible assets). The efficiency ratios included in the testimony are the official ones. The equivalent items were also not included in the BND figures below (Appendix Table 2).

Table 4: Deployment Ratios by Private MA Banks and the Bank of North Dakota

	Average	2019	2017	2015	2013	2011
MA banks Net loans and leases (% of assets)	69.6%	73.9%	74.0%	72.0%	65.3%	62.6%
BND assets (thousands)	\$ 6,743,632	\$ 7,058,432	\$7,003,302	\$7,407,942	\$6,873,409	\$5,375,073
BND Loans net of allowance (thousands)	\$ 3,980,869	\$ 4,442,253	\$ 4,824,320	\$ 4,270,324	\$ 3,425,176	\$ 2,942,271
BND Loans net of allowance (% of assets)	58.8%	62.9%	68.9%	57.6%	49.8%	54.7%

Source: Data for private MA banks is from the peer group average report, and can be accessed on [FFIEC's website](#) (MACOM—All Insured Commercial Banks in Massachusetts, 12/31/19; 12/31/17; 12/31/15; 12/31/13; 12/31/11). Data for BND from its financial statements for the same years, which can be accessed on its [website](#).

Table 5: Loan Loss Reserve (as Percentage of Loans and Leases) for MA and National Banks

	Average	2019	2017	2015	2013	2011
LN&LS allowance to total LN&LS	0.95%	0.82%	0.86%	0.91%	1.02%	1.12%
National banks LN&LS	1.44%	1.23%	1.24%	1.34%	1.57%	1.80%

Source: Data from peer group average report can be accessed on [FFIEC's website](#) (MACOM—All Insured Commercial Banks in Massachusetts, NATIONAL— All Banks in Nation, 12/31/19; 12/31/17; 12/31/15; 12/31/13; 12/31/11).

Table 6: Charge-Off Rates and Loans Loss Reserve for National Commercial Banks (2011-19)

	Charge-Off Rate on All Loans, All Commercial Banks (%)	Loan Loss Reserve to Total Loans for all U.S. Banks (%)
2011	1.63	2.91
2012	1.12	2.37
2013	0.69	1.92
2014	0.49	1.58
2015	0.42	1.39
2016	0.46	1.32
2017	0.47	1.27
2018	0.46	1.22
2019	0.49	1.18
Average	0.69	1.68

Source: Data from FRED, [Charge-Off Rate on All Loans, All Commercial Banks](#) ; [Loan Loss Reserve](#) to Total Loans for all U.S. Banks.