

CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS
BUDGET AND LEGISLATIVE ANALYST

1390 Market Street, Suite 1150, San Francisco, CA 94102
(415) 552-9292 FAX (415) 252-0461

Policy Analysis Report

To: Supervisor Sandra Fewer
From: Budget and Legislative Analyst's Office
Re: Municipal Bank for San Francisco: Issues and Options for Consideration
Date: July 24, 2020



SUMMARY OF REQUESTED ACTION

Your office requested that the Budget and Legislative Analyst address and report on certain aspects of the March 2019 Municipal Bank Feasibility Task Force Report, which was intended “to provide a thoughtful analysis of the costs and benefits of creating a municipal bank and to outline the policy and operational consideration should the City decide to proceed.” You also requested assessments of alternative pathways to creating a municipal bank.

For further information about this report, contact Fred Brousseau, Director of Policy Analysis, at the Budget and Legislative Analyst's Office.

Note about impact of COVID-19

This report was mostly prepared prior to the known arrival of COVID-19 in California and the U.S. Since the pandemic has had a tremendous impact on public health and the economy of San Francisco, it could seem like an inopportune time for the City and County of San Francisco to consider creation of a municipal bank. The case could also be made that present circumstances highlight the need for such an institution, which could provide the City and its residents with an additional set of powerful tools to promote economic regeneration, and to address long-standing problems such as the multi-decade crisis of affordable housing, the need for a large-scale publicly financed energy transition, and providing credit to underserved communities.

There are multiple viable pathways to implementation for a City municipal financial corporation (MFC). In our view, all will involve City financial commitments to reduce risk and for the MFC to achieve success as soon as possible. This involves policy choices, and analysis of the costs and benefits of various policy tradeoffs. It would require a commitment of City resources in a time of projected shortfalls, but it could also provide assistance to those whose livelihoods or living situations have been adversely affected by the pandemic.

The BLA model outlined in detail in this report is not meant to be definitive, but rather is illustrative. The actual timing and level of funding commitments will need to be developed by an Implementation Working Group that we recommend to oversee the development of a specific business plan.

Executive Summary

- A public bank is a bank owned by a public entity instead of private owners. Advocates of public banks believe such institutions would be able to use City funds, now deposited with traditional private sector banks, to better support policy objectives such as creating more affordable housing, investing in local small businesses and residents that may be underserved by traditional banks, and investing in environmentally sound local infrastructure projects.
- Toward the goal of a public bank in San Francisco, the Board of Supervisors created by resolution a Municipal Bank Feasibility Task Force in 2017, whose purpose was to “advise the Treasurer...the Mayor, the Board of Supervisors and relevant City Departments regarding the creation of a Municipal Public Bank.”
- Issues raised in the past against creating a public bank have included cost, risk, and legal impediments. Concerns about legal impediments have since been disproven by the City Attorney and by changes in State law in 2019 that allows for creation of public banks and for local governments to deposit their funds in such institutions. In this report, we address costs and how risk to the City of funds invested in a municipal bank could be reduced through capitalizing the bank beyond the requirements of banking guidelines.

What is a public bank?

A bank that is created and owned by a public entity such as the City and County of San Francisco rather than private owners. Because of that, its mission can diverge from maximizing shareholder value to fulfilling certain economic and social policy objectives, while still operating as a profitable business.

If a public bank were created by the City, it would be a separate legal entity with its own board of directors and bylaws and its own staff, separate from the City and its governing bodies. The Board of Supervisors, however, could provide general direction and policy objectives for the institution such as originating loans to create more affordable housing and providing loans to local communities underserved by traditional banks. State law was amended in 2019 to allow local government entities to create public banks and to allow investment of surplus funds in certain instruments through a public bank.

Depository vs. non-depository institution

Referred to in this report as a municipal financial corporation (MFC), a public bank could be created in San Francisco as a non-depository or a depository institution. The latter would typically function as a full-service bank, accepting deposits from the institutions such as the City and County of San Francisco and the general public. A non-depository MFC would not take such deposits or provide a full complement of banking services but could still originate loans.

- The Municipal Bank Feasibility Task Force issued a report in 2019 containing an analysis of three options for creation of a municipal bank, or a municipal financial corporation as we refer to it in this report. The Task Force's three options were: 1) a non-depository model in which the institution makes loans but does not accept deposits or provide traditional banking services to customers, 2) a depository institution that would provide a full array of banking services including serving as the City's primary depository, and 3) a hybrid of the first two models.
- The Municipal Bank Feasibility Task Force estimated that their non-depository model would not become profitable until its tenth year of operations and that the second and third options would not achieve profitability for 30 and 60 years, respectively. Additionally, the banks would be structured and staffed at a level that we believe would hinder them from originating loans at sufficiently low interest to achieve a significant increase in affordable housing production or achieve other policy objectives of a municipal financial corporation such as more low-interest loans for populations often underserved by traditional banks.

Capitalizing a public bank

Capitalization refers to the initial funding the bank would receive from its investors to start its operations and to serve as a buffer against losses.

Funding a public bank

refers to a bank's proceeds from issuing debt securities or IOUs and/or deposits, all of which are used to originate loans.

Differences between Municipal Bank Feasibility Task Force and BLA Public Banking Models

- We have created a model for a municipal financial corporation (MFC) for San Francisco that achieves profitability sooner than assumed by the Task Force and is able to originate lower interest loans at a greater rate than assumed by the Task Force, thus enabling higher levels of affordable housing production or amounts available for loan recipients. The key differences between our models and those of the Task Force are:
 - ❖ The BLA model assumes that available City funds from the Investment Pool and other appropriations would be used to capitalize and fund a City MFC. The Task Force assumed that a City MFC would rely on private customer deposits and investments only and not use any City funds for capitalization or funding.
 - ❖ The BLA model assumes that \$25 million in interest earnings on a portion of the City's approximately \$5 billion General Fund balance would be allocated to the MFC for capitalization rather than being returned to the Investment Pool.
 - ❖ We also assume General Fund appropriations of \$10 million, and \$20 million in years two and three of the MFC's operation and an additional appropriation of General Fund surplus monies from the Investment Pool of \$10 million each in year two and year three. These amounts, which total \$80 million, could be increased or decreased at the discretion of the Board of Supervisors.
 - ❖ Finally, we assume additional *capitalization* funds would be realized by the MFC on its own investment earnings amounting to \$27.1 million and \$29.1 million in years

two and three of operations, respectively. Offsetting these earnings, MFC operations costs are assumed to be \$9 million, \$9.4 million, and \$9.8 million in years one through three.

- ❖ All profits are retained and reinvested in the BLA model MFC. This will contribute to building up robust buffers to protect the City's financial commitments.
- ❖ We assume that a City MFC will achieve sufficient scale by year ten of full-fledged operations sufficient to have a significant impact on local housing provision, small-business credit, and (as a supplemental source) infrastructure financing.
- ❖ We further assume that *funding* for the MFC's loans would be initially provided by \$1 billion from the General Fund portion of the Investment Pool. These funds would be used to buy debt securities from the MFC (or, due to current State law requirements, from a conduit entity issuing debt in the case of a non-depository MFC). While the City could recall these debt securities if it needed the cash, we show why it is very unlikely such funds would need to be recalled, and thus could be safely committed to financing long-term loans for purposes such as affordable housing and supporting local small businesses.
- ❖ With our model, the MFC would be profitable immediately at the point of commencing operations, due to the nature of the funding arrangements with the City. As stated above, the Task Force models assumed the MFC would not be profitable for between 10 and 60 years, depending on which of their three models is implemented.
- ❖ Our pro forma analysis of the BLA model non-depository MFC with capitalization and funding as specified above shows that the institution would have assets of approximately \$2 billion by year 10 and a loan portfolio of \$1.25 billion, with the balance held in U.S. Treasury notes and municipal securities.
- ❖ Our model calls for a phased-in approach to creation of a City MFC, with demonstration loans funded initially and ramping up over the first few years of operations. This approach would also provide opportunities for the City to retrieve funds allocated to the MFC at certain junctures in the first five years of its operations. The Task Force assumed the MFC would be fully operational from the outset.
- ❖ The BLA model assumes MFC operating costs in line with industry standards. The Task Force assumed the MFC's operating costs for a depository institution would be approximately double industry standards.
- ❖ The BLA model assumes that the MFC would cultivate and enter into lending agreements with a network of affiliated institutions composed of local and regional credit unions, banks, loan funds, and Community Development Financial Institutions (CDFIs). Through loan participations and MFC-led syndications, the MFC would redistribute federal and state credit guarantees to these partner institutions that would then be expected to issue low-interest loans to target clients consistent with

the MFC's mission. These arrangements would thus leverage the MFC's resources to an expanded loan pool. The Task Force model does not provide information on whether their proposed models include establishing and working with such networks.

- ❖ Our model for a City MFC includes both non-depository and depository variants. While we conclude that both are feasible and could operate profitably, we recommend that the City establish a non-depository MFC, at least initially, because it would have the advantages of: 1) lower operating costs compared to establishing a depository bank, particularly compared to providing all traditional banking services, thus allowing the non-depository to offer loans at lower rates; and 2) not requiring approval by the Federal Deposit Insurance Corporation (FDIC) to operate. This would make it less complex and costly to start a non-depository institution and would enable the MFC to focus on originating below market-rate loans for purposes such as affordable housing property acquisition, funding for small businesses, and other City policy objectives.

Addressing Risks of a Municipal Financial Corporation

- There are risks associated with the City establishing an MFC, whether depository or non-depository. Risks include credit risk, or the risk of loan defaults, as well as maturity mismatch, rollover, and liquidity risks. These risks could affect both the MFC and the City itself in the event the City needed to sell off its debt securities supporting the MFC due to a cash crisis.
- Our model is constructed such that the MFC's capital-to-asset ratio would far exceed the level at which the Federal Deposit Insurance Corporation (FDIC) defines a bank as "well capitalized." This is because we have assumed that City funding provided for capitalization will allow the MFC to create buffers against excessive loan defaults or other types of scenarios in which the MFC's assets are depleted due to demands by creditors or excessive mismatches between short-term liabilities and longer timer assets (maturity mismatch).

Summary of Policy Options for the Board of Supervisors

1. Establish, fund, and staff an Implementation Working Group to oversee the development of a business plan for a City municipal financial corporation (MFC). This plan should address capitalization; funding through the Investment Pool; funding through private market sources; lending programs in areas related to housing, small business, and infrastructure investment; the creation of wholesale distribution markets; the nature of partnerships with local credit unions and community banks; liquidity; comprehensive strategies of risk management; and governance. The Implementation Working Group should have nine months to develop a business plan that will be submitted to the Board of Supervisors, which will then convene a vote to determine whether the City should move forward.

2. We recommend the Implementation Working Group design three initial lending programs to determine viability, one focused on property acquisition for affordable housing, one focused on small business lending, and one focused on infrastructure financing.
3. We recommend the Implementation Working Group be explicitly mandated to assess the viability of developing a wholesale distribution network, which will be critical to reaching the scale of operations required to support investment in new housing construction and a large-scale property acquisition program, given the extraordinarily high cost of developing or acquiring housing in San Francisco.
4. If the City should decide, after an initial period of successful operation of demonstration lending projects, to scale up its funding commitments, we recommend the City initially do so by committing additional monies from the Investment Pool to fund the lending activities of a *non-depository* MFC. If, after some period of time, the City deems it desirous and advantageous to set up a depository bank, the non-depository MFC would provide the basis for seeking a state banking charter, that, if granted, would transform the MFC publicly owned depository able to offer a range of complementary banking services.

<i>Project staff: Karl Beitel, Fred Brousseau</i>
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Why we are recommending starting with a non-depository municipal financial corporation

As will be discussed in detail in the various sections below, there are advantages and drawbacks to the City establishing either a depository or non-depository public bank, or municipal financial corporation (MFC). In brief, a **depository bank** is able to issue liabilities against itself as a counterpart to the issuance of loans, and accept incoming payments, or additional deposits, made to customers' accounts. Depositories clear and settle payment orders (financial transactions between economic agents) and serve as the basic backbone of the monetary system upon which all other economic activities ultimately depend. As per the terms of AB 857, adopted by the California Legislature in 2019, local governments are authorized to form and operate public banks. The law specifically states that any publicly owned depository would fall under the regulatory jurisdiction of the Federal Deposit Insurance Corporation (FDIC) and the California Department of Business Oversight, and hence, under current law, could not be formed unless the FDIC is willing to approve the institution.

A **non-depository** MFC, by contrast, must fund its lending operations through borrowing funds on the private markets, generally through the issuance of debt securities. In the case of a non-depository MFC such as we are recommending for San Francisco, the MFC's issuance of debt securities would be sold to the City's Investment Pool. All payments received from other parties, and payments made by the non-depository would be cleared and settled through a depository bank.

A non-depository is less regulated, and formation does not require prior approval by either the FDIC or the California Department of Business Oversight. The non-depository thus has relative benefits such as lower operating costs - and the potential risks - entailed in being subject to lower levels of regulatory scrutiny.

Our recommendation is that the City first establish a non-depository MFC and defer the question of creating a depository bank during the first years of formation based on the following considerations.

First, provided the funding issues can be resolved (see section on funding below), a non-depository variant will have the capacity to originate loans and make investments on a scale that – in the first years of operations, would be fully on par with a depository institution. On the other hand, we conclude there would be limited ability to scale the MFC's lending operations if it commenced operations on day one as a depository bank.

Second, a non-depository option would have lower operating costs than a full-fledged depository bank. Lower costs can be passed through in the form of lower rates on loans.

By contrast, a full-fledged depository would need to hold a greater share of market-rate loans in its loan portfolio and would need to offer loans at a higher (average) rate. These factors would limit the ability of the depository variant to serve as a source of long-term below market rate credit. To the extent the City wants to support increased investment in property acquisitions, affordable housing development and local small businesses through the provision of low-cost credit, there are compelling reasons to opt for the non-depository variant.

Third, the non-depository MFC could provide the vehicle to scale up lending in areas such as small businesses, property acquisitions, and affordable housing. Doing so will necessitate the development of appropriate lending and underwriting standards, protocols insuring proper oversight of the MFC's lending programs, development of lending platforms, and the cultivation of partnerships with local credit unions, community development financial institutions (CDFIs), and community banks. In addition, a non-depository MFC would allow its management to set up wholesale loan distribution platforms (outlined below) to access additional (non-City) funding from other public sources, as well as the private market.

Finally, if the City were to initially opt for establishment of a depository at the outset of MFC operations, and the FDIC refused to approve the application for depository insurance, this could undermine the legitimacy of the concept. Opponents of the MFC could point to the FDIC refusal to grant regulatory imprimatur as evidence the MFC is fraught with unacceptable levels of risk. To be clear - FDIC refusal to insure a publicly owned depository bank is not *prima facie* evidence that the idea is not viable in an economic and business sense. Rather, the FDIC may be hesitant to grant approval given that doing so would require it to serve as the MFC's resolution agent in the event the MFC was to become insolvent. This could entangle the FDIC in a potentially contentious political process, made all the more uncertain given the lack of any prior history of resolution of a publicly owned depository bank. The FDIC has extensive powers, as resolution agent, to restructure a failed bank's existing business agreements, bring legal action to modify outstanding debt contracts, seek easement of legal claims for recoveries brought by creditors of the bank, liquidate assets, and sell the bank to private buyers - who could end up acquiring the MFC's assets at 'fire sale' prices. Exercise of such regulatory powers in the case of a publicly owned bank could bring the FDIC into direct conflict with the local government.

Should the City opt to transform the MFC into a publicly owned depository bank after its first few years of operations, we believe it is far more likely the application will be granted the regulatory imprimatur of the FDIC if the City was to approach the FDIC with a proposal to charter a *de novo* depository bank. At the present time, we are skeptical the FDIC would grant its imprimatur to an untested, *de novo* public banking institution with no

track record or history of successful management of lending operations.¹ This could change due to the overall context in which the FDIC would evaluate an application for a de novo banking license. In particular, if the State of California were to create a publicly owned lending institution, or if other states in the U.S. were to incorporate and operate public banks, this would enhance the legitimacy of public banking as a viable policy option. A probable effect would be to increase the likelihood the FDIC would grant approval of a banking license. However, none of these conditions exist at present. For these reasons, even if the City is committed, from inception, to the establishment of a City-owned depository, we believe the optimal pathway is to first set up a non-depository institution that will implement and scale up the core lending programs in areas such as affordable housing, infrastructure investment, and small business lending, and cultivate a network of supportive relations with local credit-granting institutions. Once this infrastructure is in place, the City could proceed with applying for a bank charter.

Should the City decide to opt for the depository variant, we recommend the depository be established as a special purpose bank. The MFC depository variant could provide basic banking services (depository, clearing and settlement, custodial services, underwriting of loans, and access to short-term lines of credit) to institutional depositors such as non-profits, unions, foundations, and small to medium sized businesses. For reasons we discuss below, we do not, at the present time, recommend the MFC depository variant be established with the intention of serving as a comprehensive public depository banking – i.e. a bank that would provide the full suite of bank and treasury management services. This would undermine the ability of the MFC to serve as a source of below market rate credit.

The main factor in favor of *initially* forming the MFC as a publicly owned depository bank is that a depository variant would be able to directly access funding from the Investment Pool. Specifically, California Government Code, Section 53601(r) now designates the purchase of debt securities issued by publicly owned depositories as a permissible use of surplus monies held in a local government's investment pool. However, under current State law, local governments may not, at present, use such funds to purchase debt securities issued by a non-depository MFC. This means that if the City was to apply for, and receive, a state banking charter, a depository MFC would be able to directly access funding by selling debt securities to the City Treasury, which could purchase such securities through reallocating a portion of monies current invested in U.S Treasuries and the debt securities of the federal housing agencies (FHLMC and FNMA).

¹ It is impossible to know with certainty how the FDIC would actually respond to an application to provide insurance to a de novo publicly owned depository bank. However, those advocating the depository option need to consider that the FDIC might be very hesitant to grant regulatory approval, as providing depository insurance and acting as the federal regulating agency will mean the FDIC must act as the MFC's resolution agent in the event the MFC becomes insolvent.

By contrast, this funding option is not available to a non-depository MFC. For this reason, barring a change in State law, various workaround solutions will need to be found to allow the City Investment Pool to purchase debt securities issued by the (non-depository) MFC. We have identified legally permissible options for how to do so, all of which involve the use of public conduit entities that would issue securities purchased by the Investment Pool, with the conduit entity in turn lending the proceeds from these sales at near zero cost to the MFC.

Given these complex tradeoffs, the recommended MFC Implementation Working Group will need to vet proposals for both the depository and non-depository variants in order to ensure that the City has maximum flexibility.

In the sections that follow we outline a framework within which the City can negotiate the complex issues involved in establishing, capitalizing, and funding an MFC. We begin with some general terminological clarifications. This is followed by a series of sections in which we lay out some of the basic components of our proposed model, such as sources of initial capital, how the Municipal Bank would establish its lending programs, partnership relations with local community based lending institutions, and supportive functions such as the formation of wholesale loan distribution platforms. We show how the Board of Supervisors could adopt a sequential, phased-in approach to ease concerns of over-extending the City's financial commitment in an uncertain and fraught financial and economic environment, and how the City commitment can be periodically assessed, and, if necessary, wound down during the initial stages of incorporation and operation.

This is followed by presentation of our pro forma analysis that demonstrates the economic viability of the BLA approach. We discuss options for how the MFC can establish and maintain a network of partner relationships with community lenders – credit unions, community banks, and CFDIs – with whom the MFC would enter into loan participations, syndication arrangements, and credit enhancements in order to leverage and maximize the impact of the MFC's own balance sheet. This is followed by a series of sections that address the nature of the City's current banking arrangements, use of the Investment Pool as a funding source, and risk management.

For this report, we were asked to review and comment on the Municipal Bank Feasibility Task Force Report released in 2019. Clearly, a significant amount of time and work was expended in the development and drafting of the Task Force Report. However, our conclusion is that the report does not achieve the Task Force's stated objectives of providing a framework for assessing the various issues that must be considered to determine whether to move forward with the formation of a municipal bank. Our overall conclusion is that the report includes estimates of costs of forming and operating a publicly owned depository bank that are higher than reasonable and does not present all viable options for capitalization. We have additional concerns that the report has not

demonstrated the viability of the proposed funding sources that are assumed to support the bank’s lending activities. The Task Force Report does not provide an estimate of the actual numbers of additional housing units that could be funded through its proposed lending initiatives (our analysis has concluded that the volume of housing units that could be produced using the Task Force lending model are fairly negligible in terms of overall impact). The report does not explore non-conventional lending strategies of the type that we believe would be required for a public lending institution to serve as a source of long-term subsidized credit to support increased affordable housing and other policy objectives. For these reasons, we conclude the Task Force Report does not provide a comprehensive basis for further deliberation over the benefits, costs, and risks inherent in forming a municipally owned public bank. Our assessment of the Task Force report, and discussion of why it is viable to use unassigned fund balances held in the General Fund portion of the Investment Pool, are presented in Appendices A and B.

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I. Terminology Clarifications and Some Overarching Considerations

The following terms are used throughout the report and are key to understanding the conclusions and proposals presented.

Municipal Financial Corporation (MFC)

MFC refers to any publicly owned lending institution and is the term used in this report instead of municipal bank. This is because the financial institution created by a municipality could be incorporated and operated as either 1) **a depository bank** or 2) **a non-depository lending institution**. The primary difference is that the depository variant can accept deposits and would fall under the direct regulatory supervision of the Federal Deposit Insurance Corporation (FDIC), whereas a non-depository institution would not accept deposits and would not fall under the FDIC's regulatory jurisdiction.

Either a depository or a non-depository institution would exist as a separate legal entity created to receive funds from the City, as well as from other public and private entities, to be used to issue loans consistent with City policy objectives such as affordable housing, property acquisitions, infrastructure investment, and providing credit to small businesses.

Capitalization vs. Funding

A common confusion that arises in discussions regarding setting up and funding a publicly owned lending institution centers on the terms "capital," "capitalization," and "funding." These terms are often conflated, but in fact refer to distinct aspects of the formation and operation of the MFC.

Capital/capitalization refers to monies a financial institution such as an MFC receives from investors as it starts operations, and which serve as a buffer to absorb potential losses.

Funding refers to the mechanism used to support the MFC's lending operations. Funding appears on the balance sheet as a liability, or a claim on the MFC held by some other entity. These liabilities are either in the form of funds borrowed by the MFC through the issuance of debt securities or IOUs of varying maturity, or in the form of demand, time, and saving deposits.

Considerations related to MFC capitalization

There are various possible sources for capitalization. Our recommendation is that the City provide an initial commitment of money for capitalization by dedicating interest earning from securities currently held in the Investment Pool. Earnings that would otherwise

accrue to the City General Fund will be placed into a Capital Account set up under the auspices of the Controller and City Treasury. These interest earnings would be used to purchase shares — certificates of ownership — issued by the MFC and purchased by the Controller on behalf of the City.

We specifically recommend that \$1 billion of the General Fund portions of surplus monies held in the Investment Pool be set aside and used to purchase the shares issued by the MFC. Assuming average interest earnings of 2.5 percent, this would provide \$25 million in capitalization over the first year. (We note that the set aside during the initial year of using this mechanism for capitalization could be higher – for instance, \$2 or even \$3 billion). In addition, our pro forma model assumes the City commits one-time line item appropriations of \$5, \$10, and \$20 million in year one through three from the time the MFC commences operation, and an additional \$10 million supplement appropriations from the Investment Pool in year two and three to provide additional sources of capitalization.

At the end of year one of operations, the \$1 billion of monies in the Investment Pool would be used to purchase debt securities issued by the MFC through a conduit funding entity. These funds would be transferred to the MFC and would be used to support loans and investments (see below), the earnings from which would be retained by the MFC and used for capitalization. At this point, the MFC would become a self-sustaining business enterprise.

We do not believe that sufficient capital could be raised from sources other than the Investment Pool quickly enough and in sufficient quantity to get the MFC to the desired scale of \$2 billion (or greater) in assets by year 7-10 from the time of commencing operation.

Capital, once paid in, would not be returned to the City unless the MFC is sold to an outside acquirer, which we assume would be prohibited by the MFC's founding charter.

As the entity that initiates the formation of the MFC, and as the majority, or exclusive, owner of MFC shares, the City would acquire the power to determine the MFC's governance structure, the composition and methods of ongoing reconstitution of the Board of Directors, guidelines related to priority lending areas, and prohibited investments. However, the MFC should be run as a business, independent of the Board of Supervisors, the Mayor, and other City officials, with its own board of directors with their own bylaws, functioning consistent with the overall policy goals set by the Board of Supervisors.

In an economic sense, capital allows the MFC to absorb losses beyond those covered by loan loss reserve, i.e., by funds set aside to cover losses due to borrower default. This

provides protection to depositors and those that hold claims against the MFC's assets. All our models presented below assume the MFC maintains a very high ratio of capital to total assets, well in excess of the levels at which the FDIC defines a bank as being "well capitalized." Maintaining a very high ratio of capital to total assets is necessary to provide a robust degree of protection of any funds committed by the City, and to address the risks associated with the formation of a publicly owned lending institution that we recommend be initially funded wholly, or in large part, through public monies committed by the City.

Funding the MFC's lending operations

As noted, funding, as used in this text generally refers to the process through which the MFC obtains funds to operate through issuing various liabilities — debt securities and IOUs of varying maturities, in the case of the non-depository; and debt securities plus deposits in the case of the depository - to cover its operating costs, make loans, and acquire other assets.

Under our proposed approach, debt securities, or IOUs issued by the MFC would be purchased by the City through reallocation of some portion of funds currently under Treasurer management within the Investment Pool. The MFC could also sell debt securities to other public and private entities. The question of whether the MFC is established as a non-depository or depository institution is subordinate to the question of how the MFC can provide the requisite level of long-term below market rate credit. In either case (non-depository or depository), supporting an investment portfolio of upward of \$2 billion – or greater – will require that the City provide a long-term funding commitment through the Investment Pool. Some portion of funds currently held in short-term, highly liquid credit instruments – i.e. USTR notes and the debt of federal housing agencies – will need to be reallocated and transformed into longer-term, illiquid, below market rate securities.

As opposed to capital, which, once committed, is not redeemable or returned to the City, funding the loan portfolio through debt (notes and securities) and time and saving deposits, creates liabilities for the MFC. Debt securities issued by the MFC - for instance, medium term notes or longer-term bonds – are required to be redeemed in full at some future date. Deposits can be withdrawn at any point, and hence require the MFC to be able to meet depositor payment orders on a timely basis through same day clearing and settlement arrangements. For this reason, prudent risk management involves some level of matching of the maturities of assets and liabilities.²² All of our models are constructed

²² Some balancing of the terms on assets and liabilities is necessary to prevent a funding runoff in the event holders of these debt securities demand cash redemption when the IOUs fall due. While it is typical in "normal" market conditions for shorter-term debt securities – e.g., commercial paper, short-term notes and bonds – to simply be rolled over at prevailing market rates at the time these obligations mature, holders of claims may demand cash redemption if they need to settle their own payment obligations, or under conditions of increased funding stress

to insure the MFC has a stable funding basis – all of which will necessitate the City providing the MFC with long-term funding commitments at below market interest rates.³

If the Investment Pool is ruled out as a funding source, we are skeptical as to whether there are ample alternative sources of low-cost, long-term financing that would allow the MFC to serve as a significant source of long-term, below-market-rate credit. Yet this is what is required to achieve any significant increase in lending for property acquisition and new development given the current price structure that characterizes San Francisco's land and real estate market.

We do *not* believe, nor are we asserting, that the Investment Pool is the only potential source for funding the municipal financial corporation's loan portfolio. We limit our report to extensive discussion of this funding mechanism to demonstrate the conditions that must be satisfied if the MFC is to serve as a source of long-term credit to support investment in housing, small business support, and infrastructure development. Recourse to private market funding sources, as advocated in the Task Force Report, will generally require the MFC to issue loans at higher interest rates, and with shorter maturities — i.e., the time from origination to repayment date. Our models are intended to highlight the City-provided funding commitments we believe are required to meet the municipal financial corporation's economic and social policy objectives.

As a final preamble, we are not urging the City to adopt all of the specific proposals related to capitalization and funding that we discuss in detail in the following sections of this report. Our intention is to lay out, in clear terms, what will be required if the City deems it is in the public interest, after careful assessment of the costs and the risks, to create a publicly owned lending institution that can serve as a source of long-term, below-market-rate credit, with a particular emphasis on providing loans to support housing preservation and new development. Our models reflect the fact that, at present, it has become very costly to build new housing in the San Francisco market. Similarly, it has become extremely expensive to acquire existing housing units on the secondary resale market. For these reasons, debt financing of either acquisitions or new development will require creating an institution able to issue long-term loans at well below current market rates. This will in turn require identifying very low-cost funding sources. If the City wants to move forward with the formation of the MFC, we do not see readily available options at present other than the use of monies from the Investment Pool to finance low-cost credit facilities. This creates costs and risks that must be carefully assessed. We recommend that

and a generalized increase in the precautionary demand for "cash," as typically occurs in any banking or financial crisis.

³ Readers should note that if the MFC does not have a diversified deposit base, State law requires that a significant portion of its deposit liabilities must be collateralized by investments held in the form of liquid securities that can be liquidated as needed to allow the MFC to fulfill its obligations to other banks created when customers withdraw or spend down their existing deposits.

MFC the Implementation Working Group conduct a thorough evaluation of the models we have proposed as part of the attempt to develop a rigorous assessment of the benefits, costs, and risks.

