



CAPITAL MARKETS, CDFIS, AND ORGANIZATIONAL CREDIT RISK



**CHARLES TANSEY, MICHAEL SWACK,
MICHAEL TANSEY, WITH VICKY STEIN**

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Charles Tansey
Michael Swack
Michael Tansey
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*Carsey Institute at the University of New Hampshire
Durham, New Hampshire*

Charles D. Tansey is Senior Advisor, Office of the Chief Executive Officer at NeighborWorks America; Michael Swack is a Professor at the University of New Hampshire where he has appointments at the Carsey Institute and the Whittemore School of Business and Economics; Michael M. Tansey is Professor of Economics at Rockhurst University, Kansas City, MO; Vicky Stein an independent consultant

The Carsey Institute - 73 Main Street, Huddleston Hall
The University of New Hampshire - Durham - 03824
603-862-2821, 603-862-3878 (fax), Carsey.Institute@unh.edu

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This book is a product of the Financial Innovations Roundtable. Created in 2000, the Financial Innovations Roundtable, housed at the Carsey Institute at the University of New Hampshire, creates cross-sector partnerships among conventional and non-traditional lenders, investors, and markets to provide low-income communities with increased access to capital and financial services. The Financial Innovations Roundtable (FIR) is not only a think tank, it is a “think-do” tank. Some of the most successful ideas developed at the FIR have been implemented, resulting in new tools, policies and practices that have resulted in millions of dollars being directed into investments in affordable housing, small and minority businesses, community facilities and other community development efforts.

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Preface

David M. Walker, Comptroller General of the United States,
“Congressional Oversight Challenges for the 21st Century.”
Testimony before the Committee on Small Business,
U.S. Senate, July 20, 2000.

“The advent of budget surpluses does not lessen the need for more efficient and effective government and will continue to require difficult choices. Government performance and accountability need to be enhanced in order to get the most out of available resources and forge effective approaches to both the newly emerging and long-standing problems facing the nation. Legislation enacted in the 1990s has provided a statutory framework to help resolve longstanding management problems that undermine the federal government’s effectiveness and efficiency, and to provide greater accountability for results. The reforms that have been adopted have profound implications for what the government does, how it is organized and how it performs. Nevertheless, these statutory reforms, which focused on performance, financial and information technology management, did not encompass all areas of government management. Human capital issues are the missing link in the management and accountability framework. To meet the challenge of the 21st century, the federal government will need to implement modern management practices for more efficient and effective delivery of government services: possess the effective management approaches and tools needed to develop and maintain high performing organizations; and implement the human capital practices needed to support a focus on performance based management....

I have noted previously that many mission areas—from low income housing assistance, to food safety to counterterrorism to economic development—are addressed by a wide range of mandatory and discretionary spending programs, tax expenditures, and regulatory approaches. Virtually all of the results that the government strives to achieve require the concerted and coordinated efforts of two or more agencies. Yet our work has repeatedly shown that mission fragmentation and overlap in the federal government are

widespread. In addition many federal programs were designed years ago to meet the needs and demands as determined at that time. It is important to periodically reexamine whether current programs and activities remain relevant appropriate and effective. Unfocused and uncoordinated programs waste taxpayer dollars, confuse and frustrate program customers, and limit the effectiveness of federal efforts. ... Siloed organizations—burdened with overlapping functions, inefficiencies and turf battles—will need to become integrated organizations if they expect to make the most of knowledge, skills, and abilities of their people. Finally, internally focused agencies will need to focus externally in order to meet the needs and expectations of their ultimate clients—the American people. Our work has consistently shown that many agencies face long-standing and substantial challenges to further progress. The major challenges that agencies face in becoming high-performing organizations include:

- Adopting an effective results orientation;
- Strengthening financial management and related controls to better support decision-making and demonstrate accountability;
- Improving the use of information technology to modernize services and achieve results; and
- Developing and implementing modern human capital practices.”

Introduction

Major technological advances have also made the banking industry more efficient and expanded the markets they can economically serve, increasing access to banking services for LMI [low and moderate income] individuals and small businesses. ATMs are now ubiquitous, and online banking allows account access from most any computer. Innovations in information technology have made highly scalable origination production and servicing platforms both feasible and cost effective. Automated underwriting and credit scoring have led to faster decisions and better and less costly risk assessment, which in turn has enabled banks to make smaller loans and to vary pricing based on the riskiness of the borrower. (Although the recent credit crunch may be forcing a recalibration of the risk inherent in lending to a borrower with a given set of characteristics, these systems offer a way to array borrowers along a risk continuum and vary pricing accordingly.)¹

Should Community Development Financial Institutions (CDFIs) be in the Lending Business Anymore?

A number of years ago, NeighborWorks America found that one of its better home mortgage lenders was routinely writing mortgages that violated key consumer-lending statutes, the Real Estate Settlement Procedures Act (RESPA) and the Truth In Lending Act (TILA). About the same time, NeighborWorks found that five of six lenders in one of its bigger states were making home mortgages without a license. In an industry that holds as a basic tenet that the risk of lending to low-income people is mitigated by maintaining lender and borrower discipline, this was a shock. There was nothing malicious in either situation. Indeed, the borrowers by and large received very supportive forms of financing. Yet both situations point to the difficulty that small, nonprofit, mission-based lenders face in dedicating the time, experience, consistency, and cost required of the disciplined lender. In addition to providing assistance to the borrower, these lenders must keep up with the latest developments in regulations,

procedures, and technologies. In the first instance, the lender had the financial and staff resources to quickly remedy the problem. In several of the other organizations, this was not the case.

As important as telecommunication satellites may be, not every country has the capacity to put one into orbit. Lending is increasingly a form of rocket science. Although the credit analysis side of the process is becoming simplified through credit scoring and automated valuations, the pricing of the loan, funding, and portfolio management are becoming vastly more complex. With the advent of sophisticated methodologies for loan design, portfolio and asset/liability management, activity-based costing, data transmission and analysis, and marketing, the lender who simply makes loans and holds them, even if the process is highly disciplined, is at a distinct disadvantage. The disadvantage is particularly acute among those lenders who have small balance sheets and limited grant subsidy. These lenders have no margin for error, and their only hope is to maintain their grant subsidies and, if possible, increase them. However, even this prospect is no longer a guaranteed strategy for sustainability; the conventional lending sector has demonstrated (perhaps too well) that it can reach any borrower anywhere at any time, and the small lender's target constituency can evaporate almost overnight—along with the justification for the grants. It is now clear that a lender who lends prudently and works the loan to maturity is no longer guaranteed of constituent benefit, market relevance or sustainability.

We are not challenging the need for disciplined lending. Quite the contrary. We need good lenders now more than ever. The challenge is, however, in how the disciplined community-lender accomplishes the mission. The process by which most CDFIs have operated during the past several decades has left many stranded in the current environment. As a group, CDFIs simply do not have the tools—the loan products, the technologies, the policies and funding capacity—that their constituencies, newly returned to their doorsteps by the credit crisis—require.

How We Got Pushed Aside

As we look back over the past decade, we can see how CDFIs got pushed aside in their own communities. There were always some flaws in the basic CDFI model, but external factors made even some of the strengths appear flawed as well. Key factors include:

- *Homogeneity of loan products.* The range of loan product structures is relatively limited. Where the products are tailored to the needs of the borrower, they are often limited by the amount of available grant subsidy. Subsidy tends to be expended with each loan and stays with the borrower. It is lost by the lender at the time of origination and never returned for future use. This manufactures the need for additional subsidy.
- *Visibility.* Like the corner dime store facing the collective weight of the “big box” retailers, mission-based lenders do not have the marketing budget or skill sets to compete with conventional lenders for the attention of their low-income customers.
- *Technology.* The advent of the two-minute conditional approval based on credit scores was a key factor in generating volume in the single-family mortgage market over the past decade. There are similar technologies available in other asset classes. Many, if not most, mission-based lenders have been unable to deploy technologies with rapid-turnaround approvals.
- *Vertical loan delivery.* The traditional approach of CDFIs is to perform all functions of the lending process in-house, without regard to cost. This dispersion of effort discourages focus of the financial and staff resources on what the mission-lender does uniquely and best: prudent risk taking and constituent assistance.
- *Staff capacity.* Inadequate training resources, low salaries, limited opportunities for advancement, and high staff turnover often challenge the CDFI’s ability to maintain an up-to-date and consistent lending program.
- *Concentrated risk.* The mission focuses the loan portfolio on local and often higher-risk customers. In insurance parlance, this is equivalent to insuring only the sick. This focus curtails the notion of cross-subsidization and results in a very high-cost and high-subsidy portfolio.
- *Variety of loan product documentation and management.* The fragmented and often idiosyncratic nature of the documentation, tracking, and servicing of loans renders them difficult to pledge, sell, and even at times, value. Hence, the leveraging of subsidy is limited, and the exposure to interest rate and operating cost as well as credit risk constrain the balance sheet, and inhibit the ongoing achievement of mission-based lending.

- *Limitations of the revolving loan fund structure.* Revolving loan funds (RLFs) make new loans only as older loans are paid. Thus, the capacity of lenders who make long-term loans is routinely constrained. When times are good, most revolving loan fund lenders do not have sufficient funds to meet demand. When times are bad, good credits pay more slowly and bad credits do not pay at all; in turn, revolving loan fund lenders have even less funds to meet demand. Hence, in bad times, when the RLF's loan products are needed the most, they are the least available.

When the Going Gets Tough...

This litany of shortcomings² brings us back to the question we asked in the first section: Should Community Development Financial Institutions be in the lending business?

Wouldn't it make more sense for CDFIs to concentrate their disciplined approach to lending on only those kinds of activities—development lending and community facilities, for example—for which there is clearly no competing conventional sector platform? Wouldn't it make more sense for the CDFIs who lend to homebuyers and small businesses to focus their resources, instead, on counseling, technical assistance, real estate development, and/or advocacy?

Based on what we have seen in the market over the past few years, the answer is a resounding, no!

Notwithstanding all the flaws that have emerged with the CDFI model, CDFIs still have two assets that are not found elsewhere.

- *Better loans.* CDFIs are disciplined traditional portfolio lenders. The primary objective of their mission for their borrowers to succeed; and as a consequence, they are called to do whatever is necessary within their capacity to assure this success. The same cannot be said of the conventional lender. In the largest of the NeighborWorks Network's counseled, fixed-rate, low-fee first mortgage portfolios, for example, there has been a doubling of delinquencies and charge-offs among the low-income, minority, single-parent, and first-time home-buying households they serve. Delinquencies of 90 days or more are rising from the 4

percent to 8 percent range. The situation is serious. However, the delinquency rates in subprime adjustable rate mortgages—the bulk of which have not been made to disadvantaged homeowners—are in the 30 percent range (small wonder the loans were called “toxic”). These were loans made by conventional lenders. While the conventional lending sector responded to the many incentives to engage in bad lending, and enjoyed an environment virtually free of restraint, CDFIs stayed with their disciplined lending practices. This was not the first divergence between the policies and performance of CDFIs and the conventional sector, nor will it be the last.

- *Commitment to the community.* Although CDFIs currently have little money to lend to their constituencies, they are, nevertheless still in the neighborhood. The conventional sector can come and go. CDFIs do not have that choice. They have to be here: it is their mission. If they cannot serve the community, then it’s time to close down. The issue comes down to trust, and, because of their commitment to the place and the people in it, the CDFIs have that trust. Coming out of this debacle, the conventional lender will have to find a way to rebuild it.

What to do now? To paraphrase Elyse Cherry, Chairman of Boston Community Capital, we are presented with an astonishing opportunity.³ Now is the time for CDFIs to be buying and lending. Now is the time to take a lead in demonstrating how good the CDFIs are at exactly what they were created to do.

Some, like Boston Community Capital, are already out there doing it. Many, however, are stuck with rising delinquencies, high cost structures, diminishing grants, and lack of access to the best forms of financing. *It is time to change all of that. It is time to focus less on trotting out the tin cup and more on strengthening the organization. It is time to revamp and take charge of the business of achieving the mission.* This is not just talk. It is doing—and it does not have to be as hard as it sounds.

Reloading Your CDFI

With the markets weak and lending activity low, now is the perfect time to step up and evaluate the strengths and weaknesses of the organizations in the CDFI field. This does

not have to be an exhaustive and expensive process. To show how accessible this process is, we will illustrate right here how one kind of quick drill can proceed.

We can all begin any review of the mission business with the report card on our business models introduced in Chapter 8 as “The Four Major Categories.”⁴ We can take a look at the following ratios:

- I. Revenues to Average Assets
- II. Operating Expenses to Average Assets
- III. Losses to Average Assets
- IV. Funding Cost to Average Assets

Subtracting the amounts in Categories II, III, and IV from the amount in Category 1 will reveal how much grant funding must be raised each year. If this amount is not achievable, then the amounts in one or more of categories II, III, and IV will need to be reduced. Or, alternatively, the amount in Category I can be increased—though this tends to be a much more complicated item in terms of the market and the mission. With this simple calculation in hand, one can revisit the flaws outlined above. Examples of how these flaws might be addressed are outlined below, along with the category each flaw affects.

- *Homogeneity of loan products.* Expand the range of loan products with an eye to providing only as much subsidy as is actually needed to make a prudent transaction, and identify the extent to which it can be recaptured for future use. There are many excellent examples. The aggressive management and, where possible, retention and active reallocation of subsidy are necessary to both achieve the mission and maintain sustainability. (Category 1. Revenues to Average Assets)
- *Visibility.* The predatory lenders in the community did not buy commercial time during the Super Bowl. Their two-minute approvals were all they needed. The chief asset of the local lender is word of mouth. If the corner dime store has a good deal, people will know, and they will show. (Category 1. Revenues to Average Assets)
- *Technology.* Automated underwriting, bookkeeping, and servicing are the norm in the lending business for most asset classes. If the organization cannot afford to upgrade and stay at the cutting edge in any of these categories, the work should be outsourced. Paring down enables the CDFI to focus on what it can and should

be doing, such as origination, counseling, technical assistance, and structuring deals that do not fit the mold. This strategy is currently being successfully used in the community development credit union field. (Category 2. Operating Expenses to Average Assets)

- *Vertical loan delivery.* The same issues that apply to technology (above) apply here. (Category 2. Operating Expenses to Average Assets)
- *Staff capacity.* If the organization cannot keep two or three lenders in place and provide regular training on developments in the lending business, it is time to find another entity to perform lending functions. This is a hard decision. There are exceptions, such as regulated depositories and municipal or state-funded loan funds. In addition, organizations that are focused on a relatively low volume of big-ticket loans—such as low-income housing tax credits, community development, and real estate development loans—can work off of very small lending teams. In these sectors, automation and consumer lending law are not as much of a factor, and often, competition is limited or nonexistent. (Category 2. Operating Expenses to Average Assets)
- *Concentrated risk.* Simply because a lender receives subsidies does not mean the entire portfolio needs to be subsidized. There are more needs in the community than single-family mortgages or small business loans to low-income people. Expanding the target constituency and changing the mix of asset classes are two key strategies for achieving risk diversification and cross-subsidization. (Category 3. Losses to Average Assets)
- *Variety of loan product documentation and management.* Standardization of documentation does not mean abandonment of the constituency or higher levels of risk taking. It simply means disciplined and easily accessible reporting of transactions. It opens up the potential for pledging and sale of the loans for the purposes of obtaining financing and/or reducing future exposure to interest rate, operating, and credit risks. It enables the asset to be properly and easily valued and for whatever subsidy is locked in a loan to be freed for reallocation. (Category 4. Funding Cost to Average Assets)
- *Limitations of the revolving loan fund structure.* The revolving loan fund is a creature of the donor and designed to ensure proper use of donated funds. Loans tend to be made in response to borrower needs as they arise, and the subsidy tends to be expended as the loans are made. To stay relevant as well as sustainable, revolving loan fund lenders must establish systems for targeting and facilitating the flow of cash, as well as for the accurate retention and reallocation

of subsidy. Lenders must also establish financing platforms that enable them to put more externally raised funds to work with subsidized revolving loan fund monies. Leveraging subsidy by developing access to funding from the capital markets is a way of graduating from the bucket brigade to the pipeline, and along with it comes a significant increase in management discretion and authority to affect mission impact. In short, it liberates the lender. (Category 4. Funding Cost to Average Assets)

This quick framing drill, with its examples of how the flaws might be addressed, helps illustrate the simplicity of the logic behind the overall self-evaluation exercise. Obviously, the actual exercise will involve considerably more detail. However, increased detail does not mean increased difficulty.

In the “Sustainable Mission” course, presented at the NeighborWorks America Training Institutes, for example, participants are taught to reduce absolutely everything in their organizations to simple cash flows, and to prioritize these on the basis of how each of them promotes the mission and sustainability.⁵ This process is also discussed in greater detail in Chapter 8. The course comes with a software program that enables participants to instantly view the impact of their decisions on pricing, size, term, volume, operating expenses, and funding to highlight the extent to which each decision affects both mission and financial condition. It is a tool that enables them to break the complexity down into assessable components, essentially providing the basic blueprint for the rocket they need to build. It also demonstrates the complexity of running a sustainable lending portfolio; clearly, good CDFI lending is no longer simply a matter of making good loans to people in the neighborhood who come in the door, if, indeed, it ever was.

The “Sustainable Mission” methodology is just one of many ways to approach the discipline of optimizing one’s CDFI. Many CDFIs may find that tools they have already developed to manage their organizations may put them well on the path of “building their own rocket.” One way or another, however, the new models must be designed and they must be built if CDFIs are to remain relevant and viable when the markets come back.

Where the Views of the CDFI and the Markets Converge

This book is directed primarily at solving for flaws in Category IV, Funding Cost. Solving the problem of funding CDFIs was the primary focus of the capital markets team that was put together at the Financial Innovations Roundtable (FIR) in November 2000.⁶ It is their work that serves as the basis for the technical components and historical events of this book. The team worked with one primary goal in mind: to gain access for unsecured funding of CDFI organizational risk via the capital markets. Along the way, they saw increasing evidence of the importance of gaining access to the capital markets: Indeed, it became increasingly evident that a lender could not engineer sustainability, generate impact or even remain relevant without access to the external forms of capital and liquidity that the capital markets routinely provided. The new lending world that CDFIs were increasingly competing against was liquid, fee-driven, and immediately responsive to customer needs, precisely because of its connection to the capital markets.

The primary focus of this book is on explaining how banks and capital markets work, and how CDFIs can improve funding costs and financing operations by improving the ways they are used. As part of this, we necessarily focus on what needs to be done by CDFIs organizationally to facilitate access to these expanded sources of funding. This means that we have to look at the workings of the entire organization, even as the rating agencies, institutional investors, and banks would. Thus, we will have to address all of the four major categories: the revenue, operating costs, losses, and funding. Ultimately, it is the balance among these fundamental components that determines not only the effectiveness of the mission, but the sustainability of the CDFI. It is also the active maintenance of this balance that assures potential external funding sources that the credit risk of the organization is manageable and is, in fact, being managed. Although the balance among these factors will necessarily differ from one organization to the next, the necessity of managing a balance in an ever-changing set of circumstances is equally urgent for every lender. Success in the effort is the hallmark of superior management.

This last point leads us to one of our most important themes. As our FIR team proceeded down the path to the capital markets, it became evident that the interests of the rating agencies, banks, and investors in evaluating a CDFI's organizational risk were precisely the same as the interests of the staff and board in managing it; the data points and analytical methods needed to produce a good loan or investment to a sound organization were invariably shared. If the lender does not have access to the data or is

unsophisticated in the analysis, the cost of funds will rise along with lender intrusiveness – and the likelihood of default. Further, management will be unable to establish or maintain the balance among the various components of the four categories—all of which are competing for the organization’s limited resources—and the organization will not survive. Certainly not in the environment we face today or will face tomorrow.

Hence, the effort to gain access to the capital markets gave us insight into this other, perhaps even more important component of the funding category: the effort to gain control of one’s funding *sources*, inevitably forces one to gain better control of one’s operating *uses*. The need to upgrade organizational decision-making and management in order to provide confidence to lenders and investors is directly aligned with the management’s interests in maximizing the quality and impact of the CDFI they run. This unintended offshoot of the access-to-capital markets assignment may, in the end, be the most important part of this book. It is certainly the one in which the most immediate benefits can—and in fact must—be achieved.

Taking Your CDFI to the Capital Markets

It is a tribute to the participants of the first Financial Innovations Roundtables that they initiated the effort to access new sources of funding as early as they did. The question of how to get more money at affordable cost was defined and advanced in November 2000. The answer at the time was: CDFIs get more by going to the capital markets.

Going to the capital markets was not an easy mission. The FIR team that took on the task was looking for low-cost capital based entirely on the credit risk of the CDFI itself, not its portfolio assets. The team was looking for the kind of unsecured short- and long-term credit that corporate entities enjoy at the kinds of pricing levels that high-quality corporations obtain. That is, they were looking for *funding parity*. Owing to the high quality of CDFI organizational credit risk, the participants on the FIR team believed they were entitled to no less.

From November 2000, when the roundtables got under way, until April 2008, when it was decided to put the work on hold owing to events in the marketplace, the FIR team explored three major paths to the capital markets. Two of them were dead ends, and the third was not completed before the market collapsed. There was one major piece of good

news, however. In the effort to reach the capital markets, the FIR teams discovered there was another source of funding to access—the wholesale side of the banks. Although the wholesale side of the banks had also retreated as a result of the crisis, it was clear that the wholesale side would be an easier, and in many ways, preferable first stop for funding parity, once the markets recovered.

As we will discuss in Chapter 1, the capital markets remain closed to CDFIs, and the banks remain wary. The prognosis is that there will be material changes in the way they operate when they revive. As a result, one might conclude that the work of the FIR team on this mission is history. In fact, it *is* history, but it's also a guide. By the time the roundtables had created the Commercial Paper Co-op, the teams had an excellent understanding of:

- How the capital markets worked
- How the banks worked
- Which configuration of market and bank mechanisms could get CDFIs the best deal at the lowest cost
- What CDFIs needed to do to get the banks and the capital markets to work for them.

Although a number of details have already changed in the way that the markets work, the most valuable findings of the FIR team involve market fundamentals that will likely see little change. Going forward, CDFIs will find many of the FIR team's findings to be essential guideposts in gaining access to the capital markets and the wholesale bank portfolios. The FIR team's findings will also be useful relative to the work that CDFIs must do to improve their prospects for funding: improve the sustainability of their mission efforts, for example, through standardization of reporting and analysis and risk diversification. These goals will remain top requirements well into the future regardless of the conditions in the financial markets.

In crossing the borders that bracket the CDFI field, and forging into the vast terrain of the capital markets, the FIR team was able to identify the trading and lending mechanisms that worked well for lenders and investors, and to conclude that these same mechanisms could be put to good use on behalf of CDFIs and their constituencies. For the most part, these were rational and efficient mechanisms, mechanisms that enabled investors to put vast amounts of cash to work in a wide range of activities, many involving far greater risk than the risks taken by CDFIs. Moreover, these mechanisms,

when properly used, enabled lenders and investors to lend and invest *prudently*, a qualification that potential participants in the CDFI field would surely insist upon.

Although the unmitigated abuse of these mechanisms prompted, and then promoted, the failure of the capital markets and the unprecedented levels of distress among borrowers, investors and lenders alike, these mechanisms remain valuable, if not essential to the free, fair, and efficient flow of money. To be sure, discipline in the market's trading mechanisms is as necessary to the proper *quantity* of funding, as discipline in the market's lending mechanisms is necessary to the *quality*: following their role in the collapse of the market we can expect that some level of discipline will be revived and enforced in both functions for at least some period of time. One way or another, however, we can also expect that most, if not all, of these trading and lending mechanisms will be restored in some form, and they will once again be central to both the capital markets and CDFI participation in them.

Roadmap for the Book

This book takes us down these two broad avenues:

1. Understanding the capital markets, the institutional participants, the lending and trading mechanisms they use, and how these mechanisms work.
2. Understanding how standardization in specific areas of technology, reporting, and analysis in the CDFI field can break the barriers with rating agencies, institutional investors and banks, while improving CDFI sustainability and impact.

Understanding the Capital Markets

Chapter 1 reviews the historical tension between the lending and trading disciplines in the capital markets, how the trading disciplines have effectively undercut lending disciplines, and how this trend increasingly isolates portfolio lenders such as CDFIs, leaving their constituents at the mercy of potentially irrational market forces.

Chapter 2 identifies the three key tasks for the FIR team: placing unsecured CDFI organizational debt in the capital markets, standardizing reporting and analysis, and improving risk management. The chapter also provides definitions for CDFIs, capital markets, and organizational credit risk. It goes on to show the kind of financing that corporations can get from their banks, and explains how the CDFI industry has “missed the bus” in terms of financing options.

Chapter 3 outlines the chief mechanisms of the capital markets that CDFIs must use to achieve funding parity. It outlines these mechanisms in the context of the three FIR team tasks. It also shows how these mechanisms failed in the current crisis. Finally, it illustrates why, without these or similar capital market and wholesale banking tools, it is unlikely that CDFIs will achieve funding parity in the future.

Chapters 4, 5, and 6 detail the three major efforts of the FIR team to design a CDFI funding structure tailored to the needs of the banks and the capital markets. Chapter 4 presents the so-called “Mini-Fed,” which was an attempt to solve all CDFI funding needs (except grants). The chapter tracks how and why a series of constraints on CDFIs, as well as on the institutional participants in the capital markets, blocked the attempt. Chapter 5 outlines the next effort, the Capital Exchange, in which the FIR team was forced to narrow the efforts to obtain low-cost debt for CDFI organizational risk into a focus on short-term funding only. The chapter shows how, even with the short-term focus and the incorporation of the new CDFI ratings capability (CARS: the CDFI Assessment and Rating System), the capital markets were not ready to fund CDFI organizational credit risk. Finally, Chapter 6 shows how the design of the Commercial Paper Co-op finally got CDFIs in a position to “get on the bus,” with access to both the capital markets and the wholesale side of the banks. And it describes what happened to the design when the markets collapsed.

One of the chief values of discussing the FIR team’s three major efforts is to show how vital the use of capital market mechanisms can be to the CDFI mission, and why it is critical that CDFIs position themselves to take advantage of these mechanisms when the market returns to normalcy. There is another value as well. As the FIR team dug deeper into each effort, the needs of the banks, the rating agencies, and the institutional investors became much clearer. Ultimately, the team discovered that the door to the markets and funding parity is opened only when CDFIs address the needs of the banks and the investors and find a way to incorporate them into the negotiations.

Improving CDFI Sustainability, Impact, and Access to Capital through Standardization of Technology, Reporting, and Analysis

Chapter 7 surfaces the issues with the rating agencies, as well as the opportunities. During the efforts to implement the Mini-Fed and the Capital Exchange, it became clear that the primary way to ensure funding parity for the CDFIs and their continued access to capital markets was to get good ratings from the rating agencies. This was true whether CDFIs actually went to the capital markets or simply made the leap to the wholesale side of their banking partners. Chapter 7 lays out what the rating agencies need in terms of standardized performance data, financial reporting, and analytical discipline. It focuses on the two biggest analytical obstacles the rating agencies face relative to CDFIs: evaluation of the grant revenue line and the cash flow dynamics of restricted, temporarily restricted, and unrestricted net assets.

Chapter 8 proposes a range of standard corporate finance techniques used to evaluate organizational risk for nonprofits. These are compatible with rating agency analytical disciplines. The recommendations follow the logic of the rating agency perspectives outlined in Chapter 7. These analytical disciplines move the primary focus away from the balance sheet and toward the manner in which management makes decisions, beginning with initial design of the asset and following the decisions forward through the cash flow.

Chapter 9 is devoted to the issue of financial reporting. It identifies some of the key flaws in current financial reporting for CDFIs, flaws that seriously impede sound management as well as institutional evaluation. The chapter also recommends data points and reporting protocols compatible with the rating agency focus on management decision making and organizational performance.

Finally, in Chapter 10, we offer a brief summary of recommendations of items that the CDFIs should be working on *now*, in preparation for the return of the markets to normalcy. An encouraging fact is that leaders and organizations across the CDFI sector are already implementing a number of these recommendations. Hence, they serve more as support than as exhortations for advances in the field.

There is no doubt that much work must be done in the areas of standardized reporting and analysis for CDFIs. Additional effort must be applied to the diversification and mitigation of unsecured CDFI organizational risk. This book outlines a number of paths

to achieve both. Yet arguably the most important duty of CDFIs is to continue to delve into ways in which banks and the other institutions of the capital markets actually think and work. If CDFIs can continue to follow that path along with them, they will be truly ready when they return under new and hopefully more prudent rules of conduct.

One final note: This book guides the reader through a technically difficult and largely opaque terrain that, generally speaking, few in the capital markets had a financial incentive to help us traverse. Indeed, success in the effort could mean removing profitable acreage off some institutional turf. It is a remarkable irony—and one worth keeping in mind for future such efforts—that just as the FIR team developed something that worked (the Commercial Paper Co-op), *it became evident that the institutions serving the capital markets could set up an even more effective structure with much greater ease, if they so desired.* And they could do it without any assistance from the CDFI field.

Clearly, the information we received from the institutional side of the market, throughout this effort, came largely from a sense of goodwill and good corporate citizenship. The Financial Innovations Roundtable team is deeply thankful to the banks and other market-based institutions that helped enlighten us.

CHAPTER 1

BUMPY ROAD

“The lunatic fringe we will always have with us. Whether they’re selling the best thing since sliced bread or starting a riot, they will always be there. The question is: how far have you gone before you realize you’re on the same road.”

——— *New England banker, 1991*

Did the Low-Income Homeowner Do It?

On August 16, 2007, a small group of officials from NeighborWorks America and the Community Development Financial Institution (CDFI) Fund were asked to meet with Robert Steel, the Under Secretary of Domestic Finance at the U.S. Department of the Treasury.⁷ The administration wanted assistance in designing and implementing the fairest, quickest, most informed, and least disruptive set of solutions for low-income homeowners facing delinquency and foreclosure. The key question was whether we could help the administration develop a mechanism that avoided the “hand-to-hand combat” of the individual mortgage workout. The issue of cost was not on the table. The current situation was a crisis, and the issue of cost would be dealt with once the optimal set of solutions was outlined.

At the time, the best information available (and kudos to the Center for Responsible Lending for breaking the news two years previously) indicated there were about two million homeowners at risk of default and foreclosure, and the bulk of these were subprime borrowers who were thought to be mostly low income, and hence, within the policy as well as implementation purview of NeighborWorks America and the CDFI Fund.

Although the NeighborWorks and CDFI Fund assistance were successfully outlined in the meeting, there was one unanswered question that lingered: How could two million homeowners, representing less than 4 percent of the total number (and likely much less of the total dollar amount of mortgages outstanding), have such a negative impact on the markets as a whole?

Two years later, with as many as nine million homeowners at risk of default and foreclosure, we have a much better idea of how the question can be answered.

Was it greed? To be sure, there was plenty of greed to go around. Investors wanted more products, rating agencies and lawyers wanted more revenue, lenders wanted more fees, consumers wanted more house. Yes, there were low-income people who should not have gotten mortgages. However, we also now know that this catastrophe would have happened even if low-income people—those “who shouldn’t have gotten mortgages”—never got *any*. This assertion is not based on policy or fantasy. The mixture that combines these urges and converts them to catastrophe is based on simple rules of corporate finance. Indeed, these rules of corporate finance, absent effective oversight, make catastrophe virtually inevitable.

Why This Matters to CDFIs

This book details how this moment in history came to pass from the point of view of a group of CDFI practitioners who were, at the time, trying to pry open the doors to the very same capital markets that fueled the fiasco. For our purpose here, we can describe CDFIs as private, mostly nonprofit, community-based financial institutions whose mission is to provide capital to their mostly low-income constituents and communities. Many CDFIs, and much of their bank funding, derive from incentives associated with the Community Reinvestment Act (CRA, 1978). Essentially, the CRA set up a rating system that encouraged banks to stop red-lining (excluding) low-income and minority depositors from applying for loans. Banks provided grants, loans, and other forms of financing to CDFIs, which enabled CDFIs to make loans the banks couldn’t make within the context of their regulatory safety-and-soundness constraints. A basic tenet of the CDFI field was that the risk of lending to nonbankable low-income individuals in low-income neighborhoods could be substantially mitigated by attention and discipline at the level of the borrower and lender alike. This remains as a basic tenet for the field.

The CDFI practitioners who watched the boom and bust in the capital markets were participants in the Financial Innovations Roundtable (FIR), a project designed to bring together leaders of the community economic development field for projects to advance the capacity of CDFI practitioners and the wealth of their varied constituencies nationwide.⁸ It was under the auspices, and at the direction of the FIR, that the CDFI practitioners, as a team, pursued the efforts to establish CDFI access to the capital markets.

The FIR team worked on this effort between November 2000 and 2008, when the markets collapsed. For at least the first year after the collapse in 2008, a voluble segment of the public placed the blame for the crisis squarely on low-income homeowners, and the allegedly perverse incentives of the Community Reinvestment Act. The irony was not lost on the FIR team. As one of them said:

You couldn't have made up a more perfect travesty: We, representing the low-income homeowner, we do all the hard work, enforce all the discipline, and we get all of the blame—but none of the benefits! The benefits are gone—they all went to some mortgage broker on Main Street or some Whiz-kid on Wall Street. And, then, after that, there is no one left but us to pick up the pieces. We, the ones with all the standards and none of the money, we get the blame. Perfect.

The objective here is not to place blame on the workings of the capital markets, however. The objective is to capture the value of the capital markets and the lessons that can be learned from their collapse—and to productively relate both to the improvement of CDFI lending and sustainability.

The book focuses this objective by asking two questions:

- Can CDFIs receive unlimited amounts of low-cost *unsecured* short- and long-term funding from the capital markets on the basis of their organizational credit risk?
- Can CDFIs obtain the pricing, flexibility, and procedural parity (“funding parity”) with for-profit corporations of equivalent credit risk?

After eight years of attempts, the FIR team answers both questions with a declarative “Not Yet!”

In explaining the “Not Yet!” the book describes in detail the attempts that the FIR team launched with the hopes of getting to a “yes.” This guidance will, hopefully, encourage CDFIs and others to avoid making the same mistakes when they approach the capital markets again in the future. As part of this discussion, the book also recommends additional steps that can better position CDFIs to get to a “yes” once the markets recover.

But this is more than a guidebook for CDFIs looking to raise flexible, low-cost debt. It is also about comprehending the factors that make the markets move, and advancing the capacity of CDFIs to move with them, should they have the inclination to do so. Advancing this capacity means CDFIs preparing themselves to compete for funding from banks and investors on a conventional basis. The collateral benefit of this preparation is that the CDFIs will, with this expanded capacity, generate greater community impact as well as organizational strength.

To start down this path toward understanding the capital markets and the role they may play for CDFIs requires we first go back to the question at the outset of this chapter: How can a mere two million homeowners bring down the housing market? To answer that question, we must first answer another question: Why did lenders make those loans in the first place?

The facts have already dispensed with the notion that lenders were forced by the Community Reinvestment Act to make bad loans. First, most of the bad loans were made by lenders who were *not* governed by the CRA. Second, for those lenders who were, the safety and soundness of the regulatory regimen always trumps the CRA side; no regulator would allow a bank to put its portfolio at risk just to achieve a better CRA rating. Logic also dictates that, excepting charitable causes, a lender will never lend money unless the loan produces a profit. Investors would not allow it, and to the extent the lender is regulated, nor would the regulator.

The fact is, the only reason there were two million bad loans in August 2007 was that someone was able to make money on them. The capital markets enabled this by accommodating a wide range of mortgage instruments that did not properly reflect the risks of interest rate spikes or the borrower’s true capacity to pay. As the fees were being collected at closing, all of these bad loans looked like good loans.

How two million loans took down the economy (assuming they were the ones that did it) is also a product of the capital markets. Capital markets reward a highly profitable

enterprise with more equity investment; and capital markets are extraordinarily efficient at leveraging equity.

For this intimately tied knot of incentives to work well, one very critical element is needed. Let’s call it the long-term view, prudence, responsibility, or if we wish to get specific, disciplined lending. The market myopia that created the two million (or five million or nine million) defaulted homeowners was not an accident. It was the product of a key trend in the banking industry, a trend that had been accelerating during the past two decades, and that didn’t hit the wall until a competing trend—the unprecedented rise in credit losses, magnified exponentially by the efficiency of the capital markets—blew forth in 2007.

What follows outlines the development of this trend in the banking industry and how this trend inadvertently affirmed the importance of the community development mission, while exposing the frailty and savaging the capacity of the CDFIs that were created to achieve it.

At the Heart of the Crisis, a Conflict between Lending and Trading

We can start with a Wall Street ratio, in use for decades, that demonstrates the inevitability of the current crisis:

Return on Equity	=	Leverage	X	Return on Sales	X	Asset Turnover
Net Profit		Total Assets		Net Profit		Revenues
Net Worth	=	Net Worth	X	Revenues	X	Total Assets

We all know that the investor is keenly aware of the return on his or her equity investment. This return is expressed by the Return on Equity ratio: equity (net assets) divided by net profit, as shown at the left in the equation above. The right side of the equation shows the chief components of the Return on Equity ratio. What the equation tells us is that we can increase our return on equity by (a) increasing our leverage, (b) increasing our profit margins; and/or (c) increasing the speed with which our assets turn over on the balance sheet. For financial institutions that are constrained by regulators to a maximum leverage, and constrained by competitors to modest

profitability, the only way to accelerate the return on equity is by turning over the assets on the balance sheet faster. As we shall see, this is why, when short-term interest rates were driven down following 9/11, that asset-backed commercial paper exploded from the \$600 billion range to the \$1.2 trillion range within four years. It also explains why the creation of the Option ARM and similar exploding mortgages was necessary, and why the deterioration of credit quality in loan portfolios across the nation was inevitable, for rich and poor homeowners alike.

At the heart of this acceleration of assets off the balance sheet is the unavoidable conflict between the lending and trading disciplines. Traditional lenders, stuck with the loans they make on their balance sheets and limited in the amount of capital they can leverage, must find ways to make higher profits in highly competitive markets. Traders, on the other hand, by maximizing the turnover of the assets on the balance sheet while charging fees for each turn, can justify higher leverage limits because of their demonstrable liquidity—and profitability.

The conflict between lending and trading was once clear. A corporate banker and lender in the 1970s, for example, would never use the term “underwrite” in association with the loans he or she originated, booked, and monitored, nor would anyone else in the bank. Instead, they would use the term “credit analysis,” and the loan they made as a result were an “extension of credit,” essentially the bank’s credit. They extended the bank’s credit, and they sat with the extension of credit on their balance sheet until it was repaid. “Underwriting” was a term investment banks used, and it described their analyses of fixed-income securities and equities in preparation for sale to their client investors. They did not sit with the asset on their balance sheet (for the most part); their investors did. It was the investment bank’s job to perform sufficient due diligence to ensure the investors remained happy with the transaction over time. To make sure the investment bank performed this due diligence in a disciplined and objective manner, their investors looked to rating agencies to perform an independent analysis (primarily due diligence on fixed-income securities). Notably, the 1990s corporate lenders did not pay much attention to the rating agency analyses. On the one hand, they didn’t have to satisfy the investment banking clients, and on the other, they believed our own analyses were better. They had to be. After all, they had to live with the loans.

Most CDFIs would likely consider themselves lenders rather than traders. From a mission standpoint, CDFIs mostly feel they *have* to be lenders, not traders. This is a good thing, because at present there really is no choice in the matter. CDFIs simply do not have the tools or the inclination to adopt the trading disciplines. Yet the entire lending

market, from the personal loan up through the community facility, is defined by lenders/investors who do have the choice, and it is their flexibility, pricing, risk, and size that have increasingly defined the markets the CDFIs serve, both to the good and to the bad.

It's worth digging further into this conflict between trading and lending. It may help explain the embarrassment most CDFIs feel about their collective inability to protect their low-income constituencies from bad loans during the recent boom or to provide them aid of any magnitude after the boom went bust. It may also help explain what the marketplace—and those in the CDFI field—can expect to see next.

An Eyewitness Account of the Hostilities

Let's start the investigation with a brief personal history on the subject (where statistics are scarce, experience can help). The traditional tension between lending and trading descended into open hostility in the 1980s when the \$45 billion Continental Illinois National Bank and Trust went into a tailspin in July 1982. The largest domestic corporate lender at the time, Continental was, among other things, moving large portions of oil patch loans up and down its correspondent banking channels in the form of participations. (Participations are a primitive form of securitization.) Penn Square, a shopping center bank in Oklahoma City, originated many of the participation loans.⁹ These participations turned out to be mostly toxic. Following a dramatic run on deposits prompted by whispers about the weakness of the bank's portfolio, Continental Illinois was bailed out by the federal government in the summer of 1984. It was the first bank deemed "too big to fail." Until 2008, it was also, far and away, the largest bailout of a bank by the federal government.¹⁰

I was particularly interested in this series of events because, as group executive for the Bank of New York's Midwest Group, I was responsible for missing the (many) early warning signs at Continental Illinois; at that time, at the Bank of New York, missing a failure of such magnitude generally resulted in a job search. Continental Illinois was one of our larger clients, and as a result of the federal bailout structure, the Bank of New York was forced to lend it a huge amount of money at no spread and to keep it there until the revised bank was deemed safe by the federal regulators. There was one consolation, though; the Midwest Group no longer faced the dominant competitor in the marketplace, and the Bank of New York's business in the territory took off. There was a

positive personal outcome as well; for whatever reason, I did not have to initiate a job search.

But here is where things get really interesting. As the federal intervention with Continental Illinois was underway, our first leveraged buyout, Stokely-Van Camp, appeared at credit committee. There is a fuller discussion in Chapter 3 of why the concept of the leveraged buyout (LBO) is important to CDFIs, but for now, the chief distinguishing feature of the LBO was that the level of corporate equity was dismissed as the chief measure of risk, while the dynamics of cash became the overwhelming focus. The LBO dramatically changed the nature of the conversations at credit committee. By 1986, when the Bank of New York participated in the \$6.5 billion LBO for AAA-rated Beatrice, leveraged buyouts were the major book of business for most corporate bankers.

Several disconcerting events, however, accompanied this massive surge in LBO activity, events that signaled an entirely new approach to lending. Some of the more distinct include:

- The development of loan syndications in which one or two “lead” banks design, assemble, and manage a huge transaction, while dozens of smaller banks sign up for a portion. The loan syndication enabled companies to obtain much larger amounts of money in a much shorter period of time, but it also terminated the proprietary relationship between corporation and the lender, and effectively eliminated the need for bankers who could analyze credit and structure deals to suit the needs of the company.
- New language in loan agreements requiring the corporate borrower to allow any banks in the syndicate to sell their portion of the loan to whomever they chose, whenever they chose. Corporate clients resisted this at first. (Indeed, for a few years, it was a great source of business for the Bank of New York and several other banks, which were willing to commit to the corporate borrower that they would retain whatever portion of the syndicated loan they had signed up for.)
- A dramatic simplification in the terms of the syndicated loan, particularly in the area of financial covenants. This was combined with significantly less remedial authority in the event of default for the banks that signed on for a portion of the syndicated loans. This reduction in triggers and remedies opened up whole new vistas in risk taking for corporate lending, but it also reduced the responsibility

for making prudent credit decisions. Effectively, the smaller banks had to accept the decisions of the lead banks or risk being excluded from future deals.

- An increased potential for conflicts of interest at the senior bank level. The lead management banks for the syndicated loans also provided a range of non-lending products and services for the corporate client, domestically and internationally. A bank serving as a lead manager for a Eurobond offering of a corporation, for example, could waive financial covenants in a syndicated loan to assure the Eurobond holders that the corporation was not in default on any of its obligations. This put the syndicate banks at risk for the (short term) benefit of bond holders (as, in fact, happened).
- The development of a core of lead banks that functioned as market makers and gatekeepers. When the Bank of New York backed out of an LBO owing to a material increase in the level of debt requested (just as the proposal went to credit committee), I was told that the bank would never be asked to participate in a leveraged buyout, “never, ever, ever again.”

On the face of it, the large lead banks had taken the Continental Illinois loan participation activity to a new level and successfully transformed corporate lending to a less regulated form of securities trading.

The expansive approach to risk-taking in the 1980s was not only for corporations. Shoppers, developers, small businesses, and homeowners all heard the “go-for-it” message. In *Money of the Mind*, a colorful history of the “democratization of credit” and the “socialization of risk” in the United States, James Grant summarizes the prevailing attitude toward lending discipline at the time:

If, in the early decades of the century, it was impossible for a working man or woman to secure a loan from a legitimate lender, in the 1980s, he or she could hardly refuse one. The descendants of the clientele of loan sharks became the valued-credit-card “members” of leading banks. In the 1980s, the home-equity loan proliferated, and personal bankruptcy lost its stigma. Nor did the banks limit their search for potential borrowers to the universe of bona fide adults. “Like a lot of mothers, Zabau Shepard has some charge cards,” the *Daily Progress*, Charlottesville, Virginia, reported in 1990, “but she can’t use them. It’s not that her credit has gone to the dogs; it’s that she is a dog.”¹¹

It was obvious to many at the time that the government's bailout of Continental Illinois had, among other things, established a new floor for risk, with "too big to fail" as the foundation. When the stock market crashed in October 1987, it took the LBOs, commercial and residential mortgages, small business loans, and the entire savings and loan industry (S&Ls) down with it. It also took down several of the banks that had served as lead managers for the LBO business (including the one that had declared the Bank of New York expelled from the LBO business forever). Fortunately, the lead commercial banks disappeared through merger rather than bailout, but the taxpayer tab for the bailout of the S&Ls reached \$300 billion.

Meanwhile, back at the Bank of New York, my Midwest group experienced no delinquencies, defaults, or write-downs. We had only approved five of the twenty-six LBO deals offered in the territory over a period of four years. On the face of it, the bank had done what a lender is supposed to do: evaluate credit risk, allocate credit accordingly, and stay with the loan until it pays off. Yet there was a problem: although the bank's deals were not among the worst, we also turned down quite a number of *good* deals. These good deals would not have been done if all the banks had been as conservative as the Bank of New York.

There it is in a nutshell: the trade-off between the lending and trading disciplines, with the former enjoying higher-quality portfolios while the latter experiences lower-quality portfolios. The former provides less financing and the latter produces much more financing. Prudence versus liquidity in the marketplace. Quality versus quantity.

However, before we take sides, let's revisit the Community Reinvestment Act, which helped define the community development mission for CDFIs. It is important to remember that the Community Reinvestment Act was created at a time when the prudent lender ruled the roost, and it was created precisely because the banks were not lending as much as they could (or should) to bank depositors who had less income or equity in their homes than the banks were comfortable with. "Prudence" after all, is a highly subjective term, one that is very hard to quantify, and very easy to abuse.

The New Normal: In Lending, CDFIs Are the New Conservatives

Over the past 20 years, the trading discipline has achieved dominance in the financial sector primarily at the expense of the lending discipline.¹² Fundamental to this

development is that, because of technology, the cost of delivering credit from a trading platform has dropped dramatically, even as the ability to source cheap funding has grown exponentially.

In a curious twist of fate, the devastating collapse of the credit markets in 2008 is a tribute to the magnitude of this triumph of trading over lending; the fact that a debt obligation could be implemented under a pooling and servicing agreement that actually prevents the investor from working out the best deal on a defaulted loan would astonish a traditional lender. Astonishing to the traditional lender as well would be a loan (for example, a 2/28 first mortgage, with a teaser rate for the first two years) that puts at risk the very credit criteria (such as the credit score) that justified making the loan in the first place. However, these new loans were not designed for the borrower or, long term, for the investor. They were designed by the trader, and they were structured simply to facilitate transactions and the flow of cash through the commercial paper conduits, mortgage-backed securities, and collateralized debt obligations—for a fee. If this sounds familiar, it is.

Without doubt, the most striking feature of the financial era that ended in the autumn of 1929 was the desire of people to buy securities and the effect of this on values. But the increase in the number of securities to buy was hardly less striking. And the ingenuity and zeal with which companies were devised in which securities might be sold was as remarkable as anything. ...

The investment trust did not promote new enterprises or enlarge old ones. It merely arranged that people could own stock in old companies through the medium of new ones. Even in the United States, in the twenties, there were limits to the amount of real capital, which existing enterprises could use or new ones could be created to employ. The virtue of the investment trust was that it brought about an almost complete divorce of the volume of corporate securities outstanding from the volume of corporate assets in existence. The former could be twice, thrice, or any multiple of the latter. The volume of underwriting business and of securities available for trading on the exchanges all expanded accordingly. So did the securities to own, for the investment trusts sold more securities than they bought. The difference went into the call market, real estate, or the pockets of the promoters. It is hard to imagine an invention better suited to the time or one better designed to eliminate the anxiety about the possible shortage of common stocks.¹³

Nevertheless, whatever else can, should, and will be said about the quality of the transactions that fed the commercial paper, mortgage-backed securities, and collateralized debt obligation markets during the past decade, the ascendant trading disciplines *did* deliver money to those who could not have received it otherwise, in places that had remained previously untouched by the conventional lender. Say what we will about the *quality* of the money flowing into to low-income borrowers prior to 2007, the astonishing *quantity* was a direct product of the lower cost of lending in their neighborhoods. This lower cost, in turn, reflected the new underwriting, servicing, portfolio, and asset/liability management technologies adopted by the conventional lending sector, technologies that elevated the importance and reach of the trading function. And while, in the end, the low quality funding the trading disciplines produced wrecked whole communities, it still, like the LBOs in the 1980s, provided funds to many more who would not otherwise have had access to funding at all.

Thus, confoundingly, the mechanisms that did the most to promote the collapse of the housing and credit markets are also the very same mechanisms that make it possible for people without net assets or high incomes to build wealth! These mechanisms can be best friends to the CDFI mission. Perhaps that is why so many people thought that low-income homebuyers caused the crisis. They would be wrong: there is a balance between the good that these mechanisms can do and the bad; a balance which the short term players during the recent boom—players who, for the most part, did not intend to wreak the havoc they wrought—had no incentive whatsoever to build or maintain.

It is not worthwhile to speculate here on what new floor for risk will emerge as a result of the current federal financial bailouts. History suggests we will return to prudent lending disciplines for a while, as we did from 1979 to 1981 (domestically), and 1991 to 1993. Yet it also tells us that, in time, perhaps in four to five years, the market will pursue even higher levels of risk and these levels, driven by the appetite for trading profit, will become the new norm. Inevitably, there will be new investors and better ways to access funding for it all, and equally inevitably, there will be another crash of some sort.¹⁴

There is another prediction we can safely make: when the next crash comes, it will not be caused by lax lending disciplines among CDFIs or the greed of CDFI constituencies.

What can be concluded from this? One of the truly stunning facts of the new lending order is that CDFIs are the new conservatives! Although the objective of providing capital to low-income populations would normally be identified as a liberal impulse, the

method that CDFIs use to provide it is far, far more conservative than those employed by the conventional lender. Implicit in the work CDFIs do is the belief that lending to low-income constituencies requires more discipline not less, and that such higher discipline is required of both borrower *and* lender. It's a level of diligence, prudence, and care CDFIs can enforce, and which, in fact, defines what a CDFI is.

Inevitably, however, CDFIs can only engage this level of lending discipline as long as they can find a way to pay for it. Unfortunately, funding tends to be limited to a combination of grants, social investment, and ongoing improvements in efficiency. As the latest boom and bust in the lending business has amply demonstrated, the level of discipline CDFIs insist on, is *not* a level that the conventional market-based platform is willing, or perhaps, able, to support.

Conventional Lenders and Low-Income Clients Will Force a Choice on CDFIs

In a recent Federal Reserve Board publication, Bob Schall, president of Self-Help Ventures Fund is quoted as saying, "In reality, ...we're being pushed into securitization because of a lack of success on the portfolio side."¹⁵

This conflict between lending and trading is of such critical importance for CDFIs because despite what CDFIs would prefer, it is no longer possible to stay strictly on the lending side of the aisle. There are two fundamental pressures forcing CDFIs to adopt some combination of trading disciplines:

- *Competition for the constituent's future.* Currently, the trading mentality exerts an irresistible impact on both sides of every lender's balance sheet. It was the trading disciplines that enabled conventional (and predatory) lenders to reach low-income constituents in the mortgage market at an exponentially greater magnitude than CDFIs could provide, with products that assumed greater risk at often lower interest rates. CDFIs have witnessed the results and are there to pick up the pieces. In many communities, CDFIs are starting all over again. To present the constituents with a better option the next time around, CDFIs will have to adopt some of the tools that conventional lenders used and will use to deliver products and services at scale.

- *Sustainability.* There has never been a proportional balance between the demand for prudent lending among low-income constituencies and the amount of grant and social investment available to support it. If anything, the gap between the two continues to rise. The only alternative for CDFIs is to improve the cost-benefit ratio. Trading platforms enabled conventional lenders to obtain market-based financing at lower rates than CDFIs could obtain, often lower than even social investors could provide. The technology of the trading platforms enabled the conventional lenders to dramatically reduce the cost of “underwriting,” closing, and servicing loans. To make better use of what subsidy CDFIs have, they will have to adopt some of the technologies and access some of the markets that fueled the lenders who swept through their low-income communities.

Adopting trading disciplines is not without risk. Making any kind of transition will involve challenges. One thing we do know, however. The conventional lender will be back in the mortgage market, the small business market, and indeed all of the markets to which CDFIs lend. It’s only a matter of time.

Why is it only a matter of time? As we shall see, it is not credit risk that they fear. It is the size of the deal and the idiosyncrasy of the credit. Inevitably, it is only a matter of time before they solve both, once again. Although CDFIs welcome the conventional lender and the volume of capital it brings to low-income communities, they must always be aware of the tipping point: that is, the point at which rational expectations of the conventional lender disappear and the loan is transformed into a trade, to the ultimate distress of borrower, lender, and investor alike. There is no known antidote for it. Hence, the community development sector must find ways to prepare the CDFI model for competing with the conventional lender for the low-income constituent. To remain entirely on the lending side, the CDFI is choosing to limit its mission, ration its benefits, and remain on the margins of lending in its community. Conversely, by making the choice to incorporate trading disciplines into its model, while keeping its commitment to prudent lending, the CDFI is stepping up to protect the constituent and maintain growth and stability in the community. The challenge is to find the right balance for achieving the mission.

The Landscape Post-Reckoning

In July 2009, almost two years since the meeting at the Treasury Department, a small team from NeighborWorks America, the Community Reinvestment Fund, members of the Fair Mortgage Collaborative, a securities lawyer, and a ratings specialist paid a visit to two of the rating agencies. Their purpose was to obtain an outline of the information needed to rate a collateral trust platform that would be set up to fund first and second mortgages for new low-income homebuyers. The team was working with a large investor who was willing to invest in first and second mortgages as long as they were, collectively, rated AAA.

The reason for the effort: the disarray among mortgage insurers, combined with wide-ranging reductions in the maximum allowable levels of loan-to-value and debt-to-income ratios had priced new homebuyers with limited savings out of the home purchase market. This squeeze affected not only the low-income homebuyer with a credit score under 680, but any low-income homebuyer who did not have at least 5 percent of the purchase price on hand. This massive reduction in access to credit came at a time when new low-income homebuyers with decent credit scores were needed the most—to purchase the houses that were falling so relentlessly into the national dustbin of other “real estate owned.”

This disarray of the market was reflected in the interest rates. AAA-rated tranches of securities backed by second mortgages were running north of 12 percent, at a time when the 30-year mortgage rate was 5.64 percent, Ginnie Maes were 4.47 percent, the 20-year Treasury rate was 4.37 percent, the 10-year Treasury rate was 3.63 percent, the prime rate was 3.25 percent, 30-day LIBOR (London Interbank Borrowing Rate) was 0.31 percent, 30-day commercial paper was 0.19 percent, and the federal funds rate was 0.17 percent.¹⁶ Were AAA-rated second mortgages really that bad? Not for the community development sector. Delinquencies (60 days past due or more) on second mortgages held by Neighborhood Housing Services of America were running under 9 percent at the time, and at the Federation of Appalachian Housing Enterprises, the delinquencies were running under 2 percent. These were lower than the rates on conventional first-mortgage ARMs. The major investor the team was working with knew this and had offered upward of \$100 million to fund the second mortgages—if they could, with appropriate credit enhancement, achieve an AAA rating.

The team was also had an eye on the bigger picture. Obtaining a rating was not only essential for gaining access to the capital markets via the proposed collateral trust platform, it was also essential to opening up the wholesale side of the banks. CDFI industry access to the wholesale side of the banking industry had been virtually nil. Yet it was the wholesale side of the bank that provided the lowest cost credit facilities often through the most sophisticated credit structures, using either the capital markets or its own balance sheet. Perhaps the best evidence of the triumph of underwriting and trading over credit analysis and lending was the fact that the bank regulators had made rating agency criteria the fulcrum of risk-based capital allocation for the banks (as we show in the chapters that follow, essentially CDFIs need the same imprimatur from the rating agencies, whether assets are placed with institutional investors or with the wholesale side of their banking partners).

The team knew that nothing immediate would be forthcoming in their trip to the rating agencies. One of the agencies had not responded to the request for a visit. A second agency had acceded to a visit, but was not familiar with CDFIs. The third rating agency had just promulgated a proposal on how it should evaluate mortgage-backed securities that were funding pools of first mortgages. The proposal was out for comment. The rating agency had not begun to consider new rules for second mortgages.

The responses of the two rating agencies the team visited were strikingly different. One of the agencies indicated, quite emphatically, that it would view any second mortgages the team assembled as it viewed affordable home mortgages generated by the state housing finance agencies (HFAs). This would be a positive development in one way: it would save the team from having to develop extensive data on the performance of first and second mortgages originated and serviced by the CDFIs participating in the collateral trust platform.

However, such a position was negative in several other ways. There was, for example, no interest in studying the factors that make CDFI loans perform better than the HFAs; investors, under current conditions, were distinctly unenthusiastic about HFA bonds; and furthermore, there were very few HFA bonds that the agency had rated, which included large aggregations of second mortgages. The response from the other rating agency was much more encouraging. Over a period of several hours, they asked penetrating questions about the CDFI mission, the CDFI field, the manner in which CDFIs originate and service loans, and the size and structure of the proposed collateral trust platform. They made some suggestions for how the trusts could be structured to achieve the best rating. Finally, they asked for the performance data, indicating the size

of the sample and the specific lines of data they would need in order to arrive at a conclusion about credit quality.

The team, surprised by the opportunity to move forward, quickly got to work. Over the ensuing weeks, the data points were disseminated and inquiries made to a number of CDFIs and CDFI groups. The result: the data that the rating agency would need to prove the higher-quality performance of first and second mortgages originated by CDFIs was simply not available. The initial cost estimates to develop the data ranged from \$35,000 to more than \$500,000, with the time frame for capturing and cleaning the data stretching out over a year. In short, what the CDFIs knew to be true anecdotally could not be proven without an extensive effort. Given the cost and the likelihood that the mortgage market would continue to be weak, the effort was put on hold.

The conclusion? To gain access to the capital markets and the wholesale side of the banks, there must be a headset change not only for the rating agencies and institutional investors, but also for the CDFI field itself. At the very least, CDFIs must start being attentive to capturing market-compatible data on the work they do. However, there is a lot more to it. To achieve the kind of funding parity CDFIs warrant, they must also demonstrate their capacity to sustain their model and to continue providing their services with the quality their mission embraces.

This book is designed to address the ways in which both headsets can be changed for the betterment of the CDFI mission.

CHAPTER 2

Missing the Bus

“One of the repeated frustrations among community development lenders is that their assets perform well (loan losses are rare) but are priced as though they are risky. As Annie Donovan asked, how can we “get closer to true capital markets pricing for the credit enhancement that is being put in those deals? We believe we have something tantamount to a AA risk and we’re not necessarily getting AA pricing right now.” Nancy Andrews also commented on this point: “We’ve done something on the order of half a billion dollars of lending in 20 years and we’ve lost \$190,000. So, you get some kind of sense of the underlying quality of the credits.”

— David Erikson, Federal Reserve Board, San Francisco¹⁷

The Mission for Obtaining Capital and Liquidity for CDFIs: Funding Parity

How do we structure a funding vehicle that enables Community Development Financial Institutions (CDFIs) to gain access to the kinds of financing that for-profit corporations of equivalent credit quality enjoy in the normal course of business? Corporate treasurers managing the finances of much less creditworthy entities enjoy far more flexibility and get far better pricing. Why can’t CDFIs get the same deal? It certainly can’t be because the field is mission driven.

Almost from the inception of the Financial Innovations Roundtable (FIR) in November 2000, the participants knew that the CDFI field had to address three imperatives to get to scale and generate meaningful impact:

- Place CDFI debt with the capital markets
- Standardize CDFI financial reporting and analysis
- Improve CDFI risk management.

The second two were necessarily predicates of the first. The FIR team arrived almost immediately at a conclusion: if CDFIs were going to get more money, they were going to get it from the capital markets on terms that were compatible with the markets' needs as well as their own. That was the mission.

The efforts of the FIR team to achieve this mission started in earnest in May 2001, with the concept of a "Mini-Fed" (see chapter 4). These efforts were put on hold in April 2008, as the team was putting together the Commercial Paper Co-op (see chapter 6). At that point the team recognized that the financing mechanisms required to implement the Co-op had essentially ceased to exist. The team's primary objective—placing debt based on organizational credit risk with the capital markets—had become impossible to achieve.

However, the collapse of the FIR beachhead was not the end of the mission. If CDFIs were to get back into the forefront of assisting their constituencies now and in the future, they would need access to the stream of low-cost, long-term funds found in the capital markets. The mission had to be pursued in whatever way possible, even while the markets were paralyzed. Without moving forward, the room for CDFIs in the lending business when the markets recovered would be little to none. Therefore, the FIR team stepped back and identified the steps CDFIs could do to prepare themselves while awaiting the market recovery.

This, then, was the revised mission for achieving funding parity for CDFIs following the collapse of the markets: standardize financial reporting and analysis, and improve risk management to position CDFIs for eventual market recovery. In the process, CDFIs would become much more conversant with what is "under the hood" in the wholesale side of the banks as well as the capital markets. They would pursue this objective not only because funding parity requires a "win-win" structure with partners in the institutional sector, but because CDFIs will need to know where, when, and why the next threat to their constituents is likely to appear, and how to meet the challenge when it does.

Before we continue, let's take a quick look at what we mean by the three items in the book's title: CDFIs, capital markets, and organizational credit risk.

Key Definitions

CDFIs

Community Development Financial Institutions (CDFIs) are community-based and staffed entities whose mission is to provide capital to individuals, businesses, and projects that do not otherwise have access to financing. To be certified by the CDFI Fund at the U.S. Department of Treasury, an entity must meet all of the following requirements:

- Be a legal entity at the time of application
- Have a primary mission of promoting community development
- Be a financing entity
- Primarily serve one or more target markets
- Provide development services in conjunction with its financing activities
- Maintain accountability to its defined target market¹⁸

According to Opportunity Finance Network, approximately 1,250 CDFIs currently operate in the United States, including:

- More than 500 community development loan funds
- More than 80 venture capital funds
- More than 290 community development credit unions
- More than 350 community development banks¹⁹

According to the CDFI Data Project, which collects statistics on 505 of these entities, CDFIs' total assets at the end of 2006 were approximately \$21.3 billion, and loan volume was \$4.75 billion. According to the CDFI Data Project:

The benefits CDFIs bring to communities range from job creation and increased homeownership rates to helping individuals open their first bank account, to improved financial literacy and enterprise skills, and to ready access to fairly priced financial services in markets not typically served by regulated financial institutions.²⁰

The CDFI Data Project identifies the CDFI client characteristics as follows:

CDFIs are successful in reaching customer groups that others overlook—low-income families, minorities, and women, in particular. Seventy percent of CDFI clients are low income, 58 percent are minorities, and 51 percent are women. Credit unions and loan funds served the highest percentage of low-income clients (74 percent). Credit unions also had the highest percentage of minority and female clients, showing their reach and accessibility to a broad spectrum of typically underserved populations.²¹

As noted in Chapter 1, a fundamental tenet of the CDFI field is that the risks (real or perceived) of lending to low income constituencies in low income communities can be substantially mitigated by care and discipline at both the borrower and lender levels. The cost of this attention, which often translates into counseling, technical assistance or one or another of many forms of support, is high relative to what conventional lenders provide. Hence, the cost of delivery of loan products, when all costs are considered, tends to be higher, often much higher, than that in the conventional sector. The result is that most of CDFIs require some level of subsidy to pursue their mission.

Subsidy is derived in the form of grants and low-cost debt from banks, foundations, social investors, local agencies, and a range of federal agencies, including the CDFI Fund, the Appalachian Regional Commission, the Economic Development Administration (at the Department of Commerce), the Department of Housing and Urban Development, the Small Business Administration, the Department of Education, the Office of Community Services (at Health and Human Services), and the Department of Agriculture (USDA). The Federal Home Loan Banks, Fannie Mae, and Freddie Mac have also been involved in providing various forms of subsidy. Over the past 15 years, banks in particular have participated with CDFIs in expanding financing and other services to the targeted low-income constituencies and communities. While much of the initial participation was in response to the Community Reinvestment Act (CRA) of 1978, banks have also found ways to provide credit and services to the sector profitably and prudently on a direct basis.

The Capital Markets

In their widely used textbook *Corporate Finance*, Ross, Westerfield, and Jaffe distinguish two kinds of financial markets: money markets and capital markets. Money markets offer debt securities that will pay off in the short term (usually less than a year). Capital markets are for long-term debt (with a maturity at greater than one year) and for equity shares.

The chief benefit of obtaining funds in the capital markets is that the relationship between borrower need and investor appetite is simple and nearly direct. As a result, the intermediary cost can be relatively low while the availability of funds can be exceptionally high; indeed, the investment capacity of the capital markets is measured in the trillions.

For the purposes of this book, money market and money market instruments will be included as a subset of the general term *capital markets*. The reason for including the money market as part of the capital markets is that many of the assets funded in the money market are, in fact, long-term assets. Moreover, vehicles in the money and capital markets are structured to move assets from one vehicle to another with relative ease. Interest rate swaps and other derivatives have facilitated this interchangeability. As with the capital market, the cost of borrowing in the money market can be extraordinarily low (some instruments are currently priced at around zero percent), while the availability of funding can also be measured in the trillions of dollars.

CDFIs have not had access to the money or capital markets in any way other than through the sale of specific asset classes. But even these sales have been privately, rather than publicly, placed, and are modest in scale at best. Essentially, to date, there has been no ability to access these markets for the purpose of obtaining unsecured debt based on CDFI organizational credit risk.

To the extent that CDFIs have been able to source unsecured funding based on their organizational credit risk, it has come primarily from the Community Reinvestment Act (CRA) departments within their relationship banks. These banks can and do provide short- and medium-term financing of CDFI working capital needs. However, the CRA bank financing is neither as cheap nor as flexible as either the bank facilities on the wholesale side of the bank or the other instruments in the money market that conventional lenders and other for-profit entities can obtain.

As we shall see, because of the close existing relationships with the banks—the major players in the money markets as well as the CDFI field—the route for CDFIs to gain access to the capital markets for organizational credit risk is likely first by moving from the CRA side of the banks to the wholesale side.

Securitization

While on the subject of the capital markets, another term needs to be defined: *securitization*. According to the book *Securitization of Credit Inside the New Technology of Finance*, securitization is:

“Credit securitization is the carefully structured process whereby loans and other receivables are packaged, underwritten and sold in the form of securities (instruments commonly known as asset-backed securities).”

“Credit securitization isolates the loans from the originator’s balance sheet.”

“Credit securitization typically splits the credit risk into three or more “vertical” tranches and places it with institutions that are in the best position to absorb it.”

“Credit securitization also segments interest rate risk so that it can be tailored and placed among the most appropriate investors.”²²

Structured Finance

Another term that will be encountered is *structured finance*. According to Moody’s Investors Service:

Structured finance is a term that evolved in the 1980s to refer to a wide variety of debt and related securities whose promise to repay investors is backed by a) the value of some form of financial asset or b) the credit support from a third party to the transaction. Very often, both types of backing are used to achieve a desired credit rating. Structured financings are offshoots of traditional secured debt instruments, whose credit standing is supported by a lien on specific assets, by a defeasance provision, or by other forms of enhancement. With conventional secured issues, however, it is generally the issuer’s earning power that remains the primary source of repayment. With structured financings, by contrast, the

burden of repayment on a specified security is shifted away from the issuer to a pool of assets or to a third party.

Securities supported wholly or mainly by pools of assets are generally referred to as either mortgage-backed securities (mortgages were the first types of assets to be widely securitized) or asset-backed securities, whose collateral backing may include virtually any other asset with a relatively predictable payment stream, ranging from credit card receivables or insurance policies to speculative-grade bonds or even stock."²³

Asset-Backed Commercial Paper

This book will also discuss the form of funding that came to dominate the capital markets during the five years leading up to 2007: asset-backed commercial paper. According to *Fitch's Report*:

An asset-backed commercial paper (ABCP) program is composed of a bankruptcy-remote special-purpose vehicle, or conduit, that issues commercial paper (CP) and uses the proceeds of such issuance primarily to obtain interests in various types of assets, either through asset purchase or secured lending transactions. An ABCP program includes key parties that perform various services for the conduit, credit enhancement that provides loss protection, and liquidity facilities that assist in the timely repayment of CP. The repayment of CP issued by a conduit depends primarily on the cash collections received from the conduit's underlying asset portfolio and a conduit's ability to issue new CP.

The main risks faced by ABCP investors are asset deterioration in the conduit's underlying portfolio, potential timing mismatches between the cash flows of the underlying asset interests and the repayment obligations of maturing CP, a conduit's inability to issue new CP, and risks associated with asset servicers. To protect investors from these risks, ABCP programs and the asset interests financed through them are structured with various protections, such as credit enhancement, liquidity support, and CP stop-issuance and wind-down triggers.²⁴

Loan-Backed Commercial Paper

Finally, because the FIR team's initial efforts in the capital markets envisioned a platform that obtained funding for unsecured loans to CDFIs, a quick commentary on the key attractions of *loan-backed commercial paper* is necessary:

Loan-backed commercial paper programs satisfy many important participant needs. The sponsoring bank that will be referring its customers to the program sets up a commercial paper program with an unaffiliated special-purpose corporation as the issuer. As a result, the bank can continue to originate loans and offer a competitive funding source to eligible clients.

Loan-backed commercial paper programs allowed A-3 and A-2 issuers to fund through A-1+ or A-1 rated programs eligible for money market funds... amendments to Rule 2a-7 have prompted major changes to the original match-funded concept of these programs. The new proposals would require treating borrowers whose loans represent 10 percent or more of a conduit's assets as issuers of a commensurate share of the conduit's debt. Each such conduit and borrower would have to be tracked as issuers by money market fund investors already limited to investing no more than 5 percent of their total assets in securities of any one issuer. In order to manage these new limitations, a number of strategies are increasingly being employed by conduits to grow the conduit borrower base in ways that can dilute individual borrower concentrations to levels below the proposed 10 percent hurdle.²⁵

Organizational Credit Risk

A good place to go for a definition of *credit risk* is the federal depository regulatory agencies. One of the more compelling sections of the Government Accountability Office (GAO) *Report to Congressional Requesters* in 2000 provides several definitions, including these from the Federal Reserve²⁶:

- *Credit risk* arises from the potential that a borrower or counterparty will fail to perform on an obligation.
- *Market risk* is the risk to a financial institution's condition resulting from adverse movements in market rates or prices such as interest rates, foreign exchange rates, or equity prices.

- *Liquidity risk* arises from the potential that an institution will be unable to meet its obligations as they come due because of an inability to liquidate assets or obtain adequate funding (referred to as “funding liquidity risk” or that it cannot easily unwind or offset specific exposures without significantly lowering market prices because of inadequate market depth or market disruptions (“market liquidity risk”).
- *Operational risk* arises from the potential that inadequate information systems, operational problems, breaches in internal controls, fraud, or unforeseen catastrophes will result in unexpected losses.
- *Legal risk* arises from the potential that unenforceable contracts, lawsuits, or adverse judgments can disrupt or otherwise negatively affect the operations or condition of a banking organization.
- *Reputational risk* arises from the potential that negative publicity regarding an institution’s business practices, whether true or not, will cause a decline in the customer base, costly litigation, or revenue reductions.²⁷

Our interest is in the first level of risk—credit risk—and the capacity to “perform on an obligation.” An old-fashioned banker would say that the capacity to perform on an obligation would be determined by the strength of at least two sources of cash: income or revenue generated in the normal course of business and sale of assets in liquidation. Both sources of repayment are readily verifiable; cash from income or revenue can be confirmed in the individual’s tax filing or the operating statement of the business, and cash from liquidation can derive from the value of the net assets on the balance sheet.

What’s missing in the old-fashioned banker’s approach, though, is an analysis of the actual flows of cash; that is, what the individual or the business has actually done with cash in the past, and what it intends to do with it in the future. This can be a fatal omission. In fact, the essence of creditworthiness begins not with repayment of obligations, but rather with the decisions and actions that prompt the borrower to incur the obligations in the first place. Is the borrower doing something worthwhile? Is the risk reasonable? Is the amount appropriate? Is the borrower able to achieve the objectives more or less as originally intended? If not, is the new set of objectives worthwhile? Is the new level of risk reasonable? These are questions that go to the issues of asset quality, flexibility, liquidity, management capacity, and the other critical components that define credit risk. The old-fashioned banker could make up for the potentially fatal omission of this kind of analysis by simply restricting loan approvals to

borrowers with high levels of income and collateral—and that’s what the old-fashioned banker did, prompting the once-common adage that “bankers lend only to those who don’t need it.” It’s a tradition that also helped prompt the Community Reinvestment Act.

This book addresses organizational credit risk for CDFIs. Organizational risk is very different from asset-specific risk. With asset-specific financing, investors look to the liquidation of the secured asset for repayment. Although the CDFIs’ assets are a critical part of our analysis, they are not our primary focus. Our primary focus is on funding the operation of the organization, which often involves decisions and actions that are not associated with a hard asset.

Major strides have already been made by the community development sector in getting assets, both financial and real estate, into the capital markets; for example, business loans aggregated by the Community Reinvestment Fund, mortgages aggregated by Neighborhood Housing Services of America, mortgages made by state housing finance agencies, and loans guaranteed by the Small Business Administration. Asset-specific funding is typically the way in which organizations that are either weak (such as receivables factoring) and/or in higher-risk industries (such as equipment leasing) receive funding.

However, the focus here is on funding the organization at the organizational level; more specifically, on the conversion of assets into cash and the conversion of that cash back into new assets with money to spare for the sustainable operation of the business. The key to credit risk in this process rests with the organization’s management. It is management that defines the assets and the operational activity associated with them, determines the timing and magnitude of their delivery, and arranges the funding that makes it all possible. The organizational credit risk is all wrapped up in how management performs these essential tasks. With organizational risk, investors look to the capacity of management to operate their business (regardless of asset class) in a prudent, effective, and successful manner.

The essence of credit analysis, then, is to identify the decisions that management makes and assess the quality of the implementation of these decisions in the context of organizational objectives and market conditions. The issue of repayment of obligations incurred is secondary to—and derivative of—the evaluation of these factors. Hence, the best form of credit analysis is a mirror of management intentions, decisions, and actions. There is a logical corollary to this: the best form of credit analysis incorporates the same metrics used by the organization to manage the business

of its mission. Therefore, for the manager and the investor, organizational credit risk is one and the same.

For most sectors, the connectivity of the metrics that management uses to run the operations and the metrics used by lenders and investors (and rating agencies) to evaluate organizational credit risk is a given. Indeed, for those in the single-family mortgage business—where a borrower’s credit is summarized in a credit score that interprets the borrower’s behavior with cash—it is a rule. However, such is not the case in the CDFI sector, where there is a separation between the metrics that management uses to make and implement decisions and the metrics available to the credit analyst who must interpret them for the investor.

With these brief definitions set forth, we can see the mission. The intent is to drive CDFIs more widely into the money markets and introduce them to the capital markets by elevating and standardizing the manner in which their organizational credit risk is captured and quantified, as well as devising vehicles that obtain unsecured low-cost, flexible funding for the organization’s needs.

What the Corporate Treasurer Gets from the Wholesale Side of the Bank

A Treasurer of a midwestern Fortune 500 company offered this in response to a presentation on interest-rate swaps in 1984. “Listen, you can devise all the fancy new debt instruments you want, with all the bells and whistles and whatever else, but if I do nothing else except borrow short term for the rest of my career, I will come out ahead of whatever you make up— probably way ahead!”²⁸

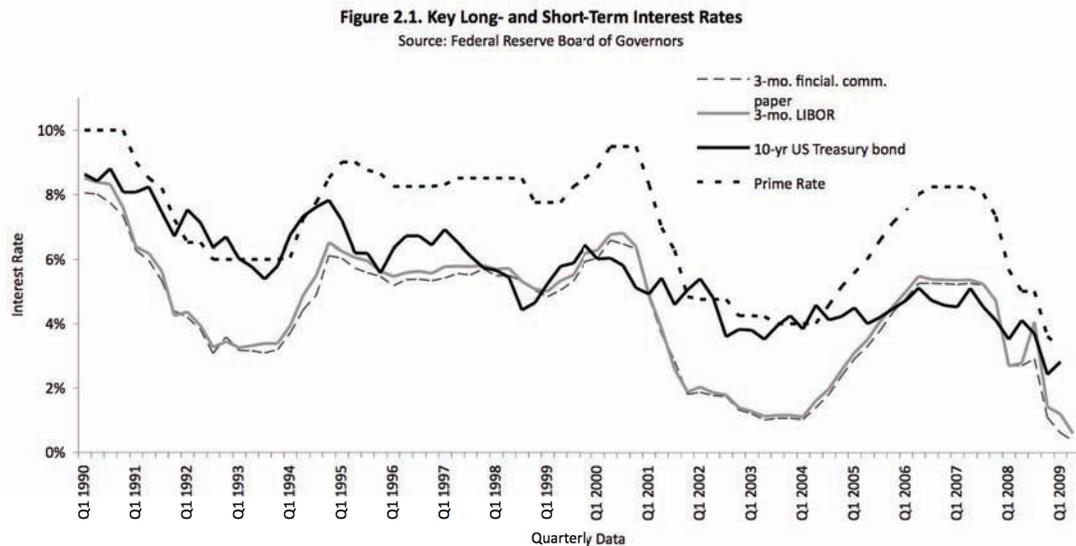
If the treasurer of a Fortune 500 company can borrow short-term forever, why can’t CDFIs? For an understanding of the challenge of *funding parity*, it’s necessary to examine the wholesale side of CDFIs’ banking partners. For an instructive example, consider an actual unsecured bank credit facility provided to an A-rated nonbank lender, Brand X, 25 years ago (before the widespread use of special-purpose vehicles and the securitization of assets):

Type	Line of credit
Purpose	Support the issuance of commercial paper
Rate	Prime, LIBOR plus 50 basis points, CDs plus 62.5 basis points, Fed Funds plus 75 basis points as available
Fee	.25 percent
Maturity	Annually renewable
Amount	\$25,000,000

The \$25 million facility was one of a number of similar facilities that Brand X arranged to support its commercial paper issuance. The treasurer of Brand X had no intention of borrowing under this particular line of credit or any other. The intention was to borrow in the commercial paper market. (See Appendix A for a discussion of commercial paper.) The treasurer could borrow for up to 270 days at a time, but typically borrowed for 30 days and rolled the paper over (refinanced) at maturity. As we can see from Figure 2.1, the reason for borrowing in the commercial paper market was that it was cheaper by at least 50 basis points—and often more—than most of the pricing alternatives provided even by the wholesale side of the bank. The reasons include:

- Generally speaking (until the last 24 months), the commercial paper rate tracks with the federal funds rate and LIBOR (London Interbank Borrowing Rate), with LIBOR coming in at 10–15 basis points higher (over the past decade) than commercial paper.
- The bank lending to Brand X at federal funds rate or LIBOR charges a spread on top of this base rate—often in the 50 basis-point range—to generate income.
- Brand X borrows in the commercial paper market at the commercial paper market rate.