II. Summary of BLA Pro Forma Analysis

We here present a summary of the results of the pro forma analysis conducted to determine the economic viability of the various options for forming a Municipal Financial Corporation based on the following assumptions, most of which apply in the case of either the depository or non-depository institution:

- Capitalization occurs through the transfer of \$1 billion in the City's Investment Pool assets to a Supplemental Reserve Account (SRA) in year one, with interest earnings on the account used to provide capitalization funds for the MFC. Assuming the securities held in the SRA earning 2.5 percent on average per year, this generates approximately \$25 million by the end of year one that is transferred to a capital account and used to purchase MFC shares.
- Additional capital is provided through General Fund appropriations of \$5 million, \$10 million, and \$20 million in years 1 through 3.
- Funding for the MFC is provided in year two through one of two mechanisms. If the MFC is incorporated as a non-depository, monies held in the SRA are used to purchase debt securities issued by a conduit financing entity, which would pass these funds onto to the MFC (by law, the conduit entity could be created by the City itself). If the MFC were incorporated as a depository, the Treasurer could use fund in the Investment Pool to directly purchase the MFC's debt securities (see discussion below). The MFC initially invests its funds in U.S. Treasury notes (USTR notes) and municipal securities. The liabilities issued by the MFC pay an average of 0.5 percent annual interest.
- The MFC funds its lending operations by selling its USTRs and municipal bonds and using the proceeds to finance loan originations. All profits are retained and re-invested.
- The MFC may sell non-voting "social dividend shares" to buyers willing to support the MFC's founding social and environmental objectives, which we estimate could raise \$1.5 million in the initial five-year period. We also assume local foundations contribute \$5 million in non-voting equity.

- The MFC is primarily funded through issue of liabilities purchased and held by the Investment Pool. Our model assumes the Investment Pool commits \$1 billion in long-term funding beginning in year two by purchasing the MFC's debt securities, with total funding commitments rising to \$1.5 billion by year ten.
- As it becomes fully operational, the MFC's assets consist of USTR notes that pay 2.5 percent, municipal bonds that pay an average rate of 2.5 percent, and loans issued at an average rate of 2.65 percent.
- In our estimates of risk-weighted capital-to-asset ratios, municipal bonds are risk-weighted at the FDIC standard of 20 percent. All loans issued by the MFC are assigned a 150 percent risk weight. This is the assignment made by the FDIC to "High Volatility Commercial Real Estate" loans, typically regarded as the most high-risk category of real estate.
- Our model assumes a gradual increase in the MFC's total loan portfolio. By the end of year 3, the MFC is assumed to have \$50 million in loans. At year 5, total lending is assumed to have risen to \$200 million. If a decision is made at that point to fully commit the City to the MFC's ongoing operations, lending is assumed to reach \$1.25 billion in total credit outstanding by year ten. Lending could be increased at a faster rate, subject to loan demand, and risk considerations that might lead the MFC to limit any rapid increase in loan exposure.
- The MFC (non-depository) will maintain a staff of approximately 10 people over the initial demonstration period. At year five, additional staff is hired, with total staff assumed to be 25 full-time equivalent positions (FTEs). The assumed staffing level reflects the requirements of complexity in our proposed lending programs, the time required to develop partnership relationships, and the establishment of a wholesale loan sale platform.

Non-depository model pro forma

Exhibit 1 presents rates of return for a non-depository MFC with certain assumptions about loan rates and the level of funding provided by the Investment Pool.

Exhibit 1: Rates of Return on MFC non-depository, loans at 2.65 percent, \$1.5 billion funding through Investment Pool

Year>	1	2	3	4	5	6	7	8	9	10
Return on assets	1.60%	1.63%	1.66%	1.70%	1.69%	1.53%	1.47%	1.44%	1.40%	1.40%
Return on equity	76.19%	30.72%	17.37%	18.61%	15.88%	15.13%	13.01%	11.47%	10.12%	9.33%
Capital/Asset ratio (non-risk weighted)	2.10%	5.31%	9.57%	9.12%	10.64%	10.08%	11.27%	12.56%	13.80%	14.98%
Capital/Asset ratio (risk weighted)		3,691.06%	52.93%	34.79%	34.39%	19.92%	15.01%	14.58%	13.17%	14.50%

As shown in Exhibit 1, by year ten, the MFC (non-depository) achieves a return on equity of 9.33 percent. The return on equity subsequently stabilizes at, or very near, this level.⁴ The return on equity is the basic measure of economic viability of our proposed funding and lending model. The 9.33 percent rate for year 10 is slightly lower than the average for banks insured by the FDIC, shown below in Exhibit 3.⁵ The MFC (non-depository) achieves profitability immediately after commencing operations. This is due to relatively low overhead costs, the scale and timing of City-provided low-cost funding, and the fact that the MFC uses funding provided through the Investment Pool to engage in large-scale purchase of municipal securities.

The return on assets by year 10 is 1.40 percent, which is slightly above average rates for banks insured by the FDIC, as shown in Exhibit 3. The risk-weighted capital-to-asset ratio is 14.5 percent – note that this assumes all MFC loans are weighted by the highest risk weighting used by the FDIC in assigning risk weights to commercial real estate loans. This weighting overstates the actual risk level, so that the effective risk embedded in the MFC loan and investment portfolio is in fact far lower.

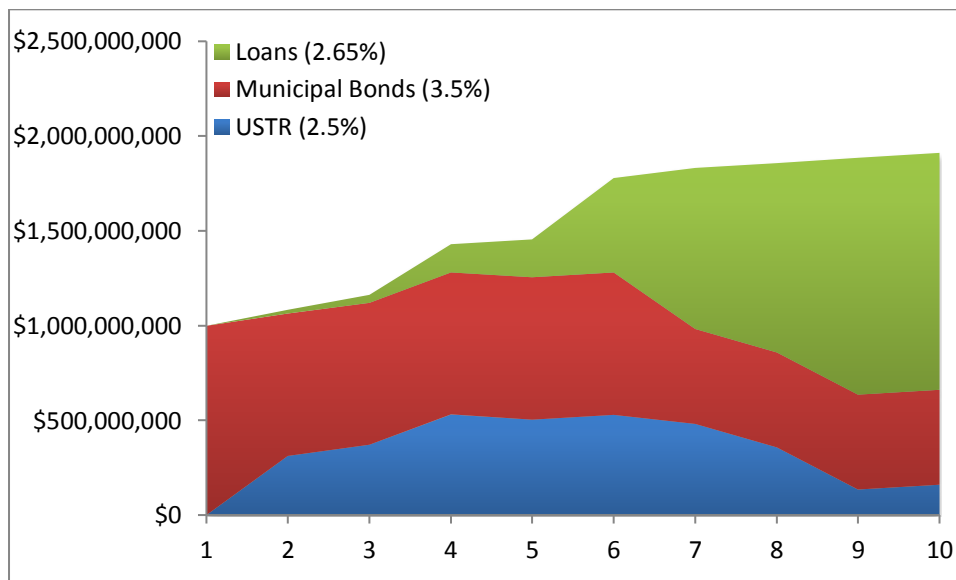
⁴ The very high return in the initial years is due to very low costs, due to limited staffing, and the initially small amount of paid-in capital.

⁵ **Equity** refers to assets that are not subject to encumbrance or *claims on the MFC held by other parties*. Deposits are an encumbrance on MFC assets (in the form of monies that can be withdrawn in full without prior notice). Debt securities are an encumbrance in that the MFC is obligated to redeem these notes in full at maturity. Equity is the residual difference between assets and external liabilities: **equity = assets – liabilities**. The return on equity (ROE) is the ratio of net earnings to equity, where net earnings are calculated as total revenue minus operating costs (primarily staffing costs in our models) and funding expenses - i.e. the interest paid on notes, bonds, and deposits that compose the MFC's funding base. Hence, **ROE = net earnings/equity**. The very high ROE shown in Exhibit 1 in the first year is due to very low operating costs, mostly due to reduced staffing. As the MFC scales up hiring, and begins to diversify its asset holdings, the ROE converges towards the long-term rate of 9.33 percent.

We assumed the highest risk-weighting factors in our pro forma to demonstrate that the MFCs' asset and liability structure is constructed to provide very stringent risk safeguards to the City's financial exposure. Even with the 'overweighting' of actual risk levels, the MFC's capital-to-asset ratio is well above the 8 percent ratio at which the FDIC defines a bank as being "well capitalized".⁶

Exhibit 2 shows our assumptions regarding the changing nature of the MFC asset portfolio over the first ten years of operation. We assume that, during the first three years, the vast majority of funding provided to the MFC via the Investment Pool is invested in USTR notes and municipal securities. Earnings are retained and used to provide funds for additional self-capitalization. We assume that over the first several years subsequent to incorporation, the MFC establishes several demonstration lending programs. At years 4-5, the MFC begins to expand the scale of its loan originations. Once sound underwriting and risk management practices have been established, and assuming the City, after year five, decides to fully commit to the MFC as an ongoing business concern, loans are rapidly increased over the next several years, reaching 1.25 billion by year ten. We note that these assumptions are made for illustrative purposes, and are consistent with our approach that would allow the City to unwind its funding commitments in full at any time over the first five years from commencement of operations should a decision be reached to not move forward (See section on "A Phased-in implementation Approach" below).

Exhibit 2: Portfolio composition, MFC non-depository, first ten years of operation



For comparison purposes, Exhibit 3 shows comparable data on return on equity, return on assets, and the capital/asset ratio for all FDIC-insured banks for the years 2001-2019.

⁶ See FDIC, www.fdic.gov/regulations/capital/capital/index.html

Average return on equity in 2019 was 11.4 percent. This is higher than the projected 9.33 percent return on equity that we calculate for year 10 for the MFC (non-depository).

The return on assets for all banks insured by the FDIC is 1.29 percent, lower than the 1.4 percent rate for return on assets that we estimate for the MFC in year 10 of operations. The MFC has a more robust capital-to-asset ratio, at 14.5 percent a year as compared to 11.32 percent for the private banking industry – this despite the regulatory requirement imposed by the FDIC that banks increase capital to provide more robust buffers against which to absorb losses.

Exhibit 3: Rates of return for FDIC-insured U.S. banks 2011 through 2019

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Return on assets	1.29%	1.35%	0.97%	1.04%	1.04%	1.01%	1.07%	1.00%	0.88%	0.65%
Return on equity	11.39%	11.98%	8.60%	9.27%	9.29%	9.01%	9.54%	8.90%	7.79%	5.85%
Capital/Asset ratio	11.32%	11.25%	11.22%	11.10%	11.24%	11.15%	11.15%	11.17%	11.16%	11.15%

Source: FDIC <https://www.fdic.gov/bank/statistical/stats/>

In our proposed capitalization and funding structures, at year ten the MFC could absorb a one-year loan loss write-down of 23 percent of all loans in the MFC loan portfolio before any losses would need to be passed on to the Investment Pool. This level of losses is comparable to what transpired in the U.S. Great Depression over the four-year interval spanning 1929 to 1933.⁷ As we show in our section on risk analysis, our model could withstand very heavy and prolonged losses, and thus provides very robust protection of the City's financial exposure.

Depository model pro forma

We here present the results of our pro forma analysis of a limited-purpose, publicly owned depository. In contrast to the Task Force models, our depository would not provide banking or treasury management services to the City. In our model, the depository may provide deposit accounts, short terms lines of credit, and overdraft services to entitles that are funded by the MFC, as well as banking services to institutions such as non-profit organizations, unions, foundations, and small to mid-sized businesses.

All the assumptions regarding the source and pace of the capitalization schedule, and the level and increase in funding provided through the Investment Pool are the same for the

⁷ We note this is well in excess of losses that have been incurred by U.S. banks since March of 2020 – although these loan losses and write-offs against bank capital are certain to increase over the next year.

depository as with the non-depository option. We also assume that by year ten the MFC has deposit liabilities equal to \$300 million.

With the depository model, staffing is increased from 25 to 35 FTEs, and we assume operating costs as a percentage of total assets are 2.07 percent. This is lower than the average operating costs as percentage assets for banks of equivalent size, which currently average is approximately 3 percent.⁸

For the depository model, we show the results of two pro forma analyses of estimated returns and capital-to-asset ratios achieved by year ten. In our first depository model, we assume, as with the non-depository variant, that the average rate of loans is 2.65 percent. Our second pro forma for a depository MFC presented in Exhibit 4 shows the results of a model where we assuming lending rates are increased to an average annual rate of 3.5 percent.

Exhibit 4: Estimates of rates of return, MFC depository, lending at an average of 2.65 percent

Year>	1	2	3	4	5	6	7	8	9	10
Return on assets	0.45%	0.04%	-0.06%	0.08%	0.06%	0.17%	0.13%	0.12%	0.07%	0.07%
Return on equity	47.37%	1.30%	-1.00%	1.72%	1.20%	4.35%	3.36%	3.02%	1.78%	1.65%
Capital/Asset ratio (non-risk weighted)	0.95%	3.23%	6.06%	4.86%	4.86%	3.97%	3.97%	3.99%	4.06%	4.07%
Capital/Asset ratio (risk weighted)		3735.87%	33.78%	18.73%	15.88%	8.03%	5.49%	4.87%	4.07%	4.14%

As seen in Exhibit 4, with lending rates set at 2.65 percent, return on equity for a depository MFC falls to a meager 1.65 percent compared to the 2019 average of 11.39 percent for banks insured by the FDIC, as shown in Exhibit 3. The capital-to-asset ratio for the depository MFC declines to 4.14 percent by year 10 as compared to the 2019 average of 11.32 percent for FDIC insured banks. This estimated rate for the MFC depository is below the level the FDIC determines that a bank has a risk of failure and will require corrective action to reduce exposures and boost various cash flow buffers and the bank's capital-to-asset ratios. Clearly, under these assumptions, the depository variant is not a viable institution.

If we assume the average rate on loans originated by the depository MFC is increased to 3.5 percent, the model achieves economic viability. The results are shown in Exhibit 4.

⁸ We assume lower operating costs due to the lack of any retail banking presence, no branch offices, and the resultant reduction in staffing levels. In our pro forma banking model that issues loans at the same rate as the non-depository variant. Comprehensive historical data on U.S. banks is available at <https://banks.data.fdic.gov/explore/historical/?displayFields=STNAME%2CBANKS%2CASSET%2CDEP%2CEQNM%2CNETINC&selectedEndDate=2018&selectedReport=CBF&selectedStartDate=1934&selectedStates=0&sortField=YEAR&sortOrder=desc>.

Given the assumption of very low costs of procuring funding through the City Investment Pool, the return on equity rises to 11.05 percent, which is nearly identical with the 11.39 percent average level in 2019 for U.S. banks insured by the FDIC as a whole. The risk weighted capital ratio is quite robust at 12.59 percent, above the 11.32 percent average in 2019 for U.S. banks as a whole, and nearly identical to the capital ratio achieved by the non-depository MFC.

Exhibit 5: Estimates of rates of return, MFC depository, lending at 3.5 percent

Year>	1	2	3	4	5	6	7	8	9	10
Return on assets	1.45%	1.11%	0.83%	0.89%	1.07%	1.28%	1.38%	1.41%	1.40%	1.39%
Return on equity	74.36%	22.22%	9.40%	9.70%	12.88%	16.08%	15.33%	13.80%	12.22%	10.97%
Capital/Asset ratio (non-risk weighted)	1.95%	5.00%	8.83%	9.18%	8.30%	7.95%	8.98%	10.22%	11.47%	12.69%
Capital/Asset ratio (risk weighted)	3,644.65%	48.86%	29.94%	27.37%	15.45%	11.74%	11.63%	13.24%	14.85%	

Hence, the central tradeoff that must be contemplated by the City in opting for either the non-depository or depository MFC is whether the ability to take deposits creates long-term funding advantages that outweigh the higher operating costs associated with a depository, and hence the higher rate on loans that would need to be charged relative to the non-depository variety.

III. Capitalization and Funding

In this section we discuss in greater detail some of the issues related to how to capitalize a non-depository MFC and fund its lending operations.

The primary purpose motivating the establishment of an MFC) is to provide long-term loans at below-market-rate interest to support investments in affordable housing, small business lending, infrastructure development, and other purposes consistent with City policy objectives in creating the MFC.

A major difference between the Budget & Legislative Analyst's models and those proposed in the Municipal Bank Feasibility Task Force Report is that BLA models receive a majority of their funding from the City's Investment Pool. The proposed funding structures set out by the Task Force Report limit the ability of the MFC to serve as a source of subsidized long-term credit. To the extent the City wants to utilize a municipally owned lending institution to originate long-term loans at below market rate to support affordable housing and infrastructure investment, it will be necessary either to use funds in the Investment Pool, or to identify other sources of stable, long-term, below-market-rate funding to support the MFC's lending initiatives.⁹ The Task Force report does not identify how the MFC would acquire funding in sufficient volume and at low enough cost to support a robust below market rate interest loan program. Our belief is that there is low probability that such funding would be available at the level needed for the MFC to quickly start originating loans and achieving profitability without an extensive funding commitment from the City.

A. Capitalizing the MFC

We recommend that the MFC be capitalized through a mixture of the following three sources: (1) a redirection of earnings on the City's Investment Pool that would be authorized by the Board of Supervisors as part of the Annual Appropriation Ordinance, (2) a series of Board-authorized appropriations from the Investment Pool, and (3) a series of annual line item appropriations as part of the Annual Appropriation Ordinance. Given that many of the issues involved are the same for a non-depository or a depository MFC, our recommended methods of capitalization are the same for either type of institution.

We recommend that establishment of the MFC occurs over two distinct phases of implementation. The first stage, which we refer to as the demonstration period, would span the first several years from the time the MFC commences operations. During this stage, the MFC would use the initial capital provided by the City to hire staff, and to set up and operate a set of demonstration projects to provide below market rate credit to support property acquisitions, affordable housing loans, credit to small business, and targeted infrastructure lending. This first phase would also involve the establishment of partnership relations with local community development financial institutions (CDFIs), community banks, and credit unions.

⁹ This is particularly the case for housing-related lending and investment, as the current cost of acquiring or developing affordable housing will necessitate that the MFC be able to make long-term loans at well below prevailing market rates. The Task Force models are all funded through tapping the private credit and capital markets, or through issuing certificates of deposit, and are thus exposed to risks of rising refinancing costs and funding runoffs. For this reason, the models outlined in the Task Force report must match the average maturities on loans to the maturities of the Task Force's proposed funding liabilities. This effectively prohibits longer-term lending and limits the ability of the Task Force models to provide loans at levels well below those prevailing on the private credit markets.

At the end of the first phase of its operations, the MFC would conduct an assessment to determine the viability and impact of the MFC's lending platforms and the benefits and costs to the City. As we show below, if a decision is made to not move forward with the MFC's operations, the majority of the capital and funding committed by the City can be unwound, and funds returned to the Investment Pool.

In the second phase of MFC operations, assuming the MFC has demonstrated the viability of its business operations, a decision can be made to fully commit to launching the MFC as an ongoing business concern. The City will waive the power to call in the capital already committed to the MFC. Any subsequent dissolution would require an ordinance authorizing liquidation of the MFC, and the return of all funds recovered from such liquidation back to the City.

Option 1 for Capitalization: Establishment of a Supplemental Reserve Account within the Investment Pool to divert interest earnings into a capitalization account.

This option involves establishing a separate accounting designation within the Investment Pool that we designate as the Supplemental Reserve Account (SRA). In the first year of operations, interest earnings on the portion of City funds held in the Investment Pool that are allocated to the SRA would be used to purchasing equity – shares - issued by the MFC. All funds allocated to the SRA will at all times remain as claims of the City on the Investment Pool.

This redirection of interest earnings, because it represents a deduction of (expected) revenues that would otherwise be allocated to the City General Fund, will require authorization by the Board of Supervisors as part of the annual budget appropriation.

The Function and Rationale of the Supplemental Reserve Account (SRA)

We are recommending creation of a Supplemental Reserve Account in the first year of MFC operations to require the Controller and Treasurer to formally recognize the MFC as an ongoing concern that is officially recorded and reported on the City's balance sheet. In effect, it would institutionalize the MFC and establish it as an ongoing concern in which the City has a vested interest. Without evidence of such a commitment, the MFC remains a purely theoretical concept, to which a serious City commitment could be indefinitely deferred.

In year one of MFC operations, the SRA would be structured as a separate sub-account inside the Investment Pool that would hold assets — securities —linked to the General Fund portion of funds under the Treasurer's fiduciary management. Beginning in year two, the SRA could be dissolved, and funds initially transferred to the SRA would be invested in the IOUs of the MFC's conduit entity. All interest earnings that had been

transferred to the MFC for capitalization through the SRA would at that time be returned in full to the City.

Option 2 for Capitalization: Capitalization through one-time, line-item appropriations of General Fund revenues as part of the annual budget approval process

The Board of Supervisors could approve a series of one-time appropriations of General Fund monies to capitalize the MFC. Our pro forma models assume annual authorization of funding appropriations of \$5 million in year one, \$10 million in year two, and \$20 million in year three. These appropriations would occur at the discretion of the Board of Supervisors considering fiscal viability and existing policies that guide all budgetary approvals.

Option 3 for Capitalization: Capitalizing the Municipal Financial Corporation through a supplemental appropriation of surplus monies from the General Fund portion of the Investment Pool

This option involves using a supplemental appropriation to remove some portion of the Unassigned General Fund balance to provide funds that would be invested in shares of the MFC. Exercising this option requires that the City determines that the General Fund's overall financial position is sufficient to allow for such funding authorization. Prior to the onset of the global pandemic, this option would have been viable given the significant financial reserves accumulated by the City over the last decade. At the present time, the economic uncertainty makes short-term pursuit of this capitalization option less likely. However, we believe this option may again become relevant again for future consideration. We outline our rationale for why we think this is a viable capitalization source in greater detail in Appendix B.

B. Funding the MFC's Lending Operations

In the approach we propose, already outlined in the prior section, the majority of the MFC's lending activity and security holdings would be funded through the City Investment Pool. Surplus Investment Pool monies currently invested in low yield USTR notes and Federal agency debts would be sold, and the proceeds used to purchase debt securities issued by the MFC. This would provide the MFC with resources needed to: 1) begin to originate loans; 2) cover operating costs, 3) pay nominal rates of interest on the funding committed by the City that would be passed back through the conduit entity, as explained further below.

The MFC's net earnings – profits - would be re-invested back into the MFC. This increases total equity, which could be leveraged to support additional lending. In this manner the MFC would establish itself as a self-capitalizing, self-sustaining business entity that, properly managed, would not impose any further financial encumbrance on the City.

At year two, our model assumes the City uses the \$1 billion designated to the SRA to purchase debt securities issued by the MFC's conduit vehicle (see below). At this point, the SRA can be dissolved – all long-term City funding would be hereafter provided through reallocation of current City monies held under the fiduciary management of the Treasurer in the Investment Pool. The Treasurer would increase total holdings by \$0.2 billion in year four, and an additional \$0.3 billion in year five. Hence, at year five, the MFC will have received \$1.5 billion in total City funding. To initiate this funding process, the Treasurer would liquidate the required amount of existing securities, and use the proceeds to acquire the IOUs of the conduit entity who in turn passes these proceeds onto the MFC.¹⁰ The MFC would pay the City 0.5 percent annual rate of interest on monies lent by the City via the conduit entity.

Effecting these transfers thus does not require an appropriation; instead, an ordinance would request the Controller and Treasurer to transfer a portion of the securities currently held in the Investment Pool to the SRA, where they would retain their designation as “surplus monies not required for the immediate needs of the agency.”

We reiterate that commitments of capital and funding from the Investment Pool would be structured such that, over the first several years of operation, these commitments could, if necessary, be rapidly scaled down. If at any point during the first several years of operations the City should desire, for whatever reason, to limit the City's exposure, this can be readily achieved by requiring the MFC to sell its USTR notes and municipal bonds and use the proceeds to retire loans provided by the City to the MFC via the conduit entity. Hence, the size of the *initial* Investment Pool funding commitment does not entail, over the several years from the time the MFC commences operation, any significant risk that losses would be incurred by the City, or that funds would be unavailable if needed to satisfy very high — and historically unprecedented - levels of Investment Pool withdrawals.

As we discuss in the following section, the Board of Supervisors should not conceptualize the capitalization and funding of the MFC over the first five years of operations as an “all-in”, irreversible commitment that cannot be unwound if, for whatever reason, a decision is made at the end of the demonstration stage to not move forward. In the event such a determination is reached, the majority of funds committed over the initial five-year phase of operations can be recovered and returned in full to the Investment Pool. We discuss the process of unwinding the MFC in more detail below

¹⁰ To avoid potential misunderstanding, note that the SRA is simply an internal accounting designation. All monies attributed to the SRA remain within the Investment Pool. All that is occurring is a change in the Investment Pool's asset composition, with holdings of USTR notes and agency securities being reduced to finance the purchase of the IOUs of the MFC's conduit funding entity.

In addition to large-scale commitments of long-term, low-cost funding through the Investment Pool, the MFC could potentially obtain additional funding by selling debt securities to mission-aligned investors such as philanthropic foundations, socially responsible investors, and pension funds, as well as to banks and credit unions that could use these purchases to satisfy federally mandated Community Reinvestment Act obligations. Funds would be used to support a scaling up of the MFC lending programs. Monies procured through the sale of debt securities to the Investment Pool would be used to support additional loan issuance. Funds not needed for new loan originations would be used to acquire municipal bonds — including the debt obligations of the City, other local municipalities, and enterprise agencies. Under our funding structure, we envision the portfolio of the MFC reaching a level of between \$2 billion and \$3 billion in total interest-earning assets by year ten from the date of commencing operations.

We acknowledge our proposed funding mechanisms create risks for the City. It is critical to guarantee the *surety* of any principal committed by the City and ensure the *liquidity* of the Investment Pool — i.e., the ability to meet any and all demands for withdrawal. Because risk management is of critical import, and is a complex topic, we devote a section of this report to extensive discussions of how the Municipal Financial Corporation's objectives can be achieved while providing sufficient safeguards for the City's funding commitment.

Funding a Non-Depository MFC

The provisions set forth in the recent State-level legislation AB 857 authorizes local governments to set up public banking institutions. As part of this legislation, Section 53601 of the California Government Code was amended to allow local governments such as municipalities to purchase medium-term notes and other debt obligations issued by a public banking institution. A public bank is explicitly designated as a depository institution subject to FDIC regulation. Unfortunately, Section 53601(r) does not apply to medium-term notes and other debt obligations issued by a non-depository Municipal Financial Corporation. If the City decides to move forward with the formation of a non-depository MFC and wants to reallocate Investment Pool monies to support its lending programs, it will be necessary to develop various workarounds to channel Investment Pool monies into a non-depository institution.

Under current provisions of the California Government Code, we believe there are two options through which the Board of Supervisors can act to provide funding to support the lending operations of a non-depository MFC: 1) funding via a conduit entity, and 2) using sweep arrangements to direct funds to the MFC.

Option 1: Funding via conduit entity

Investment Pool monies can be channeled to a non-depository MFC for funding purposes through a public conduit entity issuing debt that would be purchased by the City Investment Pool. Section 53601(a) explicitly authorizes the Treasurer to invest surplus monies in bonds issued by the City and County of San Francisco. Section 53601(c) explicitly authorizes investment in the bonds or notes of any California state agency or enterprise of the State of California. This allows the state or City to function as a conduit entity by issuing debt at a very low, or zero, interest rate procured by the Investment Pool, with the conduit entity in turn transferring the proceeds to the MFC through the purchase of the latter's debt securities.

The sequence of the balance sheet transactions that would be required to fund the MFC's loans and operations through use of monies from the Investment Pool is shown in Exhibit 6. The initial position corresponds to the current situation, with approximately \$5 billion in various General Fund placements in the Investment Pool (General Fund, special City funds, and internal service funds), and another \$6 billion held on reserve by other participants in the Pool.

When the MFC issues new debt securities, or IOUs, they would be purchased by the conduit entity. The MFC would use the proceeds from these sales to the conduit entity to fund the MFC's loan originations. The final set of balance sheet positions at the completion of these funding transactions is also shown in Exhibit 6. The MFC has a \$1.5 billion IOU owing to the conduit entity, which in turn has issued a long-term debt security purchased by the Investment Pool.

Exhibit 6: Funding via Conduit

1. Initial position

MFC		Conduit entity		Investment Pool (TTX)	
assets	liabilities	assets	liabilities	assets	liabilities
				\$11,000 mil (USTR and other authorized securities)	\$5,000 mil (General Fund share of Investment Pool) \$6,000 mil (share of other participants in Investment Pool)

2. After purchase of \$1.5 billion of conduit-issued securities

MFC		Conduit entity		Investment Pool (TTX)	
assets	liabilities	assets	liabilities	assets	liabilities
		\$1,500 USTR notes (prior to purchase of MFC liabilities)	\$1,500 bonds and securities	\$9,500 mil (USTR and other authorized securities) \$1,500 mil Conduit entity securities	\$5,000 mil (General Fund share of Investment Pool) \$6,000 mil (share of other participants in Investment Pool)

3. After funds lent out by MFC

MFC		Conduit entity		Investment Pool (TTX)	
assets	liabilities	assets	liabilities	assets	liabilities
\$1,500 loans and investments	\$1,500 in debt securities sold to conduit entity	\$1,500 debt obligations of MFC	\$1,500 bonds and securities	\$9,500 mil (USTR and other authorized securities) \$1,500 mil Conduit entity securities	\$5,000 mil (General Fund share of Investment Pool) \$6,000 mil (share of other participants in Investment Pool)

Implementation of this funding system would require the City, or some other local or state government entity or agency to be willing to serve as the pass-through conduit entity.

We believe the most efficacious arrangement would be for the City to set up a legal entity that would issue liabilities to the Investment Pool, as authorized under the terms of Section 53601(a) of the California Government Code, and to pass these funds through to the MFC through the purchase of a long-term, below-market-rate debt security. This would allow for the term (the time to maturity) of the liability issued by the conduit and purchased by the Investment Pool, to match the loans made by the MFC. Rates paid to the Investment Pool by the conduit entity would be set at, or very near, zero to cover the costs of administrative staffing and an equivalent of 1.5 to 2 FTE positions that would be responsible for vetting the MFC's balance sheet and lending decisions on behalf of the Investment Pool.

This funding arrangement entails the conduit entity established by the City to transact the pass-through incurring a balance sheet liability in the form of a payment owing to the Investment Pool. To avoid any implied or actual commitment by the City to guarantee the liabilities of the MFC, these funding arrangements would need to include covenants to ensure that the conduit entity does not incur any financial obligation to the Investment Pool — i.e., in the event the MFC defaults on its IOUs held by the conduit entity, the latter is absolved of any direct financial liability to the City. Hence, any recourse by the Treasurer on behalf of the City would be limited to claims on the MFC that would be exercised via the conduit entity. Funds that could not be recovered from the MFC by the conduit entity

would be passed through as losses charged against the General Fund portion of the Investment Pool.¹¹

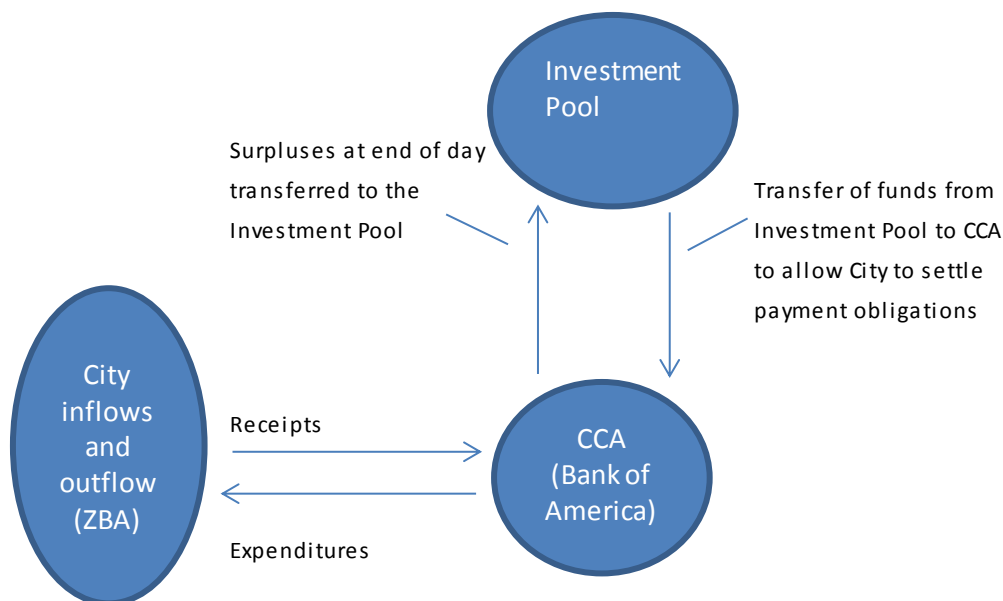
Option 2: Using sweeping arrangements to re-direct funds to the non-depository MFC

Option 2 involves the creation of a funding mechanism that allows end-of-day balances in the City's Core Concentration Account (CCA — see Appendix D on the City's current depository banking arrangements) over the \$130 million cap to be placed into a designated reserve in the Investment Pool subject to certain conditions being satisfied. The monies would be used to purchase equity or debt securities issued by the MFC, subject to a subsequent appropriation authorized by the Board of Supervisors.

Exhibit 7 shows a diagram of the current sweeping arrangements through which end-of-day surpluses in excess of the \$130 million cap on the funds held overnight in the Core Concentration Account are swept into the Investment Pool and invested subject to the statutory provisions set out in California Government Code Section 53601(a)-(r). Alternatively, if a department needs to make a larger than normal payment — for instance, a bond repayment or a payroll disbursement — the Treasurer requires three days' notice, in order to sell assets from the Investment Pool and allow for the clearing and settlement of these trades, so that sufficient funds are available to allow the department to transact the required expenditure. In either case, at all times monies are held either as deposits in the Core Concentration Account, subject to the provisions of California Government Code Section 53651, or as surpluses in the Investment Pool, subject to the investment restrictions of Section 53601.

¹¹ We believe such provisions are allowable under Section 53601 of the California Government Code. Additional legal research would need to be conducted to determine whether inclusion of such covenants would limit the legal viability of this approach.

Exhibit 7: Current sweeping of surplus monies into the Investment Pool



CCA is "Core Concentration Account". Any end of day balances exceeding \$100 mil are sweep into Investment Pool and invested in allowable assets as per CGC Section 53601. All funds in CCA are subject to collateralization provisions as set out in CGC Section 53651 and 53652.

As an alternative, the Board of Supervisors could modify the Administrative Code to require that all funds that are automatically transferred from the Core Concentration Account into the Investment Pool are placed into an MFC funding reserve once the maximum level of funds that may be placed into the General Reserve and the maximum amount of funds that may be placed into the Economic Stabilization Reserve and Budget Stabilization Reserve are met. Funds transferred to the MFC funding reserve will be available for investment in equity or debt issued by the MFC through an appropriation approved by a majority vote of the Board of Supervisors.

Once these funds are used to purchase MFC shares or debt securities, they would no longer be deposits of the City, and hence would no longer be subject to the collateralization requirements of Sections 53651 and 53652. Nor would these funds be within the Investment Pool, and hence their use would be fully exempted from the limitations of Section 53601(a)-(r). Moreover, these funds would no longer fall under the definition of "surplus," as they would now be required to meet the immediate needs of the City, insofar as supporting the MFC is a Board- and voter-authorized policy priority.

Should the City commit to using monies from the Investment Pool?

From the standpoint of funding the City-sponsored Municipal Financial Corporation's lending programs and infrastructure investments, the singular overarching consideration regarding the design and construction of this institution is whether the City will commit

to the use of Investment Pool monies to fund the MFC's loan portfolio. We conclude there are several reasons why the Investment Pool is key to the success of an MFC for the City and County of San Francisco.

For one, we believe that the models presented in the Municipal Bank Feasibility Task Force Report will not attract funding at the projected levels. We do not believe there are grounds to assume private investors will buy market-rate Certificates of Deposit issued by a publicly owned depository bank projected to have annual losses stretching out over a time horizon of thirty years from the time of commencing operations. Similarly, we are concerned that the MFC would not find non-City ready buyers of its medium-term notes and other debt securities, which are the funding sources envisioned for the Task Force's non-depository institution (Model 1.0), and the blended variant (Model 3.0).

Second, the funding of the Task Force's Model 2.0 (depository MFC) through customer deposits and Certificates of Deposit could threaten to drain funding from local banks and credit unions. This would pose a major problem to implementation of either Model 2.0 or Model 3.0, which presumes the MFC has entered into partnerships with these institutions through a wholesale loan purchase program.

Third, the funding mechanisms proposed by the Task Force could evaporate in the context of a financial crisis. This is true for all the models proposed, which are vulnerable to large-scale funding runoff. Money market funding of any variety is highly unstable, as holders may demand cash redemption of debt securities when these notes come due. Nor is there any way to ensure demand for new debt issue. This could lead to severe liquidity problems, and, if prolonged, outright insolvency, as redemptions would need to be paid through a drawdown of the MFC's own equity.

Fourth, the means through which the Task Force report seeks to manage this source of funding volatility — matching the terms of assets and liabilities — while conforming to long-standing banking practice that seeks to match terms of assets and liabilities, rules out the long-term lending at subsidized rates that will be necessary if the MFC is to achieve a significant increase in the supply of long-term, permanently affordable, rent-controlled housing. As outlined in the Task Force report, the only real option for term matching under the assumption that the MFC is financed through the private money market is to issue short- to medium-term loans ("mezzanine debt") with terms that match the MFC's liabilities. As we show below, this form of lending, even under the most generous assumptions, will have very limited impacts in terms of increasing the supply of new affordable housing. In addition, it enforces the dependency of affordable housing production on investment decisions undertaken by private investors seeking the maximal rate of return on investment.

These problems all derive from the Task Force not considering use of funds in the City's Investment Pool to capitalize and/or fund the MFC. With this funding avenue ruled out, there are few options for creating a sufficiently large, stable, and low-cost funding base to support lending at the scale required to support a meaningful increase in local affordable housing investment. Without the Investment Pool, there is little alternative other than seeking to raise money through the issuance of debt on the private capital market. If the City adheres to this constraint, the primary means of providing funding to affordable housing and other social policy target investments is to pursue the option outlined in the Task Force report, namely for the MFC to provide subsidized credit to market-rate development, in return for which the City will be able to extract a small increase in project-specific affordable housing set-asides. Without considering use of the Investment Pool for a City-sponsored MFC, we do not believe the Board of Supervisors should move forward with an MFC as a means for increasing affordable housing investment, as the benefits are insufficient to justify the costs.

Any decision to use monies currently held in the Investment Pool contains risks. Moreover, California Government Code explicitly states that preservation of principal is an overarching consideration that is the responsibility of the agent that assumes fiduciary management of any municipality's surplus monies. This stipulation has been evoked by the Municipal Bank Feasibility Task Force to effectively rule out any discussion of whether the City could, in fact, engage in prudent financial management while using these funds to provide a stable source of long-term funding for a locally owned lending institution with a primary objective of increasing local investments in the area of affordable housing.¹²

The State Code specifies the low-risk, low-yield instruments in which Investment Pool monies can be invested. We believe our proposed approach would not violate these statutory requirements, and would allow the MFC to fulfill its policy objectives of providing low interest credit while remaining fully cognizant of its obligations to engage in prudent risk management to safeguard the City's funding commitment. We discuss these issues in depth in the sections "Risk Management" and "Issues related to the Use of the City's Investment Pool" below.

IV. Establishing the MFC as a Depository Bank

As discussed above, we recommend that the City's MFC be established as a non-depository institution at least initially to minimize regulatory hurdles and costs and operational complexities associated with serving as the City's primary depository. If instead the City chooses to establish its MFC as a depository from the outset, we

¹² See Municipal Bank Feasibility Task Force Report, p. 35, footnote # 35

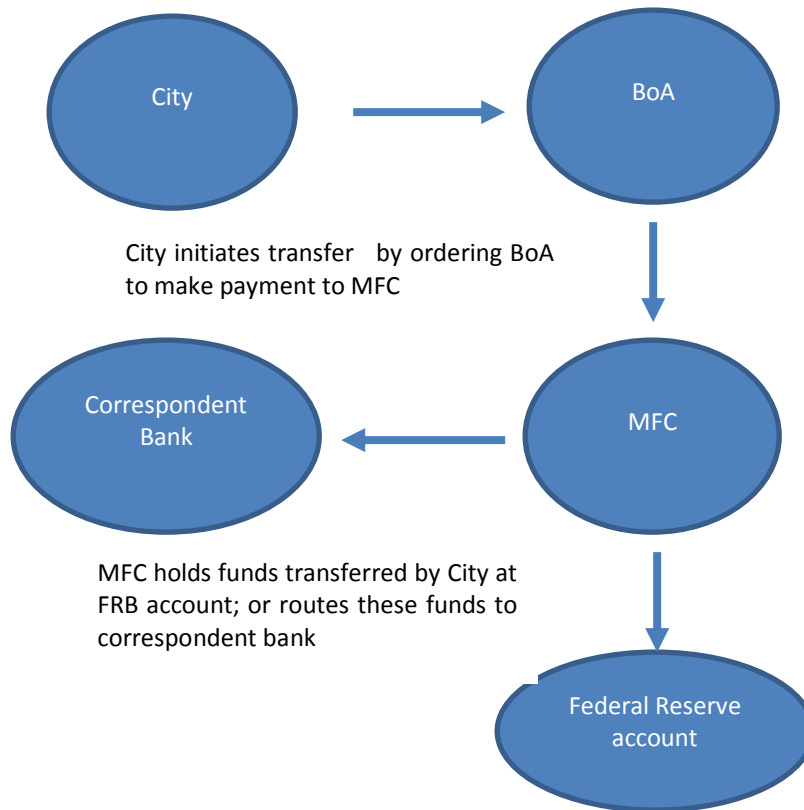
recommend that during the first five to ten years after commencing operations, the MFC operate on a very scaled-down depository model. The MFC would not seek to establish itself as a full-fledged depository bank but would instead conduct payment and settlements through a correspondent banking relationship.

The primary initial impetus behind establishing a state-chartered, FDIC-regulated depository institution is to allow the MFC to directly access funding through the Investment Pool, as authorized through Section 53601(r) of the California Government Code. Limiting the scope of the MFC's initial depository functions would be necessary to reduce the cost of operations to a minimum, and to allow the MFC to serve as a source of long-term, below-market-rate credit.

We here propose two funding mechanisms that would establish a limited depository component of a state-chartered, FDIC-regulated public banking institution. One, the City would set up a designated special purpose account held at the MFC and funded in an amount of \$10 million, to be paid through the City's account with Bank of America (BoFA).¹³ These deposits would be fully collateralized in accordance with the requirements set out in California Government Code Section 53652. This account is primarily for the purpose of establishing the MFC as a public bank, chartered by the State of California and subject to FDIC regulatory oversight. The MFC would hold these funds on behalf of the City and would need to acquire the minimum complement of technologies and logistical capacities to access and clear payments through the major Federal Reserve clearing and settlement facilities. This can be accomplished with minimum initial outlay and will not involve extensive cash management if these deposits are largely held "on reserve" by the City. These mechanisms are outlined in diagram form in Exhibit 8.

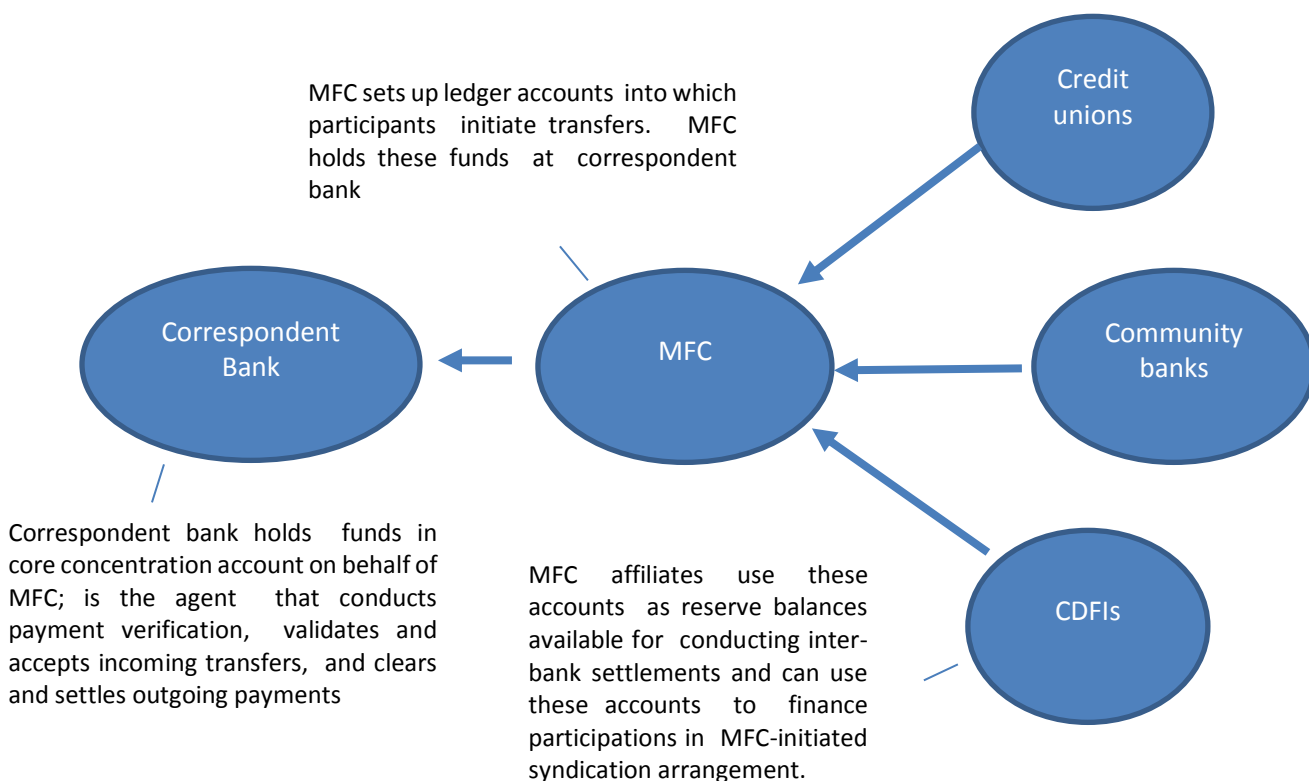
¹³ The amount placed into this deposit by the City could be far less. The major objective of creating this account is to establish the MFC as a publicly owned depository bank, not to provide banking relationships to the City.

Exhibit 8: Establishing the MFC depository



Second, the MFC can set up accounts to accept deposits from the MFC’s affiliated network of credit unions and community banks, as shown in Exhibit 8. Accounts at the MFC would be in the form of liquid reserve balances, available “on demand” for use by the depositing entities in conducting inter-bank settlements. For this reason, these deposits would need to be fully collateralized. To implement this option, the MFC would make extensive use of services provided through a correspondent banking relationship with a mission-aligned depository institution. The correspondent bank would serve as the MFC’s custodial bank, receiving and holding funds on behalf of the MFC, and serving as the MFC’s clearing and settlement agent. This implies a “layered” account structure. Credit unions and community banking partners would place funding into accounts at the MFC. The MFC holds these funds in the form of deposits at the correspondent bank, which in turn conducts actual transactions on behalf of the MFC and participating affiliates. In effect, the MFC would hold accounts on behalf of its community banking affiliates at the correspondent bank, with all funds pooled in a single core concentration account through which the correspondent bank clears and settles all incoming and outgoing payments.

Exhibit 9: Reserve account funding provided through the MFC network of community-based lending affiliates



Setting up a limited, special-purpose City deposit account, and the use of a correspondent banking relationship, would allow the MFC to qualify as a state-licensed depository bank, and to begin to provide banking-like services to a network of community affiliates, without having to undertake outlays on the full range of technologies and logistical capacities typically required to access the full suite of inter-bank payment and settlement systems.¹⁴ Our proposed model has the additional benefit of allowing the MFC to institutionalize partnerships with local credit unions and community banks, which may increase funding placements and use these accounts to finance their participation in syndication arrangements.

Given the limits on the ability to use City deposits to fund the Municipal Financial Corporation's lending programs, and the cost and operational complexities associated with serving as the City's primary depository, we do not believe this should be the primary motivation behind the creation of a public bank. Rather, from the vantage point of providing loans and credit to support affordable housing and infrastructure development,

¹⁴ These include the Federal Reserve operating Fedwire Fund payment mechanism, the ACH system, and the National Settlement Services, as well as full access to the various federally regulated securities clearinghouses through which banks conduct inter-bank transfers and settlement services – e.g., the DTCC Data Repository, the National Securities Clearing Corporation, and the Fixed Income Clearing Corporation.

the primary advantage of forming a depository institution is the ability to attract deposits. If the City MFC can attract a sufficient number of such deposits, this provides a stable, low-cost funding source separate and apart from the City's resources.

Attracting deposits

Given the small size of a City-sponsored MFC, the viability of using a depository bank to provide additional funding for affordable housing investment will depend on its ability to attract a sufficient level of deposits. While the MFC could in principle accept retail deposits from individuals and households, providing a full set of retail banking services is more costly, and would involve greater initial start-up costs and time to acquire the capital to provide such services, as compared to providing a set of targeted institutional banking services. In addition, accepting retail deposits could be perceived as a threat by credit unions and community banks. Hence, efforts to bring in deposits must be done in a manner that does not compete with, but enhances, the relative positions of the region's existing network of credit unions and community banks.

For this reason, we recommend that if the City chooses to establish a depository MFC at the outset, it should limit itself to providing depository, disbursement, treasury and cash management services, and short-term advances to institutional depositors — e.g., non-profits, unions, and philanthropic foundations. In addition, to protect the integrity of the funding base of credit unions and community banks, we recommend the MFC only accept transfers made by institutions that currently use depository and treasury management services provided by major banks.

Accessing the local deposit market

It is difficult to develop estimates of the actual amount of funding that would be available for a municipally owned depository institution. The FDIC deposit market share report provides information on the total amount of deposit accounts held by all depository banks in the San Francisco market. As of June 30, 2018, the total amount of deposits held by the top six banks that were attributed to various branches within San Francisco totaled \$181.45 billion. A majority of these deposits were reportedly held within these institutions' major downtown branches. For instance, of the total \$92.3 billion reported as deposits held by Bank of America in San Francisco, \$80 billion is assigned to the downtown business addresses. We believe these largely correspond to major corporate and commercial business accounts, the deposits of major financial firms and institutional investors, inter-bank claims, and deposits of branch and overseas affiliates. For Wells Fargo, the total reported deposits are \$42.4 billion, of which \$32.9 billion is reported as assigned to the major downtown branches. If we carry out this calculation for the top six banks by market share in San Francisco, the total funds reported in the retail branches is \$50.9 billion.

A shift of 0.5 percent of total deposits from existing banks to the City’s MFC would provide a \$254 million fund base that could be re-lent. If the depository MFC were to attract an additional \$50 million to \$100 million from non-profit organizations, unions, and foundations that hold deposits in jurisdictions outside San Francisco, this would provide a \$300 million deposit base. Whether these are reasonable estimates is impossible to determine without far more detailed research —which would involve interviews with actual institutions regarding their current banking business, and whether they would contemplate transferring their funds to a municipally owned depository bank.

We believe that attracting the level of funding identified above would require an extensive outreach campaign to inform these entities of the depository, disbursement, and treasury management services that could be provided via the depository MFC. Based on our review of the 990 forms for selected unions, foundations, and non-profits representative of institutional clients that could potentially be served by a depository MFC, it is not possible to determine whether these deposits are currently held in major banks.¹⁵ We believe that attracting a \$300 million total depository within five to seven years of commencing operations is a reasonable working assumption. The City could engage in a public education and outreach campaign to ensure widespread dissemination of information and encourage the movement of depositors as a way to support ethical investments; it is possible that our calculations would prove to be a conservative estimate.

Cost of operations

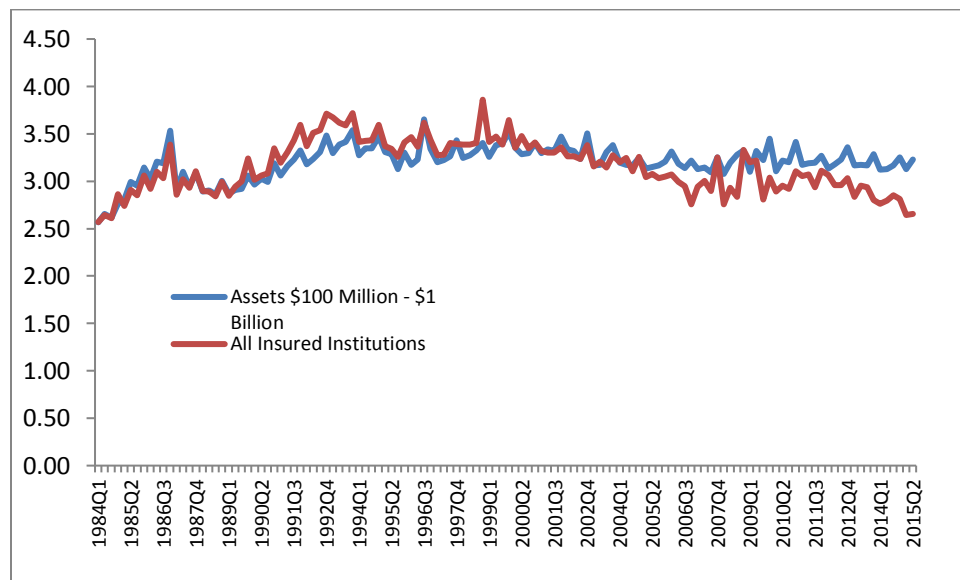
Acquiring the ability to serve as a full-scale public depository would have higher initial start-up costs than establishing a municipally owned depository bank that does not serve as the City’s primary depository. However, the Municipal Bank Feasibility Task Force Report does not provide a justified or consistent cost estimation methodology. This is unfortunate, as in our opinion, the report appears to inflate the costs that would be associated with a publicly owned depository that does not provide banking services to the City — the type of limited-purpose depository that we believe should be contemplated if the City determines it is in the public interest to set up a municipally owned depository.

The Task Force report does not contain justification or a costing methodology other than the statement on page 79 that “costs were estimated using a variety of data sources and were vetted by numerous banking experts. However, there is no discussion of exactly what questions were posed to these experts and hence no way to assess the validity of the Task Force Report cost assertions.

¹⁵ 990 forms are the federal tax filing documents submitted by tax-exempt non-profit organizations.

Some baseline for assessing the ongoing operational costs of a municipal financial corporation that does not serve as the City's primary public depository can be derived from historical data on operations costs of FDIC-insured banking institutions shown in Exhibit 10. Banks that hold between \$100 million and \$1 billion in total assets reported non-interest expenses (operating expenses) as a percentage of total assets of 3.14 percent in the last quarter of 2018. The Municipal Bank Feasibility Task Force Report projects operating costs on the order of 7.5 percent of assets. We do not find sufficient explanation in the Task Force report for its conclusion that the operating costs of a City-sponsored MFC, particularly if it is a depository institution (Models 2.0 and 3.0 in the Task Force report), would be so much higher than industry standards. We believe it is possible for a City-sponsored MFC — particularly one that does not offer retail banking services, but instead is limited to provision of depository and treasury management services to institutional customers — to be able to operate at lower cost.

Exhibit 10: Non-interest expenses as % of total assets for FDIC-insured banking institutions



Source: FDIC , <https://banks.data.fdic.gov/explore/historical/>

If the MFC is established with a primary goal of providing long-term financing to support new production and acquisition of affordable rental properties on the secondary (resale) market, a depository entity is not likely to be a significant funding source. The MFC would need to issue loans at rates lower than operating costs as a percentage of assets, and thus would need the public depository to provide very low-cost long-term credit that would fail to cover the depository's operating costs. Hence, the depository would need to seek out alternative lending conditions, such as participation loans and syndication arrangements that provide higher rates of interest. It will also require the depository to limit its funding sources primarily to non-interest-bearing demand deposits.

V. A Phased-In Implementation Approach

The BLA approach to capitalizing and funding the lending operations of the MFC does not require the City to undertake a “one-time, all-in” financial commitment that cannot be reversed or scaled back in the event of unforeseen financial contingency, or if questions emerge regarding the MFC’s capacity to achieve the policy goals of the City. Rather, in our proposed capitalization and funding model, a significant amount of the initially committed capital, including funding provided from the Investment Pool, can be “unwound” — reversed — if a decision is made to slow down or limit the growth rate of the MFC’s operational scale.

We recommend the MFC founding ordinance include provisions requiring the City to conduct comprehensive performance reviews at years three and five from the time the MFC commences operations. The City may contract with an independent banking auditor to review the MFC’s progress to that date in achieving stable rates of return, the viability of existing lending programs, adherence to prudent risk-management strategies, and development of partnership relationships with affiliated local community banks and credit unions. These assessments will determine the soundness and economic viability of the MFC and provide the City with the option to slow down the scaling of the MFC lending operations if desired results are not being achieved. This assessment process will provide additional safeguards that we believe will limit the risk incurred by the City, and will give the Board of Supervisors a series of threshold points that can be used to assess the MFC’s economic viability and success in meeting the City’s policy objectives. If the MFC meets the assessment’s performance thresholds, we assume the balance sheet could be scaled as shown in our pro forma mock-up.

Exhibit 11 shows the amounts of capital and funding that could be recouped at each stage in the assessment process based on the funding committed from the Investment Pool to the MFC as well as loan growth projected in our pro forma mock-up of the MFC non-depository balance sheet. At both assessment points, the vast majority of monies that have been used to capitalize and fund the MFC could be liquidated, the conduit debt retired, and transformed back into USTR notes and other liquid securities held in the City’s Investment Pool account.

In year three from the time of commencing operations, the amount that would need to be retained in the MFC portfolio (loans outstanding plus required equity) would be \$98 million. The balance of approximately \$1 billion is available to be returned to the City. In year five, \$1.114 billion in assets of the MFC would be available to be immediately liquidated, leaving \$340 million in claims on the MFC still outstanding. Our approach thus provides a series of stop points at which the City can reduce its funding commitment.

Exhibit 11: Unwinding City commitments at threshold assessment points, balance sheet recovery from MFC

Assets	Year 3	Year 5	Year 7
USTR (2.5%)	\$371,162,500	\$504,746,088	\$481,455,635
Municipal Bonds (3.5%)	\$750,000,000	\$750,000,000	\$500,000,000
Loans (2.75%)	\$40,000,000	\$200,000,000	\$850,000,000
Total Assets	\$1,161,162,500	\$1,454,746,088	\$1,831,455,635

Liabilities	Year 3	Year 5	Year 7
Equity at assessment point	\$111,162,500	\$154,746,088	\$206,455,635
Funding through Supplemental Reserve Account (Investment Pool)	\$1,000,000,000	\$1,200,000,000	\$1,500,000,000
Funding though deposits and /or medium-term notes	\$50,000,000	\$100,000,000	\$125,000,000
Total liabilities	\$50,000,000	\$1,454,746,088	\$1,831,455,635

	Year 3	Year 5	Year 7
Capital immediately available to be returned to the City	\$103,162,500	\$114,746,088	\$36,455,635
Total funding and capital recovery returned to Investment Pool**	\$1,115,162,500	\$1,224,746,088	\$853,955,635
Total funding committed from Investment Pool	\$1,020,000,000	\$1,220,000,000	\$1,520,000,000
Net gain/loss to Investment Pool (amount not available for immediate recovery)*	\$95,162,500	\$4,746,088	-\$666,044,365

* Negative values indicate funding commitments from the Investment Pool that are not available to be immediately returned to the City. These funds would be recovered as loans reach maturity and principal is returned to the City. Positive values refer to additional monies that could be paid back to the Investment Pool.

** Assumes USTR notes and Municipal Securities are sold at par value

VI. Establishing a local lending network: loan syndications, participation lending, and credit enhancements

In the BLA model, the MFC would cultivate a network of affiliated institutions composed of local and regional credit unions, banks, and Community Development Financial Institutions (CDFIs), loan funds, and the like. The MFC would support the members of this network by entering into joint lending agreements through loan participations and MFC-

led syndications¹⁶ and by using the MFC balance sheet, to provide credit guarantees to these partner institutions. The joint lending arrangements can be structured in ways that reduce the risks for participating institutions associated with these new loan originations and/or that provide refunding options if the MFC purchases existing loans directly from partner organizations. Lower risk weightings associated with these purchased loans would reduce regulatory capital, increasing the rate of return, and freeing up capital that can be leveraged to fund additional originations. If the MFC buys loans outright, participants in these refunding operations can earn underwriting fees that boost their total earnings. In return, participants in MFC-sponsored participations and syndications, and beneficiaries of risk-mitigation arrangements, would be expected to direct loans to projects and borrowers that meet the MFC's policy objectives. The partners would also be expected to make periodic contributions to the MFC in the form of equity investment in the MFC to institutionalize the mutual lending commitments necessary to establishing a local, community-oriented credit network that can meet certain social, economic, and environmental policy objectives.