By borrowing for 30 days instead of 90 or 270, the treasurer of Brand X was able to reduce the commercial paper cost even further. Given the 50 basis points the banks charged as a spread over LIBOR, Brand X was saving a minimum of \$125,000 a year vis-à-vis the other bank options, and as noted, the savings over the LIBOR alternative were another \$25,000 to \$37,500 higher than that, owing to the average 10 to 15 basis point



difference between commercial paper and the LIBOR rate.

By providing the line of credit, the bank essentially guaranteed to the commercial paper investors that they would be paid under all circumstances. In return for providing its credit standing to the Brand X commercial paper, the bank received a fee of .25 percent. In the event of a collapse of the commercial paper market, as happened in the late 1960s, the mid 1970s, and 2008, Brand X could turn around and borrow from the bank at one of the rate options (federal funds and LIBOR) provided by the wholesale side of the bank

The increased use of commercial paper was not only about rates. Treasurers found the commercial paper market more responsive and more flexible. In addition, they did not have to rely on a relationship with a small circle of banks for their funding. They had access to a much wider market that tended to be less intrusive, if not more objective, precisely because there was no ongoing relationship. Large sums could be raised almost instantaneously. Disclosure was focused and standardized. And, of course, the financing was unsecured.

The unsecured feature led to two other significant cost benefits: legal and administrative. The documentation for this kind of facility consisted of an offering letter from the bank and a promissory note signed by the corporate customer. The bank letter consisted of two or three paragraphs outlining the purpose of the facility and the ability of the bank to cancel the facility at any time. The promissory note referenced the amount, the borrowing procedures, the interest rates, and the fact that the facility could be terminated on demand. Renewal of the facility required no change in legal or administrative handling.

Because of these attractions, the banks themselves issued commercial paper to fund operating needs and other purposes for which domestic deposits, LIBOR, and federal funds financing were not aligned. They borrowed through their bank holding companies.

The use of bank credit facilities to support issuance of paper to investors was not confined to the short term, however. Banks also provided credit support to longer-term debt and bond issues through a range of revolving credits and term letters of credit. Projects were financed, municipal and revenue bonds were funded, and long-term corporate expansion was supported through this mechanism. To be sure, banks were not—and are not—by nature of their deposits and leverage disposed to carry extensive amounts of long-term credit risk exposure. As a result, these longer-term credit enhancements could get expensive. However, using the bank's credit rating was a very attractive alternative to corporations, particularly those that did not have sufficient size or credit quality to obtain their own investment grade rating. (CDFI executive directors: take note!)

One of the more intriguing features of the Brand X commercial paper program was that its assets consisted of a variety of consumer loans—new car loans, used car loans, second mortgages, as well as personal loans. This meant that the average life of the assets was well in excess of the 270-day limit for commercial paper as well as the 30-day term of its regular rollover of borrowings. Although Brand X did issue bonds to finance a portion of its assets, it did not choose to match-fund all of them. Effectively, they were exposed to repaying their capital market obligations before the loans were repaid (commercial paper and bond liabilities on a weighted average maturity basis). Fortunately, the bank line of credit, which was renewed annually well in advance of maturity, assured the commercial paper investors that this mismatch would not be a problem. The bank would fund them regardless of what happened to the assets, or to Brand X for that matter.

There is another intriguing fact associated with Brand X, one in which CDFIs should take particular note: at one point in recent history, Brand X had to pay a significant settlement as a result of litigation over alleged predatory lending activity.

The commercial paper market and the capital markets have become much more sophisticated in the past 25 years. For one thing, banks separated the credit enhancement from the liquidity guarantee and priced accordingly. For the corporate treasurer, the mechanisms for squeezing additional cost savings out of the borrowing function expanded dramatically. Indeed, as we shall show in subsequent chapters, the benefits of aggressive treasury management became so attractive—on the basis of arithmetic alone—that they became *the* key driver of the boom that produced the current bust.

What the CDFI Treasurer Gets from the CRA Side of the Bank

We have just seen what the treasurer of a for-profit corporation, Brand X, can get in the way of a funding facility from the wholesale side of the bank. It was a lot cheaper and much more flexible than any facility any CDFI has seen. And Brand X was a for-profit corporation that engaged in predatory lending activity.

CDFIs are different from Brand X in more than just mission. When it comes to financing working capital needs and operational growth, CDFIs are still relying almost entirely on banks, and almost exclusively from the CRA, rather than the wholesale side of the banks. In these bank relationships, they still do not have access to a line of credit to support commercial paper or the line of credit pricing that their corporate counterparts receive when they borrow on an unsecured basis. There is no available evidence they can borrow at a 50 basis-point spread or arrange credit facilities at a 25 basis-point fee as Brand X did (albeit pre-crisis). For the CDFI participants in the FIR team efforts, their pre-crisis margins over the cost of funds were about 75 to 100 basis points over LIBOR for secured facilities (there was one exception with a lower spread), and about 125 to 200 basis points over LIBOR for *unsecured* facilities. Several also had facilities at prime minus 100 to 150 basis points. None had a federal funds-based option. These FIR participants were among the largest and most advanced in the CDFI field, yet they had not caught up to where Brand X had been 25 years before.

Granted, the funding cost is not the most pressing expense in the CDFI model. The most pressing expense in the CDFI model is personnel cost (see Chapters 7 and 8). Nevertheless, from a simplistic standpoint—for example, by adding up the 75–150 basis point differential on the unsecured facilities—the CDFI is at a \$187,500 to \$350,000 disadvantage per year to Brand X per \$25 million in outstanding debt. That is a lot of grant subsidy to burn through.

Why the discrepancy? Is CDFI organizational credit risk greater than that of a predatory lender?

Perhaps surprisingly, the reason that CDFIs cannot access the capital markets for unsecured working capital financing such as Brand X received has little to do with actual credit risk. In its report on 2006 performance, the CDFI Data Project calculated the following loan portfolio performance for CDFIs:²⁹

	Banks	Credit Unions	Loan Funds
Delinquency > 60 days	NA	1.7%	NA
Delinquency > 90 days	.3%	NA	2.9%
Net Loan Loss	.2%	.7%	.7%

Overall, among the 480 CDFIs reporting this data, the net loss rate was .46 percent, not appreciably higher than the charge-off rate for prime mortgages in the conventional sector for the same period. Yet the figures above also include the performance of much riskier assets—personal loans, microloans, small business loans, and construction loans, to name only a few.

The low risk of these CDFI loan portfolios is paralleled by the low risk of unsecured loans to CDFI organizations. While it is true that unsecured lending is typically restricted to the upper third of the entities in the CDFI field in terms of size, sophistication, and longevity, their results are equally impressive.

- National Cooperative Bank Capital Impact has run a form of short-term debt exchange among CDFIs since the late 1980s with only one failure, representing about .65 percent of the total volume of more than \$300 million.
- Neighborhood Housing Services of America has been running a rehab second-mortgage secondary market with recourse to the originating community

development corporations since the early 1980s. Less than 0.5 percent of the more than \$1 billion in loan purchase activity has been written off due to failure of a participating community lender.

- One of the major national banks has experienced no losses on its CDFI portfolio in more than 20 years of lending.

Other entities such as the Opportunity Finance Network and the Calvert Foundation have seen similar exemplary performance for loans based on organizational credit risk in their respective CDFI lending programs.

As the recessionary conditions continue, we can expect to see greater delinquencies and yes, greater losses in portfolios exposed to CDFI organizational credit risk. However, there is no indication whatsoever that these losses will equal anything close to the loss rates and bankruptcies the conventional lenders are experiencing in most, if not all, of their other asset classes. Although Brand X remains in business, many of its conventional lending counterparts are closing down, filing for bankruptcy, or struggling to stay open with the aid of federal subsidy--proof positive that it is not high credit risk that prevents CDFIs from obtaining unsecured funding for organizational needs in the capital markets.

To be sure, there is, as yet, no consistent detailed collection of statistics on this CDFI organizational risk performance, an issue we will take up in Chapters 7, 8, and 9. But one way or another, credit risk is not the key reason that debt based on unsecured CDFI organizational risk remains blocked from the wholesale side of the banks and the capital markets. The reasons lie elsewhere.

For those reasons, we turn to Mark Willis, former head of the JP Morgan Chase community development division. Willis's article, "It's the Rating Stupid," provides the most penetrating insight into the reasons for the plight of CDFI organizational funding:

Since we often focus on the benefits of the CRA [Community Reinvestment Act], it is too easy to forget its costs. We have already seen that the CRA can lead to below-market pricing, to extra production costs, and to unexpected and unintended consequences. Another set of costs that is not often appreciated is the expense incurred by the administration of the compliance process itself. Banks must assign special staff to oversee their compliance programs, including the gathering, processing, and publication of the required data. While these activities

may sound routine, they can be expensive, particularly when additional fact checkers are needed to re-review thousands of loans to check the validity of data that, while they may be collected, are not critical to the approval process.

A different type of cost results from the creation or reinforcement of negative perceptions of the viability of serving LMI [low- and moderate-income] markets. For example, the lack of profitability at many LMI branches that banks have felt a need to open and the need to subsidize LMI mortgages have reinforced and perpetuated the impression that serving the LMI community can never be profitable for banks.³⁰

The following are the two most compelling reasons for the isolation, and ultimately the higher cost of CDFI organizational financing:

- *Size*: The costs associated with the origination, analysis, monitoring, and compliance for loans based on CDFI organizational credit risk are substantial relative to the size of the loans the banks make. The bank may have to expend more time, effort, and money on a \$5 million loan to a CDFI than it does on a \$100 million facility to a for-profit corporation.
- *The Expectation of Subsidy*: There is an expectation at both banks and CDFIs that pricing on loans to CDFIs must carry below-market rates. There are good reasons for this: to accommodate the higher costs that the CDFI incurs in the pursuit of the mission; the limited amount of unrestricted cash that the CDFIs typically have, which reduces the amount available for interest; and the banks' need for credit toward a higher CRA rating. This expectation of subsidy has produced a considerable flow of below-market-rate funding into the CDFI sector, but, as the FIR team found, it has also left the CDFI field vulnerable to several adverse developments. These include a bank retreat from lending to the CDFI field; higher interest rates on the loans that are made; continuation of the specialized, time-consuming, and often inflexible terms and conditions on the loans that are made; and immobility relative to getting to know and benefit from other parts of the bank.

The obstacles presented by the *expectation of subsidy* were apparent in a meeting in fall 2009 among five banks and a national CDFI attempting to assemble a Real Estate Investment Trust (REIT). The CDFI was seeking more than \$30 million in equity and more than \$100 million in debt. Representatives of four of the five banks came from the

CRA departments, and the fifth was from the REIT (wholesale) side of his bank. A chief sticking point in lining up both the debt and the equity was that the CDFI's activity covered fifty states, not just the specific areas in the CRA footprint of the potentially participating banks. The banks were properly concerned that they would get no CRA credit for the funds they provided in states that fell outside their footprint. Moreover, they were not enthusiastic about having to set up and monitor a system that would track every loan to ensure its location and corresponding compliance with the regulations. All four CRA bankers agreed this was a serious impediment.

They also agreed that the size of the transaction would require participation of a number of banks, which would make the equations on geographies more difficult. It was unlikely that the drafters of the CRA regulations intended to inhibit credit to low-income communities across the country by limiting credit to certain geographies or by adding a large burden of allocating and monitoring funds. However, that was where the discussion was heading.

For the fifth banker, however, the geography of the transaction wasn't a problem. He was from the wholesale side of the bank and had no concern about where the money was spent geographically, so long as it didn't involve large concentrations in any one region. He was also pretty sure that his bank could do the debt on the whole deal. For the CDFI, it was a ray of sunlight.

The discussion then turned to the issue of whether the rate on a non-CRA facility would be higher than on a CRA facility. One of the CRA bankers indicated that a CRA-compliant loan would carry a lower cost because of the potential for CRA credit. Although there were no specifics on how much the differential would be, the CDFI recognized a breakthrough was in the making. If it could avoid the geographical constraints of the CRA loan, it would be free to manage portfolio risk much more effectively, while saving considerable time and money on the process of allocating and monitoring compliance. If the non-CRA facility cost more, it would just mean raising an additional million or two of equity and/or reducing the amount of debt for the facility. For the CDFI, this presented a whole new set of opportunities.

In the end, the CDFI chose not to proceed with the REIT at that time owing to the difficulty of raising equity at the rate that it could afford. But it took away two key lessons:

- 1) The CRA facility came with a whole set of costs and a likely set of portfolio concentrations that may or may not be justified or supported by a lower rate on the debt;
- 2) At the right size, these costs could be avoided by doing the deal with the wholesale side of the bank.

Both observations convinced the CDFI that, going forward, it had to engage both sides of the bank.

Maintaining the Status Quo: But at What Cost?

There is a logical reason that the treasurer at Brand X could borrow more cheaply and enjoy greater flexibility 25 years ago than the treasurer at the best CDFI can borrow today. Brand X long-term debt was rated A by the rating agencies; that is, Standard and Poor's and Moody's, rated the Brand X commercial paper (with the benefit of the bank lines of credit) A-1/P-1.

Today's CDFIs have neither a long-term nor a short-term rating. Today's CDFIs cannot "get on the bus" because they simply cannot get a ticket from the rating agencies. They don't have the size, or the experience with conventional financing; or the detailed track record of their performance from the standpoint of organizational credit risk. And even if they had all of these, there would still be a learning curve that the rating agencies, the wholesale bankers and investors in the capital markets generally, would have to climb in order to gain comfort. But stepping back because of these challenges is not an option.

A review of what happened to interest rates in October 2008 shows why. In October 2008, the federal government stepped in to save the mutual fund and commercial paper markets by backing them up with various forms of guarantees (the Commercial Paper Funding Facility). These were likely necessary steps; they dramatically reduced the cost to borrow for banks and for corporations.

However, these steps did not help CDFIs, because CDFIs do not borrow in the commercial paper market. Nor do they borrow at spreads over the federal funds rate. Brand X still does, and so does just about everyone else in the corporate and institutional sectors. Consequently, while the Brand X borrowings benefited from these federal interventions, the borrowings of the CDFIs did not. CDFIs borrow primarily at prime or

a spread over LIBOR. As noted above, LIBOR had closely tracked commercial paper and federal funds for about 15 years. But in October 2008, that all came to an abrupt halt. In October 2008, LIBOR was left hanging, with the result that it was running at 40, 60, 80, and at times 100 basis points over both commercial paper and federal funds.

Remember the \$187,500–\$350,000 cost advantage Brand X had over CDFIs (per \$25 million in borrowing)? It was calculated based on the 75–150 basis point advantage that Brand X enjoyed over CDFIs when borrowing on an unsecured basis. With Brand X borrowing at a spread over the federal funds or commercial paper rates, that differential grew to a range of \$287,500–\$600,000 in October of 2008—and that was before considering any adjustments the banks made to increase the margin CDFIs paid over LIBOR.

Since October 2008, the LIBOR rates have come back down and now are back in the range of 10–15 basis points over federal funds and commercial paper. But CDFIs are still stuck by the side of the road. Quite aside from the issue that it was the Brand Xs of the world that helped precipitate the current crisis, the funding cost advantages they enjoy should help CDFIs to redouble their efforts to gain access to similar kinds of funding at the banks and in the capital markets.

CHAPTER 3

Under the Bus

“While those borrowers who achieved homeownership through NHS of Chicago are in good shape,” Bruce Gottschall, executive director of NHS Chicago was quoted as saying in *The Coming Storm*, “the wave of foreclosures hitting neighborhoods has the potential to undo in a few years the progress in community revitalization that it has taken us decades to achieve.”³¹

In coordination with the MacArthur Foundation, the City of Chicago, and several banks with a commitment to Chicago, NHS Chicago was able to launch a \$100 million rescue loan program in 2008 even as the housing sector, banks, and economy slid further into the dark. Everyone knew it was just a finger in the dike against overwhelming Katrina-like tides. But it was unique, it was courageous, and it demonstrated great faith in NHS Chicago, the community, and the low-income constituencies that the NHS Chicago served. What could NHS Chicago have done if it had five or ten times the \$100 million amount? What could NHS Chicago have done if it had such amounts to lend in the years leading up to the crash?

Those are the questions that CDFIs should be asking. The questions invariably lead to the conclusion, once again, that the status quo in financing the CDFI sector is no longer a meaningful option. One of the few silver linings in the crisis is that it is now obvious that the community development sector as a whole cannot be detached from events in the conventional sector, and that, on the contrary, CDFIs must be working full-time to offset the impact if and when the conventional sector goes feral.

To get an idea of what that preparation entails, here is again the question that was posed at the U.S. Treasury in August of 2007:

“How could two million homeowners, representing less than 4 percent of the total number [and likely much less of the total dollar amount of mortgages outstanding], have such a negative impact on the markets as a whole?”

How to Become Too Big to Fail

To begin to answer that question from a technical standpoint requires examining the impact of a significant increase in delinquencies and losses on four differently sized lending institutions, each of which uses different methodologies for financing loans. Assessing the impact of delinquencies and losses in each offers a strong hint to the answer to the question and the tools CDFI’s must learn to master.

The scenario we apply to each of the four types of financial entities is this: the loss rate in the lending business suddenly jumps from .50 percent to 3 percent of total loans outstanding. An increase in losses of this magnitude is similar to what happened to many housing lenders in 2008 and 2009.

Case I. A \$10 million nonprofit revolving loan fund entirely funded by grants

As a result of the sharp rise in losses, rather than taking a \$50,000 write-off against net assets, the institution must now take a \$300,000 write-off. If the institution wants to get back on sound footing by getting its capital ratio in line, it must either raise the rate on its loans to cover the additional \$250,000 in losses, or raise an additional \$250,000 in grants. To put it another way: \$250,000 in grants will keep the \$10 million revolving loan fund revolving in much the same way as it had been. However, there is no appreciable effect on the community if the institution is unable to raise the full \$250,000.

Case II. A \$1 billion savings bank funded by \$100 million in capital and \$900 million in deposits

With the increase in losses from .50 percent to 3.0 percent of its loans outstanding, what was once a \$5 million write-off against net assets becomes a \$30 million write-off. If the savings bank wants to get its capital ratio back in line, it must either raise the rate on its

loans or raise an additional \$25 million in equity. Raising rates may be hard because banking is so competitive. Raising equity would be a good solution; essentially for \$25 million the institution can keep a billion-dollar portfolio actively investing in the community. If it cannot raise the \$25 million from its equity investors, however, it may be forced to cut lending activity and reduce size to align its capital ratios. This doesn't always work, though, because reductions in size often produce additional losses. The federal regulators may take over the savings bank in the end. There is no effect on depositors if the government does so, however, because for the most part, deposits are guaranteed. Thus, the depositors generally keep their money in place. The bottom line is if the institution can find \$25 million in equity, it's fine. If not, except for the inconvenience of finding another lender, there is no measurable effect on the community (although there could be a significant inconvenience if the community is rural).

The only big concern in this scenario is if a number of institutions experience this level of loss at the same time, as happened in 1989 and 1990 with the nationwide failure of savings banks, S&Ls, and commercial banks. Depositors were fine in that case, but lending and, consequently, asset values declined dramatically across the country. Perhaps the biggest complaint to emerge from the S&L crisis was that regulators were too quick and too merciless with their valuation of assets and consequent demands for new capital. The S&Ls had ample liquidity, and if the regulators had been more patient about equity, some say everything would have turned out fine. (The current argument about marking assets to market and what it does to discourage long-term investment is another version of this argument.)

Case III. A \$100 billion commercial bank funded by \$10 billion in capital and \$90 billion in deposits

In this case, the rising delinquencies force a \$3 billion write-off rather than a \$500 million write-off against net assets. If the institution wants to get its capital ratios back in line, it must either raise the rate on its loans or raise an additional \$2.5 billion in equity. Once again, raising rates may be difficult because banking is so competitive. As with Case II, raising the equity would be an efficient use of cash. Essentially for \$2.5 billion in new equity, the institution can keep a \$100 billion portfolio actively investing in the economy.

If it cannot raise sufficient equity, of course, the federal regulators may take over the bank. Unlike the savings bank in Case II, however, depositors may feel the effect if this

happens. There is a limit (increased in 2008) on how much of each deposit is guaranteed, and banks of this size often have deposits that exceed the guarantee limit. The loss of these large depositors can force regulators to raise much more than just equity; they might be forced to raise new deposits to replace the (nonguaranteed) ones that disappear as well. Thus, rather than \$3 billion in equity necessary to keep the doors open, the institution may need to raise an additional \$20, \$30, or \$50 billion in short-term funds. This can come from a variety of sources, such as other banks or the federal discount window.

The bottom line is that the amount of cash the institution needs to return to normal can—and likely will—exceed the level of capital. And the effect on the community? The big banks are the big players in the economy; moreover, they tend to pursue the same kinds of business in the same manner at the same order of magnitude. Hence, if a large bank is experiencing a deterioration in one or more of its lines of business, it is likely that a number of other banks are facing the same challenge. The effect on the community can be substantial, as deposits go elsewhere, lending dries up, asset values decline, and economic activity goes flat.

We have witnessed this situation before. As we discussed in Chapter 1, when the Continental Illinois National Bank and Trust failed in June 1982—the largest bank bailout in U.S. history until the credit crisis in 2008—a large portion of its deposits were sourced from foreign investors (primarily Japan) on a 90-day basis. When the regulators stepped in, the bank was forced to find new cash to replace the cash that disappeared when depositors stopped renewing their 90-day notes. Many of the banks that provided credit lines to Continental Illinois were forced to keep their exposure intact, and to continue to lend money to Continental at the federal funds rate to keep the bank liquid during its restructuring. Although bad lending was the major cause of the problem, the biggest part of the solution was not replenishing the equity that made up for the losses, but rather, the liquidity that funded the bulk of the business.³²

Case IV. A \$100 billion commercial bank funded by \$13 billion in capital and \$87 billion in deposits, with \$300 billion in letters of credit supporting commercial paper issuance. The commercial paper is issued by special-purpose vehicles that hold credit card, car loan, and home mortgage obligations; \$3 billion of the \$13 billion in capital backs the letters of credit.

In this case, rather than taking a \$500 million write-off against net assets, the institution must now take a \$3 billion write-off, plus a \$9 billion write-off on the credit card, car loan, and home mortgage obligations for which it is contingently liable. The need to write off the additional \$9 billion is because the bank, through its letters of credit, has essentially guaranteed it will make good on any losses that occur in these additional obligations held by SPVs. That is, the bank will make sure that the investors who bought the commercial paper issued by the special-purpose vehicles will not lose a dime.

However, there's an even bigger problem: the investors in those special-purpose vehicles do not like loans that carry 3 percent loss rates. They don't like these loans because they thought they were buying commercial paper that funded loans with a .5 percent loss rate. When they see the change in loss rates, they get very upset. It means that, among other things, their original assumptions about the quality of the investment were wrong. Some may choose to conduct the analysis all over again. But analysis is very expensive, and if a market is moving, their research may not be able to catch up with the new values, particularly if the market is moving downward. Thus, regardless whether the credit card, car loan, and home mortgage loans may very well pay off in full over the years it takes for the loans to mature, the investors will not reinvest in the commercial paper when their special-purpose-vehicle commercial paper matures, and they mature every 30 days. After 30 days, all those long-term assets suddenly will be booked to the bank's balance sheet—all \$300 billion of them (less the amount that has been written off).

If the bank wants to get its capital ratio back in line, it must not only raise \$12 billion in equity, but also find \$300 billion of short-term investments—federally guaranteed deposits, short-term loans, borrowings from the Federal Reserve, or anything else they can find to finance the \$300 billion in loans that have just been dumped on the bank's balance sheet. Plus, it must still plug whatever hole develops in its existing deposit base (as in Case III) due to the limits on FDIC insurance and depositor fears about the bank's

ability to survive. Bottom line: The amount of cash the institution must raise is likely somewhere north of \$350 billion. And this is only one institution.

One can imagine what former Treasury Secretary Henry Paulson was looking at when, on top of the collapse of the asset-backed commercial paper market, and the imminent demise of several investment banks, most banks in the country were facing dramatic increases in loan losses.

The cases above are all greatly simplified. In the end, however, when all the statistics and studies are done and documented, it will likely be determined that the housing and credit crises in 2006–2008 were the result of a loss of investor confidence brought on by unexpectedly high default rates on assets that were poorly underwritten and badly disclosed. Nevertheless, the crisis was not simply the byproduct of loans to people who should not have owned a home. Had that been the case, the damage could have been confined to situations as in Cases II and III, and the proportions of the crisis could have been contained within the balance sheets of the participating institutions.

The mechanisms that had been created to accommodate and promote conventional lending were remarkably efficient in delivering benefits to borrower, lender, and investor alike. There was no reason for any of the parties to cease and desist from the genuinely thrilling level of lending they were able to generate, given the equally thrilling prospect of gain. Borrowers wanted more house (and more cash out), lenders wanted more fees, and investors wanted more yield—and they got them. Leverage ballooned both on and off the balance sheet, and the velocity of deals performed on the same dollar of lender equity ensured satisfaction of all three wants. The result was not the product of evil intentions. As we will demonstrate in Chapter 8, it was a product of simple arithmetic.

The scenario in Case IV unfolded in 2008. It was not simply a loss of equity; the entire liability side of the bank balance sheets went up in smoke. When the top-rated tranches of collateralized mortgage obligations rose to the LIBOR swap rate plus 500 basis points (with the bottom-rated tranches reaching LIBOR swaps plus 5,500 basis points), a fairly clear message from investors emerged: no new money was going to shift to the bank balance sheet any time soon. When trillions of dollars of financing evaporate virtually overnight, everything comes to a standstill. Then things begin to accelerate in reverse: the loss of liquidity reduces overall economic activity as well as asset values, and the loss of incomes drives mortgage losses up ever higher. The result is a massive negative

impact on the community, which the private sector has no capacity to mitigate or reverse, short of hitting the bottom—whatever the bottom is.

Does the Baby Get Thrown Out with the Bathwater?

Next to keeping people in homes, the biggest challenge in the community development field today is finding ways to keep money coming into the neighborhood for productive activity. Those in the CDFI field are not in a position to get their arms around all the technical and policy issues that produced the collapse of the housing and credit markets, nor to present a complete and convincing set of remedies for the problem. After all, CDFIs are not specialists in the mechanisms that make the financial markets work; indeed, they had barely made it into the capital markets (with loan sales) before the markets collapsed.

Nevertheless, CDFIs have a critical duty. The biggest danger CDFIs face now is that the capital markets, having lost their tools, will retreat from providing credit to the low-income community. In short, they will throw the baby out with the bath water. There is no question that the cost has risen from the standpoint of losses. But that is the case across the board for borrowers at all income levels. The loss rates will stabilize and drop over time. The more critical issue for CDFIs is lowering the cost of delivering credit to low-income borrowers: without credit scoring, securitization and off-balance sheet funding options, the cost of providing capital to low-income communities can become prohibitive for any lender, including CDFIs. It is absolutely essential that CDFIs identify the mechanisms that worked well for the conventional sector and could work well for them—and distinguish the abuse of these mechanisms from their appropriate use and benefits.

Capital market mechanisms like credit scoring, securitization, and off-balance sheet funding were highly effective in bringing money to low-income neighborhoods. That the quality of the money was bad—that is, it had a tendency to explode—is not reason enough to eliminate the mechanisms that proved so efficient. Indeed, it is in the lenders' collective interest—community development and conventional lenders alike—to retain the mechanisms that worked well, rebuild credibility, and improve the manner in which they are used going forward. This is not an idle invocation. The fact remains that there are tens of trillions of private investment dollars still circling the globe looking for a safe place to land. The continued low long-term rates tell us that. The problem is that there

are no nongovernmental mechanisms that fund our residential, business, and community assets that investors are willing to buy. These must be rebuilt, and prudent community-based assets must be in the forefront.

How the Mechanisms We Need Failed

Earlier, we stated that the mission of the FIR team in 2001 was to:

- Place CDFI debt with the capital markets;
- Standardize CDFI financial reporting and analysis; and
- Improve CDFI risk management.

As we explore the work of the FIR team, we will see how specific mechanical failures in each of these three broad categories caused or accelerated the collapse of the markets. Granted, it is hard, as bystanders in the capital markets, to get overly specific about the mechanisms that failed; it is difficult to properly judge which ones should be prohibited and which should be retained and improved. Therefore, we will keep to generalities. In a highly simplified nutshell, the reasons we will likely trace the causes of failure to these three broad categories are the following.

- *Placing debt in the capital markets.* From the standpoint of default, the debt obligations that collateralized the securities did not perform as expected.³³ Too many securities were written so tightly around default expectations for the underlying mortgages that there was simply no margin of error. Diamond and Rajan state the problem quite succinctly:

The problems in valuing these securities were not obvious when house prices were rising and defaults were few. But as the house prices stopped rising and defaults started increasing, the valuation of these securities became very complicated.³⁴
- *Remediation impediments arose.* The contractual terms and conditions of the securities, which were crafted on the assumption of a narrow band of asset performance, proved to be impediments to remediation. The wide distribution of the securities further eroded the potential for solution.³⁵
- *Standardization of financial reporting and assessment.* The magnitude of the deviation from expected performance caused the investing public to lose

confidence in the ability of the rating agencies, banks, and other gatekeepers to properly assess risk. At the heart of this was the inability to anticipate, capture, or model the impact on credit scores of a raft of floating rate mortgage products in a rapidly rising interest rate environment. Confidence in credit scores as predictive of risk also took a steep dive.

- *Risk management.* Incentives were insufficient among the key parties—borrowers, lenders, investors, and gatekeepers—to ensure quality on the asset side of the balance sheet. The returns that could be captured through high asset turnover and aggressive asset-liability mismatches were sufficiently attractive to encourage imprudence on the liability and asset sides of the balance sheet.

In the following sections, we take a closer look at the mechanisms in each of the three broad categories above, and provide some general observations about why and how they failed, why they will come back, and in what form they are likely to reappear. We also enumerate the reasons these mechanisms are good for the community development sector and why CDFIs should be preparing to take advantage of them when they do reappear. Our presumption, of course, is that when they do reappear, they will be governed by rational and authoritative rules that incorporate the lessons learned from the current debacle. We should also presume that the community development sector can be among those who will be setting the standards.

Placing Debt in the Capital Markets

In introducing his lectures on securitization, Judd Levy, former CEO of the Community Development Trust, would say that the inventor of securitization was not Lew Ranieri, Lew Glucksman, Pete Peterson, or John Gutfreund. It was none other than Frank Perdue, the purveyor of a wide variety of chicken parts. Chicken parts are an apt metaphor for securitization. Securitization of chicken is so pleasing to all parties involved because it attracts many more buyers owing to the variety of packages (such as thighs, breasts, wings) and ease of use; makes middle men happier because of ease of transport, storage, and quality control; and generates higher profits for the provider, Frank Perdue, due to lower cost processing and higher revenues paid by consumers who were able to purchase exactly the chicken parts that they wanted.

The same concept drives securitization in the capital markets. Assets are broken down into discreet streams of cash that serve a wide range of investor appetites. By aggregating like assets in a separate package—such as a bond or special-purpose vehicle—and then letting them perform as expected, there is much greater clarity on the features of risk for the investor, much more effective quality control, and more direct proximity to the specific collateral in case of default. For many investors, this is preferable to investing, for example, in a bank or insurance company security, which includes exposure to risks associated with a much wider range of assets as well as a more complex organizational structure. With securitization, the sum of the parts is almost always much greater than the whole. As a result, securitization can produce lower rates to the borrower, creating a win-win all the way around. As James Rosenthal and Juan Ocampo put it:

Although credit securitization is sensitive to the regulatory guidelines and other arbitrary limits, it draws its lifeblood not from regulatory arbitrage but from the way it handles risk. In this respect, it is fundamentally more efficient than conventional lending. ... Asset-backed securitization can provide borrowers with cheaper sources of funds. This benefit is already evident in residential mortgages. Homebuyers are now paying approximately 100 basis points less in interest (versus U.S. Treasury yields) on fixed-rate mortgagees than they were a decade ago when mortgage securitization was much less pervasive. ...

Credit securitization enables a strong loan originator or servicer to expand its volume of business without expanding its capital base in the same proportion. Conventional balance sheet lenders lack this freedom. Their growth rate is limited by their ability to expand their capital base through retained earnings or new issues.³⁶

Over the past two decades the markets have demonstrated tremendous success in bringing new money to a much wider range of consumers with securitization—until 2008, that is, when the markets collapsed. Indeed, the expansion of the subprime market is perhaps the most likely poster child for the efficiency of securitization in matching borrowing needs with surplus cash.

To be sure, the markets collapsed in the same way that a company securitizing chicken would collapse if it conducted its business poorly.

- The absence of quality control produces higher levels of spoilage, then
- Spoilage costs the company and the middle men more, then
- The company tries to make up the increased cost by increasing the volume, then
- A few people eat chicken wings and get sick with salmonella, then
- People stop buying chicken from the company, and then
- Everyone stops buying chicken altogether.

However, do we abandon the concept of eating chicken—or packaging it—forever? No. Chicken is not bad, and neither is packaging it in different sizes and types. Robert Shiller makes this very point:

The current financial crisis is often viewed as a reason to sound retreat—to return to yesterday’s simpler methods of financial dealing. This would be a mistake. On the contrary, the current situation is *really* an opportunity to redouble our efforts to rethink and improve our risk-management institutions. ... Despite the present crisis, modern finance has produced historic achievements in recent decades and serves as a powerful engine of economic growth, from underwriting new businesses in the private sector to supporting vital research in the universities to building schools and hospitals in the public sector.³⁷

The Case for Securitization of CDFI Assets and Liabilities

The benefits of securitization are particularly significant for CDFIs. Serving low-income local markets with limited resources means that, almost by definition, CDFIs cannot over time carry the uncertainties and the costs of credit risk, interest rate risk, servicing, and other operating costs. With their smaller balance sheets and limited supplies of grant subsidy, CDFIs must place assets with entities that have the balance sheets, longevity, and efficiencies to produce the lowest interest rates available. In addition to being exposed to these costs and uncertainties, retaining assets on the CDFI balance sheet is also a poor use of grant subsidy. Essentially, when CDFIs keep these assets on the balance sheet, they are consuming grant subsidy that would otherwise be passed on to their constituencies. The alternative, securitization, results in more efficient use of limited capital, and enables the CDFI to put a much greater amount of subsidy to work for the constituent.

At the same time, CDFIs also need to use the securitization process to sell their liabilities—specifically, their unsecured long- and short-term organizational debt obligations. The benefits of securitization are the same for funding liabilities as well as assets, and the reasons are the same: reducing costs and uncertainties. In short, access to the capital markets through securitization is exactly what the community development field is looking for—low rates on unlimited amounts of funding.

How to Assemble a CDFI Securitization

Two general kinds of vehicles are appropriate for securitizing: bonds, which would generally be used for long-term assets or liabilities, and bankruptcy-remote special purpose vehicles, which would be created to securitize shorter-term assets or liabilities.

In either case, the basic procedure for assembling a securitization for CDFIs would be the following:

- *Identification of CDFI assets or liabilities.* Ideally, these would be assets or liabilities that meet standard definitions and whose performance can be tracked using conventional measures.
- *Aggregation of CDFI assets or liabilities to achieve scale.* As noted in Chapter 1, one of the two chief impediments to CDFIs' entry into the capital markets is size (the other one is market unfamiliarity). To get into the markets, CDFI assets or liabilities must be aggregated to achieve the requisite economies of scale.
- *Determination of vehicle (bond or special-purpose vehicle).* Generally speaking, CDFIs need to determine whether they want short (SPV) or long (bond) maturities, and whether the need is on a flow (SPV) or bulk (bond) basis.
- *Determination of the amount of credit enhancement required.* Credit enhancement is provided to assure investors that they will be repaid their principal. This is generally the largest and most expensive mechanism in the overall effort to gain access to the capital markets. Determination ultimately rests with the rating agencies.
- *Determination of the amount of liquidity support.* Liquidity support is provided to ensure that investors get paid in a timely manner. This is primarily a consideration for the special-purpose vehicle, and as with the credit

enhancement, it is determined by the rating agencies. Liquidity support is generally pegged at 100 percent.

- *Arrangement of the key functions.* In addition to credit enhancement and liquidity functions, there are other third-party functions including legal, administration, management, compliance, and distribution.

The Credit Enhancement

As noted, the biggest challenge for CDFIs is the credit enhancement. The key questions are the likely loss rate on the assets or liabilities in the bond or SPV, and the amount required to cover it to achieve the highest rating from the rating agencies.

Because the assets and liabilities of CDFIs are unfamiliar to the marketplace, and because the data on losses across the spectrum of CDFI activity are largely fragmented and anecdotal, the traditional approach to answering the question is to over-collateralize. For example, Neighborhood Housing Services of America (NHSA) began purchasing rehab loans from community development corporations in the 1970s, and then placed them in collateral trusts with insurance companies. At first, the loss reserves—or credit enhancements—were established at 100 percent of the loan’s face value. Over time, with the benefit of stellar loss performance, the NHSA worked these reserves down to 5 percent. The primary shortcoming in these secondary market purchases, however, was that they were private transactions and did not require ratings.

Notwithstanding the similar loss performance experienced by many CDFIs and their funders, the absence of persuasive data means that over-collateralization will continue to be a feature of CDFI securitization until loss performance can be captured in a standardized framework on a large sample and assessed in the context of rating agency criteria.

The role of the rating agencies cannot be overstated in the context of both bonds and SPVs. Most investment policies, whether for pension funds, bond funds, money market mutual funds, bank treasury portfolios, or even CDFI investments, involve restrictions that prohibit investment in securities that are deemed not investment grade. This means they are rated at BBB or Baa or better. Most funds prefer the top grade, or AAA/Aaa, and of course the borrowers prefer that level as well, as it means they can obtain the lowest borrowing rates. Thus, any CDFI securitization should be credit enhanced to at least the investment-grade level, and preferably to the AAA/Aaa level.

Although it is unlikely that the rating agencies would require a 100 percent reserve on a bond vehicle backed by high-quality CDFI assets or liabilities, the CDFI sector will need to be prepared for a reserve level that would be much higher than the loss rates they have experienced would warrant. There are many ways to approach this higher hurdle, including the structure that the Community Reinvestment Fund used in its 2004 CRF USA Community Reinvestment Revenue Notes, Series 17 (CRF-17). In that transaction, the cash flows from small business loan assets were divided into a series of tranches, with the Community Reinvestment Fund holding the higher-risk tranches, and the lower-risk tranches placed with investors.

The Calvert Foundation explored another kind of bond in 2003 and 2004, in partnership with Opportunity Finance Network and First Albany. The notion was that CDFI obligations would be commingled with high-quality Government Sponsored Enterprise (GSE), such as Fannie Mae or Ginnie Mae paper in a bond vehicle. The major challenge to this concept was that investors would still end up pricing the bond around the uncertainty of the credit risk of the CDFI exposure, essentially negating the value of including the bond's high-quality component. Although this structure was not pursued, it did introduce a way to improve the credit picture by diversifying the perceived risk and reducing the proportion of unknown risk in the portfolio of debt instruments (promissory notes) backing the vehicle.

An alternative to putting up additional cash, assets, and/or liabilities is to obtain credit enhancement from highly rated institutions in the form of a letter of credit or similar commitment. This has been a significant line of business for banks and insurers. To be sure, the longer the term of the bond, the harder this is to arrange—and the more expensive, as well. Yet there is one critical advantage: a number of the large banks that have actively assisted the CDFI field over the years are well acquainted with the low and relatively predictable level of CDFI organizational credit risk. Given proper structure and incentives (and market conditions), this could be the key channel for CDFIs into the capital markets in the future.

Why Banks Have Been Ambivalent about Securitizing CDFI Assets

However, to date, the structures and incentives have not been adequate to establish this kind of arrangement, even when market conditions are good. As Mark Willis indicated in Chapter 2, there are several reasons for this. The chief challenge is scale: the participants in a securitization simply cannot make enough on a small securitization to

cover their costs, let alone make a reasonable profit. But there is another big challenge as well: banks (specifically the larger banks) generally like having CDFI obligations on their balance sheet, at the very least for the purpose of satisfying Community Reinvestment Act (CRA) requirements. Notwithstanding the challenges Willis refers to, these CDFI obligations do produce revenue and generate few losses. These assets would disappear from the bank's balance sheet if the CDFIs went to the capital markets, taking their earnings and likely their CRA benefit along with them.

A Solution to the Bank Preference for On-Balance Sheet CDFI Assets

As discussed in greater detail in Chapter 6, the FIR team's Commercial Paper Co-op overcame this challenge by pioneering a way to make the credit support of off-balance sheet CDFI obligations much more profitable for the banks than retaining the obligations on balance sheet. The key to this breakthrough lay in the way in which bank regulators looked at the risk assets in relation to bank capital at the time. Simply put, the regulators recognized that an asset that is *not* carried on a bank's books could have, under certain circumstances, a lower claim on bank capital than an asset that is carried on the bank's books.

The reasoning and procedures for the distinct handling of on- and off-balance sheet assets for the purposes of risk-based allocation of capital were set forth in a November 2001 Federal Reserve Supervisory Letter.³⁸ (A more detailed discussion of its logic, the procedures, and the implications are discussed in Appendix D.) The simplified issue was this: if the asset that was carried off the bank balance sheet was a high-quality asset—that is, rating agencies could rate it at investment grade or above—the amount of capital allocated to support it could be a fraction of what was required of balance sheet assets. A further refinement of how the transfer of assets to off balance sheet vehicles worked, and the logic behind them was included in a second letter from July 2004 in which, among other things, the regulators distinguished bank support through credit enhancement versus bank support through liquidity facilities, and proceeded to establish credit conversion ratios for the liquidity facilities based on the credit quality of the assets supported.³⁹

This credit conversion was central to the breakthrough for the FIR team's design concept of the Commercial Paper Co-op (Chapter 6). The co-op credit enhanced the off-balance sheet vehicle—the special-purpose vehicle—with grant funding, and then approached only banks that already had credit risk exposure to the kinds of assets that would be in

the SPV. It was a lock. Essentially, the banks could move the assets off their balance sheets by putting them into an SPV that was entirely credit-supported by foundations. This eliminated the need to allocate capital for credit-enhancing assets. However, the banks still would provide credit in the form of a liquidity facility—a facility that committed the banks to fund investors in the event of payment interruption.

The credit conversion factor that could be used to establish the allocation of capital for this liquidity facility was very attractive; it essentially reduced the amount of capital the banks had to allocate to these assets by 90 percent. Conversely, as we shall show in Chapter 6, the credit conversion factor significantly increased the banks' return on capital. The result was that the Co-op could produce a significantly higher return on bank capital even on a substantially lower level of (dollar) profit for the bank; specifically, the bank could produce a much higher return on capital, earning just 62.5 basis points on a liquidity facility for supporting the same assets off balance sheet than it could earning 200 basis points with the assets on balance sheet. At this point, a financial incentive to move the CDFI assets into the capital markets had been established.

The Door to the Capital Markets Slams Shut

The recent turmoil in the credit markets has made the path offered by the Commercial Paper Co-op impassable. As a result of the failure to properly assess the risks of assets in the SPVs, many in the financial sector as well as regulators are looking at the credit conversion process as a way for banks to get around prudent capital rules. Initial indications are that the Basel Committee, which is responsible for developing, among other things, capital rules for the conduct of banking activity globally, will seek not only to require a higher level of capital allocated to risk, but also to require the same level of capital allocation for off-balance sheet assets as on-balance sheet assets.

Domestically, this same impulse is reflected in the various efforts to ensure that originators and securitizers retain "some skin in the game." That is to say, regulators and rating agencies will assume that every package of chicken parts carries the same risk as a whole chicken, and Frank Perdue must retain some piece of each package of chicken he sells. This kind of remedy amounts to a tacit acknowledgement that regulatory bodies worldwide are incapable of preventing the kind of carelessness and myopia that poisoned the markets during the last several years. As such, we can agree that strong measures must be taken. There is no question that having skin in the game will significantly reduce the kinds of excesses the market engaged in. But there is also no

question that Frank Perdue would sell a lot less chicken if he had to keep a piece of everything he sold. There would be a lot less chicken, and what there was of it would cost a lot more. Clearly such measures can and must be crafted in both a creative and effective manner. The alternative will be to block low-income constituencies with good credit from the flow of capital.

To be sure, it is unlikely that the credit conversion—or similar process that distinguishes between risk capital allocated to on-balance sheet and off-balance sheet assets—will be eliminated entirely. The logic of taking assets off-balance sheet in self-contained, transparent, sustainable vehicles is simply too compelling; the clarity and simplicity are not only profitable but also fundamental in facilitating the efficient flow of money. The big challenge that the CDFI sector needs to prepare for is the likelihood that the grant funding it must bring to the table to credit enhance whatever structure it creates will be forced to increase.

The Special Purpose Vehicle versus the Bond Decision

Notably, in this discussion of the process for accessing the capital markets, we find ourselves talking about the SPV (special-purpose vehicle)—as opposed to the asset sale or pledging—option. We are not addressing how accessing the capital markets might work by using the bond mechanism. In the following chapters, we show how the efforts the FIR teams initiated—the Mini-Fed, Capital Exchange, and Commercial Paper Co-op—were effectively forced to go the SPV route. There are three reasons:

- *Working Capital.* The proceeds of unsecured loans based on organizational credit risk are typically, if not always, used to support a wide range of organizational needs on a revolving basis. Thus, an SPV that functions on a flow basis, taking obligations and funding them as they arise, is preferable to a one-time sale of a fixed obligation.
- *Interest Rates.* An SPV with a revolving set of assets and liabilities could obtain lower interest rates, assuming a normal yield curve.
- *Preparedness of the CDFI Field.* The kinds of data and analytical disciplines that investors in fixed long-term obligations require are simply not available in the community development sector—at least not relative to organizational credit risk.

On this note, there is one final point. Even within the framework of a bank-supported transaction, the analytical perspective of the rating agencies holds considerable sway. This point is illustrated in the following excerpt from the Federal Reserve Supervisory Letter of March 30, 2005:

The Securitization Capital Rule permits a banking organization with a qualifying internal risk rating system to use that system to apply the internal ratings approach to its unrated direct credit substitutes provided to ABCP programs that it sponsors by mapping its internal risk ratings to external ratings equivalents. The external credit rating equivalents are organized into three ratings categories: investment-grade credit risk, e.g., BBB– and above; high non-investment grade credit risk, e.g., BB+ through BB; and low non-investment grade credit risk, e.g., below BB–. The rating categories are used to determine the appropriate risk-weight category or categories to which banking organizations should assign either the entire notional amount, or portions thereof, of their direct credit substitutes.⁴⁰

There is no doubt that the regulatory agencies, along with the capital markets as a whole, are presently stepping back from this extraordinary reliance on the rating agencies. The failure of the rating agencies to anticipate the magnitude and speed of the housing and credit market collapse has, appropriately, given everyone pause. How could the agencies not identify what variable rate and payment instruments (like 2/28 Adjustable Rate Mortgages) could do to a credit score? What happens to these instruments when interest rates rise? Why is a rapid rate of asset growth the most reliable early indicator of failure? Or what happens to asset values when too much money is chasing them? The sudden, sweeping downgrades of highly rated assets during the past 24 months has only heightened the anxiety. Yet the question arises: who else is in a position to opine? At present, no one. Thus, for CDFIs, the way to the capital markets and the wholesale side of the banks continues to be through the rating agencies.

Standardization of Reporting and Assessment

In his 1999 report on how new private-sector lending technologies could threaten or benefit federal credit agencies, Thomas H. Stanton summarizes the threats:

The report concludes that information-based technologies create both opportunities and risks for federal credit programs. On the one hand, federal direct loan and loan guarantee programs can adopt some of the new technologies to improve their own credit administration. On the other hand, in today's environment the government will lag the private sector in resources and general capacity to adopt new information-based systems. This increases the prospect for adverse selection as private lenders use credit scoring and loan scoring to serve an increasing number of creditworthy borrowers who formerly would have been borrowers in a federal program. In other words, the waves of new information-based systems have created a sort of arms race. Federal credit programs cannot rest upon the status quo: they must adopt new technologies and approaches merely to protect their current positions.

Stanton also summarizes the benefits that go right to the heart of the CDFI mission:

Perhaps most important, [credit] scoring can permit federal credit agencies to develop new diagnostic and analytical capabilities. A federal credit agency could construct a financial early warning system to assure that adverse selection by private lenders was not creating unacceptable levels of financial risk in the new loans being originated for its programs. Another use would be to help federal agencies to monitor the performance of lenders with respect to the credit quality of loans that they originate or service for federal guarantee programs. For some programs, credit scoring can improve cost-effectiveness by helping to target underserved but creditworthy borrowers who are most likely to benefit from access to federal credit.⁴¹

Credit scoring is not about how much a person or a business earns. It is not about how much a person owns or owes at any point in time. For better or worse, credit scoring attempts to evaluate the manner in which a consumer or a small business behaves with cash. The credit score not only provides an indication of a person's resources. It also signals on how prudent he or she is with money over time.

After years of building credibility as a predictive measure, credit scoring's failure to anticipate default rates in the housing market has led many to question its validity. There is no question that credit scoring stopped working during the mortgage crisis. But why?

The Failure of Credit Scoring in the Housing Crisis

The credit score is based on an examination of the borrower's past behavior for the purposes of establishing predictability; the more volatile the past performance, the lower the score, the more stable the performance, the greater the score. Stability is the key to predictability. However, in the interests of generating higher loan volume as well as protecting themselves from interest-rate risk, lenders developed loan products that would enable borrowers to appear capable of making payments on a mortgage. Lenders introduced novel structures, such as the 2/28s (2 years of a 30-year mortgage at a low rate, with the remaining 28 years at a yet-to-be-determined rate) and 3/27s, in which the borrower was exposed to a potentially higher payment within 24–36 months. Other novel structures included interest-only loans in which principal did not have to be paid, for a limited period; stated-income loans, in which the income was often a fiction; and Option ARMs, in which the principal would likely keep rising. These were just a few of the loan products that did the damage.

The late Ned Gramlich, a former Federal Reserve Board Governor, described the growth of these novel instruments in the first few years of the new century, with the resulting explosion of subprime lending.⁴² Here was the essential problem: by contract, monthly payments under each of these loan structures were subject to an adjustment—possibly (and as it turned out, in fact) an unaffordable adjustment. By introducing an entirely unpredictable adjustment into a system based on predictability, lenders debased the value of the credit score. Essentially, they burned down their own house around them. This is not simply conjecture. In October 2008, for example, defaults (90-day delinquencies) on subprime fixed-rate loans were at 6.8 percent, while defaults on subprime ARMs (floating-rate loans, often with resets) were an astonishing 26.8 percent. The difference? The structure of the loans. As defaults rise, the divergence continues.

Investor confidence in credit scoring is one of the chief victims of the collapse of the credit markets. It would be a tragedy, however, to abandon this mechanism. It would also likely be impossible. Credit scoring is a much more effective form of evaluating credit risk (as we shall discuss below) than the traditional combination of income and loan to value. It is also much less expensive to employ—so much less expensive that it was a key motive in the willingness of the conventional sector to bring money to low-income constituencies during the past decade. Inevitably there are flaws and inequities in any scoring system. However, the combination of increased accuracy, lower cost, and greater inclusivity vis-à-vis traditional underwriting makes credit scoring a desirable technology for the community development as well as the conventional lender.

These views are likely controversial given the inequities experienced during the past decade as well as the failures of the last 24 to 36 months. We will not address the inequities here, but we will examine the failures. Before we do, however, we should look at several key developments in the evolution of credit analysis during the past generation. The perspective is anecdotal and from 30,000 feet, but an understanding of the financial underpinnings is crucial to the issue of access to capital going forward for both the CDFI constituencies and the CDFIs themselves.

A View on the Evolution of Credit Analysis

Thirty years ago, the corporate banker operated on the notion that creditworthiness was based on the borrower's capacity to repay debt based on income generation and, in the event of interruption of income, through the sale of assets in liquidation. The greater the net assets, the less one had to worry about the volatility of income. This view was a natural byproduct of the historical approach to lending: the lender was *secured* by the assets of the borrower. Because the corporate banker was typically lending to corporate borrowers on an *unsecured* basis, the value of net assets (equity) was particularly important. The level of net assets on the balance sheet was the corporate banker's way of judging how much the assets would have to shrink in value before the bank lost money. By lending only to companies that had a high level of net assets relative to debt (that is, low leverage), the corporate banker had a shorthand way of assessing credit risk without having to study company assets, operations, management, or the company's market in detail (although these were certainly encouraged as long as the loan production guidelines could be met).

For the banks, all that changed in the mid-1980s with the advent of the leveraged buyout (LBO). We discussed the 1980s and LBOs earlier in this book when discussing how the trading function came to dominate the lending function in commercial banking, and how this change produced the first and biggest federal bailout of a financial institution prior to 2008. Let's take one more look at this period in finance to show a positive product of the change: a significant improvement in the way that credit risk is analyzed. As we shall see, it is an absolutely critical step forward for CDFIs and the constituencies we serve.

So let's revisit Michael Milken of Drexel Burnham Lambert; Henry Kravis of Kohlberg, Kravis; and Roberts and others leaders of the leveraged buyout field. These figures, and

the others who worked in the field, adopted an analytical framework based on tracking and evaluating the strength of both past and forecasted cash flows. The deals these investment bankers made demonstrated convincingly that the manner in which assets generated cash flow—and the manner in which management configured these assets—was a much better indicator of credit strength than the amount the corporation held in net assets. In other words, the strength of the credit was much more a function of how the corporation behaved as a going concern than how much could be captured in the event of the liquidation of assets.

There was an ironclad logic to this breakthrough approach; when concentrating on cash flow, the new lender effectively had to address the manner in which all of the assets behaved, staff and management included. This contrasted with the old form of credit analysis, which, in focusing primarily on liquidation, addressed only a small fraction of the bank's assets—the tiny fraction that goes bad and does not recover. The new lender focused on management and how management made decisions about the configuration and conversion of assets. From this point of view, the liquidation approach appeared positively lazy, as well as inaccurate. Under the circumstances, it was hard to see why anyone would see liquidation as a superior indicator to cash flow—assuming, of course, that the lender had the capacity to comprehend the behavior of management and all of the company assets.

As discussed in the Chapter 1, a major consequence of moving away from the liquidation-based evaluation was that banks found themselves happily funding a much larger range of smaller, less wealthy companies, private as well as public. The increased volume and higher margins that could be assessed on these new borrowers justified the cost of the additional diligence associated with cash-flow analysis. A new loan-syndication process made the cost easier to absorb. This enabled one bank (the lead bank) to perform the in-depth analytical work while the rest of the banks that participated in the syndicate relied (in varying degrees) on the lead bank's work. However, this breakthrough had much greater implications: essentially the more detailed and accurate form of analysis leveled the playing field for the small guy.

This leveling had a significant impact on the corporate sector in the mid-1980s, accelerating the earnings multiples associated with the purchase of corporate assets, boosting stock prices, and generally expanding economic activity. Essentially, the big leveraged buyout and private equity firms that were the chief beneficiaries of this new approach were established on the basis of democratizing credit in the corporate sector from 1982 to 1986.

To be sure, as with any new technology, things got out of hand. The dramatic departure from reliance on the balance sheet produced the kind of boom that produces busts—and bust the stock market did, in 1987. In simple terms, there was too much money chasing too few cash-generating assets and too few management teams with the capacity to optimize them. Many of the bonds issued to investors for financing leveraged buyouts of weaker businesses (called junk bonds) defaulted, and overleveraged companies went under.⁴³ As we noted in the Chapter 1, during the following two years, the bust also played a role in the collapse of the savings and loan industry. Many savings and loans, impressed with the apparent accuracy and predictability of the new cash flow analytics (and their high returns), had invested in junk bonds. They paid the price, and so did the U.S. taxpayer: \$300 billion.⁴⁴

Yet here is the remarkable fact: the banks never went back to lending decisions based primarily on equity and the strength of the balance sheet. They stayed with cash-flow analytics—trying to fathom the capacity of management and the viability of the company by tracking the sources and uses of cash. Following the recession of the early 1990s, the banks redoubled their efforts to leverage assets based on predictable flows from cash-generating assets and management capability, not only in leveraged buyouts and private equity, but now also in the capital markets, where new financing vehicles were formed and new forms of assets were created and securitized. Indeed, what is referred to as “structured finance” is simply prioritizing a series of cash streams to be paid to various classes of investors (together with various legal rights), based on the analysis and predictability of the flows from properly managed cash-generating assets.

Cash Flow Analysis Goes Retail

During the past 15 years, we have seen a similar development in housing and small business finance. Over this period, lenders came to view the credit score—which focused on the homebuyer’s or entrepreneur’s capacity and willingness to pay—as an excellent indicator of credit quality. This preference for credit scores (over loan to value, equity, or leverage) was evident in several conventional mortgage programs. A borrower with a high credit score and high loan-to-value ratio (higher leverage) attained a lower interest rate than a borrower with a lower credit score and lower loan to value. This would have stunned a traditional banker.

Not surprisingly, the immediate consequences for mortgage and small business lenders were the same as for corporate bankers in the 1980s. Once they moved away from a focus on the borrower's balance sheet and the minimum amount of equity the borrower had to maintain, they opened up lending to a vast new market of lower-income households and entrepreneurs with limited cash or equity. As such, the credit score—the analytical methodology that evaluates how the borrower behaves with cash—functionally democratized credit in the home mortgage and small business markets the same way that cash-flow analysis democratized credit for corporations in the 1980s.

There was another facet to credit scoring that also prompted the expansion of credit in residential lending: cost. Unlike cash-flow analysis for corporations, which required increased due diligence and analytical discipline, credit scoring was automated and actually reduced costs for the lenders. With credit scoring, lenders were able to reduce the cost of origination, underwriting, and other lending functions by 60, 70, 80, or 90 percent. One major lender said it was able to reduce operating costs in its origination and underwriting activity by 97 percent. Because operating costs can be the highest expense component for a lender in the conventional sector (depending on the interest rate level), this transition to credit scoring opened up tremendous space on the operating statement for expansion. The lender could reduce interest rates, take more credit risk, or do both. And lenders did. When combined with up-front fees, low short-term interest rates, and an aggressive asset-liability mismatch, the return on investment on a credit scored portfolio could become simply astonishing. (The Commercial Paper Co-op demonstrated how quickly a return for the participating banks could escalate.)

Of course, as had happened with the LBOs in the 1980s, the reliance on credit scores got out of hand in the first few years of the new century. In addition to the risk of funding long-term assets with short-term liabilities (that is, aggressive asset-liability management; see below) and securitizing the assets in pools based on rigid contracts that inhibited remediation, the floating rate mortgages effectively and efficiently sabotaged the fundamental underpinnings of the whole system of borrower cash-flow-based assessment. When the lenders burned down their own house, taking the credit score discipline with them, they took out the gatekeepers, too.

Risk assessment, largely the bailiwick of the rating agencies, but also in theory of originators and investors, generally tests assets in the context of the worst possible scenarios (such as the Great Depression). With the benefit of hindsight, we can conclude that the tests administered on the assets that went into securitized pools did not include such bigger-picture adversities as a boom-bust in real estate prices, a rise in short-term

interest rates and gas prices, or mandated increases in credit card principal payments. Nor did they not combine these considerations with such technical factors as the impact of ARMs and the contractual ARM resets on borrower behavior. Alternatively, we could conclude that these tests combined all these big-picture and technical factors but lenders failed to properly weight the adverse results in the final assessment of risk. One way or another, faith in the credit score as a sound predictive indicator of credit risk has been seriously compromised.

With the collapse of the housing market, banks, GSEs such as Fannie Mae and Freddie Mac, all returned to the notion of loan-to-value as a principal guide to credit risk, along with the level of delinquent payments. Effectively, credit scoring took a back seat. However, there was a problem with this effort to return to the balance sheet: housing prices, always difficult to accurately appraise, were falling faster than lender expectations, which meant that the focus on loan-to-value only served to accelerate the collapse of liquidity and prices. The ongoing volume of foreclosures has become a testament not only to the paralysis of securitization, but also to the inability of the banks, GSEs, and agencies (the FDIC excepted) to comprehend one salient fact: in a down market, the only knowable value of a single-family residence is either the amount the owner has the capacity and willingness to pay, or the price that a known buyer is willing to pay, less the cost of foreclosure. The rest is simply expensive guesswork.⁴⁵

The primacy of cash-flow analytics and the borrower's behavior with cash will return as the prime indicator of credit risk. The reason is simple: whether made by a homeowner or a corporate CEO, decisions are made on the basis of cash. Very few people, for example, can instantly tell you how much their house is worth or even how much debt they have on it. However, almost everyone knows the exact amount of their mortgage payment. The same goes for companies. The balance sheet is a remarkable abstraction and has great uses, but only in the context of the operating statement and cash flow. The structure of the asset that generates it and how the asset is managed comes first. Everyone—except those in the process of liquidation or sale—manages for cash. Hence, it makes sense to use cash-flow methodologies for evaluating the borrower's capacity or willingness to pay, whether it is a consumer or the management of an organization.

For the community development sector, there is an additional imperative to focus on cash-flow analysis. Balance sheet methodology, with its emphasis on equity in liquidation, militates against the company or individual who has less wealth. To the extent that the community development sector continues to focus its attention on those traditional "bias-toward-wealth" balance sheet guideposts, it impedes its mission; the

sector ends up raising barriers for itself and its constituents, and occasionally raising them higher than conventional lenders do. Perversely, CDFIs end up not capturing—or undervaluing—the quality of its managers and how its constituents perform as borrowers. So long as the gap persists between the borrower’s performance and the interpretation of the same, accurate credit analysis is difficult, and access to capital—particularly for the low-wealth entity—is compromised.

The reason this discussion is so important is *not* that we are trying to make the case for credit scoring CDFI borrowers, or eschewing the impediments that balance sheet analysis erects for those with less income or wealth. The reason this is important is that CDFIs must master cash flow analysis if they wish to obtain financing from the capital markets and the wholesale side of the banks. The rating agencies will not be looking just to the performance of CDFI loan portfolios or to the net assets on the CDFI balance sheet. They will be seeking to establish the quality of CDFI management, making the right decisions about how to pursue the mission, and establishing consistency in the handling of cash and other resources. This kind of analysis will require not only a different analytical framework, but also a more detailed set of financial data and more accurate and complete financial reporting. These challenges will be taken up in Chapters 7, 8, and 9.

Risk Management

On the subject of managing risk, there are two areas in particular that pertain to both the needs of CDFIs and the recent failures in securitization: diversification of risk, and asset-liability management. We examine how mismanagement of these helped fuel the current housing and credit crises, how CDFIs can benefit from both, and why it is important to bring the tools back.

The Benefits of Risk Diversification

Securitization helps diversify risk by providing the investor limited exposure to a security that is backed by a wide range of cash streams and sources of cash. With securitization, the investor’s dollar can fund a much wider range of readily assessable asset classes with diverse geographies, maturities, rates, and credit risks. At the same time, by assembling large numbers of comparable assets into pools, the process of

securitization produces transactions that diversify risk by expanding the number of obligors; that is, sources of repayment. This expansion of size also serves to reduce the transaction cost per dollar of funds raised. Another benefit of this form of diversification is its relative transparency. Although there are a many different obligors, the assets backing the security are similar and easy to assess, measure, and monitor. In addition, the pooled assets are effectively “quarantined”; because they are segregated into a separate pool, they are free of the influences that could cause them to perform differently, for example, if they were competing for space on a bank balance sheet. In short, the investor can put all of his or her “eggs” in a number of “baskets” all in the same transaction, and simultaneously reduce the likelihood of a material loss.

Together, these benefits allow for a lower yield, some portion of which can pass on to the borrower in the form of a lower interest rate. Reducing the cost to the borrower is, of course, one of the chief objectives of the CDFI mission.

All the following features are essential to CDFIs in their efforts to access the capital markets.

- *Range of assets.* CDFIs make loans for a wide variety of community development purposes, including construction, home purchase, home rehab, small business, microloans, charter schools, and other community facilities. Combining these types of assets into discreet securities by asset class can facilitate the collaborative effort that CDFIs need to aggregate the data, analytics, and assets for capital markets access.
- *Size.* As noted previously, one of the chief objectives of the CDFI field is to gain access to a lot more money. Very few CDFIs are individually large enough to seek funding from the capital markets at a scale that makes economic sense. Developing a securitization among a group of CDFIs is the only way to do so, and securitization is a vehicle designed specifically for this purpose.
- *Cost.* The cost for a CDFI to “go it alone” is prohibitive even when the market is functioning well. A collective effort, which the securitization process facilitates, can substantially eliminate this an impediment.
- *Comparability of assets.* Because CDFIs and the loans they originate are largely unfamiliar to the rating agencies as well as the investing public, the process of isolating them by asset class for the purposes of simplification and transparency is an imperative.

- *Protection of the assets.* At present, CDFI assets are mostly on CDFI balance sheets, and CDFI debt is mostly on bank balance sheets. By taking these off of those balance sheets and putting them in discreet securities designed specifically to hold them, the investor does not have to be concerned about other factors that affect CDFIs and banks.
- *Reducing the cost to the borrower.* This is one of the chief objectives of the CDFI mission, which securitization can accomplish.

In short, securitization remains an ideal mechanism for enabling CDFIs to achieve their funding objectives, and hence their ability to deliver to their mission.

From Diversification to Disposal of Risk

What led to the current crisis and the negative view of securitization had little to do with the processes and benefits listed above. The key flaw in securitization vehicles was that originators had every incentive to generate volume and no incentive to assure quality. Because they had “no skin in the game,” they ended up, as anyone with the same mandate would, originating to the level of available investor cash. The investors had no incentive to assure quality, either, as they assumed the rating agencies had ensured quality. As we know, the rating agencies missed some things. Robert Shiller describes the pressures on rating agencies that encouraged them to miss what could happen.

The rating agencies that pass judgment on securitized mortgages persisted in giving AAA ratings to mortgage securities that ultimately were vulnerable because they too believed that there would be no bursting of the bubble. Even if they did harbor some doubts about the continuation of the boom, they were not about to take the drastic step of cutting ratings on securitized mortgage products on the basis of the *theory*, not widely held, that home prices *might* actually fall. That would have been an unusually courageous step—and one that was all too easily postponed in favor of other business decisions that were easier to make, until it was too late.⁴⁶

In addition, the fact that infinitesimal portions of the projected cash streams from these securitized assets were fanned out to the marketplace in swarms of opaque and rigidly framed securities made true risk management impossible. When performance deteriorated, it became difficult to find, let alone value, all the parts.

Can adjustments be made to the securitization process to restrict, if not prevent, these kinds of failures? Yes, and adjustments will be made. Again, the securitization process is too logical, too efficient, and too profitable to be relegated to the waste bin. When the markets stabilize, securitization in these kinds of assets will also revive. Although the same immediate returns may not be achievable, that may very possibly be a good thing for all, given the recent abuses.

Asset-Liability Management

Another form of risk management also played a role in the collapse of securitization: aggressive asset-liability operations. Diamond and Rajan describe these risks as follows:

With global savings pouring in, and with the Federal Reserve emphasizing its willingness to pump in liquidity and cut interest rates dramatically in case of a sharp downturn (the so-called “Greenspan Put”), it is not surprising that banks were willing to take illiquidity risk. The more general point is that in good times, short-term debt seems relatively cheap compared to long-term capital and the costs of illiquidity seem remote. Markets favor a bank capital structure that is heavy on short-term leverage. In bad times, though, the costs of illiquidity seem to be more salient, while risk-averse (and burnt) bankers are unlikely to take on excessive risk. The markets then encourage a capital structure that is heavy on capital.⁴⁷

The traditional approach to asset-liability management is simply stated: the average term of one’s liabilities should match the average term of one’s assets. It is a conservative approach to funding one’s assets and operations. Following this policy reduces interest-rate risk and, all things being equal, generally ensures adequate cash for debt repayment. Most, if not all, CDFIs still adhere to this policy. Most, if not all, conventional institutions do not, and have not for decades. The same is true of most, if not all, large corporations. Many special-purpose vehicles did not follow the traditional approach either, as it happens, and with devastating results.

There are a number of reasons for deviating from a conservative approach to an asset-liability mix, but perhaps the most obvious and compelling is what is known as the yield curve. Over time, short-term interest rates have tended to be lower than long-term

interest rates. On June 30, 2009, for example, the federal funds rate was at 0.17 percent, 30-day commercial paper was 0.19 percent, 30-day LIBOR was 0.31 percent, 10-year Treasury bonds were 3.63 percent, and 20-year Treasury bond rates were 4.37 percent.⁴⁸ The yield curve would refer to the upward swing of the line that connects, for example, the overnight federal funds rate, the one-month interest rate, the 10-year Treasury rate, and finally the 20-year Treasury rate. As we enter 2010, the upward swing in the yield curve remains. The reason that the yield curve exists is that investors generally want to be compensated more for taking a longer-term, less-certain risk than for taking a shorter-term, more visible risk.

There is also a distinction between a “steep” yield curve and a “flat” yield curve. Steep yield curves occur when the interest rates rise dramatically the farther out in time. Flat yield curves occur when there is very little difference between short-term rates and long-term rates. However, the yield curve does not always curve upward. Sometimes it is “inverted” and short-term rates exceed long-term rates. This typically occurs in times of market crisis (as we saw in 2000–2001 and again in 2007–2008) when conditions in the short-term are considered more distressing than what is expected over the longer term.

By contrast, in times of relative stability, pressure is on to take advantage of the rising yield curve. During these periods, firms can fund their long-term assets with lower-cost short-term funds and can increase, sometimes dramatically, the profits they generate. All banks, GSEs, and most corporations engage in this kind of asset-liability mismatch in the normal course of business and use a range of tools (including derivatives) to protect their interest rate position from adverse interest rate moves in the market. As noted above, CDFIs, by and large, do not engage in this kind of risk taking. They prefer instead to match the term of their liabilities with the term of assets and lock in the rates accordingly. Thus, effectively, while conventional lenders take advantage of the low short-term interest rates to fund their longer-term assets, CDFIs do not—whether there is a steep yield curve or not. Hence, CDFIs are at a distinct cost of funds disadvantage—until market instability leads to a falling or flat yield curve. This difference in policy explains to a large degree why, during the subprime boom, conventional lenders paying market rates on their liabilities could lend at lower rates than CDFIs, despite the low cost of the CDFI-sourced social investments and the high cost of conventional equity.

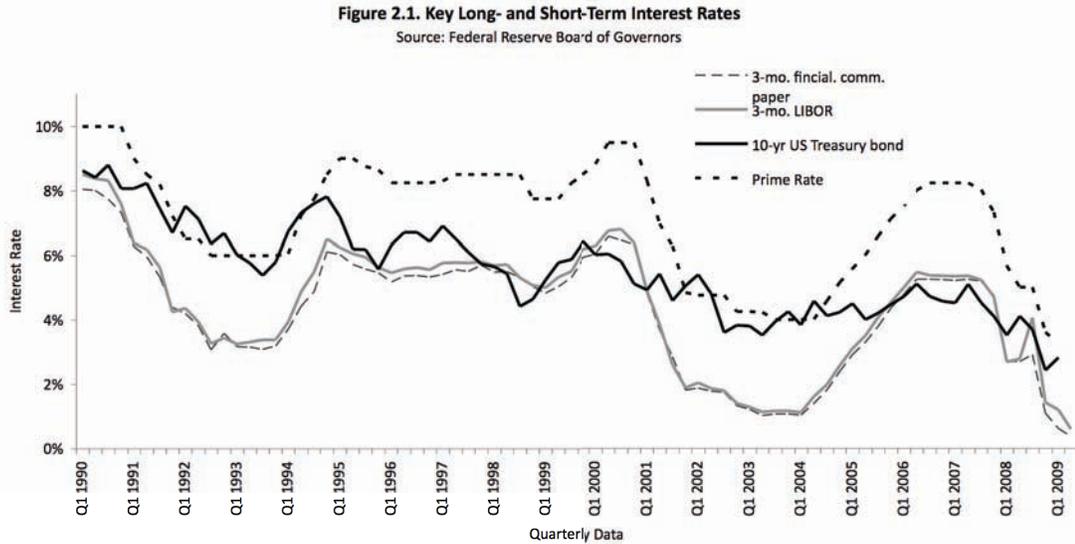
The Lure of an Aggressive Asset-Liability Policy

Let's briefly examine how the use of an aggressive asset-liability policy first profited and then bankrupted the conventional lenders who used it. Most special-purpose vehicles were funded by commercial paper. Commercial paper is a form of short-term borrowing (an unsecured promissory note) used by many corporations to finance a wide range of assets with diverse maturities and varying levels of risk. Assets financed include credit card debt, used car loans, home mortgages, and small business loans. Although the maximum maturity of commercial paper is 270 days, most commercial paper issuers, including the SPVs, roll over their notes at maturity, effectively borrowing long-term at short-term rates. They are able to do this because the combination of liquidity and credit enhancement from banks and other large financial institutions protect the commercial paper investor from any losses due to the inherent asset-liability mismatch. Commercial paper is also exempt from SEC registration, which keeps the issuance costs low. For most institutions, particularly in the financial sector, commercial paper provides the least expensive form of (non-deposit) financing over time. (See Appendix A for a fuller discussion.)

The rating agencies were well aware of the risk of the asset-liability mismatch. One of the key criteria they used for establishing ratings of SPVs was in fact the extent to which the term of the liabilities matched the term of the assets. For an SPV using commercial paper to fund short-term assets, the rating was higher; for an SPV funding longer-term assets, the rating was lower. The criteria were sensitive to the range of issues: longer-term assets being held for resale, for example, were rated higher than those held in the SPV but lower than short-term assets of the same asset class. Higher or lower, the lenders and securitizers of home mortgages, business loans, credit cards, car loans, and other asset classes chose commercial paper funding when they saw the yield curve going their way.

Let's take another look Figure 2.1 from Chapter 2. The figure compares LIBOR and commercial paper rates with 10-year U.S. Treasury bonds. The Treasuries are used because the average life of a mortgage is 7 to 9 years; the 10-year Treasury bond rate is a fairly decent indicator of where a lender's cost will be if he or she wishes to fund the loans (not including the inevitable spread over the Treasury rate that would be charged).

There are two relevant indicators here. First, the short-term rates (LIBOR and Financial Commercial Paper) are in the same basic 4.5–6.5 percent bracket with 10-year Treasury bonds from the end of 1997 through the first quarter of 2001. Beginning in late 2001



(following 9/11), short-term rates dropped precipitously relative to the 10-year Treasury bond. Suddenly, the yield curve becomes extraordinarily steep, and the advantage of using short-term funding balloons from a few basis points to more than 300. In a business where a 50-basis-point spread over cost of funds is pretty nice and 100 basis points is a grand slam, 300 basis points is breathtaking. Needless to say, there were a lot of takers.

Where are the CDFIs in all of this? On the sidelines with their match-funded fixed-rate loan products, unable to compete with conventional rates.

Not that the special-purpose vehicles were taking as much interest-rate risk as might be gathered from the chart. Indeed, they often passed along the benefits of the low short-term cost of funds to the borrowers in the form of front-end teaser rates with scheduled adjustments based on LIBOR, prime, or other cost of funds indices. Effectively, the lenders, passed the interest rate risk—that is, the risk that short-term rates would rise—to the borrower through the SPVs. This also made it easier to line up the requisite liquidity and credit enhancements from the banks. If the SPV were to fail or the commercial paper market dry up, the supporting banks would be forced take all the loans of the SPV back on their own balance sheets. The banks wanted to make sure that,

should they be forced to do this, the loans would carry rates that were compatible with their floating rate cost of funds (such as LIBOR and CDs).

As the figure shows, the window of opportunity for the aggressive asset/liability manager began to close in late 2004. By the end of 2005, the short-term rates were equivalent to 10-year Treasury bonds, 300 to 400 basis points over where they had been in the previous years. This produced a virtually flat yield curve. This radical increase in short-term rates did not force the SPVs to rethink their aggressive approach to asset-liability management because they were passing the increased costs to the borrowers through rate resets. Also, the long-term rates were holding steady. Thus, the SPVs could continue to buy loans, hold them for resale, and fund them with commercial paper, their interest rates effectively protected.

Having said that, the rise in short-term rates did, in fact, cause the SPVs to make changes to their strategies. Once the short-term rates neared the level of the long-term rates, the SPVs saw their gross margins decline; instead of looking at 300 basis points, they might be looking at 75. Because participating institutions had, by 2004, established fairly expensive platforms to capture market activity and because these platforms had to be supported, many of the participating institutions were left with only one solution: “to make it up on volume”; that is, do whatever was necessary to make and sell more loans. Of course, as in any boom, there are only so many quality assets to go around. After the quality assets are accounted for, new assets must be found. If they cannot be found, they must be created. When professionals in the business of trading create assets, the quality of the asset declines in a process that economists call “diminishing returns.” Historically and inevitably.

The one overlooked item in this process: the impact of this yield play on the borrowers. As discussed above, several other factors were squeezing borrowers in 2005, but the 300–400 basis point rise in short-term rates was a killer. The increase hit the borrower in two ways:

- It increased the borrower’s monthly payment, and
- It reduced the value of the borrower’s house, making it harder to refinance (There is an inverse relationship between interest rates and house prices. Generally speaking, the higher interest rates go, the lower the housing price drops because of the amount of debt that is typically involved in the purchase of a house.)

Because for many, cash-out refinancing had been the method of choice for covering expenses from 2000 to 2005, in 2006, engineering a successful cash-out refinancing had become more difficult. Moreover, other events, such as rising gas prices and less generous credit card conditions, coincided with the rise in short-term interest rates that would have a material negative impact on the borrower's ability to pay. This wreaked havoc not only with the debt-to-income ratios that lenders had traditionally relied on, but also on credit scores. Defaults began to rise and investors got nervous. Figure 2.1 (above) shows what happened next.

At the start of 2006, an inverted yield curve emerges as investors start worrying more about what will happen tomorrow than what will happen five years from now. There it is! Case IV is unfolding before our eyes: the commercial paper market collapses as investors head for the exits.

Behind this inverted yield curve, we can see the relentless rise of the one threat the SPVs and supporting banks were entirely unprepared for—loss of investor confidence and virtual abandonment of the market. We can also see an equally troubling feature—the loss of confidence in the banks themselves as reflected in the separation of LIBOR and commercial paper rates during 2008. This separation was a function not only of the loss of confidence in the banks, but also a loss of confidence in the LIBOR index itself, as the integrity of the banks' reporting of their actual costs was called into question. Michael MacKenzie of the *Financial Times* puts it like this:

At the heart of the elevation in LIBOR are concerns over the health of bank balance sheets, where weakness can spill over to the broader economy because it limits the availability of credit to companies and consumers. ... Another issue for LIBOR was raised this summer. Some analysts said the problems with LIBOR reflected the way the measure was being calculated ... Initially, there was some confusion that LIBOR itself was the problem, with talk of the rate being manipulated and not representative of the true cost of borrowing. Quick fixes are now no longer part of the discussion.

As a result:

The three-month dollar London interbank offered rate reached 2.81 percent, a level not seen since mid-June. LIBOR remains particularly elevated when compared with the official overnight rate—the federal funds rate—of 2 percent.