Loan participations can take several forms. The most straightforward option is for the MFC to purchase loans originated by partner institutions outright, replenishing lenders' balance sheets with cash that can be used to fund new originations. Alternatively, the MFC can enter into a joint lending agreement, with each institution financing 50 percent of the total loan (for instance). The MFC can structure these participations on terms that achieve the MFC's social policy goals and objectives, and that give preferential risk considerations to affiliated lending institutions.

A *loan syndication* refers to a pooled lending arrangement in which a lead underwriter – the MFC in this case – works out the basic terms of a lending agreement – the loan term and interest rate, repayment schedule, covenants, loss provisions, credit guarantees provided to syndication participants, and terms of recourse in the event of borrower default. The MFC would then establish relationships with a number of its affiliates that would jointly provide the funding to support these pooled lending agreements.

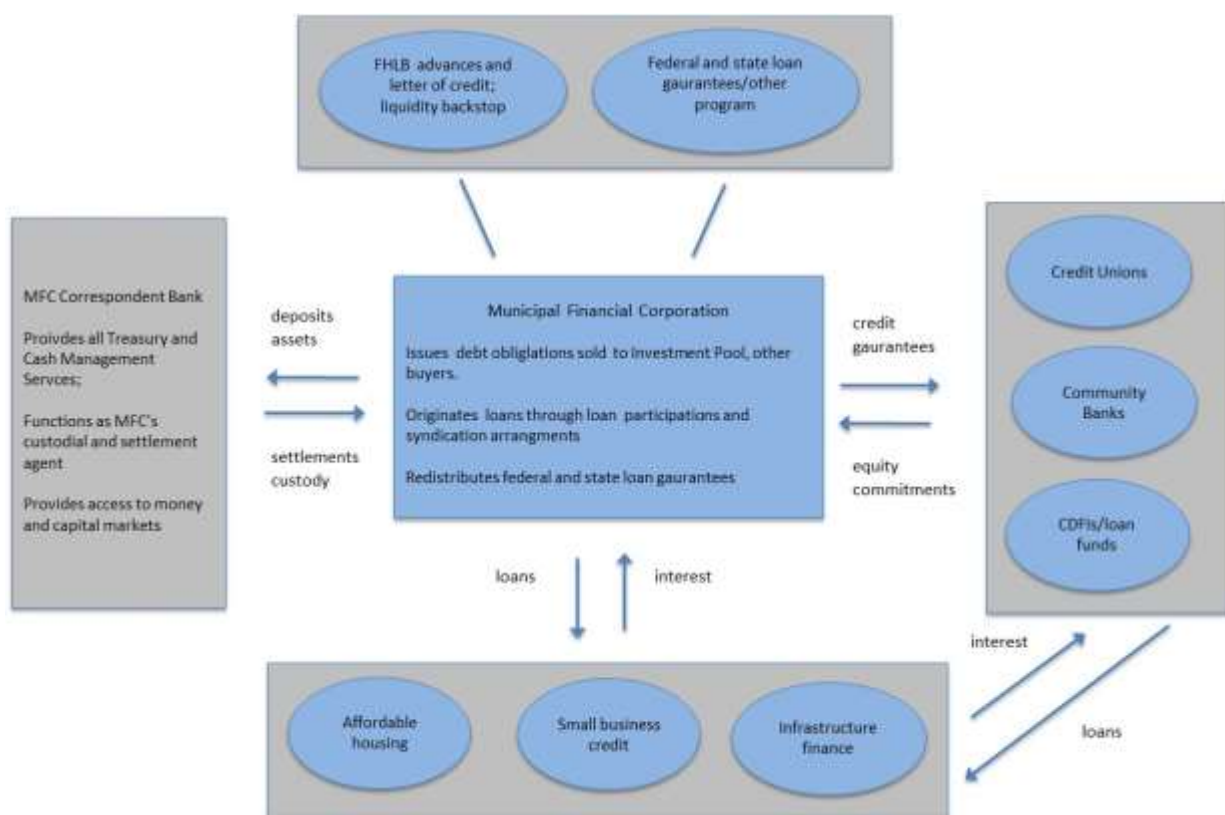
Credit guarantees entail the MFC committing to absorb some portion of losses on loans originated by network members. The MFC would provide such guarantees in return for a fee and could add additional restriction to insure that loans for which the MFC did offer such guarantees served to fulfill the MFC's core social, economic, and environmental objectives.

The basic structure of how the MFC (and potentially a special-purpose publicly owned depository bank in subsequent years) would be set up, along with the network of the MFC's various partnership relationships is shown in Exhibit 12. As discussed above, we

¹⁶ A loan syndication involves group of lenders pooling their resources to finance loans, with one institution acting as the lead underwriter in working out terms and conditions of credits extended.

assume the MFC would be funded largely through reallocation of the assets held in the Investment Pool. The MFC could seek other funding sources, such as subsidized credits from mission-aligned foundations, pension funds, and socially responsible investment funds that seek to use their portfolios to support socially equitable and environmentally sustainable economic development, as well as funding from private capital markets through the issuance of medium-term notes, and, if incorporated as a depository bank, through time and savings deposits. However, these private market-based funding sources are likely to be more volatile and would generally mean funding must be procured by the MFC offering higher interest rates that would be available through funding commitments secured from the Investment Pool.

Exhibit 12: MFC network of affiliated institutions



As shown in Exhibit 12, the MFC should be seen less as a stand-alone, discreet entity, and more as the nexus of networked relations and the coordinating entity that convenes and maintains a series of partnership relations with other credit-granting entities. To the maximum extent possible, the MFC would originate loans in the context of loan participation and syndications, and through various credit enhancements that the MFC would provide to participants in these joint lending arrangements. In Exhibit 12, this is seen in the lower right area of the graphic: the MFC and its affiliated network of community lending partners jointly provide loans – through syndications and loan participation agreements – to support property acquisitions, origination of below-market-

rate mortgages, small-business loans, and infrastructure finance. Interest payments are apportioned in accordance with the participant's share of the total loan amount.

In the first stage of operation, the BLA model assumes that the MFC will enter into a correspondent banking partnership with a mission-aligned commercial bank that will serve as the MFC's primary banking agent, providing all cash and treasury management services, acting as the MFC's principal custodial agent, and handling the clearing and settlement of all incoming and outgoing payments. In our model, we envision the MFC becoming a member of the Federal Home Loan Bank (FHLB) to access the FHLB's collateralized advances, letters of credit, and swap agreements.¹⁷ Membership in the FHLB, and access to FHLB advances would serve as a source of short-to-medium-term emergency refunding in periods of heightened market stress and potential funding runoffs, and is a critical factor in our overall model of risk mitigation and liquidity management.

Under what we believe are realistic assumptions, the combination of issuance of loans through participations and syndication networks, and the redirection of federal and state loan guarantees to support pooled funding commitments to small businesses provided by the MFC's network of community affiliates, will allow each dollar lent out or invested by the MFC to support the issuance of double this amount in total credit. A \$1.25 billion loan portfolio of the MFC could potentially support the origination of upwards of \$2.5 billion in total credit when loans originated by all partner financial institutions are included.

In addition, in our model, one of the primary functions of the MFC is to set up and maintain a wholesale loan distribution network. In addition, the MFC could, over time, establish a securitization platform. Establishing a securitization platform involves the MFC purchasing loans originated by its community affiliates, and issuing securities sold to investors supported by pass-through of cash flows generated by the underlying loan pools. The MFC could seek to sell loans originated by the MFC itself as well as by its network of lending affiliates. Buyers could include foundations, pension funds, and socially responsible investors willing to support the MFC's social and environmental policy objectives.

Because of the multiple options through which these various relationships could be structured, and the complexity of the MFC's lending operations, formation and maintenance of a wholesale distribution network, and, possibly, securitization platforms, we will not here attempt to model the various portfolios the MFC could potentially originate, both directly and through participations and joint funding commitments with

¹⁷ Prior conversations with the FHLB have indicated they are open to an MFC being a member of the FHLB, and stated that the barrier, in the case of an MFC depository, is getting regulatory approval from the FDIC. We do not here discuss the role of the FHLB in detail; please see the report on municipal banking published by the Roosevelt Institute for further elaboration of this point. Available at <https://rooseveltinstitute.org/municipal-bank-regulatory-compliance-capitalization-liquidity-and-risk/>

its network affiliates. In our pro forma estimates, we assume that the Investment Pool is the major source of funding for the MFC loans and investments, and that that funding is provided long-term at minimum costs. This means the Investment Pool sacrifices direct earnings on alternative investments such as USTR notes and the IOUs of federal housing agencies (Fannie Mae and Freddie Mac). In return, the City realizes a far greater social, economic, and environmental return insofar as these funds are redirected back into local circuits of investment to support lending for affordable housing and targeted forms of economic development.

Our pro forma calculations assume that the MFC lends at an average rate of 2.65 percent. This is based on currently prevailing market rates, and the assumption that the MFC, due to the long-term stable funding commitment provided by the City's Investment Pool, is able to lend at 100–200 basis points (1 to 2 percent) below prevailing market rates in the current (pre-pandemic) interest-rate environment. We show that under these assumptions, our proposed operating model is able to generate returns roughly comparable to rates that prevail in the commercial banking sector, and support a lending institution with a very robust capital cushion, as is required to ensure the safety of the City's financial commitments.

The following sections describe the various participant arrangements, credit and loan loss protections, and refunding networks that would be central components of the MFC operational framework and which, if properly designed, will allow the MFC to maximize the impact of its own balance sheet.

(A) Participation loans allowing each dollar contributed by the MFC to be augmented by funds contributed by other loan participants

The MFC would organize and maintain a loan syndication network, or group of financial institutions pooling their resources, to expand the number and/or total volume of loans. This would allow multiple lenders – credit unions, local banks, and Community Development Financial Institutions (CDFIs) – to expand their affordable-housing commitments while pooling and redistributing credit risk amongst loan participants. As a result, the MFC could issue its portion of the loan at a slightly lower interest rate, reducing the cost of credit. This will, *inter alia*, reduce repayment risk and provide some insulation for the commitments of other loan participants. Alternatively, the MFC could, for projects assessed as having low default risk, enter into these partnerships as a provider of subordinated debt, which means the MFC's claim on any proceeds from liquidation of assets in the event of borrower default is subordinated to the claims of other participants. Similarly, the MFC would absorb the majority of losses in the event loans are restructured through reduction of principal and extension of the term of repayment. This will reduce the risk of the superordinate loan participants and could provide additional incentives to lenders to participate in these syndication arrangements.

In return, the affiliates involved in these participation arrangements would utilize some percentage of the profits realized on these loans to purchase shares issued by the MFC. This is necessary to avoid “moral hazard” that could develop if the MFC absorbs a greater share of project risk without requiring reciprocal commitments from the affiliated community lenders.

We envision the basic bi-party participation loan to involve an equal funding commitment by the MFC and the loan participant. Hence each dollar of lending provided by the MFC will secure loans of twice this amount.

(B) Loan syndications with linked credit enhancements

The MFC could also engage in partnership lending through loan syndications. For example, the MFC could work out the terms of a mortgage credit issued to finance property acquisitions for placement into a long-term affordable rental housing non-profit or land trust ownership arrangement, and then sell shares in this loan to members of the MFC’s network of community affiliates. Depending on the terms of participation, this would allow the MFC to leverage its own funding commitment to secure a far greater volume of total pledged funding commitments.

To encourage participation, the MFC can provide credit guarantees to portions of the loans funded by participants in these syndication arrangements. For instance, the MFC could commit \$50 million of its own funding to a syndication loan and invest an additional \$50 million in a bond guarantee fund that would purchase USTR notes and municipal debts, which earn around 2.5 percent, on average, at present. Other participants could provide an additional \$150 million of funding to the syndicate so that \$200 million would be available to be lent out. To provide some guarantee of the participating members’ funding commitments, the MFC would pledge to commit earnings from its bond fund investments (USTR notes and municipal bonds) to underwrite the earnings of the other syndication participants in the event borrowers that have secured loans through such pooled credit arrangements could not meet their repayment agreements. The MFC would restructure these loans over longer terms and at lower interest rates. To cover earnings losses of other participants, the MFC could commit to passing through interest earned on its bond fund to supplement lost earnings due to lowering of interest rates.

This mechanism is not the only alternative. Our more general point is that the MFC can structure these syndications to provide some protection and incentives to its network of affiliates to participate in these pooled funding arrangements. The trade-off is that syndication partners would be expected to offer loans at slightly lower than typical rates

(C) Pooling and redistributed Federal and State loan guarantees

The MFC could seek to acquire loan guarantees from the federal and state governments and redistribute these guarantees to loan syndication participants in a manner that would

provide effective protections to their funding commitments. This would allow the MFC to magnify the impact of its own balance sheet.

In this option, the MFC would seek a loan guarantee from the federal or state government. For instance, the MFC could potentially enter into an arrangement with the U.S. Small Business Administration (SBA) that would allow the MFC to secure a 75 percent loan guarantee on \$10 million in small-business credit. Subject to an agreement with the federal government, the MFC could use this guarantee to cover up to 25 percent of potential losses on a \$30 million pooled loan commitment – for instance, loans originated up to this amount would be guaranteed for members of the MFC-sponsored syndication network. The SBA loan guarantee would then be used, if needed, to cover losses of up to \$7.5 million, with the actual distribution of this guarantee amongst the MFC and other pool participants according to the terms of the syndication underwriting agreements.

Similar programs could be available from state government. At the time of this writing, the California Infrastructure and Economic Development Bank has a program that will provide guarantees of up to 95 percent of loans originated through the Small Business Disaster Relief Loan Guarantee Program. Participating lenders can use these guarantees to cover the risks associated with small-business lending in the current pandemic, when there is a very high likelihood that a significant number of small business loans will enter into default. If the MFC was willing to absorb a certain amount of risk, these guarantees could be redistributed in the manner outlined above in order to support a proportionately greater level of lending originated through the MFC affiliate network.

(D) Establishing a wholesale loan sale program and securitization platform

One of the most high-impact initiatives the MFC could establish is a secondary distribution channel that would allow the MFC and its network of affiliated lenders to sell loans and use the proceeds to fund the issuance of additional credit. In the BLA model, a primary activity of the MFC would be the identification of potential buyers, and the development and maintenance of a sufficiently large pool of market participants. In a wholesale distribution market, the MFC would buy loans, as well as credit originated by the MFC itself, from its network of community affiliates and sell these loans “as is” to buyers such as mission-aligned foundations, pension funds, and socially responsible investors. Because these loans will need to meet certain policy goals and targeted objectives, many of them will be issued at below-market-rate interest. In addition, the MFC may provide certain credit guarantees using the mechanism discussed above (see B and C). To ensure sufficient uptake, the MFC will need to cultivate a large enough number of buyers so that no single investors will be required to commit a large portion of its balance sheet. Provided a sufficient number of buyers can be identified and cultivated, this refunding mechanism will allow the MFC and its affiliates to engage in the issuance of a far larger volume of total credit, and would provide local credit unions and community banks with a refunding mechanism that is simply not available at present.

There are various means through which the MFC can organize and manage these refunding channels. The most straightforward is simply to establish agreements with participants (investors) to buy loans originated by the MFC and its affiliated partners up to a certain amount, provided these loans meet certain conditions and qualifying terms and covenants.¹⁸

It is difficult to determine the eventual size and scale at which such a refunding conduit would eventually operate. Nor do we here wish to prescribe the types of loans that would be viable candidates for sale through these types of markets. However, we believe that these strategies could support a very large increase in lending capacity of the MFC and its network of community affiliates. We note that the amount of funds under management by CALPERS is around \$400 billion. If CALPERS were to commit 1/100th of 1 percent of total funds under management to the purchase of loans whole from the MFC, this would support the sale of \$40 million in total loans through the refunding network. Increasing this to 1/10th of one percent results in \$400 million being available through this sole refunding conduit. U.S. pension plans currently have somewhere on the order of \$16 trillion in total funds under management.¹⁹ Reallocation of a mere 1/100th of 1 percent of this total would absorb \$1.6 billion of loans from the balance sheet of the MFC and its community affiliates.²⁰

Funds under management by large foundations are another source of potential investment. The Chronicle of Philanthropy reported that in 2019 U.S foundations total assets exceeded \$1.0 trillion. Reallocation of 1/10th of 1 percent of these assets would absorb \$1.0 billion of loans via a wholesale refunding conduit. The point is simply that there are vast pools of capital that could be tapped, and a primary function of the MFC would be to undertake the long-term cultivation of these types of wholesale distribution networks. Provided a sufficient number of buyers could be cultivated, during periods of economic growth and relative financial stability, it is not unreasonable to assume that these wholesale refunding conduits could absorb upwards of \$250 million of loans on an annual basis.²¹

We also envision that, over time, the MFC could set up a securitization platform to provide an additional refunding mechanism for itself and for members of its affiliate network. Loans originated by the MFC and its network of affiliates would be pooled, and

¹⁸ Alternatively, the MFC could set up a loan purchase fund, the proceeds of which would be invested in highly liquid interest-earning assets (USTR notes). When members of the MFC have loans to sell, the MFC would liquidate USTR notes and use the proceeds to take these loans from its affiliates' balance sheets. The MFC would be responsible for selling the loans, for which it will charge its affiliates fees to cover costs plus some margin of profit.

¹⁹ <https://data.oecd.org/pension/pension-funds-assets.htm>

²⁰ See www.philanthropy.com/article/Foundation-Assets-Top-1/246975

²¹ Wholesale refunding vehicles can close during a financial crisis or could evaporate if foundations sought higher returns on alternative assets.

participation certificates would be issued, supported by the pass-through of the underlying principal and interest payments. If properly managed, securitization would allow the MFC and its affiliates to issue loans, collect these loans into pools, and use the underlying cash flows to issue pass-through securities that can be sold to a network of buyers that support the MFC's core lending principles and social and environmental objectives. We will not discuss the issues surrounding formation of a securitization platform, which are significantly more complex than establishment of a wholesale loan distribution network. Creating this kind of conduit may at some point fall within the ambit of activities the MFC would contemplate in order to maximize the impact of its own balance sheet, and to support the issuance of an accordingly larger volume of total credit.

(E) Secondary capital and equity injections

One of the most high-impact strategies the MFC can implement is using its financial resources to inject equity, in the form of *secondary capital*, into the balance sheets of CDFI credit unions that are members of the MFC's affiliate network. Low-Income Credit Unions (LICUs), defined as credit unions with a majority of members at or below 80 percent of Area Medium Income, can issue secondary capital, which is a type of uninsured, fully subordinated, convertible debt. Because this debt is fully subordinated, the National Credit Union Administration (NCUA) allows LICUs to count these funds as equity in meeting regulatory capital requirements. LICUs issue what are, in fact, debt securities that have minimum maturities of five years (actual maturities can be of significantly longer duration). The MFC, as the holder of secondary capital debt issuances, would receive interest, and can demand full payment at maturity. Rates currently vary between 4 percent and 6 percent and will depend on overall market conditions at time of issue.

The impacts are potentially quite significant, given that LICUs' regulatory capital can be leveraged at ratios of approximately 8:1, or even higher for certain categories of loans and investments. The mechanism works through the impact of secondary capital on the liability side of a participating credit union's balance sheet – by issuing subordinated debt instruments, credit unions can directly increase the amount of deposits the issuing credit union can accept. These funds are then available to be re-lent. For example, if an LICU issues \$1 million in uninsured, subordinated, convertible debt purchased by the MFC, the issuing credit union could take in \$10 million in new deposits that may then be re-lent.

At the present time, the only designated LICU with a presence in San Francisco is Self-Help Federal Credit Union. This could limit the ability to support an increase in the supply of credit through secondary capital injections, given that Self-Help has a fairly small presence in the San Francisco market. However, this limitation could to some degree be mitigated through purchasing secondary capital issued by the parent entity of which the local Self-Help FCU is an affiliate. Provided the Self-Help FCU national office is willing to use these funds to increase lending to projects originated by the MFC such as multifamily property

acquisition loans and loans to local small business this would increase the lending capacity of the MFC's affiliate network.²²

Similar strategies can be deployed to allow the MFC to inject capital into community development commercial banks. Capital provided to such banks will be primarily in the form of Tier II capital, which, similar to secondary capital provided to LICUs, is a form of uninsured, subordinated, convertible debt. The effect in this case would be more limited than in the case of secondary capital, as Tier II capital is subject to greater regulatory restrictions in terms of percentage of total capital held in this form that can be counted toward meeting FDIC capital requirements. Current regulatory policy distinguishes between various categories of capital that can meet FDIC requirements.

The core form of equity – Tier I common share capital – is counted as core capital for regulatory purposes, and must be maintained at 8 percent of total risk-weighted assets in order for a bank to be deemed “well capitalized” by the FDIC. Subordinated debt, by contrast, is classified as Tier II capital, and cannot be counted for more than 2.5% of total capital, nor can it be used to substitute for an insufficient Tier I capitalization ratio. Hence, the ability of a bank to leverage injections of Tier II capital is more limited than in the case of injection of equity into LICUs in the form of secondary capital. Nevertheless, this option can also be pursued, and is a further means through which the MFC can boost the lending capacities of the network of affiliated community lenders.

VII. Risk Management

The core risk-management task is to ensure that funds committed to the purchase of the MFC's liabilities are insulated against losses. Any commitment of Investment Pool monies to financing the lending activities of the MFC will need to ensure that measures are taken to protect the City's surplus.

²² The MFC will incur risks from these types of investments. The debt is uninsured and is fully subordinated in the event the issuers begin to experience significant losses. For this reason, the MFC is exposed to the credit unions' balance sheet losses. The MFC will thus be required to establish strict lending protocols and engage in periodic reviews of the lending policies, portfolio composition, overall capital ratios, and underwriting standards utilized by credit unions that are the recipients of MFC-provided secondary capital injections. This will ensure that the MFC does not acquire large exposure that can translate into major losses under high-stress market conditions. Credit unions that fail to adhere to established protocols and underwriting standards, or that are failing to manage overall balance sheets to control for and limit potential losses, will become ineligible for further equity injections until such deficiencies are corrected.

Types of risk

Risk management is a complex topic. For present purposes, we will limit ourselves to discussing the three major types of risk that the MFC must be designed to effectively manage. These are: 1) credit risk, 2) interest risk due to maturity mismatch, and 3) rollover (refunding) risks. We here provide a brief description of each.

Credit risk

This refers to the risk that the MFC will incur losses if loans enter into default. For instance, major economic downturns, or overexposure to a particular sector such as the local housing and real estate markets, can result in the MFC beginning to incur higher than anticipated losses in the context of deteriorating local and national economic conditions.

This type of risk is particularly pertinent to the models we have proposed, which we assume will issue the majority of loans to support local infrastructure finance, small business lending, and affordable housing development. The MFC will have a high level of geographical concentration, given that the vast majority of its loans will likely be within the San Francisco market. It will also have a high concentration of loans related to property investment — i.e., housing, and public capital projects. Housing and real estate markets are highly cyclical, and San Francisco is no exception in this regard. It is possible, therefore, that properties acquired using long-term mortgage credits issued by the MFC could experience higher than budgeted vacancy rates, which could potentially impair their ability to maintain timely debt repayments. If these conditions worsen, at some point the property will enter into default.

Similar considerations pertain to small business credit. Some lenders informally report that a small business loan has a 3 percent probability of entering into default in each year from the time of origination. If the average term on small business loans in a lender's portfolio is five years, we would expect 15 percent of these loans to be in default on an annualized basis. While some of these loans could recover, the percentage that is past due, or the amount that must be written off outright, can go much higher during periods of economic contraction. This will require lenders to have made sufficient loan loss provisions in order to weather the downturns and absorb higher than anticipated rates of default.

Interest risk due to maturity mismatch

This refers to the risk attendant on issuing shorter-term liabilities to raise funds to invest in longer-term, often fixed-rate assets. Because shorter-term liabilities must be periodically refinanced — rolled over — at the then prevailing market rate of interest on equivalent types of debt, it is possible, in an environment characterized by rising interest

rates, for a lender to find the cost of servicing its liabilities exceeds the earnings of longer-term fixed-rate loans and investments.

Rollover (or refunding) risk

Rollover risk refers to the risk that a bank's creditors — i.e., the parties that have lent funds to the bank through the purchase of short- to medium-term liabilities (debt securities, short- to medium-term notes, and CDs, in the case of a depository bank) — will demand full cash redemption of the liabilities at the time they fall due for repayment. If the bank's creditors are unwilling to roll over these credit instruments at prevailing interest rates, the bank must be able to validate its debts through selling assets. If the bank does not have a sufficient inventory of highly liquid securities, the bank will enter into default, and become functionally illiquid. This type of risk is particularly prominent during periods of heightened stress or outright panic that characterize a banking and financial crisis.

Liquidity risk

Liquidity risk is used here to refer to a situation in which a bank could experience a sudden and unexpected funding runoff in the context of a banking and financial crisis. In addition to funding that would be lost if creditors demand cash redemption of maturing liabilities (see above), a bank could experience a large-scale drain of deposits if customers (depositors) find themselves needing to draw down account balances to make payments on liabilities that have come due for settlement. This is particularly the case in the event of a generalized financial and banking crisis, which may lead to a sudden and generalized demand for cash to serve as means of payment, and rapid funding runoffs that make banks and other financial entities unwilling to lend funds on a short-term basis.²³ To manage this risk, a bank must have a sufficient inventory of liquid short-term U.S. Treasury notes or a sufficient net positive balance in its reserve position at the central bank to ensure that it is effectively collateralized against any level of potential funding and deposit runoff.

Based on our assumption that the MFC will be funded in large part through the reallocation of funds from the Investment Pool and that the City is purchasing the IOUs of the MFC and agreeing to provide a long-term, low-cost, stable funding source, the earnings structure of the MFC will not be subject to extensive interest rate risk, as IOUs will be rolled over at low or minimal rates of interest. This effectively minimizes rollover and refunding risk. Provided the City does not need to begin to call in funds that have been committed to the MFC on a long-term basis, this effectively mitigates liquidity risk.

²³ This typically takes the form of the inter-bank wholesale capital market and the freezing of the repo markets, which are the means through which banks and other financial entities secure short-term advances.

Hence, the overarching type of risk that the MFC must manage is how to fully insulate the City funding commitments in the event the bank's loans begin to experience heavy losses. There are two strategies for how this can be achieved — assuming, of course, that the MFC has established a set of rigorous and consistent underwriting standards.

The first is to refinance distressed loans by lengthening the term, or repayment period. For instance, assume the MFC has issued a \$15 million loan to finance a property purchase for placement into a community trust-type arrangement. At year five on a 30-year mortgage note, the property begins to experience a higher than anticipated vacancy rate that impairs the borrower's ability to make monthly mortgage payments. The MFC could refinance the loan at the same interest rate while lengthening the term of repayment. This lowers the borrower's monthly debt servicing costs and could render the loan viable without requiring the MFC to recognize any capital loss.

However, term restructuring to avoid outright write-down of loan principal may not be viable, depending on the level of distress being experienced by the borrower. Hence, the MFC could undergo periods when it will be required to recognize and absorb losses. Given the concentrated exposure of the MFC to the local property market, and the vicissitudes of the real estate cycle, losses could become significant in the context of a sharp regional, national, or a global economic downturn and banking crisis. Therefore, safeguarding funds committed from the Investment Pool will require the MFC to operate with a very high capital-to-asset ratio.

The MFC capital-to-asset ratio will far exceed the level at which the FDIC defines a bank as “well capitalized.”

In our pro forma mock-up example of the non-depository model, in year ten the MFC's assets consist of \$1.250 billion in loans, \$500 million in municipal bonds, and a residual balance of \$161 million in short-term U.S. Treasury notes. Current risk-weighting methodologies utilized by the FDIC assign a risk weight of zero to deposits held at the Federal Reserve Bank and to USTR securities. Municipal bonds that represent the general obligations of the issuing government are weighted at 20 percent of nominal principal, while revenue bonds are weighted at 50 percent. Conventional real estate loans — home mortgages, and securities created from underlying loan pools that meet certain regulatory standards — are weighted at 50 to 100 percent, depending on whether the mortgage is first lien and meets other regulatory provisions and standards. A 50 percent risk weighting is assigned to multi-family mortgages. Other categories of real estate loans — termed High-Volatility Commercial Real Estate Exposures (HVCRE) — are assigned a 150 percent risk weight.

The FDIC defines a bank that has a capital-to-risk weighted asset ratio of 10 percent or greater as “well capitalized.” Exhibit 13 shows the risk-weighted portfolio of the mock-up MFC presented as Models 1 and 2 below, the non-depository and the limited scale depository models, respectively. In both cases, we have assigned the 150 percent risk weight to the MFC total loan portfolio, under the assumption that these loans are heavily concentrated in the MFC’s real estate portfolio. We also have assigned this risk weighting due to the non-conventional nature of these loans, which are issued at rates of interest well below those that would be available on the private market. Hence, our standard assumes maximum risk. We see that, in both cases, the MFC is well in excess of the capitalization levels required to receive the highest rating from the FDIC.

Exhibit 13: Risk-weighted capital requirements

	MFC non-depository		MFC limited scale special-purpose depository	
	Unweighted	FDIC risk weighted	Unweighted	FDIC risk weighted
USTR notes	\$161	\$0	\$370	\$0
Muni bonds*	\$500	\$100	\$500	\$100
Loans	\$1,250	\$1,875	\$1,000	\$1,500
Assets (total)	\$1,911	\$1,975	\$1,870	\$1,600
Equity	\$286	\$286	\$237	\$237
Capital/asset	15.0%	14.5%	12.7%	14.8%

* Assumes municipal bonds are general obligation bonds

Could the MFC withstand a prolonged period of heavy losses?

There are two basic measures of the ability of the MFC to withstand a period of heavy and extended losses. The first is the amount of loans that could be fully written off before all capital of the MFC is fully extinguished, at which point the MFC is fully insolvent. The second is the level of losses that could be absorbed before the MFC reaches the point of zero net earnings on total assets.