The difference of 81 basis points between LIBOR and the Fed funds rate compares with an average spread of about 12 basis points that prevailed before the onset of the credit squeeze last year.⁴⁹

In the end, no reasonable amount of interest rate protection could help the institutions (and the SPVs) that engaged in aggressive asset-liability management when investors abandoned the sector as a whole. If investors did not step up to fund the asset when the notes matured after 30, 60, or 90 days, rate protection did not mean very much. There simply was not any cash available. Aggressive asset-liability management was not the cause of the crisis, but it certainly was a contributing factor in at least two key respects: the SPV framework required the passing along of increased interest rates to the borrowers, which compromised their ability to pay and eroded the quality of the underlying assets, and the collapse of the commercial paper market forced longer-term assets back on the balance sheets of the supporting banks. This occurred at exactly the same time that the banks were already worrying about lack of capital due to the losses they were starting to take on the loans they already had on their balance sheets.

Meanwhile, CDFIs remained on the sidelines with their little buckets of capital. The concern was not that they were going to be swamped by new low-income homebuyers unable to obtain capital from anyone else. Instead, the concern was that they now would have to reserve against the likelihood of increased defaults, the product of the weakened economy and the credit crisis in the conventional sector. On top of which, CDFIs would have to fight for survival at a distinct disadvantage to other participants in the market.

As noted, LIBOR is the index used for lending to the best CDFIs. In 2008, as the federal government stepped in to lower the federal funds rate and to support the commercial paper market, LIBOR continued at a high spread over alternative borrowing rates. In 2010, as the banks stabilized, the differential returned more or less to the traditional level, to about 15 to 20 basis points above federal funds and commercial paper.

For those CDFIs that lack access to the higher-quality LIBOR pricing—and are, instead, borrowing at the prime rate—the challenge is even greater. As we can see from Figure 2.1, the prime rate, which is traditionally based on the 90-day certificate of deposit, has spent the bulk of the past two decades 100 basis points or so above the 10-year Treasury bond rate, far and away more expensive than either the LIBOR or commercial paper options. This may explain why many CDFIs are not familiar with the opportunity that a steep yield curve can offer.

We might step back for a moment and wonder why these interest rate differentials are so important to CDFIs. After all, CDFIs are not as leveraged as brokers or banks, so the movement of rates has less impact. Moreover, the big costs at a CDFI tend to be operating expenses, not interest expenses. This is a question worthy of an answer. For CDFIs that are small and wish to remain so, or that have more than adequate funding from social investors and foundations, there is little reason to get exercised about borrowing at 50-100 basis points more than others in the market. On the other hand, as a group, CDFIs are keenly aware of the slightest differences in the loan costs they make to their constituents; as a matter of principle they do their best to minimize those costs in the effort to ensure a successful borrower. Why they would not apply the same diligence in borrowing for themselves is a good question, particularly given that the benefits of lower-cost funds can be passed along to their borrowers.

When Travel Resumes

In a contribution to the Federal Reserve Bank of San Francisco's 2009 assessment of the impact of the economic crisis on community development, Nancy Andrews made the following points:

From a series of 11 interviews with leading CDFIs across the country, we find that the economic crisis has created the following conditions for CDFIs:

- Heightened risk in portfolios. The risk is evident in delinquency rates, extensions of loans, or loss reserves set-asides.
- The need for significant patience among community development partners. More time is needed for projects to come together, and lender patience is now crucial for success in struggling neighborhoods.
- Heightened liquidity problems. CDFI liquidity is strained. Many leaders are worried about the availability of new capital, as well as capital renewals from their investors, both private financial institutions and philanthropic partners.
- Severely strained housing portfolios. For-sale housing or early-stage loans with Low Income Housing Tax Credits as part of the project financing plan are particularly hard hit.
- Increasingly fragile borrowers. The future strength of CDFIs is bound to the future of its customers, and the trends are negative. ...⁵⁰

An old adage says that the low-income community is the last to benefit from an upswing and the first to get hurt in a downswing. Certain low-income communities served by CDFIs (parts of Appalachia, for example) never got to the downswing because they were too late for the upswing. Regardless of how disciplined and prudent, CDFIs must deal with the greatest distress when the markets crash, a level of distress that necessarily affects their own condition and prospects. Because the fortunes of the primary sources of CDFI funding generally flow with the economy, CDFIs tend to have fewer resources just when resources are needed the most (the revolving loan fund story all over again!). This crisis comes as a reminder that CDFIs will be at the mercy of the markets even when they have virtually no access to them. And by not having access, they absorb the full force of the downside while enjoying not a bit of the upside. Gaining access to the markets when the markets return to normal can change that habit.

Clearly, the markets have not yet returned to normal. At the annual American Securitization Forum conference in February 2009, while the markets were still paralyzed as a result of the collapse of Lehman Brothers, the findings seemed grim. Monoline insurers, issuers of asset-backed commercial paper, issuers of mortgage-backed securities, issuers of covered bonds, banks, rating agencies, and, of course, investors all reported entire sectors as “dead,” “getting worse,” or “reorienting their focus.” Some mechanisms would not be coming back *ever*, including collateralized debt obligations (CDOs) of subordinate tranches of mortgage-backed securities and credit default swaps on CDOs of subordinated tranches of mortgage-backed securities. It was unlikely there would be any AAA/Aaa-rated tranches on any new securitized mortgage assets any time soon. Intervention by the federal government would be the only way to get the sectors—and the market as a whole—moving again, and everyone was looking for clarity on what form the intervention would likely take. There was also the suspicion that, whatever the intervention, it was likely to be performed with blunt instruments.

One year later, at the American Securitization Forum conference in February 2010, most of the players were still in the room, and while not thriving, there was hope that growth was around the corner. The need was no longer for “life-support,” but rather for clarity on the big question: How much skin in the game is needed and what will it look like?

Markets, inevitably, decline after a rise, and rise after a decline. Yet borrower needs remain, no matter what, and so does the investor cash. Both market forces and government assistance are recalibrating the mechanisms that bring the two together in the most efficient and effective manner. These mechanisms will, necessarily, be improved by the next cycle. The CDFI sector must focus on the elements of the capital markets generally and the securitization mechanisms

specifically so that it does not miss the bus the next time around. To parse which functions and mechanisms CDFIs will need, let's revisit the three imperatives for the FIR team's mission:

- Place CDFI debt with the capital markets
- Standardize CDFI financial reporting and analysis
- Improve CDFI risk management

At present, the prospects for each appear as follows.

Placing Debt with the Capital Markets

Richard Green, in a Federal Reserve Board journal, put it this way:

For investors to be comfortable with something new and unusual, they would need to have confidence in the evaluation of a rating agency. It is an understatement to say that the investment community lacks that confidence at the moment. Moreover, the recent subprime crisis produces an interesting question: can investors a long distance away from a deal invest in heterogeneous products? Banks, who would have a better ability to evaluate an unusual deal, would have every reason to finance those that they find better than average while passing on those that they find worse than average. This means that the only deals that would be left for the securities markets would be those with difficult-to-measure unfavorable characteristics.⁵¹

Early indications appear to confirm the suspicion that federal intervention will involve blunt instruments in at least one "vital organ" of the market: minimum requirements for regulatory capital at the banks. Papers by the Bank of International Settlements indicate two critical changes that may be forthcoming:

- *Regulatory capital.* Resecuritized assets like asset-backed securities and CDOs will see a significant increase of the capital that must be maintained against them.⁵²
- *Market risk rule.* Assets in the "trading book" will be treated the same as assets held in the "banking book" for the purposes of allocating capital.⁵³

Although at this writing, these proposals are in the early forms, they are in the process of being adopted internationally. Thus, some form of these may be well on the way to being formally adopted in the United States. Absent the creation of an alternative source

of credit enhancement or liquidity support—that is, absent a source other than regulated depositories—restrictions of this magnitude could effectively end securitization altogether. The reason: there would be no financial incentive for banks to move the assets off their balance sheet. If capital requirements for off-balance-sheet assets are the same as for assets on the balance sheet, then the bank effectively must earn the same return on each set of assets. To do this, they must substantially raise the fees they charge for the credit enhancement and liquidity facilities, which would greatly reduce their attraction to the investor and the borrower. Thus, although all the advantages of the off-balance sheet securitization would remain for borrower and investor alike, the higher cost occasioned by tighter capital requirements could effectively close down the option. It might be easier and cheaper to borrow straight from the bank.

In short, returning to the Frank Perdue analogy of securitizing chickens—we return to buying the whole chicken. The underlying presumption of restriction is that the market is simply incapable of slicing, dicing, and distributing chicken parts properly, or as suggested above, the regulatory agencies are tacitly admitting their incapacity to ensure that no tainted chicken parts are distributed in the future. If the latter, then it would appear that regulatory authorities feel more comfortable regulating whole chickens, though indeed some of the whole chickens—the big banks—did not perform well in the run-up to the crisis. One way or another, the process is being blamed rather than the tainted chicken.

Slated for later this year (2010), the implementation of the Basel “blunt instrument” rules would not necessarily have an immediate impact. At present, the banks are generally in no position to ramp up securitization activity in any event. Nor will they have room on the balance sheets until such time as the impaired assets are resolved and the capital ratios stabilized. By all appearances, this could take several years. Is this a message to the CDFI sector, if not the market as a whole? Perhaps the banks are not the right institutions to provide the kinds of credit and liquidity support that the securitized bonds and SPVs require. Maybe there is simply too much baggage at this point to return to where they were two, four, or even ten years ago with securitization. Maybe the right way to go for CDFIs is a new monoline insurer with federal liquidity support, or a GSE run as a “public utility” expressly to ensure that the risks in the credit enhancements and liquidity supports are properly sized, diversified, backed, and otherwise prudently managed. Maybe CDFIs get their chicken thighs, breasts, wings, and drumsticks sliced, diced, and distributed by another vendor.

It would be unfortunate for the CDFI field, however, if it bypassed the banks on the way back to a healthy securitization business; at present, they are the only capital market players with a comprehensive and compelling understanding of CDFI performance and the collective data to support CDFIs' claims of low credit risk. It is a body of knowledge at least a quarter century in the making. CDFIs have a vested interest in enabling the banks to get back into securitization to capitalize on this knowledge through the kinds of risk structuring outlined, for example, in the Commercial Paper Co-op.

The need for securitization is not going away. CDFIs, small, dispersed, and variable as they are, will need aggregation, structured finance, and sophisticated distribution. The CDFIs' only alternative to securitization is going to the market directly without the benefit of credit support from the banks. It will be a long time before this happens, for two reasons: the data is insufficient on the performance of unsecured obligations based on CDFI organizational credit risk, and the rating agencies have no platform for evaluating it. Hence, the extent to which the Basel Committee recommendations are implemented will have a significant impact on whether the CDFI field can proceed to the capital markets—or alternatively remain on the bank balance sheets with the higher costs, lower flexibility, and everything else that entails.

Standardizing CDFI Financial Reporting and Analysis

The principal risk with which rating agencies are concerned is impairment or interruption of cash flows. Such impairment or interruption may, depending on the structure of the transaction, cause liquidity risks (if cash flows are not sufficient to cover debt service on the securities on a timely basis) or losses (if cash flows are not sufficient to retire the securities).⁵⁴

Notwithstanding the flaws that the present crisis has revealed, credit scoring—and, in a greater sense, cash-flow analysis—is a genie that simply cannot be put back into the bottle. One of the primary themes at the American Securitization Forum conference was the need to rely less on the rating agencies for assessment of risk. This in effect elevated the importance of transparency, specifically comprehensive data collection, detailed analysis, predictability under a wide range of stresses, and disclosure of risk. Representatives of issuer, investor, and regulatory entities—as well as the rating agencies—all promoted this theme. Far from throwing credit scoring out the window,

they responded to this crisis with an even greater commitment to the importance of evaluating the borrower's behavior with cash—that is, credit scoring.

Some of the ways in which this commitment to credit scoring is being demonstrated by the various industry participants include:

- Expanding the data fields on a borrower's behavior with cash
- Distinguishing how individual borrowers behave with different kinds of debt instruments
- Developing early alerts that automatically change the rating of a loan
- Predicting behavior under differing economic conditions
- Developing up-to-date changes in the risk of a security based on the individual predictions and changes in economic conditions
- Sourcing regular updates of credit scores while the loan is outstanding
- Evaluating the performance of originators

A collateral benefit of this emphasis on transparency of risk is increased *standardization* of the data points and the evaluation protocols that comprehend the underlying risk of the securities.

It is not the job of the CDFI lender to mimic the conclusions of the conventional lender about whether to lend to a borrower once the borrower's credit is scored. Quite the reverse. It is the CDFI's job to fill the gap the conventional lender will not touch. However, at the same time, it is essential that CDFIs adopt the standardized assessment tools, data capture, and financial reporting that the conventional sector uses in its lending activity. It enables the CDFI to fill the gap with much greater specificity and impact, and with much less waste of scarce resources. Adopting standardized assessment tools ensures that data capture financial reporting relative to the operations of the CDFI itself will also be essential. In the same way that standardization will facilitate funding for loan portfolio assets, it will facilitate funding for the debt obligations issued by the CDFI. It will be a key factor in gaining access to flexible low-cost funding. Yes, a higher-risk portfolio of loans or a more volatile CDFI may receive higher rates on the securities that fund them (depending on what other factors the CDFI brings to the transaction), but the key is that the market will be able to define the difference—and so will the CDFI. In addition to enabling the CDFI to attract funding

from the capital markets for the loans, adopting these systems will enable management to justify grant funding from foundations and agencies.

Improving CDFI Risk Management

Douglass Winn, in a Federal Reserve Board publication, argues that training sessions could help CDFIs prepare for the market.

We believe that a targeted series of trainings on these skills for CDFIs would be valuable to the industry, and could play an important role in increasing the number of organizations ready for the capital markets. A series of such training sessions might include:

- A session on building financial infrastructure (tracking loans, decreasing cycle times, developing a system to manage liquidity). ...
- A session on interest rate risk management. ...
- A session on loan pricing. ...
- A session on the basics of securitization.⁵⁵

Winn has been in the forefront of several efforts, including CRF-17, to assist CDFIs in gaining access to the capital markets. Here, he identifies items that CDFIs must become fluent in if they are to grow. Three of these are necessary for gaining access to the capital markets: risk diversification (securitization), managing liquidity, and managing interest rate risk (asset-liability management).

Risk Diversification. Because CDFIs cannot get to the capital markets individually, they must do so collectively. Hence, their greatest selling point (other than mission) is the diversification of assets. When securitization returns, certain mechanisms that “diversify risk” will not be returning, such as CDOs of tranches of mortgage-backed securities and the credit default swaps that supported them. The focus is likely to return to fewer and simpler tranches. The CDFI field will not be affected by the loss of CDOs or credit default swaps. It will absolutely benefit from fewer and simpler tranches when the loans are securitized. The inherent flexibility of the simpler structure also makes remediation simpler, which will be a crucial factor in determining the type and amount of assets to be securitized.

While waiting for the markets to revive, CDFIs should be evaluating portfolios of assets by asset class for future securitization. Evaluation is not just about delinquency, default,

loss, and loss mitigation. It is also about the flows of cash for each asset and the ability of the originator and servicer to maximize them. This evaluation should include the experience of conventional lenders (that is, banks) and CDFI lenders who have managed portfolios of unsecured obligations based on organizational credit risk.

Asset-liability management. In terms of risk management, we must also examine asset-liability matching. Culturally, for the CDFI field, asset-liability mismatching is both unfamiliar and speculative. Yet most of the time, there is a steep yield curve that slopes upward. This translates into ample opportunity for lenders to generate profit, reduce rates, or do both by funding longer-term financial assets with shorter-term liabilities.

Yes, there will always be risk. The regulators and the rating agencies, indeed the market as a whole, recognize the risk. Even prior to the current crisis, securitizations of asset-liability mismatching risked lower ratings and higher costs than securitizations of assets and liabilities that were match-funded. It is likely that the ratings on mismatched assets and liabilities will be lower and the incremental costs higher the next time around. Yet most assuredly, there *will* be a next time around.

Indeed, we are in the “next time” right now. Currently (in February 2010), short-term rates are lower than they were in 2008 or between 2001 and 2004 when the conventional sector took aggressive asset-liability mismatching to new extremes. So the window for aggressive asset-liability management is back. Will lenders take advantage of the opportunity again? Provoking lender interest in lending is precisely one of the results that the Federal Reserve and the Treasury hope to achieve. Are they setting the stage for a repeat of the subprime debacle? No. The aggressive mismatching of assets and liabilities was a major driver of the crises in the housing and the credit markets, *but it did not cause them*. Bad credit decisions, the loss of investor confidence, and the consequent abandonment of the consumer debt markets were the causes.

The question for the community development field is: if the conventional sector jumps in once again, where will CDFIs, with their 30-year fixed-rate match-funded mortgages, be? Under the bus, once again? Clearly, one of the functions the CDFI industry needs to create is the management of prudent asset-liability mismatches. Whether it is the creation of a cooperative entity that engineers the platform or a collaborative effort with existing institutions, such as the Federal Home Loan Banks, the CDFI field will need to get on the bus on this issue if it wishes to continue serving our constituents and generating surpluses together.

It is only a matter of time before the pain of the recent failures in discipline produces the kinds of institutional behavior that promote stability, profitability, and investment. Inevitably we will see most of the mechanisms of securitization return. We will once again see the credit scoring, the tranching, and the asset-liability mismatch. We will even see a return of the leveraging function (albeit more modest) that the Basel papers are attempting to curtail. The reason is, again, simple: these mechanisms are too logical and too profitable to be jettisoned. When these mechanisms are working, they work pretty well, and they work well when the market has faith in the discipline of the lenders and the rationality and authority of the gatekeepers. Indeed, before the “lunatic fringe” took the wheel, the conventional sector had effectively penetrated further into the low-income communities and constituencies than many in the CDFI sector had, and certainly on a much vaster scale. They did so with a range of financial and technological mechanisms that enabled them to spread the wealth and make money at it.

The CDFI field needs to adopt these mechanisms and put them to use in the context of its mission. Even though the markets remain in disarray, there is much that can and should be done to assure a position at the front of the bus when the markets—and the mechanisms that drive them—revive. The first thing CDFIs can do is take a much harder, more disciplined look at what they themselves do—and how they must present their work and their successes. It’s not about just surviving the current economic downturn, but also about staking out a place for the community development mission when the markets return to normal.

CHAPTER 4

The Mini-Fed

In this chapter, we describe the structure and the final financial scenario that the FIR team developed for the Mini-Fed. It was the team's first effort to gain access to the capital markets. This phase of gaining access to the capital markets for unsecured obligations (based on organizational credit risk) was initiated in May 2001 and extended through June 2003.⁵⁶

The Mini-Fed Proposal

Community Development Financial Institutions frequently have surplus cash for specific periods of time, which they invest in treasuries and other high-quality market rate instruments. Other CDFIs need short- or long-term funds, which they would like to borrow at a low cost. The Mini-Fed was designed to enable CDFIs with cash surpluses to invest in CDFIs with cash needs. Because it would be managed by CDFIs for CDFIs, investment and borrowing rates would be set according to their respective needs. Generally speaking, the surplus cash would be invested in deposits with high-quality ratings at market rates in order to attract outside institutional investors as well as CDFIs. The borrowing needs would involve debt instruments with rates below what the CDFIs could get from banks or the capital markets.

The following is a summary of the key features of the Mini-Fed.

Purpose

The Mini-Fed brings CDFIs closer to funding parity with their corporate counterparts in terms of the range of flexible, low-cost liquidity and capital solutions. The liquidity solutions include prudent money market investments, affordable short- and long-term debt, capital markets vehicles, corporate finance expertise, and technical assistance. The Mini-Fed provides this by pooling CDFI industry management and cash resources in a centralized CDFI-managed entity.

Summary of the Proposal

The Mini-Fed consists of a \$50 million loan pool, with \$10 million in equity and up to \$40 million in credit-enhanced, short-term funding. The short-term funding is drawn primarily from surplus cash in the CDFI industry. Foundations and social investors provide the \$10 million in equity. The pool is governed by participating CDFIs and managed by a bank partner. Like most private-sector financial institutions, the Mini-Fed has a structural asset/liability mismatch, which enables it to pay market rates on short-term investment instruments and charge lower rates on longer-term debt instruments. The bank partner manages the asset/liability mismatch. Using the CDFI Assessment and Rating System (CARS) and other industry-sourced benchmarks, management is responsible for maintaining a high-quality portfolio of borrowers. Management is also responsible for assisting participating CDFIs in accessing federal agency funding programs, and developing capital market vehicles and contacts for expanding the range of financial solutions.

Summary of the Benefits

- Expanding CDFI investment options to include a CDFI-specific instrument that is safe, liquid, easy to use, and competitive in risk and yield.
- Expanding CDFI borrowing options to include unsecured short- and long-term funding sources at below-market rates.
- Expanding data on evolving money and capital market needs (both use and size) in the CDFI sector.
- Providing a performance platform that facilitates positive evaluation of CDFIs by the rating agencies.
- Helping to establish a common underwriting and monitoring system for the CDFI industry that is compatible with best practices and assures social investors, institutional investors, and rating agencies that investments in the pool represent a sound and prudently managed risk.
- Assisting CDFIs in becoming more sophisticated in asset/liability management and in improving the level of self-funding of their lending activity.
- Assisting CDFIs in tailoring their products more precisely to the needs of their constituents.

- Tailoring financing instruments to better leverage programs at HUD, the CDFI Fund, the EDA, the SBA, the FHLBs, and the USDA to facilitate better and more widespread use by CDFIs.
- Helping to develop pools and alternative structures to facilitate direct investment in CDFI lending assets.
- Structuring the various financing instruments to suit CRA tests in a more compelling, higher-impact manner.
- Expanding the benefits to all credit-worthy CDFIs over time.
- Achieving self-sufficiency (e.g., no need for further grant support).

Potential Participants

To ensure a low cost for the bank credit enhancement and the rating of the short-term investments, the initial borrowers from the Mini-Fed are restricted to larger, more established CDFIs, with high performance measures. These could include CDFI loan funds, community development credit unions, and community development banks. It is anticipated that the ranks of the borrowers will expand to smaller, newer CDFIs as the rating agencies and banks providing the credit enhancement experience a consistently low default rate on the loans the Mini-Fed makes.

Investors include CDFIs with surplus cash, including regulated community development depositories and CDFI secondary market entities. It is anticipated that the major secondary market entities will also occasionally borrow from the Mini-Fed.

Products

The Mini-Fed offers CDFIs investment products at market rates for the lowest possible corporate risk, and borrowing options at or below those offered to top-quality corporate treasurers in terms of rate, maturity, and flexibility. The low rates on the investment products are justified by the top rating afforded to the investment securities by the bank credit enhancement. The low rates on the borrowing options allow the Mini-Fed to use short-term funding of longer-term assets and to ensure quality gate-keeping in terms of evaluating borrower risk.

The Mini-Fed provides borrowers and investors the following products:

- *High-quality investments.* CDFIs can currently invest in federally insured CDs, treasuries, and agencies. Some CDFIs can also invest in high-quality marketable private-sector paper (e.g., AAA/aaa bonds, or A-1/P-1 commercial paper). The Mini-Fed provides an additional high-quality investment, but with the added advantage that the proceeds are deployed for the CDFI mission.
 - (i) *Credit quality* (via credit enhancement) that enables the CDFI to adhere to the constraints of its investment policy.
 - (ii) *Push-button simplicity:* The transactional procedures must equate to the normal conduct of CDFI cash management.
 - (iii) *Transparency.* Comparative rates are posted to assure investor CDFIs they are on target with comparable rates of return.
- *Short-term notes.* The Mini-Fed makes unsecured loans to CDFIs for periods of up to 270 days at the lowest rates available to the best borrowers in the market. One of the platforms is a “discount window” that enables investors to bid on short-term notes to be issued by CDFI borrowers.
- *Medium-term notes.* Unsecured market-rate amortizing loans for periods of up to 10 years, but averaging 7 years, at the lowest rates available to the best borrowers in the market.
- *Advisory.* Mini-Fed staff advise CDFI clients on the full range of financing options available at the agencies and in the capital markets. Staff serve as a clearinghouse on organizational financing programs at the federal agencies and for competitive vehicles in the capital markets. Agency programs include the CDFI Fund, Department of Housing and Urban Development, Small Business Administration, Department of Agriculture, U.S. Department of Health and Human Services, U.S. Department of Education, Federal Housing Administration, Veterans Administration, and the Federal Home Loan Banks. Competitive vehicles in the capital markets that the Mini-Fed staff tracks include asset placement in the form of whole loan sales, collateralized debt obligations and participations, and a range of fixed- and floating-rate options tied to individual CDFI cash flow needs in partnership with the Federal Home Loan Banks (FHLBs). A key purpose of the advisory function is to develop a range of financing instruments designed to suit CDFI organizational risk and to enhance the sophistication of CDFI financial management techniques.
- *Agency for asset placement.* Mini-Fed staff help aggregate and bundle assets and liabilities generated by CDFIs and help place them with participants in the

capital markets. Bundled assets and liabilities are in the form of participations, whole loans, collateralized debt obligations, and other forms of securitization.

Structure

The Mini-Fed is a partnership, possibly a cooperative, owned by the CDFI field. The Mini-Fed's lending function is to focus on evaluating the loan request and the organizational risk of the borrowing CDFI. With the benefit of industry standard underwriting (such as CARS) and a volunteer loan committee, the Mini-Fed makes short- and long-term unsecured loans. Staff allocate credit in the portfolio in accordance with designated categories of risk and differences in term using guidelines provided by the bank partner. Staff monitor the performance of the loans and the credit quality of the organization.

In its advisory capacity, the Mini-Fed serves as a clearinghouse for information on agency programs and competitive capital markets vehicles. Advisory includes information on structure, alternatives, relevance, and feasibility, as well as arranging contact with the providers.

The Mini-Fed also has bank partners who provide credit enhancement. The banks assemble the bank participants in a \$40 million letter of credit that provides the credit support for the A-1/P-1 level rating on the Mini-Fed's short-term obligations. The bank partners are also responsible for asset/liability management. In that capacity, they provide guidance on the concentration of loan portfolio maturities and credit risk in the context of the liability side of the balance sheet and changes in the interest rate environment. The bank partners perform the loan servicing, and investor relations functions, and manage a discount window. The window ensures that short-term (30-180 days) cash needs of one CDFI can be met by bidding on the deposited cash surpluses from another. The Mini-Fed arranges for one or more banks to serve as trustees on obligations.

Funding

The Mini-Fed must raise \$10 million in grants from several foundations, corporations, banks and agencies. The \$10 million is permanent equity, which will serve as both a source of free funding and as a cushion in the event of losses. A key part of the effort is to convince foundations that this structure both simplifies and reduces the need for annual grants.

The Mini-Fed is structured to maximize the use of both CRA and tax credit benefits. By pooling surplus funds for investment in CDFIs, the Mini-Fed presents banks and other institutions with several forms of investment opportunity, including equity investment in the pool, credit enhancements of CDFIs, and investment in specific CDFI assets. These options are also viewed as ideal for insurance companies.

A lead bank assembles a consortium to provide the funding for the Mini-Fed. The consortium provides a \$40 million letter of credit that backs notes issued by the Mini-Fed. The letter of credit is used to back notes issued by the CDFIs that are purchased directly by investors via the discount window. The notes have the equivalent of an A-1/P-1 rating.

Once the equity is in place, the Mini-Fed begins lending. Once the letter of credit is in place, the Mini-Fed solicits additional investments from CDFIs with surplus cash and issue the rated short-term notes.

Financial Objectives

The guidelines for the financial structure of the Mini-Fed are to:

- Obtain A-1/P-1 rating on short-term investments;
- Ensure a target balance sheet leverage at 5:1 (based on an assessment of risk and on the calculation of the maximum amount of debt that the equity could prudently support);
- Ensure the target maximum risk asset (CDFI exposure) does not to exceed 50 percent of total assets at any point (e.g., 50 percent shrinkage in CDFI asset value before debt holders lose money);
- Annually invest the full amount of contributed capital;
- Cover transaction costs, and generate a moderate surplus, thereby achieving full self-sufficiency.

As discussed in Chapter 3, there is significant risk inherent in the asset/liability mismatch, and it must be managed with care. But the Mini-Fed, by limiting the amount of CDFI loans outstanding to a maximum of \$25 million (50 percent) at any given point reduces the interest rate exposure significantly. Exposure is reduced because at least 40 percent of the \$25 million in CDFI loans outstanding are funded by the \$10 million in equity (plus cumulative surpluses). The remaining \$25 million of the Mini-Fed assets are

largely asset-matched with short- and medium-term investments in high-quality marketable securities (e.g., treasuries, agencies). This leaves a maximum \$15 million in CDFI loans exposed to interest rate risk at any point in time.

The key operating assumptions for the Mini-Fed are:

- Obtain \$10 million of grant funding at outset.
- Offer two unsecured loan types based on the organizational risk of the CDFI borrower. The first is a seven-year (average) amortizing term loan that funds permanent working capital (Loan type 1 in the Table 4.1). The second is a three-year, interest-only, working capital loan covering relatively short-term organizational needs, such as acquiring a loan portfolio or initiating a new program (Loan type 5 in Table 4.1).
- Offer loan interest rates of 3.0 percent for unsecured short-term loans and 5.0 percent for unsecured long-term loans. This implies a rising yield curve, which has important implications.⁵⁷ Both types of loans are priced at 50 basis points over the cost of funds of equivalent maturities. Most borrowings, however, are short-term and based on the assumption that CDFI and social investors will roll the bulk of them over at maturity.
- Charge origination fees of 1.0 percent for the short-term loans and 1.5 percent for the long-term loans.
- Average 4 percent yield on the investment portfolio, given that they are invested primarily in longer maturity agencies.
- Operating expenses to include a staff of three full-time employees, including one lender and one advisor. All-in costs totaled \$440,000 annually, plus other costs of \$240,000 inflating at 3 percent per year. Administrative fees of 1 percent, and servicing fees of 0.5 percent on loans outstanding are paid to third-party (bank) providers.
- Funding costs include 2.5 percent for short-term debt (CDFI investments at the commercial paper rate) and 5 percent for long-term debt. (A 10-year zero coupon bond was also an option, although not pursued. Such a bond could accelerate the period of stabilization and sustainability). Notably, it is assumed that the Mini-Fed simply rolls over short-term debt without ever paying it down, which as we have discussed, is standard practice in the corporate and institutional sectors.

- Charge-offs of 0.25 percent per year for short-term loans and 0.5 percent per year for long-term loans.
- Target total outstanding loans of \$25 million and total restricted and unrestricted investments in treasuries and agencies of \$25 million.
- The Mini-Fed grows from \$25 million in assets in the first year to about \$50 million in the third year.
- CDFI loan assets grow from approximately \$10 million at the end of the first year to approximately \$25 million in the third year, remaining at that level for the duration.
- Loan volume exceeds the \$10 million grant investment on an annual basis. Over the seven-year period, the Mini-Fed makes \$75 million in loans, divided between \$22 million in short-term (maturity in two years; average life, 1.5 years) and \$53 million in long-term (maturity in seven years; average life, four years).
- By the end of the sixth year, the Mini-Fed will have reached a stabilized, sustainable state, issuing approximately 15 loans per year of about \$12 million total. Table 4.1 shows the loan design and volume of unsecured loans to CDFIs for the Mini-Fed.

As shown in Table 4.1, each loan type is characterized by certain terms (interest rate, number of years with interest only terms, and number of years amortized), portfolio size (average size of loan and number of loans over the period, and percentage of loans sold), fees (origination, servicing received, servicing paid), and performance (charge-off rate). One of the most important indicators for the overall mission is in line 40. The \$10 million in grant capital results in an overall lending volume of \$75.5 million, or more than \$10 million per year in loan volume on the same \$10 million granted by the foundations and social investors.

Table 4.2 summarizes the key financial indicators for the Mini-Fed and how it performs under the final set of assumptions. The Mini-Fed increases the loan portfolio (line 271) by more than 120 percent in seven years. Total assets (line 273) nearly double over the same period. Although total debt (line 283) more than doubles, leverage (line 284) peaks in the third year and stabilizes below 4.0. Over a seven-year period, the Mini-Fed achieves self-sustaining performance.

One of the critical features of this self-sustaining structure is in line 295: years to repay debt. This is an indicator of how many years it would take to pay off debt in full from

free cash flow, which is chiefly derived from loan principal repayments. While climbing for the first few years, by year 7, the Mini-Fed is generating enough cash to repay all of its debt within three years. By reducing this number to the two- to three-year range, the Mini-Fed reduces the exposure to interest rate risk. Regulated depositories (such as community development credit unions) are keenly aware of the need to keep this number low and in line with their deposit maturities; and the bank that manages the balance of the Mini-Fed assets and liability would be likewise keenly aware.

Chart 4.1. Assumptions on Mini-Fed unsecured loans to CDFIs

Loan Type 1:	6	Amortizing Mortgage							
Interest Rate	7	5.00%							
Number of Years	8	7							
Average Size of Loan	9	\$1,000,000	(\$14,133.91)	Monthly Payment					
# Loans over the period	10	53	\$53,000,000	Total Loans					
Origination Fees	11	1.50%							
Servicing Fees Received	12		0						
Servicing Fees Paid	13	1.500%							
Percentage of Loans Sold	14								
Charge-off Rate	15	0.50%							
Market Interest Rate	16								
Loan Type 2:	17	Amortizing Mortgage							
Interest Rate	18								
Number of Years	19								
Average Size of Loan	20		\$0.00	Monthly Payment					
# Loans over the period	21	-	\$0	Total Loans					
Origination Fees	22								
Servicing Fees Received	23								
Servicing Fees Paid	24								
Percentage of Loans Sold	25								
Charge-off Rate	26								
Market Interest Rate	27								
	28								
Loan Type 3:	29	Amortizing Mortgage							
Interest Rate	30								
Number of Years	31								
Average Size of Loan	32		\$0.00	Monthly Payment					
# Loans over the period	33	-	\$0	Total Loans					
Origination Fees	34								
Servicing Fees Retained	35								
Servicing Fees Paid	36								
Percentage of Loans Sold	37								
Charge-off Rate	38								
Market Interest Rate	39								
Loan Type 4:		Amortizing Mortgage							
Interest Rate									
Number of Years									
Average Size of Loan			\$0.00						
# Loans over the period		-	\$0						
Origination Fees									
Servicing Fees			0						
Servicing Fees Paid									
Percentage of Loans Sold (\$)									
Charge-off Rate									
Market Interest Rate									
Loan Type 5:		Interest Only/Amortization							
Interest Rate		3.00%							
Number of Years - Interest Only		1							
Number of Years - Amortizing		1	(\$42,346.85)						
Average Size of Loan		\$500,000	\$22,500,000						
# Loans over the period		45							
Origination Fees		1.00%							
Servicing Fees Received			0						
Servicing Fees Paid		1.500%							
Charge-off Rate		0.250%							
Percentage of Loans Sold (\$)		0%							
Market Interest Rate									
Loan Type 6:		Amortizing Mortgage							
Interest Rate									
Number of Years									
Average Size of Loan			\$0.00						
# Loans over the period		-	\$0						
Origination Fees									
Servicing Fees			0						
Servicing Fees Paid									
Percentage of Loans Sold (\$)		0%							
Charge-off Rate									
Market Interest Rate									
II. Loan Volume	40	Total Loans	\$75,500,000						
Years		2003	2004	2005	2006	2007	2008	2009	
Number of Loans #1	41	10	10	10	5	6	5	7	
Number of Loans #2	42								
Number of Loans #3	43								
Number of Loans #4	44								
Number of Loans #5	45	5	5	5	5	5	10	10	
Number of Loans #6	46								
Total New Loans	47	15	15	15	10	11	15	17	
Total Loans Outstanding (Not Incl.Amort)	48	15	30	40	45	51	61	73	
# of New Loans On Balance Sheet	49	15	30	40	45	51	61	73	

Table 4.2. Summary of Key Financial Indicators for the Mini-Fed

Key Indicators & Funding Choices	2003	2004	2005	2006	2007	2008	2009	
	MiniFed	SCENARIO 4		Chart	1			
The Four Categories:								
Total Assets: Gross Operating Yield	263	7.279%	5.464%	5.255%	4.790%	4.893%	4.759%	4.809%
Operating Expense/Avg. Assets	264	5.716%	2.812%	2.346%	2.222%	2.268%	2.309%	2.358%
Cost of Funds (to Average Assets)	265	1.566%	1.742%	1.936%	1.991%	1.984%	1.982%	1.976%
Charge-offs to Avg. Assets	266	0.385%	0.272%	0.270%	0.243%	0.246%	0.240%	0.233%
Key Asset Diagnostic Indicators								
Loans: Total Yield	267	11.53%	7.08%	6.47%	5.51%	5.70%	5.41%	5.52%
Loan Rate versus Debt Rate	268	5.91%	3.41%	3.16%	2.61%	2.74%	2.42%	2.41%
Property Revenue to Property Value	269	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Property: Net Operating Rev to Value*	270	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Loan Portfolio	271	11,001,486	18,255,524	24,154,237	24,357,984	24,586,104	25,402,924	24,565,566
Real Estate Properties (Owned)	272	0	0	0	0	0	0	0
Total Assets	273	26,025,034	38,281,919	49,269,478	49,430,634	49,622,080	50,419,440	49,657,827
Off Balance Sheet Loans	274	0	0	0	0	0	0	0
Gain or (Loss) on Loan Sales	275	0	0	0	0	0	0	0
Gain or (Loss) on Real Estate Sales	276	0	0	0	0	0	0	0
Mission Restricted Net Assets	277	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Total Net Assets	278	9,725,034	9,781,919	9,969,478	10,130,634	10,322,080	10,419,440	10,557,827
Staff Stress								
Total Loan Volume/Staff	279	15.00	15.00	15.00	10.00	11.00	15.00	17.00
Total Projects Volume/Staff	280	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Loans Outstanding/Staff	281	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Projects per Property Staff	282	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trip Wires								
Total Debt	283	16,300,000	28,500,000	39,300,000	39,300,000	39,300,000	40,000,000	39,100,000
Total Liabilities/Net Assets	284	1.68	2.91	3.94	3.88	3.81	3.84	3.70
Target Liabilities/Net Assets	285	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Equity Needed to Meet Leverage Target	286	0	0	0	0	0	0	0
Unrestricted Investments	287	5,000,000	10,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Mission Restricted Investments	288	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Cash Reserve Requirement	289	0	0	0	0	0	0	0
Loan Reserve Requirement	290	0	0	0	0	0	0	0
Target Cash/Investments Month on Hand	291	3	3	3	3	3	3	3
Cash Needed to Meet Cash Target	292	0	0	0	0	0	0	0
The Bottom Line								
Net Surplus (Deficit)	293	9,725,034	56,885	187,558	161,157	191,446	97,360	138,387
Ending Cash	294	23,548	26,396	115,241	72,651	35,976	16,516	92,261
Years to Repay Debt	295	1	5	6	5	5	4	3
Incr/Decr Unrestricted Investments	296	(5,000,000)	(5,000,000)	(5,000,000)				
Short Term Debt	297	16,300,000	12,200,000	10,800,000			700,000	(900,000)
Long Term Debt	298							
Operating Grants per Year (\$)	299	0	0	0	0	0	0	0
Mission Asset Restricted Grants per Year	300	10,000,000	0	0	0	0	0	0
Permanent Endowment Grants per Year	301	0	0	0	0	0	0	0

Figure 4.1 displays the self-sustaining performance that can be achieved by the Mini-Fed. This parallels the management of risk in regulated depositories, although with longer maturities. This management of risk is reflected in the combination of leverage control and maximization of cash flow.

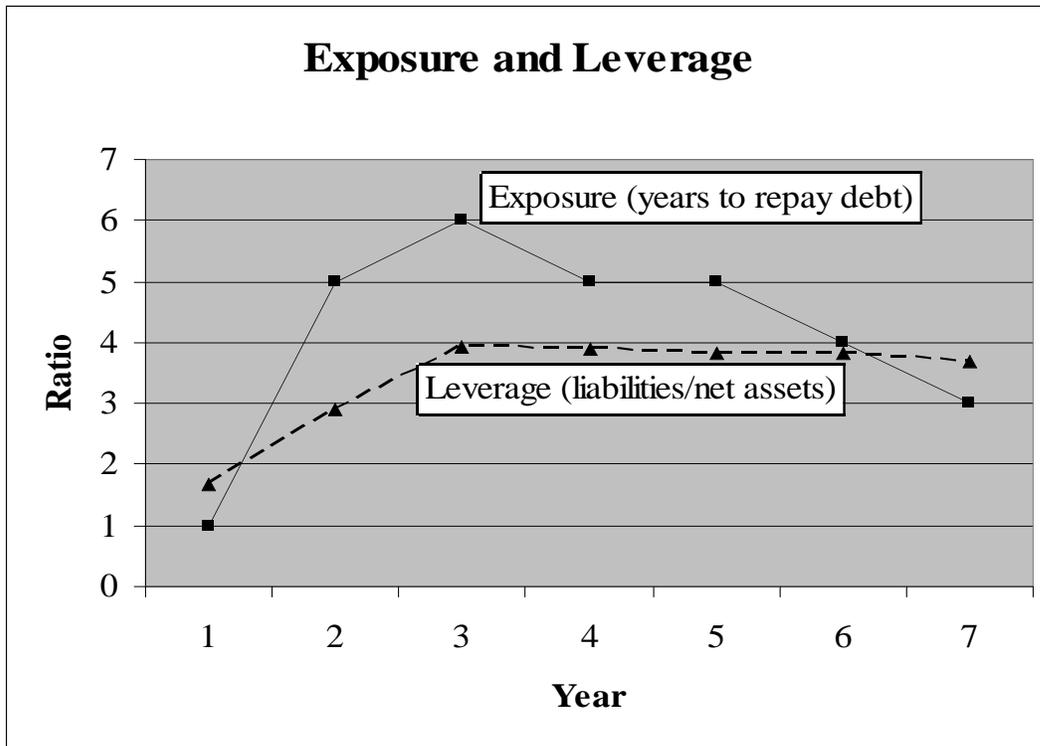


Figure 4.1. The Connection between Leverage and Free Cash Flow

As conceived, the Mini-Fed’s structure works primarily because it “plays” a rising yield curve. The bulk of the Mini-Fed’s borrowing is done with short-term notes issued to CDFI investors sourced at 2.5 percent. Up to half of the assets are invested in longer-term loans and investments, with investments garnering an average 4 percent yield and long-term loans garnering 5 percent. When combined with origination fees, the loans yield in the 5-6 percent range.

Effectively, the Mini-Fed’s ability to lend at below-market rates (for unrated unsecured debt) while paying market rates on its funding is created by aggressively managing the

yield curve, and keeping the average maturity on the portfolio, as a whole, relatively short.

One of the chief benefits of this structure is that it eliminates the perceived CDFI organizational risk by keeping leverage under 5:1 and, more important, by investing 60 percent of debt proceeds (\$25 million of the \$40 million in debt raised) in high-quality marketable securities. This is one form of over-collateralization that also ensures maximal liquidity for the Mini-Fed, if interest rates move.

However, as noted above, another factor is at work as well. Consider what happens with the new loan volume the Mini-Fed created in Table 4.1 above. Table 4.3, which shows a portion of the Mini-Fed's cash flow statement, starts with the dollar value of the new loans made in each year derived from the assumptions in Table 4.1 (i.e., 10 term loans [Loan Type 1] valued at \$10.0 million occur in the first year, and five working capital loans [Loan Type 5] valued at \$2.5 million, for a total of \$12.5 million, as shown on the top line (422) of Table 4.3).

Lines 422 and 435 in Table 4.3 reveal that the portfolio has managed to minimize the average term of the whole loan portfolio by adjusting loan volume in favor of shorter maturities. The result is that, by the fourth year, the principal being repaid finances nearly the entire new loan volume. This is one of the key reasons that, even with a large percentage of loans with a seven-year average maturity in the portfolio, the years to repay debt (line 295 in Table 4.2) is declining, along with the need to borrow more money.

Comparing the dollar volume of new loans with the annual principal pay-off on previous loans, as shown in Figure 4.2, it is apparent that the Mini-Fed manages to become *self-funding* as well as self-sustaining. This capacity to self-fund is summarized in the Figure 4.2.

The aggressive management of the yield curve represents the primary risk in this particular Mini-Fed scenario. Should spreads between short- and long-term rates narrow or invert (as indeed they did during 2006-07), this structure would not be viable or sustainable, at least not with these loan rates. Short-term borrowing would be less attractive. Long-term borrowers would want to keep their loans outstanding longer. Short-term investors might not renew their investments at maturity, and the Mini-Fed might be forced to liquidate portions of its portfolio at a loss to pay maturities as they come due.

Table 4.3. Key to Self-Funding

CASH FLOW (EXCERPT)		2003	2004	2005	2006	2007	2008	2009
New Loan Volume (Less Charge-offs)	422	(12,500,000)	(12,500,000)	(12,500,000)	(7,500,000)	(8,500,000)	(10,000,000)	(12,000,000)
Loan Sales (Face Value)	423	0	0	0	0	0	0	0
Property Purchases/Development	424	0	0	0	0	0	0	0
Property Sales at Cost - Total	425	0	0	0	0	0	0	0
Property Sales at Cost - Restricted	426	0	0	0	0	0	0	0
Incr/Decr Unrestricted Investments	427	(5,000,000)	(5,000,000)	(5,000,000)	0	0	0	0
Mission Restricted Balance Deployed	428	0	0	0	0	0	0	0
Accounts Receivable	429	0	0	0	0	0	0	0
Other Assets	430	0	0	0	0	0	0	0
Accounts Payable	431	0	0	0	0	0	0	0
Other Liabilities	432	0	0	0	0	0	0	0
Total Uses	433	(17,500,000)	(17,500,000)	(17,500,000)	(7,500,000)	(8,500,000)	(10,000,000)	(12,000,000)
Net Operating Sources/Uses	434	(17,500,315)	(17,207,494)	(17,073,794)	(7,214,780)	(8,182,222)	(9,765,775)	(11,762,196)
Loan Principal Repayments	435	1,223,863	5,010,342	6,362,639	7,172,190	8,145,547	9,046,315	12,737,941
Loan Princ Repymts & Sales -Restricted	436	0	0	0	0	0	0	0
Short Term Debt	437	16,300,000	12,200,000	10,800,000	0	0	700,000	(900,000)
Existing Long Term Debt: Amortization	438	0	0	0	0	0	0	0
New Long Term Debt: Amortization	439	0	0	0	0	0	0	0
Long Term Debt	440	0	0	0	0	0	0	0
Total Financing Sources	441	17,523,863	17,210,342	17,162,639	7,172,190	8,145,547	9,746,315	11,837,941
Change in Cash	442	23,548	2,848	88,845	(42,590)	(36,675)	(19,460)	75,745
Ending Cash	443	23,548	26,396	115,241	72,651	35,976	16,516	92,261

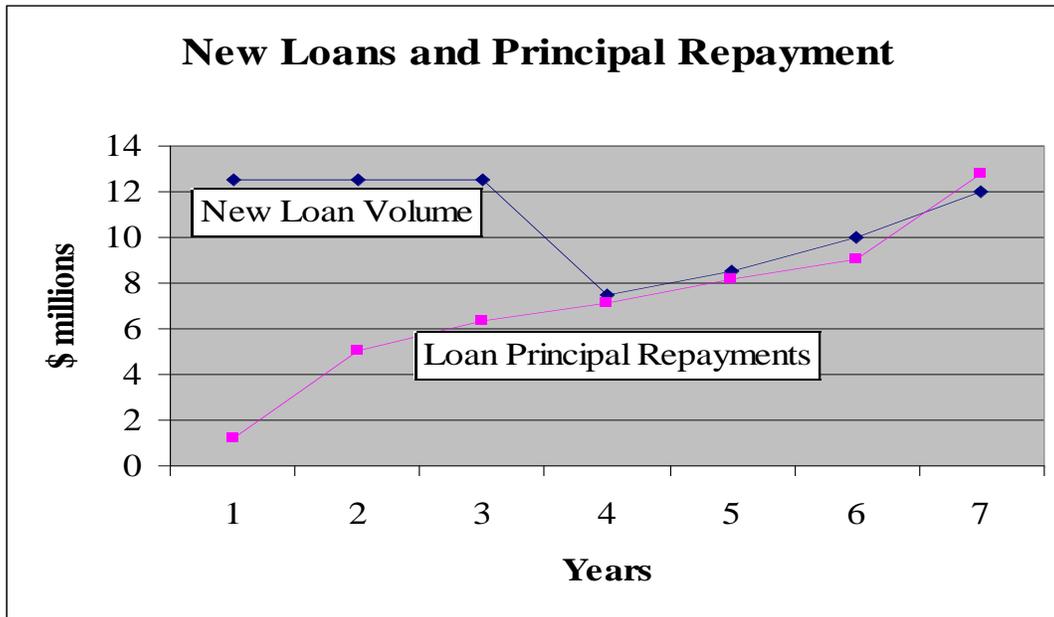


Figure 4.2. Self-Funding: New Loans Are Paid from Principal Payments

Nevertheless, as noted earlier, aggressively managing the yield curve is an activity that corporations, and financial institutions generally, do every day to achieve a competitive edge on product pricing. This was true of subprime (and predatory lenders) as well, and it gave them a distinct pricing edge over more responsible lenders, who had a less sophisticated asset liability management capability. (Chapter 8 goes into more detail on this topic.)

It was not the intent of the FIR team to be alone in this effort to build a sustainable platform based on an asset/liability mismatch. At the time, the Federal Home Loan Banks (FHLBs) were looking for ways to expand their commitments to community development. With their highly sophisticated asset/liability management tools, top ratings, and cash, the FHLBs offered CDFIs opportunities to help minimize the both the liquidity and the interest rate risk. The FIR team envisioned a system of derivatives based around the maturities in the loan portfolio that could establish a reasonable and prudent risk position. However, things didn't get that far. There were too many challenges that could not be overcome. The section "What Didn't Work" below offers a fuller understanding of why this didn't work, and why it still won't work. But first, some of the clear "wins."

What Worked for the Mini-Fed

As conceived, the Mini-Fed offers a number of advantages for CDFIs, including achieving the primary objective of achieving “funding parity” with lenders of equivalent quality. The main advantages are:

1. *Alternative funding sources.* Enabled CDFIs to establish a platform that provided a collective alternative to the bank balance sheet; a critical step toward funding parity with other financial entities.
2. *A high-quality rating.* Using bank letters of credit (L/Cs) to get an A-1/P-1 rating on notes issued by the Mini-Fed provided CDFI investors with mission-compatible investments of the highest quality credit rating, at equivalent yields.
3. *Below-market rate funding to CDFIs.* The Mini-Fed borrowed at market rates and lent at below-market rates (for the perceived unsecured, unrated risk).
4. *Control of rates and yields.* A lending partnership or cooperative like the Mini-Fed was not new; credit unions, for example, had been doing it for some time. However, the concept of enabling CDFIs, through their management of the Mini-Fed, to determine rates and yields, was new. By making the trade-offs among mission risk in the portfolio, interest expense, and the cost of maintaining the entity, CDFIs for the first time, would be in a position to calibrate the level of mission risk versus rate directly with funders and the banks (as credit enhancers) on a collective basis.
5. *Simplifying donor, lender and investor funding.* The centralization and consolidation of CDFI credit exposure into a single entity simultaneously reduced credit risk through diversification, and simplified and reduced the cost of institutional investment in CDFIs.
6. *Leveraging grant dollars.* The capacity to deploy \$10 million of grant capital to produce \$75 million of below-market-rate loan volume over a seven-year period—and multiples of that over an extended period—was a breakthrough. Even more critical was that the loans were unsecured obligations based, ultimately, on the organizational risk of the participating CDFIs. This was a significantly more efficient use of grant capital than in a traditional revolving loan fund structure.
7. *Sustainability.* Deploying the initial grant in a manner that did not require additional subsidy going forward was a positive. Although various bonds used this approach (e.g., build all of the subsidy up front in the form of reserves), it was uncommon in the CDFI industry.

What Didn't Work for the Mini-Fed

As positive as the “wins” of the Mini-Fed were, several factors made the Mini-Fed difficult to implement. The key impediments were:

1. *The transaction was too small.* At \$50 million, with a \$25 million allocation for CDFI risk, the Mini-Fed was too small for the rating agencies to consider on an economic basis. The minimum size for the rating agencies began at \$75 million. The Mini-Fed was also too small to have much impact on the CDFI field. Moreover, for the CDFIs that were most likely to qualify (on the basis of financial strength), the loan sizes were too small.
2. *Rating agencies had no platform to evaluate CDFI risk* in a manner consistent with the precision with which they evaluated other sectors. Moreover, the CDFI sector lacked the necessary performance data on organizational risk to assist the rating agencies in developing such a platform.
3. *Asset/liability mismatching was viewed with skepticism.* The ability to generate surpluses on a mismatched book, and to build a funding structure independent of the maturities of individual assets were key benefits of gaining access to the capital markets. However, CDFIs and potential bank funders were unwilling to support a business in the community development sector that was built on this model. Moreover, CDFIs participating in the discussion were generally unfamiliar with the technology, and uncomfortable with taking this risk. Even using a bank partner was viewed with concern. Their preference was to stay with the traditional approach to asset/liability management, that is, matching the term of the funding with the term of the assets.
4. *CDFI investment policy restrictions were a deterrent to investing in a Mini-Fed.* CDFI investment accounts are constrained in several ways that work against investing in a Mini-Fed. First, investment policies tend to restrict investments to the very highest quality instruments, and many exclude A-1 / P-1 commercial paper or other forms of high-quality corporate risk. CDFIs often have restrictions on where they can invest, which might preclude investing in a fund that deploys the proceeds nationally. CDFIs also needed to be assured that the investment was as easy to use as it was liquid and riskless, a process that would take time to build and to market.

5. *Maturities were too short.* For the Mini-Fed to work under the proposed scenarios, the average maturity for the portfolio had to be in the 3-5 year range. The below-market lending rates forced a shorter maturity for technical reasons: below-market-rate loans could not be sold without taking a loss, so in this scenario, the Mini-Fed had to keep the loans on its balance sheet. If the Mini-Fed could not sell loans, and its cost of new funds exceeded the yield on the loans, then the only major source of cash for lending would be from principal repayment. At stabilization in this scenario, the portfolio was designed to run a ratio of repayments to new loan volume between 60 and 120 percent, which meant that the maturity of the loans had to be limited. However, at the time of the Mini-Fed effort, CDFIs indicated that the biggest need was for long-term, low cost funding rather than short- or medium-term funding at or near market rates.
6. *The loan products involved a level of perceived risk that was unacceptable for banks and investors.* The combination of short- and medium-term loan products introduced a challenging level of complexity, particularly because they were unsecured. Banks may lend on an unsecured basis to a CDFI for relatively short periods based on its organizational strength, but longer -term support, whether in the form of a revolving credit or a credit enhancement, was a challenge. Going beyond short- and medium-term loans into pooling, participations, securitization and derivatives, added a further level of complexity that was not encouraging.
7. *Insufficient staff.* Although the proposed staffing was likely sufficient for allocating risk and generating transactions, it was unlikely that staff could simultaneously carry out the kinds of collaborative data collection, credit evaluation, and performance monitoring that the Mini-Fed called for among the banks, the rating agencies, and the CDFI sector. Developing products that best suit CDFI constituent needs was an additional burden. The plan also called for a brokerage and placement capability, but it was clear that the necessary staff to accomplish this would make the Mini-Fed non-viable even at several times the target \$50 million size.
8. *Credit risk was too low to be of value to the CDFI field.* At the target .5 percent and .25 percent annual loss rates, the level of organizational risk the Mini-Fed could take into its portfolio was limited. It was likely that only those entities already attaining comparatively low interest rates from the banks could use the facility.
9. *Sizable segment of CDFI was excluded.* Using rating agency criteria to allocate credit risk excluded large segments of the CDFI sector. The analytical framework and oversight also militated against taking the kind of risk associated with the CDFI mission. In particular, some in the CDFI field viewed the process whereby CDFI risk

- would be introduced to the capital markets—such as standardization of analysis, reporting, and oversight—as potentially compromising the community development mission. To be sure, the existing system in which CDFIs individually attain credit from their banks was also exclusionary for the same reasons—bank funders pick and choose the CDFIs they will lend to, and with the banks, the process was not transparent. Nevertheless, those CDFIs surveyed at the time felt strongly that targeting social investors as well as banks for support of the Mini-Fed would compromise the ability of smaller and newer CDFIs to raise funds.
10. *Housing versus other lending assets.* The Mini-Fed was structured to invest on the basis of organizational risk (i.e., how well management managed resources) rather than by asset class. Because the Mini-Fed presumed the loans were unsecured, the distinction among asset classes was unnecessary. However, a number of participants argued for distinct platforms for housing-related loans and community economic development loans.
 11. *The Mini-Fed competed for scarce grant dollars with other mainstream CDFI activities.* Several parallel initiatives in the community development field were underway at the time the Mini-Fed was conceived. Cooperation might be worth considering at a later date. The chief challenge was: with limited social investment subsidy available for capitalizing the various efforts, who should be first in line?
 12. *“Mini-Fed” was a misnomer.* Although expressing the “discount window” component of the proposal, the term “Mini-Fed” did not capture the entity as a whole, which was really more of a broker/lender. The FIR Team therefore adopted the name “Capital Exchange.”

Opportunities the Mini-Fed Opened Up for the CDFI Field

As radical as some of the components of the Mini-Fed appeared when the FIR Team first discussed them, none of the pieces represented anything new in the field of finance. All of the proposed concepts and activities were derived from actual business conducted in the institutional sector. The big question was: to what extent could the team take these institutional tools and apply them with advantage to the CDFI sector?

One of the bright lights in the discussion was the fact that the credit union industry had already demonstrated that a Mini-Fed concept could work for nonprofits. Through their access to Credit Union Leagues, Credit Union Centrals, Credit Union Service

Organizations, the National Community Investment Fund and its trade group, the National Federation of Community Development Credit Unions, even miniscule community development credit unions could: a) place federally guaranteed deposits in other community development credit unions; and b) access a range of financial and advisory resources that provided liquidity and capital at the lowest available rates in the market.

What made this work (in addition to the remarkable level of cooperative effort) was the federal guarantee of credit union deposits and the oversight of the National Credit Union Administration. That guarantee and the oversight was based on a common set of critical data points for all credit unions, standardized reporting, a comprehensive analytical framework, and the sector-wide oversight function that could ensure the integrity of all three factors. (The community development banks had similar capabilities, although the national framework was smaller). The Mini-Fed paralleled the concept in that it was a closed system in which members shared their surpluses with members who needed financing. The big problem was that, absent a federal guarantee, the Mini-Fed absolutely had to have a rating, and the best rating available, at that.

Not that the idea of a Mini-Fed has disappeared from the community development field. The notion of a closed system in which participants lend to one another continues to crop up. NeighborWorks America, for example, reviewed a similar structure in 2006 to increase liquidity and capital availability in its network of more than 230 organizations. That proposal is in Appendix B.

Clearly there are challenges to the Mini-Fed proposal. But some of the challenges can be addressed by taking it in a different direction. These include:

1. *Technical Challenges.* Most of the technical failings, like size, rates on loans, maturities, product range, staffing, limited credit risk, and reliance on aggressive management of the yield curve, can be adjusted. There is little margin for error in the scenario that the FIR team developed, and clearly, much greater flexibility is needed in the context of a more focused level of access to the capital markets.
2. *Policy Challenges.* Some of the policy failings can be addressed with relative ease. The desire to separate housing from non-housing loans becomes unnecessary once the benefits of unsecured lending based on organizational risk are fully comprehended. The issue of exclusionary forces can also be addressed once the case is made that a) a good rating for the Mini-Fed will bring in new money that would otherwise be invested in non-CDFI investments; and b) rating agency familiarity with CDFI

performance ultimately results in the largest, highest capacity CDFIs going directly to the capital markets, thereby freeing up additional social investment for others in need. The reluctance to take advantage of asset/liability mismatch is a much greater challenge. Indeed, the absence of expertise is a good reason for CDFIs to remain with the traditional asset/liability matching policy. Unfortunately this also reduces some of the attraction of gaining access to the capital markets. Finally, the constraints of CDFI investment policies are a challenge that has no easy solution: changing each participating CDFIs investment policy will take time, and the existence of donor geographic and purpose constraints makes the effort highly complex. It is this issue in particular that prompted the conclusion that a vehicle for gaining access to the capital markets must rely on external funds; that is, funds outside the CDFI field.

3. *Analytical Challenges.* The analytical failings present, perhaps, the greatest challenge. For the CDFI and the institutional investors to become comfortable with their short-term investments in the Mini-Fed, they must see a very good rating on their investment. Although the consortium of banks can provide a letter of credit to satisfy the rating agencies, an analytical platform is still needed that assures banks and rating agencies that the Mini-Fed's portfolio exposure to unsecured CDFI organizational risk is prudent from both underwriting and monitoring standpoints. Although the banks, foundations, and many CDFI entities (e.g., NCB Community Impact, Calvert, NeighborWorks America, and Opportunity Finance Network) have their own individual analytical platforms, there is no common platform, and no conclusive evidence that any of these platforms is compatible with what the rating agencies require. To gain access to the capital markets for CDFI organizational risk, a common platform must be created. Clearly, the most important step is to collectively establish the kinds of data points, reporting requirements, analytical framework, and monitoring function for CDFI organizational risk that will satisfy both the field and the rating agencies. The CDFI field, together with its most active banks and foundations, has recognized this need in initiating The CDFI Assessment and Rating System (CARS). Participants on the CARS advisory board come from a number of the bank, foundation, and CDFI entities that have analytical platforms, and their presence in developing the CARS platform incorporates a level of sector-wide compatibility. Because CARS was the foremost collective effort in the field at the time, the FIR team concluded that the success of any capital markets initiative that involved rating agencies would depend on the growth and success of CARS.

With these opportunities in mind, the FIR team began work on the Capital Exchange.

CHAPTER 5

The Capital Exchange

In stepping back from the Mini-Fed, the FIR team was also stepping back from the ability to obtain unsecured *long*-term debt for CDFIs, based on their organizational credit risk. That meant the team would need to focus on unsecured *short*-term debt in the effort to gain access to the capital markets and the wholesale side of the banks. As noted, a number of CDFIs contacted during the Mini-Fed phase indicated they didn't need short-term debt. But the FIR team recognized that, in fact, many CDFIs were borrowing short term, they were borrowing for a wide range of reasons, and they were borrowing, for the most part, at comparatively high rates. The team agreed with the William P. Ryan's assessment:

Working capital presents the biggest challenge. ... Working capital, which enables nonprofits to invest in their own capacity, is critically important and generally difficult to come by. Even nonprofits that are part of the community development financial infrastructure—dedicated to providing capital for economic development—find that they themselves are in need of working capital. ... Performance and capital are inseparable. ... Nonprofits need capital to perform, yet no one wants to provide capital to a nonprofit that is not capable of performing. This conundrum has profoundly shaped many of the responses to capital challenges. It may account for the general scarcity of philanthropic working capital, and it surely explains the emergence of several new approaches that stress accountability for performance as a condition of capital investment.⁵⁸

Although the Mini-Fed failed to materialize because of several technical and policy issues, its findings convincingly demonstrated one thing: a structure that aggregates CDFI assets and liabilities for the purpose of providing a much wider source of funding at competitive rates could be created. The steep yield curve during the period (2001-03)

when the Mini-Fed was being designed, with short-term rates in the 1 percent range, was a compelling reason to move ahead with the collective effort to gain access to the capital markets and achieve funding parity for CDFI organizational risk.⁵⁹

The FIR team determined that the best way to “get the camel’s nose under the tent” of the capital markets was to eliminate as many impediments as possible. This meant narrowing the focus even further.

It was decided that the “Capital Exchange” (the name of the FIR team’s new effort) should:

- Go beyond the social investment and CDFI market to source funding from public market investors, specifically the commercial paper market.
- Shorten the maturity of debt it would fund in order to eliminate the asset-liability mismatch.
- Restrict borrowers to a small number of top-quality CDFIs as rated by CARS or equivalent platforms.

However, challenges existed to this next phase in gaining access to the capital markets, including:

- Commercial paper was largely unknown to the CDFI field.
- Of the 41 CDFIs (and trade groups) surveyed, most appeared satisfied with the short-term financing they received from their banks, despite the generally higher cost; and, as noted they were more interested in long-term rather than short-term debt.
- By restricting the effort to the highest-quality CDFIs, the Capital Exchange might lose the opportunity of benefiting the industry as a whole; it could risk establishing standards of performance that militated against taking the kind risk that CDFIs take as a function of their mission, and exclude the bulk of the CDFI field from the capital markets.

Despite the obstacles, the FIR team determined to move ahead with the Capital Exchange for the following reasons:

- *Commercial Paper*. The new mantra for the FIR team would be to take as much of whatever could be taken to the capital markets for the double purpose of

expanding the funding sources and freeing up grants and other social investment for the truly risky or unique CDFI efforts.

- *Short-Term Debt.* As satisfied as some CDFIs were with their bank lines for short-term needs, the rates were still higher than their organizational risk warranted. The best rates for secured loans among those participating in the Mini-Fed effort were in the LIBOR plus 75 basis point range at the time, and unsecured facilities were about double that, in the LIBOR plus 150 basis point range or more (where LIBOR pricing was available). Reportedly, spreads for for-profit institutions and corporations were 50 basis points under the secured rates and up to 125 basis points under the unsecured rate. The facilities for CDFIs were generally also less flexible and more time-consuming.
- *Segmenting CDFIs by Organizational Risk.* The common experience of the CDFI sector over the previous 10 to 15 years was that once the conventional institutions became comfortable with the size and risk dynamics of an asset or group of assets, they tended to relax their hurdles for risk, and invest in greater and wider quantity. This had been as true of small business and micro-enterprise assets as it had been in housing and community facility assets in the CDFI sector. And it likely remains true. To expand eligibility to more CDFIs down the road, the Capital Exchange would be structured to facilitate the same process.

The Capital Exchange Proposal

The following was the FIR team's proposed final structure of the Capital Exchange, as presented to the rating agencies and the potential participating banks.

Purpose

The primary objective of the Capital Exchange is to break into the capital markets by way of the commercial paper market. However, the purpose goes beyond funding parity in terms of price and flexibility. The Capital Exchange is designed to establish a platform that enables CDFIs to be reviewed by the rating agencies on mutually satisfactory terms. In establishing this platform, the participating CDFIs also benefit from the lowest rates in the marketplace and access to a trillion dollar market.

The Capital Exchange is designed specifically to break through the three biggest impediments to capital market access for unsecured organizational risk—size, unfamiliarity with organizational risk, and the absence of relevant performance data. It accomplishes this by pooling unsecured CDFI promissory notes to achieve appropriate scale, developing a market-compatible platform for evaluating CDFI risk, and providing pertinent data through transparent demonstration of financial performance.

Summary of the Proposal

The Capital Exchange is a \$75 million fund owned by the CDFI industry and managed by a large CDFI with some bank partners. There is no designated staff. However, there is an industry-based board of directors. There is also a loan committee appointed by the board, which approves borrowers and tracks their performance. The Capital Exchange is capitalized with \$3 million in grants and \$4.5 million in program-related investments at 1 percent for a period of 10 years. A group of high-quality CDFI borrowers is approved to borrow from the Capital Exchange on a short-term unsecured basis.

The Capital Exchange finances its promissory notes by issuing commercial paper to investors in the marketplace through its own discreet conduit. The commercial paper is credit enhanced to the A-1/P-1 quality range by a bank letter of credit, thereby receiving the lowest borrowing rates available in the market.

The Capital Exchange loan committee selects the CDFIs based on their CARS rating or evaluation of equivalent quality. Equivalent quality could include regulatory ratings for depositories and evaluations performed by the CDFIs' existing lenders. The Capital Exchange loan committee tracks credit quality of the CDFIs by using CARS and/or equivalent evaluation. Each entity has discreet limits set for the maximum amount of borrowing outstanding at any point in time.

Summary of the Benefits

- CDFIs provide rating agencies with a platform for capturing and evaluating CDFI organizational performance data in the context of their own criteria for evaluating performance (that is, CARS).
- CDFIs establish a platform that enables them to tap into the trillion-dollar commercial paper market.
- Participating CDFIs borrow at a spread over the A-1/P-1 commercial paper rate of 50–125 basis points. This is approximately 75–150 basis points less than what

most CDFIs surveyed are being charged for unsecured risk. The spread is set by the CDFI ownership and can be substantially lower than what the CDFI borrowers currently can obtain from lenders.

- CDFI borrowers can roll over this short-term debt indefinitely so long as they maintain sound financial condition.
- Once the fund is up and running, it pays for itself. Therefore, it is both self-sufficient and self-funding.
- The expectation is that once the Capital Exchange performs well with short-term unsecured obligations of high-quality CDFIs, it will expand to include lesser-quality CDFIs. Over the longer term, once the analytical platform (CARS and equivalents) has been seasoned in the context of this market-based platform and performance data has been demonstrated, the Capital Exchange will expand to include longer-term unsecured loans.

Potential Participants

The borrowers are selected on the basis of size, borrowing needs, and by credit quality as indicated by CARS and the CDFI Data Project comparatives. Key community development trade groups are also considered, as are CDFI-regulated depositories. Forty-one CDFIs and trade groups are approached on an individual basis to determine their interest in the proposal.

The most likely candidates are community development banks; the banking industry and its regulators are already familiar with commercial paper as many bank holding companies issue it and many banks credit enhance it. There is little familiarity with commercial paper in the community development field, however, and only modest interest in short-term funding, even at low commercial paper rates. Hence, the FIR team lowers the target maximum number of participating CDFIs to 20.

Products

There is only one product: an unsecured working capital line of credit to be used for general organizational purposes. As difficulties with the rating and tracking of CDFI credit quality arise (see below), the use of proceeds is restricted to interim financing needs on a secured basis under a borrowing base formula. (As we shall discuss further, the retreat to a secured type of transaction is a huge disappointment for the FIR team: it takes a big step back from the FIR objective to gain unsecured financing based on

organizational credit risk. It is also a major blow to competitiveness of the enterprise because the spreads that banks charge on secured loans to CDFIs are generally half of what they charge on unsecured loans.) Nevertheless, the borrowing base framework is a middle step that expands flexibility for the secured CDFI borrower. As a result of this change, the final product for the Capital Exchange proposal consists of a secured line of credit that finances any short-term needs backed by assets that can be pledged. These funding needs include:

- Funding of a loan pending receipt of principal payments from another loan, grant, government reimbursement, or other revenue stream.
- “Table-funding” of a loan pending sale to the secondary market.
- Funding operating expenses pending receipt of a grant, government reimbursement, or other form of revenue.

Working capital uses that will *not* be eligible include:

- Funding of operating expenses without a defined source of funding or repayment.
- Funding the initiation of a new program with no proven source of repayment.
- Funding the permanent expansion of a loan portfolio (i.e., permanent working capital need).

Minimum denominations for borrowing (for example, \$25,000) and maximums (for example, \$750,000) are established at the outset and depend on evaluation of the need and credit support provided by the borrowing entity.

Structure

Up to 20 high-quality CDFIs (including Community Development Credit Unions and Community Development Banks) can borrow for periods of up to 180 days. As with the conventional commercial paper borrowing, the notes can be rolled over at maturity. The borrowing rates are at the A-1 / P-1 commercial paper rate plus approximately 125 basis points. The 125 basis points cover the cost of the liquidity facility, credit enhancement, and administrative costs. During 2003 and half of 2004, this enables the CDFI borrowers to finance their short-term needs in the 2.25–2.50 percent range. Again, the spread can be adjusted by the CDFI ownership to respond to market conditions.

The Capital Exchange is housed in a bankruptcy remote special-purpose vehicle housed at one of the participating banks, but managed at a large CDFI (the CX Manager). The entity that houses the fund is responsible for asset-liability management, maintaining the books, and managing the board and loan committee requirements. A bank provides bookkeeping, transfer and paying agency, and related administrative activities. The board of directors determines policy and appoints the loan committee. The loan committee tracks the credit quality of the borrowers by using CARS or ratings of equivalent quality. The Capital Exchange pays CARS \$15,000 per borrower per year for the initial analysis and subsequent annual updates.

There is to be a pilot period of up to 36 months during which the participants are assembled, the CARS and equivalent ratings are developed, the credit enhancement is negotiated, the bank partner is enlisted, and the grants are committed. A board of directors, including leaders in the financial and community development fields, is to be assembled. A loan committee is to be identified. The Capital Exchange manager manages the pilot effort with assistance from the FIR team. In the absence of a CARS rating for potential participants, the initial CDFI borrowers will be selected by the Capital Exchange manager based on its experience in lending to the industry. Following the pilot period, it will take up to 36 months for the Capital Exchange to reach its full \$75 million scale. The board of directors and its stakeholders will also determine, during the third year, whether the pilot should be terminated at the end of the third year or rolled into a permanent program.

The Capital Exchange is an independent stand-alone commercial paper issuer. It brings CDFIs, social investors, and other investors who wish to participate in the community development mission to the table. This “closed” structure, with investors already at the table, makes it easier to sell the credit risk to banks and rating agencies.

Funding

Capital funding totals \$7.5 million, consisting of \$3 million in grant funds and \$4.5 million in program-related investments from participating foundations. The \$3 million functions as a loss reserve covering the first loss on the portfolio. The \$4.5 million represents a second loss position. The initial thinking is that this 10 percent equity cushion should be sufficient given the secondary market nature of the entity and the low anticipated loss rate.

A commercial bank provides a combined liquidity facility / credit enhancement for the full amount of commercial paper outstanding, or \$67.5 million. This combined facility ensures that the commercial paper investors in the fund (CDFIs and other institutional investors) can receive their principal and interest on a timely basis (the liquidity facility) and that the banks providing the liquidity facility will be repaid in full (the credit enhancement).

Up to \$67.5 million in debt is to be raised by issuing A-1 / P-1 rated commercial paper to investors, which include bank foundations, mutual funds, and pension funds, and may include nonprofit foundations and participating CDFIs.

Structure of the borrowing base: The kinds of short-term assets that can be pledged in support of the CDFI borrowings from the Capital Exchange include the following:

- 1) Unrestricted Cash
- 2) Treasuries and other Marketable Securities
- 3) Rated Bonds, Pools, Other Public Market Instruments
- 4) Temporarily Restricted Cash within 12 months
- 5) Restricted Cash that Will become Unrestricted within 12 months
- 6) Federal Grant Receivables
- 7) State and Local Grant Receivables
- 8) Foundation Grant Receivables
- 9) Institutional Grant Receivables
- 10) Scheduled Loan Interest Payments for the Next Nine Months
- 11) Scheduled Loan Principal Payments for the Next Nine Months
- 12) Project Development Refinance Not to Exceed 1 Year
- 13) Construction Loan Refinance Not to Exceed 1 Year
- 14) Loans Held for Resale
- 15) Properties Held for Resale

FORM OF BORROWING BASE CERTIFICATE

Officer's Certificate Certifying Borrowing Base

I, _____, Treasurer and duly authorized signatory of _____ Community Development Financial Institution, a non-profit corporation ("the Borrower") in good standing under the laws of the State of _____, hereby certify in connection with the Loan and Security Agreement dated as of _____ between the Borrower and _____ ("Lender") that the information and each calculation set forth in the attached borrowing base certificate are, to the best of my knowledge, true, correct and complete (subject only to normal year-end audit adjustments) as of the date hereof and are calculated in accordance with the Loan Agreement. Unless otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed to them in the Loan Agreement.

Executed as of this _____ day of _____

Community Development Financial Institution

By: _____

Name: _____

Title: _____

BORROWING BASE CERTIFICATE

Community Development Financial Institution

Period Ending _____

A. of Receivables

- 1 Balance of Receivables from previous period
- 2 Plus New Receivables
- 3 Sub Total (line 1 plus line 2)
- 4 Less Collections
- 5 New Receivables Balance (line 3 less line 4)

6 Ineligible Receivables

- (a) Portion of Net Book Balance of each Receivable resulting from an unsecured End Borrower Loan or secured Pre-development Loan which, when added to all other unsecured End Borrower Loans and secured Pre-development Loans, exceeds thirty-five (35%) of the Available Capital
- (b) Net Book Balance of Receivables which do not comply with all applicable laws, regulations and contractual restrictions
- (c) Net Book Balance of Receivables which Lender or Borrower determine to be uncollectible in conformance with the Policy and Operations Manual or otherwise.
- (d) Net Book Balance of Receivables which have fully matured
- (e) Net Book Balance of Receivables with respect to which two or more required principal, interest or other material amounts have not been made within 60 days after date when due
- (f) Net Book Balance of Receivables with respect to which any Material End Borrower Default (not specified in subparagraphs (d) or (e)) exists

- 7 Total Amount of Ineligible Receivables (line 6(a) through 6(f))
- 8 Net Eligible Receivables (line 5 less line 7)
- 9 Advance Rate of 80% of Net Eligible Receivables
- 10 Eligible Receivables Availability (line 8 times line 9)

\$11,500,000.00
\$1,200,000.00
\$12,700,000.00
\$300,000.00
\$12,400,000.00
\$600,000.00
\$0.00
\$250,000.00
\$450,000.00
\$0.00
\$1,300,000.00
\$11,100,000.00
80.00%
\$8,880,000.00
\$8,880,000.00
\$7,200,000.00
NET AVAILABILITY
\$1,680,000.00

B. r Computation

- 1 Total Availability (line A.10)
- 2 Less: the sum of the aggregate outstanding principal amount of Revolving Credit Loans

NET AVAILABILITY

The Capital Exchange, in negotiation with the banks and rating agencies, is to assign certain percentages for each of the 15 asset classes against which funds can be advanced. The percentages are to be based on the risk of the asset. Funding against cash, for example, might be 100 percent, while funding against individual pledge receivables might be 25 percent, depending on the history. The amount of funding goes up and down in accordance with the level that the borrowing CDFI has in each category that it chooses to borrow against. All borrowing is conducted under a blanket lien, held by the Capital Exchange. There is a reporting and validation requirement to assure that the assets are present. The reporting and the validation requirement are to be satisfied electronically, and the timing and extent of physical paper exchange are to be negotiated. The "Form of Borrowing Base Certificate" (above) shows various calculations associated with the establishing the amount that will be lent by the Capital Exchange to the participating CDFI borrower.

Financial Objectives

Guidelines for the financial structure of the Capital Exchange are as follows:

- Achieve sufficient scale for the banks and rating agencies by consolidating the collective short-term borrowing needs of high-quality CDFIs.
- Obtain an A-1/P-1 rating on the commercial paper via the bank liquidity/credit enhancement facility.
- Make sure that the borrowing rate (commercial paper cost plus spread) is substantially below the cost of alternative funding sources.
- Enable the participating CDFIs to roll over their borrowing under formulas that allow them to prudently fund longer-term assets.
- Leverage the capital at a rate of approximately 9 to 1.
- Expand balance sheet leverage by reinvesting at least double the full amount of capital annually; that is, at least \$15 million of loan volume per year.
- Limit risk exposure to any one obligor to a maximum of 5 percent of the total facility or 50 percent of the capital base.

Cover all expenses through the spread over the cost of the commercial paper charged to borrowers.

Key Features of the Capital Exchange

The Capital Exchange is a \$75 million special purpose vehicle that issues its own commercial paper in the commercial paper market. Table 5.1 shows its key assumptions. The Exchange will arrange in advance up to \$67.5 million in commitments from investors, primarily social investors and others familiar with the community development field, including banks, foundations, and community development trade groups.

- Maximum of up \$65 million in loans to CDFIs.
- No less than \$10 million to be invested in conventional high-quality non-CDFI marketable securities. Of this amount, \$7.5 million will be invested in long-term instruments and the remainder in short-term instruments.
- Credit enhancement of \$7.5 million. Of this, \$3 million will be in the form of straight capital grants and the remainder will be sourced as a program related investment from several foundations.
- A large CDFI (Management CDFI) manages the books and manages the asset-liability matches.
- The management CDFI assesses eligibility of the CDFI from a credit standpoint and will also be responsible for monitoring and compliance.
- Investment rates approximate the equivalent risk and returns in the marketplace.
- Borrowing rates are at spreads over A-1 / P-1 commercial paper.
- Borrowers request a set amount for a set period but can roll the amounts over with proper notification.
- Investors can either bid on specific issuance or on the pool of investments as a whole (blind trust or mutual fund structure).
- Any asset/liability mismatches are made up by the pool via the liquidity reserve.

Credit Risk/Credit Enhancement

The liquidity and credit enhancement provided by the banks endows the commercial paper issued by the Capital Exchange with an A-1 / P-1 level credit rating. Any participating CDFI borrower can issue notes to the Capital Exchange, which it, in turn, finances through issuance of commercial paper. The notes issued to the Capital

Table 5.1. Summary of Key Assumptions for the Capital Exchange (in \$ thousands)						
A-1 Rate		1.00%	2.00%	5.00%	3.00%	4.00%
Plus Spread	1.25%	2.25%	3.25%	6.25%	4.25%	5.25%
LIBOR	0.25%	1.25%	2.25%	5.25%	3.25%	4.25%
Plus Spread	1.00%	2.25%	3.25%	6.25%	4.25%	5.25%
CD Rate	0.13%	1.13%	2.13%	5.13%	3.13%	4.13%
Yield Curve Increment	0.25%	1.38%	2.38%	5.38%	3.38%	4.38%
Loss Reserve						
Investments	6.00%	7,500	7,500	7,500	7,500	7,500
Bank Line of Credit	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
Administration/Dealer	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
PRI Cost	1.00%					
BALANCE SHEET						
Cash		(\$207)	(\$120)	\$40	\$156	\$223
Treasuries - ST		\$22,500	\$12,500	\$2,500	\$32,500	\$7,500
Treasuries - LT		\$7,500	\$7,500	\$7,500	\$7,500	\$7,500
Commercial Paper		\$45,000	\$55,000	\$65,000	\$35,000	\$60,000
Total Assets		\$74,793	\$74,880	\$75,040	\$75,156	\$75,223
Short Term Debt		\$67,500	\$67,500	\$67,500	\$67,500	\$67,500
Equity- PRI		\$4,500	\$4,500	\$4,500	\$4,500	\$4,500
Equity- Grants		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Excess Spread Reserve		(\$207)	(\$120)	\$40	\$156	\$223
Total Liabilities and Equity		\$74,793	\$74,880	\$75,040	\$75,156	\$75,223
PROFIT AND LOSS						
Investment Income (ST)		\$155	\$416	\$403	\$591	\$875
Reserve Income (LT)		\$449	\$446	\$448	\$453	\$458
Commercial Paper						
Income		\$506	\$1,625	\$3,750	\$2,125	\$2,494
Total Revenues		\$1,110	\$2,487	\$4,601	\$3,169	\$3,827
COF: Investors		\$338	\$1,350	\$3,375	\$2,025	\$2,700
COF: PRI		\$45	\$45	\$45	\$45	\$45
Total Cost of Funds		\$383	\$1,395	\$3,420	\$2,070	\$2,745
(Number of CDFIs)	20					
Underwriting	\$15	\$300				
Annual Review	\$15	\$0	\$300	\$300	\$300	\$300
Administrative		\$187	\$187	\$188	\$188	\$188
Bank L/C		\$422	\$422	\$422	\$422	\$422
Miscellaneous	\$25	\$26	\$27	\$28	\$29	\$30
Total Op Exp		\$935	\$936	\$938	\$939	\$940
Charge-off	0.125%	\$0	\$69	\$81	\$44	\$75
Total Surplus		(\$208)	\$87	\$162	\$116	\$67

Exchange by the CDFIs are senior secured promissory notes backed by a blanket lien on eligible assets under a borrowing base formula.

The risk to the Capital Exchange and the banks providing the liquidity and credit enhancement is mitigated through:

- The equity cushion in the Capital Exchange,
- CDFI organizational risk,
- The value of the CDFI assets that are pledged under the borrowing base,
- Discrete borrowing maximums to avoid risk concentration,
- Stop-loss triggers which prevent further loans to participating CDFIs in the event of default on performance benchmarks,
- The selection of the participating CDFIs, and
- The monitoring of the CDFIs for the purposes of assessing financial condition.

Of the credit risk mitigants, the last two, the selection and the monitoring of the participating CDFIs, require details that bridge conventional risk assessment to the specific attributes of CDFI financial performance. These are summarized as follows.

Selection of the CDFIs: The criteria for selection of the participating CDFIs and maintenance of continued eligibility include:

- Size: At least \$10 million in total assets (including off-balance sheet assets).
- Number of years in business: At least 10.
- All the borrowers would already be examined by bank lenders and have some form of bank facility as a result.
- Participating (nondepository) CDFIs would have a maximum leverage of 5 to 1; CDFI intermediaries would have a maximum leverage of 10 to 1.
- Borrowers should have a sustainability ratio of at least 70 percent (that is, dependent on grants for less than 30 percent for operating costs).
- All borrowers should have consistent amounts and diverse sources of grant funding.

- Change in mission assets (non-cash, non-fixed assets) as a percentage of balance sheet asset totals is less than 15 percentage points (changes in asset mix would be, for example, from housing to commercial loans, or community to housing loans).
- No event of default on obligations.
- Less than 20 percent turnover during the previous year in any of the three categories: management, board, or staff.
- CARS financial rating of three or better, with an impact rating of B or better. A CARS rating is preferable because it includes an impact analysis as well as the financial and management analysis.

Although it is not required, CDFIs that have already participated in a loan fund managed by one of the existing CDFI sector groups would be given a priority. These include groups such as Opportunity Finance Network, Calvert, National Federation of Community Development Credit Unions, the National Community Investment Fund or the National Cooperative Bank Capital Impact.

If an entity does not have a CARS rating or falls outside of the CARS analytical platform, other ratings may be used; for example, a CAMEL (Capital, Asset Quality, Management, Earnings, Liquidity; a regulatory framework for evaluating risk) or equivalent regulatory rating of three or better, or a NeighborWorks America assessment of “strong” or better, or equivalent rating from other community development funders, such as Opportunity Finance Network, Calvert, and National Cooperative Bank Capital Impact. To be eligible, borrowers will have current borrowing relationships with one or more large money center banks.

Monitoring and financial analysis of the CDFIs: To provide the Capital Exchange Manager and loan committee the data needed to enforce the criteria, CDFIs will provide:

- Full disclosure of historical data on the assets to be pledged subject to the borrowing base.
- Full disclosure of their organizational and loan performance with banks and with CDFI sector loan funds.

- Quarterly and annual statements, including supplemental information that enables CARS and the Capital Exchange to stress test, forecast, and update the borrower's financial condition.

To assure the banks and rating agencies that the selected CDFIs continue to represent an acceptable level of risk, the Capital Exchange commits to the following:

- Ratings requirements will be negotiated in advance with Moody's, Fitch or Standard and Poor's relative to underwriting, compliance, and servicing standards.
- A standard bank/foundation/CDFI system of borrower assessment will be established by the FIR team, which will build an interim update capability, stress test, and forecasting function on top of the CARS rating. It will correspond with rating agency requirements.
- The team will develop a reporting regimen that satisfies the needs of the new system of borrower assessment.
- The team will also develop standards for compliance and servicing that meet with rating agency requirements.

Because of the possibility of changes in financial condition between the receipt of audited financial reports, CARS ratings and other equivalent forms of analysis, the Capital Exchange develops a system that stress tests, forecasts, and updates events that affect financial condition during the course of the year.

The Capital Exchange develops an automated stress test based on the following key indicators:

- 1) Rate of asset growth
- 2) Change in average loan size
- 3) Gross revenue to total assets
- 4) Operating expenses to total assets
- 5) Loss expense to total assets
- 6) Funding cost to total assets

- 7) Sustainability ratio
- 8) Rate of grant growth
- 9) Yield on loan portfolio
- 10) Number of loans made per year
- 11) Operating cost per loan
- 12) Loans to total assets
- 13) Non-earning assets to total assets
- 14) Principal repayment as a percentage of new volume
- 15) Loan sales as a percentage of new volume
- 16) Free cash flow to total assets
- 17) Cash days on hand
- 18) Cash investments to short-term liabilities
- 19) Total liabilities to net assets
- 20) Years for free cash flow to repay debt
- 21) Weighted average maturity of debt
- 22) Weighted average maturity of loans
- 23) Rate of delinquency
- 24) Charge-offs to delinquent loans
- 25) Recoveries to charge-offs

The Capital Exchange will deploy these indicators in an automated forecasting program that can stress test the historical financials of CDFIs. The program is based on conventional finance and statement analysis, and it is consistent with the form of analysis that could be expected with the rating agencies.

There is a separate value to the due diligence performed by the Capital Exchange manager: the Capital Exchange can begin building the kind of database on organizational performance that the rating agencies and investors require. One of the side benefits of capturing this data is that it can be used to develop a more expansive analytical platform in the future, one that can evaluate CDFIs on a comparative basis using the disciplines compatible with those used by the rating agencies.

What Worked for the Capital Exchange

Before discussing the reasons for the failure of the Capital Exchange, let's take a quick look at the positive features.

1. *Access to commercial paper.* Introduction of commercial paper as an alternative to CDFI deposits was a step forward conceptually, and opened up the CDFI sector to a trillion-dollar market (See Appendix A for greater detail on commercial paper). Highly rated commercial paper tends to be less expensive than deposits, tracking around the federal funds rate. The federal funds rate is what the banks charge when investing overnight funds in each other, and is generally the lowest rate of funding available in the marketplace.
2. *A high-quality rating.* Using bank Letters of Credit (L/Cs) to obtain an actual A-1/P-1 rating on CDFI commercial paper had three advantages: a) it gained CDFI access to the commercial paper market for the first time, b) it provided CDFI investors with mission-compatible investments of the highest-quality credit rating, and c) it encouraged participating banks to conduct a collaborative review of CDFI performance with lenders in the CDFI field such as NeighborWorks, Opportunity Finance Network, Calvert, and NCB Capital Impact. Such a collaborative effort could substantially aid the community development finance industry's efforts to establish credibility for their credit analysis standards with the rating agencies.
3. *Management of the yield curve.* By targeting only short-term CDFI borrowing needs and assets, the Capital Exchange effectively minimized the asset-liability mismatch and the risks associated with it.
4. *Market rate funding to CDFIs.* The notion that a sustainable entity based on CDFI organizational credit risk could be set up and borrow at the best rates available in the capital markets was new. To be sure, this was not as attractive as the Mini-Fed's structure, in that, with the Capital Exchange, there was no possibility of borrowing at interest rates that were below market. On the other hand, the fact that the CDFIs would *not* be tapping into scarce social investment dollars was a strong plus. The Capital Exchange was also informative: by creating a funding structure similar to those used by brokers, it positively demonstrated how conventional institutions could

achieve a pricing advantage without the benefit of grants or social investment.

5. *Simplifying donor, lender, and investor funding.* As with the Mini-Fed, the centralization and consolidation of CDFI credit exposure into a single entity reduced credit risk through diversification. It also simplified as well as reduced the cost of institutional investment in CDFIs.
6. *Borrowing base formula.* The introduction of this concept was both negative and positive. It was negative because, with it, came the recognition that the CDFI obligations to the conduit needed to be secured rather than unsecured—there just was not enough comfort with unsecured CDFI organizational risk. The positive aspect was that using the borrowing base structure represented a medium step between fully perfected asset-specific secured lending and unsecured lending.

To the extent there had to be a security interest, a system could be established that significantly reduced the day-to-day title transfers, faxes, and paperwork associated with secured lending. Given the “two steps back” of losing the initiative on unsecured credit exposure, this was a “step ahead” in the right direction.

There was another strong positive as well: included in the eligible assets for pledging were a number of short-term assets that had more organizational risk attributes than hard asset attributes. Exposure to such short-term assets as construction loan refinance and scheduled principal repayments represented a very short leap to unsecured organizational risk. These were included as a way of (subtly) moving the Capital Exchange banks and investors closer to unsecured credit exposure.

7. *Rating agency compatibility: Use of CARS (the CDFI Assessment and Rating System).* The Capital Exchange used the CARS rating system as the basis for selecting and monitoring the 20 or so CDFI (non-depository) participants in the commercial paper conduit. As the foremost effort in establishing a common understanding of CDFI organizational risk, CARS brought analytical discipline and consistency to the risk analysis of the organization. Equally important, CARS would be the platform through which the banks providing the Letters of Credit and the rating agencies providing the ratings would comprehend the CDFIs. The structure simultaneously promoted use of the CARS, and assisted the rating agencies in developing a platform of evaluating CDFIs generally. This transfer of knowledge to the rating agencies

through the operations of the Capital Exchange was, perhaps, the most important long-term objective of the effort. There was an additional benefit: the Capital Exchange did not have to maintain underwriting staff.

8. *Leveraging Grant Dollars.* The capacity to deploy \$7.5 million of grant capital to produce up to \$67.5 million of loan volume annually put the leveraging capacity of the model in the stratosphere. It represented a level of efficiency unsurpassed in the CDFI field for unsecured or secured credit risk.
9. *Sustainability.* The capacity to deploy the initial grant in a manner that did not require additional subsidy going forward—just as with the Mini-Fed—was a positive. Again, this level of self-sufficiency is not common in the CDFI field.

What Didn't Work for the Capital Exchange

The Capital Exchange could not be implemented as proposed due to a number of impediments:

1. *Size of transaction.* At \$75 million, with a maximum \$67.5 million allocation for CDFI risk, the Capital Exchange was still too small. Although it hit the minimum rating agency scale of \$75 million, the start-up costs were out of proportion to the benefits. The cost of setting up an independent dedicated commercial paper conduit was in the \$500,00–750,000 range; the cost of training and assisting the CDFIs in using the facility was substantial; and the cost of getting the rating agencies up to speed on the range of eligible CDFI borrowing base assets as well as CDFI organizational risk via CARS was indeterminable.
2. *Maturities.* As in the case of the Mini-Fed, CDFIs surveyed by the FIR team indicated that the biggest need was for long-term, low-cost funding rather than short- or medium-term funding. Although the potential participants identified a number of short-term funding needs—some of which were substantial—there was insufficient scale or certitude as to what the collective needs were, or when they would occur, over the course of any given year.
3. *Asset-Liability Mismatch.* Another disadvantage of the Capital Exchange was the focus on short-term assets for funding. Although there were many good reasons for this structure, it meant the Capital Exchange could not follow the conventional sector's lead on the strategic mismatch of assets and liabilities.

As noted before, many corporations and financial institutions use the commercial paper markets to fund long-term assets (still!). Next to federal funds, commercial paper rates over time are the cheapest way to borrow, and through disciplined mismatching corporations can boost their margins—sometimes significantly. During the Mini-Fed phase, the FIR team had viewed the reliance on short-term funding of longer-term assets as a way to help CDFIs lower their cost of funds. This advantage was not a high priority for the CDFIs invited to participate in the Capital Exchange, either; indeed many felt that this kind of mismatch was injudicious; either that, or they did not have the capacity at the time to engage in the techniques that would enable them to pursue such a mismatch prudently or effectively.

4. *Control of rates and yields.* With the Capital Exchange sourcing market-rate funding from regular investors rather than below-market-rate funding from social investors (and other CDFIs), the discretion over setting borrowing rates was significantly reduced. A key problem was that the rates CDFIs paid on their bank borrowings were widely diverse. Large, high-quality CDFIs could get LIBOR plus 75 basis points on their secured borrowings (sometimes less) and LIBOR plus 150 basis points on their unsecured borrowing. The rest of the industry borrowed at LIBOR plus 100 basis points or more on secured obligations and 200 basis points or more on unsecured obligations.

Given that both the Mini-Fed and Capital Exchange needed the large CDFIs to join, the rates offered by the Capital Exchange had to be at or better than the rates the large players paid. This was not a substantial hurdle for the Mini-Fed, which was sourcing funds primarily from social investors and other CDFIs, and targeted a substantial asset-liability mismatch. However, for the Capital Exchange, it was a serious challenge. The challenge became even greater when the Capital Exchange moved from providing unsecured to secured obligations for the CDFIs. At that point, the best rates the large CDFIs could receive from their banks on secured debt—that is, LIBOR plus 75 basis points—were clearly less than what the Capital Exchange would need to charge to cover its costs. The decision to run a matched book on the assets and liabilities reduced the opportunity to make up the difference.

The result was that with a spread of 125 basis points over the commercial paper rate, the large CDFIs would be paying 30 to 40 basis points more for the privilege of joining. It was unlikely that they would do so. As a consequence, the Capital Exchange would need to target smaller, lower-

quality CDFIs, a target that could compromise the projected charge-off rate as well as the willingness of the banks to provide a credit enhancement.

5. *Credit Enhancement.* In early discussions with the FIR team, several banks indicated they would provide a Letter of Credit (credit enhancement) fee for this kind of facility in the 100 to 200 basis point range. Such a cost would immediately make the vehicle uncompetitive. The Capital Exchange team argued that credit enhancement fees at this level made no sense for two reasons: reportedly, the wholesale side of the banks were charging significantly less (e.g., .25 percent) for Letters of Credit on facilities of similar size to entities with substantially greater risk; and the Capital Exchange, with its diversified portfolio and capital base, represented a significant reduction in risk and, hence capital allocation, vis-à-vis retaining the assets on their balance sheets.

The banks indicated that final pricing, terms, and conditions could not be established until the actual CDFIs and the assets they pledged were identified. Hence, while the Capital Exchange settled on a .625 percent liquidity / credit enhancement fee for the purposes of designing the platform, there was no guarantee that it would be acceptable to the banks. Moreover, a question lingered. Why would a bank want to take a high-quality, high-yielding CDFI loan off its balance sheet and put it in a bankruptcy remote special-purpose vehicle, where it could get financing from the commercial paper market? Why would it want to lose the earnings?

6. *Range of products and participants.* To build a sufficient volume of activity, the Capital Exchange included a wide number of eligible assets that the CDFIs could pledge. As shown above in the list of eligible assets, the range included everything from grant receivables and the anticipated refinancing of construction loans to unrestricted cash. Although the flexibility was a benefit and the selection of assets moved lenders, the rating agencies, and investors in the direction of unsecured risk, the complexity of the different levels of risk presented its own impediment—an impediment of time and resources. The fact that the participating CDFIs had not been identified and 20 to 30 were being considered only added to the complexity.
7. *Inadequate platform for risk analysis and monitoring.* The proposal called for an initial CARS underwriting of each participating CDFI and subsequent annual reviews. The Capital Exchange would pay \$15,000 for each analysis, or about \$300,000 per year. There were two major challenges to this plan. First, CARS

was not in a position to analyze all of the potential participants, particularly the larger secondary market entities that were not certified CDFIs. Second, the rating agencies would need regular updates during the course of the year in the event of material changes in CDFI condition, which CARS was not in a position to deliver or the Capital Exchange to purchase.

The \$300,000 that the Capital Exchange was already budgeted to pay, as shown in the budget above (Table 5.1), was as much as it could reasonably afford. A number of scenarios were run to determine what would happen if the Capital Exchange retained an experienced analyst to evaluate the entities that did not receive CARS ratings and monitor the participants for material interim changes. The only way it could work under the budget was if the Capital Exchange had the same analytical tools the banks deployed, specifically, trend-line and stress-test methodologies that automatically ran programs to identify weaknesses in performance or financial condition.

The Capital Exchange team built a tool to do this for the CDFI field (see discussion of the “Quad,” below). However, the tool did not work owing to the idiosyncratic and inconsistent financial reporting across the CDFI sector (see further discussion in Chapter 9). The team concluded that the only way to properly evaluate CDFI financial condition was through the comprehensive on-site approach that CARS, bank lenders, social investors, and foundations employed. However, the narrow margins that the Capital Exchange worked with could not support this level of additional due diligence.

8. *Credit Risk.* Once the decision was made to have the CDFIs pledge assets under the borrowing base structure when they borrowed from the Capital Exchange, the loss parameter could be allowed to decline. On an unsecured basis, annual charge-off targets at .5 percent and .25 percent were thin, but with the security, a target .125 percent was considered reasonable. The reason: the Capital Exchange had both the organization’s commitment and a first claim on assets—that is, the classic “belts and suspenders”—and this was in addition to the \$7.5 million in capital that represented a first loss position. Still, this target level of charge-off was relatively thin, particularly for institutions such as banks, rating agencies, and investors that were unfamiliar with the CDFI structures and performance. In setting up the initial participants, it would be necessary to be very selective to hit this target. It would likely be necessary to include only those CDFIs that could demonstrate low loss rates using conventional metrics for determining losses.

This could prove exclusionary in terms of participants—even more so than with the Mini-Fed. Once again, the effort to open doors for CDFIs to enter the capital markets could be viewed as contrary to the mission of the CDFIs as a whole.

The Missing Link: Unsecured Borrowing

The crucial loss for the Capital Exchange was the inability to move CDFI funding forward on an unsecured basis. The introduction of the borrowing base was a way of keeping some features of unsecured borrowing while still providing a security interest—but it was not the same. Because unsecured borrowing was the chief objective of securitizing organizational risk, it is worth taking a deeper look at this failure.

The reasons for the retreat from unsecured lending go to two issues: cost and the financial and reporting protocols in the CDFI industry. Although the margins on a long-term pool can be fairly high, the margins on a short-term pool that matches asset and liability maturities are inevitably very low. Thus, after the cost of credit enhancement, administration, and loss provisions, there would be very little left over for evaluating and monitoring the CDFIs in the portfolio. The Capital Exchange was stretching to make the target \$300,000 per year to pay for CARS, but CARS did not review all the potential participants, and the rating agencies would want to see a framework of active updates on the portfolio borrowers to cover material changes during the course of the year. The only way to provide both was to hire staff or pay another lender to the industry, such as a bank or foundation, for their analyses. The problem was that there would not be sufficient margin in this model of the Capital Exchange to accommodate such an increase in cost.

There was an additional alternative to hiring a lender to provide analysis: automate the analysis of CDFIs the way that banks, investment banks, regulators, and rating agencies do for the purpose of assessing risk. By feeding audited financials and key performance numbers into software programs, the analysts at these institutions can receive critical insights with minimum amounts of work, often without site visits. These systems are particularly useful for flagging activities that deviate from the normal conduct of business and providing early warnings of potential deterioration. For the rating agencies, the quality of this analytical capacity is an essential criterion in establishing the ratings of bank lenders.

Standard and Poor's developed an excellent example of this kind of structure specifically for the small business market.

Over the past several years, the issuance of small business loan securitizations rose steeply with rated transactions competed by Business Loan Express, GE, and Lehman, to name a few. Community development lenders also gained notoriety beginning in 2004 when Standard & Poor's rated its first portfolio of loans whose underlying loan purpose was to spur community growth and development. In rating both small business and community development portfolios, we recognized an opportunity to provide a tool—our Small Business Portfolio Evaluator—for both our ratings process and our lenders' internal risk management. For a community development lender who is issuing debt in the capital markets, these potential benefits could have favorable credit implications.⁶⁰

The FIR Team Develops the “Quad” — But It Only Works on Depositories

In the context of this logic, the FIR team built an automated forecasting and analytical mechanism—the Quad (see Appendix C)—that could be used as a stress test and financial comparative for the Capital Exchange portfolio of loans to CDFIs. The objective was to eliminate the cost of manually forecasting a range of scenarios, performing liquidity analysis, performing a stress test on the results, and making on-site visits on an interim basis between scheduled reviews.

As with all automated analyses, the Quad was predicated on the notion that there are key financial figures and ratios in any kind of lending activity, which on a trend-line basis capture the quality of management decision making and the strength of the entity. It was assumed that an automated monitor for CDFIs would be able to accomplish the same once the adjustments for size, mission, net asset restrictions, and the grant revenue line were made.

The team succeeded in identifying these key financial figures and ratios and reducing the full Quad analysis to an average seven hours of work, including four hours for comprehending and spreading four years of audited statements and supplementals, two hours for analysis, and an hour to summarize results in writing (the calculations done automatically as historical numbers are spread).

However, although the mechanism worked on a case-by-case basis, it could not be deployed generally or consistently. There were two key reasons. First, net asset restrictions, which can greatly affect the CDFIs liquidity calculations, were difficult to capture or assess. Second, financial reporting was not standardized. Examples of how these problems manifested themselves are discussed in greater detail in Chapters 7, 8, and 9. The conclusion was that those who wished to evaluate a CDFI must necessarily interact with CDFI management to discern what the numbers actually mean. This lack of consistency in financial accounting and reporting translated into a simple fact: evaluation of the portfolio CDFIs would occur on a case-by-case basis, which would necessarily involve a substantially higher cost.

For the Capital Exchange, the economics would not work without an automated monitoring system such as the Quad. The Capital Exchange's razor-thin margins required analytical technologies that produced credible results in the range of \$1,000 to 3,000 per year, per CDFI obligor (after setup). At seven hours per analysis, the cost of the Quad was under \$1,000, which would make it more than suitable, but in the absence of adequate or consistent financial accounting and reporting, the analytics would not produce credible results for the Capital Exchange portfolio risk analysis as a whole.

That the problem stemmed from the inconsistency of CDFI accounting and reporting was not in question. The Quad worked well for industries that shared standardized accounting and reporting protocols. The example in Appendix C shows how the program is used for community development credit unions, for example, whose accounting and reporting protocols are enforced and monitored by the National Credit Union Administration.

There was an additional disappointment associated with the inconsistency of the accounting and reporting: the opportunity would be compromised to transfer a useable analytical framework for the CDFI sector to the rating agencies. Although the CARS methodology was sound, it was unclear whether the rating agencies would want to exert the same level of effort on a case-by-case basis given the generally smaller size of CDFIs, or address the variability in accounting and reporting protocols. Unless the rating agencies charged more or the CDFI credit exposures were exponentially larger, this level of due diligence would not be a profitable prospect for the agencies.

To be sure, there is excellent work being done to improve CDFI reporting and analysis, which is likely to ameliorate the situation over time. Through the CARS initiative and the side-by-side peer comparisons, the Opportunity Finance Network is at the forefront

for the CDFI sector on this issue. Through its Organizational Assessment Division, NeighborWorks America is also developing standards for community development corporations that are often involved in lending as well as real estate. Others in the community development and banking industries have developed or are developing internal analytical platforms that work and work well, including Enterprise, Calvert, and NCB Capital Impact. These efforts all serve to build standards of performance and analysis for the industry. Generally speaking, however, these are comprehensive efforts, often involving on-site analysis, and they require significant expenditure of time and talent. Transferring the current technology to the rating agency arena would still produce a high cost for analysis given the size of the CDFIs—even assuming that the community development industry’s knowledge of CDFI operations could be conveyed seamlessly to the rating agencies.

Opportunities the Capital Exchange Opened Up for the CDFI Field

At present, there is no standardized framework for evaluating CDFIs at the rating agency level, and the absence of such represents a barrier to entry for both. A rating for a CDFI still requires a customized approach—that is, “reinventing the wheel” each time a rating agency evaluates a CDFI. At \$75,000 (and more), a CDFI must be large or have a large appetite for debt to embark on the effort. Although the rating agencies have rated specific pools of CDFI assets, they have not rated CDFIs on the basis of their organizational credit risk.

As noted above, perhaps the greatest value of the Capital Exchange proposal was its potential as a vehicle for facilitating rating agency assessment of CDFIs. The strategy was a simple one: put a group of CDFIs together in a large-scale vehicle and apply the CARS methodology for evaluating credit. It would be hard for the rating agencies not to see the value in the proposition. They would gain a new industry sector with perhaps 50 or 60 clients in the near term and as many as several thousand over the long term, and they would not have to build the analytical framework from the ground up—essentially it would be handed to them via CARS.

By adding the \$7.5 million in first loss capital and the security interest in pledged assets under the borrowing base formula, the Capital Exchange would make rating CDFIs less of a risk. How could the rating agencies go wrong with all of the diversification and layering of protection? The business potential was compelling for two of the three rating

agencies (see Chapter 7); although the amount of rated debt issues would not be similar for some time, the CDFIs presented a client base similar to the hospital sector, which represents a profitable line of business.

The opportunity for rating agencies to assess CDFI organizational risk as a robust ongoing business remains. For CDFIs to expand the range of funding sources, lower costs, and obtain unsecured debt, it should remain a priority to find a way for the rating agencies to adopt the CDFI industry as a business. The alternative is for CDFIs to remain reliant on social investors and philanthropy, which means a smaller footprint, less flexibility, lower impact, and, as we discussed earlier, a mission pursued at the margins.

Given the challenges with the Capital Exchange, it was clear to the FIR team that the CDFI field must improve its standing with the rating agencies through efforts in vital areas of standardization and efficiency in analytical protocols. We address these in Chapter 8. It must also improve efforts in standardization and reporting of appropriate financial data, which we address in Chapter 9.

After the Capital Exchange

The “losses” that the Capital Exchange experienced—in particular, the retreat from unsecured debt—prompted the team to consider ending the entire effort. However, in the final months of 2005, as the disappointing results of the Capital Exchange were becoming clear, the home mortgage market was still on a tear. Credit, while not as cheap as in the previous four years, was still being pushed out to the public in staggering volume. The lenders and brokers who were targeting low-income constituencies with “exploding mortgages”—and marginalizing CDFIs’ work in the process—were financed by the capital markets. Indeed, the capital markets were what made the whole mania possible, including the imprudently structured mortgages and widespread predatory activity. The question arose: if a predatory lender can obtain secured and unsecured financing via the capital markets, why can’t a group of high-quality CDFIs with a 7.5 percent cash loss reserve in hand?

All the special-purpose vehicles used to securitize the loans the brokers and lenders were booking were backed by some form of credit enhancement. The bulk of the credit enhancements were provided or structured by banks. Clearly, the banks had concluded that it made more sense for all of these mortgages to be off the balance sheet, generating fee income, rather than on the balance sheet, generating interest revenue. Clearly,

funding the loans off the balance sheet was cheaper for the lenders and brokers, and at the same time, more profitable for the wholesale side of the banks. But how? And why should the CDFIs be missing the party?

The FIR team's conclusion was that it had to study the banks much more carefully and determine what they needed to make the market mechanisms work for CDFIs as they were working for everyone else.

Several lessons had already been learned that would help speed the effort along.

- Set a minimum size of \$100 million.
- Preselect a limited number of CDFIs to participate.
- Make the amount of financing for each CDFI meaningful.
- Identify a limited range of assets to be pledged.
- Perform the risk assessment and demonstrate the capital adequacy of the model.
- Calculate the earnings for the participating banks and ensure they are more than adequate.

Thus, with a somewhat less ambitious plan in terms of obtaining unsecured debt on the basis of organizational risk, the FIR team moved forward with the concept of the Commercial Paper Co-op.

CHAPTER 6

The Commercial Paper Co-op

Following the demise of the Capital Exchange effort in fall 2005, the FIR team had to decide whether it made sense to continue attempting to gain access to the capital markets for unsecured obligations of CDFIs. After all, it was clear that neither the credit enhancement banks nor the rating agencies were in a position to assess unsecured CDFI credit risk until the CDFI field could produce standardized financial data in standardized reporting with widely accepted and market-compatible analytical protocols. And even when the FIR team switched over to a secured borrowing base structure, the issues of size, complexity, pricing and the still-present concerns about CDFI organizational risk continued to present deal-breaking obstacles. However, in 2005, predatory and conventional lenders were still on a rampage up the steepening curve of the boom, and the capital markets were frantically providing all the funding they needed. How could the FIR team abandon the effort in the face of all that?

The Commercial Paper Co-op phase of the FIR effort to gain access to the capital markets for CDFI obligations lasted from December 2005 through April 2008.⁶¹ In April 2008, as the predatory and conventional lenders fell off the increasingly downward curve of the bust, and the capital markets accelerated their collapse, the FIR team put the effort on hold. It was more than a disappointment: the team had just figured out a way to open the door to the capital markets and suddenly they were trampled by the rush of lenders, investors, and everyone else fleeing the demise.

What follows draws on the final structure of the Commercial Paper Co-op, as presented to the participating CDFIs' potential credit enhancement providers and the rating agencies prior to the market collapse.

The Commercial Co-op Proposal

Purpose

The purpose of the Co-op was to level the financial playing field for CDFIs so they could obtain flexible funding as cheaply as conventional lenders and brokers. Doing so would reduce the CDFI cost disadvantage in delivering prudent loan products to their low-income constituencies. The Co-op was to accomplish this by selecting a small group of high-capacity CDFIs and providing them access to the commercial paper market, thereby reducing the time, complexity, and cost of borrowing.

Banks provide their best customers with credit facilities to issue commercial paper. These credit facilities also typically enable the customers to borrow from the bank at prime, or a spread over LIBOR, federal funds, or another similar index in the event there is an interruption in the commercial paper market. The Co-op was designed to help banks provide the same flexibility and cost advantage to their best CDFI clients. CDFIs do not have access to this kind of funding suite, primarily because they do not have access to the commercial paper market, but also because they lack access to the wholesale side of banks, which routinely provide these facilities to their clients.

The Co-op would overcome this lack of access to commercial paper by: a) aggregating CDFI borrowings, thus creating sufficient scale to facilitate commercial paper access; b) placing the CDFI secured obligations in a funding framework that obtains the highest quality ratings and lowest available rates; and c) capturing performance data for both pledged assets and organizational credit risk on a fully transparent platform for CDFI issuers, banks, rating agencies, and investors alike.

Summary of the Co-op Proposal

Five large, high-capacity CDFIs form a co-operative to access cutting-edge, short-term funding arrangements. The Co-op has the following features:

- \$100 million in size, with up to \$75 million extended to the five CDFIs at any time.
- Banks, foundations, and social investors provide approximately \$20 million in capital.

- Participating CDFIs borrow (typically for 30 days) and roll over the maturity until the pledged assets are sold or replaced. The assets pledged are match-funded with a tenor of not more than 270 days.
- The Co-op provides warehouse financing to the five-member CDFIs in amounts up to \$15 million each.
- Participants have access to a range of pricing options including commercial paper, LIBOR, prime, federal funds, and other indices.
- Sub-limits are set relative to the type and quality of the assets being financed by the CDFIs. There is a limited range of allowable asset classes for pledging.
- The loans to the CDFIs are secured by the loans that the CDFIs pledge. Advances are made under a blanket lien on the basis of a borrowing base formula. Rather than using paper, the CDFIs use the Mortgage Electronic Registration System (MERS) for tracking and monitoring security.
- The Co-op maintains a series of stop-loss triggers to ensure quality collateral and compliance by the CDFIs.
- Banks provide a liquidity facility that enables the Co-op to issue top-quality, short-term notes to an independent and separate commercial paper conduit.

Summary of the Benefits

The benefits of the Co-op include:

- *Reduced Interest Rates.* At present, a number of CDFIs borrow from banks to fund the origination and aggregation of loans they intend to sell. In return for funding, the CDFIs pledge the loans they are originating and aggregating. When they sell the loans, they pay off the warehousing lines. These warehousing lines are individually negotiated, and the terms and conditions vary considerably from one CDFI to the next. By gaining access to the commercial paper market via a centralized cooperative, participating CDFIs can minimize their borrowing rates and the risk associated with working with a limited number of lenders.
- *Reduced Operational Costs.* The pledging process involves, among other things, the physical transfer of promissory notes and related documents from the CDFI to the lender when the CDFI borrows, and then the return of the documents when the loan is paid off. The Co-op framework enables CDFI participants to use electronic technology rather than paper transfer. Although the electronic

technology does not enable the Co-op to technically “perfect its security interest,” it does reduce the potential for error while accelerating the speed of the transaction. With its capital and layered protections, the Co-op can insulate the commercial paper investors and banks providing the liquidity facility from the risk of eliminating paper transactions.

- *Reduced Costs Associated with Annual Renewals.* At present, the warehousing lines often involve annual renewal procedures, annual renewal fees, legal expenses, and other costly requirements. The Co-op consolidates and absorbs these on behalf of the participating CDFIs.
- *Increased Flexibility.* Many warehousing lines provided to banks restrict the borrower to pledging only new loans. One of the chief objectives of the Co-op is to enable the participating CDFIs to pledge existing loans that conform to the allowable terms and conditions per asset class. Clearly seasoned loans are less risky than new loans, and in addition to providing the CDFI borrower with more flexibility, they also produce a potentially higher quality of collateral. The moral hazard inherent in this structure is mitigated when borrowers also own the Co-op and, therefore, would not want to undermine it. Thus, they have “skin in the game.”
- *Access to the Rating Agencies.* One of the chief benefits of this structure is that participating CDFIs can place their assets in a facility that will be monitored and evaluated by the rating agencies on a dynamic, ongoing basis. Participation also allows the CDFIs to showcase their capacity to service assets, another key area in the CDFI sector that, at present, is not monitored or routinely evaluated by the rating agencies. Exposure in both areas assists participating CDFIs in moving toward the ultimate objective of being rated on the basis of their organizational and financial strength. Employing electronic rather than paper-based security interests, as planned, can accelerate this process. Over time, the exposure provided by the Co-op can expand to more CDFIs, and parameters for funding higher-risk asset classes, including unsecured loans, can be accommodated through this structure.

Notwithstanding the benefits, the Co-op is not designed to completely replace existing bank warehousing lines or other lending facilities. Although participants may choose to reduce the lines, it is not advisable to entirely replace the relationship with the bank, or the range of funding options that banks currently provide. The purpose is instead to augment existing relationships, and collaterally, to provide the key banks with an

alternative, and potentially more effective and remunerative, method for lending to the community development field. The optimal solution is to roll the commercial paper option into one of the existing bank facilities, as a borrowing option.

Potential Participants

The Co-op involves five potential participants. Each of the five participants has assets under management in excess of \$50 million, has been in existence for more than 10 years, and has warehousing lines from commercial banks to support their borrowing and aggregation activities. None of the participants have a delinquency on any of its loan agreements within 10 years. The five participants were:

- Self-Help (single-family first mortgages)
- Neighborhood Housing Services of America's Just Price Solutions subsidiary (single family first and second mortgages)
- Community Development Trust (multifamily first and second mortgages)
- National Cooperative Bank Capital Impact (multifamily and community facility first mortgages)
- Community Reinvestment Fund (small business first and second mortgages).

Community Development Trust dropped out in October 2007 after it issued \$64 million in preferred stock. At the same time, New Hampshire Community Loan Fund and Impact Community Capital expressed interest in participating. None of the participants had committed to the Co-op's development as of April 2008, when the effort was suspended.

Products

The primary assets financed by the Co-op are new assets that the participating CDFIs would normally fund with bank warehousing lines. These include first mortgages on single and multifamily residential units, and small business loans secured by real estate. These loans and mortgages are typically in the process of being aggregated by the CDFI for sale, securitization, or other form of off-balance sheet placement. Initially, only assets funded by banks under their existing warehousing lines are eligible. The Co-op also includes loans and mortgages that have already been originated, are seasoned, and are

on the balance sheet of the borrowing CDFI. The key focus for the Co-op is to develop a relatively homogeneous set of asset classes with a portfolio distribution that is compatible with CDFI participant needs as shown in Table 6.1.

Table 6.1. Co-op Portfolio Allocation per Loan Type by CDFI Participant

PARTICIPANTS				SELF-HELP	NHSA JPS	CDT	NCBCI	CRF	TOTAL
	Line #								
Single Family	1	23.00%	23,000						
First Mortgage Ratable	2	10.00%	10,000		10,000,000				10,000,000
First Mortgage Not Ratable	3	13.00%	13,000	10,000,000	3,000,000				13,000,000
Single Family	4	2.00%	2,000						
Second Mortgage Not Ratable	5	2.00%	2,000		2,000,000				2,000,000
Multifamily	6	10.00%	10,000						
First Mortgage Ratable	7	5.00%	5,000			5,000,000			5,000,000
First Mortgage Not Ratable	8	5.00%	5,000			5,000,000			5,000,000
Multifamily	9	10.00%	10,000						
Second Mortgage Not Ratable	10	10.00%	10,000			5,000,000		5,000,000	10,000,000
Community Facility	11	15.00%	15,000						
First Mortgage Not Ratable	12	15.00%	15,000				10,000,000	5,000,000	15,000,000
Small Business	13	15.00%	15,000						
First Mortgage Ratable	14	5.00%	5,000					5,000,000	5,000,000
First Mortgage Not Ratable	15	10.00%	10,000	5,000,000			5,000,000	0	10,000,000
Unsecured Credit Line	16	0.00%	0						
Not Ratable	17	0.00%	0	0	0	0	0	0	0
Total Available by Loan Type	18	75.00%	75,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000
Max Single Obligor Exposure	19			15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000
Single Obligor to Capital	20		74.63%						
Single Obligor to Total Facility	21		15.00%						

The total amount of the Co-op facility is \$100 million. A minimum of \$25 million is invested in treasuries and other high quality marketable securities. The remaining facility is deployed in the form of CDFI notes secured by “ratable” and “unratable” loans held on the CDFI books. Additional asset allocations are to include:

- Each participant can borrow up to \$15 million fully outstanding at any one time. This affords the Co-op additional flexibility in allocating funds in unusual circumstances.
- Co-op members set in advance sub-limits on ratable and unratable paper.

Structure of the Co-op

Existing commercial paper conduit. The Co-op conducts business via an existing commercial paper conduit. A number of lending institutions serving the CDFI industry have multiple commercial paper conduits. Using an existing conduit reduces the cost of start-up, and ensures that the funding obtained for the CDFI borrowing is indistinguishable, for investors, from any other paper in the market. One of the chief objectives of the Co-op is to eliminate the need for subsidy and the collateral consumption of scarce social investment and foundation resources. In becoming invisible to the investor, the CDFIs in the Co-op can eliminate any further need for social investment subsidy to support their warehousing activities.

In keeping with market practice, the existing conduit must assure commercial paper investors they will get paid. As a result, the existing conduit requires that the Co-op obtain a 100 percent liquidity facility that guarantees timely payment of principal and interest. The 100 percent liquidity facility is obtained from a group of banks that, preferably, already lend to the Co-op's five CDFI participants.

The banks. Banks are invited into the syndicate for the liquidity facility if they have existing exposure to one or more of the five participating CDFIs and CDFI assets. This is to avoid the learning curve for banks associated with providing credit support for the first time to a CDFI and its pledged assets (the learning curve has proved a material impediment for many conventional lenders as well as the capital markets.) The Co-op works with a lead bank that arranges a syndicate for the letter of credit that covers the liquidity risk. The lead bank invites the other banks already providing credit or warehouse lines to the participating CDFIs to participate in the syndicate. The Co-op is structured to be an attractive alternative to direct lending for the banks because it provides the banks with: a) reduced risk-based capital allocation against the same assets; b) the same CRA benefits that pertain to bank warehousing lines; c) diversified risk; and d) at a minimum, a market return.

The Co-op. The Co-op requires the participating CDFIs to regularly report performance data, maintain sound financial condition, comply with "stop-issuance" triggers, and provide security interests appropriate to the transaction. The latter two requirements are similar to those required by the banks in their other asset-backed commercial paper transactions, except that the CDFIs are pledging their assets through MERS, as noted above. The Co-op employs an administrator and a transfer agent who

are distinct from the banks in the liquidity facility. The Co-op also employs one to two full-time equivalent (FTE) staff to manage the interests of the CDFI owners.

The CDFI borrowers. Each CDFI participant has the option to borrow under its existing credit facilities with its banks or with the Co-op. Depending on events in the market on any given day, the Co-op may or may not be more attractive than the financing provided by the banks. As with their corporate counterparts, it is up to the CDFI treasurer to determine which funding source is preferable. At present, the procedures for borrowing under warehousing lines are cumbersome, costly, and paper-intensive. The Co-op minimizes the time and money associated with the secured CDFI notes. As noted above, the ideal solution with the banks is to roll the Co-op funding option into existing bank facilities, as a borrowing option.

Grants and program-related investments. To obtain the liquidity facility from banks that the third-party commercial paper conduit requires, the Co-Op approaches financial institutions, corporations, and foundations to capitalize the Co-op with both grants and Program-Related Investments (PRI). The capital target is \$5 million in grants and \$15 million in PRIs at 1 percent for 10 years. The Co-op is designed to be self-supporting and generate surpluses. Together with start-up costs, this upfront capital infusion serves as the only social investment subsidy in the Co-op structure. The capital is designed to grow over time by generating surpluses at the Co-op level. The members of the Co-op will determine the level of surpluses.

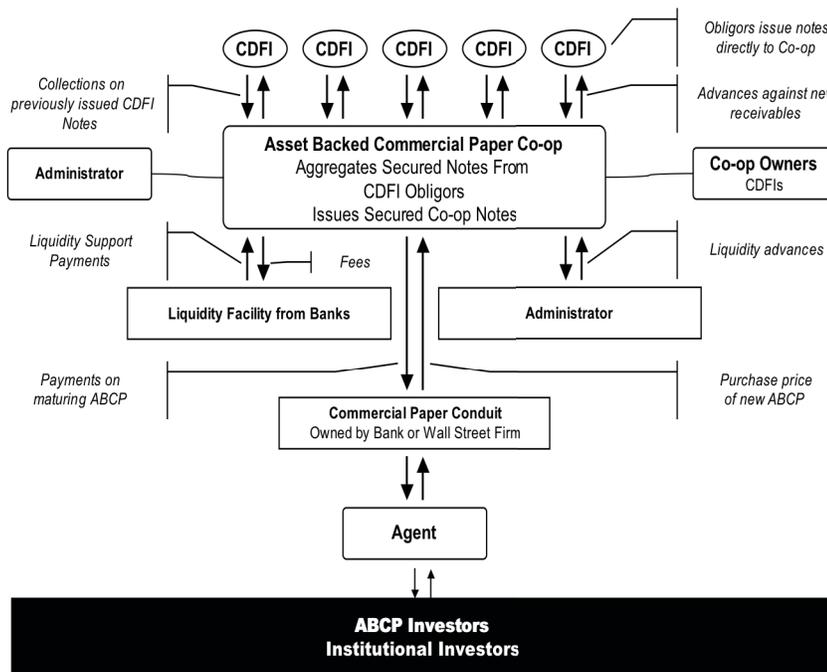
The borrowing process (as shown in Figure 6.1). The following is how the CDFI accesses the commercial paper market:

- To finance the loans that it is warehousing, a CDFI asks to borrow \$5 million from the Co-op for 30 days.
- The Co-op immediately borrows \$5 million for 30 days from the commercial paper conduit. The Co-op selects the conduit to issue commercial paper on the Co-op's behalf. A major financial institution operates the conduit.
- The conduit issues A-1/P-1 rated commercial paper in the amount of \$5 million for 30 days. Institutional investors purchase the commercial paper.
- The Co-op receives the proceeds of the conduit's commercial paper issue.
- The CDFI receives the proceeds from the Co-op's short-term promissory notes issued to the conduit.

- The transactions are simultaneous. To ensure simultaneity and accuracy, the Co-op has an administrator, typically a bank, that manages the books of the Co-op and the activity with the CDFI borrowers. It also has an agent, who manages the flows between the commercial paper conduit and the Co-op. The conduit itself conducts business with the investors.

At the end of 30 days, the CDFI sells the warehoused loans and retires the debt to the Co-op, which in turn retires the debt to the conduit. If the warehoused loans are not sold, or if new loans are to be warehoused at maturity, the CDFI may pay the notes off by issuing new notes. This effectively rolls the debt over and extends the term of the financing. Most entities participating in the commercial paper market borrow on 30-day maturities to get the lowest rates, and they tend to roll them over at maturity.

Figure 6.1: Operational and Cash Flows for the Co-op



The Co-op assumes that most borrowers will want to borrow for 30 days at a time to benefit from the lowest pricing (assuming a rising yield curve) and roll over three or

four times before repaying the funding need by a loan sale or other means. It also assumes that funding needs typically do not exceed 120 days and never exceed 270 days.

Financial Objectives

The following financial scenarios show how the Co-op works in a range of economic conditions. Table 6.3 shows the average rates and average rates plus the spread in five different interest rate and loan demand scenarios. The rates are for A-1 / P-1 commercial paper (lines 45), LIBOR (lines 47), and the CD rate and the Yield Curve increment rate (lines 49 and 50). LIBOR is assumed to be 25 basis points more than the A-1 / P-1 commercial paper rate. The A-1 Rate Plus Spread and the LIBOR Rate Plus Spread represents the rate at which the CDFI borrows from the Co-op. (As of February 2010, the borrowing rate for the CDFIs assuming the Co-op had been established would likely be under 1 percent.)

The yield curve increment is an indication of how much additional yield the Co-op could likely squeeze out of funding operations if cash and short-term investments were run at a slight mismatch. The amount could be as high as (approximately) 3/8 percent. However, it is assumed that cash and short-term investments are invested in commercial paper at the base rate as shown in line 45.

The spread, which is designed to cover a large portion of the costs of the Co-op, is 0.75 percent in Scenario A (line 46).

Funding

Table 6.2 is a copy of the term sheet that is shown to the banks.

Table 6.2. Term Sheet for the Commercial Paper Co-op

Obligor	Commercial Paper Co-op, a cooperative financing entity owned by qualified borrowers.
Amount	Up to \$100,000,000. The facility is syndicated to banks that presently lend to the qualified borrowers.
Facility	Letter of credit to provide liquidity support for the asset-backed commercial paper (liquidity facility). This facility ensures the conduit's commercial paper investors receive timely payment of principal and interest. A lead bank arranges and manages the syndicate.
Fees	.375 percent for the Letter of Credit, payable quarterly each year; .125 percent for the lead bank syndicate manager payable quarterly each year. Set-up fee to be determined.
Interest Rate	The Co-op will charge qualified borrowers (the CDFIs) 75 basis points over the A1/P1 commercial paper rate. CDFIs have the option to borrow at 75 basis points over LIBOR, or at the equivalent spread over alternative bank cost of funds.
Maturities	Annual Renewal
Purpose	To provide qualified borrowers (CDFIs) additional financing and pricing flexibility by creating an avenue to the commercial paper market through a capitalized Co-op. At present. All the CDFIs have bank warehousing lines and unsecured facilities.
Process	The Co-op will purchase short-term notes issued by the CDFIs for periods of up to 270 days. The Co-op will aggregate the notes daily for funding. The notes are secured by assets pledged by the CDFIs under a borrowing base formula. The formula ensures over-collateralization of advances to the CDFIs from the Co-op. To fund the CDFI notes, the Co-op issues its own notes to an existing commercial paper conduit. The conduit issues rated commercial paper to the public. The commercial paper is rated A-1/P-1 on the basis of credit enhancements (listed below) and the liquidity facilities that guarantee the Co-op's payments to the conduit
Qualified Borrowers	The participating CDFIs are large-scale, high-quality originating and secondary market CDFIs or CDFI-like institutions. The participating CDFIs originate loans for resale and/or purchase loans from for-profit and nonprofit lenders whose mission is to serve low-income areas and populations. Loans purchased include first and second mortgages on single-family homes, secured development and permanent loans on multifamily and community projects, and secured term loans for businesses.

Table 6.2 continued

**Risk
Mitigated
by:**

1. **Loan performance.** Only banks that already extend warehousing lines and other credit facilities to one or more of the CDFIs will be invited to participate in the syndicate.
 2. **QB credit quality.** None of the five participating CDFIs has been delinquent or in default on debt obligations for a minimum of ten years.
 3. **First Loss:** There will be a target of \$21mm with a minimum 15 percent (\$15.0mm) injection of grants and program related investments at the Co-op. This will serve as a first loss. The Co-op is designed to generate surpluses, so the first loss coverage is likely to grow.
 4. **Security Interest for the Banks:** the banks will have a first lien security interest in the assets of the Co-op, which consist of the secured notes issued by the participating CDFIs.
 5. **Security Interest for the Co-op:** the Co-op will have a security interest in the assets to be funded by the CDFIs as part of their warehousing activity, or by seasoned assets already on the balance sheets of the CDFIs. Advances to the CDFIs (backed by the CDFI Notes) will be sized via a borrowing base formula specific to the kinds of assets being funded. The Co-op will use the electronic MERS system to track and monitor pledged collateral of the CDFIs. Security interests in assets managed via the MERS system are not perfected under the Universal Commercial Code. The Co-op mitigates the risk by the fact that the CDFIs own the Co-op. Pledged loans in excess of 90 days delinquent must be substituted with loans of equivalent quality and rate
 6. **Asset Quality:** The Co-op will keep a minimum of 100 percent of its cash and marketable securities invested in high-quality investment grade instruments at all times. It will keep 25 percent of its total assets in high-quality investments. In addition the CDFIs will borrow under sublimits which restrict: a) obligor concentration,; b) asset type; and c) unratable assets.
 7. **“Stop-issue” Triggers.** Covenants will be established for the CDFIs which trigger “stop-issuance” through the Co-op in the event of default. If a CDFI is in default, it cannot roll over its notes to the Co-op nor can it issue new notes to the Co-op. The stop-issue triggers include the following:
 - a) CDFI pledged loans that in excess of 60 days delinquent exceed 3 percent
 - b) Default on covenants in any other loan agreement
 8. **QB Capacity:** The group of CDFIs is pre-selected to be of a certain size, longevity, management capacity and level of performance. The Co-op will ensure that participants in the Co-op have maintained their financial health. Default on financial covenants will activate stop-issuance. Default on financial covenants include:
 - a) Loans past due of 60 days or more in the total CDFI loan portfolio exceed 7 percent
 - b) Maintenance of a current ratio of 1.05:1
 - c) Maintenance of a minimum Net Assets of \$20,000,000
-

Table 6.3. Co-op Costs Showing Performance under Different Volume and Rate Assumptions

KEY ASSUMPTIONS	Line #	Rates % or \$	Year 1	Year 2	Year 3	Year 4	Year 5
A-1 Rate	45		6.00%	3.00%	4.00%	8.00%	2.00%
Plus Spread	46	0.75%	6.75%	3.75%	4.75%	8.75%	2.75%
LIBOR	47	0.25%	6.25%	3.25%	4.25%	8.25%	2.25%
Plus Spread	48	1.00%	7.25%	4.25%	5.25%	9.25%	3.25%
CD Rate	49	0.13%	6.13%	3.13%	4.13%	8.13%	2.13%
Yield Curve Increment	50	0.25%	6.38%	3.38%	4.38%	8.38%	2.38%
Long Term Investment Rate	51	6.00%	17,100	17,100	17,100	17,100	17,100
Bank facilities: Liquidity & Mgmt Fees	52	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Management	53	\$250	250	258	265	273	281
Administration/Dealer	54	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
PRI Cost	55	1.00%					

The interest rates and loan volumes in Table 6.3 are for testing the profitability of the model under different volume and rate scenarios. They scenarios are arbitrary. Key assumptions for the remaining items, as continued in Table 6.4, are:

- Approximately \$7.9 million of the \$20 million in contributed capital and PRI funds is invested in high-quality, short-term instruments (line 57, Table 6.4), and earn at the commercial paper rate (line 45, Table 6.3). Interest is also earned on cash in line 56 (Table 6.4) at the commercial paper rate. The cash builds up a \$1.7 million surplus over the five-year projection of arbitrary rate scenarios. (The earnings from the short-term investments and cash are shown in line 67 and are not included in the surplus figure in line 82—a shortcoming of the test model.)
- Approximately \$17 million of the contributed capital and PRI funds is invested in high-quality, long-term instruments (line 58) and earns at a 6 percent rate (line 51, Table 6.3). (This was achievable during most of the years that the Co-op was under development). The revenue is shown in line 68 in Table 6.4.
- Outstanding CDFI notes issued to the Co-op are in line 59, Table 6.4. Co-op notes outstanding are shown from \$25 million to \$45 million to \$75 million before dropping back to \$50 million. The revenue they generate is based on the rate in line 46 (Table 6.3), which includes the commercial paper rate and the spread. The dollar amount is shown in line 69. The related volume is shown in line 84 for each year. It is assumed that the average CDFI financing need—that is, the actual

duration the money is needed versus the term of the note that determines the pricing, which is often 30 days—is four months (turning three times per year).

- Outstanding Co-op notes to the conduit are shown in line 61 of Table 6.4. They track the CDFI notes closely, but in this scenario, the Co-op uses several million of its long-term capital to fund the notes.
- The all-in cost of the bank liquidity fee is .375 percent (line 52, Table 6.3. Line 52 includes the lead bank’s additional .125 percent for running the syndicate of banks). This .375 percent fee is a product of a) the reduced risk occasioned by the capital and collateral support; and b) the achievement of a 60+ percent return on capital for the bank, assuming a risk-based allocation as shown in Table 6.1. (see section, “Bank Return on Capital” below for further explanation). The dollar cost is in line 71.
- The rate on the PRI, which accounts for three-fourths of the capital of the Co-op, is assumed to be 1 percent. The cost is in line 72.
- Management is estimated at \$250,000 a year, rising at the rate of inflation (line 53). This is likely high. It is unclear that the Co-op will require more than one full-time employee to manage the interests of the members. Co-op members will determine this need. The dollar amount is shown in line 75.
- In addition to the management expense in line 75 is a line item for CARS and/or other annual financial analyses to assess financial health of the five CDFI members at a rate of \$10,000 per analysis.
- The administrator / dealer in line 54, which runs at 0.25 percent on total outstandings, is based on discussions with various providers. The dollar cost is shown in line 77.
- A miscellaneous expense allowance of \$50,000 is included, rising at the rate of inflation.
- The charge-offs (line 81) are a summary of assumptions from the Risk Allocation Table 6.4. It is assumed that there is a one-year lag: e.g., this year’s charge-offs are against last year’s average outstandings. The charge-offs are unlikely since none of the participating CDFI borrowers has ever defaulted on a loan.

Table 6.4. Summary Financials for the Co-op in Different Rate and Volume Scenarios

BALANCE SHEET	Line	Rates % or \$	Year 1	Year 2	Year 3	Year 4	Year 5
Cash	56		\$344	\$532	\$731	\$1,053	\$1,173
Treasuries - ST	57		\$7,900	\$7,900	\$7,900	\$7,900	\$7,900
Treasuries - LT	58		\$17,100	\$17,100	\$17,100	\$17,100	\$17,100
CDFI Notes	59		\$25,000	\$40,000	\$75,000	\$60,000	\$50,000
Total Assets	60		\$50,344	\$65,532	\$100,731	\$86,053	\$76,173
Coop Notes to Conduit	61		\$29,900	\$44,900	\$79,887	\$64,832	\$54,892
Equity- PRI	62		\$15,075	\$15,075	\$15,075	\$15,075	\$15,075
Equity- Grants	63	25.00%	\$5,025	\$5,025	\$5,025	\$5,025	\$5,025
Excess Spread Reserve	64		\$344	\$532	\$744	\$1,121	\$1,181
Total Liabilities and Equity	65		\$50,344	\$65,532	\$100,731	\$86,053	\$76,173
			\$0	\$0	\$0	\$0	\$0
OPERATING STATEMENT	66						
Investment Income (ST plus Cash Interest)	67		\$474	\$258	\$332	\$661	\$242
Reserve Income (LT)	68		\$1,026	\$1,026	\$1,026	\$1,026	\$1,026
Commercial Paper Income	69		\$844	\$1,219	\$2,731	\$5,906	\$1,513
Total Revenues	70		\$2,344	\$2,502	\$4,089	\$7,593	\$2,781
COF: Investors	71		\$897	\$1,122	\$2,496	\$5,789	\$1,197
COF: PRI	72		\$151	\$151	\$151	\$151	\$151
Total Cost of Funds	73		\$1,048	\$1,273	\$2,646	\$5,939	\$1,348
(Number of CDFIs)	74	5					
Management	75		\$250	\$258	\$265	\$273	\$281
Underwriting and annual review	76	\$10.00	\$50	\$50	\$50	\$50	\$50
Administrative/Management	77		\$126	\$164	\$252	\$215	\$190
Financing	78		\$500	\$500	\$500	\$500	\$500
Miscellaneous	79	\$25	\$26	\$27	\$28	\$29	\$30
Total Op Exp	80		\$952	\$998	\$1,095	\$1,068	\$1,052
Charge-off	81	0.51%	\$0	\$64	\$166	\$293	\$344
Total Surplus	82		\$344	\$168	\$182	\$293	\$36
			\$344	\$167	\$183	\$293	\$36
Note: interest on cash not included	83		21	16	29	84	23
CDFI Note Volume	84	3	75,000	120,000	225,000	180,000	150,000
CDFI Note Repayment	85		50,000	80,000	150,000	120,000	100,000

Credit Risk/Credit Enhancement

The plan is designed to provide a reserve structure per asset type identical to what existing banks require in their secured warehousing facilities. However, it is somewhat more complicated: the FIR team is also attempting to provide an equal level of access to each of the participants in the context of the different risk the loans that they warehouse present. In the following analysis for balancing risk and access, “investment assets” of

the Co-op are distinguished from “risk assets.” The latter are the CDFI promissory notes to the Co-op, secured by the pledged assets.

Risk Allocation for the Co-op (see Table 6.5). The distinction between ratable and nonratable mortgages is crucial in the allocation capital based on risk. This issue is further detailed in Appendix D, along with the guidance language from the Federal Reserve. The question is whether an asset can be assigned to an investment grade pool or not, given the criteria of the rating agencies. The distinction requires materially different risk allocations by the banking partner, whether on or off the bank’s balance sheet. The higher allocation of collateral reserves, which may also be a percentage advance against the full face value of the assets warehoused by the CDFI (for example, the Co-op advances funds representing 85 percent of the value of the CDFIs assets being financed), is intended to level the risk, so that all CDFI borrowings represent equal risk to the Co-op. It is assumed that additional credit enhancement by the banks is not necessary given that the collateral and capital requirements are enough to help the banks achieve a 10 percent credit conversion ratio and an 8 percent risk-based capital ratio in all asset classes. The only exceptions to this are the unsecured, ratable, single-family first mortgages, for which we assume a 4 percent risk-based capital ratio. This is in line with the current practice of the market and assent of the regulatory agencies.

Table 6.5. Portfolio Allocations Based on the Risk of Different Asset Types for the Co-op

RISK ALLOCATION																	
Line #	Size	Total	Charge-Off	Collateral Reserve	\$	Co-op Capital	\$	% Managed	\$	Management Fee	\$	Liquidity Facility	Credit Conversion	RBC %	RBC \$		
Treasuries	22	25,000	0.00%	0.00%	0	0.00%	0	100.00%	25,000	0.125%	31	0.38%	94	10.00%	4.00%	100	
Single Family	23	0	23,000														
First Mortgage Ratable	24	10%	10,000	0.25%	2.50%	250	2.50%	250	100.00%	10,000	0.125%	13	0.375%	38	10.00%	4.00%	40
First Mortgage Not Ratable	25	13%	13,000	0.50%	5.00%	650	5.00%	650	100.00%	13,000	0.125%	16	0.375%	49	10.00%	8.00%	104
Single Family	26	0	2,000														
Second Mortgage Not Ratable	27		2,000	1.00%	10.00%	200	10.00%	200	100.00%	2,000	0.125%	3	0.375%	8	10.00%	8.00%	16
Multifamily	28	0	10,000		5												
First Mortgage Ratable	29	5%	5,000	0.25%	2.50%	125	2.50%	125	100.00%	5,000	0.125%	6	0.375%	19	10.00%	8.00%	40
First Mortgage Not Ratable	30	5%	5,000	0.50%	5.00%	250	5.00%	250	100.00%	5,000	0.125%	6	0.375%	19	10.00%	8.00%	40
Multifamily	31	0	10,000														
Second Mortgage Not Ratable	32		10,000	1.00%	10.00%	1,000	10.00%	1,000	100.00%	10,000	0.125%	13	0.375%	38	10.00%	8.00%	80
Community Facility	33	0	15,000														
First Mortgage Not Ratable	34		15,000	0.50%	5.00%	750	5.00%	750	100.00%	15,000	0.125%	19	0.375%	56	10.00%	8.00%	120
Small Business	35	0	15,000														
First Mortgage Ratable	36	5%	5,000	0.75%	7.50%	375	7.50%	375	100.00%	5,000	0.125%	6	0.375%	19	10.00%	8.00%	40
First Mortgage Not Ratable	37	10%	10,000	1.50%	15.00%	1,500	15.00%	1,500	100.00%	10,000	0.125%	13	0.375%	38	10.00%	8.00%	80
Unsecured Credit Line	38		0														
Not Ratable	39		0	3.00%	30.00%	0	30.00%	0	0.00%	0	0.125%	0	0.375%	0	50.00%	16.00%	0
Treasuries	40		25,000									125		375			
Ratable	41		20,000			750		750								0.40%	100
Unratable	42		55,000			4,350		4,350								0.60%	120
Unallocated	43							15,000								0.65%	360
Total	44		100,000			5,100		20,100								0.58%	580

Another key assumption is that the Co-op notes will reflect the same term as the CDFI notes, and that the conduit-issued commercial paper will have the same maturity. It is also assumed that the CDFI borrowers will typically borrow at the 30-day rate and

rollover at 30 days until the need for funding ends with an asset sale. These factors minimize the asset-liability risk and maximize the liquidity of the Co-op.

Other key assumptions include:

- The breakdown between ratable and unratable loans by asset class is an estimate on the basis of discussions with the potential CDFI members. The Co-op members can change these sublimits as they see fit, understanding there may well be a change in risk-based capital and financing fees as a result.
- The charge-offs in the fourth column of Table 6.5 are estimates. All the collateral and capital coverage figures are based on the charge-off assumptions. Hence, they are *the* critical part of the allocation equation. It is unlikely that the incidence of charge-offs will be this high, given that none of the CDFI borrowers has been delinquent on loans and there have been no charge-offs. However, it is appropriate to err on the side of conservatism, and the estimated cushion allows for alterations in other items.
- Collateral reserves at the CDFIs are calculated at 10 times the estimated charge-off rate.
- Co-op capital required is also 10 times the estimated charge-off rate. This is called *allocated capital*. Notably, the total capital of the Co-op exceeds this requirement by \$15 million, shown in Table 6.5 as the “unallocated” portion of capital.
- Allocated capital consists of \$0.75 million (line 41) for ratable paper and \$4.35 million (line 42) for unratable paper. This leaves \$15 million as unallocated capital (line 43) available for allocation as needed in the future.

This asset and risk allocation process is rather complex. But when aggregating different kinds of assets from different organizations through a single conduit, the complexity is unavoidable. If we were dealing with one asset class and only one CDFI, the exercise would be unnecessary. However, the biggest challenge for the CDFI field relative to the capital markets is scale. To achieve scale, CDFIs must bring different assets together from a number of different lenders. Table 6.5 allocates capital and funding as equitably as possible while minimizing the risk to the Co-op. This process of minimizing risk to the Co-op is a key driver in minimizing the risk premium that the bank syndicate builds into the cost of the liquidity facility, and the rate the investors accept on the commercial paper. Table 6.5 shows the process by which this allocation is accomplished: creating

equal access for each participant in terms of dollar amount, while balancing the risks of their respective concentration of assets. Notably, this set of allocations would be adjusted annually, quarterly, or perhaps even monthly in response to conditions in the marketplace. Table 6.6 displays the layers of protection against credit risk on the borrowed funds.

Table 6.6. CDFI Coverage from Bank and Investors'		
View		
CDFI Note Portfolio	Line #	Rates % or \$
CDFI NOTES (DEBT) TO CO-OP		
Losses:		
Total Charge-offs	86	510
Charge-off Ratio	87	0.51%
Collateral Coverage at CDFI:		
Collateral Reserve to Charge-offs	88	10
Collateral Coverage on Rated	89	3.75%
Collateral Coverage on Unrated	90	7.91%
Combined Collateral Coverage	91	6.80%
Capital Coverage at Coop:		
Capital to Charge-offs	92	10
Capital Coverage on Treasuries	93	0.00%
Capital on Rated (Allocated)	94	3.75%
Capital on Unrated (Allocated)	95	7.91%
Unallocated Capital	96	20.00%
Total Coverage Treasuries	97	0.00%
Total Coverage Rated	98	7.50%
Total Coverage Unrated	99	15.82%
Total Unallocated to Risk Assets	100	20.00%
Total Capital and Collateral to Risk Assets	101	33.60%

Table 6.6 illustrates what we introduced above, but from the standpoint of the funding participants. It shows that in this scenario for the Commercial Paper Co-op, the following holds:

- Based on the configuration of loans in Table 6.5, the overcollateralization for unrated assets is 3.75 percent (line 89, Table 6.6) and 7.9 percent for unrated assets (line 90). Hence, on a combined basis, at the fullest borrowing, the overcollateralization on the CDFI balance sheet (that is, what the CDFIs hold in reserve over and above the loans they are pledging) is 6.80 percent (line 91). Of course, as we noted, those with a higher level of unrated assets must keep higher

reserves on their balance sheet, and those with rated assets can keep lower reserves (a distinction which can be enforced, as noted above, through the Co-op's adjustment of advance rates against the value of the assets that the CDFIs pledge).

- The reserves required by the Co-op, which are in addition to the CDFI overcollateralization, are 3.75 percent for total rated assets (line 94) and 7.91 percent of total unrated assets (line 95). In theory, this is similar to what the CDFIs hold in reserve on their balance sheets. But the Co-op holds these reserves in cash and marketable securities. In addition, the Co-op maintains overcollateralization of another 20 percent (line 96) of the risk assets (the \$15 million noted above) that remain unallocated against the risk assets. This is held in case the estimates for the rated or unrated assets prove insufficient to cover actual or perceived risk.
- Thus, against the maximum of \$75 million in Co-op borrowings from the commercial paper market, backed by the overcollateralized CDFI pledges of rated and unrated assets on their balance sheets, and the overcollateralization on the Co-op balance sheet, there is a combined reserve against losses of 33.60 percent (line 101) when the Co-op notes are fully outstanding.
- Against the entire \$100 million facility, including the \$25 million in treasuries, the combined collateral and cash reserves of the CDFIs and the Co-op amount to \$25.2 million, or 25.2 percent, providing a very sound level of credit support.

In other words, before the banks felt any losses, the Co-op's risk assets and total assets would have to lose \$25.2 million. And for this to occur, more than one of the participating CDFIs would have to be liquidated with no value attributed to its pledged assets.

Notably, this entire procedure gives no value to the organizational credit risk of the participating CDFIs. In reality, the organizational risk would be the most valuable part of the risk mitigation structure, but because the rating agencies are not yet prepared to value CDFI organizational credit risk, no value is set aside for it. Indeed, the Commercial Paper Co-op is structured to bypass the need for evaluating CDFI organizational credit risk. This is an important point: while one of the original objectives of the FIR team was to get the rating agencies to assess CDFI organizational credit risk, the team recognized during the Capital Exchange effort that this would be an impediment. Hence, a big step forward is the strategic avoidance of organizational

credit risk assessment for the CDFIs with the credit enhancement structure summarized above.

However, what applies for the CDFI participants does not apply to the Co-op itself. The Co-op must be analyzed and evaluated on the basis of its organizational credit risk as part of the rating process. To protect the assets and the bank liquidity facility, the Co-op must function safely and soundly as a going concern. Key ratios, as set forth in Table 6.7, indicate the following attributes of the Co-op under widely variable rate and volume conditions:

- Surpluses are manageable. Although we show a declining trend in this scenario owing to high loss assumptions, conservative cost estimates, and a negative asset-liability tilt, the model shows the capacity to generate surpluses (line 103) in this interest spread range.
- Liquidity is strong. A high level of investment grade assets is maintained at all times against risk assets (line 110); the months of cash on hand are more than adequate (line 115), and the three-times turnover (lines 84 and 85 in Table 6.4) provide considerable discretion over cash allocations.
- Capital is strong. Leverage (line 114) is low given the high-quality and short-term nature of the CDFI notes that the Co-op holds. Risk assets do not rise higher than 75 percent (line 111), and, at worst, would have to shrink in value by 35 percent for the banks to lose money (line 112).

Graphing these results highlights the acceptable risk of the Co-op structure. In Figure 6.2, the Co-op is at the greatest risk in terms of leverage in scenario 3, when borrowing is at its fullest extent at \$75 million. However, the leverage ratio (i.e., liabilities to net assets) is still less than 4:1, an acceptable level. Under lesser levels of borrowing, the liability to net asset ratio is less. Meanwhile, in all five scenarios, the surplus to asset ratio is always positive, indicating room for changes in costs or risk allocations.

It is evident how these indicators of financial health interrelate in the five scenarios in Figure 6.2. Although two ratios measuring the ability to cover risk (cash and treasuries to Co-op notes and risk loss coverage) both dip in scenario 3 in Figure 6.3, when the CDFI and Co-op borrowing is at the maximum \$75 million, the credit risk remains manageable. And again, at lower levels of borrowing, the coverages are greater.

Table 6.7. How the Co-op Performs How It Covers Credit Risk in Different Rate and Volume Scenarios

	Line	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING STATEMENT						
Revenues to Avg. Total Assets	102	9.31%	4.32%	4.92%	8.13%	3.43%
Surplus to Avg. Total Assets	103	1.37%	0.29%	0.22%	0.31%	0.04%
Operating Expenses to Avg. Total Assets	104	3.78%	1.72%	1.32%	1.14%	1.30%
Funding Cost to Avg. Total Assets	105	4.16%	2.20%	3.18%	6.36%	1.66%
Losses to Avg. Total Assets	106	0.00%	0.11%	0.20%	0.31%	0.42%
Average Assets	107	25,172	57,938	83,131	93,392	81,113
RISK COVERAGE						
Cash and ST Treasuries to Risk Assets	108	32.98%	21.08%	11.51%	14.92%	18.15%
Cash and ST Treasuries to Co-op Notes	109	27.57%	18.78%	10.80%	13.81%	16.53%
Cash and All Treasuries to Co-op Notes	110	53.99%	36.37%	20.69%	25.99%	30.92%
Risk Assets to Total Assets	111	49.66%	61.04%	74.46%	69.72%	65.64%
First Loss Coverage (Capital + Collateral)	112	102.18%	64.33%	34.59%	43.87%	52.76%
First Loss Coverage (Coop Capital only)	113	81.78%	51.58%	27.79%	35.37%	42.56%
Total Liabilities to Net Assets	114	1.46	2.18	3.83	3.06	2.58
Months Op Cash on Hand	115	4	6	8	12	13
Repayments to CDFI Note Balance	116		200.00%	200.00%	200.00%	200.00%

Again, it is unlikely that the Co-op would be sustaining any losses, since the reserves at the CDFI level (representing 10 times annual charge-offs) would absorb losses first. And once again, the CDFI notes are first and foremost obligations of each CDFI. From a practical standpoint, it is likely that the CDFI itself would make the requisite payments using its own cash flow. This suggests that, at a spread of 75 basis points over the commercial paper rate, there is more than adequate cushion to maintain and build capital.

To avoid the necessity and cost of obtaining credit enhancement from the banks, it is important to take a look at the risk from the standpoint of the banks providing the liquidity facility, and the rating agencies.

Risk analysis for the banks and rating agencies. The chief difference between the proposed Co-op structure and existing bank warehousing lines is that the banks' obligor is the Co-op. Rather than having a direct security interest in the loans being warehoused by five distinct CDFIs, the banks have a direct security interest in the notes of these CDFIs. These notes, in turn, are secured by those loans. In effect, the banks are one further step removed from the CDFIs' loan assets.

Figure 6.2. Surplus/ and Liability to Assets

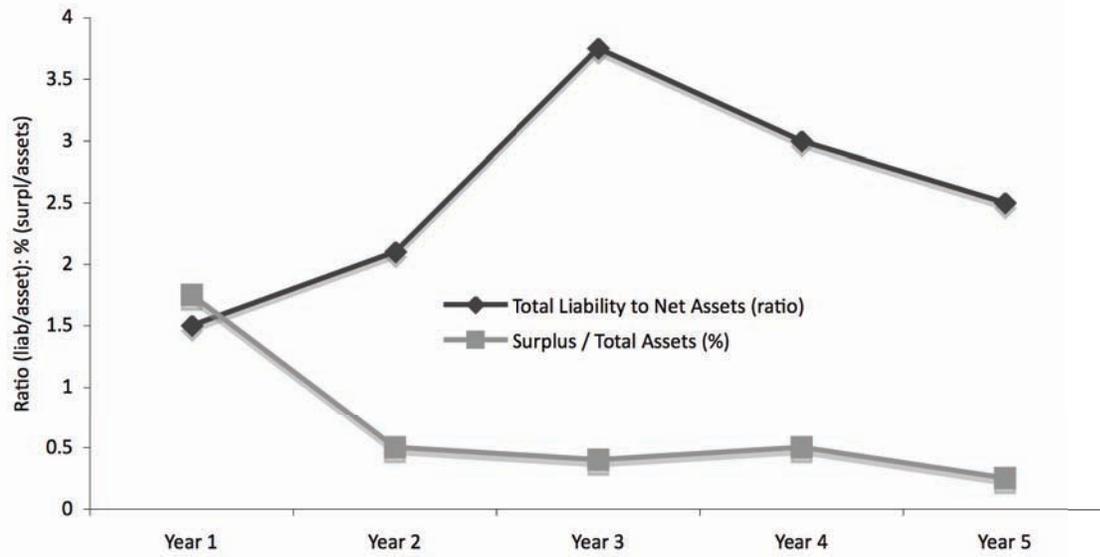
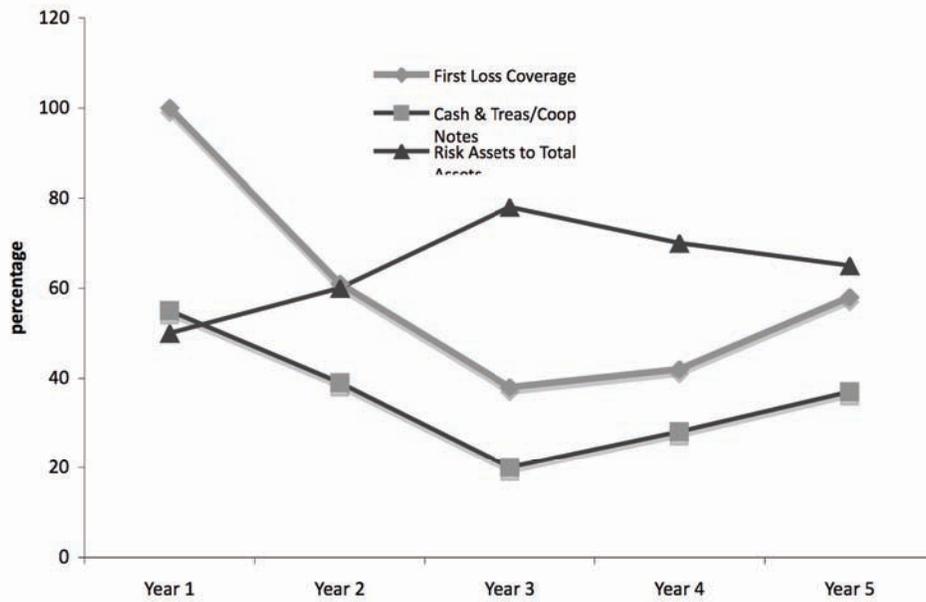


Figure 6.3. Key Ratios of Credit Risk Coverage



However, in substitution for the direct claim on the CDFI loan assets, the banks receive the following:

1. First loss: A direct claim on Co-op capital. The capital serves as a first loss against the total \$100 million value of the facility. Because the Co-op is designed to generate surpluses, this is likely to grow as a percentage of the total facility.
2. Asset Security: First lien interest in the Co-op's assets. The Co-op's assets consist of high-grade investments (25 percent) and CDFI promissory notes that are, at the very least, 100 percent secured by mortgages, plus (in this scenario) a minimum of 6.80 percent in collateral reserves at the CDFI.
3. Collateral Cushion: The Co-op will make advances against the CDFI short-term secured notes on a borrowing base formula that ensures a collateral cushion specific to the assets being financed by the CDFI.
4. Liquidity: the Co-op targets a \$25 million investment in high-grade securities and will commit to maintaining no less than a minimum of 25 percent of total assets in these instruments.
5. Early Warning: the Co-op will enforce "stop issue" triggers designed to identify deteriorating trends at a member CDFI and to terminate its ability to roll notes over if the trends are negative.
6. The capacity of the obligors: The members are selected on the basis of their size, longevity, and performance. Among other tools, the Co-op will use the CDFI Assessment and Rating System (CARS) for evaluating performance of the CDFI obligors.
7. A diversified portfolio: For the same dollar of community investment, the bank gets a much more diversified portfolio in terms of obligor, geography, asset class and risk.