In the mock-up presented above, we have modeled the first ten years of the non-depository MFC’s operations, at which point the MFC has \$1.911 billion in total assets. Of this total, \$500 million is debt obligations of municipal and county governments, and \$1.25 billion is loans, which we have assumed are primarily for undertaking housing investments. (We note that the loans could in fact consist of more diverse sectors and types of assets.) We have assumed the average rate of return on total assets is 2.6 percent, which is a conservative estimate. Annual operating costs of the MFC (non-depository) are set at approximately \$15.6 million, which is sufficient to employ 25 FTEs in staff and cover all non-personal annual costs. Equity at year ten is equal to \$286 million.

It is immediately evident that, with total assets of \$1.911 billion, and an outstanding loan portfolio of \$1.25 billion and capital equal to \$286 million, the MFC could absorb a one-time loan charge-off of 7.57 percent of *total* assets and still have a capital ratio that would qualify it as “well capitalized” by FDIC standards.²⁴ We note that the MFC could absorb a full write-off of 22.88 percent of total loans before becoming insolvent. This level of loan losses is over four times the level of net losses absorbed by U.S. banks during the 2008 global financial panic, and is comparable to the net portfolio losses absorbed by U.S. banks over the full span of the 1929–1933 Great Depression, during which time bank portfolios shrank on average by around 25 percent.²⁵

To provide a more nuanced assessment of the ability of the MFC funding and capital structure to withstand a period of very heavy losses, we consider two scenarios that reflect increasingly dire economic situations. Exhibit 14 shows our “Baseline” depression scenario. We assume that the portfolio structure in existence at the beginning of our catastrophic scenario is equivalent to the portfolio in existence at year ten of our core (non-depository) pro forma mock-up. We assume that an equivalent of 5 percent of loans outstanding at the beginning of the crisis, or \$62,500,000 of total loans outstanding, default over the next three years. Hence, by the end of the period, 15 percent of the original loans held in the MFC loan portfolio have been fully written off and/or restructured in way that imposes an equivalent balance sheet loss.

We report returns on assets, returns on equity, and the capital/asset ratios over the three-year period of this level of assumed loan defaults, followed by the first year of return to profitability. As seen in Exhibit 14, net earnings turn negative, as loan losses are charged against income received from the balance of the MFC's performing assets. Losses that exceed net earnings are written off against MFC capital. Both the measures of the capital-to-asset ratios decline. However, the MFC remains above the threshold at which the FDIC defines a bank as “well capitalized”. This is largely due to the high percentage of USTR notes and municipal bonds in the total asset portfolio, which we assume does not incur any losses in our baseline scenario. Beginning in year four, we assume the MFC has recognized and charged off in full the loan losses, at which point MFC net earnings once again turns positive.

²⁴ Given that the U.S. federal government is extremely unlikely to contemplate defaulting on its debt obligations, and the generally lower risk of default associated with the IOUs of state and municipal governments, the vast majority of write-down is likely to involve loan losses.

²⁵ These numbers are calculated by writing off in full some percentage of the loans in the MFC portfolio and charging these losses against capital. Given the assumption that, at year ten, the MFC has \$1.25 billion in loans, and \$286.4 million in equity, the MFC can absorb a full charge off of 22.88 percent of loans before exhausting all capital.

Exhibit 14: Risk model Baseline scenario

	Year 1	Year 2	Year 3	Year 4
Annual losses	-\$62,500,000	-\$62,500,000	-\$62,500,000	
Net earnings	-\$35,134,711	-\$36,058,546	-\$37,013,402	\$24,499,705
Return on assets	-1.81%	-1.89%	-1.98%	1.34%
Return on equity	-11.22%	-12.97%	-15.30%	11.95%
Capital/Asset ratio (non-risk weighted)	16.16%	14.61%	12.96%	11.20%
Capital/Asset ratio (risk weighted)	16.65%	15.55%	14.29%	12.81%

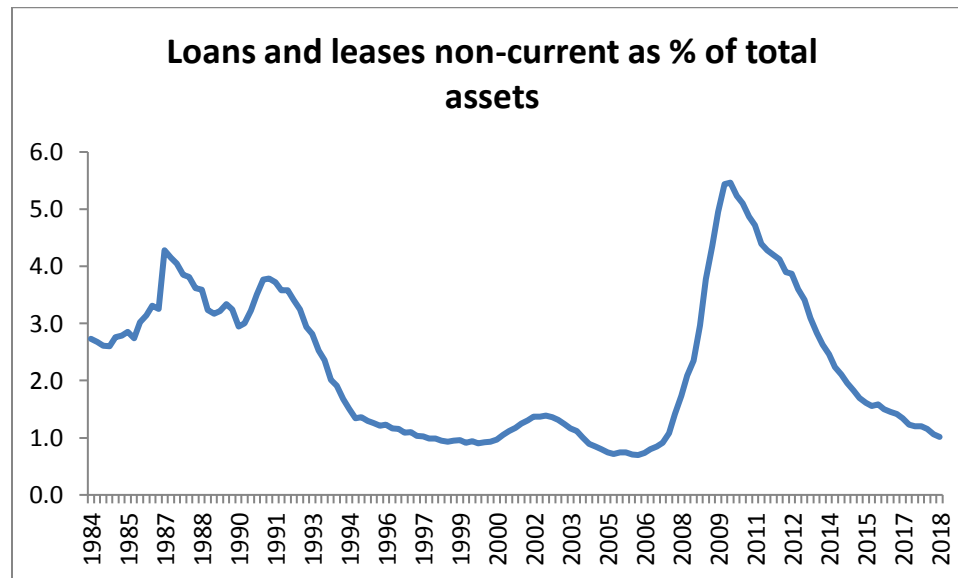
We have also constructed a pro forma mock-up of a “Great Depression scenario” shown in Exhibit 15. We assume loan losses are 8 percent of the total loans outstanding in each year over a three-year period. In addition, we assume that 5 percent of municipal bonds default in years one and two of this crisis scenario. Under these assumptions, the MFC loan and investment portfolio would lose 15 percent of total value. Massive write-offs impose a large-scale destruction of MFC equity capital. However, the MFC emerges as a solvent institution under this more extreme scenario, as the risk-weighted capital-to-asset ratio, while having fallen to very low levels, remains above zero at 2.38 percent. Due to the scale of the assumed losses that must be charged off against MFC capital, the rate of return at the end of the crisis is very high, as the earnings from the performing assets which continue to compose the bulk of the loan MFC portfolio, are calculated against a vastly reduced total net capital. This will allow the MFC to quickly rebuild the capital-to-asset ratio, provided earnings are capitalized and the MFC does not engage in new loan originations until the buffer is restored to an acceptable level.

Exhibit 15: Risk model Great Depression Plus scenario

	Loan losses (8% of total outstanding at year 1: 5 percent default on muni bonds in year 1 and 2)			
	Year 1	Year 2	Year 3	Year 4
Annual losses	-\$125,000,000	-\$115,750,000	-\$84,000,000	
Net earnings	-\$97,503,461	-\$98,605,264	-\$77,242,539	\$220,896,090
Return on assets	-5.03%	-5.36%	-4.43%	1.26%
Return on equity	-31.14%	-45.73%	-66.00%	52.50%
Capital/Asset ratio (non-risk weighted)	16.16%	11.72%	6.72%	2.39%

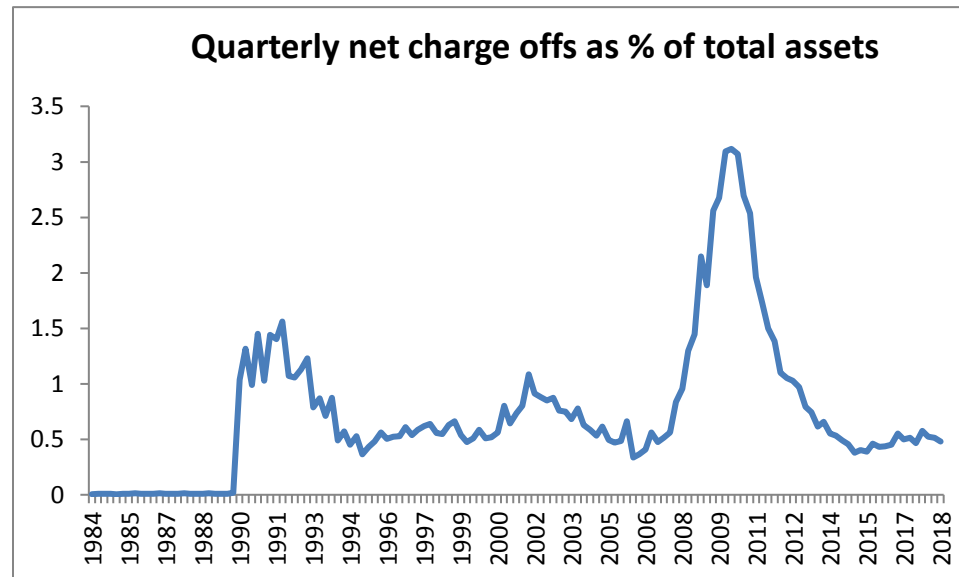
To put this in perspective, during the most recent Great Recession, the total reported loan and leases that were “non-current” — either 90 days past due or in non-accrual status — peaked at 5.46 percent in the third quarter of 2010, according to the FDIC Quarterly net charge-offs — the difference between gross charge-offs and any expected recovery — peaked at 3.1 percent of total assets in the first quarter of 2010. Our model could thus absorb losses significantly greater than those observed in the long aftermath of the 2008–2009 global banking crisis.

Exhibit 16: Loans and leases, non-current, 1984–2018



Source: FDIC, <https://banks.data.fdic.gov/explore/historical/>

Exhibit 17: Quarterly net charge-offs, 1984–2018



Source: FDIC, <https://banks.data.fdic.gov/explore/historical/>

In fact, due to the nature of the lending programs that would be conducted by the MFC, charge-offs of this magnitude would be very unlikely, even in the context of a major economic crisis. Loans can be restructured, primarily through extension of the term, to ease borrowers' repayment burdens while allowing the MFC to avoid having to impose write-downs of existing loan balances provided borrowers are able to meet the new repayment terms. Moreover, other risk mitigations can be included — for instance, triggers that will lead to temporary cessation of new lending activities if vacancy rates in the local rental market fall below certain thresholds. These precautionary measures, and maintenance of a large capital buffer, will mean a slower rate of growth of the MFC's total loan portfolio. These are the tradeoffs required in order to secure confidence in a novel funding model.

These extreme-case scenarios are useful in providing a "first cut" assessment of our model's ability to withstand an extreme economic downturn that could impose major losses on the MFC's loans and investment portfolio. Additional analysis will need to be conducted to develop a more complete analysis of various risk scenarios and the tradeoffs inherent in constructing an MFC that will be able to absorb major write-downs and charge-offs while protecting the funding commitment of the Investment Pool. This will need to involve running various "stress tests" to determine how the MFC will perform under a variety of market scenarios. Our model errs on the side of extreme caution and is designed to fully insulate the funds committed from the Investment Pool. For this reason, the rate of return on MFC core capital and the rate of growth of the MFC loan and investment portfolio are lower than would be the case in a somewhat less risk-averse, but still well capitalized, model. These various tradeoffs will need to be thoroughly reviewed

and vetted by our recommended Implementation Working Group in the course of developing a concrete business proposal.²⁶

Forming the MFC could affect the credit rating of the City

Using surplus City monies to finance the lending activities of the MFC could trigger a downgrade of the City's credit rating, even though none of the recommended funding structures would trigger a downgrade based on the methodologies that credit-rating agencies (CRAs) use in assigning credit ratings to the debt obligations of local governments.

The rating assignment process can have a chilling effect that acts to restrict the range of policy choices that may be pursued at all levels of government. On the basis of the CRAs' own published rating methodology, none of the proposed funding structures should trigger a rating downgrade. For instance, for a municipality to receive the highest ranking on the "Liquidity" and "Debt and Contingent Liabilities" score, Standard and Poor's requires the ratio of "Available Fund Balance" to expenditures to be equal to, or greater than, 15 percent; and the ratio of "Available Fund Balance" to debt service to be equal to, or greater than, 120 percent. Using data from 2018, total General Fund expenditures were approximately \$10.1 billion. The General Fund-only portion of the Investment Pool was \$4.963 billion. Maintaining the required Fund Balance-to-Expenditure ratio would require the City to maintain \$1.515 billion in fully liquid short-term securities, accessible on short-term notice to cover any unanticipated financial contingencies. The City's anticipated General Fund-only annual debt service obligations over the next five years range from a high of \$342 million in FY 2018-19 to a low of \$224 million in FY 2022-23. To meet Standard & Poor's top rating criteria, the City would need to maintain \$410 million in Available Fund Balance.

Similar results are found using the rating methodologies published by Moody's and Fitch. Moody's, for instance, requires an Available Fund Balance-to-Expenditure ratio of 25 percent, in order for a local government to be assigned the highest score on this portion of the overall determination of the credit rating. None of the funding mechanisms we have proposed bring the City anywhere close to thresholds that would trigger a rating downgrade based on the three major CRAs' published rating methodologies. Furthermore, the proposed legal form of the MFC — namely, incorporation as a legally independent corporation with its own Board of Directors charged with oversight of top

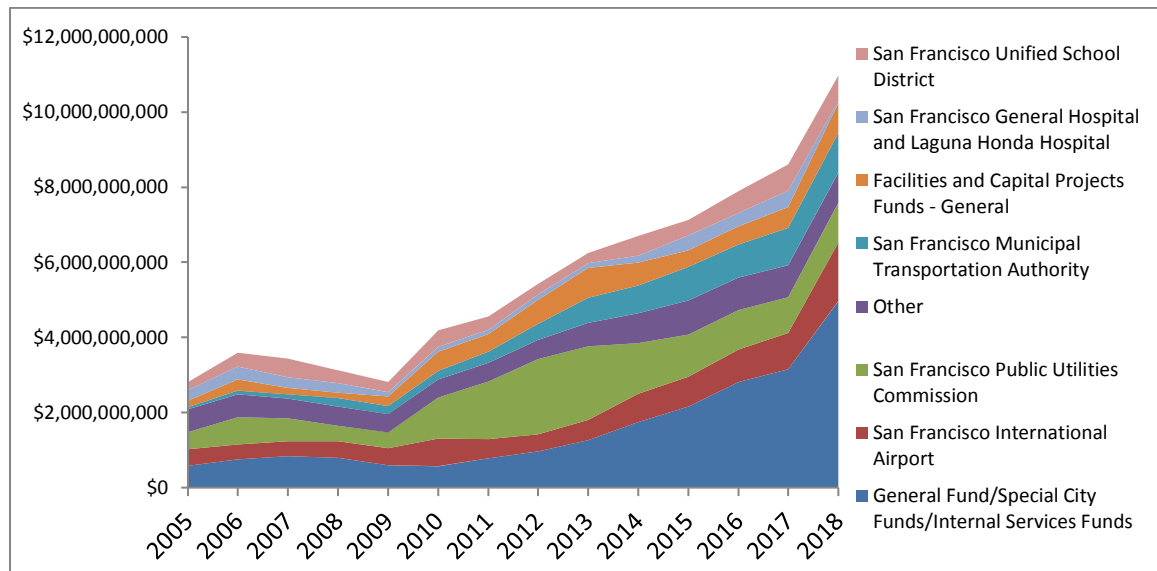
²⁶ There are a number of additional tools that the MFC can deploy to manage risk. For instance, limits could be set on the annual rate of growth of loans tied to particular classes of assets. And if borrowers begin to experience trouble with debt repayment, these stresses can often be mitigated through debt restructuring, in this case through refinancing to lengthen the time of repayment. Given the purpose and scope of the current report, we confine ourselves to the broad-brush assessment of the MFC's ability to withstand very heavy and sustained losses.

management — can easily be structured in a manner that ensures the City does not incur any additional financial liability beyond the potential loss of monies appropriated for purposes of capitalization and funding.

Issues regarding the use if the City’s Investment Pool as a source of long-term funding

California State law stipulates “funds not required for the immediate needs of the agency” may be invested in a set of designed securities and interest-bearing liabilities. (See California Government Code Section 53601.) The Treasurer currently serves as the fiduciary agent responsible for the safeguarding of surplus monies held and invested in the Investment Pool by City departments and local agencies. In addition to the accounts linked directly to the General Fund (which includes the General Fund balances proper, internal service funds, and the surpluses of “other major governmental funds”), other participants in the Investment Pool include the Airport, the Port of San Francisco, the Municipal Transportation Authority, the Public Utilities Commission, the Unified School District, and City College of San Francisco. Exhibit 18 shows the trend in the amount of funds held in the Investment Pool over the last fourteen-year period, broken down by the total cash surplus held by the various participants in the Investment Pool, and Exhibit 19 shows the total cash balances held in the Investment Pool as of June 2018, as reported by the Treasurer.

Exhibit 18 Investment Pool cash balances, 2005 through 2018



Source: Treasurer–Tax Collector

Exhibit 19: San Francisco Investment Pool balances, 2018

Pool Participant	2018
General Fund/Special City Funds/Internal Services Funds	\$4,962,817,250
San Francisco International Airport	\$1,562,100,022
San Francisco Public Utilities Commission	\$1,052,366,913
Other	\$810,056,492
San Francisco Municipal Transportation Authority	\$1,059,144,993
Facilities and Capital Projects Funds - General	\$795,697,979
San Francisco General Hospital and Laguna Honda Hospital	\$59,440,617
San Francisco Unified School District	\$675,023,186
Total	\$10,976,647,452

Source: Treasurer and Tax Collector

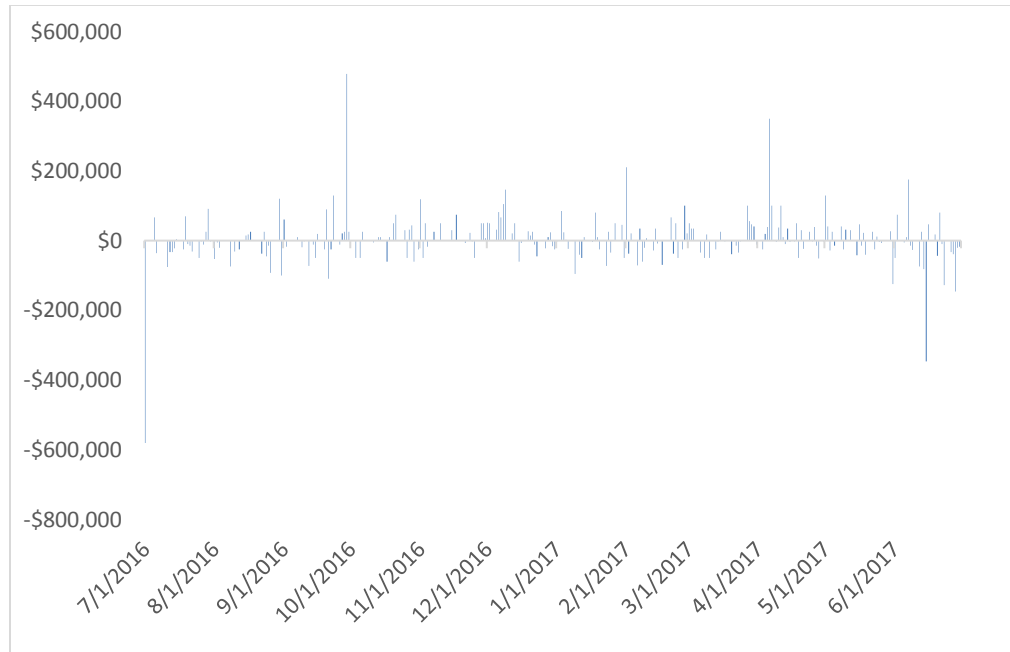
Using funds in the Investment Pool to fund the MFC will not impair the ability of the Treasurer to meet any level of fund withdrawal by participants in the Pool

Representatives of the Treasurer–Tax Collector’s office have indicated that funds held in Treasury-managed investment accounts need to be kept liquid in order to meet any expected or unforeseen demand by pool participants for fund withdrawals. Participants in the Investment Pool have access to these funds on demand, and hence the Treasurer must ensure that a sufficient portion of these surplus monies is invested in highly liquid securities that have relatively stable secondary-market prices.

The liquidity requirements of the Investment Pool can be evaluated by calculating the ratio of the one-day change in the total funds invested in the Pool to the opening balance for all days in a given fiscal year. This ratio is an indicator of the daily variance and can be used to evaluate the actual level of daily inflows to, and withdrawals from, the Investment Pool as a percentage of total funds invested in the Pool. This variance measure will be positive on days in which there is a net inflow, and negative on days with net outflow. We can use this simple measure to determine both the average daily variances and the extreme values, or days characterized by particularly high withdrawals, to provide a picture of the actual amount of fully liquid investments that the Treasurer needs to hold as a percentage of all funds invested in the Pool.

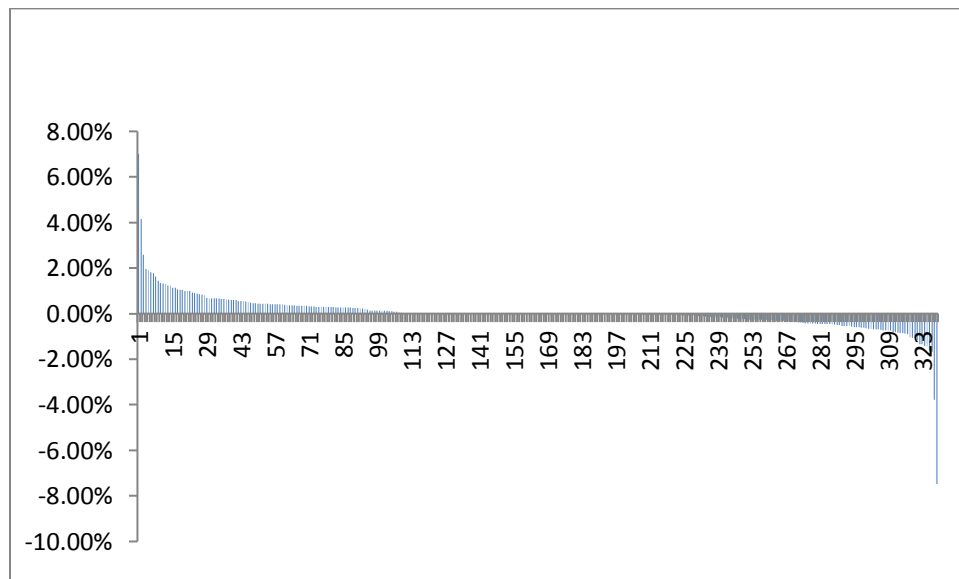
Exhibit 20 displays the net change in the amount of funds that were either deposited into or withdrawn from the Investment Pool for all participants in the Pool for FY 2016–2017. Exhibit 21 shows the difference in beginning and ending daily balances as a percentage of total opening daily fund balance. As can be seen, the largest one-day decrease (outflow) was on July 1, 2016, in the amount of \$581,490,935. For all days in the fiscal year, withdrawals exceeding \$100 million, which is 1.16 percent of the year-end fund balance, occurred on only six days out of a total of 329 days for which the Treasurer provided data. Of these six days, only two had withdrawals in amounts greater than \$150 million.

Exhibit 20: Daily Variance, FY 2016–17 – additions and withdrawals from Investment Pool, in \$1,000s



Source: Treasurer–Tax Collector

Exhibit 21: Change as percent of opening Investment Pool daily balances, FY 2016–17



Source: Treasurer–Tax Collector

The vast majority of days in FY 2016–17 reported either no change, or changes well below 1 percent of the opening fund balance. Data on actual daily withdrawals does not support claims that the cash needs of participants in the Investment Pool — the need to be able

to meet any short-term notification of immediate or impending cash withdrawal — negates the ability of the Treasurer to redirect a significant portion of total funds held in the Pool to provide the MFC with a source of stable, long-term, below-market-rate funding. There is no evidence supporting claims that the majority of the assets held in the Investment Pool must be available for immediate withdrawal. In fact, the overall balance of the Investment Pool is generally quite stable. All cash needs could have been met in FY 2016–2017 with only 10 percent, or approximately \$800 million, of the FY 2016–17 Investment Pool ending balance invested in the type of liquid securities — e.g., U.S. Treasury notes and the obligations of federal agencies — that are readily convertible into cash (bank money) on short-term notice. We conclude it is highly unlikely that the majority of funds held in the Pool would need to be available for withdrawal.

Appendix A: Detailed Review of the Municipal Bank Feasibility Task Force Report

Pursuant to a resolution adopted by the Board of Supervisors on April 25, 2017, the Treasurer–Tax Collector assembled a Municipal Bank Feasibility Task Force, the purpose of which was to “advise the Treasurer...the Mayor, the Board of Supervisors and relevant City Departments regarding the creation of a Municipal Public Bank.”

The Task Force Report presents three models intended to provide a basis for evaluating the economic feasibility of a municipal bank for the City and County of San Francisco. All three models envision an institution that manages around \$1 billion in total assets. The models differ primarily in terms of their funding sources, the types of loans they originate, and whether they provide depository services to City government.

Model 1.0 in the Task Force report is a non-depository variant. The entity is funded through debt securities (medium-term notes) issued on the private capital market. These funds would primarily be used to support housing-related investments.

The major type of loan this institution would issue would be “mezzanine debt.”²⁷ This is a type of shorter-term debt commonly used by market-rate developers to supplement their equity financing, and generally carries a higher interest rate than long-term “permanent” financing. In the Task Force’s Model 1.0, this mezzanine debt is provided to housing developers at below market rates. Though not explicitly stated, the assumption appears to be that, in return for receiving lower-cost mezzanine debt, for-profit developers would agree to provide larger affordable-housing set-asides. This Model 1.0 institution is the least costly option considered by the Task Force and is projected to become profitable ten years after commencing operations.

Model 2.0 in the Municipal Bank Feasibility Task Force Report is a depository bank alternative that would serve as the City’s primary depository, thus providing all banking services currently provided to the City under contract by Bank of America. Like a traditional private sector bank, Model 2.0 would be funded primarily through market-rate customer deposits — demand, savings, and time deposits (CDs). The funds from these deposits would be used to engage in the wholesale purchase of small business loans already originated and held by local credit unions and community banks.

The Task Force’s Model 2.0 alternative assumes far higher operating costs than Model 1.0, due in part to the costs of serving as the City’s primary banking agent. This model does not become profitable until approximately thirty years after commencing operation.

²⁷ As we explain below, the liability structure of Model 1.0 will severely limit the ability to originate longer-term acquisition loans, and hence will not be a major funding source for the City’s small site acquisition program.

Model 3.0, the final Task Force alternative, is a hybrid of the first two alternatives, and does not become profitable until approximately sixty years after commencing operations.

Key conclusions based on our review of the Municipal Bank Feasibility Task Force Report and supporting materials are as follows:

- The Task Force Report assumes that the private market, and not the City, would purchase debt securities from the Model 1.0 non-depository institution or make deposits for the Model 2.0 depository in amounts necessary to fund lending operations. The Task Force Report does not provide an analysis of why they assume funding of \$850 million will be accessible through placements on the private money and capital markets. Nor does the Report discuss the risks that would be associated with such a funding mechanism — in particular, risks incurred in the event of rising interest rates or a large scale funding runoff.
- The Task Force Report states that all the monies in the City’s Investment Pool are already designated for specific uses, and are not available for appropriation. This assertion is contradicted by statements in the Comprehensive Annual Financial Report regarding allowable uses of reserves, which are based on Generally Accepted Accounting Principles (GAAP), by provisions in Sec. 9.113 of the City Charter, and by Sections 3.26, 10.02, and 10.60 of the City Administrative Code.
- The Task Force report does not discuss the option of creating a publicly owned depository bank that is not also a public depository. The result is to eliminate a wide range of possible depository models, including institutions with lower operating costs, from any serious consideration.
- We believe the Task Force Report significantly overstates the costs of operating a depository institution. Our conclusions are based on: 1) comparison of the Task Force Report cost estimates with operating costs of other banks of comparable size and characteristics; 2) a detailed itemized cost analysis and comparison provided at our request by Amalgamated Bank;²⁸ and 3) our own review of the Task Force’s cost estimation methodology, which we believe significantly overstates staffing needs and hence the cost of operations (see below)
- The affordable housing loan portfolio in the Task Force’s Model 1.0 non-depository institution would primarily consist of “mezzanine debt”, which is a fairly high-risk form of debt frequently utilized by market-rate housing developers to bridge funding gaps

²⁸ Amalgamated Bank is a full-service socially responsible bank with assets of approximately \$4.8 billion as of December 2018, according to its website.

between equity and senior secured debt.²⁹ Our analysis concludes that this financing option would fully finance approximately 35 additional units of affordable housing on a yearly basis beyond those that would be available under the City's current Inclusionary Housing arrangements. The total number of units produced by the financing provided by Task Force Model 1.0 could be higher by a factor of approximately 3X if these additional Inclusionary Housing set-asides are leveraged with other funding sources. However, we are doubtful the loan programs in the Task Force model would be fully subscribed on a consistent basis, as this would imply extraordinarily high levels of annual market rate housing construction on an ongoing basis. This is neither realistic, nor desirable from a social equity standpoint, as the model effectively reinforces the current pattern of market-lead gentrification and displacement.

- The Task Force Report states that lending for small site acquisitions is another housing-related program that could be funded using the credit facilities proposed in Model 1.0. Scaling up a housing acquisition program will require the MFC to offer long-term, below-market-rate credit. This option will be severely curtailed if the MFC is financed through the issuance of market-rate debt.
- The Task Force Report states that loans for small site acquisitions originated by the non-depository variant (Model 1.0) could be made with maturities of up to 15 years. In our estimation, the funding models the Task Force has proposed would limit the ability of the MFC (Model 1.0) to hold a large share of its overall portfolio in the form of 15-year acquisition loans. Doing so would create a "maturity mismatch," due to the difference between the average maturity on funding liabilities and the average term on loans. This exposes Model 1.0 to potential losses in the event that liabilities must be refinanced (rolled over) at higher interest rates.³⁰ It also means the MFC would be exposed to funding runoff if investors holding claims on the MFC were to demand redemption of this debt in cash.