In effect, the banks will be gaining a first loss reserve, liquidity, trigger mechanisms and portfolio diversification, all of which add up to level of credit support that they previously did not have.

These factors enable the banks to reduce their capital allocation against community development assets of the type being financed by the Co-op by more than 90 percent, a reduction that sets the stage for a significant increase in return on capital.

Thus, the Commercial Paper Co-op provides a level of credit support well in excess of what the banks would garner by lending to the CDFIs alone, while at the same time, increasing their profitability. This brings the Commercial Paper Co-op close to that highly coveted Wall Street designation: “no-brainer.”

Bank Return on Capital

The collateral at the CDFIs and the capital at the Co-op were structured to ensure that the CDFI notes, backed by all-mortgage types with all-mortgage risks, obtained investment grade for risk-based allocation treatment. So long as the collateral and capital achieve investment grade status, the pricing for the bank’s liquidity facility (i.e., 0.375 percent) should be reasonably attractive, as the 64.66 percent return on capital (line 122) in Table 6.8 would suggest. The pricing is even more attractive for the lead bank: if the lead bank retains 100 percent of the liquidity facility, it generates an 86.21 percent return on capital; but if it participates out 90 percent of the risk to a syndicate of banks, its (annual) return on capital goes to 280.17 percent. It’s another demonstration of what we introduced in Chapter 1: how the high asset turnover strategy pumps up the return on capital. It’s also another demonstration of why securitization is such an efficient and attractive tool.

Table 6.8. Return on Equity

	Line	Rate	\$ (000s)
Capital required for unrated assets	117	0.65%	360
Capital required for total facility	118	0.58%	580
Syndicate lead management fee	119	0.13%	125
Liquidity fee	120	0.38%	250
Total fees	121		500
Return on capital for syndicate bank	122	64.66%	
ROC for lead bank with 100% retention	123	86.21%	
ROC for lead bank with 10% retention	124	280.17%	

Low-cost financing at a market-based rate while generating both CRA credit and higher returns on capital for the bank is a big breakthrough for the CDFI field. In addition, because CDFIs are only working with banks that already make loans to participating

CDFIs, the Co-op removes the intense scrutiny by the banks of the CDFI organizational credit risk that would otherwise be required. In this case, the banks are willing to back the CDFI organizational credit risk because they already have it on their books. Hence, as it is showing banks how to lend to CDFIs more profitably, the Co-op is also advancing a platform that can produce rating-agency-level performance data, without the cost, time and effort of building a mutually workable CDFI credit assessment platform. Complex as the structure is, it is an end run around the chief obstacles to the capital markets the FIR team faced in the Mini-Fed and the Capital Exchange.

This is not to say, however, that the FIR team is abandoning rating agencies and their assessment of CDFI organizational risk. On the contrary, it is expected that, as the CDFIs and their assets perform, the level of first-loss protection can be reduced; that is, the overall facility can increase from \$100 million to \$250 million or more on the same level of capital. Alternatively, the Co-op can introduce higher-risk or less common forms of assets in the future, such as social enterprise, predevelopment, or—and here we get back to the original purpose—*unsecured working capital loans*.

What Worked for the Commercial Paper Co-op

Assuming the funds could be raised and final deal points worked out, CDFIs—at least a few at the top, anyway—could finally reach the capital markets, and achieve the “funding parity” with for-profit lenders that the FIR team had been seeking since 2001.

Advantages of the Co-op included:

- *Incorporation of bank needs into the structure.* The biggest breakthrough of the Co-op was the incorporation of bank metrics and perspectives into the structuring and pricing of the platform. For the first time, the constraints of the banks from a credit and operational standpoint were analyzed and addressed in relation to their risk-based capital allocation process. By making this connection effectively on a partnership basis, it predisposed the banks to going forward on familiar ground in terms of their regulatory guidelines and profitability targets.
- *Minimum size of \$100 million.* The Co-op team was able to identify CDFIs that had short-term funding needs sufficient to justify at least a \$100 million facility. In

fact, the short-term funding needs of the prospective participants were well in excess of \$100 million.

- *Market-rate investment versus social investment.* In terms of size and risk/return, the Co-op could be evaluated on the same playing field as other corporate and institutional debt transactions. Because there was no subsidy beyond the initial capital infusion, the transaction could be evaluated solely on its merits. Given the benefit of hindsight, the merits of this transaction would have placed it fairly high on the list of quality commercial paper issuers, particularly relative to the home mortgage market. The Co-op would have been a step forward from another standpoint as well: other than the \$20 million injection of subsidy at the front end, there was no further need for social investment.
- *Identification of a limited range of assets to be pledged.* The focus on mortgage assets being held primarily for sale or resale enabled the Co-op to avoid the complexity and time-consuming research and negotiation associated with the Capital Exchange and the Mini-Fed. At the same time, the focus enabled potential participants to detail specific problems with their existing funding structures that the Co-op could resolve; for example, reduced paperwork, legal and administrative costs, and the potential for funding existing and new mortgages held for sale or resale.
- *Identification of a limited number of likely CDFI participants.* The focus on size of borrowing need and assets held for sale offered another benefit: it essentially self-selected the potential participants. CDFIs sophisticated enough to be active sellers of mortgage assets would be familiar with the obstacles that the Co-op was attempting to overcome with the banks and the commercial paper market. Moreover, they could actively assist in crafting the terms and conditions of the Co-op product lines, services, and financing arrangements.
- *Maturities.* The interest shown by the CDFIs in participating in the Co-op clearly demonstrated that community development entities had short-term funding needs. It was also apparent that the existing short-term funding facilities that these CDFIs were obtaining were not, for the most part, competitive with what private-sector lenders were obtaining.
- *Risk assessment by the banks.* One of the most important strategies was to restrict bank participation to only those banks that were already lending to the CDFI participants on an unsecured or secured (warehouse) basis. Hence, the banks participating had the detailed credit loss data the rating agencies required—data the community development industry had been as yet unable to provide. This

not only eliminated the tension associated with taking on new risk, but it also put the banks into a position where they could clearly see, individually as well as collectively, that working through the Co-op was both more prudent and more profitable than retaining the funding and credit risk of the loans on their balance sheets.

- *The cost of underwriting and risk monitoring.* Requiring participating banks to already be lending to CDFI borrowers also substantially reduced the cost to the Co-op of monitoring the CDFIs. Banks were already conducting this function in the normal course of business. Limiting the number of participating CDFIs also reduced the cost. In addition, the Co-op could subscribe to CARS and get the needed ratings for substantially less than the Capital Exchange target of \$15,000 apiece. This would substantially reduce the amount of staff activity required to maintain the portfolio for the Co-op vis-à-vis the earlier iterations.
- *Credit Enhancement.* Because the Co-op was open only to banks that had already approved and extended credit on participating CDFIs and CDFI assets, and because it had several layers of solid protection, credit enhancement from the banks was no longer necessary. The need for support was confined to a liquidity facility instead. The liquidity facility guarantees that investors will get paid in full at maturity. It does not cover credit loss. This elimination of credit enhancement from the banks enabled the Co-op to target a lower cost of bank support, dropping the fee from the Capital Exchange minimum of .625 percent (it was likely to be more) to the 0.50 percent range (including the 0.125 percent for the lead bank). This freed up at least 0.125 percent for support of the operations of the Co-op.
- *A high-quality rating without scrutiny of CDFI organizational risk.* Along with the bank liquidity facility, the \$20 million in grant and PRI support and the other layers of protection were designed to achieve the A-1 / P-1 level rating on commercial paper. The benefits were threefold: 1) it provided CDFIs access to the commercial paper market for the first time; 2) it provided CDFI participants with the lowest rates in the market; and 3) it provided the rating agencies with a platform for viewing the performance of CDFIs and CDFI assets, a platform that was loaded in favor of the CDFI point of view.

That said, the Co-op structure alleviated the rating agencies of the need to establish an upfront platform for evaluating organizational risk. Essentially, with the existing conduit, the bank liquidity facility, the borrowing base, the Co-op capital, and the CDFI asset performance data, it was no longer necessary to

review the organizational risk of the participating CDFIs at inception. Given the time frame needed to arrive at a mutually compatible analytical framework, bypassing the organizational risk component while still getting a top rating was a significant improvement. Of course, once the Co-op was up and running with its pledged assets and borrowing base, its ongoing operational performance would contribute to the development of that framework. There was an additional bonus: one of the rating agencies indicated that it would be willing to “shadow rate” participating CDFIs should the CDFI so desire (see Chapter 7 for further discussion). Although this would have no effect on the operations of the Co-op, it could be used to initiate the transfer of knowledge and analytical metrics on organizational credit risk to the rating agencies.

- *Credit Risk.* At 0.5 percent forecasted annual loss rates, the level of projected charge-offs by the Co-op was well in excess of the rates of charge-off actually experienced by the lenders to the five CDFI participants. The real loss rate was 0 percent, in line with the actual experience of the borrowers selected.
- *Asset /liability management:* The notes the CDFIs issued to the Co-op had approximately the same term as the commercial paper issued by the conduit. This reduced the risk of asset/liability mismatch at the Co-op and elevated the credit quality of the Co-op from the standpoint of both bank and rating agency risk assessment.
- *Existing commercial paper conduit.* As discovered in the Capital Exchange effort, the cost of establishing a single-purpose commercial paper conduit for the CDFIs was high (approximately \$500,000-750,000). Using an existing bank supported or managed conduit eliminated the bulk of that cost. Equally important, it enabled investors in the marketplace to fund the Co-op and the participating CDFIs, on par with other issuers.
- *Control of rates and yields.* Because of the reduced cost of the bank support (e.g., liquidity but without bank credit enhancement), there was more room for generating surpluses. Consequently the Co-op had more discretion in determining the pricing on the CDFI notes, the design and allocation of the assets, the configuration of staff functions, and the risk profile for assets and additional CDFI participants. The participating CDFIs could also determine how much could be distributed to the owners (themselves).
- *Simplifying donor, lender and investor funding.* As with the Mini-Fed and the Capital Exchange, centralizing and consolidating CDFI credit exposure into a single entity simultaneously reduced credit risk through diversification,

simplified the grant-making decision, and confined the grant support to a single upfront infusion of cash. The Co-op offered another benefit: the social investors were handing over the responsibility for funding future needs to the marketplace, without compromising the mission.

- *Leveraging grant dollars.* The capacity to deploy \$5 million of grant capital and \$15 million of PRIs in the Co-op enabled social investors and foundations to produce lending volume up to 10 times the amount of the grants annually, assuming the rollover of notes). There is no other financial vehicle in the community development sector that comes close to this subsidy-leveraging capacity.
- *Sustainability.* With this level of bank and administrative fees, staff and charge-offs, the Co-op could deploy the initial grant and PRIs without the need for a continuing subsidy. Moreover, the capital was designed to grow over time through the generation of surpluses at the Co-op. Its sustainability was reinforced by the fact that the owners of the Co-op (the CDFI participants) had the authority to determine the pricing, asset allocation, and the staffing configuration in response to market conditions.

What Didn't Work for the Commercial Paper Co-op

On April 29, 2008, the FIR team sent the following letter to the participating CDFIs and banks:

Given events in the institutional marketplace as well as the mortgage market, it is clear that the assumptions we have been working with on the project have ceased being applicable. Initially we thought that the structure would be so much more attractive than ABCP for investors, and so much more compelling for the banks, and that the current crisis would not affect either the structure or the pricing. We were wrong.

The Commercial Paper Co-op as structured is an attempt to get CDFI organizational risk funded at the cheapest rates in the money markets -- with more than adequate protection for the credit enhancing banks. The structure is almost surgical in its allocation of risk and pricing.

But we are not in a time of surgical solutions. The financial markets are in a time of blunt instruments, trauma, and dislocation. Some of the key features that are affected by the changing conditions are:

- Almost half of the underlying collateral for the Co-op is in affordable single family mortgages;
- The remainder is in generally higher risk loans, including development, multifamily, small business and community facility loans;
- The pricing on the credit enhancement is based on a syndicated liquidity facility at the AAA level of credit;
- The allocation of risk is based on a determination of how much of each type of loan is ratable or unratable based on regulatory and Rating Agency criteria;
- The double layer of organizational support distinguishes the notes from ABCP vehicles and other financial obligations -- resulting in a premium versus LIBOR and ABCP commercial paper rates;
- The benefits to the banks in terms of the credit conversion ratio and the risk based capital allocation is derived from current regulatory thinking about special purpose vehicles;
- The amount of subsidy is based on the notion that access to ratings and the capital markets is a clear priority for the community development field among philanthropists and participating organizations.

Each of these is a key driver of the Commercial Paper Co-op platform, and each of them, due to market conditions, is now in motion. This makes it that much more difficult to make the case for the Co-op—even as the tightening of credit makes the Co-op more valuable for both the banks and the participating CDFIs. We don't see how, at present, we can pull all of these volatile items together in what would be an ambitious undertaking—even in even static markets.

We don't see this as an end of the effort so much as a hiatus. The key operating concept—to work the CDFI access to capital markets around the capital and profitability needs of the participating banks—remains viable under any set of conditions. We look to a point of stabilization when the effort can be attempted again.

We will be reporting on the efforts so that, when we do revive the attempt, the work with the CDFIs, the regulators, the banks and the rating agencies does not have to be reinvented. We are in the process of writing the report, which include the participants, the chief contacts, calculations, software and the history of the effort. The working title of the report is: Securitizing Organizational Risk: Wins, Losses and Opportunities for CDFIs in the Capital Markets. It will be published by Southern New Hampshire University, hopefully later this year.

The market continued to deteriorate after April, descending into virtual chaos in October 2008 with the collapse of Lehman Brothers. The slide rendered the weaknesses in the key drivers both more obvious and more trenchant. We discuss each of the letter's bullet points (in italics below) in more detail, to gain more insight into what happens when the financial markets collapse.

Almost half of the underlying collateral for the Co-op is in affordable single-family mortgages; the remainder is in generally higher-risk loans, including development, multifamily, small business, and community facility loans.

As initially conceived, the CDFI mortgage assets were pledged to support the CDFI organizational risk at the Co-op level. This was considered necessary given that a) the organizational risk was considered unassessable; and b) the assets to be pledged were already being used by the banks as the basis for extending credit, primarily in the form of secured bank warehousing lines.

As of February 2010, institutions had written down well over a trillion dollars of value in the home mortgage market. Through late 2008 and the better part of 2009, some in the investor community and the media continued to blame (incorrectly, see Chapter 1) the housing crisis on low-income homeowners (i.e., the community development constituency). During the period, bank warehousing lines were dramatically reduced or cancelled across the marketplace, thereby undercutting the capacity to originate as well as sell loans of any kind. Even the best CDFIs were unable to avoid the reductions and cancellations in warehousing facilities. To be sure, there were enough low-income homeowners, small businesses, and other kinds of community-based borrowers in distress to warrant concern about assuming added risk. Unfortunately, the perception was driving reality, and the overwhelmingly negative perception of community-based loans made a proposal like the Co-op, which was largely focused on providing better

pricing for CDFI warehousing lines, very difficult. The perception that the markets had not yet reached the bottom in housing prices continued to compound the difficulty.

When low-income mortgages lost support in the marketplace, followed by a general tightening of credit, the pledged mortgages of the participating CDFIs became just as impossible to assess as the CDFI organizational risk. Although it would be possible to present the Co-op as a prime credit to the banks, the rating agencies, the investing public, and perhaps most important, the regulators, it could only be accomplished by a significant increase in capital, if it were to be accomplished at all.

The pricing on the bank support is based on a syndicated liquidity facility at the AAA level of credit.

The collapse of the housing and, consequently, the asset-backed commercial paper markets strained bank balance sheets. Not only were bank portfolio assets called into question, but banks had to make good on their liquidity and credit enhancement facilities to the special purpose vehicles (such as the Co-op). This added even more assets to their balance sheets, many of them of questionable value (as in Case IV in Chapter 3). Banks had differing levels of stress, and some questioned whether a top rating could be produced with all the participating banks.

As we saw in Chapter 3, one of the key indicators of bank distress was the LIBOR rate, the primary base rate for higher-quality borrowers. Not only did the LIBOR rate diverge dramatically from nonfinancial commercial paper rates and the fed funds, but its very validity was called into question by the market. There were indications that some banks were underreporting the true cost of their LIBOR deposits to assure rating agencies and investors that they were as strong as other banks. Since LIBOR reporting is voluntary, there was no authority in place to enforce accurate reporting. Loss of confidence in this index further undermined confidence in the banking system, which exacerbated the divergence of LIBOR from other short-term money market rates. The rise in the cost of LIBOR was echoed by rises in bank fees for credit and liquidity support. Prior to the crisis, the highest-quality transactions could obtain credit and liquidity support fees in the 25–37.5 basis point range. During 2009, the fees rose to 70 basis points or more. For lower-quality transactions, the fees rose from 75–100 basis points to 150–200 basis points. In all cases, the increases blew right through the model for the Commercial Paper Co-op.

The allocation of risk is based on a determination of how much of each type of loan is ratable or unratable based on regulatory and rating agency criteria.

Questions about asset ratings in the asset-backed commercial paper conduits raised the issue of rating criteria for mortgage assets as a whole. Even though the Co-op was technically not an asset-backed commercial paper (ABCP) program (it was a loan-backed commercial paper program), the best rates for the ABCP paper (AAA/Aaa) reached the 10 Year Swap Rate plus 1,000 basis points while the BBB/Baa tranches reached the SWAP rate plus 5,500 basis points. In simplistic terms, it meant that investors valued the AAA tranche assets at 85 to 90 cents on the dollar, and the BBB tranche assets at 40 to 45 cents on the dollar.⁶²

The steep discounts in the market's valuation of AAA and BBB tranches of securitized mortgage assets also reflected a severe loss of confidence in the ability of rating agencies to quantify risk in the sector. Inevitably, this loss of confidence also undermined the assumptions about the ratable of community development assets being pledged to the Co-op by the CDFI borrowers. The adverse effect would surface in two ways: 1) the rating agencies would be much tougher on what they deemed ratable; and 2) investors would still question asset ratings because they had lost confidence in the rating agencies.

The double layer of organizational support distinguishes the notes from ABCP vehicles and other financial obligations, resulting in a premium versus LIBOR and ABCP commercial paper rate.

The Co-op was a loan-backed commercial paper vehicle; the commercial paper was secured by loans to the CDFIs on an organizational risk basis, but these loans to the CDFIs in turn were backed by the pledged assets of the CDFIs. In theory, this "belts and suspenders" structure would be much more attractive to investors because there were at least two primary levels of payout (three including the Co-op cash and capital). So, in theory, the loan-backed commercial paper structure would not suffer the same astonishing disaster that struck the asset-backed commercial paper issuers. But in this instance, because the organizational risk of the CDFIs was not assessable and definitely not ratable, the loss of confidence in the classes of assets the CDFIs would be pledging was lethal. With the market discounting the cash streams from real estate assets at the levels noted above, it was simply impossible for the Co-op to make the case that the assets backing the unsecured obligations were of much value to the transaction, or that the capital in the loss reserve would provide adequate coverage.

The benefits to the banks in terms of the credit conversion ratio and the risk based capital allocation are derived from current regulatory thinking about special purpose vehicles.

Even if the banks could produce a syndicated letter of credit at the top rating, the amount of unratable risk in the Co-op portfolio of pledged assets could translate into a significantly higher capital requirement. If this were the case, the Co-op would be forced to bring much more capital to the table to ameliorate the adverse risk allocation, and to cover the inevitable (and necessary) increase in bank facility fees. More important, the markets were showing virtually no interest in Special Purpose Vehicles (SPVs) involving affordable real estate assets. Hence, even with a doubling or tripling of the capital contributed to the Co-op, investors were unlikely to be found. Essentially, the CDFIs were locked out of the capital markets, and locked into the bank balance sheets, if there was to be any borrowing at all.

The amount of subsidy is based on the notion that access to ratings and the capital markets is a clear priority for the community development field among philanthropists and participating organizations.

With the advent of the foreclosure crisis, and the related confusion in the capital markets, the priority to get capital market access and a level playing field for financing CDFIs slipped.⁶³ For the financial institutions that were expected to provide grant support, needs of the community development sector paled in comparison to the needs across a much larger spectrum of the conventional sector, and material losses reduced the capacity to provide grants to the field. For the agencies and foundations, the priority of keeping people in a house or reversing the negative affects of foreclosure on communities far outstripped the objectives of the Co-op in immediate importance. Grants and PRIs for the Co-op at this stage would have been an extremely hard sell and could have compromised efforts in the future when the markets stabilized.

Market conditions were not the only challenges for the Co-op. Its proposed structure also revealed several shortcomings, including:

- *Organizational underwriting.* The biggest failure of the Commercial Paper Co-op was its inability to obtain unsecured funds for CDFI borrowers from the commercial paper market. The CDFIs would be forced to pledge loans as collateral to the Co-op. Notwithstanding the advantages of the borrowing base and MERS features, the FIR team was unable to take this objective any further than it had gotten with the Capital Exchange. Again, the obstacles could be found primarily within the community development sector itself, including the absence of: 1) standardized financial accounting and reporting; 2) a mutually compatible analytical framework between rating agencies and the industry, and

3) relevant performance data. Because of this, the Co-op could not achieve one of the FIR team's fundamental objectives: to have rating agencies evaluate CDFIs on the basis of true organizational risk. To be sure, the Co-op could, and would, still go for the "shadow ratings" for each participant from the rating agencies, but there would likely be a continued gap between how the CDFI field viewed the participants' financial performance and how the rating agencies viewed it.

- *Maturities.* The original objective of FIR was to access long-term debt in the capital markets. The Co-op was designed to handle short-term funding needs only.
- *Asset/liability mismatch.* Although it was possible that the CDFIs could effectively use commercial paper the same way conventional lenders use it (to roll it over perpetually, thereby funding long-term assets), the participants did not want to use it this way. Hence, the CDFIs and the Co-op could not benefit from the net interest margins that conventional competitors were receiving. There were benefits to this, of course. First and foremost, tenor-matching of assets and liabilities reduced the risk, and hence the price, of the bank facilities. And, as events were to prove, the decision was the right one, given the wreckage that abuse of the mismatching produced for the conventional lenders and the marketplace for asset-backed commercial paper as a whole.
- *Range of products.* Restricting eligibility to assets held for resale limited the Co-op's capacity to include a much wider range of CDFIs. Only large, sophisticated organizations with active secondary market platforms could reasonably participate. Although this was a clear benefit for implementing a "door-opener," it would make demonstrating the magnitude and timing of the benefit to the community development sector much more difficult.
- *Exclusionary impact.* The focus on a few large CDFIs at inception excluded the rest of the community development field. Because the timing and magnitude of the benefits would be difficult to predict at the outset, it would be difficult to make this a priority for funders, other than those, such as bank foundations, who might welcome the alignment of missions and objectives between the Co-op and the wholesale side of the bank. Again, the perception among some in the CDFI sector that a successful Co-op would force all CDFIs to standardize in a manner that could compromise the overall community development mission was an impediment: Was it possible that CDFIs that did not grow in scale or manage a secondary market platform would find it harder to get bank financing? There was a possibility that this would occur. Although this point of view could prove

self-defeating in the long-term for the CDFI field, the potential for a near-term negative impact on accessing funds from banks was of more immediate importance for some in the CDFI field. With grant subsidy being a limited resource in the community development field, this view translated into less support for the Commercial Paper Co-op as a community development priority.

At the time the FIR team determined to set the project aside in April 2008, several items still needed to be completed. In addition to the weaknesses of the Co-op noted above, those unfinished items (which we also consider to be things that didn't work) include:

- *CDFI participants.* The potential participants worked under an expression of interest in the Co-op. There were no legal or financial commitments. The CDFIs would not be asked to commit until the banks had approved the outlines of the transaction, and the CDFIs had agreed on the structure of the Co-op, the bylaws, loan policies, and business plan. In October 2007, the Community Development Trust dropped out of the effort because its recently issued preferred stock (\$64 million at approximately 4 percent) had reduced its funding need. At the same time, New Hampshire Community Loan Fund and Impact Community Capital expressed interest in joining. But again, these were only expressions of interest, focused on engaging in the discussions.
- *Structure of the Co-op.* Discussions about the structure of the Co-op had led to the decision to use an existing model for a cooperative. Examples from the Housing Partnership Network and the NCB Capital Impact were considered. However, the FIR team made no decisions, and it took no steps to establish the final structure of the organization.
- *Pricing of the liquidity facilities.* Discussions with banks, commercial paper conduits, the ratings agencies, and federal regulators produced general guidelines on the data needed, the credit support required, the structure of the credit support, and the operational functions of the Co-op. However, in the absence of specific loans, borrowing base advance rates on the loans, commitments from the CDFI participants and funders, FIR could not finalize the pricing on the liquidity facility from the banks. As noted, there is sufficient room for running the fees at a higher rate, but as the Capital Exchange experience indicated, once the fees reached the 0.625 percent range, it would be hard for the Co-op to provide a competitive rate to the CDFI borrowers. The alternative would be to improve the margins by increasing the amount of grant and PRI

capital, and this would also improve the credit quality of the transaction as a whole. Given the fees charged to conventional brokers and lenders in the marketplace, this was not deemed necessary at the time. However, the project as a whole was not far enough along to conduct a discussion with the banks as a group on the issue of mutually acceptable fee pricing for the Co-op, and how this would compare with the fees that supported commercial paper vehicles for conventional brokers and lenders on the wholesale sides of their banks. Although two of the banks engaged in the discussion offered to engage the wholesale sides of the banks, the effort was tabled prior to active engagement.

- *The relationship to existing bank lending and warehousing facilities.* Because of the volatility of the commercial paper market, it was advisable to augment, but not replace, existing bank and warehousing lines of credit. The question arose whether the Co-op could attain the credit and pricing terms from the banks (for example, LIBOR plus 0.5 percent) in the event that the commercial paper market dried up. In such event, the risk-based capital allocations that made the Co-op so attractive to the banks would evaporate, as would the attractive returns. Under such circumstances, the question remained: would the Co-op benefit from the best pricing or would additional credit enhancements and additional fee or interest rate increments be needed for borrowing under the regular on-balance sheet loan facilities?
- *Final configuration of the Commercial Paper Co-op portfolio.* The loss of Community Development Trust combined with the addition of the New Hampshire Community Loan Fund and Impact Community Capital would change the proposed configuration of the Co-op portfolio. FIR had not yet modeled this change when the effort was put on hold. Moreover, the final configuration would not be established until all of the participants had committed. The configuration of the portfolio could change the risk parameters of the Co-op as well as the pricing of the liquidity facilities or the amount of grant and PRI capital required.
- *Grant and PRI funding.* The plan for raising the capital for the Co-op depended heavily on funding from bank foundations. It was determined that grants from the participating banks, as well as some other banks, would provide the basis for raising PRI funding from key foundations. The plan was not to be implemented until the CDFI participants had committed and it was clear to all that the Co-op was an industry breakthrough for all involved.

Opportunities that the Commercial Paper Co-op Opened Up for the Next Effort

In 2001, Kirsten Moy and Alan Okagaki, writing for the Brookings Institution argued that CDFIs had it in their own power to gain access to the capital markets: “The CDFI industry could take a number of steps to promote standardization. For example,

- Loan documents could be standardized so they contain consistent and complete information for securitizers and investors.
- Due diligence and origination procedures could be standardized to obtain greater consistency in credit quality.
- Standards could be created for loan servicers to better protect long-term asset quality
- Licensing and certification procedures could be created for institutions and for individuals that are understood and accepted in the mainstream financial community, not just the CDFI industry.
- CDFIs that meet specified standards could be organized into a network of originators to facilitate timely and efficient aggregation of loans.”⁶⁴

The Commercial Paper Co-op could be seen as an efficient and focused effort to accelerate these recommendations.

The rising losses in the mortgage portfolios across the housing market, the implosion of the commercial paper market, the deterioration of bank and CDFI creditworthiness (real or perceived), the evaporation of credit support instruments, and the realignment of philanthropic interests all served to shelve Commercial Paper Co-op in April 2008. As the crisis in the housing market accelerated into a crisis in the global financial arena, it became evident that key structural pieces of the Co-op were part of the problem.

Specifically:

- Off balance sheet financing vehicles
- The commercial paper market
- The aggressive leveraging of capital.

These were all quarantined and scrutinized. The scrutiny continues and may well continue for months and years to come, remaining weak perhaps long after the housing

market recovers and mortgages regain their prime location in the capital markets. However, as discussed in Chapter 3, there is little doubt that all three will return to health if not primacy at some point. The juggernaut logic of the “return on equity” equation we introduced in Chapter 1 requires no less. Moreover, these technologies are likely to reappear in similar forms—as indeed, they always have (think Penn Central commercial paper, sovereign debt for lesser developed countries, Continental Illinois, the S&L collapse, Bear Stearns and Long-term Capital Management).

This likelihood assures us that within the foreseeable future, we will be able to take the Commercial Paper Co-op off the shelf and resume the effort to gain parity with for-profit entities of similar standing. The key components will likely remain crucial to success:

- The establishment of a cooperative of large, high-quality CDFIs with short-term assets that require financing, and existing credit relationships with banks;
- Banks looking for portfolio diversification and a reduction in the capital allocation for loans to these organizations;
- Regulatory rulings that reward a well structured, solid credit-enhancement from philanthropic sources that back bank liquidity facilities; and
- Rating agencies looking for a series of transactions in a large, untapped field, benefiting from an analytical platform that facilitates their prudent and accurate review.

The primary differences are likely to be in the configuration of assets funded, and the amount of capital that the Commercial Paper Co-op needs to inject in order to establish the solidity of the credit enhancement.

This is not to say that all of the technologies and strategies that contributed to the collapse of the housing and financial markets will reappear. It is unlikely we will see teaser rates, Option ARMS, 2/28s, 3/27s, collateralized debt obligations backed by subordinate claims, or massive bets on all these via the temptation of credit default swaps. CDFIs never had an interest in these more extreme, highly flammable, products, nor did they ever have a need for them. Indeed, these products have had a strikingly negative impact on the communities and constituencies the CDFIs serve. The field should continue to be vocal in ensuring that truly volatile products such as these are not revived, at least in a way that affects consumer and small business financing

The markets will return to some semblance of normalcy and stability, and the four components above will once again become viable. To resurrect this avenue to the capital markets, the CDFI field will have to, once again, partner closely with the banks.

Not only are the banks the CDFI field's chief source of capital, but they are also potentially its best allies in moving forward: One of the chief discoveries of the FIR team in its work on the Co-op was that the entire structure could be, in fact, initiated by a consortium of banks (or credit unions) that have a commitment to the community development mission – without any assistance from the CDFI field. From the standpoint of cost and implementation, this might even be preferable to a CDFI-based co-operative. To be sure, it would likely involve the loss of CDFI authority over investment pricing and risk decisions, which, of course, was a chief goal of pursuing the Co-op. But it does lend support to the notion that funding parity can be achieved in some form, based more or less on features the FIR team devised for the Co-op.

While we wait for the rules to be revised and for the banks and the commercial paper markets to return to a semblance of normalcy and stability, it is imperative to keep moving forward on the items that have prevented CDFIs from gaining access to the capital markets to date.⁶⁵ The chief focus remains finding a way to satisfy the rating agencies. The rating agencies already know how to evaluate loans and other assets generated by the CDFI field, as the work by Community Reinvestment Fund, NHSA, Housing Partnership Network, NCB Community Impact, and others attests. But they do not know how to evaluate the strength of an organization or the quality of management. The CDFI sector must work collectively in developing a system of financial reporting and analysis that is compatible with how the rating agencies evaluate unsecured corporate and institutional risk.

As Moy and Okagaki suggest above, the heavy work in this effort is less with the rating agencies than with the CDFIs themselves. The biggest setback for the Capital Exchange was not the difficulty of devising a low-cost analytical adjunct to the CARS review (i.e., the Quad), but rather the fragmented and idiosyncratic state of financial reporting across the CDFI field.

Before CDFIs gain access to the capital markets to raise unsecured debt, they must consolidate their evaluation criteria and procedures. And before they do that, they must reach agreement on what constitutes adequate disclosure of financial information, for the disciplined use by management as well as the providers of credit.

CHAPTER 7

Making the Case to the Rating Agencies

Let's revisit this quote from Chapter 3.

The Securitization Capital Rule permits a banking organization with a qualifying internal risk rating system to use that system to apply the internal ratings approach to its unrated direct credit substitutes provided to asset-back commercial paper programs that it sponsors by mapping its internal risk ratings to external ratings equivalents. The external credit rating equivalents are organized into three ratings categories: investment-grade credit risk, e.g., BBB– and above; high non-investment grade credit risk, e.g., BB+ through BB–; and low non-investment grade credit risk, e.g., below BB–. The rating categories are used to determine the appropriate risk-weight category or categories to which banking organizations should assign either the entire notional amount, or portions thereof, of their direct credit substitutes.⁶⁶

The rating agencies are being (appropriately) chastised for their role in the collapse of the financial markets. Nevertheless, they are not going away. The rating agencies are the gatekeepers for the capital markets. Their analysis determines whether a security receives a wide range of institutional investors at a low interest rate or a narrow range of investors with a high interest rate, or whether it gains entrance into the capital markets—public or private—at all. They have been at the center of the capital markets for almost a century, and during that period investors have come to depend more on them rather than less. As we have noted before and reprise above, even federal depository regulators have incorporated rating agency criteria and judgment into evaluation of portfolio risk and capital adequacy. The fact that the bank regulators hold the rating agencies in such high regard makes rating agency assessment of credit risk as important to the banks as it is to the capital markets. There is no one else out there to

take over their disciplines or who can, with any degree of prudence or credibility, be allowed to take their place.

Hence, whether going to the capital markets or to the wholesale side of the bank, the rating agencies remain the gatekeepers for the CDFI field.

Where the Rating Agencies Are

The collapse of the financial markets is having an impact on the rating agencies, and how investors view their work. With the benefit of hindsight, it is now evident that mistakes were made on an grand scale, particularly in the area of housing securities. It is evident that the methodologies used by the structured finance teams at the rating agencies were flawed. Over several years, the actions of the rating agencies will be scrutinized, probably harshly. It is likely that a number of procedures will change.

Indeed, one critical component of the capital markets already *has* changed. When the asset-backed commercial paper (ABCP) market collapsed, the banks providing the liquidity facilities and credit enhancements were effectively obligated to take the underlying assets back onto their balance sheets—a move that swelled total assets while simultaneously hammering bank capital with losses. Now, the bias for market, as well as regulatory agency forces is toward bringing all *new* assets—which might otherwise be supported by the various forms of bank credit in off-balance sheet vehicles—on to the bank balance sheets. This is accomplished by assigning the same or similar capital allocation to off-balance sheet assets as to on-balance sheet assets. Effectively, the new as well as existing assets are being quarantined until the range of infections can be fully diagnosed and remedied.

This policy reduces any interest the banks might have in backing the kinds of platforms the FIR team developed for CDFIs to gain access to the capital markets. Aside from a federal funds rate in the 15 percent range, it would be hard to imagine a policy that could more effectively slow the flow of funds in the marketplace. One consequence of moving infected assets on to the balance sheet is that the strength of a bank's commitment via a line of credit or letter of credit backing a CDFI facility cannot be compellingly evaluated; there is no guarantee that a credit enhancement or liquidity facility will be genuinely well received in the market. As a result, the ability to obtain a rating for a Mini-Fed, Capital Exchange, or Commercial Paper Co-op—as structured—

has virtually evaporated. The banks simply cannot accommodate CDFIs in these ways at this time.

However, this retreat does not mean the work for CDFIs towards “funding parity” is over. Just because the preferred off-balance sheet vehicle with bank credit or liquidity support is not presently available does not mean the objective disappears. In fact, the work has just begun, and it has just gotten a lot more demanding.

As noted in Chapter 2, during the first weeks of October 2008, the Federal Reserve stepped in to reduce the federal funds rate from 2 percent to 1.5 percent. Since then, the rate has been lowered to the 10–20 basis point range, effectively reducing the cost to banks that borrow federal funds and to those who borrow at spreads over the federal funds rate. At the same time, the federal government reduced the cost to those who borrow in the commercial paper market by announcing a form of federal guarantee.

CDFIs exclusively borrow at spreads over LIBOR or under prime; they do not have access to facilities tied to the federal funds or commercial paper rates. The federal government did not reduce the cost of those who borrow at spreads over LIBOR or under prime; both are rates set by the banks, based on their assumptions about risk and the needs for earnings. Although banks were sure they needed earnings, they were not sure which of their confreres in the banking industry represented a safe investment. This kept the rates unusually high. As we saw in Chapter 3, in late 2008 and into 2009, the difference in borrowing costs ranged from 100 to 200 basis points, or \$10,000 to \$20,000 per million dollars of debt per year. For most CDFIs, that differential would exceed their net interest margin. Was that differential to be made up from CDFI donors or from their borrowers? CDFIs were still at the back of the bus.

Although it is true that CDFIs could have asked their banking partners to provide them with federal funds–based pricing, there was no reason to assume that their banks would assent. The small size of the facilities, the perceived risks, and the operating costs would be good reasons, on top of which, the banks would frankly have a hard time justifying such a voluntary reduction in interest rate, given the state of the economy and their imperative need for earnings and capital.

The evaporation of the opportunity to drive a special-purpose vehicle backed by a bank liquidity facility into the capital markets leaves the CDFI with only one option—to develop an analytical platform that enables rating agencies to evaluate organizational risk for the CDFI field. Alternatively, the CDFI field could focus on making the leap over

to the wholesale side of the bank. However, as the regulatory agencies are still relying on the rating agencies to be arbiters of asset quality for the purposes of risk-based capital allocation, CDFIs need to satisfy them when going the wholesale banking route as well. There's no way around the rating agencies.

It is likely that, as the scrutiny and the critiques of rating agency performance in the subprime crisis continue, the rating agencies will be exceedingly diligent in evaluating new forms of risk. This will make the task even more difficult. The irony that credit losses in the CDFI field are a fraction of those experienced by rated lenders (on a percentage basis) will not help move the dialogue forward. The lack of comprehensive and compatible CDFI data and the absence of a consistent analytical platform combine with the bad name attributed by the markets to community development assets to keep CDFIs out of the capital market.

But if the CDFI field wants to overcome this hurdle of poor perception, and achieve the objective of funding parity, they will have to go to where the rating agencies are.

Where the Rating Agencies Were

The FIR team engaged in discussions with three rating agencies—Fitch, Standard and Poor's, and Moody's—from 2004 through 2007. The team was joined in some of the discussions by representatives from CARS. The following are general observations made by the three agencies. These are not specific to any one agency and not necessarily applicable to all of them.

Nonprofit Ratings

Many nonprofits are rated at the equivalent of BB/Ba or less. Hence, many are not investment grade. They may be eligible for investment from banks with a mission or pension funds with alternative investment allocations to fill, but they generally cannot benefit from the low interest rates or wide range of investors that the capital markets provide.

Private Ratings

Borrowers can opt to receive private ratings, which would not be disclosed to anyone but the purchasers of the debt. This can help non-investment grade nonprofits raise funds from banks, insurance companies, and other institutional investors involved in the nonprofit's mission. Although the interest rate may not be top grade, the rating may afford mission-driven investors a higher level of confidence than they would otherwise have, and as a consequence, the CDFI may have greater access to more funds with longer terms.

Business Category

The CDFI field does not fit easily into any of the industry sectors that rating agencies have delineated within their organizations. The FIR team held discussions with representatives of a range of departments including: public finance (municipal bonds), nonprofit hospitals, higher education, nonprofit arts and entertainment institutions (such as museums, public radio, and theaters), and for-profit financial institutions. The team also spent time with representatives from the structured finance departments at each agency (in the event of a transaction involving the special-purpose vehicles the team was proposing). At present there is no specialty sector or designated expertise that could credibly evaluate CDFI transactions, and given the small number of CDFIs seeking a rating (at least at inception), it is hard for the rating agencies to justify assembling one.

The Rating Agency Business Proposition

The number of CDFIs that could conceivably receive a rating or participate in a collective effort to receive a rating would have to be significant to warrant the time and cost of establishing a rating agency specialty area. An example was nonprofit hospitals: there are approximately 500 hospitals with the capacity to receive a rating, and perhaps as many as 50 might try for a rating in any given year. The size of the CDFI field is adequate, but the question is whether there would be enough CDFIs of size or enough CDFI transactions of size to warrant the creation of a specialty area. Effectively, the rating agencies need to see a reasonable business to expend the funds necessary to build a specialty. In the absence of such a proposition, another entity—perhaps the government—will have to make the effort.

CDFI Assistance in Building a Specialty Area

There were two areas in which the CDFI field could facilitate development of a specialty at the rating agencies:

- *Producing a credible system for evaluating CDFI credit risk, such as CARS.* Assuming that the criteria and procedures were compatible with the disciplines employed in other sectors, the program could be transferred to the rating agencies in such a way as to reduce their development costs. Caution to the CDFI sector: the agencies would still use their own criteria for the ratings, and it is unlikely that their final evaluations would neatly coincide with the views of the CDFI field.
- *Providing a parallel “monitoring” function that ensures the agencies that crucial information is made available in a timely fashion.* Essentially, this amounts to an early warning system for the agencies, which is critical for anticipating stop-issuance triggers. The rating agencies also welcomed the notion of the CDFI field establishing a remedial function that enabled CDFIs participating in the capital markets to stay in compliance with financial requirements.

Cost

The minimum cost for a one-time rating of a transaction was about \$75,000. The rating agencies would be willing to look at CDFIs on an individual basis in the context of a collective effort, such as the Capital Exchange or the Commercial Paper Co-op. One of the agencies indicated it would consider reducing the cost of rating CDFIs that participated in the collective effort to about \$5,000 to \$10,000 apiece if a) the rating were a private one created specifically for the banks providing the liquidity facility, b) it had the requisite level of discipline in terms of analysis and due diligence, and c) the rating agency was satisfied with the safety of the overall transaction. This was a breakthrough concept and one that would have been beneficial not only to CDFIs generally, but also to those participating in the Co-op specifically.

Scale

For the cost of analysis to be economical—that is, the benefit of obtaining a lower interest rate is not outweighed by the cost of receiving the rating—the size of a rated transaction should be at least \$75 million.

Access to the Commercial Paper Market

As demonstrated with the Commercial Paper Co-op, it is entirely possible for CDFIs to benefit from commercial paper market pricing without actually getting rated. The rating agencies pointed out that if the intermediary platform is properly structured, there is no reason the organizational risk of the CDFI would have to be evaluated because the intermediary platform would absorb all the credit risk, likely in the form of some combination of liquidity and credit enhancement facilities. Notably, the banks have the capacity to make this happen right now. *One of the agencies said it was entirely possible that CDFI risk is already being pledged by the banks through a commercial paper conduit structure, but that there was no way for either the agency or the CDFI bank relationship managers to know.* That would be the kind of decision made within the treasury departments of the banks.

These were general comments by the agencies, and again, not all of them subscribed to the particulars of each item. In addition, however, one of the agencies was invited to address the specific attributes of the FIR team's intermediary platforms.

A Rating Agency Reviews the FIR Team's Intermediary Platform

The FIR team assembled a summary of structural attributes of an intermediary platform pertaining to the Capital Exchange and the Commercial Paper Co-op. The team then developed a questionnaire that addressed these attributes for one of the rating agencies. The purpose was to gain clarity about how to best position the intermediary platforms for the highest commercial paper rating. The FIR team was looking in particular for the sorts of benchmarks the agency would look for and tests the agency would perform in the process of assigning a rating. With this, the team could craft a highly rated structure from the ground up.

The questionnaire follows, with the verbal (paraphrased) responses from representatives of the agency.

Pilot Programs

One strategy of the FIR team was to run the Capital Exchange or the Commercial Paper Co-op on a trial basis. The concern was that while these ideas were pretty standard procedure for the conventional sector, they were new for the CDFI field and might prove inapplicable. A pilot would enable the FIR team to minimize the number of borrowers, minimize the amount of grant subsidy, and maximize the level of comfort for all parties by having limited objectives and a short time frame.

“Can we rate the pool and/or CDFI paper for a set period of time—for example, up to three years—and if so, what complications can we expect as we near termination of the pilot relative to maintaining an A-1 rating?”

Technically, this was possible, the agency replied, so long as the rating agency was certain that adequate funds were available to pay investors at termination. However, the agency questioned whether it made sense to set up a platform with the intent to unravel it. If the project were a success, there would be a desire to keep it running, and if there is reason to believe that it would not be a success, then it should not be developed. The agency suggested that one could achieve the benefits of a pilot more easily, however, by working through an existing conduit rather than on a stand-alone basis. So long as the conduit was *not* involved in evaluating the credit or any other activity that required expenditure of time and resources, it would be reasonably indifferent to whether the new CDFI platform were issuing paper or not over the long term.

Organizational Credit Risk Benchmarks for the Collective Platform

The FIR team established benchmarks for the Capital Exchange. The FIR team developed somewhat more conservative benchmarks for the Commercial Paper Co-op. The agency indicated that these sets of benchmarks were a sound way to start. The benchmarks for the intermediary platforms were summarized in the questionnaire as follows.

- CDFIs will be drawn from the top tier of the industry in terms of size and longevity.
- All the CDFI borrowers would already be underwritten by banks and have some form of bank loans.
- Nondepository CDFIs would have a maximum leverage of 5 to 1 (excepting secondary market platforms, which could go to 10); a minimum asset size of \$10

million; a sustainability ratio of at least 70 percent, and have experienced no event of default on debt obligations.

- The intermediary (the Capital Exchange or Commercial Paper Co-op) would have a maximum leverage of 10 to 1.
- Regulated CDFIs such as community development banks and community development credit unions would have at least a three or “average” rating in their CAMEL or other regulatory rating.
- All borrowers will have at least 10 years of operation.
- All borrowers will have low staff and management turnover, using measures to be developed.
- All borrowers will have consistent amounts and diverse sources of grant funding.
- All borrowings would be senior obligations of the CDFI.

The FIR team asked the agency a number of questions about these benchmarks.

“Are there additional ratios or benchmarks that we should include, particularly for the unregulated entities?”

The agency wanted to ensure there was a distinction between the intermediary platform and the participating CDFI entities. The ratios and benchmarks given were a good place to start for the Co-op, but the need for additional measures would depend on the structure and size of the credit enhancement, which in both the Capital Exchange and the Commercial Paper Co-op consisted of the contributed capital from the banks and foundations. The agency would need to know more about the operating and financial dynamics of CDFI borrowers and their assets generally before assessing the adequacy of the contributed capital.

The agency noted further that CDFIs and banks appear to share many features in their lending activities, including credit policy, loss reserve policy, portfolio assessment, servicing mechanisms, and underwriting methodologies, to name a few. Although criteria and risk parameters differ, it would be easy to adjust for these from an analytical standpoint, so long as the CDFIs were generally consistent. With the proper credit enhancement and liquidity facility, however, it is possible that the underlying CDFIs would not need to be analyzed from an organizational standpoint. If the assets that the

CDFIs were pledging were shown to be of quality, and the servicing of the CDFI assets was deemed adequate, for example, the requirements could be reduced for evaluating the organizational risk of CDFIs in sizing the credit enhancement.

The FIR team noted that it was their intent to see that the CDFIs and their pledged assets (in the case of the Commercial Paper Co-op) were evaluated in some form in the future and that a door could be opened to the capital markets for CDFI organizational risk.

“Are there ratios or benchmarks that capture the true liquidity and asset-liability status of financial entities which the agency prefers?”

The agency responded that there were, but the FIR team’s project and the agency’s expertise on the CDFI field needed to be further developed to delineate which were applicable or inapplicable for the participating CDFIs and their intermediate platform.

In the discussion with the agency, one balance sheet item was a cause for concern from an analytical standpoint: the net asset accounts. For the rating agencies, the key to evaluating organizational credit risk in rating unsecured obligations is a comprehensive analysis of the sources and uses of cash; that is, how management behaves with cash. The biggest difference between a for-profit lender and nonprofit CDFI is that surplus cash in a for-profit is fungible and almost always available for debt service. Not so in the nonprofit world. The distinctions among unrestricted, temporarily restricted, and permanently restricted net assets require close scrutiny on a case-by-case basis, even in liquidation.

Hence, in a nonprofit organization, cash flow analysis presents an *extraordinary* challenge. In theory, the analyst must recreate the terms and conditions under which each gift can be deployed and calculate the cash flows accordingly. This could involve reviewing hundreds of donor agreements and related cash flows to accurately assess capital, and more important, liquidity. The existence of so many different agreements would make comparisons of the net asset accounts across CDFIs virtually impossible for collective rating purposes. That there are different ways of interpreting the governing FASB rules (Financial Accounting Standards Board; rules 116 and 117) renders the analysis even more problematic. What distinguishes CDFIs from other nonprofits in this area is that, unlike other nonprofits, CDFIs routinely use temporarily and permanently restricted net assets in the pursuit of their mission (that is, providing principal or lending in the normal course of business). The challenge this feature presents to the

rating agencies, and a solution, are discussed below in the section, “What Is a Restricted Net Asset?”

“Does the agency have preferred benchmarks or criteria for evaluating the longevity and consistency of management performance?”

The agency does. However, the management evaluation would be tailored to the structure of the organization and an examination of who is managing what function. The Capital Exchange and Commercial Paper Co-op were not yet sufficiently delineated to determine what the agency would look for when rating them. This is a problem generally with any start-up, and the mitigant to the risk is: more capital.

“Does the agency have preferred methods for evaluation of the grant revenue stream that supports these nonprofits?”

Very few, if any, of the nonprofits the agency evaluates have sustainability ratios under 90 percent. Conversely, very few rely on annual giving at a rate in excess of 10 percent of total expenses. Because CDFIs often find themselves operating in the 60–70 percent sustainability range, the methodology of evaluating the organizational capacity must be clear and precise to raise funds on a consistent basis. The agency outlined the items they would need to know. It was clear that the CDFI field would have to build a case for sustainability in the 70–80 percent range rather than the 60–70 percent range. The FIR team knew this would be a big challenge for CDFIs and proceeded to map out the items the rating agency would want to see as part of the evaluation of the grant revenue line. These requirements and a proposed methodology for the CDFI field are discussed in the section, “How Can You Be Sure You’ll Get the Grants?”

“To what extent do CDFIs need to set standards for loss experience, delinquencies, and provisions for losses (in the context of the portfolio mix and mission)?”

This will be a key issue for the banks providing the liquidity facility as well as for the rating agency. It will be a critical component in reviewing the adequacy of capital contributed to the platform and the viability of cash flow. However, this does not mean there are absolute standards that the participating CDFIs must meet. So long as the capital and cash flows can cover debt service, CDFIs do not have to limit their risk parameters to the level of the conventional sector. In short, the CDFIs can target higher levels of risk so long as they can demonstrate capacity to manage borrowers and the

financial dynamics of a community development portfolio in a prudent and effective manner.

“To what extent do CDFIs need to incorporate operating expense ratio standards?”

This goes to the sustainability ratio and grant revenue line issue. Considerable work is needed to accommodate the typically high level of costs in the CDFI field and, further, to accommodate wide variations.

“What documentation does the agency need to see in terms of the evaluation of the entity’s structure?”

All governing documents, preferably finalized.

“Are there any preferences relative to intermediaries like the Capital Exchange or the Commercial Paper Co-op?”

There are a series of benchmarks for intermediaries such as the Capital Exchange and the Commercial Paper Co-op. These are associated with special-purpose vehicles that issue commercial paper. The benchmarks can be found in their various agreements and include the amount and structure of equity, timing and allocation of losses, stop issuance triggers, and the like. The benchmarks are tied directly to the type and design of assets, configuration of the portfolio, and credit enhancements and liquidity arrangements. They will vary depending on the balance of these and other lesser factors. There are publications that address these benchmarks, but the actual configuration that achieves the best rating for a CDFI intermediary platform would have to be determined in negotiation and analysis.

“Is an ‘average’ rating for the regulated entities adequate?”

Probably not, unless there is a “joint and several” guarantee in which the regulated entities all cover one another’s losses. It would be much cleaner to have—and enforce—a minimum CAMEL or equivalent rating. Neither the Capital Exchange nor the Commercial Paper Co-op were structured with borrowers covering one another’s losses.

“Does the agency need to underwrite all the borrowing CDFIs or a sample of them, or will pre-established restrictions on participation be adequate?”

Generally, either all the entities are rated or none are. In the latter case, the credit enhancement should be structured to cover the unrated exposure.

Underwriting Platform

The questionnaire laid out several key elements of the underwriting platform for the Capital Exchange (though not the Commercial Paper Co-op) as follows.

- Ratings requirements will be negotiated in advance with the agency relative to underwriting, compliance, and servicing standards.
- A standard bank/foundation/CDFI analysis will be established by the team and its consultants, which will develop specific new criteria and corresponding analytical framework. This new criteria will focus on management analysis and the viability of the grant revenue line. It will correspond with rating agency requirements.
- The financial analysis portion of the underwriting will involve an annual CARS review and include an automated forecast and rating structure for interim financial analysis. It will correspond with rating agency requirements.
- The FIR team will develop standards for compliance and loan servicing that meet rating agency requirements.
- The primary underwriter will be an existing CDFI intermediary, which will receive quarterly financials as well as annual audits, and perform full reviews and onsite visits at least annually.

The questions by the FIR team and the responses from the agency were as follows:

“Are there any early warning mechanisms that the agency would consider particularly useful in the underwriting and compliance work?”

If CDFI lenders are processing loans in ways similar to banks and credit unions, then conventional early warnings would apply. This would include excessive growth in loan volume and/or borrowing to support volume, change in asset type being funded, change in size and term of asset being funded, decline in (unrestricted) cash available for operations and/or debt service, rise in restructurings, rewrites, declining ratio of

recoveries to charge-offs, rising ratio of charge-offs to delinquencies and ratio of delinquencies to loans outstanding, increase in delinquencies among loans originated within 12 months, lending staff turnover, noncompliance with credit and loss reserve policies, and non-adherence to budgets.

“Are there any preferences relative to the analysis of asset growth, portfolio mix, and fund balance growth?”

The measures would have to be determined. The measures that are most useful will be determined by such factors as the following: the reason for the funding need, the type of assets being funded, the level of self-generated funding, the level of subsidy, the cost of making and delivering the loans, the level of diversification of these assets by type, size, geography, risk, and reserves; and the concentrations of risk relative to the amount each CDFI represents against intermediary platform capital.

“Preferences relative to trend line analysis generally?”

Again, this is to be determined. There is insufficient knowledge of the CDFI field to know yet exactly how many years of performance must be reviewed to arrive at a reasonable set of conclusions about organizational credit risk based on trend line analysis.

“Is an annual review with a site visit adequate for the purpose?”

This is yet to be determined. The agency indicated that this would depend on how volatile the participating CDFIs were in terms of performance. The larger, more established, and more consistent, the better. It also depends on how thorough the annual analysis is. Do interim analyses help? The agency thought that this would depend on what the interim analyses cover. Do the quarterly numbers tell 80 percent of the story or 20 percent? Is there a system for updating lenders and creditors for material changes in the operations of the organization? These would all have to be set forth in advance as part of the platform to be evaluated. It would be expensive for the agency to do all of this work, so the transaction would have to be of sufficient scale to cover the costs and still show an interest rate benefit to the participants. There could be ways that information is transmitted to the agency in form and content that could reduce the need for more than an annual review. Again, the answer to all of this would come with a better understanding of the financial and operating dynamics of CDFIs.

“What would an appropriate set of steps consist of in the event of a borrower default?”

This refers to a default by a participating CDFI. With either the Capital Exchange or the Commercial Paper Co-op, the intermediary would have no cause to default unless one of the participants is unable to pay off its notes as they mature. From the standpoint of the rating agency, the intermediary’s first line of defense would lie in the selection of the participating CDFIs. After that, a properly structured system of stop-issuance triggers would make the default of a participating CDFI a nonevent for the investors. A properly structured intermediary would make it a nonevent for the banks that provide the credit enhancement and/or liquidity facility, as well. The intermediary would do this by ceasing to lend to the CDFI so that the CDFI could not increase its exposure.

After that, the intermediary would make its claims as necessary against the CDFI as the notes held by the investors mature. If the CDFI could not make payment on these (for example, if it were to file for bankruptcy), then the intermediary must make payments out of its own reserves. It is important to ensure that none of the defaults affects the banks, let alone the ultimate investor. Protection of the banks and the investors also serves to protect the other participating CDFIs and their ability to fund their needs in the capital markets. The risk of these steps can be significantly reduced by requiring the participating CDFIs to maintain collateral reserves in support of their borrowing and/or an advance rate at a percentage of the face value of the assets being funded.

“What sort of reporting would the agency require relative to the underwriting and compliance work of the team?”

This would have to be determined. Quarterly financials would be important for the intermediary, as well as comprehensive updates on the portfolio of notes issued by the CDFIs and the assets backing these notes. If the notes are unsecured obligations of the participating CDFIs, this brings an additional level of complexity. If they are secured under a borrowing base or otherwise isolated, the risk is lower, and the reporting is less complex. One way or another, the CDFI will want to be sure that it can convey the status of all the sources of repayment on an ongoing, systematic basis.

“What would the agency consider necessary for the servicing activity, and what sort of information is necessary to satisfy the agency on this issue?”

A bank with high-quality servicing capacity will perform the servicing function for the intermediary platform. The servicing function employed by the CDFIs should be

reviewed by the rating agency. CDFIs using a reputable third-party servicing vendor would be at an advantage.

Use of Funds

Whether the CDFIs borrow from the intermediary platform on a secured or unsecured basis is a critical issue for the rating agency, as is the type and term of the assets being funded. The questionnaire identified the proposed use of funds for both the Capital Exchange (and later, the Commercial Paper Co-op as “working capital needs”). The working capital uses were to be restricted generally as follows.

- “Warehousing” loans being held for resale.
- “Table-funding” of a loan pending sale to the secondary market.
- Funding of a larger loan pending receipt of principal payments from another large loan, grant, government reimbursement, or other revenue stream.
- Funding operating expenses pending receipt of a grant, government reimbursement, or other revenue stream.
- Other forms of bridge financing in which repayment is likely and verifiable.

Working capital uses that would *not* be eligible include:

- Funding of operating expenses without a defined source of repayment.
- Funding the initiation of a new program.
- Funding the permanent expansion of a loan portfolio.

Minimum denominations (for example, \$25,000) and maximums (for example, \$750,000) would be established at the outset, depending on the FIR team’s evaluation of need and the credit support provided by the borrowing entity.

The questionnaire had one question on this proposed set of portfolio parameters:

“Do we need to restrict uses of funds beyond those normally associated with commercial paper borrowings in the conventional sector?”

The maturity of the assets being funded by the intermediary platform is a fundamental issue. Many ABCP issuers fund longer-term assets with the proceeds from the commercial paper issuance. The agency was well aware of the profitability associated with this kind of asset/liability mismatch, particularly when there is a yield curve, but also views the mismatch as inherently risky. As a result, the ratings on securities that involve a mismatch tend to be lower. The restrictions on the types of assets that can be funded and the related maturities proposed by the FIR team for the intermediary platforms minimize the risk of default on the part of the CDFIs and, hence, the risk of default on the intermediary platform. By targeting only the working capital uses that have identifiable short-term sources of repayment, the rating would be higher. The circumstances under which these short-term sources of repayment could be impaired would be a focus of the agency review. Ultimately, the level of credit enhancement relative to the risks being taken is a determining factor.

The Benefits of Ratings

At the end of the discussions with all the rating agencies, it was apparent that moving forward with the effort to obtain ratings for CDFIs—in whatever form—would be beneficial.

Getting a Rating: Best-case Scenario

All the CDFIs participating in a Capital Exchange, Commercial Paper Co-op, or other collective effort would receive investment-grade ratings through sound underwriting and gate keeping. The benefits would be:

- Lower-cost funding for the CDFIs.
- Significant expansion of funding sources.
- Reduced regulatory capital allocation (and cost) for the bank lending to the platform, whether on or off balance sheet.
- Advance participating CDFIs toward receiving ratings on individual financing in the capital markets.
- Advance participating CDFIs toward receiving ratings on long-term capital.

- Rating agencies begin tracking performance of CDFIs in a controlled environment for the purposes of building a database.
- Rating agencies base their ratings on analytical criteria and procedures developed by the CDFI field, which saves time and money and reduces incidence of miscalculation of risk.

Getting a Rating: Worst-case Scenario

Participating CDFIs receive private *non*-investment grade ratings. The benefits would be:

- Possible lower-cost funding for the CDFIs.
- Expansion of funding sources for the CDFIs.
- The prospect of higher costs to the Capital Exchange or Commercial Paper Co-op due to higher regulatory capital allocation for the supporting banks, requires the Co-op to raise additional subsidized capital.
- Advance participating CDFIs toward receiving ratings on individual financing in the capital markets.
- Advance participating CDFIs toward receiving ratings on long-term capital.
- Rating agencies begin tracking performance of CDFIs in a controlled environment for the purposes of building a performance database.
- Rating agencies use industry-created underwriting standards (i.e., like CARS) but do not fully rely on them for five or more years, or until such time as the performance database confirms their evaluations.

Clearly, there was not any downside to pursuing the effort to work with the rating agencies, other than cost and time.

Although both the Capital Exchange and the Commercial Paper Co-op restricted participation to large higher-quality CDFIs, the benefits to the participants would likely extend to the larger CDFI field over time. It is analogous to a student attending college: once the first member of the family makes it through, it becomes easier for other family members to attend, as well. The analogy carries through in another way: going to college

is not in any way essential to leading a productive life, but it does open up additional avenues of opportunity.

As discussed in Chapter 6, the problems in the financial markets have temporarily closed out the opportunity to create an intermediary platform that achieves a rating for the purposes of funding CDFI organizational credit risk. The point at which this effort can be resumed is not ascertainable.

However, this temporary roadblock does not change the need for the CDFIs to develop a channel to the capital markets, and it does not change the necessity of obtaining a rating to get there. It only means the CDFI field has to present itself directly to the ranking agencies at this point, rather than through a vehicle that facilitates the effort.

To succeed on a direct basis, the CDFI field will need to address the issues that the rating agencies found most troublesome. Aside from the issue of transaction size, the two biggest issues are analytical: the viability of the grant revenue line and tracking cash flow through the various categories of net assets. Suggestions as to how these two issues can be systematized by the field and aligned with rating agency disciplines are set forth below.

The Big Rating Agency Question: How Can We Be Sure You'll Get the Grants?

One of the two chief differences between the financial dynamics of CDFIs and conventional lenders is that the operating costs of delivering loans for CDFIs are substantially higher. These operating expenses generally support the kind of hands-on assistance and rate subsidy required for forming capital in low-income communities. These higher levels of expenses are generally supported by community, foundation, and public agency grants and contributions. To properly subsidize operations, these funds must primarily consist of unrestricted funds.

The primary challenge is that, on average, CDFIs require 20 to 40 percent of their funding from grants and contributions, some amount of which is restricted. At present there is no industry-wide mechanism for evaluating the viability or consistency of this line of support. The challenge of establishing such a mechanism is compounded by differences in the way for-profit financial institutions and CDFIs view debt and equity.

In corporate finance, management rarely forecasts the issuance of equity because a) equity is very expensive; and b) access to equity is so dependent on market conditions from day to day. Thus, the corporate treasurer initiates the funding decision by forecasting both the level of self-funding, through conversion of assets to cash in the normal course of business, and the level of requisite debt funding. If there is not sufficient cash to cover the additional debt obligations, the treasurer reviews the pricing and cost structures for the purpose of producing more cash and more profit. Only after those calculations have been run does the treasurer solve for the needed level of equity. At that point, the CEO establishes certain share price targets and everyone waits for market conditions to favor a stock issue. But while they are waiting for the right conditions, they do not stop conducting business.

In the community development field, the tradition has generally been the reverse: the grant (equity) component is the predicate on which everything else is determined, including growth of the business. The rest of the working parts are made to suit the size, terms and conditions of the grant funding. As grant funding becomes less available and/or predictable and the need to self-fund becomes greater, the community development field increasingly needs to adopt the disciplines of the corporate sector. It is the only way to assure that the mission can be sustained in the face of a much more volatile environment.

Given the importance of raising funds every year to cover costs, the two key questions the rating agency will ask CDFIs are, how successful has management been in raising funds, and how well does management adjust mission program activity in response to the money raised when and if they do not hit their fundraising targets? The rating agencies are, effectively, trying to determine the level of flexibility in the business model created to serve the mission. They are also trying to determine the capacity of management to manage the delicate balance between achieving mission objectives and keeping the doors open. How management responds to the ups and downs of the grant revenue line is highly informative. In the context of analyzing organizational credit risk, this is the “holy grail.”

Data Points: A Proposal

The following is an outline of the analytical points of a data platform that could be used to answer these questions the questions that the rating agencies will have about the CDFI grant revenue line. The platform would not involve a stand-alone analysis but

serve as an adjunct to the evaluation of the CDFI's other financial attributes.

These proposed points were reviewed favorably by one of the rating agencies, in that the data would be more than adequate for making a reasonable assessment.

1. Amount of activity funded each year by non-operating sources
 - Sustainability ratio (operating revenues divided by operating expenses)
 - Trend of sustainability ratio
 - Breakdown by type and size of funding source
 - Volatility of sustainability ratio and funding sources
2. Nature of the funding
 - Breakdown by type of funding and type of restrictions
 - Historical compliance with restrictions
3. Evaluation of donors
 - Number
 - Number of new donors
 - Size of the donor, budget for grants, etc.
 - Focus of donor, changes in focus
 - Number of years serving this focus
 - Number of years supporting applicant
 - Likelihood of continued contributions to applicant
4. Fund-raising program
 - Structure of the CDFI program
 - Cost of the CDFI program
 - Success rate in terms of applications to receipts, ratio of cost to receipts
5. Financial viability tests
 - Estimated discretionary cash flow (that is, how much does the program hold in reserve for operating expenses in the event of a loss of grant revenue?)
 - Stress test (that is, how much of a reduction in grants can the CDFI sustain?)
 - Impact of reductions on programs (that is, how many programs can be retained in the event of a major reduction?)
 - Steps to accommodate reduced donations (for example, other sources of funding)

After discussing these points with one of the rating agencies, the FIR team developed a reporting form (Figure 7.1). The chart was intended as a draft for discussion and

circulated to the CARS staff, NeighborWorks America, and other funders in the CDFI field.

Figure 7.1. Example of a Grant Revenue Line Data Sheet for Rating Agency Analysis

GRANT RELIANCE		Actual					
		Year 7 Prior 2003	Year 6 Prior 2004	Year 5 Prior 2005	Year 4 Prior 2006	Year 3 Prior 2007	Year 2 Prior 2008
Contributions from Top Grantors							
1 Banks	1						
2 Foundations	2						
3 Agencies	3						
4 Groups	4						
5 Individuals	5						
6 Other	6						
Growth Rate							
1 Banks	7						
2 Foundations	8						
3 Agencies	9						
4 Groups	10						
5 Individuals	11						
6 Other	12						
Percent to Total							
1 Banks	13						
2 Foundations	14						
3 Agencies	15						
4 Groups	16						
5 Individuals	17						
6 Other	18						
Grantor Annual Program Dollars							
1 Banks	19						
2 Foundations	20						
3 Agencies	21						
4 Groups	22						

5 Individuals	23							
6 Other	24							
Cost of Fundraising								
Compens. allocation	24							
Consultants	25							
Special Events	26							

Year 7	Year 6	Year 5	Year 4	Year 3	Year 2	Year 1
Prior						
2003	2004	2005	2006	2007	2008	2009

Banks and Other Corporates

Number Bank Grantors	27							
Number of New Institutional Grantors	28							
Grantors Non-Renewing	29							
Average Existing Grant	30							
Average New Grant	31							

Foundations

Number Foundation Grantors	32							
Number of New Institutional Grantors	33							
Grantors Non-Renewing	34							
Average Existing Grant	35							
Average New Grant	36							

Agencies

Number Institutional Grantors	37							
Number of New Institutional Grantors	38							
Grantors Non-Renewing	39							
Average Existing Grant	40							
Average New Grant	41							

The Other Big Rating Agency Question: What Does a Restricted Asset Do?

One of the pioneers on the subject of the tyranny of nonprofit net assets is Clara Miller, the CEO of the NonProfit Finance Fund. Here she hits the heart of the issue for CDFIs:

Intermittent cash flow problems, inadequate reserves, and raided endowments often result from a lack of such planning. In turn, these cash flow problems lead to imbalances that starve discretionary areas of activity such as program innovations, staff benefits, or maintenance of buildings. In fact, no matter how good a fortuitous chunk of capital may look, some projects are simply too big with respect to where the organization is in its development.

The stronger the restrictions on a grant or the greater the fixity of asset acquired with that grant or loan, the higher the risk to the organization. Be aware that any restricted grant creates expense for your grantee. This increases the burden to raise unrestricted cash to cover this expense in direct proportion to the size, complexity, and degree of restrictions on the granted funds.

Government contracting rules and nonprofit culture discourage the development of operating surpluses or induce nonprofits to hide them. The irony is that a technique meant to control costs and document efforts on mission actually undermines efficiency and harms program.⁶⁷

Small wonder the rating agency has a concern with this fundamental fact of the community development sector. One CDFI interprets “permanently restricted assets” as an endowment and uses none of the principal, not even for making mission-based loans; instead, the funds are invested entirely in marketable securities and other high quality investments. Another CDFI interprets “permanently restricted” to mean that the funds can be used for making loans and absorbing loan losses. A third CDFI interprets it to mean that the funds can be spent on subsidizing interest rates on loans and expenditures on loan workout services. Thus, at one end, the first CDFI uses only the interest income of the permanently restricted assets to defray the costs of making loans, while the third CDFI can use permanently restricted assets for lending, debt service, and a big chunk of loan operations. The differences in interpretation are material, but they are also allowable under FASB (Financial Accounting Standards Board) rules 116 and 117. This, notwithstanding the fact that the third CDFI’s interpretation, for example, largely obviates the need for temporarily restricted funds altogether.

The only net assets for which there is a generally accepted definition are unrestricted net assets. These can be used for any purpose. These are also the hardest funds to raise. If lenders saw what the true cash flow and balance sheet of a CDFI looked like—for example, by only tracking unrestricted cash—they might be disinclined to lend. Ditto the donors: if they saw how much the CDFI relied on their unrestricted grants—and would likely continue to rely on them into the distant future—they might be inclined to reduce their commitment or walk away altogether.

Audit Confusion

The big kicker is that, for the most part, none of the interpretations of the net asset account is detailed in the respective annual audit reports. There is no precise summary of the terms under which the temporarily restricted and permanently restricted funds can be released or deployed, or the process whereby such funds are reinvested in their respective categories as they receive payment.

As a result, an analyst has no way of knowing what funds are truly available to support ongoing operations or what funds are truly available to repay lenders and creditors in liquidation – unless he or she asks management. In short, the funds could be here tomorrow—or not. For the rating agency, the problem is even worse. As noted, without benefit of the case-by-case detail on funder restrictions, the agency cannot establish standards that enable it to compare one CDFI with the next, a fundamental part of the agency's job.

The question the CDFI field must ask is this: If a *secured* lender cannot truly discern the level of cash that serves as a source of repayment on the secured loans, why would an *unsecured* lender want to fund the CDFI on the basis of organizational risk?

It is not the job of the accounting profession to rectify this lack of transparency. In the context of a nonprofit, the job of the accountant is to make sure that all the money is in the correctly designated bucket at statement date. This is critical to assuring that the contract with the donors is in compliance. Yet as important as this is, it does not track where the money has been in the interim or how much is going to revolve through the various buckets during the course of the year. As a result, the data necessary to properly evaluate the business and assess management's capacity to manage cash are simply not available. Equally troubling is that in the absence of historical data, it is impossible for

analysts and funders to generate credible forecasts of available cash in the months and years to come. And here is the punch line: It may be impossible for management as well.

This goes to the heart of the *unsecured* lender's decision, for if there is not a credible forecast of unrestricted cash, there is no identifiable source of repayment for an unsecured loan. It also goes to the heart of the *secured* lender's decision, for if the cash available for lending operations through the various forms of restrictions cannot be accurately forecasted, then the level of repayment to be sourced from organizational cash flow cannot be identified either. In both instances, lenders must step back from taking organizational credit risk and tie any loans they make to the risk and maturities of the underlying assets, with the appropriately sized reserves or discounts enforced. In addition to squeezing the organization further for cash, this inevitably proves costly in terms of staff time, paperwork, and legal expenses.

If the for-profit institutional sector were saddled with this problem, it would come to a halt. But it is not. In the for-profit sector, cash is cash, and the unsecured lender and the secured lender knows exactly where they stack up in terms of claims on assets and the cash flows these assets produce. This enables for-profit management to obtain debt much more cheaply and easily.

There is another problem this absence of data presents to the CDFI field. How does the CDFI determine that it has the right amount of annual grant funding or net assets to support its operational activity? Without a firm understanding of how much cash is coming in from each of the various restricted and unrestricted activities, it cannot. Grant requests simply become broad estimates.

If the CDFI field wants to obtain ratings that reflect the quality of its lending and operations, it will have to develop a system that provides transparency and precision in the budgeting of unrestricted cash.

Setting Up and Managing the Internal CDFI Bank: the "Treasury" Function

One effort that aligns with the rating agency disciplines has been developed as part of the FIR and NeighborWorks America "Sustainable Mission" course.⁶⁸ At the suggestion of several CDFIs and with a number of CDFI-structured concepts, members of the FIR team created the Sustainable Mission system. Among a number of other features, the Sustainable Mission system addresses the complexities of tracking and forecasting the

uses of unrestricted as well as “mission-restricted” cash. In addition to providing clear identification of the various kinds of restricted assets, the system tracks their deployment, release, and conversion to cash. The system reconciles to the financial audits as well, and hence can be actively used in generating the kinds of forecasts that the rating agencies (and prudent management!) can use to bridge the information gap.

The first step of the Sustainable Mission System is to break the grant section into three parts: operating grants (which are unrestricted), mission-restricted (capital) grants, and permanent endowment grants. These represent new nomenclature chosen to produce clarity for analysis and forecasting. They are different from the standard nonprofit nomenclature—that is, unrestricted, temporarily restricted, and permanently restricted—because the standard nomenclature, as applied in the community development industry, is opaque, at best.

To understand actual cash flows—and the CDFI flexibility in allocating them—the new categories indicate the following.

- *Operating (unrestricted) grants.* Funds can be used for all approved purposes, including staff, occupancy, loan workout functions, foreclosure expense, licenses, taxes, and other such items.
- *Mission-restricted grants.* Funds can be expended at any time for the purposes of pursuing mission assets; for example, making loans, building loss reserves, buying down interest rates, subsidizing losses on sales of assets, or any other standard activity associated with increasing or decreasing the principal of an asset. The major exception is that the funds cannot be used for operating purposes. In this definition, mission-restricted grants can also be used to repay the principal on debt incurred in the funding of the mission assets; the reason being that in practice, these funds are generally subordinated to creditors in liquidation. Funds can be released from mission-restricted asset balance as stipulated by the donor.
- *Permanent endowment grants.* The principal cannot be used for any purpose other than investment in high-quality securities, and funds cannot be released. Interest income can be used to support operations.

When making forecasting assumptions, the Sustainable Mission encourages management to simply determine which categories the existing and prospective grants should be placed in. The forecasts for the operating and endowment grants are very

simple: the operating grants will be spent, and the endowments are placed effectively in escrow. These are one-line entries, easy to analyze and track.

To facilitate the forecasting for the mission-restricted grants, there is an internal “bank” for the CDFI, which is set up by type of restricted asset. The “bank” receives the mission-restricted grants, and management deploys the proceeds of the grants in the amounts it chooses based on funding restrictions and what it knows of the demand for the loan products. The system software automatically calculates the flows of the proceeds through the operating statement, balance sheets, and cash flows once they are deployed as loans. The calculations are done by loan type so that the restrictions travel with the funds. Principal repayments are automatically calculated on each loan type, indicating how much subsidy capital, restricted to this particular loan type, is being recycled in each period. Management can choose how much of this will be redeployed, released, or simply held for future use. The bank is set up in a matrix as shown in Figure 7.2.

Figure 7.2. Monitoring Mission Restricted "Bank" Accounts: Managing Grant Subsidy

Mission Restricted Grants: Assumptions for the Bank for Mission Restricted Funds

<u>Loan Type 1: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							
<u>Loan Type 2: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							
<u>Loan Type 3: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							
<u>Loan Type 4: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							
<u>Loan Type 5: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							
<u>Loan Type 6: Mission Restricted Balance</u>		0	0	0	0	0	0
Mission Restricted Balance Deployed							
Mission Restricted Balance Released							
New Mission Restricted Grants							
Mission Restricted Assets Repaid							

These fields are designed to enable the manager to keep track of transactions in the mission-restricted bank account. The assumption is that all mission-restricted grant funds (as opposed to earned revenues which flow through the unrestricted net asset account) must either be in the “bank” account or going through it at some point.

- “Restricted balance deployed” represents annual deployment of the funds in the mission-restricted asset.
- “Mission-restricted balance released” represents funds that can be released under terms of the grant during the course of the year.
- “New mission-restricted grants” represent new restricted grants received during the year.
- “Mission-restricted assets repaid” represent that part of loan repayments or sales, or property sales funded by mission-restricted grants.

By providing a clearer sense of the runoff of subsidy in the future, this “bank” forecasting gives an indication of how much grant funding needs to be replenished per program. At the same time, because the restricted cash activity has been segregated from the regular movements of cash, management can determine much more precisely how much it needs to alter pricing, term, and volume or alternatively, raise additional operating grant funds for the internal bank – at the organizational level.

Establishing an internal bank for the CDFI is essentially a way of building up the “treasury” function that is standard in the for-profit sector. This is a key step in the effort achieve *funding parity*: establishing this platform enables the treasurers at CDFIs to begin the process of obtaining the same kind of pricing and borrowing flexibility that treasurers of for-profit corporations of equivalent credit quality enjoy. A chief reason that corporate treasurers enjoy flexibility is that they manage their treasury function as a bank to the corporation as a whole, proactively budgeting and then placing funds throughout the corporation in alignment with the budget. In part because of donor restrictions and in part because of the compulsion to react to mission needs as they arise, many if not most CDFIs do not maintain this kind of centralized banking function. Subsidy goes out when and as needed along with the cash.

By establishing a central banking function, CDFIs can go a long way in rectifying this disadvantage. They can effectively liberate themselves; they can rise above the “retail”

constraints of various donors and the tendency to put money out as it becomes available by systematizing the use of subsidy. Among other things, the process inevitably leads to maximizing the use of grant subsidy and reducing the risk of cash shortfalls in the organization as a whole.

This exercise is helpful not only to management but also to analysts and funders who are attempting to evaluate how the lending business actually works and how effectively the CDFI manages its grant subsidy—and its cash. It is, perhaps, the most crucial component in the evaluation of management's financial capacity, as well as the foundation of the organization's true credit risk.