²⁹ We base this conclusion on the fact that the real estate loan rates stated in the pro forma sheets are set at 5 percent. The Report states that lending for small site acquisition could take place at 4 percent. For reasons we discuss below, we do not believe such loans are viable for the TTX model from an economic standpoint, as most models with average rates on loans of 5 percent are operating at a loss at year ten. For this reason, the majority of real estate loans would need to consist of mezzanine debt.

³⁰ Specifically, if the MFC has lent at 4 percent, and subsequently needs to roll over its own debt securities at a higher interest rate, this can erode earnings and result in negative net worth. This scenario drove the savings and loan crisis of the late 1970s and early 1980s. In addition, if creditors demand repayment and refuse to roll over maturity funding instruments, the MFC could find itself becoming functionally illiquid, even if earnings continue to exceed total cost. Many Special Purpose Investment Vehicles (SIVs) set up to invest in securities created from underlying pools of sub-prime mortgages experienced this scenario during the 2008–2009 banking crisis.

The Task Force Report overstates the ongoing cost of operating a depository bank

Appendix D of the Task Force Report provides low-end and high-end estimates of Headquarter (HQ) costs. The low-end annual operational cost is set at \$50 million, while the high end is set at \$75 million, or between 5 and 7.5 percent of assumed assets of \$1 billion. We will here use the high-end estimates to illustrate why we have concluded the Task Force Report overstates operating costs of a depository bank. The underlying problems are the same, however, with either the low- or high-end estimate.

The Task Force assigns \$6 million to the cost of retaining the core staff of 30 HQ employees hired during the start-up period at \$200,000 per employee. The high-end cost estimates also assume the MFC will need to hire 187.5 additional employees, with 37.5 staff members employed in each of the five major lines of business: 1) deposits, 2) disbursement, 3) online payment processing, 4) IT and regulatory compliance, and 5) cash management. The Task Force Report assumes \$1.5 million in annual costs related to compliance work, \$1.5 million in occupancy costs, \$3.75 million in ongoing costs of technology development, and \$2.25 million in “other services.”

The model further assumes that the MFC will spend 20 percent of the initial IT start-up costs of \$122.5 million (high end) on an annual basis for IT upgrading and maintenance, or \$24.5 million per year. This would translate into 122.5 full-time equivalent positions (FTEs) if these services were provided in-house. The additional \$3.75 million for “technology development” appears to be an independent IT-related expenditure over and above the 20 percent assumed to be ongoing, based on the initial IT start-up costs. In total, the Task Force cost assignments imply that if the MFC were procuring ongoing IT development and maintenance in-house, the depository variant would need to maintain an IT staff of approximately 178.75 FTEs. While contract IT costs don’t necessarily translate directly into employee unit costs, this appears to an extraordinarily high level of IT staff for a bank with \$1 billion in total assets.

The Report does not specify whether some of these services will be procured on a contract basis. If we assume all of these costs are attributed to IT development, the high-end model assumes \$33.75 million will be spent on an ongoing basis. This is equivalent to 3.37 percent of the \$1 billion in total assets. The costs attributed to ongoing IT development as a percentage of total assets are higher than equal to the *entire* average operational costs of banks in the U.S. with roughly equivalent amounts of total assets under current management. The reader should note that our comparison banks typically maintain retail branch offices, and provide a full range of retail banking services. Given that, once the basic IT systems are in place, the City’s MFC would operate using a highly specific dedicated set of technologies, much of which is standardized. Asserting that the

MFC will need to spend the equivalent of hiring 168.75 full-time software engineers on an annual basis has not been adequately justified and are not consistent with industry standards.³¹

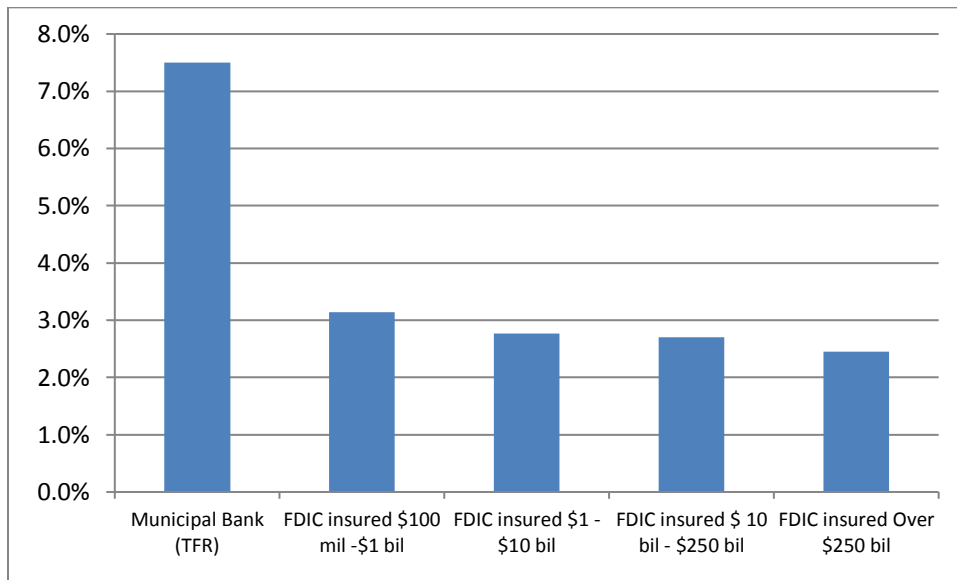
The Task Force Report assumes that 150 FTEs will be employed in cash management, regulatory compliance, underwriting, and monitoring of various department-level payment and disbursement accounts. This is a high staffing ratio for a bank that has approximately \$1 billion in total assets, operates a limited set of lending platforms, does very little direct underwriting, will not provide any retail banking services, and is funded largely through the issue of standardized liabilities such as certificates of deposit. We have not been able to locate any explanation of why the Task Force Report assumes a largely automated system for shifting funds between zero balance accounts (ZBAs) and core concentration accounts linked to the disbursement systems would require the equivalent of 25 to 40 full-time employees to monitor these automated account transactions on an ongoing, daily basis. Similarly, there is no explanation of why the MFC would need 25 to 40 employees to oversee the process of on-line payments given that these functions are almost entirely automated at present.

Exactly analogous consideration applies to the depository line of business. We are skeptical that 25 to 40 full-time employees would be required to monitor incoming payments to the various department-level ZBA accounts. As noted, the ZBAs serve primarily as accounting ledgers that allow department staff and the Controller's Office to track all income receipts and outgoing payments. Once the basic logistical infrastructure is in place, there should be little need to dedicate this level of staffing to monitor these automated clearing and settlement systems on an hour-by-hour or daily basis. Cost estimates provided to our office by Amalgamated Bank stated that these services could be provided with far lower levels of staffing than those that are assumed in the Task Force Report.

Exhibit 22 compares the estimated cost of operations presented in the Task Force Report with non-interest expenses for FDIC-regulated banks grouped by the total amount of assets. As shown, the Task Force's high-end estimates are vastly out of line with prevailing industry standards. Institutions with assets between \$1 billion and \$10 billion have non-interest expenses that average 2.77 percent of total assets. By comparison, the Task Force Report assumes non-interest expense will be approximately 7.5 percent of total assets. The Task Force Report also lacks detailed itemization of the responsibilities of staff.

³¹ We have no way of assessing the content of such discussions, the way the issues were framed, the questions that were asked, or how these conversations resulted in generation of the Task Force Report staffing and operational cost assessments.

Exhibit 22: Non-interest expenses as percent of total assets, FDIC regulated banks

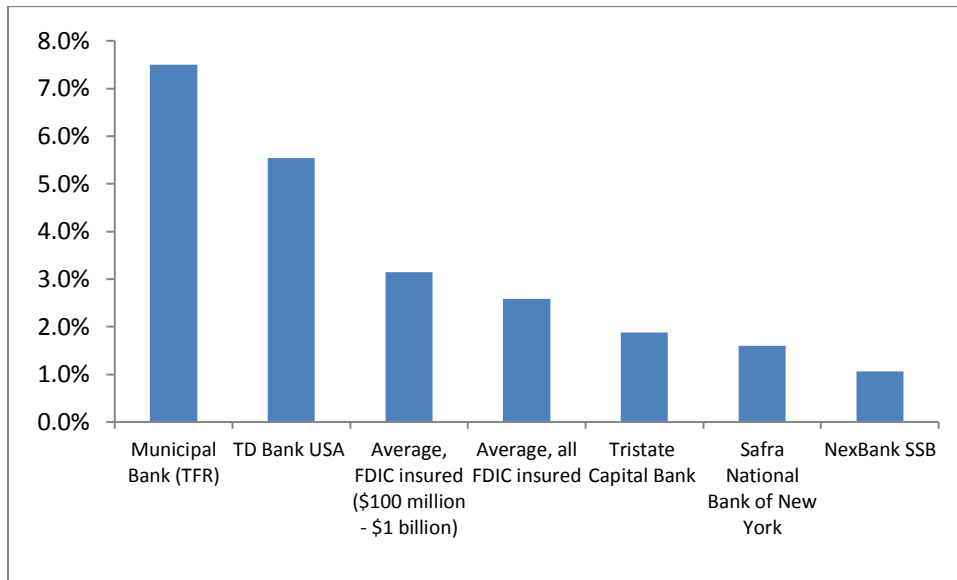


Source: FDIC, <https://www7.fdic.gov/sdi/main.asp?formname=compare>

Exhibit 23 shows a comparison of the estimates stated in the Task Force Report with selected banks having less than \$50 billion in total assets that do not provide extensive retail-level branch banking services, in order to generate a more specific basis of cost comparison. At no point does the Task Force Report assume the City-sponsored MFC will operate as a retail branch-based banking institution. Hence, it is reasonable to surmise that the \$850 million in deposits assumed in the Task Force Report for Model 2.0 will come largely from institutional depositors, and will all be managed at the MFC headquarters. To develop a “first cut” comparison, we have selected broadly comparable types of banking institutions — i.e., those that do not provide extensive retail services or maintain a network of retail branches, but are focused on providing banking services such as investment, cash management, and treasury management services to businesses and corporations whose loan portfolios consist largely of industrial and commercial lending, and that may conduct trading and investment management operations, engage in securitizations and derivative underwriting, and provide some international banking services and foreign exchange trading.

As can be seen in Exhibit 23, average non-interest expenses for all FDIC-insured institutions were 2.5 percent in 2018. And those with assets between \$100 million and \$1 billion were still well below the 7.2 percent ratio of operating costs relative to assets assumed by the Task Force for the Model 2.0 depository. Even the four financial institutions with characteristics most like Model 2.0 had lower operating costs than assumed for the City-sponsored institution.

Exhibit 23: Non-interest expenses as percentage of total assets



Source: FDIC Bank Call Reports

Finally, we have included a detailed, line-item breakdown of Amalgamated Bank’s estimates of the amounts it would charge to provide the core range of equivalent services that the City currently receives from Bank of America. Amalgamated’s cost of services is equivalent to, and in many cases lower than, the cost charged by the City’s current depository bank. We note that Amalgamated could provide competitive services at its current size of \$4 billion in total assets. This is greater than the projected size of the MFC in the Task Force Report, but far below the \$2.325 trillion in total assets held by Bank of America.

It is outside the scope and competence of our office to provide a detailed assessment of the cost of forming and operating a depository bank. However, based on the above comparison with industry standards, we conclude that if the City were to opt to form a depository bank that did not also serve as the City’s primary depository bank, the cost of operations would be far below those provided in the Task Force Report.

We agree with the Task Force Report that the initial start-up costs associated with forming a de novo public *depository* bank are likely to be prohibitive. The MFC depository will need to reach a size of around \$4-5 billion in total assets before it would have the logistical capacity and internal economies of scale to assume the role of the City’s primary depository bank. However, this number will need to be determined by an appropriately qualified team of banking experts. Scaling up a depository bank to assume responsibility for the full suite of banking services required by the City will be costly, and in our opinion should not be the primary motive to move forward with the formation of a depository bank.

Appendix B: Why the Board of Supervisors can authorize an appropriation of funds from the Investment Pool for purposes of capitalization

The Task Force Report states that the Board of Supervisors cannot appropriate funds currently held in the Investment Pool for purposes of capitalizing an MFC. The report states that all monies in the Investment Pool are already designated for specific uses, and are not available for appropriation. We do not concur, based on statements in the City's Comprehensive Annual Financial Report (CAFR) that are derived from Generally Accepted Accounting Principles (GAAP), as well as the statutory provisions of Sec. 9.113 of the City Charter, and Secs. 3.26, 10.02, and 10.60 of the City Administrative Code.

Funds in the Investment Pool can be removed from the Investment Pool and used for purposes approved by the governing authority of the Investment Pool participants. Subject to verification by the Controller that any such appropriation will not impair the ability of the City to meet all authorized budgeted expenditures for the *current* fiscal year, the Board of Supervisors has the power to appropriate any fund balances reported as "unassigned" in the Investment Pool, as these funds have not been allocated as part of the Board-approved Annual Appropriation Ordinance, and are not otherwise encumbered by voter-authorized set-asides.

As shown in Exhibit 24, the total General Fund balance reported in the 2019 Comprehensive Annual Financial Report (CAFR) as of June 30, 2019, was \$2,817,270,000. Of this total, \$1,686,776,000 was reported "Not available for appropriations", of which \$351,466,000 was shown as encumbered, \$496,846,000 committed to carryforward, and \$721,737,000 designated as Rainy Day funds and budget stabilization, and \$116,727,000 for various other assignments. The remaining balance of \$1,130,494,000 was reported as "available for appropriation." Of this subtotal, \$186,913,000 was assigned for legal contingencies, \$210,638,000 was assigned to appropriations as part of the General Fund for use in FY 2019–20, and is budgeted to cover authorized expenditures for FY 2020–21. The remaining balance of \$732,943,000 is "unassigned," and consists of \$130,894,000 in General Reserve," \$285,152,000 in "Unassigned — Budgeted for use in fiscal year 2019–20," \$308,000,000 in "Reserved for other Contingencies," and \$8,897,000 designated as "Available for future appropriations."

Exhibit 24: Fund balance of the General Fund, June 30, 2019

* The fund balance of the General Fund as of June 30, 2019, on a Budget basis is reconciled to the fund balance on a GAAP basis as follows:

Fund Balance - Budget Basis.....	\$ 2,817,270
Unrealized Gains/ (Losses) on Investments.....	16,275
Cumulative Excess Property Tax Revenues Recognized on a Budget Basis.....	(23,793)
Cumulative Excess Health, Human Services, Franchise and Other Revenues Recognized on a Budget Basis.....	(87,794)
Pre-paid lease revenue.....	(6,194)
Nonspendable Fund Balance (Not Available for Appropriation).....	1,259
Fund Balance - GAAP basis.....	<u>\$ 2,717,023</u>

General Fund budget basis fund balance as of June 30, 2019 is composed of the following:

Not available for appropriations:

Restricted Fund Balance:

Rainy Day - Economic Stabilization Reserve.....	\$ 229,069
Rainy Day - One Time Spending Account.....	95,908

Committed Fund Balance:

Budget Stabilization Reserve.....	396,760
Recreation and Parks Expenditure Saving Reserve	803
Assigned for Encumbrances.....	351,446
Assigned for Appropriation Carryforward.....	496,846

Assigned for Subsequent Years' Budgets:

Budget Savings Incentive Program City-wide.....	86,979
Salaries and benefits costs (MOU).....	28,965

Subtotal..... \$ 1,686,776

Available for appropriations:

Assigned for Litigation and Contingences.....	186,913
Assigned balance subsequently appropriated as part of the General Fund budget for use in fiscal year 2019-20.....	210,638
Unassigned - General Reserve.....	130,894
Unassigned - Budget for use in fiscal year 2020-21.....	285,152
Unassigned - Reserve for Other Contingencies.....	308,000
Unassigned - Available for future appropriations.....	8,897
Subtotal.....	<u>1,130,494</u>

Fund Balance, June 30, 2019 - Budget basis..... \$ 2,817,270

Source: San Francisco Comprehensive Annual Financial Report

In addition, the City has \$2,538,400,000 in fund balances held in the Investment Pool by various special revenue, debt service, and capital project funds. These monies are the cash surpluses that exceed levels required to meet current payment obligations of the departments. These funds are not available for appropriation, and hence could not be used for MFC capitalization purposes.

The use of *all* unassigned funds, or the full amount of \$1,130,494,000, falls within the Board of Supervisors' discretion. No state-level statutory limitations imply any preemption of the ability of the Board of Supervisors, as the City's ultimate fiduciary agent, to appropriate these funds for any

purpose, provided such appropriations conform to state and local laws. Nor does transfer of fiduciary responsibility over the Investment Pool to the Treasurer suspend the Board's authority over the appropriation of the unassigned fund balances for purposes that conform to allowable uses.³² If the Board of Supervisors determines it is in the interests of the City, and the general social welfare, to incorporate and capitalize a public lending institution, the Board has the discretion to authorize the appropriation of some, or all, of the unassigned fund balances, subject to the provisions of the City Charter, Section 9.113(d).

Our assertion of this point is fully backed by statements in the CAFR based on Generally Accepted Accounting Principles (GAAP), Section 9.113(a)-(g) of the City Charter, and Section 10.60 of the City Administrative Code.

The statement pertaining to uses and limits of General Fund monies designated as "unassigned" in the June 2019 Comprehensive Annual Financial Report, on page 46, reads as follows:

Unassigned — is the residual classification for the General Fund and includes all amounts not contained in the other classifications. *Unassigned amounts are technically available for any purpose.* Other governmental funds [i.e., special purpose funds, internal service funds, and other fund participants] may only report a negative fund balance that was created after classification in one of the other four fund balance categories [our italics].

This definition of "unassigned fund balances," based on Generally Accepted Accounting Principles, affirms that unassigned monies have no prior or specific encumbrance or stipulation that implies preemptive restriction on subsequent appropriations.

The Board of Supervisors' discretion over unassigned fund balances is supported by Section 9.113 of the City Charter, which states that surplus fund balances that are not encumbered by any of the purposes stipulated in Section 9.113(a) of the Charter are transferred to the General Fund at the close of each fiscal year by the Controller. Section 9.113(a) of the Charter states:

(a) Unused and unencumbered appropriations or unencumbered balances existing at the close of any fiscal year in revenue or expense appropriations of the City and County for any such fiscal year, but exclusive of revenue or money required by law to be held in school, bond, bond

³² The official position issued by the City Attorney is that the City has the statutory authority to incorporate, fund, and operate a publicly owned lending institution. An independent legal review conducted by the law firm Arent Fox has reached similar conclusions. Neither of these legal reviews has identified any ostensible restrictions on appropriations of unassigned fund balances for the purpose of capitalization of a municipally owned lending institution. Further, existing case law allows such uses for purposes such as supporting affordable housing, investments to reduce greenhouse gas emissions, and targeted economic development initiatives, which are well established as social, economic, and environmental objectives deemed to fall under the purview of local governments.

interest, bond redemption, pension, trust, utility or other specific funds, or to be devoted exclusively to specified purposes other than biennial appropriations, and together with revenues collected or accruing from any source during such fiscal year, in excess of the estimated revenue from such source as shown by the biennial budget and the appropriation ordinance for such fiscal year, shall be transferred by the Controller, at the closing of such fiscal year, to the General Fund.

The Board may authorize an appropriation by a two-thirds vote (8–3 in favor). Any appropriation of these monies must be certified by the Controller on the basis of the Controller’s determination that the proposed appropriation will not impair the ability of the City to meet expenditures already incurred under the annual budgetary authorization, Section 9.113(d).³³

Finally, our interpretation does not involve any violation of the provisions of the Administrative Code, Sections 3.26, 10.02, 10.06, 10.07, or 10.60. The most pertinent sections of the Administrative Code are Sections 10.02 and 10.60. Section 10.02 outlines the statutory provisions that regulate the use of such monies for any lawful purposes, largely identical in substance to the language of Section 9.113(d) of the City Charter:

Unused and unencumbered appropriations or unencumbered balances existing at the close of any fiscal year in revenue or expense appropriations of the City and County for any such fiscal year...shall be held as surplus.

Such surplus shall be taken into account as revenue of the ensuing fiscal year; *provided, however, that any such surplus created or existing in any fiscal year may be appropriated by the Board of Supervisors by means of an ordinance designated as a supplemental appropriation ordinance, in the same manner and subject to the same conditions, except time, as provided in the Charter for the submission and approval of the annual budget and the appropriation ordinance* [our italics].

Section 10.02 refers to the funds reported on the CAFR as “Unassigned — available for appropriation”; these are part of the surplus monies that are subject to a supplemental appropriation ordinance. As stated in the Charter, Section 9.113(d), and as reiterated in the Administrative Code, the Controller determines that such appropriation will not endanger or otherwise compromise the ability of the City to carry out and conduct the fiscal commitments already approved as part of annual budgetary process.

³³ Section 9.113(d) states: “No ordinance or resolution for the expenditure of money, except the biennial appropriation ordinance, shall be passed by the Board of Supervisors unless the Controller first certifies to the Board that there is a sufficient unencumbered balance in a fund that may legally be used for such proposed expenditure, and that, in the judgment of the Controller, revenues as anticipated in the appropriation ordinance for such budgetary cycle and properly applicable to meet such proposed expenditures will be available in the treasury in sufficient amount to meet the same as it becomes due”.

Finally, the other directly relevant provision of the Administrative Code is Section 10.60(b), which outlines the policies and procedures that regulate the uses of the “General Reserve.” As seen in Exhibit 24, these are far more narrow, as this section pertains only to the sub-portion of the total cash reserve designated as “Unassigned — available for appropriation,” which, as already noted, requires any designated usage to be approved by the Controller’s office. The language of Section 10.60(b) reads:

In addition to the Rainy Day Reserve, the City budget shall include a General Reserve. The General Reserve is intended to address revenue weaknesses, expenditure overages, or other programmatic goals not anticipated during the annual budget process. The Mayor and the Board of Supervisors may, at any time following adoption of the annual budget, appropriate monies from the General Reserve for any lawful governmental purpose through passage of a supplemental appropriation ordinance.

We believe the Administrative Code may be interpreted as implying that the \$106,878,000 reported as “General Reserve” does not require prior approval or authorization by the Controller, and hence is available for “any lawful governmental purposes through passage of a supplemental appropriations ordinance.”³⁴ However, even if the City Attorney were to determine that such appropriations are subject to the statutory provisions of Section 9.113(d) of the City Charter (and as affirmed in Section 10.02 of the Administrative Code), this does not alter the substance of our argument, namely, that all surplus monies that are unassigned and unencumbered, or that are not “assigned for Subsequent Year’s Budgets,” or that are not part of the reserve funds governed by the specific provisions of the Section 10.60(a) or 10.60(c) of the City Administrative Code, are funds that *are technically available for use for any lawful purpose*. Hence, these funds may be used to capitalize and fund the MFC, subject to a determination that doing so is in the public and civic interest.

³⁴ We recommend the Board request clarification from the City Attorney’s office on this matter.

Appendix C: Housing Acquisition

The MFC housing lending strategy that would result in the largest increase in permanently affordable housing units would be achieved through funding a large-scale property acquisition program. In this option, the MFC would make loans for the purchase of existing private rental housing, placing these properties under public ownership, or into a land-trust-like structure that would hold these properties into perpetuity. There are two broad options for how the ownership of the acquired units could be structured.

Option 1: Purchase of multi-family rental units, in which properties would be transferred into public ownership or, alternatively, placed under non-profit management or a land trust arrangement, and transformed into permanent rent-controlled housing units

Option 2: Sale of units in privately owned buildings to existing occupants using below market rate MFC originated loans. Current residents would need to provide a down payment of 20 percent, with the balance funded through loans from the MFC offered at 2.65 percent –or below the prevailing market rate. Loans would be pooled, and used to make a lump sum acquisition payment. Properties would be treated as “shares” in a limited equity housing cooperative, or could be held as a share of a land trust type arrangement. If the owner-occupant decides at a future date to vacate the unit, it would be sold back to the cooperative or land trust, with a cap on the repurchase price set equal to the original acquisition price adjusted for inflation plus reasonable reimbursement for occupant improvements.

The analysis of the various considerations regarding the exercise of either of these two types of financing arrangements is complex, and the details of our analysis available on request. The main results of our analysis of *Option 1* can be summarized as follows.

Option 1: Acquisition for placement into a permanent affordable housing fund

Prior to the onset of the COVID-19 pandemic, property prices were at high levels in the San Francisco market. Based on a survey of properties listed on LoopNet, the prevailing capitalization rate in San Francisco, as of early May 2020, was four percent and lower in some cases.³⁵ This is, by historical standards, a very high ratio of purchase price to net income.

If the capitalization rate increases to five percent, the unit acquisition price decreases by 20 percent. If the capitalization rate subsequently increases to six percent, prices fall by an additional 16.66 percent. The higher the capitalization rate, the more feasible it thus becomes to use low cost (2.0 – 2.5 percent) loans to finance acquisition of properties on the secondary market.³⁶ For

³⁵ The capitalization rate is the ratio of the property price to gross rental income. A four percent capitalization rate means that, after deducting operating expenses, the ratio of the purchase price to the net income received by the property owners is 25:1.

³⁶ To insure these loans are tenable investments for the MFC, it would be necessary to refinance the loans at 2.65 percent, or slightly higher at, or shortly after, year 5, and to again extend the term to 30 years. This can be done without any increase in unit rents in multi-unit rental properties, given that the loan principal that is refinanced has declined due to principal repayment over the first five years. It is also possible to increase the interest rate over the course of the loan to adjust for inflation, and to increase the loan rate to maintain a constant debt service coverage

this reason, the current economic recession, particularly if it is prolonged, creates conditions that are opportune for implementation of the type of debt-financed acquisition strategies we are recommending.

For instance, as shown in Exhibit 25, if we set the cap rate at 6 percent, the acquisition price of a unit with a \$2,000 monthly rent and \$400 in monthly maintenance costs (net monthly income = \$1,600) is \$320,000. At this price, it becomes viable to finance acquisition at a loan-to-value ratio of 80 percent at a 2.5 percent interest rate on a long-term (30 year) mortgage. If the cap rate falls to 5 percent (and hence the price rises) the loan rate that is viable (as a starting point) is 2.0 percent. To debt-finance acquisition at the lower cap rate (hence higher acquisition price), the buyer and lender (the MFC in this case) could agree to (a) some deferral of building maintenance over the first and second year, with deferred costs used to pay interest, and (b) upwards adjustment of unit rents in line with increases allowable under the San Francisco Rent Ordinance. Assuming the additional rental income is dedicated to debt service, it can be shown that the property can, over time, sustain payments at a higher rate of interest. Over time, this will allow the MFC to maintain our assumed overall average weighted return of 2.65 – or even higher if loans are held to term.

Exhibit 25: MFC Acquisition Finance

Capitalization rate	Monthly rent per 1-2 BR unit	Net of building maintenance costs	Unit price	Debt at 80%	Maximum monthly debt payment for DSCR of 1.05	Monthly payment at 2.5% interest rate	Monthly payment at 2.0%	Monthly payment at 1.5%
4%	2000	1600	480,000	384,000	1,478	1,800	1,702	1,934
5%	2000	1600	384,000	307,200	1,478	1,548	1,466	1,608
6%	2000	1600	320,000	256,000	1,478	1,295	1,229	1,388

* Debt Service Coverage Ratio

Several points should be noted. Once, we assume the MFC is willing to lend with a Debt Service Coverage Ratio (DSCR), or the ratio of net operating income to required debt service, of 1.05. At this DSCR, properties shown in the lighter gray are immediately feasible. The readers should note this is significantly lower than DSCR lenders typically require on debt issuance for real estate investments.³⁷ If interest rates are adjusted upwards over time in line with rent increases tied to the CPI, the DSCR will rise.

Second, assuming debt is used to finance 80 percent of total acquisition price, each unit will require on the order of a \$64,000 to \$96,000 equity investment (down payment), depending on

ratio. This may be necessary to allow the MFC to sell these loans wholesale (see above section). The details of this analysis are available on request.

³⁷ We assume occupancy rate of 97 percent. Hence, the project could cover monthly maintenance costs and debt service with a 92 percent occupancy rate. A fall in occupancy below this point would require either deferral of set-asides of maintenance costs, or temporary reduction in debt service payments.

the prevailing capitalization rate. To finance the purchase of 400 properties in a given year, this would require that the City provide a total equity commitment on the order of between \$25,600,000 and \$38,400,000 per year.³⁸

Third, the total number of units that could be acquired on an annual basis, assuming acquisition loans compose the full amount of \$1.25 billion of the MFC's loan portfolio, is dependent on the degree to which the MFC can sell loans through the MFC's wholesale distribution network. Exhibit 26 shows the total number of units that could be financed with the full \$1.25 billion loan portfolio with the cap rate set at 4, 5 and 6 percent. If all loans are held to maturity, 1/30 of the total portfolio will turn over in a given year. If all principal is re-lent, the MFC can support the acquisition of between 87 and 130 units per year. If we assume the MFC has the capacity to sell \$200 million of loans wholesale in a given year, approximately 1/6 of the portfolio will turn over in a given year. The number of units that could be financed and acquired at the 4, 5 and 6 percent capitalization rate rises 434, 543, and 651 per year, respectively. This far exceeds the current volume of acquisitions financed through the MOHCD small site acquisition program.

Finally, a 4 percent cap rate on real estate assets, which was still prevalent in the San Francisco market as of July 2020, is very low by historical standards, and reflects the extraordinary increase in land and property prices that has occurred over recent decades. Even at these unprecedented price levels, the MFC could find ways to provide long-term acquisition finance. Hence, there is no basis to defer the formation of the MFC due to the hyperinflation of real estate prices observed over recent decades. We do note that a fall in real estate valuations (a rise in the capitalization rate) would create more advantageous conditions for rapid scaling of large-scale property acquisitions. This should be seen as an incentive to set up the MFC, as there are grounds to assume that real estate prices in San Francisco may be entering into a period of extended decline.