The Sustainable Mission approach provides a structure for the retrospective analysis, which the rating agencies would require. CDFIs should be able to look back through past audit papers for these data points. A trend line analysis of these would provide both management and agencies a clear view of the decision-making challenges in both restricted and unrestricted cash flows. Covering as it does the key issues of liquidity, capital adequacy, and management capability, this kind of analytical approach can take CDFIs much closer to the kind of discipline that make organizational risk assessable.

CHAPTER 8

Making Sense of CDFI Financial Statements

Ellen Seidman, in a working paper for the Federal Reserve Bank of San Francisco, argued that all borrowers and lenders, and by extension CDFIs, should take a hard, objective look at a business's fundamentals, if they are to survive in challenging times.

Individual institutions must strengthen their ability to survive and prosper by rigors of self-examination, risk management and planning ahead. Institutions should focus on the critical elements of a financial intermediary: net worth, liquidity and net operating income. They should plan for worst-case scenarios, understand where the stresses lie, and plan to meet and overcome them. Restructurings and extensions are to be expected, but institutions should rigorously examine these options and move to workouts and liquidations where recovery cannot be expected within a reasonable period of time. Now is the time for intelligent but hard-headed borrower support, not sentiment. Some institutions are likely to fail, and the industry may be stronger for this: creative destruction; but an orderly process of merger and transfer is needed to avoid leaving communities high and dry when institutions fail.⁶⁹

This chapter addresses the key strengths and weaknesses of current analytical disciplines in the CDFI field. The purpose is to identify the gaps between the analyses that the CDFI field uses and the analyses the rating agencies apply. The chapter also outlines a framework and set of recommendations that can contribute to the CDFI initiatives that are already underway. Many of the recommendations incorporate ideas and efforts that are already being pursued by CARS (The CDFI Assessment and Rating System), the CDFI Fund, NeighborWorks America, Strength Matters, and others. To this extent, there will be some redundancy. However, a key objective is to reinforce, as well as inform, the field efforts to develop standards for reporting and analysis that accurately capture the organizational credit risk of the CDFI in a manner that serves CDFI and investors alike.

In Chapter 2 we identified the essence of credit analysis and organizational credit risk as such:

The essence of credit analysis, then, is to identify the decisions that management makes and to assess the quality of the implementation of these decisions in the context of the organizational objectives and market conditions. The issue of repayment of obligations incurred is secondary to, and derivative of, the evaluation of these factors. Hence, the best form of credit analysis is a mirror of management intentions, decisions, and actions. There is a logical corollary to this: the best form of credit analysis incorporates the same metrics used by the organization to manage the business of its mission. Hence, for the manager and the investor, organizational credit risk is one and the same. (p. 48)

At present, funders in the CDFI field have generally followed the lead of the old-fashioned banker: they tend to focus on the two sources of repayment, income and liquidation of assets, as indicators of a CDFI's financial health. In evaluating income and outstanding obligations, these funders tend to focus on the generation of surpluses, the amount of cash on hand relative to monthly expenses, and the ratio of earned income to expenses (often called the sustainability ratio). In determining the financial strength of the organization, they tend to focus on the leverage ratio and the breakdown of net assets into unrestricted, temporarily restricted, and permanently restricted net assets.

These metrics are fine as far as they go. But they do not go very far, particularly with CDFIs. These metrics are, essentially, after-the-fact assessments, which means that they tend to go from good to bad with nothing in between, and often after it's too late to do anything about whatever crisis has surfaced. Because these metrics are not tied directly to management decisions, they are not particularly revealing, and they are certainly not predictive. The rating agencies would not consider these metrics adequate. Indeed they can be, and often are, misleading in the context of how CDFIs actually function.

This chapter offers a framework that can help evaluate organizational credit risk in ways that rating agencies would find predictive and dependable. A corresponding objective is to help CDFI management think in terms of the concepts and the metrics that they themselves can use to maximize resources when pursuing the mission and long-term sustainability.

Five fundamental principles, developed by members of the FIR team and NeighborWorks America are a good place to begin.⁷⁰ The “Five Key Principles of Finance” for nonprofits are:

1. When it comes to subsidy, it’s a zero-sum game: You versus your constituent.
2. Big balance sheets mean big costs
3. Net assets mean nothing
4. You’re out of business when you run out of cash.
5. You don’t have to be a bank to survive.

As controversial or amusing as these may appear, they are based on principles of corporate finance that have been at the heart of conventional lending for the last two decades.⁷¹ These principles are about managing the positive and negative flows of cash through the active design and orchestration of assets, liabilities, and staff resources. Just because CDFIs are mission driven not-for-profits doesn’t mean these principles do not apply. Indeed, it is likely that the rating agencies in their role as gatekeepers will be using these principles to evaluate CDFI performance. More important, as the following sections show, these principles can actually help CDFIs expand their mission and increase their sustainability on the same dollar of subsidy, without compromising the objectives of either priority.

In the first three sections of this chapter, we introduce some of the key tools that can assist in identifying the strengths and weaknesses of the CDFI operating statement, balance sheet, and cash flow. We also show how CDFIs differ from conventional lenders in the manner in which they function, with a focus on the advantages and disadvantages of both.

The fourth section introduces a structure that brings the CDFI operating statement, balance sheet, and cash flow together into a framework that captures management decisions, and the impact the decisions have on organizational risk and performance. The formula enables management and stakeholders to map out and track the impact of management decisions on the CDFI’s financial condition.

In the fifth section, we re-introduce a seminal corporate finance formula, the return on equity formula that we touched on in Chapter 1. This formula identifies how efficiently corporations use capital. We convert it to use for CDFIs. It is a formula that rating

agencies would likely use as part of their effort to determine the CDFI's balance of sustainability and impact.

Taken together, these recommendations contribute a level of financial discipline that can substantially improve both the analysis of organizational risk and management capacity.

The First Bottom Line

When analysts look at the operating statement of financial institutions, they generally separate the line items into four major categories: loan revenue, operating expense, loss expense, and funding expense. The rule of thumb is if one can track how loan revenues cover the three expense categories, one has a good take on the organization's business model.

The community development sector often translates this into a *sustainability ratio*, which consists of operating revenues (excluding grants and nonrecurring items) divided by operating expenses. While the sustainability ratio is a good starting point for getting at the basic model of the business, it is much more useful when it is broken down into its four component parts: 1) earned revenues; 2) operating expenses; 3) losses; and 4) funding costs. We call these the "Four Major Categories."

Divining the Basic "Business Model"

To capture how these four categories relate to one another on an "apples to apples" basis, we divide them each by a common denominator—to the total average assets of the organization as a whole:

Four Major Categories

- I. Revenues to average assets;
- II. Operating expenses to average assets
- III. Losses to average assets;
- IV. Funding cost to average assets.

These ratios (representing the Four Major Categories) provide an outline for evaluating how management chooses to accomplish its mission. As such, it is a useful foundation

for board members, staff, and management itself, as well as funders, lenders, and the rating agencies to initiate the evaluation of the CDFI as an organization:

I. Revenues to Average Assets: This is the yield. It shows how management prices its loans relative to the market and the needs of the constituencies. It is affected by a number of factors, including the level of cash invested in risk assets (such as loans) versus non-risk assets such as treasuries and money market instruments, loan volume, principal repayments, and the level of delinquencies and losses.

II. Operating Expenses to Average Assets: This shows how much it costs the organization to deliver the assets to the constituencies. It is affected by factors such as the number of staff that are not involved in generating earning assets (training, for example) and the level of assets that are not generating revenues (for example, an owned building used for the organization's headquarters).

III. Losses to Average Assets: This shows how much risk that management is targeting. The key factors affecting this ratio include the level of loss to delinquency, the level of recovery, and the organization's policies on rewrites, restructuring, and charge-offs.

IV. Funding Cost to Average Assets: This is often referred to as the cost of funds. It shows how much the organization pays to borrow. This is affected by the amount of debt incurred and the rate on the debt, and provides an insight into the organization's capacity to grow based on earning assets.

Several associated ratios help us to better understand what these four major ratios are revealing, and we will get to those shortly. However, these four ratios provide a solid foundation for analyzing management policies and decisions about the impact and sustainability of the organization. When tracked over time, they can indicate key changes in constituent need, market conditions, and management decisions. Most important, they can help identify how management adjusts the balance of resources and constituent needs—essentially how it makes the decisions that define organizational credit risk.

Table 8.1 offers an example of how to use these ratios. Assume that a CDFI has convinced a rating agency that it should be compared with banks rather than hospitals, universities, museums, or municipalities. Its financial analyst might begin with the four major categories by comparing itself with a standard bank.

From this summary analysis, the financial analyst can deduce the following:

- *The Bank:* The yield on the bank's loans of 8 percent is covering the sum of the operating expenses, funding costs, and losses, leaving a pretax profit of 2 percent. For a bank that is leveraged at a ratio of 10:1, investors are getting a pretax return on equity of 20 percent. This is Warren Buffett territory: the bank gets high marks for sustainability because if it can generate these kinds of returns, it can always access more equity capital.

Table 8.1. Bank and CDFI Comparison

Percent to Total Assets	Bank	CDFI
Gross revenue	8.00%	5.00%
Operating expenses	3.00	7.00
Funding costs	2.00	2.00
Losses	1.00	1.00
Pretax net income	2.00	-5.00
Grants required	--	5.00

- *The CDFI:* The yield on the CDFI loans of 5 percent covers its funding costs and its losses, but not its operating expenses. To stay in business, the CDFI must raise 5 percent of its total assets in grants every year. The analyst will necessarily ask why the CDFI has such a low yield on its assets, and why it has such a high level of operating expenses. If the CDFI can convince the analyst that these are both a function of the CDFI mission, the analyst will then want to know how certain the CDFI is that it can obtain 5 percent of its total assets in grants each and every year. (And there it is: the grant revenue line again.) The next question is, What happens if the CDFI cannot raise 5 percent every year? Does it cut expenses, cut growth, reduce risk, eliminate the mission?

Does this mean that the CDFI should become a bank? Absolutely not! If banks could serve CDFI's constituencies effectively, they would be doing so. Instead, the CDFI should use this report card to help refine the manner in which it delivers the mission, should refinement be necessitated by reduced access to grants. The point is, if the CDFI is certain this is the right business model for its constituencies and funders, then it must demonstrate how the model is as sustainable as the bank's. And CDFI's must prove it using the metrics and the disciplines that the financial analyst understands.

The Four Major Categories and the sustainability ratio are just the beginning of the process for management and credit analyst alike. In the following sections, we develop the logic further to get a more precise idea of what sort of production and performance the CDFIs will want to demonstrate going forward.

The Obsolete Balance Sheet

"Net assets mean nothing." This is one of the Five Key Principles of Finance for nonprofits. Rating agencies (and quite a few others) are confused by the distinctions among unrestricted, temporarily restricted, and permanently restricted net assets as deployed by the CDFI field. No question that when we say "net assets mean nothing" they are likely to agree completely.

A number of funders in the CDFI field are beginning to understand the truth of this statement—out of necessity. The current turmoil in the credit and housing markets is proving a fact they have long suspected: CDFI risk assets (loans) are not worth in the marketplace what they are valued on the balance sheet. CDFIs, after all, make loans that no one else would make due to their small size or perceived credit risk, and they typically do not charge rates that reflect the size or the risk. Hence they are, by definition, "below market rate" loans. In the conventional market, these loans would not be made, or if they were, they would be discounted. Yet despite the below market value of the CDFI loans, they are carried at 100 percent of face value on the CDFI balance sheet, hence overstating true net assets.

This is not the only problem with CDFI net assets, and why we can safely say they mean nothing. The following example shows the limitations of the balance sheet capital indicators, and why the rating agencies would find them to be of marginal value.

CDFI versus Mortgage Lender: Dueling Net Assets

Table 8.2 shows two fictitious lending entities, a nonprofit loan fund called “Bucket” and a for-profit non-depository lender called “Channel.” Let’s say both were making single-family mortgage loans in the low-income markets prior to the mortgage meltdown in the summer of 2007. The interest rate for conventional mortgages was 5.5 percent, with conventional mortgages producing an average 0.25 percent credit loss rate.

The attributes for the Bucket and Channel include:

Size

- Both Bucket and Channel have \$10 million in assets fully invested in single-family mortgages

Leverage

- Bucket has \$3 million in debt and is leveraged at 0.43:1, meaning that debt represents only 43 percent of its \$7 million in net assets.
- Channel has \$9 million in debt and is leveraged at 9.0:1, meaning that debt is 9 times the value of channel’s net assets (equity for a for-profit) of \$1 million.

Interest Rate and Operating Expenses

- Bucket makes 30-year mortgages at 4 percent. This rate is more than enough to cover the 2 percent social investment rate on Bucket’s \$3 million in long-term debt (or \$60,000), and the \$75,000 per year in credit losses.
- Channel makes 30-year mortgages at 6 percent but is able to change the interest rate after two years. Because it can change the rate in two years, Channel funds its lending activity with short-term debt at an average interest rate of 2 percent.
- Bucket charges an origination fee of 1 percent, and channel charges an origination fee of 2 percent.

Risk Profile

- Both Bucket and Channel target clients with an average 0.75 percent credit loss rate, which is 50 basis points higher than the conventional rate. The Government Sponsored Entities like Fannie Mae and Freddie Mac (GSEs) are willing to purchase this higher-risk paper, but they want a 6 percent mortgage rate. Therefore, at 6 percent, there is no discount of the value of the loans for assessing risk. Table 8.2 summarizes these assumptions.

Table 8.2 The Problem with Net Assets: Key Balance Sheet Indicators for Bucket and Channel

		Assets	Debt	Net Assets	Leverage	
1	Bucket	10,000,000	3,000,000	7,000,000	42.86%	
2	Channel	10,000,000	9,000,000	1,000,000	900.00%	
		Term	Loan Rate	Prem/(Disc)	Loss Rate	Discount
3	Bucket	30.00	4.00%	-20.37%	0.00%	0.00%
4	Channel	2.00	6.00%	0.00%	0.00%	0.00%
	Real Value:	Assets	Debt	Net Assets	Leverage	Gain (Loss)
5	Bucket	7,963,000	3,000,000	4,963,000	60.45%	(2,037,000)
6	Channel	10,000,000	9,000,000	1,000,000	900.00%	0

If we stop at line 2 in Table 8.2—and this is where we would normally stop given the information provided in the audits—we can generally run leverage ratios and sustainability ratios.⁷² We are likely to conclude that Bucket is a very strong entity, and much stronger than Channel. The reason: Bucket has a strong balance sheet, and although Channel generates nice profits, there is very little capital in the event of higher credit losses or higher borrowing rates.

But the rating agencies shouldn't (and won't) stop here. Lines 3-6 reveal the assets, liabilities, and cash flow. For Bucket, the market value for its loans is the amount someone is willing to pay for them. The going rate for loans with a 0.75 percent charge-off profile is 6 percent, but Bucket's loans carry a 4 percent interest rate. As a result, they are worth 20.37 percent less than what is shown on the books. So in liquidation, the value of the loans that Bucket carries is \$2,037,113, less than the \$10 million they show

on the balance sheet. The true net assets for Bucket are \$4,963,000, not \$7 million, and the true leverage is 0.60:1, not 0.43:1.

There is another potential problem. If conditions in the housing market or the economy deteriorate, the GSEs and other secondary market platforms may not wish to purchase loans with a 0.75 percent charge-off profile at par. It is, after all, 50 basis points higher than their conventional loss rate, and they may decide they want to be compensated more fully for this higher risk profile. This is the case in the markets currently. Hence, if Bucket were to sell, the buyers might require a further discount—let's say, 50 basis points to cover the additional uncertainty. The present value of 50 basis points on the principal of the loans -- would reduce the value of Bucket's \$10 million in loans by another \$514,462, or 5.14 percent.

In total, the true value of the Bucket assets is more than 25 percent lower than what is shown on Bucket's books. This translates in a drop in value for the net assets of over 35 percent. Clearly, the net assets and the leverage ratio are not sound indicators of Bucket's health.

Granted, Bucket intends to hold the loans to maturity, so the market value and true leverage are not applicable except in liquidation. But, from a practical standpoint, from the standpoint of both mission impact and sustainability, this true market value places heavy burdens on Bucket, which can affect financial condition and mission. These burdens include the following:

- By holding until maturity, Bucket must wait for loans to repay principal before it is able to make more loans.
- If Bucket wants to borrow more to fund additional loans, the lower value of net assets will reduce the amount it can borrow, even if it is borrowing from social investors at below-market rates.
- Bucket's only choice is to raise additional grant or other subsidized funds to expand its lending activity.

These three factors limit the amount that Bucket can deploy in loans to its constituency. These limits on availability explain, in part why people do not flock to Bucket, with its low interest rate loans. It is clearly a mission constraint. There is also a sustainability issue: By holding until maturity, Bucket is exposed to interest rate risk. If rates in the

marketplace rise, the value of the loans and the net assets will decrease further. If rates fall, the borrowers may wish to prepay. Either way, the CDFI portfolio loses value.

Another way to look at this is, the minute Bucket books a loan, it loses more than 30 percent of its subsidy. Then, as it continues to hold the loan on its balance sheet, it is exposed to greater, and unpredictable, losses as a result of future market conditions. The question arises: Will Bucket's social investors (lenders and grantors alike) continue to subsidize an entity that has limited mission impact on top of a high-risk balance sheet? These questions go to the heart of Bucket's ability to sustain itself over the longer term, questions that the rating agencies will also want to explore.

And where will that exploration lead? Right back to the viability of the grant revenue line—and the value of restricted assets! One place it won't end up: the book value of Bucket's net assets.

Now consider Channel.

There is no discount associated with the sale of Channel's loans. Channel can sell its loans to the GSEs at par from the standpoint of rate, so the discount can be zero. The only discount occurs as a result of credit risk, in the event that the appetite for high-risk loans in the secondary market evaporates. The discount for losses would be the same for Channel as they were for Bucket (\$514,462), which could immediately wipe out 50 percent of Channel's equity (net assets). To be sure, Channel's risks rise considerably in the event of increased credit losses and/or interest rates. To mitigate the impact, Channel would normally charge whatever additional rate—in this case 50 basis points—to the interest rate the borrower pays in order to be able to sell the loans to the market at par. It's a simple example of what is known as "risk-based pricing." If Channel increases the rate by 50 basis points to cover the uncertainty of the higher risk profile borrowers it is lending to, the market won't discount the loans when they are sold. Channel can sell them at par, with no deduction to its net assets.

That's where one might normally stop and draw some conclusions. But that isn't where Channel stops. In fact, this is just where things start getting interesting for the for-profit lender.

Consider how Channel finances itself. Because there is a rate change option at the end of year 2, Channel feels perfectly comfortable funding its portfolio with shorter-term debt. If interest rates go up, Channel can pass the increase on to the borrower by resetting the

rate. Because of this reset option, Channel can go to the capital markets and fund itself (in the commercial paper market, for example) at rates substantially lower than the 6 percent it is getting on the loans it is holding (here, we are assuming a short-term borrowing rate of 2 percent, and, consequently, a fairly steep yield curve).

The Mortgage Lender Hits the Street

Table 8.3 offers a breakout of what Bucket and Channel could do on the lending platforms they have respectively built. Heading into year 2 of the operation for both, it would play out this way:

Bucket

- In lines 3 and 4 of Table 8.3 under revenue is the \$500,000 that Bucket earned in interest and origination fees on the \$10 million in loans that it made in year 1.
- Line 5 is the interest expense of \$60,000.
- Next to that, in the cash and surplus column is a net margin of \$440,000 on the existing portfolio of loans.
- In line 6 is the \$500,000 in principal repayments on the loans they have made (this is a simple calculation assuming equal amortization over 20 years with all loans made day 1 of the year). This \$500,000 will be re-lent during the year in order to make new mission-based loans.
- The sum total in line 7 shows the total amount of cash available to Bucket for covering costs and relending: \$940,000.
- Lines 8 and line 9 show, respectively, the interest income and the origination fees on new loans made on the \$500,000 that will be reinvested during the second year.
- Lines 10 and 11 show the operating and loss expenses that must be covered during the second year.
- Line 12 shows the surplus, in this case a deficit of \$10,000, which must be made up with a grant.

Table 8.3. Channel and Bucket in Motion: Cash Flows at Work

		Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
1	Bucket	10,000,000	3,000,000	7,000,000	42.86%			
2	Channel	10,000,000	9,000,000	1,000,000	900.00%			
Bucket								
3	Loan Rate	4.00%				400,000		
4	Orig Fee	1.00%				100,000		
5	Debt Rate	2.00%					60,000	440,000
6	Term/Rpmt	20						500,000
7								940,000
8	New Interest Income							20,000
9	New Fee Income							5,000
10	(Operating Expenses)							(400,000)
11	(Loss Expense)							(75,000)
12	New Surplus (Profit)							(10,000)
Channel								
13	Loan Rate	6.00%				300,000		
14	Orig Fee	2.00%				200,000		
15	Debt Rate	2.00%					180,000	320,000
16	Term/Rpmt	2						5,000,000
17								5,320,000
18	New Interest Income							300,000
19	New Fee Income							100,000
20	(Operating Expenses)							(150,000)
21	(Loss Expense)							(75,000)
22	New Surplus (Profit)							495,000

Notice the origination fees. With the origination fees and the reinvested capital, Bucket is now almost able to completely cover its costs without the need for additional grant funding. (For both Bucket and Channel, we assume for the sake of simplicity no change in the operating or loss expenses, for the time being).

Channel

- In lines 13 and 14 in Table 8.3 under revenue is the \$300,000 and \$200,000 that Channel earned in interest and origination fees on the \$10 million in loans it made in the first year. The interest income would be \$600,000, but in this simplified model, Channel sells half the loans for cash at the beginning of the year.
- In line 15 is the interest expense of \$180,000 on the \$9 million in debt.
- Next to that, in the cash and surplus column is a net margin of \$320,000 on the existing portfolio.
- In line 16 is \$5 million in principal payments and proceeds from loan sales on the loans Channel has made (again, this is a simple calculation assuming equal sale of all \$10 million in loans over two years with all loans made day 1 of the first year, and \$5 million sold on day 1 of the first year). This \$5 million that is sold will be re-lent during the year.
- The sum total in line 17 shows the total amount of cash available to Channel for covering costs and re-lending; \$5,320,000.
- Lines 18 and line 19 show, respectively, the interest income and the origination fees on new loans made on the \$5,320,000 that has been reinvested during the second year.
- Lines 20 and 21 show the operating and loss expenses that must be covered.
- Line 22 shows the \$495,000 surplus.

Remember: this surplus is generated on only \$1 million of Channel's shareholder equity. This represents a 49.5 percent return on equity for Channel. This is an extremely attractive for investors. When investors see the profit margins that Channel is making on this kind of activity, they start buying Channel's stock. If, for example, for-profit lenders are getting only a 20 percent return on equity for their investors, they will invest more cash in Channel because it generates a 49.5 percent return. In this case, it would take an additional \$1.5 million (simple approximation) of new equity investment to bring Channel's profitability back within the industry norm of 20 percent. The result is that, prior to the new stock issuance, the true market value of Channel's net assets (equity) is almost two and a half times as high as what is shown on the books (\$2.5 million instead

of \$1.0 million), and hence, Channel's true leverage ratio is actually lower; that is, 4:1 instead of 9:1. And now, Channel has net assets whose market value (\$2.5 million) is more than 50 percent of Bucket's true net asset value of \$4.96 million.

Why is the market value important? The level of profitability that Channel produces enables it to raise more equity and consequently, debt. Unlike Bucket, which must find long-term, low-cost debt among a limited number of social investors, Channel has access to unlimited amounts of debt as well as equity. Hence, it can bring substantially more cash to the constituencies that it, and Bucket, both serve. Which is exactly what Channel is going to do.

The Mortgage Lender Accelerates

From the standpoint of its equity investors, Channel has just put in an excellent performance. So there is no reason to stop now: Whatever it is that management is doing, the investors want it to keep doing.

After Channel gets its additional \$1.5 million in new equity and raises total net assets to \$2.5 million, Channel's management, and its new shareholders, will want to put it all to work. Since the 9:1 leverage has worked so well for them in the past, they will go out and borrow \$22.5 million.

At the end of the year, Channel has produced \$1.24 million in surplus on the \$25 million in assets (top left, Table 8.4). They could now get more equity. In a 20 percent return-on-equity environment, they could get an additional \$5 million, for a total net asset base of \$7.5 million. So now, after one year of operation, Channel's net assets are in fact, 150 percent of the market value of Bucket's.

But that's not all that has happened. Of equal interest is the fact that Channel is now making almost \$13 million of new loans a year, while Bucket is stuck way back on the corner, making under \$500,000.

This discrepancy in loan volume will not show up on the balance sheet. The balance sheet won't tell us that Channel is originating over 25 times the amount of loans to low-income constituents that Bucket is making. Nor will the operating statement. We won't actually see what Channel and Bucket are doing until we look at their cash flows.

8.4. Channel Issues and Then Leverages Equity							
	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	25,000,000	22,500,000	2,500,000	900.00%			
13	Loan Rate	6.00%			750,000		
14	Orig Fee	2.00%			500,000		
15	Debt Rate	2.00%				450,000	800,000
16	Term/Rpmt	2					12,500,000
17							13,300,000
18	New Interest Income						750,000
19	New Fee Income						250,000
20	(Operating Expenses)		1.00%	to volume + loans outstanding			(375,000)
21	(Loss Expense)		0.75%	to loans outstanding			(187,500)
22	New Surplus (Profit)						1,237,500

This brings up one more item to examine: mission. One concern that is likely to surface from the rating agency analyst is: if Channel is taking the same level of risk as Bucket, and Channel is making money while helping 25 times the number of people, how can Bucket be in the lending business at all?

There is a story here that someone at Bucket must be able to tell. At present, though, the annual audited figures don't tell it, and the market doesn't have the time or the incentive to listen. The leverage ratio and the cash-on-hand figure are mere snapshots of a point in time, generally irrelevant by the time they are reviewed three to four months later in the annual audit. The sustainability ratio, typically in the 60–70 percent range for Bucket, provides no comfort to the analyst, and there is nothing in the audit that explains why grantors keep making grants to the CDFI or whether they will continue doing it. The metrics for lowering high credit risk to a reasonable level through technical assistance or counseling for example, are nowhere to be found. In short, there is nothing in the reported figures or the ensuing analysis that helps the rating agency, the institutional lender, or anyone else understand why Bucket is doing what it is doing, or why what it does is better than what Channel does. The gap is widened by the fact that nobody feels a need to require the same level of scrutiny of Channel's lending operations. The market

is quite comfortable with what it sees in the ratios of the Four Major Categories and what they produce on the bottom line. Those, in and of themselves, justify both debt and equity funding for Channel.

Failure to Communicate

So what have Bucket and Channel taught us so far? With the benefit of clairvoyance, we have tracked their *real* operational cash flows, and we have learned the following:

- The true market value of the net assets of Bucket is \$4,963,000 instead of \$7 million.
- The true market value of the net assets of Bucket will have a downward bias because they are illiquid, exposed to interest rate risk, additional credit losses and expanding operating costs. That is in addition to the fact that without grants, Bucket generates deficits.
- The true market value of the equity of Channel is \$7.5 million, not \$1 million.
- The true market value enables the lender to obtain greater or lesser amounts of debt and equity funding, which, in turn, enables it to serve a greater or lesser segment of its constituency.
- The true market value of net assets can change day to day.

We have also seen that neither the operating statement nor the balance sheet provides this information for either Channel or Bucket. In short, if the operating and balance sheet figures are all the industry relies on in determining financial health, it is largely misinformed. Such an approach again reminds us of one of the Five Key Principles of Nonprofit Finance: *Net Assets Mean Nothing*.

Follow the Cash

You don't hear investigators saying, "Follow the surplus!" or "Follow the net assets!" The reason they follow the cash is that the trail of cash reveals the relationships among

parties engaged in commerce as well as the intent. It reveals who is doing what and why.

Before mapping the trails of cash for a CDFI, we should fill in some blanks on the Bucket/Channel example. Beyond the operating statements and balance sheets lies the reason why conventional mortgage lenders like Channel succeeded so remarkably at first, and why they failed so completely at last. Also in this mix we'll find the reason why CDFIs like Bucket *couldn't* do much to help their constituents in the interim. The answers become clearer once we delve more deeply into the actual cash flows.

The Mortgage Lender Becomes the "Market Darling"

Based on the \$1.24 million in surplus it produced in Table 8.5, Channel has raised the \$3.5 million in new equity to get \$6 million in net assets. It has also added \$31.5 million in debt at 2 percent for a total of \$54 million in assets. So now it is producing \$2.970 million in surplus. This means the value of its net assets (in a 20 percent return on equity environment) is \$14.85 million, and it has the potential to raise enough new debt to reach a total asset level of \$148.5 million. Clearly, at this point Channel is poised to run up its

Table 8.5. Channel Issues and Then Leverages Even More Equity

	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	60,000,000	54,000,000	6,000,000	900.00%			
13	Loan Rate	6.00%			1,800,000		
14	Orig Fee	2.00%			1,200,000		
15	Debt Rate	2.00%				1,080,000	1,920,000
16	Term/Rpmt	2.00					30,000,000
17							31,920,000
18	New Interest Income						1,800,000
19	New Fee Income						600,000
20	(Operating Expenses)		1.00%	to volume + loans outstanding			(900,000)
21	(Loss Expense)		0.75%	to loans outstanding	1		(450,000)
22	New Surplus (Profit)						2,970,000

volume of activity, reaching the billion-dollar level perhaps within four or five more years.

But why wait? How can Channel get to \$1 billion sooner? Channel is currently turning its loan portfolio over once every two years. Why not speed it up? After all, the commercial paper market is buying up everything Channel can originate, and within 30, 60, 90, or 270 days, the commercial paper conduits are selling the loans off into mortgage-backed securities or other similar long term funding instruments. Given these conditions, Channel reduces the holding time for its loans to 90 days. Table 8.6 shows the results.

Table 8.6. Channel Grabs Every Customer In Sight

	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	60,000,000	54,000,000	6,000,000	900.00%			
13	Loan Rate	6.00%			900,000		
14	Orig Fee	2.00%			1,200,000		
15	Debt Rate	2.00%				1,080,000	1,020,000
16	Term/Rpmt	0.25					240,000,000
17							241,020,000
18	New Interest Income (Less loans sold of 50%)						2,700,000
19	New Fee Income						4,800,000
20	(Operating Expenses)	1.00%	to volume + loans outstanding				(3,000,000)
21	(Loss Expense)	0.75%	to loans outstanding	1			(450,000)
22	New Surplus (Profit)						5,070,000

There are several important drivers on Channel's emerging business model, including:

- The size of the balance sheet remains the same, as does the book value of equity, at \$6 million.
- New loan volume (line 16, Table 8.6) increases from \$30 million to \$240 million.

- This produces a significant boost in origination fees (line 19), which now dwarf interest income.
- The operating expense in line 20 increases dramatically because of the new loan volume, but it is entirely covered by the increase in fee income.
- The loss expense in line 21 stays the same because it is based only on the amount of loans that remain on the balance sheet. Because these remain at the same \$60 million level as before (owing to the acceleration of loan sales), the loss expense does not increase with volume. *The added losses get passed on to the investors.*

As we can see, the cash that is being raised and deployed on this platform generates an astonishing level of profitability as well as lending activity in a very short space of time. This is really an entirely different business model for lending than the business model that Bucket is using. Essentially, while Bucket remains a portfolio lender earning revenues by holding onto the loans it originates, Channel has moved over to the trading side of the lending business where revenues are earned by selling the loans for cash as soon as possible after they are booked.

Back to the business: Channel is now producing enough surplus to create a market value of \$25 million (net assets), which is a capital base that could support \$250 million in total assets and loan originations of a \$1 billion a year—and it is doing it on \$6 million in net assets. At this point, any number of banks and other financial institutions are likely to become interested in acquiring Channel. And once they own it, they will make sure it keeps doing whatever it's been doing to generate those fabulous returns.

Here's an interesting question: Is anyone in the Channel boardroom thinking about the loss expense of 0.75 percent, and the possibility that it might increase? Isn't that what happens when one has to lower lending standards to produce higher loan volume? Yes, but why should the board worry? For the 90 days or so that Channel holds the loans, they are secured by hard assets, and at present, the value of those assets is going up, with no end in sight.

Well, then, should anyone worry about the cost of funds at 2 percent? What? Are you nuts? (say the board members).

In 2003, Asset Backed Commercial Paper outstanding was a little over \$600 billion. By 2007, it had nearly doubled to \$1.2 trillion. And things were looking up. Wall Street was desperate for loan products to fill those commercial paper conduits, mortgage-backed

securities, CDOs, and other housing-related securities. There was absolutely no reason to worry about Channel's cheap short-term funding. The interest and fees that were being generated on the high volume of loans were so far in excess of credit loss and funding expenses that these expenses were, in the minds of Channel management, irrelevant. As (now former) Citigroup CEO Chuck Prince said of the buyout climate, "As long as the music is playing, you've got to get up and dance. We're still dancing."⁷³

There is a problem though. Even as Channel grows, exponentially, more investors want to enjoy these kinds of returns on their equity. Indeed, they invest with the expectation they will get them. Lenders to Channel also like the deals they are getting. Channel has no choice but to keep increasing the volume. So much for rational expectations.

The Mortgage Lender Has to Work Hard to Find Enough Deals. Any Deals

At some point, Channel will face the fact that it cannot find enough good deals, a phenomenon economists call "diminishing returns." One of the distinguishing features of the lending business—virtually all of the lending business—is that the real cost of bad decision-making may take two, three, or even four years to surface. Conversely, earnings are front-loaded in fees. Even when the accounting rules require the fees to be accrued and taken into revenue over the life of the loan, the fact is, the fee payments still show up in cash at the front end of the transaction. It takes a while for the impact of bad loans to be felt. But sure enough, there comes a point when the "diminishing returns" begin to appear in the loss rate. Somebody finds a way to lend to Ms. Zabau Shepard, the family dog (see Chapter 1), and the immediate returns are sufficient to entice others into making loans to the new class of borrowers.

In Table 8.7, Channel's target loss rate of 0.75 percent is multiplied five times as credit conditions erode. But, amazingly enough, this is not a big problem for Channel; the company is still generating returns on equity in excess of 50 percent. In fact, given the high volume and low cost of debt, Channel can experience more than a 1,000 percent increase of loan losses on its portfolio and not be concerned, as we see in Table 8.8.

Although Channel doesn't like seeing its loss rate (line 21) rise from \$450,000 in Table 8.6 to \$4.5 million, interestingly, this increase still doesn't kill the business. With the loss expense rising as a result of the defaults, profits decline from the \$5 million range in Table 8.6 to the \$1 million range in Table 8.8. Yet Channel is still earning \$1 million on net assets of \$6 million, a respectable return.

Table 8.7. Channel Experiences Increasing Losses -- But So What?

	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	60,000,000	54,000,000	6,000,000	900.00%			
13 Loan Rate	6.00%				900,000		
14 Orig Fee	2.00%				1,200,000		
15 Debt Rate	2.00%					1,080,000	1,020,000
16 Term/Rpmt	0.25						240,000,000
17							241,020,000
18 New Interest Income (Less loans sold of 50%)							2,700,000
19 New Fee Income							4,800,000
20 (Operating Expenses)		1.00%	to volume + loans outstanding				(3,000,000)
21 (Loss Expense)		0.75%	to loans outstanding		5		(2,250,000)
22 New Surplus (Profit)							3,270,000

Table 8.8. Channel Can Withstand a 1000 Percent Increase in Losses

	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	60,000,000	54,000,000	6,000,000	900%			
13 Loan Rate	6.00%				900,000		
14 Orig Fee	2.00%				1,200,000		
15 Debt Rate	2.00%					1,080,000	1,020,000
16 Term/Rpmt	0.25						240,000,000
17							241,020,000
18 New Interest Income (Less loans sold of 50%)							2,700,000
19 New Fee Income							4,800,000
20 (Operating Expenses)		1.00%	to volume + loans outstanding				(3,000,000)
21 (Loss Expense)		0.75%	to loans outstanding		10		(4,500,000)
22 New Surplus (Profit)							1,020,000

Except there's a problem. *The long-term investors holding the mortgages in mortgage-backed securities and collateralized debt obligation packages are beginning to detect those rising losses as well.* They are also picking up on the higher operating costs they have to pay on the portfolios of defaulting loans that they own. They are increasingly discouraged to find that the default rates do not meet the projections on which the mortgage backed security and collateralized debt obligation packages were written. This comes as an unpleasant surprise to these investors, something they feel that the rating agencies should have anticipated and vetted on their behalf.

In a very short space of time, the long-term investors lose interest in buying these assets from the short-term funders. So the short-term funders (mostly commercial paper conduits) start slowing down their funding of the loans that the Channel's of the nation are selling them. They are interested in funding these mortgages, but only as long as someone is committed to buying them. If the long-term investor is no longer interested, it's time for the short-term funder and the short-term funder's investors to get out of the market too. If, in fact, it isn't too late.

But, as it turns out, *it is* too late. Suddenly Channel cannot find the kind of financing it enjoyed in the commercial paper market. That \$240 million in new loan originations it has been generating is suddenly stuck on Channel's \$60 million balance sheet, the very same balance sheet in Table 8.6 with the \$6 million in net assets. Those loans that cannot be sold to through the commercial paper conduits to the long term investors will be on Channel's balance sheet for the next 30 years as they slowly pay off. It's convincing proof of the second of the Five Principles of Finance: "Big Balance Sheets mean Big Costs."

How the Mortgage Lender Stops Lending

At this point, the only source of funding for the mortgages that Channel now holds is banks. The banks had provided credit enhancements and liquidity facilities that enabled Channel to gain access to the commercial paper markets. The banks must now lend Channel the money; if Channel goes out of business, those assets end up on the banks' books. The banks may be forced to lend, but they are not going to be charging 2 percent for their money. They are charging 12 percent. They charge this rate not only because the loans that Channel is originating aren't turning out very well but because of the risk that Channel will go under. And then again, the banks are facing another problem of their own: because everyone views the banks as risky too, their cost of funds (i.e., LIBOR) has gone off the charts.

And with that, it's all over for Channel, as Table 8.9 reveals. Table 8.9 shows the increase in the debt rate (line 15) and, even more devastating, the decrease in the term of the asset repayment (line 16). Although the \$5 million increase in the interest expense is tough, it is the decline in new loan volume—from \$240 million to the \$2 million that actually wrecks the Channel business. There is no new interest income. There is no new fee income. The operating expenses remain high, and the loss rates (a lagging indicator) are about to explode—Case IV from Chapter 3 all over again.

The music abruptly stops playing for Channel and the dance ends. If the credit losses on bad loans increase to 1,000 percent, as shown above, Channel's loss rises to \$6.6 million

Table 8.9. No Debt Means No Lending Which Means No Profit Which Means No Return on Equity

	Loans	Debt	Equity	Leverage	Revenues	Interest	Cash & Surplus
Channel	60,000,000	54,000,000	6,000,000	900%			Surplus
13	Loan Rate	6.00%			3,600,000		
14	Orig Fee	2.00%			1,200,000		
15	Debt Rate	12.00%				6,480,000	(1,680,000)
16	Term/Rpmt	30.00					2,000,000
17							320,000
18	New Interest Income (Less loans sold of 50%)						120,000
19	New Fee Income						40,000
20	(Operating Expenses)	1.00%	to volume + loans outstanding				(620,000)
21	(Loss Expense)	0.75%	to loans outstanding	10			(4,500,000)
22	New Surplus (Profit)						(6,640,000)

and wipes out net assets entirely. The market value of Channel's equity slides below book value on its way down to zero. Proof positive of the fourth Key Principle of Finance for Nonprofits: "You're out of business when you run out of cash."

Of course, as noted earlier, we have all seen how the Channels of the market pushed lending products beyond the boundaries of credulity, and effectively removed *all* the chairs well before the music stopped. But here's the catch: their breathless myopia does not undercut the logic and the value of the financial strategies they employed. If nothing

else, the Channels of the home mortgage market also proved that they could provide low-cost funding to constituencies once reached only by CDFIs. And they could do it on a massive scale. Had they been willing to stick with 30- or 40-year fixed rate instruments, for example, they still could have helped the CDFI constituencies without a collapse, although, certainly, they would not have produced the same impressive level of instantaneous profit.

Collateral Damage

And where does that leave Bucket? Because Bucket is not selling loans, one might think it escapes unscathed. But this is not the case. The market does not distinguish between Bucket and Channel in terms of their respective loans to the 0.75 percent loss profile constituent. The collapse of the conventional secondary markets in home mortgages—the colossal loss of liquidity—that erodes the market value of Channel’s holdings -- erodes the market value of Bucket’s holdings as well. The sheer volume of cash that Channel puts into the market is what pushes up housing prices. When the volume of cash chasing deals evaporates, the value of the houses that underlie *all* deals evaporates too.

Thus, even though Bucket didn’t get a dime from the capital markets or generate a dollar of surplus, the collapse of Channel’s activities takes down Bucket’s portfolio of loans as well. And even though Bucket’s social investing funders understand that Bucket is supposed to take risk, they will step back and wonder whether it makes sense to keep funding Bucket’s lending in this kind of environment. And that’s just the social investors who still have money to invest; many, including a number of banks and foundations have to curtail grants and other subsidized facilities because the collapse of the market has reduced their revenue. So Bucket, too, ends up with less money to work with, even as demand for low-cost fixed rate mortgages accelerates among low-income and higher-risk constituents, who cannot seem to find anyone, now, who wants to make them a loan. So, once again, just when Bucket’s lending capacity is needed the most, it has even less capacity to achieve its mission objectives. The only consolation in all of this is that Bucket is still alive. Events have clearly demonstrated the fifth of the Five Key Principles of Finance for nonprofits: “You don’t have to be a bank to survive.”

Where Was This All Reported?

One thing for sure, we won't find it on the balance sheet for Bucket or, for that matter, Channel. Not to beat a dead horse, but here is another opportunity to make the point about balance sheets: because of the speed and liquidity of the lending business, the book value of Channel's net assets in Table 8.6 (\$6 million) is just above the total annual surplus (\$5 million) being generated. Hence, this net asset figure is not only misleading, it is, from the standpoint of valuing loan assets, a virtual impossibility. Take it a step further: with the evaporation of cheap funding and new loan volume, the same net asset figure in Table 8.9 (\$6 million) is really zero. Or less, as the Troubled Asset Relief Program has, in some cases, found. Does any of this volatility in valuation show up on the balance sheet? Yes, certain clues will surface, but only after—typically long after—the battle's been lost, and everyone's moved on.

Yes, at the end of the period, the operating statement showed losses, as declining loan volume ceased covering the operating, funding, and loss expenses. And yes, the year-end balance sheet provided a snapshot of the carnage: a ballooning portfolio of mortgages against a battery of maturing obligations, before Channel had to file Chapter 7. But for Channel, the action was all in the selling of loans; consequently, the proper monitoring, prediction, and assessment of risk was all happening in the cash flows associated with the origination, funding and selling of loans. Bucket's activity was all in the cash flows as well. The big difference was that Bucket's cash flows stayed the same size. And here we come to the issue: the biggest contrast between Bucket and Channel from the standpoint of the business model is the difference between how much money they can put out in loans on the street per year (that is, \$240 million versus \$500,000). This also makes cash flow the biggest difference between the two from the standpoint of community impact.

Bucket wishes to distinguish its business model and its community impact from Channel on the basis of the quality of lending. The difference in the quality of lending, however, is invisible for two, three years, or four years, which is how long it generally takes for the financial reports to pick up, conclusively, the differential in loan losses. But even when we can see the difference in the quality of lending, it is of marginal value: notwithstanding its prudence, discipline and fairness, Bucket's business model was of insufficient scale to assist its constituencies when they get abandoned by Channel.

Bucket has survived. But Bucket has another big challenge facing it: Bucket still must explain to its philanthropic and social investment funders (the ones who still have cash

to provide) how it will justify the much needed social investment, when Channel has just demonstrated that it can deliver 100+ times the dollar amount of mortgages to constituents with the (original) 0.75 percent charge-off profile, with no subsidy at all. Bucket should respond to such inquiries by demonstrating the manner in which its staff and resources are tailored to the development of successful borrowers. Bucket should provide its social investors with a matrix, for example, which shows such items as the following:

- Function: origination, underwriting, approval, counseling, servicing, etc.
- Loans approved
- Number of staff by function
- Cost of staff by function
- Functions performed (and cost of function)
- Number of loans, loan modifications, loan modifications out of delinquency, refinancings
- Delinquency, charge-off, and recovery rates
- Success rates per counseled borrower
- Cost per loan of each function

These are the types of metrics Bucket can use to distinguish its lending from Channel's well before the difference between the two shows up in the loss rates. Unfortunately, in the CDFI field today, this information is all company prepared or anecdotal. None of this information shows up on the balance sheet. In fact, almost none of it shows up in the audit (the delinquency and charge-off rates being the exception). Therefore, the difference we see in the cash flows remains the defining characteristic.

The struggles and opportunities of Channel and Bucket illustrate an important lesson. They show how to identify and monitor what the respective managements are thinking and doing. Virtually none of the risk is explained on the balance sheet, because the field of battle is all on the cash flow. To the extent we are not there with them, we cannot know what is really at risk.

CDFIs Proceed at Their Own Risk

This chapter began by showing how critical the budgeting and tracking of cash is for both CDFI management and the credit analyst. Along the way, the arithmetic that caused the crash in the credit markets became apparent: Channel's pressure to grow exponentially in order to continue generating returns to investors took it simultaneously up the road to high leverage and down the road to bad credit.

In the absence of comprehending how the math worked for the Channel's of the world, the CDFI sector was doubly disadvantaged: it had no modern weapons to defend its low income borrowers, nor any knowledge of how quickly modern weapons could help the enemy make off with the borrowers that the CDFIs were trying to defend. Under the circumstances, how could the neighborhood be protected from the predatory fringe of the conventional sector? The field may not agree on the extent to which it should adopt these modern weapons. But at the very least, it must understand how these weapons work, and how they are likely to be deployed once again in their neighborhoods when the markets return to normal.

The illustration of Channel's progress is important not only to illustrate what happened on a broad scale, but also to show how dangerous the single-family mortgage lending business has become, *because of this broad scale*. CDFIs that continue to lend in this sector must proceed at their own risk.

Going forward, CDFIs must keep in mind that in managing any kind of lending entity (as with managing one's personal finances), cash is by far the most important thing the organization can have, either cash itself, access to cash, or assets that can be readily converted to cash. Channel failed because it ran out of cash. Bucket survived primarily because it never had access to much cash in the first place. Hence, it was not overly aggressive in its reach and, consequently, it was not overextended when the credit markets collapsed.

To be sure, Bucket's capacity to achieve its mission is severely circumscribed. But the lesson is the same either way: cash is king. It the key determinant of how well management can adapt to the changing needs of their constituents and changing conditions in the marketplace. Cash is also the key to adapting to adversity, whether in losses, funding sources, or anything else. What management does with cash is the key to sustainability over the long-term, as well as to the achievement of the mission.

Although cash is king, it does not mean that the balance sheet and the operating statement should be ignored. Indeed, it is extremely important to understand how the decisions that show up in the cash flow play out in the line items on the balance sheet and operating statement, and how these collectively inform the analyst, as well as management, of the condition and direction of the organization. The following two sections propose ways to align the CDFI balance sheet and operating statement with the dynamics of the CDFI cash flow. They show how, properly balanced, these financial indicators help both management and the credit analyst evaluate the history and the prospects of the lending entity.

A Double Book-Entry Opera

“For every nonprofit organization, there is a tension between the pursuit of mission on the one hand and the maintenance of financial viability on the other,” writes Clara Miller in *An Introduction to Nonprofit Capitalization*. “This concern exerts pressure on the day-to-day operations and decision-making of every nonprofit, and quite often, it seems as though one must be chosen in favor of the other. We would like to propose, however, that they must be weighed together. In fact, an organization’s mission and capital structure, as well as its organizational capacity, must all be kept in balance, both as individual areas of concern and, on a larger scale, in relation to one another. The very health of the organization depends on it.”⁷⁴

The double-book entry “Opera” is all about the connectivity of the many parts and the maintenance of the balance Miller describes. With double-book entry accounting, for every asset, there is a matching liability or net asset; for every cash inflow there is a cash outflow that is directly associated with an asset and the matching liability. Double-book entry accounting provides management and analysts alike a marvelously tight system in which every event or decision can be viewed from a range of critical positions. We have stressed the importance of studying the flows of cash, but in order to understand the whole picture and present it effectively as a proper representation of the CDFI’s performance of its mission, CDFIs need to be able to manage the whole discipline.

As noted at the outset of this chapter, the essence of credit analysis is to identify the decisions that management makes, and to assess how well those decisions were implemented in the context of the organizational objectives and market conditions.

Hence, the best form of credit analysis is a mirror of management intentions, decisions, and actions. The logical corollary is: the best form of credit analysis uses the same metrics that the organization uses to manage the business of the mission.

What follows draws from the path blazed by NeighborWorks America's course on the *Sustainable Mission*.⁷⁵ The chief operating methodology that the course proposes is simple: reduce every major line item to a series of cash flows and order them, reorder them, and reorder them again in terms of their priority relative to the achievement of mission *and* sustainability. Integrate them with the most recent audited figures, run budgets, and raise debt and grant funding in accordance with what is needed to make the whole operation balance.

Breaking all line items down into cash flows sounds like it could produce a mountain of unworkable data. Not so. The *Sustainable Mission Course* provides a list of the 21 key financial decisions CDFI management makes (including five decisions involving real estate activity for those CDFIs that are also in the real estate development or real estate management lines of business). These decisions are also presented as the key items that the credit analyst must identify and track.

For the purposes of simplicity, the course organizes these 21 decisions within the Four Major Categories introduced in Chapter 1 and recapped above: I. Earned revenue; II. Operating expenses; III. Losses; and IV. Funding costs. The 21 key decisions have the most impact in driving the lending operations.

I. Earned Revenues

Lending Assets (New Order)

1. Increase / decrease interest rates on loans
2. Expand / contract weighted average life (term) of loans
3. Expand / contract size of loans
4. Structure and then increase / decrease fees on loans
5. Sell loans
6. Increase / decrease volume

Real Estate Assets

7. Increase / decrease sales or rents

8. Increase / decrease fees on development
9. Increase / decrease size of development
10. Expand / contract time on the balance sheet – e.g., amount of time it is held.
11. Increase / decrease number of developments (volume)

Asset Allocation

12. Investment rate
13. Higher versus lower cash and investment on hand

II. Operating Expenses

Staff Resources

14. Optimize workload
15. To provide or not provide the service
16. Raise / lower salaries

III. Losses

Credit Risk

17. Raising and lowering lending risk: charge-offs, recoveries, and work-outs

Property Risk

18. Raising and lowering development risk: vacancy

IV. Funding Costs

Debt

19. Raise / lower cost of debt
20. Extend the maturity of the debt

Grants

21. Allocation of subsidy

The *Sustainable Mission* course offers a chart (Chart 8.10) that codes the four major categories in shades of gray and tracks the 21 key decisions through the operating statement, balance sheet, and cash flows together:

Chart 8.10 also illustrates the major areas of management decision-making (in shades of gray): the design of assets (medium gray), the allocation of assets (very light gray), the design of the funding platform including debt and other liabilities (dark gray), fundraising capacity (white), and finally, the timing and pricing decisions associated with all of these. The gray color-coding shows how the 21 key decisions that management makes in each of the four major categories are components of these.

The following is a brief summary of how these work:

I. Revenues (Light Gray, Medium Gray, White) *Loan and Real Estate Revenues* (medium gray) are driven by decisions about the design of the mission assets (loans and/or real estate), for example, number of projects, size of loans, interest rate, fees, maturity, sale, loan volume, and the like. The design of the asset is the seminal part of both the credit analysis and management strategies for two reasons: 1) the asset design represents the intersection of the needs of the constituents with the capacity of the organization, effectively the organization's contract with the customer; and 2) it defines the business model for the CDFI, and exerts the greatest impact on the organization's financial condition.

- *Investment Income* (light gray) is driven by asset allocation. This refers to management's decision to have more or less of its total assets dedicated to cash and investments versus mission assets. The investment income rises or falls on the level of interest rates and yields as well, but asset allocation is one thing management has significant control over.
- *Surplus* (white). Surplus is a desirable goal. It represents a series of pricing, volume, and timing decisions by management (essentially all of the 21 key decisions) that allow revenue (including grants) to cover costs. Small though it may be, the level of surplus or deficit should never be viewed as an accident.

II. Operating Expenses (Medium Gray)

- *Operating expenses* are—or at least should be—primarily a function of the design of the mission assets, with a focus on the proposed as well as existing activity. Loan volume, origination, property development, property services, and the like

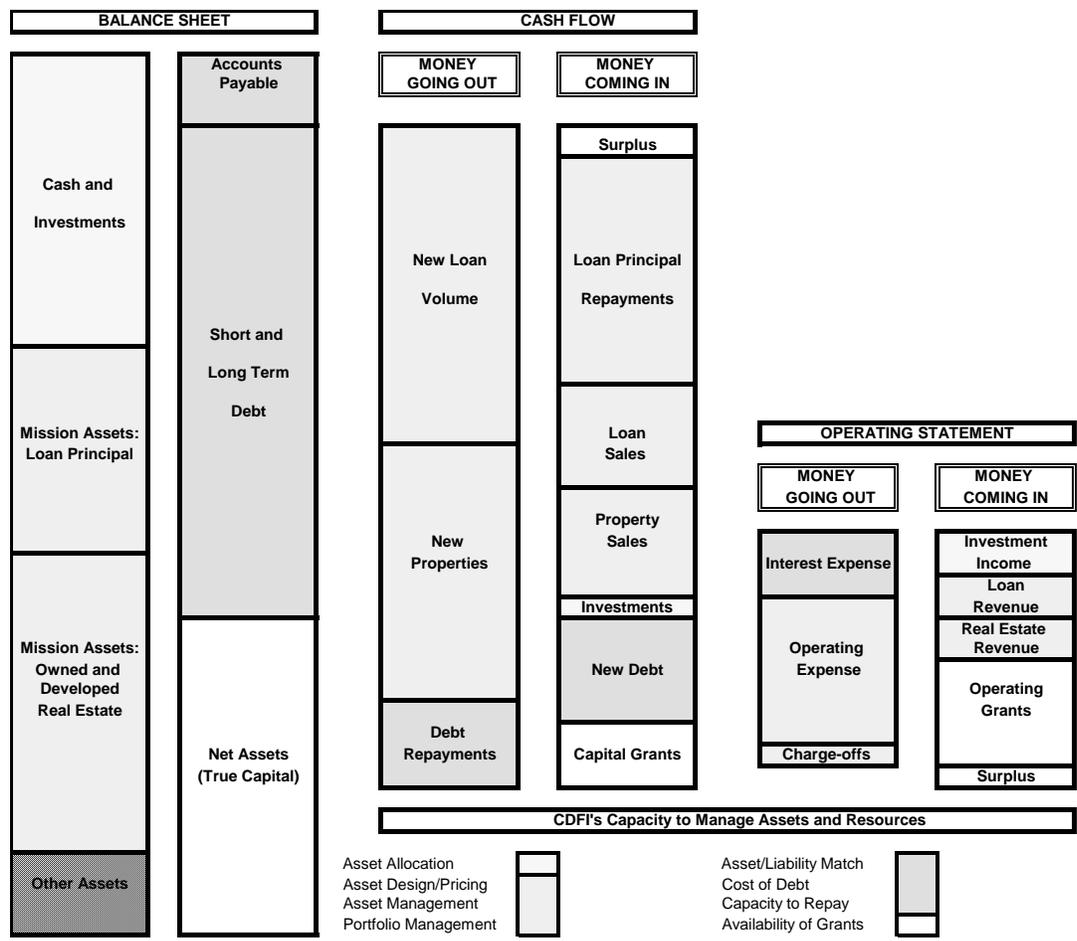


Chart 8.10. The Double-Book Entry Opera Score
 From: Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding and Management of Loans and Development Assets.

are the chief determinants of the number of staff, the nature of the skill sets, and the nature and amount of other resources needed.

III. Loss Expense and Charge-offs (Medium Gray)

Again, as with mission assets and operating expenses, *charge-offs/loss expenses* are a function of asset design. Management must choose its own target constituency, and with the choice comes all of the various aspects of asset design: underwriting, product structure, and pricing standards, as well as the configuration of workout, remediation and property management staff.

IV. Funding Cost/Interest Expense (Dark Gray for Debt, White for Grants)

- *Interest Expense* (dark gray) is the product of decisions management makes not only about the rates it is willing to pay, but also the source of funding, the term and the amounts.
- *Operating and Capital Grants* (white), fall between funding platform and asset design. They are included in the Four Major Categories under the funding decision, but they are a very different form of funding. They are essential to minimizing debt and interest expense, and to maximizing surplus. From the standpoint of financial discipline, the grants should always be viewed as the last decision to be made, after all of the other items have been decided. (This discipline is not, however, particularly common; the CDFI field has tended to build the asset design around the interest of funders.)

Chart 8.10 shows the major working parts of the CDFI financial statements—the major sources and uses of cash associated with active management decisions and how they play out on the financial statements. The chart highlights several important facts that are of considerable importance to the analyst as well as management:

- Each asset class on the balance sheet is directly linked to some liability or net asset funding;
- Each asset class on the balance sheet and each liability or net asset account is directly linked to a cash inflow or outflow on the cash flow statement;
- Each asset and liability class generates its own streams of incoming and outgoing cash on both the cash flow and the operating statement.

Chart 8.10 confirms another important fact: the relative size of the impact of the decisions that are made. For more efficient CDFIs, the sizes of the items are, in a very general way, proportional to the importance they play in determining the financial health of the entity and its sustainability. One of the more striking items, for example, is how small the accounts on the operating statement are relative to everything else. Loan and real estate revenues and operating, charge-off and funding expenses are relatively small items. The surplus, after operating grants are added, is also very small. Yet these are often the operating statement items over which management spends many sleepless nights. While from time to time they should be, it is the movement of cash through the cash flow, as we have seen, that really determines how the operating statement accounts turn out.

The chart sets the stage for establishing a protocol of analytical ratios that combine all the financial statements to get at the two critical questions management must track and analysts must evaluate:

- How quickly can I get my cash back to redeploy?
- How does improving my cash flow give me the margin of error I need to operate?

Table 8.11 is one approach that, although parallel to the CAMEL ratings the regulators use for depositories, also provides room for the wider latitude that CDFIs require.

A Theory of Efficiency for CDFIs

None of the analytical techniques for evaluating organizational risk and management capacity discussed above are new.⁷⁶ The banks, Wall Street, rating agencies, and large corporations have been using them for decades. The big question that many in the community development field (appropriately) ask is: If I apply these techniques to my organization, will I lose my mission? Will I become like a bank?

Once again, the answer must be an emphatic no. The real point of managing and analyzing the organization in terms of these techniques is to make better use of grant subsidy. The objective is to reduce the costs and decisions that erode subsidy while producing minimal benefit, and to conserve as much subsidy as possible for the long-term. In fact, the CDFI field can use these techniques to serve its existing constituencies with much greater efficiency and impact. One of the chief tools for demonstrating this is the Return On Equity formula we introduced in Chapter 1.

Table 8.11. Key Financial Ratios for Evaluating a CDFI/CDC

(from *Advanced Financial Analysis for a Sustainable Mission*)

Yield

Loans: Interest Revenue
Loans: Fee Income
Loans: Total Yield
Yield on Cash and Investments
Property Revenue to Property Book Value
Developer Fees to Property Book Value
Property: NOI to Book Value
Total Assets: Gross Operating Yield
Total Assets: Net Operating Yield
Gain(Loss) on Loan Sales/ Avg. Assets
Gain(Loss) on Prop Sales/ Avg. Assets

Funding Costs

Interest Rate on Debt
Interest Expense on Investments
Net Interest Margin on Investments
Investment Rate versus Debt Rate
Investment Cost of Funds
Interest Expense on Loans
Net Interest Margin on Loans*
Loan Rate versus Debt Rate
Loan Cost of Funds
Interest Expense on Real Estate
Cost of Funds on Real Estate
Cost of Funds (to Average Assets)
Interest Rate Reduced by Net Assets
 Amount of Interest Exp subsidized

Expenses

Operating Expense/Avg. Assets
Ongoing Mission Revenue/Total Exp
Sustainability Ratio: All Op Rev/All Exp
Operating Costs for Lending
 Percent to Average Loans
Op Cost per Loan (Gr.Cum)
Rental Property NOI
Property Debt Service as % of EGI
Property Debt Coverage Ratio
Corporate Property Mgmt Cost Per Unit
Average Rental Property OpEx PUPY

Losses

Charge-offs to Provision
Provision to Loss Reserve
Charge-offs to Avg. Loans
Charge-offs to Avg. Assets

Liquidity

Cash/Unrestr.Invests to ST Liabs
Cash/Unrestr.Invests to Total Assets
Cash/Unrestr.Invests to Op Exp
Cash/Unrestr.Invests Months on Hand
Target Cash/Investments Month on Hand
 Cash Needed to Meet Cash Target
Repayments/Loan Volume
Repayments/Loans O/S
Loan Sales/Loan Volume
Loan Sales/Loan O/S
Op Sources to Op Uses

Capital

Total Liabilities/Net Assets
Target Liabilities/Net Assets
 Equity Needed to Meet Leverage Target
Free Cash Flow to Debt
 Years to Repay Debt
C/offers to Reserves+Net Assets
Rental property market value less debt

As we discussed in Chapter 1, the traditional formula that all for-profit entities ultimately *manage* from is:

Return on Equity	=	Leverage	X	Return on Sales	X	Asset Turnover
Net Profit		Total Assets		Net Profit		Revenues
Net Worth	=	Net Worth	X	Revenues	X	Total Assets

The elements of this formula are:

- *Return on Equity*: This is a summary of the changes on the balance sheet, cash flow, and operating statement that measure the efficiency in the use of equity. Investors are very keen on this ratio because they want to see how much their dollars are earning.
- *Leverage*: This expresses the relationship between assets and the financing support provided by net worth versus the financing support provided by debt and other liabilities. A key issue is: it is very difficult to build leverage without a corresponding increase in the return on sales. The “return” part of the return on sales (i.e., profitability) is a key component in debt repayment.
- *Return on Sales*: This expresses the relationship between net profits and sales; that is, how much money is made on each product or service. For these purposes, a useful way to look at this is, the higher the return on sales, the higher the cost to the consumer. For example, a 20 percent return means that the consumer is paying 20 percent more than the cost of the product or service in order to purchase it. (It is not coincidental that this ratio is related to the relationship of the four major categories and what they convey about the business model.)
- *Asset Turnover*: This is an indication of the company’s efficiency in using the assets it owns. It measures the relationship between revenues and the total asset level. Assets that stay on the balance sheet for long periods consume more debt and equity than assets that revolve off the balance sheet quickly.

One of the reasons that this set of calculations is so valuable is that it brings all three forms of financial statement together and provides the following:

- The leverage ratio provides a quick read on the balance sheet and the level of creditor claims built into the assets

- The return on sales provides a quick read on the operating statement and the profitability built into the assets
- The asset turnover ratio provides a quick read on the cash flow and the efficiency that is built into the assets

When combined, they produce a single grade for evaluating all business models, and the success of both management and investor: the return on equity invested. Although this formula is not in itself adequate to judge risk and performance, it closes the loop opened with the four major categories by bringing in the indicator of how cash converts to assets and back. It is an excellent report card on management performance and a superb starting point for the serious financial analyst.

The Same Formula But Applied to CDFIs

Although these ratios mean the same things for nonprofit organizations, the following chart uses nomenclature that more appropriately reflects what the CDFI field does.

The Return on Equity Formula for CDCs and CDFIs

Return on Subsidy	=	Leverage	X	Return on Revenues	X	Asset Turnover
Surplus		Total Assets		Surplus		Revenues
Net Assets	=	Net Assets	X	Revenues	X	Total Assets

We have changed net profit to surplus and net worth to net assets. In the same way that a corporation’s net worth is the hardest money to come by, so is the nonprofit’s net assets. Because net assets are created almost exclusively by grants and other subsidized funds, we change the ratio from return on equity to return on subsidy.

How exactly can this be useful to CDFIs?

As grant funding has tightened in recent years, the community development industry has pursued a range of solutions. Perhaps the most common effort has been to boost leverage—borrowing on a short-term basis from banks to fund everything from predevelopment loans to operating expenses. Another common effort has been to boost

the return on sales by cutting costs or raising fees, although both have proved problematic and prompted considerable soul-searching. More recently, CDCs and CDFIs have become committed to the asset turnover option: finding ways to turn assets over more rapidly through participations, pledging, and sale. The effort to gain access to the capital markets through the Mini-Fed, Capital Exchange, and the Commercial Paper Co-op was a result of the recognition that this was the optimal way to solve the problem of mission impact and sustainability.

Table 8.12 outlines three cases to show how and why this is the case. Comparing the three cases in Table 8.12 shows how to achieve the same return on subsidy with widely differing organizations and financial strategies.

Case 1: The strategy is to raise the level of debt to fund one's mission (300 percent total assets to net assets). The approach garners a reasonable return on revenue (10 percent). This CDFI tends to hold its assets for a long time upwards of 7.5 years on average (One hundred divided by 13.33 equals 7.5). There's a problem though. In order to keep these assets on the balance sheet, the Case 1 CDFI has to borrow money and leverage itself. As a result, this CDFI has a low level of surplus relative to the amount of debt outstanding: even though the 10 percent return on revenues is pretty good by itself, it is very small relative to the \$10 million in debt that is being used to fund the organization. It raises a serious question of whether the Case 1 CDFI actually can amortize its debt without increasing its return on revenues, or selling assets (increasing asset turnover).

Case 2. In this case, the CDFIs level of earnings per dollar of revenue rises to 20 percent. Again, another way to look at this return on revenues is that the consumer must pay a premium of 20 percent over the cost of the product or service. This is one reason why boosting the return on revenues is controversial in the nonprofit sector. There is another problem with the Case 2 CDFI: size. At this level of activity it isn't hitting a very large constituent sector.

Case 3. There are two ways to boost the asset turnover ratio: raise revenue through price increases or reduce the level of assets needed to produce the same dollar of revenue. The reason to focus on the latter is that it is the one financial strategy for achieving sustainability that does not require substantial cost increases being passed along to the consumer.

Table 8.12. Which Case Gets the High Marks on Both Mission and Sustainability?

Ret on Subsidy	=	Leverage	X	Return on Revs	X	Asset Turnover
$\frac{\text{Surplus}}{\text{Net Assets}}$	=	$\frac{\text{Total Assets}}{\text{Net Assets}}$	X	$\frac{\text{Surplus}}{\text{Revenues}}$	X	$\frac{\text{Revenues}}{\text{Total Assets}}$

CASE 1

200,000		15,000,000		<u>200,000</u>		2,000,000
5,000,000	=	5,000,000	X	<u>2,000,000</u>	X	15,000,000
4.00%		300.00%		10.00%		13.33%

Problem: higher leverage requires higher surplus to repay debt

CASE 2

60,000		1,500,000		<u>60,000</u>		300,000
1,500,000	=	1,500,000	X	<u>300,000</u>	X	1,500,000
4.00%		100.00%		20.00%		20.00%

Problem: higher surplus raises cost to consumer

CASE 3

120,000		5,000,000		<u>120,000</u>		5,000,000
3,000,000	=	3,000,000	X	<u>5,000,000</u>	X	5,000,000
4.00%		166.67%		2.40%		100.00%

The comparison shows that the raising or lowering of interest rates, rents, prices, operating expenses, and credit losses is proportionally modest compared with the increasing or decreasing of assets on the balance sheet and through the cash flow. This is the key feature of the sustainable mission: that an effective management of the asset turnover ratio (cash flow again) can achieve sustainability without hardship to the consumer or damage to the mission.

There is one caveat with this ratio: because we are not including the cash flow in this equation, it is possible that we are not capturing the true efficiency of each of the cases. It is possible, for example, that the CDFI in Case 2 is actively selling loans and thereby generating a much higher asset turnover than would be shown in its annual audit. But that is an event the disciplined analyst would quickly discover, and in any event, reinforces the point that a rising asset turnover is a key to achieving a balance between sustainability and impact for CDFIs.

The achievement of this balance is why CDFIs are increasingly interested in finding secondary markets for the full range of loans—and organizational obligations. It is not only the access to capital and lower-cost debt they are obtaining, but also the freeing up of scarce resources for redeployment to benefit the constituency. Holding onto large amounts of assets affects everything else in the organization, mostly adversely.

Return on Subsidy for CDFIs vs. Return on Equity for Shareholders

There is, however, a serious challenge in all of this. One of the dogmas of the community development field is that to protect the integrity of the asset, the CDFI must retain control of it over the course of its life. This is not true for such community development assets as for-sale housing, of course. It is also becoming less of an issue for home mortgages and small business loans. But for some kinds of community development assets, such development loans, community facilities, and rental housing, holding the asset for its full life remains a dogma, if not, in fact, a legal and economic necessity.

One of the key values of the return on subsidy ratio for CDFIs is that it enables them to obtain a rough idea of the trade-offs between this necessity and the need for low-priced services and/or the ability to incur debt. To have a large number of rental housing units, for example, the CDFI must generate a higher level of surplus and/or a higher level of leverage to produce a reasonable, or even positive, return on subsidy. The slower the asset turnover (i.e., holding assets for a longer period of time), the higher level of debt or higher levels of profit or subsidy required. It's simple arithmetic: once again, proof positive of the one of the Five Key Principles of Finance: Big Balance Sheet Means Big Cost.

There is an ironclad logic behind this principle that challenges CDFI management and stakeholders:

- CDFIs want to provide their constituents with the greatest number of loans, which minimizes CDFI cash.
- They want to charge the lowest possible rate, which minimizes revenues.
- If minimizing revenues, then CDFIs necessarily must minimize loans on the books.
- If they minimize revenue without also minimizing book loans, then they are forced to: a) reduce staff, which reduces the ability to deliver service, b) reduce debt; or c) reduce risk (the Four Major Categories again).
- Therefore, if CDFIs do not minimize loans that they hold on the books, they end up providing fewer loans with lower risk at higher rates.

In short, by holding onto the loans, CDFIs may achieve the opposite of what they intend. Thus, we arrive at another one of the Five Key Principles of Finance: When it comes to allocating grant subsidy, it's a zero sum game: you versus your constituency.

Going back to the comparison of CDFIs to banks: banks maximize leverage, profitability, and asset turnover to maximize the return to shareholders. For them, almost always, the higher the ratio, the better. For nonprofit CDFIs, this is not the case. CDFIs do not have to make payments to equity investors, so they have, in fact, much more discretion over the nature of the balance they wish to target in each component of the Return on Subsidy formula. Generating a high return on subsidy is not always the best thing for CDFIs. Indeed, it can be contrary to the mission—for those engaged in affordable rentals, for example. This is the critical advantage that the nonprofit has over the for-profit lender: the CDFI can alter the components of the formula to suit the needs of its constituent, while the bank is really constrained by its obligations to shareholders. It is at the heart of why CDFIs are not only justified, but necessary. It also highlights, once again, another of the Five Key Principles of Finance for nonprofits: You don't have to be a bank to survive.

With the return on subsidy formula for CDFIs, there is one final consideration to address. The surplus for a CDFI includes grants. If the surplus were reduced by the amount of grants, the whole formula would go negative for virtually all CDFIs. Of course, the grant funder is not expecting a return on the grant awards in the same way shareholders expect a return on investments. What the grant funder is looking for is how effectively its money helps accomplish a particular social mission. Therefore, the return

on subsidy for the grantor functions very differently from the return on equity for the shareholder.

The key value of the return on subsidy formula is that it helps the funder, as well as the analyst and the management of the CDFI, draw a bead on what it takes to make the mission successful. Unlike the shareholder's return on equity, there is no "right" number that people can look to and say "wow!" or "how sad!" There is no platform or logic to be established that compares a 20 percent return on subsidy in personal loans with a 0.1 percent return on subsidy in the development of community facilities. The need to own and manage affordable rental housing, to revisit that example, will have a very different return on subsidy than the need to originate and sell mortgage loans, for the following reasons:

- Rental housing involves high operating costs and low revenues and it remains on the balance sheet in perpetuity. Return on revenues and the asset turnover are both low, so the leverage must be high to generate a positive return on subsidy. Of course, high leverage requires a higher level of surplus to cover the debt. As a result, a CDFI that also focuses on building new rental housing must raise proportionately more subsidy.
- Originating and selling loans involves relatively low costs, relatively low revenue, and minimal balance sheet, since the bulk of the loans are sold. From the standpoint of the formula, the return on revenue can be moderately high, the asset turnover can be very high, and the leverage can be very low. As a result, the need for grant support can be proportionately less.

There is nothing in the formula that should indicate a preference for one or the other of these two lines of business. But it does break down the nature of each business into three strategic financial components that management can address individually, and then collectively determine the right pricing of the products and services, the right volume of activity, the right timing of investment, optimal staffing, and the right balance of the businesses. Hence the "right" number for the return on subsidy formula is a number that enables all three formula components to be in a strategic balance while the mission is being served, whatever that mission happens to be. The number is simply the condensation of a range of market, constituent, and organizational factors into the three formula components specific to the organization. Having said this, the return on subsidy formula can guide funders in determining which CDFIs are making the best use of resources in each discreet line of business; over time it can assist the community

development field as a whole identify not only best practices in arranging strategic balances for each line of business, but also optimal financial designs for funding new lines of business.

One More Step in the Analysis

There is another difference between the return on equity and the return on subsidy: the return for the return on equity is all earned from the operation of the business (“earned revenue”), while the return for the return on subsidy will almost always include grant funding. Management, the funder, and the analyst must all determine how much annual grant funding is needed to make the return-on-subsidy formula work for the specific CDFI. Basically, one must determine how much additional “gas” is needed to achieve the mission.

After using the return on subsidy formula and determining whether there is a sustainable balance among the three component formulas (leverage, profitability, and asset turnover), one must calculate how much of the surplus is derived from grants. One can calculate the grants to net assets or the grants to total assets. With that calculation, the return-on-subsidy formula reveals how much the CDFI needs in grant funding to make the return-on-subsidy formula balance out. If the balance among the three components of the formula is unsustainable, the CDFI can calculate how much *more* grant funding is needed to make the formula work, and then determine the extent to which the social investors are willing to provide it.

To be sure, management will want to take it further than this. What works historically is not necessarily what works going forward. Management should regularly ask the following questions and evaluate the answers in terms of the return on subsidy formula:

- What are the market conditions and what do the constituents need now?
- Do the formulas need to be adjusted via the 21 decisions? For example, should there be a change in pricing or in staffing, a change in volume of activity or asset design or a change in debt financing in order to accommodate changes in the market conditions and constituent needs?
- What is the realistic level of grant support now and in the future?

By working through the formula, management has a quick and easy tool to understand what is and is not feasible. Using the example of Case 3 above, for example, the logic might go like this (we’ll make up some additional numbers to fill the case out):

- To achieve the 4 percent return on subsidy, grant contributions of 10 percent of net assets each year are required, or \$300,000.
- If we are able to contribute \$500,000 this year and are happy with the 4 percent return, where would we want it spent: paying down debt, lowering prices to constituents, increasing staff, taking more risk, or making longer-term loans?
- If our constituents need us to make higher-risk loans that we can't sell, but must hold on the balance sheet, will our \$500,000 be enough, and if so, for how much in the way of higher risk loans should we be making?
- If we are able to put in only \$100,000 in grants, how do we revise the decisions we just made?
- Do we need to have a 4 percent return on subsidy target? Will the three components work as well together at 2 percent?

Management will ask questions such as these as they work through numerous scenarios, and adjust return on subsidy formulas to various market conditions, constituent needs, and grant availability. To be sure, this view is from 50,000 feet up, but the final decisions they make are highly revealing. The formulas capture, in rapid and abbreviated form, the essence of how management allocates not only subsidy, but all pertinent resources of the organization in the pursuit of the mission.

The decisions around the return on subsidy formula are strategic. But the effect of these decisions does not remain at 50,000 feet. To bring the issue down to street level (and to loop back to the recommended internal subsidy bank in Chapter 7), the return on subsidy formula should serve as a guideline for the development, management, and efficient allocation of grant and other subsidies in the ongoing pursuit of the mission. Through this "bank," the return on subsidy formula becomes integrally engaged in the day-to-day decision-making of the CDFI. Hence, it serves as both a guideline for management and, longer term, as a sound indicator of management capacity.

This discussion of the return on subsidy formula brings together two of the biggest hurdles for the community development field in getting to the capital markets: efficient use of resources and measurable performance:

- Efficient use of resources. The asset turnover ratio pulls the key ratios of the operating statement and balance sheet together with the cash flow and demonstrates the velocity of cash in the pursuit of the mission. The higher the

velocity (e.g., the conversion of cash to assets and back again to cash for a repeat of the cycle), the greater the volume of mission activity.

- Measurable performance. By pulling the key ratios of the financials together the analyst gets a clear picture of the preferences and decisions of management in allocating resources among the various uses: mission activity, staff, debt repayment, and risk. The return on subsidy formula closes the loop.

Once again, it is easy to see why CDFIs are increasingly interested in finding secondary markets. Increasing the velocity of cash while minimizing the size of the balance sheet improves both mission impact and sustainability. These are, in fact, the central justification for all efforts associated with the Mini-Fed, the Capital Exchange, the Commercial Paper Co-op, and all of the other efforts to gain access to the capital markets. They are not only about gaining access to almost infinite amounts of money at very low cost, but also about minimizing the cost and the risk to the organization as a whole, while maximizing mission impact.

It is also apparent from this discussion why the Mini-Fed, the Capital Exchange, and other efforts to introduce CDFI organizational risk to the capital markets have not yet achieved their objective. Even some of the most fundamental disciplines, such as the return on equity formula, that the rating agencies, banks, and investors use to evaluate the credit risk and management capacity of other enterprises have not been widely scrutinized or deployed in the community development field.

Clearly, if the community development field wants the capital markets to fund organizational risk for CDFIs, then the field must meet the capital markets halfway. This does not mean CDFIs must meet halfway by compromising their mission. Instead, they must come halfway in their willingness to disclose decision-making via metrics that are consistent and common to all, and in welcoming the financial disciplines that best capture organizational risk and management capacity for the rating agencies and the ultimate investors. As we shall discuss in Chapter 10, several efforts are advancing resolutely in this direction, including CARS, the CDFI Data Project, the CDFI Fund's CIIS, the Nonprofit Finance Fund with its NBA, Strength Matters, the NeighborWorks America's PROMPT platform, and Sustainable Mission to name a few. Can we bring these together and take the community development sector over the mountain? The goal of achieving funding parity requires it.

CHAPTER 9

Community Development Lending and Financial Reporting

The *Sustainable Mission Course* offers two comments about financial reporting:

In performing a credit analysis of a CDFI, the key is to find the answer to two basic questions: how much financial room does management have to do its job on a year to year basis; and how well do they manage it?

The chief objective of the CDFI auditor is to make sure all the cash got put in the right buckets at the end of the year.⁷⁷

The quotes may be oversimplifications, but they do point to one of the biggest problems in the CDFI field: the audited figures do not convey or even reflect the actual conduct of the community development lending business.

At present, the accounting protocols in the nonprofit sector as a whole are geared to documenting how money was spent and if it was spent in accordance with donor stipulations. These protocols do not capture many of the data points needed to properly assess a CDFI's condition or performance in its various lines of business; in particular, the protocols are weak on revealing the volume and design of assets, cost of funds, cost per product or service delivered, liquidity, market value of net assets, and the quality of management decision making.