Exhibit 26: Annual acquisition volumes, under various refunding assumptions

Capitalization rate	Price per unit	Number of total units at fully lent out MFC portfolio	Annual new units acquired w/o wholesale distribution	Annual new units acquired, 1/6 annual turnover	20 year acquisition, 1/6 annual turnover
4%	\$480,000	2,604	87	434	8,681
5%	384,000	3,255	109	543	10,851
6%	320,000	3,906	130	651	13,021

Source: Data on building prices are from survey of website Loopnet

* Assumes most units are 1 - 2 bedroom units

³⁸ It is possible to explore other equity sources, but we do not do so here. We simply note this is a feature of the model that will need to be addressed if the City should decide to move forward with a large-scale acquisition program.

Option 2: Conversion of private rental units into owner-occupied units in limited equity cooperatives and land trusts

The MFC could provide loans to existing tenants in multi-unit rental properties to purchase their units through a jointly owned land trust and housing cooperatives. Tenants would purchase “shares” in the joint ownership land trust or cooperative, and would become owners of their current rental units. If occupants decided to move, the unit would be sold back to the cooperative or land trust. This option allows for loans to be originated at 2.65 percent or potentially higher. Loans would be originated to each of the participating households, with funds pooled and used to purchase the property for transfer into the jointly owned land trust or cooperative.

MFC loans to joint ownership land trusts or cooperatives are financially feasible in the current San Francisco market: a two-bedroom unit renting at \$2,000 could be purchased for \$480,000 using a 2.65 percent loan and a loan-to-value ratio of 85 percent, as the monthly interest payment would be around \$1,970. This model requires that tenants contribute a \$72,000 down payment, or 15 percent.³⁹

For buildings that have a large number of long-term rent controlled units, this lending program would provide an option for landlords seeking to exit the rental housing market. For buildings in which tenants could meet the down payment requirement, MFC loans would make it possible to purchase their units by providing loans at well below prevailing market rates.

Acquisition funding for community and arts-based non-profits

The MFC could provide low cost acquisition loans to local arts, cultural organization and social service non-profits to acquire office and work space. The MFC could provide both short-term working capital and bridge financing loans, and long-term fixed rate mortgage loans for larger amounts and lower rates of interest than are currently available from regional Community Development Financial Institutions (CDFIs).

CDFI funds typically place caps on total lending to any single project or non-profit entity, ranging between \$3 to \$10 million, depending on the nature of the project and funding availability. Loan interest rates generally range from 5 to 7 percent. The MFC could issue loans for higher amounts and lower interest rates. Once principal had been reduced over the first five to seven years of loan repayment, the loan could be refinanced at prevailing market rates for longer terms. Borrowers’ annual debt service would remain unchanged, although loan repayment would be extended over a longer period. Restructured loans could then be sold through the MFC wholesale distribution conduits, raising funds to support the issuance of additional loans, increasing total funding available to local arts organizations, cultural institutions, and community-based organizations.

Summary analysis of Task Force Model 1.0 property finance

The Task Force report does not provide estimates of the impact of its proposed models on new affordable housing development. To do, so, we here assume the full \$875 million loan portfolio

³⁹ Total occupancy cost to the buyer of a share in a joint ownership land trust or cooperative would be higher to cover essential maintenance costs, and property taxes.

that is envisioned in the Task Force Report for Model 1.0 is lent out as mezzanine debt. T—This is a short-term debt used to provide additional financing to supplement equity investment and longer-term loans. This follows directly from the fact that the Task Force model assumes loans are issued at 5 percent. At this rate, the ability of Model 1.0 to serve as a significant source of acquisition finance would be extremely limited, given prices currently prevailing in the San Francisco residential property market.

Based on prevailing industry standards, an upscale market rate development in San Francisco will be financed at around 20 percent equity, 15 percent mezzanine debt, and 65 percent permanent debt. For a property development costing \$100 million, this implies approximately \$15 million is financed using mezzanine loans. Assuming a market rate on mezzanine debt of 11 percent, it follows that if the Task Force Model 1.0 MFC was to lend at 5 percent, developers would realize a savings of approximately \$900,000 on a \$100 million development.⁴⁰

Assuming a standard affordable housing unit cost of \$750,000 (based on 2019 data on several multi-unit San Francisco affordable rate multi-family developments), this results in an increase in 1.2 in equivalent in-lieu payments for each \$15 million in mezzanine loans originated by Model 1.0 in the Task force Report.⁴¹

Given the assumption that the full \$875 million is in the form of mezzanine debt, we can calculate the expected annual increase in units financed under various assumptions regarding the time taken for the principal to be paid back. (Note that the shorter the term, the greater the rate of new lending that can be supported on an annual basis, assuming all principal is re-lent)

Exhibit 27: BLA Analysis of increased housing production of Task Force Model 1.0

	Average Duration of Loan				
	Total Loan	5 years	3 years	2 years	1 year
Loans, total and annual origination*	\$875,000,000	\$175,000,000	\$291,666,667	\$437,500,000	\$875,000,000
Annual developer savings at 5% interest rate*	\$52,500,000	\$10,500,000	\$17,500,000	\$26,250,000	\$52,500,000
Total Annual Market Rate Units**		1373	2288	3431	6863
Annual increase units financed through housing set-aside		14	23	35	70
Ratio of affordable to market rate units		1.02%	1.02%	1.02%	1.02%

As seen in Exhibit 27, under the most generous assumption that loans are paid back every year, and funds are immediately re-lent, the total increase in units that could be fully funded through the pass-through of savings in the form of increase in developers-in-lieu set-asides is 70 units in total. For a more realistic assumption of a two-year loan term, this number falls to 35. We note

⁴⁰ Our assumption is based on conversations with developers with experience in the San Francisco market

⁴¹ Data provide in 2019 by the Mayor's Office of Housing and Community Development

that if the increased set-aside is leveraged by other funding sources, the total increase in funding commitments to affordable housing increased proportionately to the rate at which the set-aside is leveraged. However, the direct effect of the Task Force model is quite meager, as the ratio of new unit financing through this set-aside mechanism in the Task Force model is just slightly over 1 percent of market rate production. Moreover, the entire model is predicated upon a massive increase in market-rate production, and thus further entrenches the long-standing pattern of market-led displacement of the City's lower income residents. For these reasons, we do not consider the Task Force's Model 1.0 to be an option worth pursuing.

Appendix D. The City's Current Depository Banking Services

Current banking arrangements

To understand the issues discussed in this report pertaining to the City creating a Municipal Financial Corporation, it is necessary to briefly discuss the current nature of the City's banking services and arrangements. In this section, we show why there is very little advantage, from a funding and lending standpoint, to transferring the City's core bank accounts out of the major multinational banks. This is due to: 1) the small amount of funds actually held at any given time in the City's core concentration account, and 2) collateralization requirements that effectively prohibit these funds from being lent out. Given the fact that serving as the City's primary depository bank would involve higher costs than serving as a small-scale wholesale investment and institutional service bank, our conclusion is that there is very little incentive over the near to medium term to seek to incorporate as a public depository bank.

To see why, we need to distinguish between the City's department-level accounts that serve as the ledger balances through which departments and the Controller's office monitor, record, and track payments and disbursements, and the single City-wide "core concentration account" through which actual transactions between the City and all other parties — including employee payroll — are cleared and settled.

Department-level deposit and disbursement accounts are "zero balance accounts," or ZBAs. These accounts function as the ongoing record of fluctuations in departments' current fund balances. For instance, separate ZBAs may be set up by a department to receive subventions from the federal and state government, or for online merchant credit card and debit card payments (which may be tied to specific programs or sources of payment), or for receipt of funds from bills and invoices sent to parties that utilize various public services, or as various disbursement accounts operated by specific programs or sub-divisions.

Exhibit 28 shows the account structures of the City's Municipal Transportation Agency and the Department of Public Health, respectively, as examples of City department accounts. When the Task Force Report notes that the City currently maintains approximately 200 separate banking accounts, it is referring primarily to ZBAs, as well as some revolving accounts that do hold ongoing cash balances.

Exhibit 28A: Bank account structure for the Municipal Transportation Agency

Revenue and Customer Service Unit

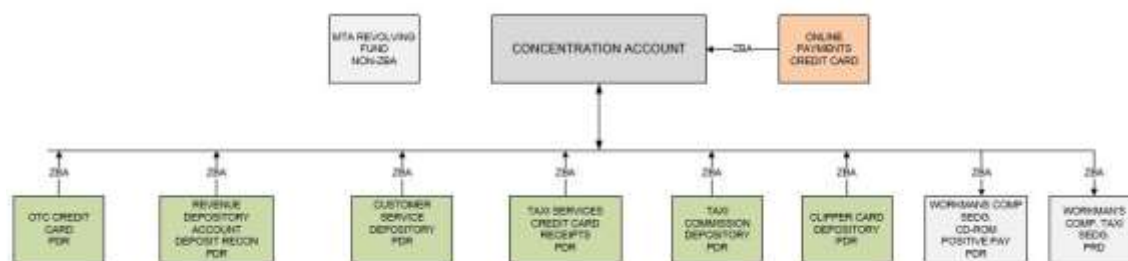
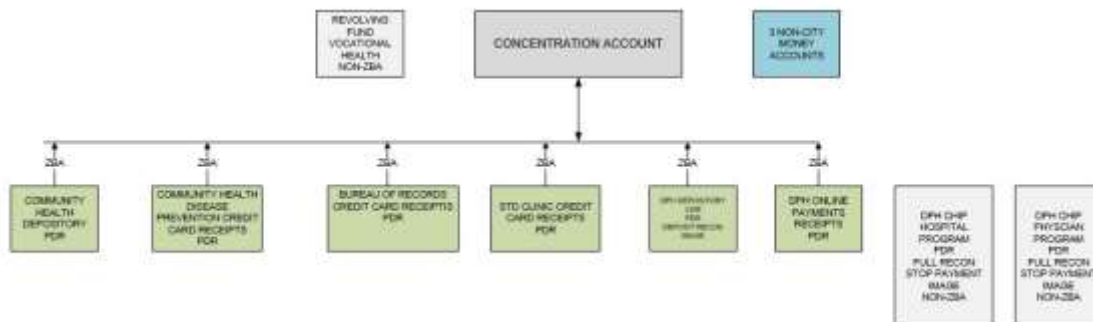


Exhibit 28B: Bank account structure for the Department of Public Health



Source: Treasurer–Tax Collector

Very few funds are actually held in department-level ZBA accounts. When a department receives a payment, funds are automatically transferred to a single Citywide core concentration account. For example, if MTA receives \$10 million in Clipper card payments on the first of the month, these funds are transferred in real time from the dedicated ZBA to the core concentration account, which is the account through which the City, via its primary banking agent (Bank of America) is linked to counterparties through the inter-bank settlement system. When a department needs to issue a payment, a signal is sent from the department-level ZBA to the core concentration account indicating the ZBA that should be debited, along with the routing number and other relevant account information on the payment recipient’s bank. Here also, no funds are held for any length of time in the ZBA account. The ZBAs function as accounting ledgers, with all actual payments cleared and settled through the core concentration account.

In order to maximize the return on the City’s liquid funds, the maximum ending daily balance held by the City in its core concentration account is \$100 million. On days where inflows (payments received) exceed outflows (payments made) such that the ending daily balance is greater than \$100 million, these funds are automatically swept into the Investment Pool. If the City ends the

business day with less than \$100 million in the core concentration account, funds are rolled over to the next business day.

If a department has a pending payment of an amount in excess of what would normally be held in the core concentration account, the Treasurer requires three-days advance notification. The Treasury Department requests that all City departments provide advance notice of any pending expenditures exceeding \$10 million. The City's bank in turn requires a three-day notice for any wire payments, regardless of size. To conduct settlement, the Treasurer liquidates the required amount of short-term securities held in the Investment Pool. Proceeds from these sales are transferred to the core concentration account. After these funds are spent, the Controller makes a ledger record of the payment transaction and the adjusted departmental-level fund balance.

Limitations on funding a City MFC using the City's concentration account

Because the maximum balance in the City's concentration account never exceeds \$100 million, even if these funds were fully available to be lent out, the actual amount is quite small for a municipal financial corporation, and would not provide one with a viable funding base. Additional restrictions are imposed by the provisions of California Government Code Section 53652, which require that the deposits of local governments be collateralized at or above 105 percent of the total amount held on deposit. The law delineates a very specific set of assets that may be used as collateralization instruments, primarily the bonds, notes, and warrants of agencies of the federal government, states, and political subdivisions thereof. For practical purposes, a small-scale depository for which the deposits of the founding government would comprise a significant share of total funds on deposit would need to collateralize these funds using U.S. Treasury notes or short-term obligations of the federal housing mortgage agencies (Freddie Mac or Fannie Mae). Under the terms of AB 857, adopted in 2019, all funds held on deposit by a local government are required to conform to the provisions of Section 53652 and are effectively "tied up," and cannot be used to support the issuance of credit or loans to other parties.

Unless provisions of Section 53652 were amended to explicitly exempt a public bank such as a City MFC from the current collateralization requirements, all monies held in the City's concentration account would need to be utilized to purchase collateralization instruments such as U.S. Treasury notes, and hence would not be available to be lent out.

For these reasons, a bank that serves primarily as a public depository would have very limited ability to use funds deposited by the City to support its lending operations. If such a bank were to reach a far greater scale, and could maintain a deposit-based funding pool on the order of \$500 million or greater, it might be feasible, from a liquidity standpoint, to collateralize the funds of the local government using a Federal Home Loan Bank letter of credit. An expanded deposit pool, with the City share secured by a letter of credit, would allow some portion of the funds deposited by the City to be lent out, as the letter of credit eliminates the need to hold an equivalent amount

of reserves or liquid USTR notes. However, for reasons we discuss below, we think it would take many years for a depository MFC to achieve this scale.

Receiving FDIC regulatory approval

Under current State laws, Department of Business Oversight approval of a state banking license for a public bank will require the applicant to have received a prior commitment from the FDIC to provide deposit insurance. In granting insurance, the FDIC becomes the MFC's primary federal regulator and resolution agency in the event of insolvency. It is difficult to state with certainty how the FDIC is likely to evaluate a banking application to form a de novo publicly owned depository. We believe it would be unwise to assume the FDIC will readily agree to serve as the MFC's federal regulatory agency. Our caution is based on prior conversation with the head of the Regional Office of the FDIC in 2014, conversations with lawyers at the San Francisco Federal Reserve Bank and the head of regional operations at the San Francisco Federal Home Loan Bank, a meeting with the CEO and CFO of the Bank of San Francisco, a conversation with a former Goldman Sachs regulatory lawyer, and the legal opinions put forth in memos prepared by the law firms of Davis Polk and Arent Fox.

Several factors are likely to bias the FDIC against being willing to give de novo public bank deposit insurance. The MFC is a novel proposal and will encounter institutional inertial resistance. The type of non-orthodox loans that might be issued by the MFC could cause concern amongst federal banking regulators. The MFC will have a high level of exposure to the local real estate market and to the local economy more generally. This creates concentration risk, and could lead to FDIC insistence that the MFC propose a more diversified and orthodox set of lending strategies in order to meet standards required for FDIC insurance. This would undermine the ability of the MFC to offer loans at below market rate in areas designated as primary City policy priorities. Moreover, in granting depository insurance, the FDIC assumes responsibility to function as the MFC's federal resolution agency. The FDIC has no experience regulating or resolving public entities. For these reasons, the FDIC may be unwilling to incur the risks of becoming embroiled in uncertain legal contingencies in the event the FDIC would be required to step in to resolve a failed or troubled municipally owned banking entity.

Finally, if the FDIC rejects a de novo banking application, this could undermine the possibility of moving forward with *any* type of locally owned credit-granting local economic development institution. Opponents of the initiative could hold up FDIC rejection as evidence that the proposal is a high-risk, untested, and costly strategy.

For these reasons, the opinion of our office is that the optimal pathway is to first set up a non-depository institution to provide a vehicle for capitalization, and to fund this institution either through passing an amendment of AB 857 to allow the Investment Pool to directly purchase liabilities issued by the MFC (non-depository), or through the various funding workarounds outlined in this report. If initially established as a non-depository institution, the MFC would not

require regulatory approval from the FDIC. This entity could implement a series of demonstration projects in areas determined to be the MFC's motivating priorities — e.g., affordable housing, small business lending, and infrastructure funding. This would establish an entity that is capitalized, a set of complementary lending programs that are designed to allow them to be rapidly scaled, the basic funding mechanisms to support these lending operations, and a platform to begin to set up partnerships with local credit unions and community banks.

This is why we recommend that the City first pursue the formation of a non-depository MFC. Once the MFC reaches a certain scale, the City can consider becoming a depository bank that would provide banking services to non-profits, unions, pension funds, and foundations. Providing banking services to the City is a longer-term goal, and should not be the primary factor motivating a depository bank's initial formation.

Appendix E: Recent Trends in Investment Pool balances

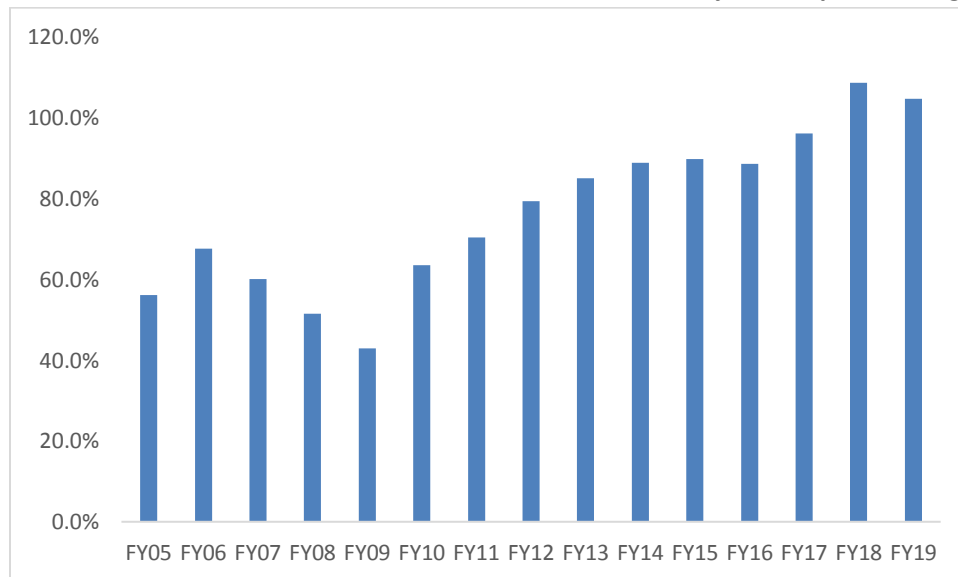
The total fund balance held in the Investment Pool grew from \$2.8 billion in FY 2004–05 to just under \$11 billion by FY 2017–18, an increase of 390 percent, and a growth rate of 10.46 percent per year. The General Fund–only portion of the Investment Pool increased from \$580 million in FY 2004–2005 to \$4.9 billion by FY 2017–18, an increase of 855 percent over the thirteen-year period, or an annual growth rate of 16.5 percent.

Exhibit 29A shows the ratio of the total cash surpluses held in the Investment Pool to the Mayor’s proposed budget for the corresponding fiscal year for all funds.

Exhibit 29B displays the ratio of the General Fund–only portion of the Investment Pool to the General Fund’s annually authorized expenditures. In both cases, the cash surpluses accumulated in the Investment Pool by various participants far exceed annual proposed budgetary expenditure. The rising trend is particularly striking after 2009.

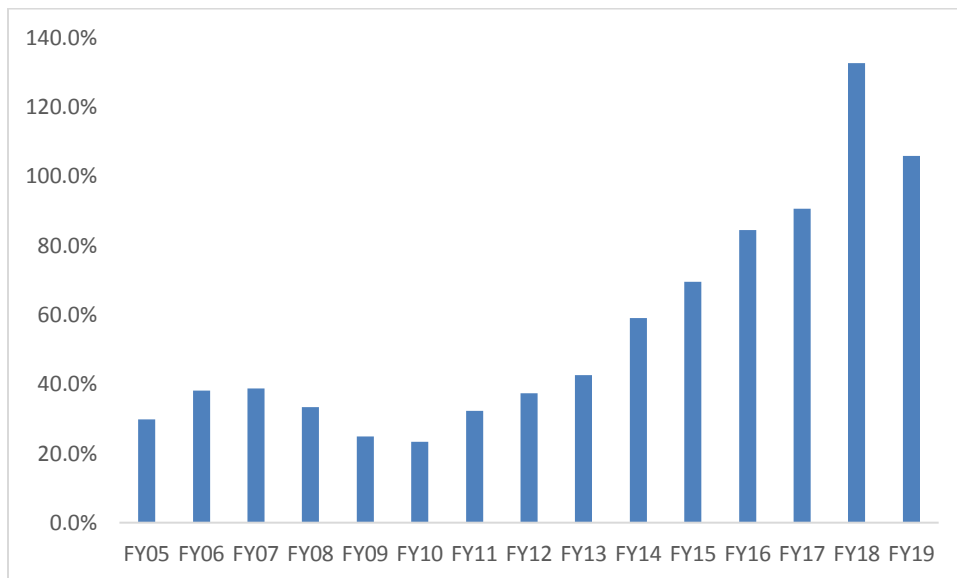
As shown in Exhibit 29A, the total funds held in the Investment Pool by all participants relative to the Mayor’s total proposed budget increased from 43 percent in FY 2008–09 to 104.7% in FY 2018–19. The General Fund–only portion of the Investment Pool, as seen in Exhibit 29B, rose from 29.8 percent in FY 2004–2005 to 105.9 percent in FY 2018–2019 — an increase of 355.4 percent over the fourteen-year period, or an increase 9 percent per annum. The annual rate of growth of the ratio of funds held in the Investment Pool to the Mayor’s Proposed Budget between FY 2008–09 and FY 2017–18 is 10.3 percent. For the General Fund–only portion, this ratio grew at an annualized average rate of 18.6 percent.

Exhibit 29A: Ratio of total funds in Investment Pool to Mayor's Proposed Budget All Funds



Source: Mayor’s Proposed Budgets, Treasurer–Tax Collector, and CAFRs, various years

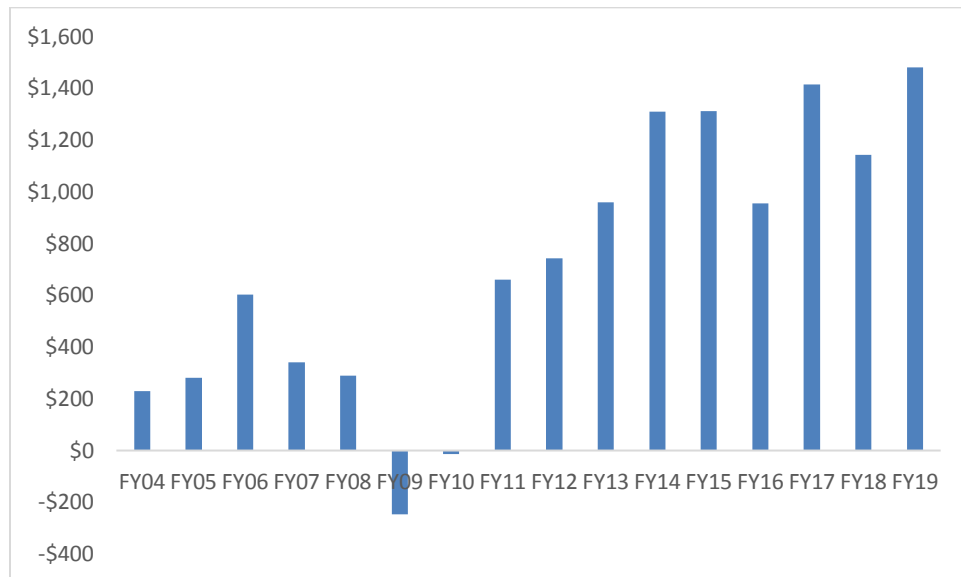
Exhibit 29B: Ratio of General Fund portion of Investment Pool to Mayor's Proposed General Fund Budget



Source: Mayor's Proposed Budgets, Treasurer-Tax Collector, CAFRs, various years, and Treasurer Oversight Committee Report

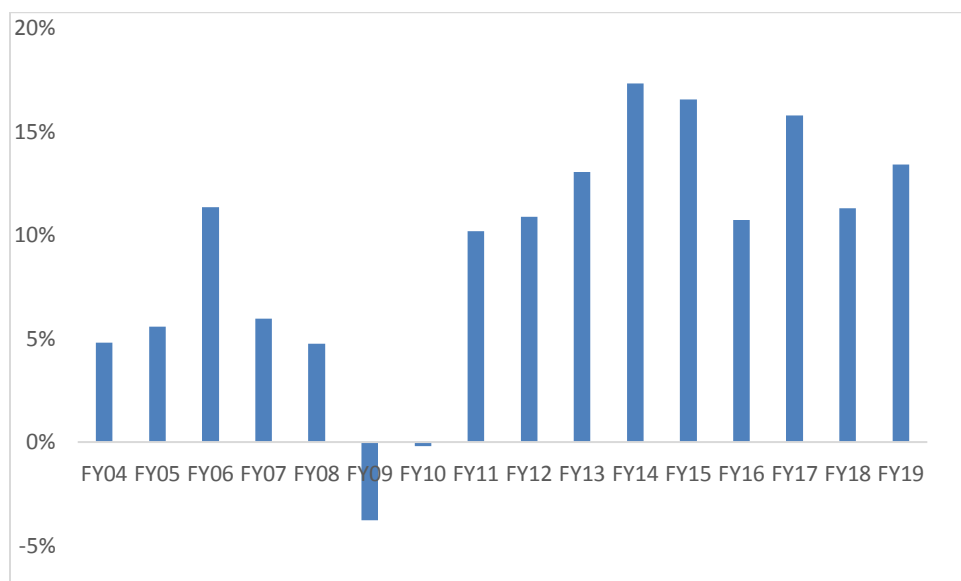
Exhibit 30 shows the annual difference between the Mayor's Proposed Budget and the year-end total governmental revenues reported in the Comprehensive Annual Financial Report for FY 2003–04 through FY 2018–19. Exhibit 31 shows the end-of-year surplus expressed as a percentage of the Mayor's Proposed Budget. It is evident the City has been running recurrent and very large annual surpluses, whether stated in dollar terms or as a percentage of the Mayor's Proposed Budget. As a result, over the last fourteen years, the City has accumulated a large cash surplus that rolls into the end-of-year fund balance and has led to a significant swelling of the total amount of funds held in the Investment Pool and potentially available for capitalization of a City-sponsored MFC.

Exhibit 30: Difference between Total Year-end Revenues and Mayor's Proposed Budget (millions)



Source: Mayor's Proposed Budgets and CAFRs, various years

Exhibit 31: End-of-year surplus as % of Mayor's Proposed Budget, All Funds



Source: Mayor's Proposed Budgets and CAFRs, various years

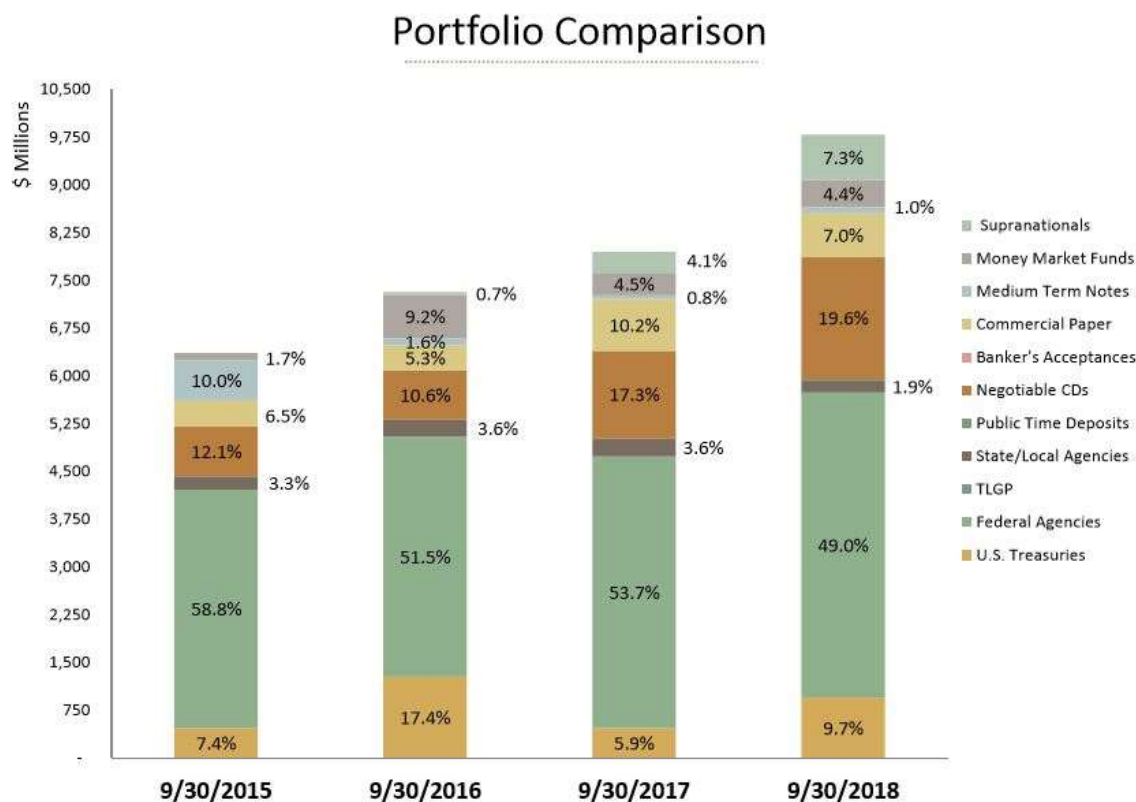
Uses of Investment Pool funds are not restricted by the ultimate uses of these monies at the Departmental level.

The Task Force Report does not clarify the distinction between the cash balances held in the Investment Pool by the various participating entities, and the investment of such monies, which are regulated by State law. Funds held in the Investment Pool by the various participating entities appear on the balance sheet of the Investment Pool as liabilities owing to the participating entities. The restrictions on the investment of these cash surpluses derive from the provisions of California Government Code Section 53601(a)-(r). The fact that some cash surpluses held in the Investment Pool by participating entities are designated for specific and restricted uses does not imply any particular limitation on how these monies are invested, as long as they conform to the provisions of Section 53601(a)-(r).