By contrast, for the institutions and corporations that participate in the capital markets, comprehensive and accurate disclosure is a rule enforced by detailed regulation, as well as investor interest: an organization's audited financial reporting is intended to provide the basis for *all* analysis, management, lenders, investors and regulatory entities alike. The notable failures in adequate disclosure (Enron comes to mind) are notable because, among other things, they prove the necessity of generating rules about transparency and relevance that can be enforced.

As introduced in Chapter 2, and reiterated at the beginning of Chapter 8, “the essence of credit analysis is to identify the decisions that management makes, and to assess the quality of the implementation of these decisions in the context of the organizational objectives and market conditions. The issue of repayment of obligations incurred is secondary to, and derivative of, this evaluation. Hence, the best form of credit analysis is a mirror of management intentions, decisions, and actions. The logical corollary to this is, the best form of credit analysis incorporates the same metrics the organization uses to manage the business of its mission. Hence, organizational credit risk is one and the same for the manager and the investor.”

In Chapter 7, we revealed how grant revenues and the various forms of restricted net assets were impediments to the rating agencies. The two were essentially indecipherable for the rating agency analyst. The chapter focused on methods to overcome these impediments in the context of rating agency disciplines. However, for CDFIs, the problems with the rating agencies do not end there. There are two additional elements, common to all lending entities that also present serious impediments to analysis because of the difference in how CDFIs manage them. These two additional impediments are the loan portfolio and operating expenses. Although the information needed to understand the grant revenue line and the various restrictions on net assets is rarely if ever disclosed in the CDFI audit, information on the loan portfolio and operating expenses is reported as a matter of protocol. The problem is, the information provided is not particularly informative, nor reflective of the CDFI mission.

Rating agencies are well versed in the metrics of both loan portfolios and operating expenses as they relate to financial institutions, and they are familiar with the operational and lending benchmarks that these metrics produce. Because the mission and the methods for delivering credit are markedly different from those of conventional lenders, CDFI benchmarks for lending and operating expenses look very different from what the rating agencies are accustomed to. To the extent that they can be analyzed, benchmarks tend to put CDFIs at a critical disadvantage to other lenders in the view of the rating agency and funder alike.

At a time when the benchmarks of the conventional lender have proved so porous, it is incumbent upon CDFIs to reverse the disadvantage by establishing a platform of hard data that supports the logic of the CDFI mission and promotes comprehension and accurate analysis of the CDFI performance.

These two elements, the configuration of the loans and loan portfolio, and the structure of the operating expenses, define the relationship between the CDFI and its constituents. They are essentially the “contract” with the CDFIs’ constituents. As such, they are the central moving parts that serve to justify the CDFI mission and, as a result, its funding. Both elements can be evaluated using financial metrics. To begin narrowing the gap between the value of these attributes and conventional analysis, we consider two ways they can be bridged:

- *Loan design and loan portfolio configuration:* Both CDFI loans and their loan portfolios are directed to filling a gap that the conventional lender does not fill, and both require some form of subsidy. In terms of origination, underwriting, approval, processing, and servicing procedures, however, the bulk of the lending activity conducted by CDFIs parallels that of conventional institutions. Hence, although such attributes as size, term, pricing, cost, and risk parameters of community development loans differ from their conventional counterparts, the metrics by which the activity is assessed are very much the same (such as net interest margin, collateral coverage, debt service coverage, delinquency rate, cost of delivery, etc.) In theory, the metrics developed by the regulatory agencies, and the form of analysis devised to interpret these metrics (such as CAMEL ratings) should be applicable to the bulk of CDFI lending activity, once the issues of grant revenue and net assets are addressed. This is, in fact, the case for depository CDFIs as we discuss below. However, to date, it is not the case for loan funds and other nondepository forms of CDFIs.
- *Operating expenses.* The resources that the CDFI brings to bear on behalf of the constituents in the form of staff, staff skill sets, location, training, programmatic initiatives, and the like are an essential part of the mission. CDFIs provide services that the conventional sector does not provide, and these services also require a subsidy. As with the loans, the metrics for evaluating these line items are similar to those in the conventional sector, but again, the difference in mission and cost put these beyond the norms with which the rating agencies and other analysts are comfortable. At present, the value and the dynamics of these elements are not supported by the data commonly reported in the community development field or the analytical frameworks. This is not just a problem for the rating agencies; it is problem also for the Office of Management and Budget, Congress, and public agencies, all of whom lack the familiarity with CDFIs that banks and foundations enjoy.

To make the mission and the business of the mission accessible and comprehensible to the rating agency analyst, or any analyst for that matter, a more precise and descriptive set of data points for both the loan portfolio and the operating expense structure must be provided. The analytical procedures set forth in Chapter 8 will not be helpful without them.

In the three sections that follow, we present the current shortcomings in reporting on these critical elements (Section 1), and then make recommendations for capturing data that justify both the loans (Section 2) and the operating expenses (Section 3) in terms that are compatible with rating agency disciplines. These recommendations are not made in a vacuum. As further detailed below, several solid initiatives across the CDFI field are leading the effort to produce meaningful data and standardized financial reporting. These recommendations are made to augment and promote those efforts as a critical priority for CDFIs at large.

It's 12/31: Do You Know Where Your Assets Are?

During the efforts to assemble the Capital Exchange presented in Chapter 5, the FIR team reviewed eight different nonprofit entities engaged in community development lending and investing. Below are ten of the most common flaws we found in their reporting, together with the reasons these flaws are distressing:

1. *There is no gross loan volume figure in the cash flow.* Instead, the audit shows loan volume net of principal repayments and loan sales. Therefore, loan volume—the chief measure of mission impact and the chief justification for being in business—is not reported.
2. *There is no distinction between interest generated by loans and that generated by cash and investments.* Audits often combine interest earned on investments and interest earned on loans. As a result, it is impossible to identify and evaluate a number of crucial management decisions, including relation of the loan product pricing to market; the related benefit or relevance of the loan pricing to the constituency; the trade-off between investing and making loans in terms of overall cost; and management's ability to invest cash efficiently.

3. *There are few distinctions between fee revenue or fee income, or where there is such a distinction, the audit is silent on whether they are loan related. With CDFIs, the interest earned on loans is rarely adequate to cover operating costs. The extent to which transactional or annual fees help cover the cost is a crucial indicator of management's position on pricing and staffing. The number is critical in indicating the nature of management's commitment to retaining or outsourcing key functions in the lending business.*
4. *There is no indication of the loan maturities, loan repayments, loan sales, or average life of the loan portfolio. The absence of these numbers makes it impossible to determine how much self-funding management has been able to engineer, the extent of management's options for managing liquidity, the price/benefit ratio of holding versus selling loans, and, again, the benefits/relevance of the loans to the needs of the constituents.*
5. *There is no information on the number of loans in the portfolio. The unit volume is critical to measuring impact as well as cost per unit, changes in loan type, and risk concentration.*
6. *There is no distinction between off-balance-sheet obligations and the cash flows and obligations between the organization and its investments and partnerships. The claims of secondary market entities and public agencies in particular are necessary for making an accurate assessment of liquidity, and management's options for maximizing it.*
7. *There is no itemization of interest expense. Interest expense on debt is often combined with other items, including taxes, fees and the like. This makes it difficult to calculate a true cost of debt and funds, crucial items in evaluating the business model of the mission.*
8. *There is no evidence of the operating expenses required for originating, underwriting, servicing, and providing technical assistance or counseling to borrowers. Without a listing of the cost to deliver by product or service line, it is impossible to identify the true cost of delivering the mission to the constituents, or how management might alter the delivery in response to changes in constituent and market conditions.*
9. *There are no debt maturities or weighted average maturity and cost of debt. This information is crucial to evaluating liquidity and management's capacity to manage the asset/liability challenges.*
10. *There is no reconciliation of nonperforming loans to delinquencies or delinquencies to charge-offs and recoveries, nor is there information on rewrites and restructurings. One of the greatest mission objectives of CDFIs is to reduce the risk of nonconventional loans*

via counseling and other forms of support, and manage it to a modest level of loss. Success in doing so is a distinguishing feature of the CDFI, and justifies the investment. However, in the absence of this data, there is no way to assess the CDFI's capacity to deliver on this mission objective.

These are only ten examples of the shortcomings in the audited financial reporting for CDFIs. Clearly, with this dearth of critical information, it is impossible to determine how much financial room management has to do its job every year, or how well they manage it. It is also impossible to determine how well the organization achieves its mission and generates an impact.

As discussed in Chapter 5, the FIR team's effort to obtain capital market funding for unsecured CDFI organizational risk collapsed around the issue of financial reporting. The manner in which CDFIs report their operations, assets, liabilities, and cash flows is diverse and often idiosyncratic, if not opaque. Each organization must explain the meaning of its chart of accounts and how the financial dynamics of its lending and other program activities are reflected in them. The level of interpretation this produces seriously impedes the process of evaluating financial condition and performance. It also renders comparative analysis, such as that required for the establishment of industrywide ratings, both expensive and vulnerable to challenge. It is the reason that trend line analysis and early warning structures like that of the Quad (Appendix C) are not feasible for use across the CDFI field.

As noted earlier, there is an exception: regulated depositories. Because of the standardization of reporting—including chart of accounts, definitions, formats, and reporting schedules—depository CDFIs have access to unsecured funding, often at the lowest rates in the market. This funding is primarily short-term in the form of fed funds and deposits. But it can also be longer term, for example, in the form of advances from the Federal Home Loan Banks (in the event they are members). Under normal circumstances, these same depositories have loan to deposit ratios of under 100 percent, which means that deposits are funding some aspect of the business (such as working capital, for example) that involve a high degree of organizational risk. Of course, the basis for this access to unsecured organizational risk is the federal guarantee of deposits. But the key issue is: this guarantee would not be provided without the standardized reporting and the adherence to regulatory guidelines.

Non-depository CDFIs derive their funding from banks, social investors, public agencies, and foundations. The funds are typically granted to the non-depository CDFIs for specific purposes. These purposes, and the terms and conditions that govern the use of the grant proceeds, vary from one CDFI to the next, often considerably. As a result, the chief objective of the organization's auditor, as the quotation above suggests, is to ensure that the money is in the right "bucket" at the end of the year. There is much less emphasis on where the money went during the course of the year—how it was deployed or expended and how it was recouped at year's end. There is only limited disclosure and virtually no evaluation associated with the design of the assets, the manner in which the money converts into mission assets and services, the volume of transactions, or the actual component costs associated with the delivery of those assets. Essentially the audit provides a static view of the organization at one point in time, with very limited information on the *business* of promoting the mission, or on the performance of management in pursuing it.

Clearly, it is difficult under these circumstances to provide a proper assessment of management's capacity and the financial health of the entity without considerable time and effort (expended generally onsite). The notion of working up industry comparables also takes considerable time and effort, and an automated approach to either, or both, remains impossible in the absence of meaningful and standardized reporting.

Could non-depository CDFIs develop a system of reporting like that required of community development banks and credit unions? The answer is yes. Would they have to be regulated to do so? No. So why isn't financial reporting for the non-depositories standardized and meaningful?

There are two major obstacles:

- *The cost of the audit.* The chief challenge facing the CDFI field in terms of improved reporting is the cost of qualified auditors. With operating funds hard to come by, the notion of spending as little \$10,000 on an outside accountant can be problematic: obtaining a good accountant starts to conflict with the need for staff resources. Yet, a CDFI may need to pay considerably more if it is to provide even a good static view of its financial condition, including such items as compliance with funding requirements, the value of loans, 501(c)3 status, and cash controls.

- *The content of the audit.* Most funders require an audit. The big question is, how comprehensive should the audit be? Some accounting firms specialize in CDFI accounting and can provide an accurate and useful assessment of the CDFI's financial condition. These firms can also opine on a range of management issues, and reference comparative data. Among other things, they understand that CDFIs are a unique hybrid between financial institutions and nonprofits, and hence, occupy a unique space. However, these firms are limited in number. Many accountants who audit CDFIs will assume they have sufficient expertise in the CDFI field because they have other nonprofit clients. This is not the case, and often leads to on-the-job training. In the absence of widespread standards for reporting and analysis of CDFIs, it is unclear that the organization will get the information it needs, even if it ends up paying substantially for the audit.

These two obstacles are alone sufficient to slow the (non-depository) CDFI field's progress toward the capital markets. But there is another, less obvious, obstacle as well: the absence of an incentive to improve reporting. During the work on the Quad for the Capital Exchange, the FIR team heard the question, "Why would we *want* to improve our reporting?"

For several of the organizations that the FIR screened for the Capital Exchange, lack of disclosure was viewed as a positive. They noted, separately but similarly, that opacity was necessary to achieve sustainability. The reason: funders prefer to finance program assets rather than operating costs. The result of this preference is that organizations are perennially depleting their unrestricted accounts and running short of cash for ongoing operations. Too often, in their view, the funders leave it to other funders to provide the operating support that is essential to achieving the asset goals they all set. The lack of financial disclosure enables management to use or store funds for operating purposes that would otherwise be confined to the restricted "bucket" activity that represents the funder's priorities. To stay on top of the movements of cash, these managers essentially keep their own more detailed notations, keeping tabs on where cash is and how it is, in fact, being used. So long as the funds are where they should be at statement date (there it is again), there isn't a problem.

Although not universal, this approach is by no means uncommon. At statement date, funders will often find deficits in restricted accounts—the "buckets." They find deficits because the organizations have lent restricted funds to the unrestricted accounts for

operating purposes. In these instances, management has not, for whatever reason, been able to get the money back to where it belongs in time to close the books for the year.

This tension between the operating needs of the organization and the mission goals of the funder will not disappear any time soon. As funders call for greater impact per dollar given, CDFIs are tasked further to demonstrate the real costs of delivering the mission goals. Until a reasonable balance can be established between the goals and the costs to achieve them, any motivation to improve reporting is likely to languish. Consequently, credibility with the rating agencies will be slow to develop, and access to the capital markets is likely to remain impaired.

This state of affairs is in the interest of neither funders nor the CDFI field. The latter has overwhelming needs arising from their mission challenges, and the former have limited funds. The CDFI field requires access to more money and the capital markets have it.

But there's a bigger issue than access to the capital markets. In general, CDFIs exert considerable discipline at street level in the pursuit of their mission. Conditions require it: for a low-income constituent to succeed in business, homeownership, construction, and the like, the challenges are greater, the work is harder, and a higher level of discipline is a necessity. It should not be a stretch to assert that the *management* of the assets and services that support this constituent should require at least as much discipline. It also should not be a stretch to assert that the demonstration of management discipline should be the key to attracting more funds from both the capital markets and the social investor. In particular, such a demonstration would serve as the platform by which management is evaluated and the willingness to provide unsecured debt to the organization is justified. However, notwithstanding a number of efforts such as CARS, NeighborWorks America, and Strength Matters, funders to the CDFI field have not, to date, collectively enforced such demonstration. Reporting across the CDFI field remains idiosyncratic, fragmentary, and inadequate.

In theory, the ideal solution would be for the accounting profession to establish standards for disclosure in the annual audits. This would eliminate the inevitable conflicts among specific interests within the field and provide an objective platform on which rating agencies, creditors, lenders, and investors could depend. In effect, that is what the regulators have done for the depository CDFIs. But this is not a practical solution. The amount of time it would take to adjust Generally Accepted Accounting Principles, where necessary, to conform to the CDFI conduct of business, would push outcomes out a number of years, perhaps decades. It is also uncertain whether the CDFI

field is of sufficient size to warrant such an effort. What is needed is a low cost, but authoritative approach to filling the information gap.

What's the Big Deal?

A statement from the Carsey Institute course on sustainable mission focuses on the challenge of bringing the right information forward:

Our fate is wrapped up—almost entirely—in the design and the allocation of the assets. The assets—financial and staff assets—embody the contract with the constituent. It is only after we know exactly what that contract is and what those assets are that we begin to solve for how we plan to fund it all.⁷⁸

There are no current protocols in the standard CDFI audit for providing the data points that shed light on either the design or the allocation of the assets. There is, in effect, no way to get at the deal, or why funders think it is important to subsidize it.

This must change. There are alternatives to taking on the extraordinary task of forcing a change in the way auditors interpret and represent CDFIs. NeighborWorks America explored one option that has worked particularly well. To get at the true dynamics of the loans and the lending activity of one of its grantees, NeighborWorks America required a supplement to the annual audit of one of its grantees that asked for the following information as a precondition of disbursing future grants:

1. Interest revenue from investments
2. Interest revenue from loans
3. Loans outstanding at FYE (by dollar amount and number), including total loans on and off balance sheet
4. Loan principal payments, including prepayments (by dollar amount) for total loans on and off the balance sheet
5. Income from loan fees on origination and servicing

6. Loan fees paid for packaging/underwriting fees; servicing fees; counseling/other fees
7. Loan sales by (by dollar amount and number) for:
 - home mortgages
 - rehabilitation loans
 - construction loans
 - commercial mortgages
 - business loans
8. Loan volume by type (by dollar amount, number, and average interest rate), including:
 - home mortgages
 - rehabilitation loans
 - construction loans
 - commercial mortgages
 - business loans.

NeighborWorks America requested these data points because they would: a) show broad flows of cash by type of mission asset that the audit did not show; and b) demonstrate the efforts by management to achieve their various mission goals. Notably, the rating agencies and the regulators would be very familiar with these data points. They are some of the data points the agencies and regulators use to evaluate the management and institutional risk for the lenders they track. An additional benefit to incorporating these supplemental data points in the audit is they would all be reconciled to the audited figures. Reconciliation to the audited figures would a) tie the mission accomplishments to actual flows of cash; and b) provide a platform for more accurate monthly and/or quarterly reports prepared by the organization.

The grantee complied, and the data points were included as a supplement at the back of the audit. There was minimal additional cost since these data points had already been created in the work papers that served as the basis for the audit. The information significantly improved NeighborWork's understanding of the operations, the trends and the mission accomplishments of the grantee.

Other data points that can shed light on the design and allocation of a CDFI's lending assets include the following. Most of these can also be drawn from the audit work papers, and can and should also be appended in the audit supplement:

- The dollar and number of loan applications by loan type
- The dollar and number of loans being serviced by the organization, broken down between current, delinquent, and workout
- The dollar and number of loans delinquent per aging schedule
- The dollar and number of loans charged off in whole or in part during the period
- The dollar and number of loans renewed or restructured during the period
- The number of new borrowing clients and the number of clients who are no longer borrowing by loan type
- The average term of each loan type (e.g., the average life of a 30-year mortgage is in the nine-year range)
- The amount of interest forgone owing to delinquency
- The risk ratings and loss reserve allocations for the loan portfolio as a whole
- The number of staff performing origination, underwriting, and servicing and their cost (see Section 3 in this chapter).

This is not intended as a complete list. There are additional data points that are produced in the normal course of an audit that can also prove helpful to the analysis. But these can provide a fairly clear picture of the nature of the mission, the quality of the lending, and the capacity of management.

Again, these are data points that would be familiar to, if not expected by, the rating agencies and the regulators. This is not to say that the resulting numbers should be the same as those for conventional lenders; indeed they cannot be. By definition, the CDFI mission would not allow for it. But the *tools* can be the same: the hammer that's used to build a castle is the same that is used to build the cabin. While building a different kind of house, these tools enable the CDFI lender to build the cabin just as strongly.

Why does the rating agency need to know all this? For the very same reason management of the CDFI needs to know it. They must answer the question: Is the CDFI hitting the target market and does it have the wherewithal to deliver in a sustainable manner over time?

It is, ultimately, the express obligation of the funder to require reporting that provides the kind of data that helps the CDFI achieve its mission goals. Given the need to maximize resources in the current environment, it is a good time to start enforcing standards. At the same time, the CDFI field must demonstrate to funders what the mission goals require in terms of operational funding. The use of the supplemental pages of the audit, with mutually acceptable definitions of terms and metrics, is a prudent and disciplined way to initiate the effort.

The Nuclear Option

The greatest error a CDFI can make is to abandon its constituents. The next greatest error is to abandon its staff. It is a common observation in the community development field that cutting staff is the single hardest decision for management. Talented and skilled people dedicated to the mission are hard to come by, particularly given the workload and generally modest compensation. Yet it happens all the time: a change in economic conditions, a rise in interest rates, a loss of a key donor are some of the events that occur which prompt CDFIs to suddenly cut staff, and services. And it often happens seemingly out of the blue. One day, just before the electricity is turned off, management starts reluctantly cutting staff. The situation can be chalked up to a combination of management optimism and the reluctance to lose good people.

At the same time, it is neither prudent nor fair to subject staff members and their functions to the size of the constituent's wallet. Nor is it fair or prudent to subject staff members and their functions to the success of the annual fund-raising effort. Subjecting borrowers and donors to this kind of choice is likewise unfair and imprudent; the impact can be devastating to staff member, constituent and the organization alike. Of all the possible ways in which CDFI management can fail, the need to fire staff on a moment's notice due to inadequate funds is among the most inexcusable. It is also the most unnecessary. It's the nuclear option, and it speaks very poorly of management. It is an indication that management has been unable to maintain the balance among the various moving parts of the organization with the return on subsidy formula. What management does to avoid this kind of event—the strategy, budgeting, allocation and deployment of resources—is exactly the kind of decision-making that analysts want to capture and evaluate on their way to an assessment of both management capacity and the CDFI financial condition.

How does a failure to maintain mission and staff occur, and why? The explanation is almost always the same: the CDFI is waiting on this grant or that to come through. Understandable to be sure, but here is the catch: operating expenses are almost always the largest item on the operating statement—even greater than earned revenues—and staff is almost always the greatest operating expense. Under adverse conditions, grants become less certain and cutting staff becomes inevitable. Optimism is never a good excuse; and blaming the funders who do not come through is not a professional response. If the mission is important enough to justify grants, there must be a way to ensure that it continues regardless of external factors, including, if necessary, the loss of grants.

One of the organizations the team evaluated during the Capital Exchange phase had an impeccable record in making breakthrough loans to difficult borrowers, with minimal losses. In terms of hitting the mission, it was right on target. After reviewing the costs on a per-unit basis, it was discovered they were spending approximately \$5,000 for each loan they originated and \$1,000 a year for servicing the loans every year thereafter. The average size of the loans was \$30,000. Therefore, it cost 17 percent of the principal to originate and 3 percent of principal a year for servicing. If the loan were outstanding for 10 years on the balance sheet, the CDFI would have expended about 50 percent of the principal on operating costs to support the loan. If the loan were on the balance sheet for 20 years, the amount expended would exceed 90 percent of loan principal. And this was before taking into account the cost of financing the loans, which was in the 5 percent range per year (slightly higher than the rate they charged). Net result: on a \$30,000, 20-year loan with a 12-year average life, the cost to the CDFI would be about \$31,000, or 111 percent of principal.

The question arose: wouldn't it make more sense from both a financial and a mission standpoint to simply grant the full amount to the borrower? Of course it would. And there would be money left over that would free up scarce social investment to be put to use elsewhere. This takes us back, once again, to one of the Five Key Principles of Finance for nonprofits discussed in Chapter 8: "When it comes to allocating subsidy, it's a zero sum game between you and your constituency."

This led to the next question: Should we close down the lending business? As with many if not most CDFIs, the staff-heavy operating expenses of this CDFI represented the largest expenses on its operating statement, larger often than funding and credit losses combined. What was interesting about this case was that, once the CDFI investigated the

reason for the high cost, it found that more than two-thirds of origination costs were *not* associated with the direct making of loans. A similar ratio held true for servicing. The bulk of the costs was associated with fundraising, managing debt, accounting, office space, and marketing. The CDFI also spent considerable time and money on applicants who ended up getting loans elsewhere. As a result, the CDFI found itself facing not just a simple decision about whether to close out the lending activity, but whether to completely revise its structure and operations (its “business model”).

This raised the final question: How does a CDFI capture the data necessary to make informed decisions about maximizing the efficiency of its staff and operations and reducing its consumption of subsidy? Is there an objective way to approach the issue of setting the right balance of talent, resources, capacity, and mission?

The rating agencies are looking for the management’s ability to anticipate challenges and to manage the organization with consistency and stability in the face of them. There is always a balance of revenues and expenses, of staff and constituent needs, that can be adjusted to changes in the environment, *with moderation*. Management’s ability to establish this balance is a fundamental part of the evaluation of their capacity.

The notion is not as foreign as it may sound. CDFIs are, by and large, conversant with the series of management decisions associated with loan portfolio risk: risk ratings, risk-weighting, establishing loss reserve targets, and providing reserves. They routinely adjust each of these, monthly, quarterly, or annually to suit the conditions in the marketplace as they see them. The notion of establishing a wider balance—one that incorporates all the operational expenses—simply expands on the discipline (e.g., setting aside cash or cash flow in the event of possible disruptions, or alterations to staff activity and workloads). Doing so can and should be as much a part of risk management as providing for losses.

More than a decade ago, the World Bank and the World Council of Credit Unions (WOCCU) teamed up to provide \$5,000 grants to credit unions and micro-credit organizations worldwide for conducting a program of activity-based costing. Organizations applied for the grants and implemented the programs on a widespread basis. Many of them applied out of a compelling need. Very few of these organizations had access to grants or other forms of philanthropy or subsidy. As a result, they were financed by earnings on the loans they made to the poor. Clearly, it was essential to understand all the costs associated with lending because the zero sum game was right there, up front, at the point of the transaction with the borrower. Although \$5,000 wasn’t

much money for an exercise of this variety and delicacy, the World Bank and WOCCU viewed the effort as a solid success. In the end, a number of very small organizations around the world adopted activity-based-costing, and the knowledge about how to manage their costs of operation contributed to their ability to survive.

It would be a mistake to connect this effort directly to the fact that the international micro-lending field has built the capacity to obtain ratings and issue bonds. There is no data that tie this effort and others like it directly to that capacity. On the other hand, it would be perfectly reasonable to assert that the disciplines associated with an understanding of one's costs, and the ability to identify how and why these costs translate into the need for revenue from the borrower or subsidy from the donor, is crucial to establishing credibility with the rating agencies, the banks, and the other institutional players in the capital markets. It is a critical indicator of management capacity in the same way that managing loan portfolio risk is a critical indicator—only at several magnitudes in terms of the complexity and, for the most part, impact.

Although many organizations choose to purchase activity-based costing systems, the effort to differentiate and manage operating costs need not be an expensive proposition. Much of what occurs can be accomplished by simply observing what happens in each function over a set period of time in the context of already established job descriptions, objectives, action plans, outputs and outcomes. Although the results may be imprecise, a reasonable level of observation, performed in a consistent manner, will generally produce valuable results for strategic planning.

Chart 9.1 is an example of data matrix that a large CDFI developed, which helped it determine how much of what type of lending it could afford to pursue. The CDFI was already familiar with the notion of portfolio diversification relative to credit risk. But this activity-based-costing discipline provided an added understanding of the need to diversify the portfolio in terms of operating cost by type of loan being made. By concentrating just on a loan type with high operating costs, for example, small changes in the marketplace—interest rates, new competitors, new loan structures—could have a much larger impact on the ability to cover the CDFI's costs than they would otherwise exert. In the end, the CDFI was able to use the information on cost per loan type to determine how much of which type of loan it could afford to originate (and service), given changes in market conditions.

Chart 9.1. An Example of an Activity-Based Costing Schedule

DESCRIPTION	Direct Costs							Indirect Costs			
	Existing Portfolio	Incremental Portfolio FY 2011	Sing Fam First Mortgages	Sing Fam 2nd Mortgages	Construction Loans	Small Business Loans	Multifamily	Community Facilities	Research and Dev.	Communica-tions	G&A
Origination/Underwriting Staff											
FTE											
Loan Portfolio Management Staff											
FTE											
Treasury Staff											
FTE											
Business Development (Marketing)											
FTE											
Loan Facilitation											
FTE											
Capital Resource Development											
FTE											
Servicing Fees paid to Third Parties											
Trustee fees											
Professional Services											
Non-Personnel Costs											
Overhead Allocation (Indirect Costs)											
TOTAL OPERATING EXPENSES	-	-									
OPERATING COST SUMMARY											
Total Personnel Costs											
% to total costs											
Total Non-Personnel Costs		-									
% to total costs											
Direct Program Costs											
% to total costs											
Indirect Costs											
% to total costs											
Sustainability Ratio (Earned Rev/OX)											
COST PER LOAN											
Number of Loan Applications											
Number of Loans Approved											
Number of Loans Booked											
Number of Loans Serviced											
Staff Production											
Number of FTE per column											
Units per FTE											
Cost per loan: Direct Expenses											
Staff Expenses											
All Direct Expenses											
Indirect Expenses											
All Expenses											

As valuable as this information is in planning budgets and strategies, the real benefits kick in when the other three of the Four Major Categories (Chapter 8)—identifying expected revenue, interest costs, and losses by loan type—are applied by loan type and compared with the operating costs on the same matrix. This comparison allows management to fully comprehend the claim of each loan type on the CDFI resources, and to modulate such things as term, pricing, and volume accordingly. The comparison also provides a platform for adjusting budgets and strategies for changes in market conditions. Managing these sources and uses is not only essential to maximizing efficiency and the use of subsidy for the CDFI, but it is also a key indicator of management capability. It will be one of the key criteria that rating agencies look to when determining the strength of a CDFI's unsecured debt obligation.

Data: Buckets or Pipelines

The big challenge for the management of the CDFI is calibrating the skill sets and cash flows of the organization simultaneously to the needs of the CDFI borrowers and the maintenance of the CDFIs long-term financial condition. As noted, it is the job of the CDFI auditor to make sure that all the cash was expended for the right purpose and ended up in the designated bucket at the end of the year. The CDFIs grant funders need to know this. But this is just a bucket of data covering a single day of the year, and it does not say much about what the calibration the CDFI management sweats through every day of the year. Nor does it provide much of anything that rating agencies and the capital markets need to know.

At the beginning of the chapter, we said:

The design of the loans and the configuration of the loan portfolio, together with the deployment of operating expenses, are, in effect, the “contract” that the CDFI makes with its constituents. As such, they also define the CDFIs overall mission in financial terms.

The rating agencies want to watch the CDFI in motion, with all the key components connected. What they need is a flow of information, a channel that shows how cash is structured and deployed during the course of the year. The unfamiliarity of the rating agencies with what CDFIs do and how they do it was a consistent obstacle across the efforts of the FIR team. So long as the CDFI field is dealing with buckets of idiosyncratic data, the obstacles to funding organizational risk will remain.

As we have seen, however, certain numbers can take us to the real story. Some numbers tell us what the CDFI is selling (type, term, rate, risk), what services it is providing (staff), how the customer is responding (loan volume), what the competition is doing (all of the above), how much the CDFI needs to borrow, how much debt goes to fund the borrower’s needs, how much goes to fund operations, and so forth. These numbers reflect what the CDFI does on a day-to-day basis, what decisions management is making, and ultimately, why it is in business. These numbers fit the description at the top of the Chapter:

The essence of credit analysis, then, is to identify the decisions that management makes, and to assess the implementation of these decisions in the context of the organizational objectives and market conditions. The loan design and operating expenses go to the heart of what the rating agencies are seeking because those numbers go to the heart of what management is doing. Supplemental schedules to the audit, combined with company-prepared quarterly statements that reconcile to the audit can provide this information at minimal additional expense. By providing the critical lending and operating expense in frameworks similar to those shown above, CDFIs can overcome the barriers to understanding, and open up the analytical avenues to the capital markets. And, as a parallel benefit, they can use these same numbers to maximize impact and efficiency in the use of their resources.

The CDFI sector recognizes the need to determine the essential data points that best reflect the values and dynamics of CDFIs. And there is ample evidence that this recognition is widely shared across the CDFI field, together with the recognition that the effort must be pursued on a collective basis. While the FIR team was working on the Capital Exchange, the CDFI Fund announced and pursued its CIIS project, which targeted the development of a detailed data base:

CIIS is comprised of the Institution Level Report (ILR) and the Transaction Level Report (TLR). The ILR captures organizational data, including the CDFI or CDE (Community Development Entity) background information, financial position, lending and investing activities, community development outputs, and development services. The CDFI program awardees are required to submit an ILR annually for two or three years, and NMTC (New Market Tax Credit) allocates are required to submit an ILR annually for the life of their NMTC investments.⁷⁹

This intention of the CIIS to capture what CDFIs actually did from a transactional standpoint was exactly the kind of work that needed to be done to elevate the transparency and demonstrate the mission and discipline in the CDFI sector. There were groups initiating attempts to fill in the data blanks as well. NeighborWorks America with its Key Performance Indicators, and the CDFI Data Project were moving resolutely ahead in collecting standardized data on CDFI lending, and advancing forms of analysis for organizational risk. The work of the Strength Matters collective, which focuses on the multifamily real estate development in the community development field, was also initiated during the period that the FIR team was working on the Capital Exchange.

And, of course, there was the work that the Opportunity Finance Network was doing through CARS.

Although these efforts have not reached the point of collective agreement on protocols for data points, they likely will. They have the benefit of looking to the successes the CDFI field has already seen in encouraging rating agencies to evaluate community development loans and place them in the capital markets. Two of the more notable breakthroughs include the work of the Community Reinvestment Fund on SBA loans for its CRF-17 securitization, and Neighborhood Housing Services of America on its AA-rated bond issue for affordable home mortgages. To understand how the community development sector has advanced the collection and management of capital market compatible data, one need only look to the new system, E-Tran, instituted at the SBA. As Thomas Stanton reported in 2005, “the SBA provides lenders with several electronic options, including:

- A web page where lenders can enter loan information for single loans.
- A secure website capable of accepting multiple applications simultaneously via an XML (Extensible Markup Language) file transfer
- Access to software intermediaries that include E-Tran loan submission capability in the services that they provide to lenders.”

“One hundred and fifty-five lenders currently have signed on to originate loans via E-Tran.” According to Thomas Stanton, “Many of these lenders have reported enthusiastically back to SBA on the benefits of the new process, especially because of the ability they gained from E-Tran to originate SBA loans quickly and to increase their volume of SBA lending without increasing labor costs.”⁸⁰

“The SBA program demonstrates that data collection can be comprehensive while simultaneously reducing costs dramatically for all involved. Also of critical importance to the SBA’s successful launch of E-Tran has been the need for common, standardized definitions. Doing so will allow SBA to better pull lender data from E-Tran into its larger portfolios monitoring system without worrying about data quality complications that stems from input from many different users.”

The impact of these efforts to make the work of the CDFI field transparent is outlined in Laura Choi’s informative report, “Creating a Marketplace: Information Exchange and

the Secondary Market for Community Development Loans.”⁸¹ She demonstrates that disclosing the right data is essential to improving the prospects for CDFI growth.

What the CDFI field must do next is to raise the level of precision and disclosure described by Stanton and Choi to the next level of complexity; that is, it must frame the risk of the unsecured obligations of CDFIs as organizations. Although all the lenders to the industry have their own data on credit loss performance at the organizational risk level, there is no common industry data available to capture a collective experience. Ample anecdotal evidence suggests that losses on organizational risk-based loans are exceptionally low; however, there is no conclusive body of data that proves the case.

To achieve the level of market compatibility that CRF, NHSA and the SBA have achieved on specific classes of loans, the CDFI sector should establish a consortium that identifies the right data points for the purpose, collects data, cleanses it to ensure comparability, and reconstitutes it so that no one lender’s experience is discernible. Moreover, the identification of the data points should include more than just lending; a number of large CDFIs also engage in real estate development, real estate management, individual development accounts, venture capital, deposit taking, and a wide range of other services, including homeownership and enterprise counseling, financial literacy, and tax preparation. These are all part of the mission of the CDFI, and all are activities that must find ways to be sustained. And again, not to be too emphatic, very little if any of this shows up in the annual audits.

We end this chapter with these ideas from the Milken Institute:

[We] recommend taking this collaborative approach of combining existing data sources. A central database, populated by multiple entities and managed by a third party, would make the data accessible to a number of people. Contributors would agree to a standard set of definitions and reformat their data to these standards to enable comparison across databases. In exchange for contributing data, members of these “data consortiums” would gain access to the contents of the entire database....”⁸²

CHAPTER 10

The Driver's Seat

Can CDFIs access unlimited amounts of low-cost unsecured short- and long-term funding from the capital markets based on their organizational credit risk? Can they receive pricing, flexibility, and procedural parity with for-profit corporations of equivalent credit risk? That is, can mission-driven nonprofits serving the poor compete successfully with, for example, predatory lenders for cheap funding?

CDFIs can, if they have the same tools. But they do not. This is in part because they are too small and in part because they are misunderstood. There is no reason for this state of affairs to continue. As the FIR team demonstrated, CDFIs can address the issue of size by using one or more of a variety of platforms to aggregate community development risk. As for unfamiliarity, the current state of reporting and analytical protocols is a function primarily of CDFI choice. It is entirely within the capacity of the CDFI field to establish standardized approaches to financial reporting and analysis that are compatible with the both disciplines of the capital markets and the community development mission. There is no reason to await the return of normalcy to the capital markets. The solutions to these problems can be initiated now.

These issues should not be viewed as a low priority. We have discussed in earlier chapters how entities of much lower credit quality (and without a public mission) can fund themselves at a material advantage. In Chapter 2, we showed how Brand X, a real predatory lender with a large SEC settlement to prove it, was able to enjoy this advantage. Once the markets stabilize, the same entities (or new entities with the same attributes) will be poised to return to the communities with irresponsible financing options and leave the CDFIs once again on the sidelines. Positioning CDFIs to be at the “front of the bus” is imperative.

The following sections summarize the steps needed to position CDFIs for “funding parity” while the markets stabilize. These steps are the product of the FIR team’s eight-year effort to open up the capital markets to CDFI organizational credit risk, and introduce them to the wholesale sides of the banks.

Many of the recommendations are not new. Others in the industry have arrived at similar conclusions over the past decade—conclusions that aided the FIR team in its work. Their work is summarized in the acknowledgements section in this book. However, it is important to pull all these recommendations, new and old, together to address the single key issue we have been discussing: how to gain conventional unsecured funding based on CDFI organizational credit risk. Our view is that although various obstacles and events have impeded CDFIs in the past, there is no reason to let them block the way now or in the future.

CDFI Industry Data

For rating agencies, banks, and investors to build a capital-market platform for CDFI organizational risk, much more precise and authoritative data on the industry are needed.

As Mary Tingerthal, who was instrumental in the CRF-17 securitization, says:

At its heart, better data means that more institutional investors get to see how well these loans perform and what it means to have their dollars supporting minority-owned business, charter schools, health care centers, and job creation. ... There seem to be a limitless number of tasks that need to be performed to get a clearer data picture going forward. Other efforts might focus on cataloguing what is currently being collected by the CDFI Fund, the Small Business Administration, the Opportunity Finance Network’s CARS program, and the like. And on the other side, there is a long way to go to find out exactly what investors want. Fannie Mae, for example, collects a tremendous amount of data but tends to focus on a few key variables when it makes its assessment of investment worthiness. Perhaps institutional or capital-markets investors could identify what their key variables are? They might also shed new light on what proxy variables [as used in the CRF-17 transaction] might be the most useful for making performance predictions on new asset classes (for example, charter schools).⁸³

This is an excellent introduction to the notion that the common ground between CDFIs and the capital markets lies in the provision of data that satisfies both the needs of the funder and the funded.

In Chapters 7, 8, and 9, we conveyed what the rating agencies, and as a consequence, institutional investors, are looking for. We now turn to what the CDFIs themselves should provide, and how they might wish to provide it.

Key Data on CDFI Organizational Risk

The information needed for the capital markets includes the following:

- *Number of CDFIs and size of their loan portfolios and balance sheets.* CDFI portfolio size by asset type provides the markets with an understanding of the size and need of the mission. This is essential in demonstrating that there are likely economies of scale to be found in developing financing vehicles to serve the mission.
- *Volume of lending by loan type, size, and rate.* The design and volume of assets enable the financial engineer to devise financing solutions for a range of asset classes that may be more efficient and flexible than those CDFIs currently employ. Such items as due-on-sale, non-amortizing, or deferred loans, which likely number in the hundreds of millions of dollars, are a classic example of an asset class that could benefit from a more detailed and penetrating collection of data. At present, they are generally not valued or even carried on the balance sheet.
- *Loan portfolio performance.* Hard data on loan portfolio performance is a critical factor, not only in terms of documenting the value of the CDFI mission, but also in establishing the kinds of reserves needed to take the assets to market.
- *Operating expense by function, program and staff allocation.* To comprehend the comparatively high cost of delivering loans through the CDFI platform, the work must be identified, quantified, and differentiated by way of the outcomes.
- *Grant support by source.* The quality, depth, and consistency of foundation, agency, and bank grant support is a critical element in determining the viability of individual CDFIs as well as the CDFI industry as a whole. As all CDFIs rely to some degree on grants, both historically and prospectively, an analysis of the programs that provide grants and the extent to which CDFIs diversify their sources is critical to rating of risk.

- *Performance of loans based on organizational risk.* Foundations, social investors, trade groups, federal agencies, and banks have all provided unsecured and secured loans to CDFIs based on their organizational risk. The performance of these loans helps identify the attributes of successful CDFIs and can provide benchmarks that enable the markets to segment the field according to risk. These benchmarks are essential in establishing the kind of comparative analysis that validates risk ratings.

All these points need to be reconciled to CDFI audits and tracked over a period of at least seven years.

Key Data Sources

Sources for information on CDFIs include the following:

- *CDFI audits.* As valuable as surveys are, risk rating requires hard numbers. Although CDFI audits suffer from certain gaps in critical information, they nevertheless provide some of the data noted above, particularly in the areas of unrestricted cash, loan portfolio size, delinquency, and financing needs.
- *Data from the newly implemented supplements to the audits.* To the extent CDFIs can begin providing supplements to their annual audits that include the data points discussed in Chapters 7, 8, and 9, the quality and quantity of data needed for accurate analysis will improve greatly.
- *Lending data from foundations and social investors.* Program-related investments, equity-equivalent investments, and other forms of debt financing provide insights into the capacity of CDFIs to manage their cash. The same holds true for working capital loans provided by a variety of social investors. How these instruments are requested, deployed, and repaid can be a highly informative indicator of management capability and risk.
- *Lending data from agencies.* The CDFI Fund, NeighborWorks America, USDA, SBA, Ginnie Mae, and HUD all have substantial experience with CDFIs. They also have documentary evidence of their performance over time, documentation critical to the effort to establish risk. The SBA's Office of Lender Oversight has won recognition from both the GAO and OMB for its methodologies, as has Ginnie Mae. These provide not only great information but also great models.

- *Lending data from banks.* Documentation of the working capital and short- and long- term loans made to CDFIs across the field may well be the most critical source of performance data. This is because regulatory requirements as well as standard practice enforce a high level of documentation of credit extension at inception as well as over the course of the loan. Moreover, the data points conform to rating agency standards.

Assembling industry-performance data to prove the credit quality of CDFIs is key to opening up the market for top-quality pricing. But it is also valuable for advancing current efforts in the CDFI field among existing lenders and funders. A prime beneficiary of this data would be CARS, whose ratings would carry more weight with the benefit of market-compatible comparative analysis. The same holds true for the NeighborWorks American PROMPT program, which would benefit from more penetrating data from across the sector.

The Data Bank

The development, organization, cleaning, and management of industry data requires a considerable amount of work. It also requires independence and data security. Laura Choi offers an excellent suggestion for the data platform the CDFI field needs:

The platform host can play a significant role in implementing this online information-sharing tool. Some important consideration for implementation includes:

- The platform host should be a highly credible and neutral third party.
- Access to the online tool should be limited, requiring that participants be involved in the financing of community development activities.
- The online platform should have a strong educational component.
- The beginning focus should be on whole loan sales as opposed to securitization.
- A mix of strategies should be used to attract participants and encourage continued involvement.
- Enforceable policies must be introduced to keep the data current.⁸⁴

Other practitioners in the CDFI field (such as Ellen Seidman, Glen Yago, and Betsy Zeidman) also recommend establishing a consortium of stakeholders to provide this data. The question is, what is the optimal platform for receiving, segmenting, and analyzing this data?

The CDFI Data Project presents an excellent platform from which to start. Segmentation is already in place, and the CDFI industry is both familiar and comfortable with the effort. Other potential platforms include one or more of the following:

- The CDFI Fund with its CIIS program
- The NeighborWorks America Organizational Assessment Division's PROMPT Plus program.
- Opportunity Finance Network's CARS.
- The "Strength Matters" initiative, convened by NeighborWorks America and the MacArthur Foundation, which includes the Enterprise Foundation, ShoreBank, Local Initiatives Support Corporation, Calvert Foundation, National Cooperative Bank Capital Impact, the Reinvestment Fund, and others.
- National intermediaries such as National Cooperative Bank Capital Impact, Local Initiatives Support Corporation, and the Enterprise Foundation.
- The Milken Institute's Emerging Domestic Market database.
- Any large CDFI, such as the Reinvestment Fund, Boston Community Capital, the Low Income Investment Fund, or the Community Reinvestment Fund.
- Banks that have substantial experience with the community development industry.

In establishing this data bank, there would have to be an appropriate emphasis on an arms-length relationship to the CDFI sector; agencies and banks may feel the need for a more secure and confidential platform if they are to contribute sensitive borrower data. Various industries (retailing and insurance, for example) build discreet and secure databanks for precisely this purpose. It is possible to reconfigure the CDFI Data Project or any of the above options to suit, but this will have to be determined.

Recommendation 1. Assemble key lenders and investors to sort through the various options for providing data and arranging the appropriate platform.

Recommendation 2. Funders should make future funding conditional upon participation in this effort.

Reporting

Community development credit unions and community development banks enjoy a significant advantage over CDFI loan funds: they can fund their short-term needs and some medium-term needs at the best rates in the money (for our purposes “capital”) markets. Of course their deposits, for the most part, are federally guaranteed. Yet their advantage is more than that. In return for the guarantee, they are required to file annual and quarterly financial statements in a standardized format, which includes essential if not comprehensive detail on their assets, liabilities, operations, and cash flows. Because these reports are focused on the business of the depository’s CDFIs mission, they are much more valuable than the annual audits for the purposes of evaluating organizational risk. The information enables the regulators to rate them, and the regulatory rating criteria are compatible with rating agency standards.

From the standpoint of reporting and analysis, CDFI banks and credit unions are poised to take further steps into the capital markets on the basis of unsecured organizational risk. This positioning and the consistency and ease of access associated with these annual and quarterly reports (which can be accessed on the Internet) can serve as a guidepost for CDFI loan funds. In fact, mission-driven CDFIs provide regular reports involving standardized and consistent data, and the reports do not compromise their respective missions. Again, just because reporting is standardized for nondepository CDFIs does not mean that a regulatory function must be established.

The reasons for taking the loan funds in the direction of standardized reporting goes far beyond the issue of providing standardized data to the rating agencies and gaining access to low-cost funding. There are two imperatives associated with standardized reporting, and they go directly to the viability of the CDFIs and the CDFI sector:

- *Management of CDFIs.* The best management in the CDFI field is also the best informed, with the highest capacity to inform their staff and boards of their organizations’ true financial status and direction. Conversely, the largest failures in the CDFI field are those in which financial information is neither consistent nor transparent to management, board members, or staff.
- *Funders.* There is a limited amount of grant funding and below-market-rate funding in the community development field. As such, it is essential that funders prioritize and allocate scarce resources in accordance with the ever-evolving

needs of their constituencies and the capacities of CDFIs to deliver products and services with efficiency and impact.

Standardized financial reporting is not the only step that addresses these needs, but it is the first and most crucial step.

Recommendation 1. CDFI loan funds should review the reporting requirements for CDFI banks and credit unions to determine which data points should be provided on an annual and quarterly basis to present the best insight into the business aspects of the loan fund's mission.

Recommendation 2. CDFI loan funds should determine the optimal framework for establishing the new report requirements. At present, supplemental schedules that reconcile to the audits appear to be the easiest and least expensive format, but a Web-based system may be optimal.

Recommendation 3. Financial reporting should be automated and provide both annual and quarterly data that reconciles to the audits. The data should be accessible under certain security protocols on the Internet.

Recommendation 4. Funders should make future funding conditional upon participation in this effort.

Financial Disciplines

On the subject of financial disciplines, it's worth revisiting Douglas Winn's remarks from Chapter 3:

"We believe that a targeted series of trainings on these skills for CDFIs would be valuable to the industry and could play an important role in increasing the number of organizations ready for the capital markets. A series of such training sessions might include:

- Building financial infrastructure (tracking loans, decreasing cycle times, and developing a system to manage liquidity) ...
- Interest-rate risk management ...
- Loan pricing ...
- The basics of securitization ..."⁸⁵

There are certain traditional policies that prevent CDFIs from expanding their constituencies and their impact. The same policies also impede the efficient use of grants, below-market-rate loans, and other forms of subsidy. Although many of these policies are time-tested and prudent, they can also prove expensive, if not entirely counterproductive. Indeed, the results can be to confine the CDFI to the wishes of funders and leave them vulnerable to losing their constituencies altogether. It is not an idle concern, as the recent experience with the CDFI home-buying public attests.

The tools introduced into the conventional sector over the past 20 years have revolutionized the lending decision and also the funding arrangements associated with it. Although many CDFIs have adopted or otherwise adjusted to these developments, others remain wedded to tools and policies that will only, over time, further marginalize them. The following are some of the biggest challenges.

- *Orientation to the grant funder.* For-profits tend to identify the needs of the customer base and then go about raising the funding necessary—often at whatever it costs—to grow the business. Nonprofits tend to look for the grant funding source before initiating growth and then tailor the product or service to the interests of the funder. CDFIs are in the position of knowing their customer better than their funders do; hence, they need to liberate themselves from the constraints that funders routinely exert. The only way to do this is to establish a platform that generates unrestricted cash either through the development of business lines that generate regular surpluses and/or to borrow from conventional sources of funding at conventional rates. The development of an industrywide understanding of the need for an internal “bank” for subsidy at each CDFI is an integral part of this development.
- *Conventional borrowing.* Some CDFIs choose to forgo expansion altogether if they cannot borrow money at below-market rates. This is illogical in terms of both mission and finance. As to mission, if there is a financial need in the community, it is the job of the CDFI to find a way to address it. Moreover, borrowing from conventional sources is not restricted. As to the cost of conventional financing, it is essential for the CDFI to consider two realities: 1) the cost of borrowing at conventional rates must be blended with the cost of other funds the CDFI obtains, including grants in order to comprehend the true cost of funds; and 2) the cost of conventional financing is typically much less than the operating costs of the organization, whether viewed on a blended basis or not. Thus, if the CDFI

is cost constrained in its pursuit of the mission, the first place to look for reductions is operating expenses. Borrowing from conventional sources of funding can also bring more cash to the table because those sources have much more cash to provide than the social investor. It may be expensive over the short run, but over the long run, expanding conventional sources of funding is better for both the CDFI and the constituent.

- *Matched funding.* CDFIs traditionally match the term of the liability to the term of the asset. This is prudent. Yet in light of strategies and tools the entire financial market (and much of the corporate market) has developed to mitigate the risk of the mismatch, continued commitment to this traditional approach leaves CDFIs at a distinct disadvantage in flexibility and cost of debt. This is not to suggest that CDFIs should mismatch assets and liabilities “in the comfort of their own home.” As necessary as it is to compete in the financial markets, running an asset-liability mismatch is both complex and risky, and CDFIs must acquire ways to proceed with expertise. A collective effort among CDFIs, working in partnership with an entity that performs the asset/liability mismatch for a living is a viable option. Working with one or more of the Federal Home Loan Banks, for example, would be a prudent and inexpensive way to proceed down this path.
- *Loan pricing.* Several CDFIs view the interest rate on a loan as the key indicator of achieving mission. They suggest the interest rate on a loan to a low-income (and low-credit-score) individual, for example, must be below that on a similar loan to the highest-quality borrower. This raises two issues: 1) what is important to the borrower is not the rate but the payment (as was discovered during the recent housing crisis), and 2) providing a loan at the best rate to the low-credit-score borrower is in fact making a loan at a “below market rate.” Understanding these two distinctions is absolutely critical to a CDFI’s ability to compete with the conventional lender’s range of less-prudent options. It is also crucial to funding itself either through warehousing lines or secondary market vehicles.
- *Manual loan origination and servicing.* Arguably the most important technological innovations for lenders in the past two decades have been credit scoring and automated underwriting. These have reduced the costs of origination of individual and business loans by 60 to 95 percent. Simultaneously, developments in loan servicing have automated all the functions except workout (which for all intents and purposes will remain appropriately manual). Even loan closings have become automated. The benefits of handling these functions manually must be weighed against the availability of subsidy to support them as well as the time it consumes. One thing is certain: the conventional sector has entered the low-

income market, and it will return, taking full advantage of the financial benefits these tools provide. With a low cost of entry and unlimited funds, they will have much more flexibility with loan pricing than CDFIs. Can the relationship with the borrower be maintained in a world where automation governs origination as well as servicing? Of course. But the map must be drawn and best practices disseminated.

- *Investment policy.* Investment policies in the private sector typically allow corporations to invest in highly rated (high-quality) commercial paper and bonds. Effectively, with their idle cash, corporations can lend to each other. Except for investment in guaranteed deposits, CDFIs cannot do this. On an aggregated basis, the CDFI sector has significant amounts of cash and investments on hand. This is a collective asset that has considerable power in the capital markets if it is aggregated in a market-compatible framework. However, many CDFIs restrict investment of idle cash to government and government-guaranteed investments. This, for the most part, precludes them from investing in instruments that could promote the community development mission either locally or nationally. We have seen how aggregation of community development assets, including assets based on organizational risk, can be structured as high-quality securities. Although it would be imprudent to open up policies to a full range of investments, allowing investment in top-quality commercial paper and bonds would allow CDFIs to invest in high-quality securities that fund their own mission on a broader basis, once they have access to the capital markets.

These policy obstacles involve more than just a principled conflict over prudent management of a lending platform. Because of a range of specific technical developments like credit scoring, automated underwriting, portfolio management, and asset/liability management, traditional approaches no longer represent the most effective or the most efficient way to lend prudently to the low income constituency. Prudence in lending is not just about the quality of the loan and the success of the borrower, it is also about the value of that loan to the community, and sustainability of the lending platform itself. If a CDFI can make only one loan in a neighborhood that needs the CDFI to make ten loans, the value of that one loan is compromised by the inability of neighboring homes to get refinanced, rehabbed, or purchased. By the same token, a CDFI that makes excellent loans but cannot maintain a set of programs or staff with any consistency is a CDFI that can neither promote nor protect the less advantaged members of its community over time.

The technical developments that have superseded the traditional approaches to managing a lending platform have been called into question by the recent crisis in the housing and credit markets. But to the extent these developments advanced the crises, it was because they were abused, as we showed in Chapter 8. Notwithstanding the abuse and the collapse, these technologies are here to stay in one form or another, and if CDFIs are to have wider impact in their communities and to keep the staff intact while making successful borrowers, then they will have to adapt. If they don't then they will be giving advantage to conventional lenders and lenders who do not necessarily have the low-income customer's interest at heart. Each of these issues requires knowledge of technical details, which need to be learned. The Federal Reserve and the Office of the Comptroller of the Currency (OCC) have initiated programs that start up the learning curve with events such as "Orientation to the Capital Markets," "Getting to Scale," and the regular conferences on secondary markets.

Convening the industry around these issues is a good way to start more widespread adoption of the new technologies. Alternatively, or in collaboration with the regulators, the next step would be for organizations such as Opportunity Finance Network, the National Federation of Community Development Credit Unions, the Corporation for Enterprise Development, and NeighborWorks America to inject these new disciplines (among them the disciplines that Douglas Winn recommends above) into their classrooms and conferences. Ultimately, though, it will be the leading CDFIs themselves who establish the best practices and leadership in getting beyond these policy obstacles—and they will need funding to assist them in the effort.

Recommendation 1. Continue to convene leading CDFI groups, to teach advanced as well as basic strategies associated with investment policies, credit scoring, loan design and pricing, portfolio management, lending infrastructure, interest rate risk management and asset/liability management. Accelerate and fund the effort to establish which of these issues is a priority for the industry and in what order; and determine the optimal platform for informing the field and piloting the remedies.

Financial Analysis

Again, the notion of evaluating organizational credit risk introduced in Chapter 2 applies:

The essence of credit analysis, then, is to identify the decisions that management makes and assess the quality of the implementation of these decisions in the context of the organizational objectives and market conditions. The issue of repayment of obligations incurred is secondary to—and derivative of—the evaluation of these factors. Hence, the best form of credit analysis is a mirror of management intentions, decisions, and actions.

Nancy Andrews, of the Low Income Investment Fund, offers one of the best examples of how the CDFI field can begin to establish a reporting and analytical framework that achieves this level of clarity. Because of its applicability, we quote it at some length:

Now is the time, as well, to begin stress testing at the organizational level. How much of a revenue decrease can the organization withstand? What would happen if grant support declined by half? What happens if 10 percent of the organization's portfolio is nonperforming? Liquidity, sufficient liquidity requires CDFIs to manage cash to ensure enough on hand to cover at least one year of upcoming liabilities. Although management textbooks say the ratio should be two to one, for CDFIs, one to one is a must. Keep 90 days of operating expenses in cash as well. ...

Other best practices [include] full-cost accounting; "know when to hold 'em know when to fold 'em." Full-cost accounting aligns the expenses attributable to an activity or program with the revenue the program generates. It requires properly allocating management and general costs (overhead). Full-cost accounting is the basis for understanding which activities cover their costs, which created surpluses, and which require discretionary resources. This allows management to make rational and deliberate decisions about which activities to expand and which to shrink. ...

Scenario planning: create high-, medium-, and low-risk scenarios for each annual planning cycle. This can seem like make-work, but it is crucial. If nothing else, scenario planning forces planners to think about the assumptions beneath annual plans, and programs are stronger for it. Moreover, the financial aspect of scenario planning can reveal weakness and assumptions that alert management to issues they must tackle. Using worst-case scenarios in the present climate is also a cleansing experience; it coerces us past our natural denial and disbelief. In the end, worst-case planning can spark new ways of looking at an organization and point at creative solutions to existing problems. ... Ongoing projections of fiscal

performance: a discipline often overlooked is preparing year-end projections with each financial statement. Similarly, multiyear scenarios (three to five years) should be refreshed annually as part of the planning cycle.⁸⁶

As we have discussed, the ability to evaluate organizational credit risk in the CDFI field remains intensive in terms of time, talent, and cost. Current financial data address only a portion of the risk, the capacity for predictive analysis is limited, and onsite reviews are a requisite. From the standpoint of those involved in the capital markets, the prospective volume of activity cannot justify the cost. The advent of regular reporting of standardized data can go a long way in rectifying this situation. However, the methods of analysis must also be improved. Organizational risk is first and foremost a function of operations as a going concern, not of assets in liquidation. Funders and investors, as well as management, must be able to track organizational performance through the financial indicators that highlight management decisions, and they need to track them over time.

Together with the funders of the CDFI field, CDFIs should develop analytical methodologies that make the best use of the standardized data points being collected. A good example of how this can work for the CDFI industry is the Standard & Poor's Small Business Portfolio Model, which was discussed in Chapter 5. Another example of developing analytical methodologies comes from the SBA, which developed benchmarks that enable the agency to make conclusions about the lending capacity of participating lenders. As Thomas Stanton reported in his analysis of the SBA in 1999 :

OLO [Office of Lender Oversight] monitors lender performance with systems at its headquarters and also conducts reviews that involve visits to lenders. The office has retained the services of a contractor to provide a commercial off-the-shelf package to monitor the financial risk of individual SBA loans and to score lenders according to the credit quality of the SBA loans that they have originated. OLO ranks the lenders on a five-part scale according to the credit quality of their loans. Lenders in the top three tiers are overseen by the SBA's Office of Financial Assistance, which is responsible for promoting SBA services and loan programs to lenders. Lenders in the bottom two tiers—about 10 percent of the total—are shifted to direct oversight by OLO. These lenders are subject to more intensive reviews. The two SBA offices are working together to try to grant additional discretion and expedited processing to the highest-performing lenders in the two top tiers.⁸⁷

What the SBA is doing here to assess the quality of lending, the rating agencies could do to assess the quality of CDFI organizational performance. As noted previously, the data

points and analytical framework associated with assessing organizational credit risk are significantly more complex than those associated with evaluating a specific class of loan assets. There are many more moving parts, of which the loan portfolio is only a one. In assessing CDFI organizational risk, evaluating assets, liabilities, and net assets is just the beginning. To move to the next level—nearer to rating agencies' evaluation levels—the CDFI field must forge a wider acceptance of trend line analysis with an emphasis on gleaning what the cash flows reveal.

Because CDFIs are smaller than the entities rating agencies typically rate and the capital markets typically fund, single events can cause wider swings in performance than the rating agencies are accustomed to. The loss of a grant or a single change in staff can produce a material event for many CDFIs, and, as a consequence, the financial analysis might show a highly volatile performance (a material event is often interpreted to mean a change of more than 10 percent in a line item). This would be a correct finding if, in fact, the event puts the CDFI at risk. But for many CDFIs, material events are routine and many such events could occur in a given year in a way that would not put the organization at risk. Automated stress tests and predictive analysis address this challenge. Once there is general agreement on the data points and analytical methodologies, automated programs for interpreting the data can be implemented. Again, these should be vetted with the rating agencies for compatibility. Yet once in place and actively used, the cost of CDFI assessment would drop, perhaps materially, to a level that is sustainable both for the rating agency and social investor. There is another benefit as well: compiling key data points as the effort matures improves the accuracy of the assessment as well as its value to the management on a comparative basis.

The use of automated programs for stress testing and predicting organizational risk is not as difficult a proposition as it may seem. Again, as shown in Appendix C, one form of automated analysis—the Quad—can be used immediately for mission-driven depositories such as the community development credit unions and the banks. The big difference between what non-depository CDFIs have and what the banks and credit unions have is a standardized charts of accounts, regular reporting, and industrywide protocols for analyzing management decisions and organizational financial conditions.

It should not be difficult for the groups to cooperate in establishing a standard analytical methodology. This methodology can be discussed with the rating agencies and adjusted as necessary to ensure compatibility. A number of CDFI lenders are already moving beyond the balance sheet in their evaluation of CDFIs: CARS and NeighborWorks America, for example, are incorporating predictive measures into their reviews of CDFIs

and CDCs. Efforts such as “Strength Matters” are sharing evaluation criteria to arrive at the same capabilities. Although the Strength Matters initiative has targeted the real estate development lines of business in particular, the effort could be expanded to include mutually acceptable methodologies for all lines of business relevant to the community development field.

It may be that the CDFI field finds that the largest CDFI banking partners could provide the best platform for furthering these efforts. Or it may be that the best platform is the CDFI Fund itself; perhaps, together with the federal credit agencies, the CDFI Fund could assemble sufficient data and funding resources to implement a compelling program for assessing the organizational credit risk of CDFIs. Clearly, though, whatever platform is used to establish analytical tools and protocols, it must be pursued in coordination with the consortium that is establishing the CDFI data bank and reporting protocols (see CDFI Industry Data above).

Recommendation 1. Assemble best practices in historical and predictive cash flow and trend line analysis from the CDFI sector, similar to efforts initiated by the Federal Housing Finance Agency in 2009. Evaluate the systems that regulatory agencies use for small banks and credit unions. Evaluate the systems that federal credit agencies, such as the CDFI Fund, SBA, and USDA, employ. Determine the extent to which the major CDFI sector initiatives in the evaluation of organizational risk, like the Opportunity Finance Network’s CARS, the NeighborWorks America’s PROMPT, the CDFI Fund’s CIIS, and Strength Matters, can be aligned in a collaboration (i.e., the CARS collaboration) and be properly funded.

Recommendation 2. Through the CARS collaboration, establish a formal dialogue with the rating agencies on items specific to the attributes of CDFI organizational credit risk. Raise funds to establish a pilot involving five to ten of the top CDFIs (as rated by CARS) and the aligned initiatives to provide the rating agencies with a credible and disciplined analytical platform. The funds would pay for the rating agency analytical support as well as management of the effort through the CARS collaboration. Develop a licensing arrangement for the use of the platform by the rating agencies.

Recommendation 3. Develop the capacity to conduct automated stress testing, predictive analysis and interim analysis of CDFIs that can be used by the CARS collaboration to address the issue of assessing interim risk at CDFIs.

Banks

We began Chapter 1 with a quotation from Mark Willis' article "It's the Rating Stupid," a thorough, if provocative, analysis of the challenges facing banks in continuing to serve CDFIs. Since the Community Reinvestment Act departments in banks have been among the most important partners for the CDFI field, Willis' analysis should be mandatory reading for those who rely on bank support. The following quotation speaks directly to the key issue:

While the development of new products and markets generally requires some up-front expenditures, ambiguity over whether a bank is expected to continue to provide a product or service that loses money or earns at a rate below the banks' minimum threshold has hurt both the credibility of the CRA and drained resources from other areas that could benefit more from the CRA. Without the prospect of profit, banks are unlikely to make major investments to promote and produce a product on a sustained basis.⁸⁸

Banks have been among the largest financial partners for the CDFI field over the past two decades. In addition to working capital lines, warehousing lines, and term loans, they have provided a range of subsidies to CDFIs, including equity-equivalent investments, low-cost deposits, and grants. The Community Reinvestment Act encouraged community development, and in larger banks, the bulk of their relationships with CDFIs has been conducted by departments that specialize in CRA vehicles. Many of the relationships have been symbiotic; in communities with constituents that the banks served, CDFIs provided products and services that improved customer "bankability." In return, the banks provided a range of subsidies. Although no one wished to look too closely at the value proposition for either the bank or the CDFI, there is one conclusion that could be made: both sides were comfortable with the arrangement and assented to keeping the relationship located on the CRA side of the bank. Hence, CDFIs have received the benefit of much-needed grant capital and other forms of support, but also, partly as a consequence, they have not received exposure to the corporate or institutional (wholesale) sides of the bank.

These specialized bank relationships were already going through changes prior to the current housing and credit crises. Consolidation in the banking industry was reducing the number and/or seniority of the connections between CDFIs and bank staff. Innovations in packaging, securitizing, and distributing CRA assets made it easier for many banks to participate in CRA assets without having direct contact with the clients

or CDFIs that handled them. Many banks found ways to achieve a satisfactory rating without having to stretch their normal business activity—trading loans rather than originating them, for example—and many considered a “satisfactory” rating more than adequate for CRA purposes. These developments occurred alongside other, equally critical developments, which Willis also details in his article:

Meanwhile, the large banks have continued to expand, and competition between them and nonbanks has intensified, leading to constant cost cutting and increased scrutiny of product-by-product profitability. CRA programs in these large banks have likewise grown, especially in response to the new focus on volume. As a result, specialized production units have become increasingly visible internally and thus subject to new costs and constraints. These units are now more likely to have to fully bear the time and expense of the standard array of bank audit, compliance, credit, and budget processes. CRA products in general are more likely to be vetted based on the same profitability thresholds as elsewhere in the banks, and staffing levels for CRA activities are regularly reviewed with a focus on non-income-driving positions. Justification for those CRA activities that do not generate sufficient profits, or any profits at all, now requires a clear showing of their contribution to the bank’s CRA rating separate from whether they are making a difference in the community. ...

On the downside, the more that mainstream units have built their business around high-volume products, the more difficult it is to develop products or services expressly for the LMI [low and moderate income] marketplace. This reliance on mainstream business units has also complicated banks’ internal management of their CRA programs. Now the CRA officer must negotiate goals with each of their bank’s mainstream business units. Not surprisingly, the managers of these units resist anything that impairs profitability or undermines their business strategies. ...

Business unit managers are reluctant to develop what they perceive to be unprofitable local or niche products. Even with community development real estate loans, where each loan is separately evaluated and underwritten, obtaining approval for unorthodox loans often depends on experienced credit officers who understand, for example, how government involvement can help to mitigate risk. As the number of credit officers with this special expertise has fallen, the process of justifying the credit quality of these loans has become continuous and unrelenting, despite a proven track record of high credit quality.

As a result, loan officers migrate away from complicated, one-off deals that often do the most to expand access to credit.⁸⁹

This excellent summary of the pressures facing CRA bankers within their own banks, suggests that while the below market rate loans and other forms of subsidy are likely to diminish, the ability to get the advantage of other market-rate products in the bank will *not* increase. The cost of the CRA business and the CDFI's association with it becomes an obstacle. Although this development strongly favors the conclusion that the CDFI sector can expect a diminution of support—particularly in the form of grants—over the coming years, many CDFIs have continued to rely on the bank CRA divisions, and to resist the notion of changing the relationship.

The current crisis may well accelerate the diminution of bank support, just at a time when CDFIs and their constituencies need bank relationships the most. Although it is possible that CDFIs will come out of the crisis with an expanded CRA and a wider range of institutions that are encouraged to participate, a strategy for liquidity and capitalization based on this assumption is not particularly prudent.

Perhaps the biggest breakthrough of the FIR team was the recognition that it was possible to break out of the old-fashioned relationship with the bank, with its corresponding overlay of charity, simplicity, restraint, and subsidy. With the Commercial Paper Co-op, the team could see the inner workings of a bank via the window of risk-based capital. The team could see how to gain access to the wholesale side of the bank, and craft an arrangement that was a clear win for both sides. One of the seminal attributes of this success was that the team was liberating the participating CDFIs from the traditional bank relationship and moving them into the mainstream of a bank's normal business. Out the door went the place-based, inflexible, higher-cost, and ultimately, parochial relationship. Yes, there was no subsidy. Yet look what was to be gained!

CDFIs, generally, are not in a position to walk away from the traditional relationship developed in the context of CRA. There have been too many successes, and subsidy is necessary. However, it is also important to recognize that by confining themselves to the charitable side of the bank, CDFIs are limiting their growth—and their relationship with the bank and its wider financing capabilities.

The need for a new relationship with banks, one that is on the same footing as for-profits of equal credit quality, is not just a matter of having access to better funding choices. As

we go through the current crisis, we are encountering weakness in a range of community development asset classes. Most of these assets are funded, at least in part, by banks. The banks are acutely aware of the potential for impairment, and regardless of how they feel about their civic responsibilities, charity ends when the prospects of excessive cost or asset impairment are realized. The reason for this goes beyond the traditional relationship with the CDFI. The dialogue is between the bank and the regulator, and the owner of the asset or the mission for which it was intended is no longer relevant when impairment or loss becomes imminent. Because of the traditional relationship, and also because there have been virtually no economic crises since 1991 which have tested it, the CDFI field has limited knowledge of how the banks currently think, what they need, and the best steps to take to preserve value. Indeed, there are quite a number of steps that CDFIs can take to ameliorate difficult situations. As with the need to improve funding choices, developing a new and more comprehensive relationship with banks in terms of preserving assets—outside of the context of CRA—is an imperative.

Recommendation 1. The CDFI field should work with the regulatory agencies and key banks to establish an understanding of the wholesale sides of the banks and what opportunities exist there.

Recommendation 2. The CDFI field should work with the regulatory agencies and key banks to develop a mechanism for identification of assets that are headed for trouble, and best practices in collaborative remediation.

Recommendation 3. Once the markets stabilize, the CDFI field should approach several key banks and determine the circumstances under which they will, with external grant support, establish a conduit for the issuance of commercial paper against unsecured obligations of a limited number of CARS-rated, top-quality CDFIs.

Capital Market Vehicles

Following a 2006 conference of community development leaders that the Federal Reserve Board of Governors convened, Ellen Seidman summarized that:

Conference participants reached four major recommendations about how better to match CDFIs and investors:

- Establish some sort of dynamic information exchange. ...
- Improve the financial capacity of the most capital-markets-ready CDFIs. ...
- Find the successor to the equity-equivalent investment [alternative forms of grants or equity] ...
- Consider development of mechanisms, such as some sort of insurance or wrap product or an industrywide interest-swap mechanism, that would make the CDFI–investor relationship more like that of other sellers in to the capital markets. ...⁹⁰

Four years later, the capital markets are in disarray. New efforts involving such elements as special-purpose vehicles and securities based on the organizational credit risk of CDFIs, are unlikely to be accommodated. Nevertheless, the markets will come back, and although the benchmarks are likely to be more prudent for a time, the essential framework, the vehicles, and most of the mechanisms will return with them.

The CDFI field should continue to identify and review the various mechanisms (such as credit scoring, letters of credit) and vehicles (such as special-purpose vehicles and bonds) that may be available to help CDFIs receive the funding they need to grow and compete. CDFIs should continue to track interest rates on various forms of long- and short-term securities. The CDFI field should engage with the banks and the regulatory agencies on the subject of capital requirements; *ultimately, CDFIs will arrive at funding parity because the banks can achieve a better return on capital by assisting them in getting to the capital markets.*

But to gain access to the capital markets, the most important steps that CDFIs must take are both unilateral and achievable. They must first put their reporting and analytical protocols in line with the rating agencies, as outlined above. And then they must address the issue of size: how do they collaborate with one another to aggregate risk and generally maximize economies of scale. If CDFIs cannot master the challenge of size, they cannot get to any of the next steps.

Whether it's the bank, the rating agency, the law firm, or the conduit, the amount of debt being placed must cover costs. Although some CDFIs have the capacity to generate loans or other assets that can be bundled at the requisite scale for securitization, no CDFI at present has organizational needs of that size. As a result, it is essential for the CDFI industry to support a cooperative or other form of partnership that achieves the scale necessary to satisfy the economics of securitization.

Recommendation 1. Identify five or six high-quality CDFIs with well-defined short- and medium-term organizational financing needs for the purposes of forming a partnership.

Establish a collective portfolio, together with the diversification, credit support, and liquidity support that presents a volume and risk profile superior to conventional alternatives. This kind of structure, as envisioned with the Commercial Paper Co-op, can be the platform that demonstrates the superior performance of the CDFI business model in the context of its mission, and sets the stage for wider access of the community development field to low-cost funding in virtually unlimited supply.

Preparing for the Inevitable

In December 2008, two months after the collapse of Lehman Brothers and the coinciding collapse of the markets, *Business Week's* cover article was about former subprime lenders taking over the new FHA lending programs. In February 2009, four months after the collapse of the markets, *Business Week* ran a feature article on former subprime lenders taking over the appraisal-delivery system. The notion, so popular at the time, that low-income constituencies caused the housing crisis did not seem much of a deterrent. Since then, debt-counseling entities have emerged, some of which charge fees well before the service is completed or even provided. Profit-generating enterprises have built businesses around foreclosure counseling. For the CDFI field, it is almost immaterial whether these enterprises gain a district attorney's attention or not. It is clear that during the housing boom, a range of private-sector interests discovered that they could make a lot of money by gaming low-income families. It is safe to conclude that, still now, competitors who do not share the CDFIs' mission are digging further into the CDFI low-income constituencies—carving out room for themselves in hopes of a bigger harvest when the markets return.

It is also clear that, if history is any indication, the trading function described in Chapter 1 will continue to dominate the lending function, whether there is “skin in the game” or not. This means that these new competitors will be deploying tools that the CDFI field has only begun to comprehend. This scenario differs dramatically from the conditions under which the Community Reinvestment Act was signed into law. It is no longer an issue of too little money providing opportunity for low-income constituencies, but rather of too much money creating opportunity for those who do not have the interests of the community at heart. What was once a quantity problem is now a quality problem. What we have discovered is that building a community is not just about providing credit, it is also about protecting the community and preserving the good work that's been done.

As they emerge from the housing and credit crises, CDFIs will face choices in how they will meet the challenges. To defend the objectives of community development means that, for CDFIs, using the tools that the competitors use to advantage will become a necessity.

APPENDICES

APPENDIX A

Commercial Paper

What is Commercial Paper and why would CDFIs want to use it?

Commercial paper is a short-term unsecured promissory note issued by a corporate or institutional borrower either directly or through a dealer to the investing public. The funds are used to finance, among other things, working capital needs (inventory and receivables), short term assets like loans held for resale, and construction loans. The paper is mostly governed by Section 3(a)(3) of the 1933 Act which enables them to be exempt from SEC registration due to several distinctive characteristics. The key distinctions are:

- The paper cannot mature later than 270 days. Issuers tend to borrow for 30 days, thereby achieving the lowest rates in most conditions. They also tend to roll the notes over at maturity.
- The denominations are generally large, \$100k or more, with typical face amounts in the \$1million range.
- Proceeds of the issue must be invested in current transactions. Current transactions include operating expenses as well as short-term assets. Current transactions can also include longer-term assets as long as it can be determined that they are liquid, for example, mortgages held for resale.

A range of business entities use commercial paper, including corporations, bank holding companies, finance companies, and governmental bodies. There is no SEC registration required, and issuers find the process both inexpensive and flexible. It is a proven way to raise large quantities of money quickly.

Commercial paper is generally cheaper than bank debt, except when the capital markets are in disarray (although as we discuss further below, that is not the case in the current crisis). The commercial paper rate tends to track Fed Funds and is has generally been about 10 basis points under LIBOR – the cost at which banks lend to each other. Along with the flexibility, this low cost has made the commercial paper market the vehicle of choice for borrowers who can gain access to it.

The rates are attractive to investors as well. Even though lower than Eurodollar deposits and domestic CDs, the flexibility, the minimum size of the draw (minimum \$100k), and the absence of regulatory costs make up the difference. Mutual Funds are major investors in commercial paper.

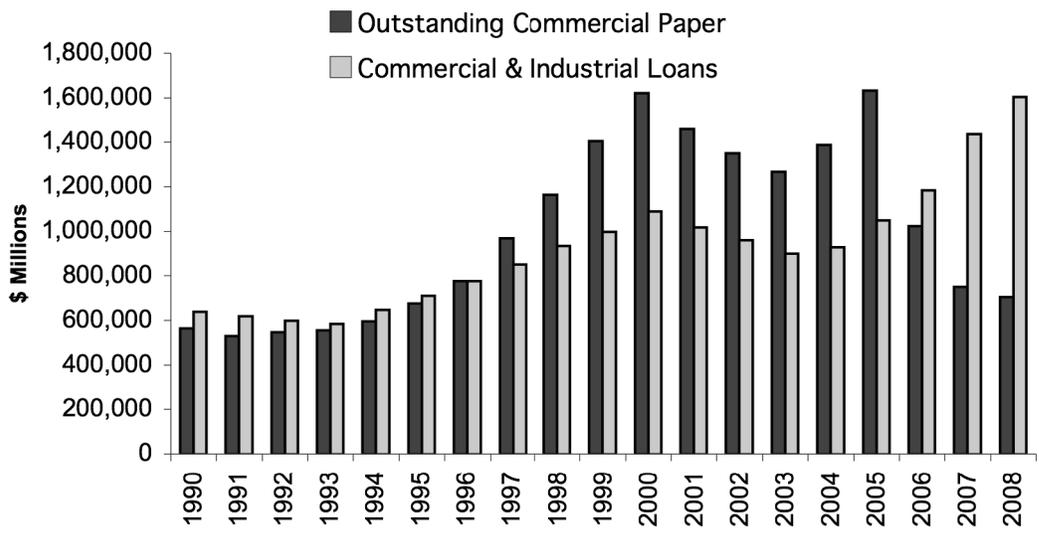
Investors require commercial paper to have a rating and most issuers seek to have a top rating – e.g., A-1/P-1. However, a corporation or institution does not have to be large and highly rated in order to gain access. Many smaller entities of lesser credit quality – indeed, unrated entities – can gain access under certain terms and conditions.