Amounts currently held in short-term government securities exceed prudent levels

Funds placed under the fiduciary care of the Treasurer by the City and other governmental entities that hold surpluses in the Investment Pool are, from the vantage point of the balance sheet of the Treasurer, fully encumbered liabilities “owed” to the depositing entities. This does not imply any restriction per se on how these monies may be invested. Rather, the limits on the investment of these monies are set out in the provisions of CA Government Code Section 53601(a)-(p). As seen in Exhibit 32, the current compositions of the assets held within the Investment Pool are weighted predominantly toward U.S. Treasuries, which as of 9/30/2018 comprised 49 percent of total assets.

Exhibit 32 Composition of Investment Pool assets



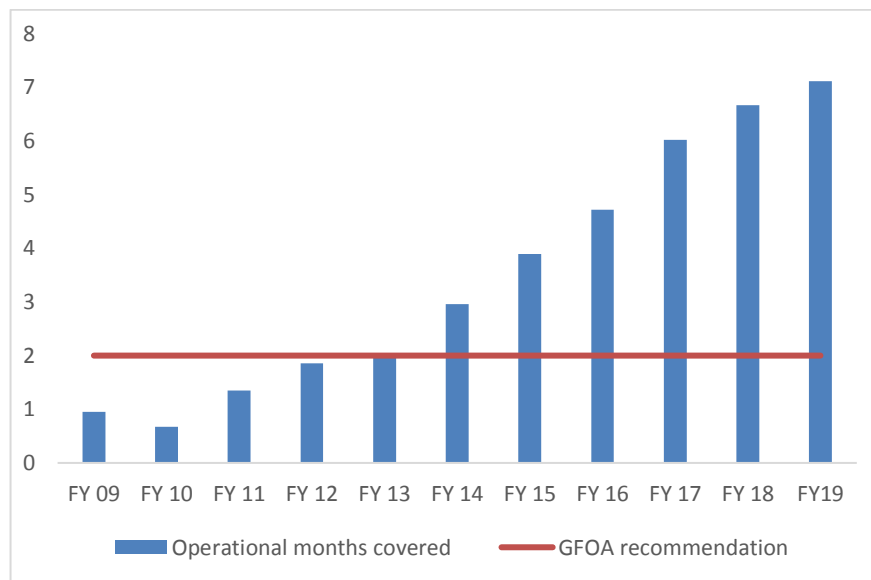
Why this funding mechanism does not threaten the long-term fiscal condition of the City

The City's current level of unrestricted funds as a portion of the overall fund balance is far in excess of the unrestricted fund balance level recommended by the credit rating agencies and the Government Financial Officers Association (GFOA). To qualify a municipality to receive the top ranking on this component of overall credit ratings from the major credit rating agencies. Standard and Poor's currently requires a municipality to hold 15 percent or more of unrestricted fund balance relative to the authorized General Fund expenditure of the current fiscal year to receive the top ranking on this component of the overall composite credit rating score.⁴² Similarly the City's unrestricted fund balance is well in excess of standards adopted by the GFOA, which currently recommends that local governments maintain an unrestricted fund balance equal to two months of annual General Fund expenditure.

⁴² Standard and Poor's publishes the criteria used to assign points to various components of the overall composite rating given to a municipal borrower.

The City's FY 2018–19 General Fund authorized expenditures reported in the Comprehensive Annual Financial Report (CAFR) were \$4.030 billion. The end-of-year fund balance as of June 30, 2019, was \$2.717 billion (GAAP basis). Of this amount, the CAFR (see p. 16) reports \$2.11 billion as “unrestricted.” If the City were to maintain the unrestricted portion of the fund balance at Standard and Poor's or GFOA recommended levels, the year-end amount would be \$605.5 million or \$671.66 million. As seen in Exhibit 33, the actual reported unrestricted fund balance exceeds these recommended levels by over 300 percent.

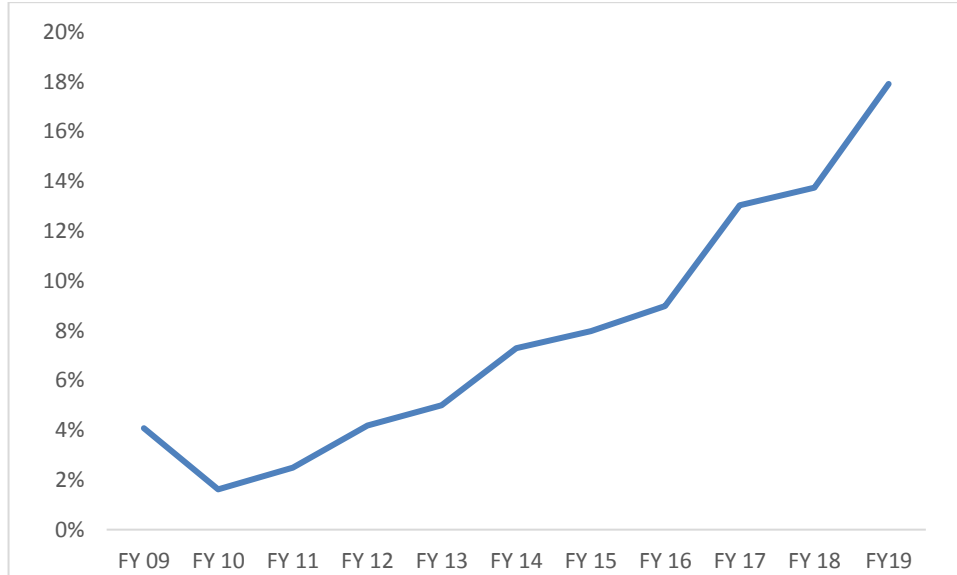
Exhibit 33: Operational months of General Fund covered by unrestricted fund balance, and GFOA recommended unrestricted fund balance



Source: CAFR

The City currently has two reserves that exist for the explicit purpose of providing a buffer in the event of unforeseen revenue shortfalls, namely, the Economic Stabilization Reserve and the Budget Stabilization Reserve. These funds were reported at \$229 million and \$396.76 million, respectively, or \$625.76 million in total, in the FY 2019 CAFR. As seen in Exhibit 34, the City's reserve balances have increased consistently in each fiscal year since FY 2010. This exceeds the prudent ratio of unrestricted funds to annual authorized expenditure recommended by Standard and Poor's, and is very close to the recommended threshold of the GFOA. At the present time, the City has a very robust financial position, with reserves that far exceed the amounts the Board of Supervisors and the Controller have deemed necessary to address potential revenue shortfalls in the event of a major economic recession.

Exhibit 34: Ratio of budget stabilization reserves to General Fund expenditure



Source: CAFR

The amount of funds currently held in highly liquid short-term government securities in the Investment Pool is far in excess of amounts that need to be held to cover any reasonably anticipated withdrawals. Liquidity concerns do not therefore provide a basis for rejecting our recommendation that the Board of Supervisors use the Supplemental Reserve Account (SRA) to effect a large-scale reallocation of funds to support the lending activities of the MFC. The economic viability of any of the proposed variants of the MFC (depository or non-depository) will require access to long-term, below-market-rate funding. Our review of the data on the daily variance in the Investment Pool indicates the Pool could easily make up to \$4 billion in financing available. This undermines one of the major arguments we have heard for why Investment Pool monies cannot be used to support the MFC's lending platforms. It also highlights that the real issue at stake is whether the City is willing to incur the risk of committing some portion of the Investment Pool to funding the MFC loan portfolio. The overarching consideration in this case is whether it is possible to provide sufficient safeguards that will fully insulate any commitment of principal from the Investment Pool. We address this question in this report's Section VII on Risk Management.

Appendix F: Term matching in the Task Force Model, and difference with BLA proposal

The asset (loan) and liability structures that are proposed in both Model 1.0 and Model 2.0 of the Task Force Report involve matching the average terms of loans originated to the average terms of the Municipal Financial Corporation liabilities. Term matching is a standard means deployed to avoid or limit risks associated with “maturity mismatch” — or the interest rate and refunding risks inherent in financing longer-term loans through the issue of shorter-term debt. The term limits and funding sources proposed in the Task Force Report, while in accordance with prevailing practices pertaining to financial portfolio management, place restrictions on the types of loans the MFC could originate. In particular, the Task Force models remove consideration of the MFC funding the issuance of longer-term mortgage and infrastructure debt. The reasoning is straightforward: Let us presume the MFC is funded through the issue of market-rate debt securities, the majority of which consist of debts sold on the private money market with maturities ranging from one to five years. If these IOUs are used to finance loans with terms of ten to thirty years, the MFC’s funding instruments will be coming due well in advance of the repayment of loan principal.

If holders of the MFC’s debt securities are willing to roll over these liabilities on an indefinite basis, the MFC can avoid having to provide cash payment. However, in this case the MFC would still be exposed to risks if interest rates prevailing in the private market have risen at the time these liabilities fall due, as the MFC would have to roll over this instrument at a higher interest rate. Depending on the amount interest rates have risen, this could erode net earnings, and could lead to operating losses due to higher funding costs that cannot be offset by issuing an equivalent amount of higher-rate loans. The MFC could become insolvent if earning is insufficient to cover the cost of finance.

If the MFC’s creditors are unwilling to roll over these debt securities at maturity, but instead demand cash repayment, the MFC could readily find itself in the position of being technically solvent — e.g., with positive net earnings and a robust capital base — but unable to meet demands for repayment, given that it has lent out funds in the form of longer-term, illiquid assets. If the MFC’s inventory of shorter-term, more liquid assets is insufficient to settle demands for repayment, the MFC has become illiquid, and investors would be forced to hold the IOUs of the MFC until such time as they can claim cash repayment. For this reason, investors are unlikely to purchase the debt securities and other funding instruments issued by the MFC, unless assurances could be given that means existed to guarantee prompt repayment.

Contingent short-term funding agreements could be set up to allow the MFC to partially manage liquidity risks due to maturity mismatch. For instance, if the MFC is largely funded on the private market through the issue of debt securities of one- to five-year duration, the Treasurer–Tax Collector could support the MFC by providing short-term cash advances that would be collateralized using the MFC’s longer-term loans and investments. It is possible to work out similar

arrangements with the Federal Home Loan Bank, which offers member institutions access to collateralized short-term advances secured by property-related loans and mortgages. However, there may be limits on the willingness of the FHLB to countenance an indefinite deferment of repayment. Hence, liquidity management would need to rely heavily on a de facto open-ended commitment by the TTX to provide any level of cash needed for the MFC to conduct timely repayment.

Even if such refunding arrangements were secured, the problem remains that issuing IOUs on the private capital markets will require the MFC to pay prevailing interest rates plus adjustments imposed to account for buyers' assessment of risk. This will limit the ability of the MFC to issue long-term, below-market-rate loans of the type we believe are necessary to support increased investment in affordable housing development and acquisition programs to remove existing units from the private market. Once this lending option is effectively ruled out, the MFC is largely confined to offering higher-rate loans of shorter-term duration. While some short-term, higher-rate loans would be sensible from a financial standpoint, the overall effect will be to sharply limit the ability of the MFC to serve as a source of long-term below-market-rate credit.

This is why we have concluded that achieving social equity goals will require funding commitments from the Investment Pool, including de facto agreements to provide open-ended funding with rollover at interest rates below those that could be obtained on the short-term money markets.

Appendix G: BLA Staffing Assumptions for non-depository MFC

Lending and Wholesale Loan Division (15 employees)

Lending Department — oversees lending operations; underwrites all direct MFC loans and investments; evaluates and allocates MFC assets among various credit instruments; responsible for conducting trades to adjust holdings of various types of security investment; manages borrowers' credit risk, assessment of participation programs and secondary capital injections, quality controls, and underwriting provisions; monitors the balance sheet and performance of the MFC's partner organizations.

Wholesale Loan Distribution platform — establishes, operates, and manages the MFC's wholesale loan platform in partnership with participating credit unions and community banks; maintains and expands network of mission-aligned socially responsible mutual funds, public pension funds, and philanthropic foundations that provide a market for loans originated by the MFC and its affiliates.

Risk Control and Liquidity Management Division (5 employees)

Risk Control and Liquidity Management Department — manages the funding (liability) side of the MFC's balance sheet; monitors and manages rollover and refunding risks, is the internal division that interacts extensively with the Treasurer's Office; serves as the liaison that maintains and oversees the MFC's participation in the Federal Home Loan Bank letters of credit program and FHLB advances.

Risk management staff conducts ongoing monitoring of current market conditions in collaboration with Research and Lending departments; provides analysis to Lending Division; does semi-annual stress tests; distributes these reports to the Treasurer's Office, MFC debt security investors, and participants in the MFC wholesale distribution network.

Technology Department (2 employees)

Manages IT needs, logistical operations, maintenance of software programs, and compliance with industry technological standards.

Community Outreach, Marketing, Public Outreach and Education Division (3 employees)

Does publicity, outreach, and marketing of MFC's lending programs; convenes forums; manages press relations; conducts outreach to community and neighborhood groups and other constituencies.

Research Department (1–2 full-time employees)

Conducts regular, ongoing review of existing market conditions; analysis of various trends in vacancy rates in both residential and commercial real estate markets; review of local economic conditions such as employment, rate of growth of key local economic sectors, property prices; analysis of financial variables and financial market conditions. Some of this work may be conducted in partnership with the Treasurer’s Office and the staff of the City’s Chief Economist.

General Administrative Support (1–2 full time employees)

Provides general administrative support for internal audits and reviews, personnel matters, general office activities, communications, internal procedures and document review.

Appendix H: BLA pro forma analysis

We here present a pro forma analysis of the costs and earnings of the MFC (non-depository) of the type we are proposing to establish as the optimal vehicle for increasing local investments in affordable housing, community small businesses and residents, long-term infrastructure lending, and other policy objectives. We also provide an estimate of the costs and earnings that would likely accrue to an MFC (depository) using various broad assumptions as to total non-interest expense (e.g., operating costs) as a percentage of total assets.

Many of the key features regarding capitalization and funding, as well as the MFC's lending operations, are identical in the case of both the non-depository and depository institutions. As noted, the major differences are (a) a depository has access to a larger potential range of funding sources due to its ability to accept deposits; (b) the depository has greater ability to issue short-term advances and to provide a variety of clearing, settlement, and treasury management services, including custodial functions and Investment Pool management services; (c) under the terms of AB 857, a depository can directly access Investment Pool money through the issuance and sale of debt securities; (d) a depository institution has high start-up costs; and (e) a depository has higher ongoing operating costs, and will need to set a higher rate on loans. Our pro forma analysis is used to determine the set of assumptions under which the MFC can offer below-market-rate loans and still be viable in economic terms.

The underlying assumptions and results of our pro forma mock-up are shown below. The main features we assume are that the MFC (non-depository) is funded through credit provided through the Investment Pool that is rolled over at maturity in order to provide a de facto "permanent" source of low-cost, stable, long-term funding. Total assets are estimated between \$1.5 billion in loans, and \$650 million in municipal securities. The latter could be IOUs of the City, and in our model are assumed to yield 2.5 percent per annum. All profits are reinvested in the MFC.

The MFC is profitable immediately at the point of commencing operations, due to the nature of the funding arrangements with the City. In brief, the Investment Pool commits a large sum of monies to buying MFC debt securities, which are initially invested in municipal securities. Given our assumption regarding the scaling up of staffing and lending operations, costs are initially very low. Note that the profitability of the MFC actually declines as staff is hired, and the MFC begins to ramp up the scale of its lending programs. Overall rates of return are low, and are below the standards currently prevailing in the U.S. banking industry. Despite this, the MFC is able to withstand very heavy losses due to the very high capital-to-asset ratio required to fully insulate the funds advanced by the City.

Assumptions underlying the BLA model

(a) The MFC will need to offer long-term, below-market-rate finance to serve as a significant lender for housing and infrastructure development and other social policy objectives for a City initiated MFC. This is particularly true in the case of affordable housing.

(b) Providing long-term credits will require a long-term funding commitment from the City's Investment Pool. The purpose of our recommendation that a Supplemental Reserve Account be created within the Investment Pool is to establish a designated funding conduit to provide the MFC with stable, long-term, below-market-rate finance. We assume that the City will provide the MFC with long-term funding at an average annual rate of 0.5 percent (50 basis points). This is more than sufficient to cover the cost of the services provided by the City's current Investment Pool custodial and settlement agent.

(c) Given our proposed phase-in schedule, in which the non-depository MFC is set up and begins to operate concurrently with, or prior to, the application for a state banking license, we assume the MFC would have a Memorandum of Understanding with a mission-aligned bank that would serve as the MFC's primary depository, custodial, and settlement bank.

(d) The non-depository MFC will maintain a staff of approximately 25 to 30 people. This is more than double the number of staff assumed by the non-depository model outlined in the Task Force Report Model 1.0. Our higher staffing requirement reflects the greater complexity of our proposed lending programs; extensive time required to develop and sustain various partnership relationships, including those with newly created LLCs and non-profits that will be housed in various departments of local government; and the establishment of a securitization platform that will necessitate a large and ongoing marketing plan. We assume the depository variant will have approximately 10 to 15 additional staff members, although this number could be higher depending on the scale of operations and the types of services a depository institution would offer.

(e) Our model is structured in a manner that allows it to be profitable from day one of commencing operation. This assumes the City funds a large-scale transfer of monies into the MFC through the Supplemental Reserve Account. The MFC will invest these monies in USTR notes and bonds that pay 2.5 percent per annum, and Municipal Bonds that pay an average annual return of 3.5 percent. These interest earnings would be transferred to the MFC for capitalization purposes.

(f) We assume the MFC commences its lending operations through a series of demonstration projects beginning in the first year of actual operations, and then expands these programs over the next ten years to \$1.25 billion in total loans by year ten. We acknowledge that the rate of increase in the MFC loan portfolio may occur at a slower rate than we assume in our pro forma models

(g) We assume the MFC issues long-term loans at 2.5 to 2.75 percent. Thirty-year housing loans for multi-unit rental housing acquisitions may be restructured from time of origination, refinancing the loans at higher interest rates and lengthening the repayment term. Restructured loans may either be held by the MFC, or sold wholesale to raise funds to support the issuance of new loans.

(h) The MFC has a large capital buffer. By year ten, our model shows that the MFC will have \$286 million in core capital, of which the City is sole and exclusive owner. Assuming that by year ten the MFC is operating with a \$1.25 billion loan portfolio, the MFC could absorbed a full charge-off of non-performing loans of up to 22.88 percent of its total loan portfolio before any losses would be passed on to the Investment Pool.

(i) While we believe that meeting the MFC’s guiding goal and policy mandates — particularly in the areas of housing development — will require being structured along the lines we set out here, we do not assume the MFC will be operated exactly as shown in our pro forma mock-up. Our objective here is to demonstrate to the Board of Supervisors, Treasurer, the Controller, and the Mayor’s Office that the MFC can be structured in a manner that meets the City’s policy objectives while fully protecting the Investment Pool.

Exhibit 35: Pro forma mock-ups — non-depository; \$1.5 billion of funding from Investment Pool, loans at 2.65%

Cost of Operation

	Year of Operation									
	1	2	3	4	5	6	7	8	9	10
Expense category										
Salary executive management (CEO, CFO)	\$500,000	\$500,000	\$515,000	\$530,450	\$546,364	\$562,754	\$579,637	\$597,026	\$614,937	\$633,385
Salary staff (10 FTE employees through year 5, 25 FTE thereafter)	\$2,500,000	\$2,575,000	\$2,652,250	\$2,731,818	\$2,813,772	\$5,796,370	\$5,970,261	\$6,149,369	\$6,333,850	\$6,523,866
Amortization		\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927	\$119,405	\$122,987	\$126,677
Rent, other occupancy-related costs	\$500,000	\$515,000	\$530,450	\$546,364	\$562,754	\$562,754	\$579,637	\$597,026	\$614,937	\$633,385
Other (IT, licensing)	\$500,000	\$515,000	\$530,450	\$546,364	\$562,754	\$562,754	\$579,637	\$597,026	\$614,937	\$633,385
Correspondent and Treasury management costs										
Total annual operational costs	\$4,000,000	\$4,205,000	\$4,331,150	\$4,461,085	\$4,594,917	\$7,597,184	\$7,825,100	\$8,059,853	\$8,301,648	\$8,550,698

Report to Supervisor Fewer
Analysis of Municipal Bank for San Francisco: Issues and Options for Consideration
July 24, 2020

Capitalization Schedule

		Year of Operation									
		1	2	3	4	5	6	7	8	9	10
General Appropriation	Fund	\$5,000,000	\$10,000,000	\$20,000,000							
Supplemental Appropriation Investment Pool	for		\$10,000,000	\$10,000,000							
Sale of Shares Foundations			\$500,000	\$1,000,000							
Net earnings from SRA (year 1), MFC's investments thereafter		\$16,000,000	\$17,662,500	\$19,307,913	\$24,275,676	\$24,573,735	\$101,819,823				
Total Capital (all profits reinvested)		\$21,000,000	\$57,500,000	\$111,162,500	\$130,470,413	\$154,746,088	\$179,319,823	\$206,455,635	\$233,316,926	\$260,089,997	\$286,415,599

Assets, Liabilities, Earnings, Returns, and Risk Ratios

		Year of Operation									
Assets		1	2	3	4	5	6	7	8	9	10
USTR (2.5%)			\$312,500,000	\$371,162,500	\$530,470,413	\$504,746,088	\$529,319,823	\$481,455,635	\$358,316,926	\$135,089,997	\$161,415,599
Municipal Bonds (3.5%)		\$1,000,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$500,000,000	\$500,000,000	\$500,000,000	\$500,000,000
Loans (2.65%)		\$0	\$20,000,000	\$40,000,000	\$150,000,000	\$200,000,000	\$500,000,000	\$850,000,000	\$1,000,000,000	\$1,250,000,000	\$1,250,000,000
Total Assets (all profits reinvested)		\$1,000,000,000	\$1,082,500,000	\$1,161,162,500	\$1,430,470,413	\$1,454,746,088	\$1,779,319,823	\$1,831,455,635	\$1,858,316,926	\$1,885,089,997	\$1,911,415,599
Combined return	gross	\$25,000,000	\$27,092,500	\$29,089,063	\$35,986,760	\$36,668,652	\$45,232,996	\$47,061,391	\$47,957,923	\$49,002,250	\$49,660,390
Liabilities			\$63,217,500								
Equity		\$21,000,000	\$57,500,000	\$111,162,500	\$130,470,413	\$154,746,088	\$179,319,823	\$206,455,635	\$233,316,926	\$260,089,997	\$286,415,599
Supplemental Reserve Account (at 0.5%)		\$1,000,000,000	\$1,000,000,000	\$1,000,000,000	\$1,200,000,000	\$1,200,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000
Medium Term Notes (at 0.5%)		\$0	\$25,000,000	\$50,000,000	\$100,000,000	\$100,000,000	\$100,000,000	\$125,000,000	\$125,000,000	\$125,000,000	\$125,000,000
Total liabilities		\$1,021,000,000	\$1,082,500,000	\$1,161,162,500	\$1,430,470,413	\$1,454,746,088	\$1,779,319,823	\$1,831,455,635	\$1,858,316,926	\$1,885,089,997	\$1,911,415,599
Loan loss (0.5 % of loans)		\$0	\$100,000	\$200,000	\$750,000	\$1,000,000	\$2,500,000	\$4,250,000	\$5,000,000	\$6,250,000	\$6,250,000
Combined cost		\$9,000,000	\$9,430,000	\$9,781,150	\$11,711,085	\$12,094,917	\$18,097,184	\$20,200,100	\$21,184,853	\$22,676,648	\$22,925,698
Net earnings		\$16,000,000	\$17,662,500	\$19,307,913	\$24,275,676	\$24,573,735	\$27,135,811	\$26,861,291	\$26,773,071	\$26,325,602	\$26,734,692
Return on assets		1.60%	1.63%	1.66%	1.70%	1.69%	1.53%	1.47%	1.44%	1.40%	1.40%
Return on equity		76.19%	30.72%	17.37%	18.61%	15.88%	15.13%	13.01%	11.47%	10.12%	9.33%
Capital/Asset ratio (non-risk weighted)		2.10%	5.31%	9.57%	9.12%	10.64%	10.08%	11.27%	12.56%	13.80%	14.98%
Capital/Asset ratio (risk weighted)			3691.06%	52.93%	34.79%	34.39%	19.92%	15.01%	14.58%	13.17%	14.50%

Exhibit 36: Pro forma mock-ups —Scaled down, special-purpose depository; \$1.5 billion funding from Investment Pool, loans at 3.5%

Cost of Operations

	Year of Operation									
	1	2	3	4	5	6	7	8	9	10
Expense category										
Salary executive management (CEO, CFO)	\$1,000,000	\$1,000,000	\$1,030,000	\$1,060,900	\$1,092,727	\$1,125,509	\$1,159,274	\$1,194,052	\$1,229,874	\$1,266,770
Salary staff (35 FTE employees by year 5)	\$2,500,000	\$5,600,000	\$7,500,000	\$7,725,000	\$7,956,750	\$8,195,453	\$8,441,316	\$8,694,556	\$8,955,392	\$9,224,054
Amortization		\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927	\$119,405	\$122,987	\$126,677
Rent, other occupancy-related costs		\$1,200,000	\$1,236,000	\$1,273,080	\$1,311,272	\$1,350,611	\$1,391,129	\$1,432,863	\$1,475,849	\$1,520,124
Other (IT, licensing, et al)	\$2,000,000	\$200,000	\$2,500,000	\$2,750,000	\$3,000,000	\$3,090,000	\$3,182,700	\$3,278,181	\$3,376,526	\$3,477,822
Total annual operational costs	\$5,500,000	\$8,100,000	\$12,369,000	\$12,915,070	\$13,470,022	\$13,874,123	\$14,290,346	\$14,719,057	\$15,160,629	\$15,615,447
Operating costs as % of total assets	0.55%	0.74%	1.06%	1.06%	0.91%	0.79%	0.80%	0.81%	0.82%	0.83%

Capitalization Schedule

		Year of Operation									
		1	2	3	4	5	6	7	8	9	10
General Appropriation	Fund	\$5,000,000	\$10,000,000	\$20,000,000							
Supplemental Appropriation	for		\$10,000,000	\$10,000,000							
Sale of Shares			\$500,000	\$1,000,000							
Foundations				\$5,000,000							
Net earnings		\$14,500,000	\$12,112,500	\$9,646,313	\$10,891,400	\$15,858,733	\$63,008,946				
Total Capital (all profits reinvested)		\$19,500,000	\$54,500,000	\$102,612,500	\$112,258,813	\$123,150,213	\$139,008,946	\$161,360,047	\$186,103,702	\$211,787,237	\$237,671,290

Report to Supervisor Fewer
Analysis of Municipal Bank for San Francisco: Issues and Options for Consideration
July 24, 2020

Assets, liabilities, earnings, returns, and risk ratios

		Year of Operation									
<u>Assets</u>		1	2	3	4	5	6	7	8	9	10
USTR (2.5%)			\$319,500,000	\$372,612,500	\$322,258,813	\$533,150,213	\$499,008,946	\$446,360,047	\$321,103,702	\$346,787,237	\$372,671,290
Municipal Bonds (2.5%)		\$1,000,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$750,000,000	\$500,000,000	\$500,000,000	\$500,000,000	\$500,000,000
Loans (3.5%)		\$0	\$20,000,000	\$40,000,000	\$150,000,000	\$200,000,000	\$500,000,000	\$850,000,000	\$1,000,000,000	\$1,000,000,000	\$1,000,000,000
Total Assets (all profits reinvested)		\$1,000,000,000	\$1,089,500,000	\$1,162,612,500	\$1,222,258,813	\$1,483,150,213	\$1,749,008,946	\$1,796,360,047	\$1,821,103,702	\$1,846,787,237	\$1,872,671,290
Combined gross return		\$25,000,000	\$27,437,500	\$29,465,313	\$32,056,470	\$39,078,755	\$48,725,224	\$53,409,001	\$55,527,593	\$56,169,681	\$56,816,782
<u>Liabilities</u>											
Equity		\$19,500,000	\$54,500,000	\$102,612,500	\$112,258,813	\$123,150,213	\$139,008,946	\$161,360,047	\$186,103,702	\$211,787,237	\$237,671,290
Supplemental Reserve Account (at 0.5%)		\$1,000,000,000	\$1,000,000,000	\$1,000,000,000	\$1,000,000,000	\$1,250,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000	\$1,500,000,000
Medium Term Notes (at 0.5%)		\$0	\$25,000,000	\$50,000,000	\$100,000,000	\$100,000,000	\$100,000,000	\$125,000,000	\$125,000,000	\$125,000,000	\$125,000,000
Deposits			\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000
Total liabilities		\$1,019,500,000	\$1,089,500,000	\$1,162,612,500	\$1,222,258,813	\$1,483,150,213	\$1,749,008,946	\$1,796,360,047	\$1,821,103,702	\$1,846,787,237	\$1,872,671,290
Loan loss (0.5 % of loans)		\$0	\$100,000	\$200,000	\$750,000	\$1,000,000	\$2,500,000	\$4,250,000	\$5,000,000	\$5,000,000	\$5,000,000
Combined cost		\$10,500,000	\$15,325,000	\$19,819,000	\$21,165,070	\$23,220,022	\$26,374,123	\$28,665,346	\$29,844,057	\$30,285,629	\$30,740,447
Net earnings		\$14,500,000	\$12,112,500	\$9,646,313	\$10,891,400	\$15,858,733	\$22,351,101	\$24,743,655	\$25,683,536	\$25,884,052	\$26,076,335
Return on assets		1.45%	1.11%	0.83%	0.89%	1.07%	1.28%	1.38%	1.41%	1.40%	1.39%
Return on equity		74.36%	22.22%	9.40%	9.70%	12.88%	16.08%	15.33%	13.80%	12.22%	10.97%
Capital/Asset ratio (non-risk weighted)		1.95%	5.00%	8.83%	9.18%	8.30%	7.95%	8.98%	10.22%	11.47%	12.69%
Capital/Asset ratio (risk weighted)			3644.65%	48.86%	29.94%	27.37%	15.45%	11.74%	11.63%	13.24%	14.85%