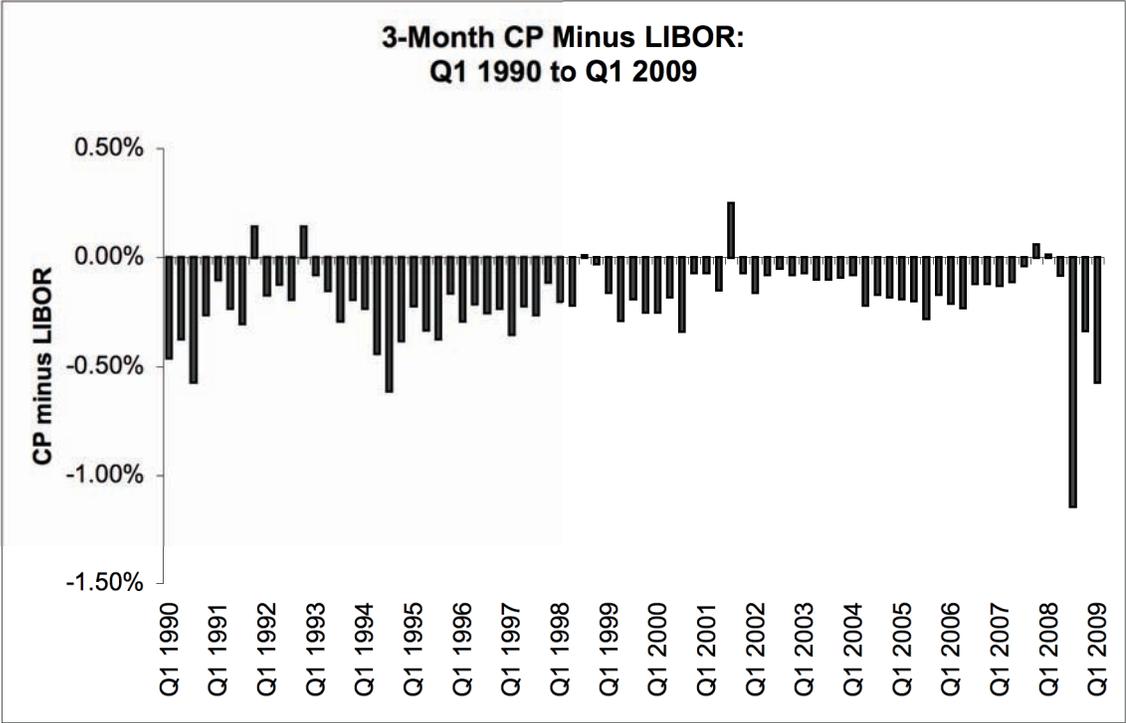
To build a credit profile that enables access to the commercial paper market, smaller entities will arrange to issue through some form of conduit to the commercial paper market. There are over 300 major conduits, many owned and/or managed by banks. In order to get a place with one of the conduits, the borrowing entity must arrange: (1) a credit enhancement of some sort that improves the likelihood of full repayment of the notes; and (2) a liquidity facility that guarantees investors of immediate repayment at

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3-Month Treasury bill minus LIBOR

Q1

3-Month Treasury bill minus LIBOR. The chart shows the difference between the 3-month Treasury bill rate and the LIBOR rate from Q1 1990 to Q1 2009. The y-axis represents the percentage difference, ranging from -1.50% to 0.50%. The x-axis represents the quarter and year. The data shows that the 3-month Treasury bill rate was generally lower than the LIBOR rate, with a notable exception in Q1 2002 where the Treasury bill rate was higher.

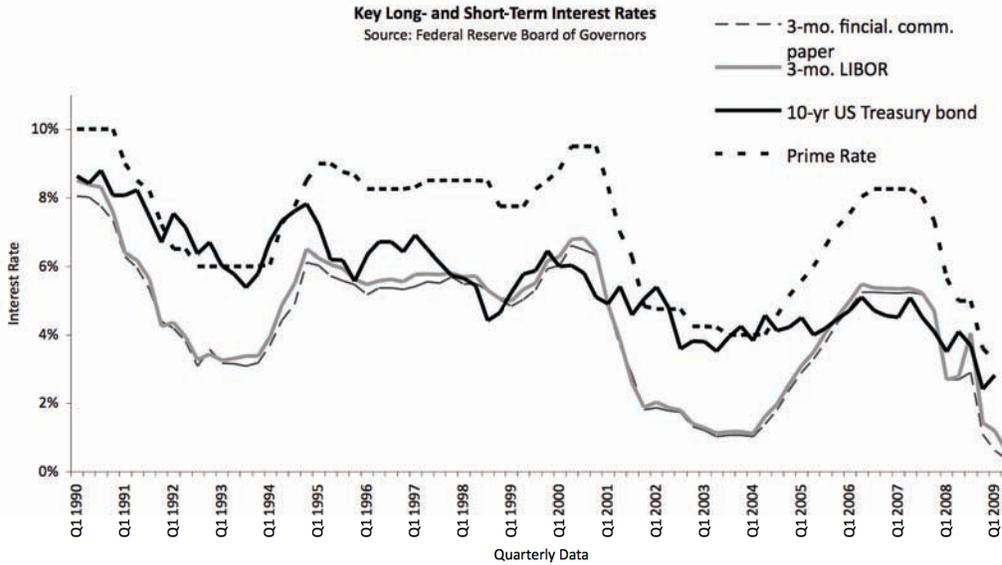
Q2

3-Month Treasury bill minus LIBOR. The chart shows the difference between the 3-month Treasury bill rate and the LIBOR rate from Q1 1990 to Q1 2009. The y-axis represents the percentage difference, ranging from -1.50% to 0.50%. The x-axis represents the quarter and year. The data shows that the 3-month Treasury bill rate was generally lower than the LIBOR rate, with a notable exception in Q1 2002 where the Treasury bill rate was higher.

Q3

3-Month Treasury bill minus LIBOR. The chart shows the difference between the 3-month Treasury bill rate and the LIBOR rate from Q1 1990 to Q1 2009. The y-axis represents the percentage difference, ranging from -1.50% to 0.50%. The x-axis represents the quarter and year. The data shows that the 3-month Treasury bill rate was generally lower than the LIBOR rate, with a notable exception in Q1 2002 where the Treasury bill rate was higher.

The chart displays four interest rate series from 1990 to 2009. The 3-month Treasury bill (dashed line) shows significant volatility, peaking at 10% in early 1990 and 2000, and dropping to 1% in 2009. The 3-month LIBOR (solid line) follows a similar but less volatile path. The 10-year Treasury bond (thick solid line) shows a steady decline from 8% in 1990 to 4% in 2009. The Prime Rate (dashed line) is generally the highest, peaking at 9% in 2000 and ending at 3% in 2009.



The chart shows the relationship between various interest rates over time. The 3-month Treasury bill and Prime Rate are highly correlated, while the 10-year Treasury bond is more stable and generally lower than the short-term rates.

The chart illustrates the impact of monetary policy on interest rates. The Fed's actions to raise rates in the early 1990s and early 2000s are clearly visible in the sharp increases in the 3-month Treasury bill and Prime Rate.

The chart provides a comprehensive view of the interest rate environment from 1990 to 2009. It highlights the cyclical nature of interest rates and the influence of external factors such as global events and monetary policy.

APPENDIX B

NeighborWorks Capital Exchange (NWACX)

The NWACX, proposed internally at NeighborWorks America (NWA) in 2007, was designed to expand the types of loans and the range of risk that could be supported by a secondary market platform. The concept originally surfaced in discussions with Neighborhood Housing Services of America (NHSA) over the issue of how to help NWA's 230 chartered Community Development Corporations (NWOs) make better use of all of the below market rate loans in their portfolios. NHSA, the secondary market for the NWA Network, had begun work on a "loan pool" concept that advanced money to NWOs who had portfolios of below market rate mortgages that couldn't be sold without a substantial discount. Each loan to a member NWO would be matched to the specific repayment schedule on the below market rate and would be secured by the loan and a 10 percent pledge of cash or additional assets. In theory, the loans could be for as long as 30 years. The rate was approximately 6 percent. The problem was: what sort of investor would invest in these pools? The NWACX provided the answer: the 230 NWOs of the NWA Network would invest in themselves. The concept was a true capital exchange: member NWOs would deposit surplus funds into a credit enhanced account, and the credit enhanced account would raise money that would be used to fund long term low rate loans to NWOs, secured by below market rate single family mortgages.

There was some history in this concept. First there was the Mini-Fed, which was developed by the Financial Innovations Roundtable between 2001 and 2003 (Chapter Three). The Mini-Fed used surplus cash in the CDFI system to fund the borrowing needs – especially long term borrowing needs – of CDFIs. In 2005, the National Federation of Community Development Credit Unions ("Federation"), together with the Credit Union National Association ("CUNA"), came out with a concept of a mutual fund that took surplus cash from credit unions and invested it in a pool of 90 percent single-family mortgage participations. This was a particularly brilliant concept – arguably the best that's come forward in the community development field relative to secondary markets. The original Mini-Fed was attempting to go down the same path – but the reasons the concept could work better for the credit unions was that a) they were regulated entities with standardized analytical and financial reporting requirements; and b) their assets as well as their liabilities tended to be of a shorter term nature. Because the NeighborWorks network provides the closest thing in the CDFI world to the "closed system" of the credit unions, the NWACX drew heavily on the Federation/CUNA model:

- NWA creates a mutual fund with capital and operating grants
- Chartered NWOs and NeighborWorks affiliates invest funds in the mutual fund, which is highly rated;
- Chartered NWOs originate and service non-conforming mortgages, which they sell to the mutual fund;
- NWA performs organizational and business line assessment of each chartered NWO under its comprehensive standardized ("Prompt") format, reinforcing as well as monitoring the quality of the portfolio;
- NWA deploys its grant-making capacity to assist both the borrowing NWOs and the mutual fund in the event of higher than anticipated losses;
- Everyone knows everyone pretty well – thereby taking the perception of risk and consequent cost of the risk premium out of the transaction.

One of the chief benefits of this structure was that nonprofit entities that would not, under any other circumstances, qualify for long-term debt, could get access to low capital rate funding. The NWOs targeted by NWACX were strong, but many were in the \$1-5mm a total asset range. Hence, while a Commercial Paper Co-op would target the high end of the CDFI field, NWACX would be prepared to fund – and thereby demonstrate the capacity of – the low end.

Ultimately, the proposal was not pursued due to adverse developments in the marketplace and the allocation of funding to items that were of a more immediate and critical nature – e.g., foreclosure, and loss mitigation. *Nevertheless, until such time as the CDFI field has working relations with the rating agencies, the capital markets and the wholesale sides of their banks, the structure is both relevant and attractive.* For this reason it is worth walking through an example of how a form of Mini-Fed could work for one segment of the community development field.

Purpose

The purpose of the NWACX is to provide a range of liquidity instruments for borrowing and investing that are common in the institutional field, but not presently available to NWOS.

1. Summary of the Proposal

The NWACX is a true capital exchange in which affiliates and member NWOs deposit surplus funds into a credit enhanced mutual fund at market rates. Proceeds from the mutual fund are used, in part, to fund the short, medium and long term funding needs of NWOs on both a secured and unsecured basis.

2. Summary of the Benefits

- NWOs can invest in high quality instruments at market rates that are used exclusively to fund the NWA Network mission
- Short, medium term and long term loans are provided at a substantial reduction to the interest rates they would be able to get from conventional lenders and investors.
- NWOs can benefit from the transfer of servicing of their pledged assets to NHSA, an affiliate of NWA.
- NWOs have a governing role relative to setting rates and mission targets. As a result, NWOs can determine the balance of risk and return in the portfolio, and adjust investment rates, lending rates, portfolio mix and risk parameters in accordance with market conditions.

3. Potential Participants

All NWOs and NWA affiliates are eligible to make deposits. All NWOs that are rated “exemplary” or “strong” by the NWA Organizational Assessment Division can borrow from the fund.

4. Products

The three types of loans that will be made to exemplary or strong NWOS are:

- Unsecured short term advances of up to 270 days in amounts not to exceed \$250,000. The loans may be used for general purposes.
- Credit lines of up to 3 years secured by first and second mortgages in amounts not to exceed \$500,000. The loans may be used for warehousing and development purposes.

- Long term loans secured by below market rate single family first and second mortgages. In general the amortization of these loans will match the amortization of the pledged mortgages.

5. Structure

NWA and NHSA establish a bankruptcy remote LLC which issues the mutual fund equivalent of “certificates of deposit” for short as well as extended maturities based on the rates of major money center banks. NWA and NHSA arrange a 100 percent letter of credit for up to \$75mm from a syndicate of banks, which provide “AAA” liquidity support to the certificates issued by the LLC. Total Assets for the NWACX are not to exceed \$75mm. The credit enhancement will be provided by NWA in the form of grants and will not be less than 20 percent of the total assets. Actual loans to NWOs will not exceed \$60mm. The asset/liability management will be performed by a bank

6. Funding

NHSA has, at present over \$60mm in cash on its balance sheet, of which over \$35mm is contractual and invested in long term AAA instruments. Although there aren’t specific figures, NWOs in the NWA network have over \$400mm in assets of which anywhere from 10 percent to 30 percent may be in cash and investments, restricted and otherwise, for a total of between \$40 and \$120mm. NHSA, the NWOs and other social investors with investments in CDs and Treasuries can replace them with these certificates as they mature. The deposits that these entities can make in NWACX will approximate market rates for high quality commercial paper of equivalent maturities.

The deposits will be augmented by *up to* \$50mm in low cost bank and institutional debt, as needed. The NWACX will access short term bank debt at a low spread over cost. The long term debt will be at the cost of funds plus a minor spread and will be drawn down in over a period of 5 to 7 years. The rates will be fixed at the time of drawdown and the loan rates will be adjusted, to assure profitability for the Fund.

NWA will provide \$10mm in equity funds to the LLC initially, raising it to a cumulative total of \$15mm in capital invested over time. NWA will contribute additional capital to the Fund as needed.

7. Financial Objectives

- No default on obligations;
- Minimal operating cost on origination and servicing;
- Minimal cost on credit monitoring, includes full use of Organizational Assessment Division analyses, and stress-testing;
- Self-sufficiency after the first \$10mm invested;
- Loans purchased per year rising from \$5mm to the \$15mm per year range.

8. Risk

The portfolio will have the following risk-mitigating attributes:

- A minimum of 15 percent of total assets will be invested in high quality marketable securities with an average term of 4 years;
- Loss reserves will be provided at 4x the rate of net charge-offs;
- A minimum principal repayment to new loan volume ratio of 50 percent after stabilization;
- A maximum exposure to unsecured advances of \$15mm
- A recourse provision for pledged loans to assure currency

- Servicing on all pledged loans performed by NHSA
- Restrictions on geography and credit concentration
- Participants must be rated exemplary or strong by the NWA Organizational Assessment Division and maintain minimum cash and investment targets

Key functions will be performed by entities that already provide them:

- NWA's Organizational Assessment Division provides oversight of the participating NWOs and assures that those who participate are "exemplary" or "strong."
- NHSA can purchase longer term loans from the Fund as they are seasoned.
- NHSA manages the recourse portfolio, including pledging procedures, loan performance data, substitutions of collateral, and servicing.
- NWA can add grants at the NWACX or NWO level to assure currency of payment and/or adequate levels of credit support.

Scenario 1 for the NWACX is summarized as follows:

KEY INDICATORS AND FUNDING CHOICES	2007	2008	2009	2010	2011	2012	2013	
(THE CONTROL ROOM)	NWACX	SCENARIO 1	Chart	1				
The Four Categories:								
Total Assets: Gross Operating Yield	263	6.819%	6.113%	6.222%	5.970%	5.990%	6.022%	5.971%
Operating Expense/Avg. Assets	264	6.191%	2.587%	1.748%	1.372%	1.247%	1.166%	1.103%
Cost of Funds (to Average Assets)	265	1.010%	1.424%	2.449%	3.000%	3.118%	3.243%	3.358%
Charge-offs to Avg. Assets	266	0.227%	0.238%	0.287%	0.299%	0.323%	0.347%	0.363%
Key Asset Diagnostic Indicators								
Loans: Total Yield	267	12.63%	8.58%	7.76%	6.94%	6.71%	6.60%	6.42%
Loan Rate versus Debt Rate	268	5.92%	3.73%	2.63%	1.96%	1.92%	1.81%	1.64%
Property Revenue to Property Value	269	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Property: Net Operating Rev to Value*	270	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Loan Portfolio	271	4,758,769	12,214,305	22,215,678	30,825,410	37,044,794	43,788,915	50,053,928
Real Estate Properties (Owned)	272	0	0	0	0	0	0	0
Total Assets	273	14,857,641	23,058,861	37,380,336	45,409,596	51,245,531	57,596,371	63,496,339
Off Balance Sheet Loans	274	0	0	0	0	0	0	0
Gain or (Loss) on Loan Sales	275	0	0	0	0	0	0	0
Gain or (Loss) on Real Estate Sales	276	0	0	0	0	0	0	0
Mission Restricted Net Assets	277	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Total Net Assets	278	9,857,641	10,058,861	10,380,336	10,742,930	11,245,531	11,796,371	12,363,005
Staff Stress								
Total Loan Volume/Staff	279	4.50	8.50	13.00	15.00	15.00	16.00	16.00
Total Projects Volume/Staff	280	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Loans Outstanding/Staff	281	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Projects per Property Staff	282	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trip Wires								
Total Debt	283	5,000,000	13,000,000	27,000,000	34,666,667	40,000,000	45,800,000	51,133,333
Total Liabilities/Net Assets	284	0.51	1.29	2.60	3.23	3.56	3.88	4.14
Target Liabilities/Net Assets	285	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Equity Needed to Meet Leverage Target	286	0	0	0	0	0	0	0
Unrestricted Investments	287	0	800,000	5,100,000	4,500,000	4,100,000	3,700,000	3,400,000
Mission Restricted Investments	288	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Cash Reserve Requirement	289	0	0	0	0	0	0	0
Loan Reserve Requirement	290	0	0	0	0	0	0	0
Target Cash/Investments Month on Hand	291	3	3	3	3	3	3	3
Cash Needed to Meet Cash Target	292	34,856	0	0	0	0	0	0
The Bottom Line								
Net Surplus (Deficit)	293	9,857,641	201,220	321,475	362,594	502,601	550,840	566,635
Ending Cash	294	98,873	44,556	64,657	84,186	100,737	107,456	42,411
Years to Repay Debt	295	0	7	6	5	4	5	5
Incr/Decr Unrestricted Investments	296		(800,000)	(4,300,000)	600,000	400,000	400,000	300,000
Short Term Debt	297	5,000,000	8,000,000		4,000,000	2,000,000		1,000,000
Long Term Debt	298			15,000,000	5,000,000	5,000,000	8,000,000	7,000,000
Operating Grants per Year (\$)	299	0	0	0	0	0	0	0
Mission Asset Restricted Grants per Year	300	10,000,000	0	0	0	0	0	0
Permanent Endowment Grants per Year	301	0	0	0	0	0	0	0
		NWACX	SCENARIO 1	Chart	1			

OPERATING STATEMENT	NWACX	SCENARIO 1						
	2007	2008	2009	2010	2011	2012	2013	
Investment Income	368	200,000	416,000	518,000	592,000	572,000	556,000	542,000
Loan Interest Income	369	216,538	582,921	1,112,276	1,619,382	2,062,865	2,441,269	2,793,047
Less Cost of Delinquency	370	0	0	0	0	0	0	0
Operating Grants	371	0	0	0	0	0	0	0
New Mission Restricted Grants	372	10,000,000	0	0	0	0	0	0
New Permanent Endowment Grants	373	0	0	0	0	0	0	0
Originating Fees	374	90,000	160,000	250,000	260,000	260,000	280,000	280,000
Servicing Fees Received	375	0	0	0	0	0	0	0
Rental Income	376	0	0	0	0	0	0	0
Less Vacancy Cost	377	0	0	0	0	0	0	0
Asset Management Fees	378	0	0	0	0	0	0	0
Development Fees	379	0	0	0	0	0	0	0
Partnership Income	380	0	0	0	0	0	0	0
Other Revenues	381	0	0	0	0	0	0	0
Total Revenues	382	10,506,538	1,158,921	1,880,276	2,471,382	2,894,865	3,277,269	3,615,047
Operating Expense	383	453,200	466,796	480,800	495,224	510,081	525,383	541,145
Servicing Fees Paid	384	6,716	23,623	47,304	72,555	92,445	109,411	126,515
Property Operating Costs	385	0	0	0	0	0	0	0
Maintenance/Reserves	386	0	0	0	0	0	0	0
Interest Expense	387	75,000	270,000	740,000	1,241,667	1,506,667	1,765,000	2,033,333
Loss Expense	388	113,981	197,282	290,698	299,342	283,072	326,635	347,419
Total Expenses	389	648,897	957,701	1,558,802	2,108,788	2,392,264	2,726,429	3,048,412
Gain or (Loss) on Loan Sales	390	0	0	0	0	0	0	0
Gain or (Loss) on Real Estate Sales	391	0	0	0	0	0	0	0
Net Surplus (Deficit)	392	9,857,641	201,220	321,475	362,594	502,601	550,840	566,635
	NWACX	SCENARIO 1						
BALANCE SHEET		2007	2008	2009	2010	2011	2012	2013
Cash	393	98,873	44,556	64,657	84,186	100,737	107,456	42,411
Unrestricted Investments	394	0	800,000	5,100,000	4,500,000	4,100,000	3,700,000	3,400,000
Mission Restricted Investments	395	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Permanent Endowment Investments	396	0	0	0	0	0	0	0
Accounts Receivable	397	0	0	0	0	0	0	0
Loans	398	4,855,886	12,463,576	22,669,060	31,454,500	37,800,810	44,682,567	51,075,436
Loss Reserve	399	(97,118)	(249,272)	(453,381)	(629,090)	(756,016)	(893,651)	(1,021,509)
Net Loans	400	4,758,769	12,214,305	22,215,678	30,825,410	37,044,794	43,788,915	50,053,928
Real Estate Assets	401	0	0	0	0	0	0	0
Other Assets	402	0	0	0	0	0	0	0
Total Assets	403	14,857,641	23,058,861	37,380,336	45,409,596	51,245,531	57,596,371	63,496,339
Accounts Payable	404	0	0	0	0	0	0	0
Short Term Debt	405	5,000,000	13,000,000	13,000,000	17,000,000	19,000,000	19,000,000	20,000,000
Current Liabilities	406	5,000,000	13,000,000	13,000,000	17,000,000	19,000,000	19,000,000	20,000,000
Long Term Debt	407	0	0	14,000,000	17,666,667	21,000,000	26,800,000	31,133,333
Other Liabilities	408	0	0	0	0	0	0	0
Total Liabilities	409	5,000,000	13,000,000	27,000,000	34,666,667	40,000,000	45,800,000	51,133,333
Unrestricted Net Assets	410	(142,359)	58,861	380,336	742,930	1,245,531	1,796,371	2,363,005
Mission Restricted Net Assets	411	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Permanent Endowment Net Assets	412	0	0	0	0	0	0	0
Total Net Assets	413	9,857,641	10,058,861	10,380,336	10,742,930	11,245,531	11,796,371	12,363,005
Total Liabilities & Net Assets	414	14,857,641	23,058,861	37,380,336	45,409,596	51,245,531	57,596,371	63,496,339

CASH FLOW	NWACX		SCENARIO 1					
	2007	2008	2009	2010	2011	2012	2013	
Beginning Cash	415	0	98,873	44,556	64,657	84,186	100,737	107,456
Net Surplus from Operations	416	9,857,641	201,220	321,475	362,594	502,601	550,840	566,635
New Mission Restricted Grants	417	(10,000,000)	0	0	0	0	0	0
New Permanent Endowment Grants	418	0	0	0	0	0	0	0
Mission Restricted Balance Released	419	0	0	0	0	0	0	0
Provision for Losses	420	113,981	197,282	290,698	299,342	283,072	326,635	347,419
Total Sources from Ops	421	(28,377)	398,502	612,173	661,936	785,673	877,475	914,054
New Loan Volume (Less Charge-offs)	422	(5,000,000)	(9,000,000)	(14,000,000)	(15,000,000)	(15,000,000)	(16,000,000)	(16,000,000)
Loan Sales (Face Value)	423	0	0	0	0	0	0	0
Property Purchases/Development	424	0	0	0	0	0	0	0
Property Sales at Cost - Total	425	0	0	0	0	0	0	0
Property Sales at Cost - Restricted	426	0	0	0	0	0	0	0
Incr/Decr Unrestricted Investments	427	0	(800,000)	(4,300,000)	600,000	400,000	400,000	300,000
Mission Restricted Balance Deployed	428	0	0	0	0	0	0	0
Accounts Receivable	429	0	0	0	0	0	0	0
Other Assets	430	0	0	0	0	0	0	0
Accounts Payable	431	0	0	0	0	0	0	0
Other Liabilities	432	0	0	0	0	0	0	0
Total Uses	433	(5,000,000)	(9,800,000)	(18,300,000)	(14,400,000)	(14,600,000)	(15,600,000)	(15,700,000)
Net Operating Sources/Uses	434	(5,028,377)	(9,401,498)	(17,687,827)	(13,738,064)	(13,814,327)	(14,722,525)	(14,785,946)
Loan Principal Repayments	435	127,250	1,347,182	3,707,929	6,090,926	8,497,545	8,929,244	9,387,568
Loan Princ Repymts & Sales -Restricted	436	0	0	0	0	0	0	0
Short Term Debt	437	5,000,000	8,000,000	0	4,000,000	2,000,000	0	1,000,000
Existing Long Term Debt: Amortization	438	0	0	0	0	0	0	0
New Long Term Debt: Amortization	439	0	0	(1,000,000)	(1,333,333)	(1,666,667)	(2,200,000)	(2,666,667)
Long Term Debt	440	0	0	15,000,000	5,000,000	5,000,000	8,000,000	7,000,000
Total Financing Sources	441	5,127,250	9,347,182	17,707,929	13,757,592	13,830,878	14,729,244	14,720,902
Change in Cash	442	98,873	(54,316)	20,101	19,528	16,551	6,718	(65,045)
Ending Cash	443	98,873	44,556	64,657	84,186	100,737	107,456	42,411

(A) . THE ASSET DECISION: LOANS **NWACX** **SCENARIO 1** **Chart 1**

I. Loans

Loans: Existing Outstanding	1								
Loan Principal Repayments	2		0	0	0				
Interest Rate	3								
Number of loans	4			Avg. Size:	0				
Future Number of Loans Outstanding	5	0	0	0	0	0	0	0	0

Loan Type 1:

	6	Pooled Note	
Interest Rate	7	6.00%	
Number of Years	8	15	
Average Size of Loan	9	\$1,000,000	(\$8,438.57) Monthly Payment
# Loans over the period	10	48	\$48,000,000 Total Loans
Origination Fees	11	2.00%	
Servicing Fees Received	12	0	
Servicing Fees Paid	13	0.250%	
Percentage of Loans Sold	14		
Charge-off Rate	15	0.50%	
Market Interest Rate	16	10.00%	

Loan Type 4:

	7	Amortizing Mortgage	
Interest Rate			
Number of Years			
Average Size of Loan			\$0.00
# Loans over the period		-	\$0
Origination Fees			
Servicing Fees Received		0	
Servicing Fees Paid			
Percentage of Loans Sold (\$)			
Charge-off Rate			
Market Interest Rate			

Loan Type 2:

	17	Amortizing Mortgage	
Interest Rate	18		
Number of Years	19		
Average Size of Loan	20		\$0.00 Monthly Payment
# Loans over the period	21	-	\$0 Total Loans
Origination Fees	22		
Servicing Fees Received	23		
Servicing Fees Paid	24		
Percentage of Loans Sold	25		
Charge-off Rate	26		
Market Interest Rate	27		

Loan Type 5:

	18	Interest Only/Amortization	
Interest Rate	19	5.00%	
Number of Years - Interest Only	20	2	
Number of Years - Amortizing	21	1	(\$42,803.74)
Average Size of Loan	22	\$500,000	\$20,000,000
# Loans over the period	23	40	
Origination Fees	24	2.00%	
Servicing Fees Received	25		0
Servicing Fees Paid	26	0.250%	
Charge-off Rate	27	0.250%	
Percentage of Loans Sold (\$)	28	0%	

Loan Type 3:

	29	Amortizing Mortgage	
Interest Rate	30		
Number of Years	31		
Average Size of Loan	32		\$0.00 Monthly Payment
# Loans over the period	33	-	\$0 Total Loans
Origination Fees	34		
Servicing Fees Retained	35		
Servicing Fees Paid	36		
Percentage of Loans Sold	37		
Charge-off Rate	38		
Market Interest Rate	39		

Loan Type 6:

	30	Shot Term Advance	
Interest Rate	31	4.00%	
Number of Years	32	2	
Average Size of Loan	33	\$250,000	(\$833.33)
# Loans over the period	34	88	\$22,000,000
Origination Fees	35	1.00%	
Servicing Fees	36		0
Servicing Fees Paid	37	0.375%	
Percentage of Loans Sold (\$)	38	0%	
Charge-off Rate	39		
Market Interest Rate			

II. Loan Volume

	40	Total Loans	\$90,000,000						
Years		2007	2008	2009	2010	2011	2012	2013	
Number of Loans #1	41	3	5	8	8	8	8	8	
Number of Loans #2	42								
Number of Loans #3	43								
Number of Loans #4	44								
Number of Loans #5	45	2	4	6	6	6	8	8	
Number of Loans #6	46	4	8	12	16	16	16	16	
Total New Loans	47	9	17	26	30	30	32	32	
Total Loans Outstanding (Not Incl.Amort)	48	9	26	48	68	82	92	102	
# of New Loans On Balance Sheet	49	9	26	48	68	82	92	102	

APPENDIX C

The Quad: A Stress Test for CDFIs

Developed by Charles Tansey and Tom O'Brien, the Quad Analysis objectively analyzes the last four years of financial data to identify the credit union's (CU) strengths and weaknesses. Rather than a prediction, the technique stresses the historical financial performance in order to surface issues and influences that may not be easily ascertained in a straight analysis of the historical data. All financial data is obtained from the CU Call Reports accessed through the National Credit Union Association website.

The Diagnosis is based on a consolidation of the figures produced by four separate and distinct sets of analyses (hence Quad). The analyses are automatically generated when the numbers from the annual NCUA 5300 filing are input into the model. The analyses all have the same key drivers, which are identified in yellow in the Diagnostic. The biggest drivers are loan volume and share/deposit growth, but yields, operating ratios, interest expense and credit losses are also drivers. The first forecast (Average Annual Performance) simply averages the drivers over the last 3 years and applies them to each year going forward. The second forecast (Straight line off of Most Recent Year) takes the drivers from the most recent year (2005) and straight-lines them out. The third forecast (Cyclical) takes the drivers from the most recent year and stresses them – with rising expenses and lower growth in the middle years. Finally, the "Trend-line Analysis" takes the drivers exactly as they were, starting in the third previous year and applies them going forward in the same order. The first, second and fourth forecasting forms are traditional methodologies drawn from trend line analysis techniques utilized at the former Chase Manhattan Bank. The Cyclical forecast is a variable methodology designed to introduce non-linear, more realistic strains on the subject's performance. The timing and magnitude of the stress points is arbitrary, but tends to produce a slightly negative affect.

The Quad is different from a management forecast, a comparative financial analysis or an NCUA examination. The Quad does not seek to establish financial condition, evaluate management decisions, or predict what is likely to happen. It is a stress test with a negative bias. In addition to incorporating a cyclical forecast with attributes typical of an economic downturn, the Quad integrates grants and contributions at the level of the most recent year. Because the historical data and trends are put to this kind of stress, the strengths and weaknesses it identifies may show as more extreme than would be likely under normal conditions. Moreover, because the stress is automatically applied, management responses to evolving conditions are not incorporated into the test. The result is a set of numbers and ratios that show what could happen under extreme conditions – if nothing is done by Board or Staff to address the challenges. The key objective of the Quad in the context of a potential consolidation or merger, is to use these extremes for the purposes of identifying potential points of connection as well as conflict among the merging entities.

COMMUNITY CREDIT UNION 2006		Actual				Consolidated Diagnostic				
		2002	2003	2004	2005	2006	2007	2008	2009	2010
Key Financial Statement Data										
Total Revenues	1	678,274	593,835	601,021	717,263	769,945	830,137	898,829	1,054,506	1,232,486
Total Funding Cost	2	42,405	31,191	23,370	25,599	30,173	35,045	43,102	48,708	56,319
Total Operating Expenses	3	539,362	399,961	401,936	381,129	486,495	576,898	716,770	795,558	905,846
Provision for Losses	4	0	123,388	25,543	0	40,856	48,820	48,165	46,970	53,885
Net Surplus (Deficit)	5	96,507	39,295	150,172	310,535	212,420	169,374	90,791	163,271	216,436
Investments	6	2,864,522	1,982,200	2,465,159	3,259,653	3,770,877	4,496,256	5,098,301	5,813,613	7,037,483
Loans	7	1,238,019	1,389,510	1,272,356	1,651,637	1,811,376	2,266,572	2,840,327	3,059,724	3,743,457
Share Drafts	8	621,268	730,209	719,284	902,733	1,021,951	1,216,248	1,237,243	1,220,627	1,342,102
Regular Shares	9	2,244,401	2,009,783	2,133,526	2,912,309	3,434,402	4,271,096	5,266,141	6,439,885	8,330,285
All Other Shares and Deposits	10	1,421,951	1,309,045	1,215,683	1,335,026	1,368,208	1,412,859	1,498,031	1,545,986	1,612,244
Total Liabilities	11	4,852,056	4,536,152	4,475,142	5,563,797	6,339,834	7,478,041	8,660,688	9,998,348	12,240,504
Equity	12	99,696	138,981	289,152	599,689	812,109	981,484	1,072,275	1,235,546	1,451,982
Loan Volume	13	741,650	857,184	699,300	952,597	1,188,717	1,336,191	1,610,764	1,856,828	2,229,454
Principal Repayments	14	0	1,162,847	517,780	822,524	996,554	864,418	1,062,695	1,660,735	1,517,290
Participation Loans Outstanding (Incl)	15	0	0	0	250,000	446,440	635,348	942,164	1,134,425	1,347,557
General Comments										
<i>Although the Consolidated Diagnostic is the consolidation of four (Quad) forecasts each with differing assumptions, the Diagnostic is not a forecast. While it is possible that the results could turn out as projected, the purpose of the Diagnostic is to stress the operations in order to surface those areas which may be of greatest risk and warrant greater study and review.</i>										
CU appears to have had a material retrenchment in 2002-2003 in which costs were cut, bad loans were charged off, loan growth flattened out, investments grew substantially, and regular shares saw significant growth. Because the greatest investment and share growth occurred in 2005, two of the Quad forecasts pick it up and projects those levels out on top of an already robust level of growth projected by the other two forecasts. Against this high level of growth, the loan balances rise more gradually as does the membership. The pricing of loans and investments against a very low cost of funds and the benefits of high recoveries on charged-off loans produces a solid Sustainability ratio in the 70-80% range. In addition to strong earnings power for the level of asset growth, CU is able to raise substantial non-operating funds which assures surpluses. As a result it appears that this cost structure will support additional levels of growth. Having said that, there are still areas that management may wish to consider additional improvements on, keeping the cost per member down by increasing the loans per member, the loans per FTE, the deposit accounts per FTE and reducing the level of cash on hand. These are important considerations since there does seem to be pressure on the cost per member to rise and for income margins to fall.										
One note: the call report was unclear on the participation loan activity so that the figures below related to it may not be applicable.										

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Key Membership Data	16									
Total Members	17	4,291	3,383	3,712	3,864	3,715	3,842	3,922	3,798	3,935
Increase (Decrease)	18	0.00%	-21.16%	9.73%	4.09%	-3.85%	3.42%	2.09%	-3.17%	3.60%
Loans Per Member \$	19	280	388	318	401	458	552	676	755	891
Deposits and Shares per Member \$	20	668	810	769	987	1,200	1,428	1,658	2,017	2,458
Total Staff FTE	21	7.00	4.00	5.00	6.00	6.55	6.95	8.20	9.12	9.89
Members per FTE	22	613	846	742	644	567	553	479	416	398
Non-Part Loans per FTE \$	23	0	328,441	266,187	243,666	211,232	215,592	215,324	209,625	218,559
Non-Part Loans per FTE #	24	0	51	58	46	37	42	40	37	42
Member Deposit Accounts per FTE \$	25	0	700,708	559,280	555,654	631,533	715,511	731,541	776,549	876,669
Deposit Accounts per FTE #	26	0	840	723	626	649	671	649	628	637
Operating Cost Per Member	27	126	118	108	99	131	150	183	209	230
Number of Regular Accounts	28	3,732	3,283	3,688	4,297	4,583	5,145	5,770	6,193	7,024
Non-Member Accounts	29	22	17	15	17	16	17	17	17	18
Percent Non-Member Deposits	30	33.16%	32.33%	29.88%	25.92%	23.49%	20.48%	18.72%	16.79%	14.29%
% of Participations O/S to Loans	31	0.00%	0.00%	0.00%	16.13%	24.65%	28.03%	33.17%	37.08%	36.00%
Key Membership Data										
<p>The relatively flat projection in membership (18) is a function of the drop in 2003 and relatively flat performance in 2004, 2005. Since the loan portfolio grows moderately and the shares robustly going forward, this produces substantive increases in Loans per Member (19) and Shares per Member (20). Both ratios appear headed in the direction of being substantial enough to support the Cost per Member (27). The Cost per Member ratio, however is showing an upward trend as well, largely a function of the declines in the Members per FTE (22) and the Non-Participation Loans per FTE (24). Opportunities for increasing the Loans per FTE and Members per FTE should be a priority for management, as they will provide a key to keeping the Cost per Member in the commendably low range it is in at present. There may be room for improvement in Deposit Accounts per FTE as well. Management may also wish to evaluate what makes their Regular Shares so attractive to the membership and apply the same kind of evaluation to the loan product range, in order to boost growth in that sector.</p> <p>One of the key areas for review is what percentage of the membership is new and what percentage leaves each year. This would provide a clearer picture of what level of need there is to increase outreach and/or revise the product line. An analysis of those who have left and what their activity was would help shed light on this strategic issue. It would also shed light on how much room management has to make decisions about pricing on shares and loans.</p>										

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Revenue Analysis	32									
Loan & Invest Rev/Operating Expense	33	77.68%	85.87%	78.79%	97.03%	93.24%	88.26%	81.05%	88.84%	93.32%
Surplus to Total Revenues	34	14.23%	6.62%	24.99%	43.29%	27.59%	20.40%	10.10%	15.48%	17.56%
Surplus Total Assets	35	0.00%	0.82%	3.18%	5.68%	2.97%	2.00%	0.93%	1.45%	1.58%
Surplus to total Capital	36	0.00%	32.93%	70.15%	69.87%	26.16%	17.26%	8.47%	13.21%	14.91%
Yield on Cash and Investments	37	0.00%	3.11%	2.75%	3.28%	3.18%	3.08%	3.05%	3.12%	3.15%
Loans: Interest Revenue	38	0.00%	10.19%	9.03%	9.49%	9.39%	9.05%	8.66%	9.10%	9.20%
Fee Income to Loans Vol, O/S, Deps O/S	39	0.00%	1.77%	1.84%	1.54%	1.79%	1.57%	1.41%	1.55%	1.61%

Revenue Analysis

Yields on Cash and Investments (37) appear to quite good and project out at attractive levels. Fee Income (39) appears appropriate and relatively stable. The yield on Loan Revenue (38) appears appropriate and solid. A key test is to check it against the Operating Expense to Total Assets ratio (47): generally speaking, the yield on loans should exceed the Operating Expense to Total Asset ratio, and it does both historically and in the Diagnostic. The high yields on earning assets also produce a relatively high Loan & Investment to Operating Expense ratio in line 33. Notwithstanding the good yields, the Diagnostic projects out lower Surplus to Revenue, Assets, and Capital ratios (34,25,36) as the balance sheet grows. This indicates that there may be a need to boost the yields and/or the fee income further in the future.

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Funding Cost Analysis	40									
Interest Expense on Borrowed Money	41	0.00%	4.18%	3.80%	5.01%	4.61%	4.59%	5.15%	4.76%	4.54%
Interest Expense on Deposits (%)	42	0.00%	0.32%	0.26%	0.28%	0.29%	0.28%	0.30%	0.30%	0.28%
Nominal Interest Margin: Loans	43	0.00%	9.54%	8.53%	9.02%	8.94%	8.60%	8.18%	8.63%	8.74%
Nominal Interest Margin: Deps and Inv	44	0.00%	2.43%	2.23%	2.79%	2.72%	2.61%	2.56%	2.64%	2.68%
Net Interest Exp to Avg. Assets	45	0.00%	0.65%	0.50%	0.47%	0.45%	0.45%	0.47%	0.46%	0.45%

Funding Cost Analysis

The cost of Borrowed money (41) appears reasonable and manageable. The interest expense on deposits and shares (42) appears low. The Net Interest Exp to Avg. Assets (45) is low and attractive. The Nominal Interest Margin on Investments (44) is quite good. The Nominal Interest Margin on Loans is also quite good and also compares favorably with the Operating Expenses to Avg. Assets in line 47, as noted above, a key test.

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Operating Cost Analysis	46									
Operating Expenses to Avg. Total Assets	47	0.00%	7.97%	7.34%	6.29%	6.70%	6.61%	7.08%	6.91%	6.52%
Ongoing Operating Rev/Op Exp	48	79.41%	89.51%	91.36%	107.60%	100.69%	97.77%	88.99%	96.36%	102.97%
Sustainability Ratio (Op Revs/All Exp)	49	72.01%	61.93%	70.24%	90.92%	80.54%	76.31%	70.95%	78.36%	82.36%
Compensation per Avg. FTE	50	0	37,581	41,386	33,166	36,382	39,300	40,430	41,886	43,708
Loan Expenses to Loan Vol & O/S	51	0.15%	0.38%	0.46%	0.77%	0.61%	0.64%	0.76%	0.63%	0.63%
Non-operating Revenue to Total Rev	52	52.39%	58.53%	61.40%	65.54%	61.01%	59.35%	57.19%	54.83%	53.87%
Grant and Contributions Required for Break Even	53	162,815	211,099	134,164	138,346	167,656	216,964	325,573	254,592	238,425

Operating Cost Analysis

The Ratio of Operating Expenses to Avg. Total Assets provides a key to the CU cost structure (47). The trends show a slight decline from the historical levels and remains below the critical Nominal Interest Margin on loans. This is a key reason that the ratio of Ongoing Operating Revenues (48) shows a very high coverage of operating expenses going forward. The dollar impact is reflected in line 53 which shows how much needs to be raised in order to breakeven. The significant feature of this line is that even though NT's balance is poised to more than double, the amount of non-operating revenue needed to support the growth rises, in the worst year, less than \$200k. While the Sustainability ratio (49) declines somewhat from the 2005 level, it remains in the 70-80% level, which relieves pressure on raising external funds.

In order to relieve pressure further and clear the way for greater growth, NT may want to find ways to increase the Members, Loans and Deposits per FTE. They may also want to review the budgets for Office Occupancy and Other Expenses (Diagnostic lines 14 and 17) for potential reductions.

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Loss Expense Analysis	54									
Total Delinquencies to Total Loans	55	10.17%	2.06%	6.57%	2.79%	2.86%	4.03%	3.22%	2.93%	3.99%
Charge-offs to Avg. Loans	56	0.00%	9.14%	3.42%	1.59%	4.26%	2.85%	2.48%	4.30%	2.83%
Recoveries to Average Loans	57	0.00%	2.69%	1.30%	2.22%	2.30%	1.92%	2.07%	2.25%	1.95%
Loss Reserve to Total Loans	58	2.78%	5.55%	7.21%	6.18%	6.10%	6.49%	6.63%	6.29%	6.32%

Loss Expense Analysis

The high delinquencies (55) in 2002 and 2004 and the level of charge-offs (56) in 2003 and 2004 are captured by two of the Quad forecasts and are projected forward. It is possible, given the limitations of trend line analysis that the Recoveries to Avg. Loans (57) are overstated. Nevertheless the recoveries show a strong collection and/or underwriting capacity. The Loss Reserve (58) appears more than adequate to accommodate the charge-offs net of recoveries if the capacity in collections continues as indicated.

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Liquidity Analysis	59									
Cash/Investments to St Liabs &Deps	60	71.26%	68.63%	75.03%	80.88%	81.59%	80.56%	78.33%	79.65%	79.14%
Cash On Hand to Total Prior Yr Op Ex	61	0.00%	20.07%	48.89%	44.72%	37.52%	42.77%	38.17%	38.57%	46.04%
Repayments/Loan Volume	62	0.00%	135.66%	74.04%	86.35%	83.83%	64.69%	65.97%	89.44%	68.06%
Loans to Member Shares	63	42.00%	47.90%	41.38%	40.62%	38.17%	38.63%	40.78%	37.43%	36.25%
Free Cash Flow to Op Uses	64	0.00%	0.00%	0.00%	0.00%	70.52%	55.19%	53.88%	61.72%	48.79%
Combined Cash, Deposits and Investme	65	3,457,624	3,113,265	3,357,535	4,499,883	5,172,368	6,024,316	6,784,072	7,964,147	9,687,268
% To Total Assets	66	69.83%	66.59%	70.47%	73.01%	72.32%	71.21%	69.70%	70.89%	70.75%

Liquidity Analysis

Because of its capacity to generate shares and deposits, CU has had far more than enough in the cash account to cover operating expenses (61). The Diagnostic shows this aspect of liquidity is likely to hold steady, a function of the high share and deposit growth as against the loan portfolio. This level of cash is unnecessary since a) the Deposits and Cash Equivalents Account (Diagnostic 33) appears to be solid and growing, and b) the Repayments to Loan Volume ratio (62) is so high. This high ratio is both good and bad: good because it provides much needed liquidity in the form of cash coming in, but bad in that it requires more expenses to originate new loans. The cash coming in gives management the discretion to reallocate and reprice as needed. Although Free Cash Flow is projected as fairly stable, the varying needs in the future, produce volatility in the the coverage of operating uses by Free Cash Flow (64). Nevertheless, the ratio is generally sufficiently high that there is little pressure to raise new financing or share balances, thereby providing management with needed room for product and pricing adjustments as well as growth. The primary focus for management should be on how to redeploy its loan products to make the most of this latitude and grow the loan portfolio.

COMMUNITY CREDIT UNION 2006	Actual	2002	2003	2004	2005	Consolidated Diagnostic				
						2006	2007	2008	2009	2010
Capital Analysis	67									
Share Drafts to Total Assets	68	12.55%	15.62%	15.10%	14.65%	14.29%	14.38%	12.71%	10.87%	9.80%
Regular Shares to Total Assets	69	45.33%	42.99%	44.78%	47.25%	48.02%	50.49%	54.11%	57.33%	60.84%
All Other Shares to Total Assets	70	28.72%	28.00%	25.52%	21.66%	19.13%	16.70%	15.39%	13.76%	11.77%
Capital to Total Assets	71	2.01%	2.97%	6.07%	9.73%	11.36%	11.60%	11.02%	11.00%	10.60%
Free Cash Flow to Debt	72	0.00%	0.00%	0.00%	0.00%	20.24%	14.94%	13.89%	18.52%	15.16%

Capital Analysis

The Diagnostic shows an inflated balance sheet with new money supporting large levels of investment. This is produced by the rapid growth in shares and deposits which derive primarily from the 2005 performance. In the absence of corresponding growth in the loan portfolio the proceeds of the deposits are placed in the investment account. The result is lower earning capacity as noted above.

One of the notable characteristics of the growth in shares is that the bulk of the growth occurs in Regular Shares. While this may be a function of the limitations of trend line analysis, CU clearly has room to raise Non-Member Deposits (70) in the event that Regular Shares don't show this level of expansion. That is because the Non-Member deposits remain at a low percentage to the whole.

One of the critical indicators, Free Cash Flow to Debt, shows how many years it would take to pay off liabilities from surplus and loan repayments. In theory this ratio (72) should be sufficient to pay off debt in less than two years -- assuming the investment accounts paid down liabilities on a one-to-one basis. It doesn't quite reach that level, but the differences are likely manageable. The key determinant, however, which is the extent of member and deposit turnover, is not available.

The Capital to Total Assets ratio (71) is seen to decline somewhat over the projected period, but it starts at well above the 2005 level. This suggests that CU does indeed have capital capacity to grow with its current cost structure.

APPENDIX D

Rules on Risk-Based Capital Allocation

Why do banks charge the rates they charge on loans to CDFIs? Clearly, the issues of loan size, complexity, fragmentary reporting, the absence of analytical standards, and simple perception of the nonprofit and/or community development sector are relevant. But none of them individually, nor all of them collectively, provide the chief reason for the generally higher pricing that CDFIs receive. The chief determinant resides with the concept of return on capital, and the achievement of a proper return on capital is largely a function of simple math. In order to improve pricing in the CDFI sector, CDFIs must learn to negotiate and manage this math.

The main focus for the FIR team during the development of the Commercial Paper Co-op (“Co-op”) was on how to reduce the amount of capital that a bank must maintain while, at the same time, supporting the assets sufficiently to warrant a top rating.

The issue boiled down to a basic question: how would the Risk Based Capital (“RBC”) guidelines (Basel I with amendments in place at the time) have enhanced the Co-op structure by reducing the risk-based capital allocation for banks, as compared to the capital these institutions had to hold in support of their existing warehouse lines of credit?

The answer to the question would determine three major items:

- The amount of grant funding the Co-op would have to raise to capitalize the SPV in the form of loss reserves
- The return on capital – and hence the attractiveness of the transaction – to the banks
- The rating – and hence the cost – of the commercial paper.

The Co-op had been designed initially with the banks providing both a credit enhancement facility and a liquidity facility. At the outset of discussions with representatives at the Federal Reserve, it was noted that this structure was likely inefficient and unnecessarily costly to both the Co-op and the banks. The Co-op structure included 10 percent first loss protection in the form of foundation grants – thus duplicating the role traditionally played by program-wide credit enhancement and entailing an unnecessary capital cost for participating banks. Notably, an SPV that comes with the credit enhancement fully funded requires only a liquidity facility from the banks. The liquidity facility, because it generally involves less risk of a loss of principal than a credit enhancement facility, requires a lower capital allocation and, hence, costs less. As a result, the FIR team restructured the Co-op to provide its own credit support. The banks would provide only a liquidity facility that assures timely repayment of principal and interest to investors.

Additional research revealed that several aspects of the Risk Based Capital guidelines currently in place under Basel I (Basel II had not yet been implemented) would have made the Co-op structure very attractive to participating banks. Specifically, these banks would have been able to hold less capital against this new facility as compared to what they were required to hold in support of their existing on-balance sheet warehouse lines of credit. In other words, RBC guidelines would have made the Co-op

facility less costly and therefore more attractive to bank participants than the current warehouse lines, while at the same time, enabling CDFIs to gain access to lower cost funding available in the commercial paper market (though, again, as noted, it was not recommended that CDFI participants cancel all of their warehouse lines).

The basis for this potential “win-win” was the 10 percent loss reserve that would be contributed by the banks and the foundations: suddenly there was an externally funded loss reserve that hadn’t been there before for the banks. But, in addition, there were several key refinements of the RBC Guidelines that made the Co-op even more attractive:

1. The Securitization Rule

Below is a description of the Securitization Rule, from the Federal Reserve Board Supervisory Letter SR 05-13. August 4, 2005. “Interagency Guidance on the Eligibility of Asset-Backed Commercial Paper Program Liquidity Facilities and the resulting Risk-Based Capital Treatment:”

In almost all cases, externally rated commercial paper issued out of an ABCP program is supported by program-wide credit enhancement. Often sponsoring banking organizations provide, in whole or in part, program-wide credit enhancement to their ABCP programs, which may take a number of different forms, including an irrevocable loan facility, standby letter of credit, financial guarantee, or subordinated debt.

1. The Securitization Capital Rule permits a banking organization with a qualifying internal risk rating system to use that system to apply the internal ratings approach to its unrated direct credit substitutes provided to ABCP programs that it sponsors by mapping its internal risk ratings to external ratings equivalents.

2. The external credit rating equivalents are organized into three ratings categories: investment grade credit risk, e.g., BBB- and above, high non-investment grade credit risk, e.g., BB+ through BB-, and low non-investment grade credit risk, e.g., below BB-. The rating categories are used to determine the appropriate risk-weight category or categories to which banking organizations should assign either the entire notional amount, or portions thereof, of their direct credit substitutes. The minimum risk weight available under the internal risk ratings approach is 100 percent for an investment grade exposure, even if the direct credit substitute is highly rated internally, e.g., AAA.

3. Direct credit substitutes internally rated high non-investment grade would be assigned to the 200 percent risk weight, whereas those internally rated more than one category below investment grade (e.g., BB-) would receive the "gross-up" treatment. That is, the banking organization extending the direct credit substitute must maintain capital against the notional amount of this position plus all more senior positions, subject to the low-level exposure rule.

4 Application of "gross-up" treatment, in many cases, will result in an effective dollar-for-dollar capital charge on direct credit substitutes that fall into the low non-investment grade category. The guidance introduces the "weakest link" approach for calculating the risk-based capital requirement applicable to a program-wide credit enhancement. This approach assumes that the risk of the program-wide credit enhancement is directly dependent on the quality, i.e., internal rating, of the riskiest asset pools purchased by the ABCP program. The weakest link concept assumes that the probability that the program-wide credit enhancement will be drawn is equal to

the probability of default of the asset pools with the weakest internal risk rating. Thus, in accordance with current market practice, the weakest link approach requires banking organization to internally rate its risk exposure to every asset pool purchased by its ABCP programs and use those internal ratings to assign the notional amount of the program-wide credit enhancement to risk weight categories, as appropriate.

The weakest link approach assigns risk-based capital against the program-wide credit enhancement in rank order of the internal ratings starting with the lowest internally rated asset pools supported by the program-wide credit enhancement. Accordingly, if all of the positions supported by the program-wide credit enhancement are internally rated investment grade, then sponsoring banking organizations would risk-weight the notional amount of their program-wide credit enhancements at 100 percent. For asset pools supported by the program-wide credit enhancement that are non-investment grade, banking organizations would have to maintain higher amounts of risk-based capital. The use of internal risk ratings under the Securitization Capital Rule is limited to determining the risk-based capital charge for unrated direct credit substitutes that banking organizations provide to ABCP programs. Thus, banking organizations may not utilize the internal ratings approach to derive the risk-based capital requirement for unrated direct credit substitutes extended to other transactions.

On November 29, 2001, the four bank regulatory agencies (the "Agencies") amended their RBC standards by adopting a new capital framework for banking organizations engaged in securitization activities. It was known as the "Securitization Capital Rule."⁹¹

This final rule (which became effective as of January 1, 2002) did the following three things:

1. Treated recourse obligations⁹² and direct credit substitutes⁹³ more consistently than had been the case under the existing risk-based capital ("RBC") standards;
2. Added new standards for the treatment of residual interests⁹⁴; and
3. Allows the agencies to use credit ratings and other approaches to match the risk-based capital requirements more closely to the actual risk of loss for various positions in asset securitizations.

There had been three earlier efforts to address various aspects of this rule beginning as early as 1994 when the agencies published a proposal to more closely align the RBC treatment of direct credit substitutes and recourse obligations. (Note that direct credit substitutes are essentially guarantees which are used to credit enhance Asset Backed Commercial Paper programs.)

The agencies never issued a final regulation and in 1997, they published a second proposal that dealt with many of the same issues. A third notice of proposed rulemaking was published in 2000 that made a number of changes from the earlier two proposals. Meanwhile the Basel Committee on Banking Supervision issued a consultative paper in January 2001. The final securitization rule published in November of 2001 borrows several approaches included in the Basel paper including the capital treatment of asset securitizations.

This rule was the culmination of the regulators' efforts to deal with the risks posed by asset securitization and other off-balance sheet risks that had not been captured in the original risk-based capital rules – also known as the Basel Capital Accord. The rule dealt with a number of complex issues, but in simplest form, it focused on more clearly defining and more accurately reflecting the risks in recourse arrangements, residual interests and direct credit substitutes. The latter played a central role in Asset-backed commercial paper ("ABCP") conduits.

One of the key shortcomings of the RBC standards before this rule was implemented was the different treatment accorded to direct credit substitutes (guarantees) and recourse obligations. Under the old system, off-balance sheet direct credit substitutes (DCS), such as standby letters of credit provided for third-party assets, carried a 100 percent credit conversion factor⁹⁵. However, only the face amount of the direct credit substitute is converted into an on-balance sheet credit equivalent amount. So if a bank is providing a guarantee for 40 percent of a pool of assets then capital is held only against the 40 percent face amount of the DCS. On the other hand, the capital requirement for recourse arrangements is based on the full amount – e.g., 100 percent – of the assets enhanced. So if a DCS covers less than 100 percent of the potential losses on the assets enhanced, the capital charge for a direct credit substitute would have been less than that for a comparable recourse arrangement, prior to the changes made under this rule.⁹⁶

This inconsistent treatment of DCS and recourse arrangements involving similar credit risks raised serious concerns about the possible exploitation by banking organizations of this RBC anomaly. The final rule eliminated this inconsistent treatment and the opportunity for banks to arbitrage the risk-based capital regulations by providing credit in the form that requires the lowest capital charges.

Broadly speaking, the rule made the following changes to the RBC guidelines:

- Defines the terms recourse, residual interest, and related terms, and revises the definition of direct credit substitute;
- Aligns the RBC treatment of recourse obligations and direct credit substitutes;
- Sets different capital requirements for different positions within securitization transactions based on relative risk exposure as reflected in credit ratings;
- Permits the limited use of a bank's own internal risk rating system to determine capital requirement for unrated DCS;
- Permits the limited use of rating agency's review of credit risk of positions in structured programs and qualifying software to determine the capital requirement for unrated DCS and recourse assets;
- Sets concentration limits and adjusts Tier I capital to a bank's holdings of credit enhancing IO strips in excess of 25 percent of Tier I capital;
- Sets the capital requirement at the face amount for residual interests that do not qualify for the ratings based approach;
- Permits each agency to modify state risk-weight, credit conversion factor or credit equivalent amount as needed on a case-by-case basis.

The issues that were of particular importance to the FIR team effort on the Commercial Paper Co-op included the following:

- Ratings Based Approach to determining RBC: As noted above, the Securitization Capital Rule permitted the use of a ratings-based approach to better address the different risks (and the required capital) associated with loss positions in an asset securitization structure and specifies when this approach can be used. Under this approach credit ratings from the rating agencies are used to measure relative exposure to credit risk and determine the appropriate RBC requirement. The Rule also addressed the capital treatment of unrated positions of direct credit substitutes discussed below. The reason this was such a crucial issue for the FIR team is that it underscored the importance of rating agency analytical standards in determining RBC – and profitability – for banks. In short, complying with rating agency credit standards would be critical not only for gaining access to the capital markets,

but also for gaining access to the wholesale side of the bank, and pricing of all bank credit facilities to CDFIs, whether the CDFIs went to the capital markets, the wholesale side of the bank, or stayed in the CRA division.

- Traded and Untraded Positions – the original RBC rules did not vary the capital requirements for different credit enhancements or loss positions in an asset securitization structure or security. The Securitization Rule put in place a multi-level, ratings-based approach to assess the capital requirements on recourse obligations, residual interests, direct credit substitutes and senior and subordinated securities in asset securitizations – based on relative exposure to credit risk. This approach used rating agency credit ratings to measure credit risk and determine the appropriate risk-based capital requirement for traded and untraded positions held by banks. The rule also provided a methodology for calculating the RBC required, based on a system of “mapping” the ratings (assigned by the agencies) to specific risk weights. The rule also clarified how positions that were not eligible for the ratings-based approach were treated for RBC purposes – under the “gross-up treatment”, dollar-for-dollar treatment, or unrated positions that are treated as rated positions under certain circumstances. Loans to CDFIs based on organizational credit risk would inevitably fall into the unrated category, which under these rules, would result in a substantial increase in RBC required whether the loans were on the books of a bank or in an SPV supported by the bank. Consequently, CDFIs could expect a higher spread or fee charged to cover the higher capital requirement, unless, of course, they found a way to be deemed ratable!
- Unrated Direct Credit Substitutes Used in Asset-Backed CP Programs. The Securitization Rule allowed direct credit substitutes issued in connection with asset-backed commercial paper programs to use the internal ratings-based approach to qualify for beneficial or lower risk-weighting (i.e. beneficial RBC treatment), something that the Co-op was seeking to achieve. Additional guidance on this issue was provided in Supervisory Letter 05-6 entitled Risk Based Capital Treatment for Unrated Direct Credit Substitutes (guarantees) Extended to Asset Backed Commercial Paper Programs (see below). The Rule permitted banking organizations with a qualifying internal risk rating system to use that system to apply the ratings-based approach to their unrated direct credit substitutes in asset-backed commercial paper programs. Internal risk ratings could be used to qualify such a credit enhancement for a risk weight of 100 percent or 200 percent under the ratings-based approach, but not for a risk weight of less than 100 percent. Although limited, this use of internal risk ratings for risk-based capital purposes was viewed as a step toward potential adoption of a broader use of internal risk ratings as discussed in several consultative papers on the new Basel Capital Accord.
- The absence of an internal risk rating. The credit enhancements that sponsors obtained for their commercial paper conduits were rarely rated or traded. If an internal risk ratings approach were not available for these unrated credit enhancements, the provider of the enhancement would have to obtain two ratings solely to avoid the gross-up treatment that would otherwise apply to non-traded positions in asset securitizations for risk-based capital purposes. The gross-up treatment could result in capital allocations well in excess of the norm. However, before a provider of an enhancement decided whether to provide a credit enhancement for a particular transaction (and at what price), the provider would generally perform its own analysis of the transaction to evaluate the amount of risk associated with the enhancement. This approach was particularly attractive to banks because allowing them to use internal credit ratings harnessed information and analyses that they already generated rather than requiring them to obtain independent but potentially redundant ratings from outside rating agencies. An internal risk ratings approach therefore could be

less costly than a ratings-based approach that relied exclusively on ratings by the rating agencies for the risk-weighting of these positions.

- **Potential for moral hazard.** The use of an internal ratings-based approach allowed the bank to differentiate the riskiness of various unrated direct credit substitutes in asset-backed commercial paper programs based on credit risk by the mapping of ratings to risk-weight categories under the agencies' capital standards. However, the use of internal risk ratings raised concerns about the accuracy and consistency of the ratings, especially because the mapping of ratings to risk-weight categories would give banks an incentive to rate their risk exposures in a way that minimized the effective capital requirement. A bank engaged in asset-backed commercial paper securitization activities that wished to use the internal risk ratings approach had to demonstrate to its primary regulator, that it had an adequate risk rating system. Under the Securitization Capital Rule banks could use internal risk ratings to determine the RBC charge for unrated direct credit substitutes (guarantees) that they provided to ABCP programs, but not to determine the RBC requirement for guarantees extended to other transactions.

The development of a different risk based capital allocation for off-balance sheet assets was logical and justifiable for all the reasons listed in Chapter 2 Section 1, and need not be reiterated here. But essentially, these guidelines enabled the banks supporting the Co-op – or the CDFI pools of assets – to minimize the amount of risk based capital backing the bank facility, and consequently to maximize the return to the bank. This was the key moving piece that made what we said above work: “RBC guidelines would have made the Co-op facility less costly and therefore more attractive to bank participants than the current warehouse lines, while at the same time, enabling CDFIs to gain access to lower cost funding available in the commercial paper market.” Essentially, these new positions enabled the performance of a CDFI over time to speak for itself, while reducing the cost to the CDFI of market unfamiliarity with the risk.

In this step towards greater market liquidity and access to capital, the regulators were relying very heavily on the rating agencies to ensure proper evaluation of credit risk, sufficient transparency for the investors, and, hence, continued uninterrupted functioning of the market. But they were also leaving room for the banks with a qualifying internal rating system to set the appropriate RBC allocations. *The possibility that the bank’s own risk rating system could be used to establish the appropriate RBC allocation and consequent pricing of the loans was a positive, given the excellent performance of CDFIs relative to organizational risk over time. There was a challenge, though: in the absence of any competing sources of funding for CDFI organizational risk, what could possibly motivate a bank to provide a basis for reducing the pricing on its loans? Essentially, this challenge paralleled the regulatory concern about moral hazard in the use of internal ratings, which reinforced the need for the Co-op – and CDFIs generally – to find a way to get rated.*

The Asset Backed Commercial Paper Program Rule

The primary function of an eligible ABCP liquidity facility should be to provide liquidity – not credit enhancement. An eligible liquidity facility must have an asset quality test that precludes funding against assets that are 90 days or more past due, in default or below investment grade, which implies that the institutions providing the ABCP liquidity facility should not be exposed to the credit risk associated with such assets. An ABCP liquidity facility will meet the asset quality test if, at all times through the transaction, (i) the liquidity provider has access to certain types of acceptable credit enhancements that support the liquidity facility and (ii) the notional amount of such credit enhancements exceeds the

amount of underlying assets that are 90 days or more past due, defaulted or below investment grade that the liquidity provider may be obligated to fund under the facility.

Banking agencies published a final rule on Asset Backed Commercial Paper programs on July 28, 2004.⁹⁷ This rule addressed the issue of consolidating or bringing Asset-Backed Commercial Paper programs on to the balance sheet of banking organizations and instituted a new capital charge for ABCP liquidity facilities. Asset-Backed Commercial Paper programs were typically supported by liquidity facilities that ensured timely payment of principal and interest to commercial paper investors either by lending to or purchasing assets from the ABCP program. Liquidity facilities that also provided funding for assets in the program that deteriorate (e.g., facilities that provided credit support or enhancement as well as liquidity) exposed the banking organization to credit risk – and were to be treated differently for purposes of risk-based capital. This rule clarified the RBC treatment for two types of liquidity facilities – eligible and ineligible – and distinguished this capital treatment from that which is applied to bank sponsored credit enhancement facilities applied to ABCP programs. The rule also discussed the risk-based capital requirements for banks that provided both liquidity facilities and credit enhancements to asset-backed commercial paper programs. Key elements of the rule are as follows:

- The final rule permanently excluded ABCP program assets from risk-weighted assets of banks for the purposes of calculating the risk-based capital ratios – e.g., the full face value of the assets being financed off balance sheet would not be used to determine the need for risk-based capital or the RBC calculation. *The agencies generally felt that the banks faced limited risks in these ABCP Programs and that the risks were confined to the credit enhancements and liquidity facility arrangements that they provided.*
- In order to ensure consistency among regulators, the final rule also defined an “ABCP” program to be a program that primarily issued (more than 50 percent) externally rated commercial paper backed by assets or other exposures held in a bankruptcy remote, special purpose entity. Under the final rule, banks could only exclude the assets of programs that met the definition of an “ABCP” program from its risk-weighted assets. Thus a bank sponsoring a program that did not meet the definition had to continue to include the program’s assets in its risk-weighted asset base – e.g., the equivalent of being “on balance sheet.”
- With regard to Liquidity Facilities Supporting ABCP programs – the final rule made two key distinctions among such facilities for risk-based capital purposes.
 - (i) First, the rule distinguished between short-term (an original maturity of one year or less) and long-term (an original maturity of more than one year) liquidity facilities:
 - a) Short-term liquidity facilities were to be converted to an on-balance sheet credit equivalent amount using a 10 percent credit conversion factor;
 - b) Long-term liquidity facilities were converted using a 50 percent credit conversion factor.These conversion factors applied regardless of whether the program met the definition of an ABCP program under the rule.
 - (ii) Second, the rule distinguished between what it called “eligible” and “ineligible” ABCP liquidity facility:
 - a) An “eligible” facility is one that meets a reasonable asset quality test that precludes funding assets that are 60 days or more past due or in default – i.e. assets with a high degree of credit risk such as those which are delinquent, defaulting or below investment grade.

b) An “ineligible” facility was one that that did not meet this asset quality test and therefore was deemed to be a recourse obligation or direct credit substitute and would be converted to an on-balance sheet credit equivalent amount using a 100 percent credit conversion factor rather than a 10 percent or 50 percent conversion factor. The rule did not apply the asset quality test to assets that were guaranteed by the US government or OECD countries.

- The rule also provided guidance on the issue of overlapping exposures to an ABCP program. If a bank had multiple exposures to a single ABCP program – i.e. both a credit enhancement and a liquidity facility – the bank was not required to hold duplicative risk-based capital against such exposures on the same pool of assets. The bank must hold capital only once and where overlapping exposures were subject to different risk-based capital requirements – the bank must apply the highest capital charge to the overlapping portion of the exposures.

All of these guidelines were of tremendous benefit to the Co-op. *Indeed they would be of tremendous benefit to any pool of assets coming out of the community development finance sector.* The rule also included some important benchmarks for the development of the Co-op: it was clear that the Co-op should focus on a) a short term assets for the purpose of achieving the lowest conversion factor; and b) incorporate strict stop-issuance triggers in order to assure that all assets being funded were “eligible.”

Supervisory Letter 05-6 Risk Based Capital Treatment for Unrated Direct Credit Substitutes Extended to Asset Backed Commercial Paper Programs.

Supervisory Letter 05-6, promulgated on March 30, 2005 by Board of Governors of the Federal Reserve System, Division of Banking, Supervision and Regulation the clarified *how* banking organizations could use internal ratings that they assigned to asset pools purchased by their asset-backed commercial paper (ABCP) programs to appropriately risk weight any direct credit substitutes, e.g., guarantees, extended to such programs. The guidance provided *an analytical framework for assessing the risk characteristics of direct credit substitutes* that a bank provided to an ABCP program it sponsored and described how to evaluate direct credit substitutes issued in the form of program-wide credit enhancements (an irrevocable loan facility, a standby letter of credit, a financial guarantee, or subordinated debt). It also provided a *means for supervisors to determine the risk based capital charges associated with direct credit substitutes* such as these enhancements.

This Supervisory Letter also introduced the “weakest link” approach for calculating the RBC requirement applicable to a program-wide credit enhancement. This approach assumed that the risk of the program-wide credit enhancement was directly dependent on the quality, i.e., internal rating, of the riskiest asset pools purchased by the ABCP program and therefore the probability that the program-wide credit enhancement would be drawn was equal to the probability of default of the asset pools with the weakest internal risk rating. Under the weakest link approach a bank would internally rate its risk exposure to every asset pool purchased by its ABCP programs and use those internal ratings to determine how much of the program-wide credit enhancement to assign to each risk weight category. The weakest link approach assigned risk-based capital against the program-wide credit enhancement in rank order of the internal ratings, starting with the lowest internally rated asset pools supported by the program-wide

credit enhancement. This was a crucial component in the structuring of the FIR team's Commercial Paper Co-op. In the absence of clear ratability on the notes issued by the CDFIs to the Co-op, combined with the recognition that the security for these notes included both ratable and unratable assets, the FIR team established two predicates: a) that the Co-op had to establish its own program wide credit enhancement – primarily through high capitalization; and b) the level of unratable assets securing the facility would have a direct impact on both the capital required at the Co-op level and/or at the banks providing the liquidity facility.

The chief victim of the “weakest link” clause was the option to include unsecured working capital obligations of the Co-op participants under a sublimit in the borrowing base. Because there was (and is) no common agreement on the metrics and methodologies for assessing unsecured organizational CDFI credit risk, any exposure of the Co-op to this asset class could force a material increase in both the capital requirement and the cost of bank support. This was yet another compelling argument for CDFIs finding a way to get rated.

As we now know, the rating agencies erred in their evaluations of many of the off-balance sheet vehicles, and the investors, spooked by unanticipated levels of delinquency and foreclosure, abandoned the commercial paper market virtually overnight. This was the proper response given the toxic nature of the assets being funded. The tragedy is that high quality assets – such as those in the community development sector – lost the opportunity for funding as well. The baby did, indeed, get thrown out with the bath water.

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About the Authors

Charles D. Tansey is Senior Advisor, Office of the Chief Executive Officer at NeighborWorks America. He is responsible for developing financial programs, projects and transactions that facilitate the formation of wealth among America's poorer communities and constituencies. Tansey spent 20 years in corporate banking and corporate finance at the Chase Manhattan Bank, the Bank of New York, and Commonwealth Capital Partners. In 1991, as a volunteer, he helped set up and manage the day-to-day operations of the \$1.3 billion bailout agency for the privately insured banks and credit unions in the state of Rhode Island. Later, he helped set up and served as the Interim Executive Director of both the Minority Investment Development Corporation (RI) and the Rhode Island Coalition for Minority Investment. He was appointed by President Clinton to serve as Associate Deputy Administrator for Capital Access at the SBA, managing the \$50 billion in assets of the 7(a), 504, microloan, trade finance, New Markets and venture capital programs. As part of his responsibilities he designed and helped set up the SBA's Office of Lender Oversight, presided over the initiation of the SBA's \$10 billion asset sale program, and served on the Investment Committee for approval of SBICs, the Inter-Agency Work Group on Micro-enterprise and the Advisory Board of the CDFI Fund at the US Department of Treasury. Mr. Tansey presently serves as Vice Chairman at The Appraisal Foundation Advisory Council, as Treasurer and Director on the Board of Partners for the Common Good, as Director on the Board of the Fair Mortgage Collaborative; and on the Advisory Boards for Wall Street Without Walls, UrgentVC!, Waveland Ventures and CARS (the CDFI Assessment and Rating System). Tansey co-designed the software and the course for the *Sustainable Mission: Pricing, Funding and Managing Community Development Assets* at the NeighborWorks Institutes. He co-designed the Urban RPM/CARPI, a bank/retailer database to facilitate investment in inner city retail property. Tansey was born on the east side of San Jose, California, and is married with two children. He graduated from Phillips Academy Andover, and from Brown University, where he was commencement speaker for his class.

Michael Swack is a professor at the University of New Hampshire where he has appointments at the Carsey Institute and at the Whittemore School of Business and Economics. He has over 30 years experience in the fields of economic development, finance and development banking. He was the founder and former Dean of the School of Community Economic Development (CED) at Southern New Hampshire University. Dr. Swack has been involved in the design, implementation, and management of a number of community development lending and investment institutions both inside and

outside the United States. He was the first Chairman and served for 17 years as a board member of the New Hampshire Community Development Finance Authority (CDFA), a state-chartered equity fund for community economic development ventures and projects. He is the founding president and a current board member of the New Hampshire Community Loan Fund. He was a founding board member of the National Association of Community Development Loan Funds (now the Opportunity Finance Network), a trade association of Community Development Finance Institutions, and a current member of the Community Development Advisory Council of the Federal Reserve Bank of Boston. Since 2000 he has also directed the Financial Innovations Roundtable, a program that promotes new approaches and policies designed to build the field of community development finance and increase access to capital for community development intermediaries. Internationally he has been involved in development finance and microfinance work in Africa, Asia and Latin America. He has published in the areas of economic development, development finance, community investment and mission related investment. He received his doctorate from Columbia University, his master's degree from Harvard University and his bachelor's degree from the University of Wisconsin-Madison.

Michael M. Tansey is professor of Economics at Rockhurst University in Kansas City, MO. He has done extensive economic analysis in consulting projects, particularly in telecommunications, banking, public utilities, and health care. He has published studies of interest rate ceilings in real estate lending, fiscal impact analysis for local planning, protectionist policies in the steel industry, and the effects of price regulation. After his training at Harvard College (Class of 1970), he served as an intern in the Office of Emergency Preparedness (the predecessor to FEMA), where he did extensive work on disaster planning using input-output analysis, and conducted a study on building codes. He then participated as an economic analyst in all four phases of the Nixon price control programs (1971-74), the most recent U.S. experience with incomes policies. In that program, he worked under Donald Rumsfeld in the Cost of Living Council (1973) and was chosen to help with the publication of the history of the price control program by Dick Cheney (1974). His graduate work from the University of Wisconsin (Ph.D. '78) included a year of study and research at the Brookings Institution. He has since served in academia, winning multiple teaching awards and developing an international curriculum for an Executive MBA program and an MBA program for medical students and physicians. For this latter work, he received an honorary degree (2003) from the Kansas City University of Medicine and Bioethics. He is a frequent economics commentator on TV stations and radio in Kansas City

Vicky Stein provided research related to the Commercial Paper Co-op and general conceptual as well as editorial support. An independent consultant, she has a wide range of experience in public policy, financial services and advocacy for nonprofit organizations. Prior to consulting, she was a Senior Policy Associate at Robert A. Rapoza Associates representing nonprofit organizations before Congress and federal agencies. As an advocate, she was involved in the legislative process that led to the establishment of the CDFI Fund. Vicky also worked as a staff member of the House Banking Committee and in several other posts on Capitol Hill. Her experience in the banking and financial services sector includes work with the Federal Reserve Bank of New York, Dillon Read & Co., and Merrill Lynch & Co. Her work on this project, particularly in the regulatory arena, was critical to the key concepts and innovations in this book. Vicky holds a master's degree in International Affairs from Columbia University and a bachelor's from Middlebury College.

Notes to Introduction

¹ Mark Willis, "It's the Rating Stupid: A Banker's Perspective on the CRA." (New York: Ford Foundation, 2009).

² Kirsten Moy and Alan Okagaki, "Changing Capital Markets and Their Implications for Community Development Finance." (Washington, DC: The Brookings Institution Center on Urban and Metropolitan Policy, 2001). Many of the points here are aligned with this prescient and penetrating article.

³ Federal Reserve Bank of San Francisco, conference on conditions in the marketplace, May 2009.

⁴ Charles Tansey, Jack Northrup, and Eric Hangen, *Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding and Management of Loans and Development Assets*. Durham, NH: Carsey Institute, University of New Hampshire and NeighborWorks America, 2009).

⁵ "Sustainable Mission" Course ML 375, presented at the NeighborWorks America Training Institutes. www.nw.org

⁶ The Financial Innovations Roundtable (FIR) assembled the teams that worked on the projects in this book from 2001-2008. Originally conceived and implemented by Michael Swack, formerly of the School of Community Economic Development at Southern New Hampshire University, the Financial Innovations Roundtable continues at the Carsey Institute of the University of New Hampshire. For this project, the FIR teams received funding primarily from the Heron and Fannie Mae Foundations.

Notes to Chapter 1

⁷ The Neighborhood Reinvestment Corporation (aka NeighborWorks America), a public nonprofit organization, was chartered by an Act of Congress in the Housing and Community Development Amendments of 1978 (Public Law 95-557). The Neighborhood Reinvestment Corporation evolved from a 1972 effort by the Federal Home Loan Bank Board to increase thrift-industry lending in declining neighborhoods. By statute, NR's Board of Directors is composed of five financial regulatory agencies (the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the National Credit Union Administration) and the Department of Housing and Urban Development. NR's mission is to strengthen distressed urban, suburban, and rural communities through a formal national network of over 240 local community-based partnership organizations composed of community residents, private sector, and local government entities, known collectively as the NeighborWorks® network. The mission is also to advance the capabilities, mechanisms, collaborations and goals of the broader community development sector. In creating Neighborhood Reinvestment, Congress envisioned a highly flexible, nonbureaucratic laboratory, a place where "new ideas and approaches could be studied, refined, pilot-tested, and replicated in order to revitalize older, urban neighborhoods by mobilizing public, private and community resources at the community level."

⁸ FIR funded much of the teams' work through grants from a number of major foundations. FIR was initiated in 2000 by Michael Swack of the Carsey Institute at the University of New Hampshire. Swack is former dean of the School of Community Economic Development at Southern New Hampshire University. The FIR, which is now continuing at the University of New Hampshire, has been remarkably successful in presenting a number of innovations and best practices in the community development field, of which the effort to gain access to the capital markets, the subject of this book, was one. The Heron Foundation and the Fannie Mae Foundation funded the bulk of the work for this particular project.

⁹ A highly informative as well as genuinely humorous book on the subject is *Funny Money*, by Mark Singer (Alfred Knopf, 1985).

¹⁰ For a good summary, see the FDIC, "An Examination of the Banking Crises of the 1980s and Early 1990s," chap.7 in *History of the Eighties—Lessons for the Future*. Available at www.fdic.gov/bank/historical/history/235_258.pdf

¹¹ James Grant, *Money of the Mind* (New York: Farrar Straus and Giroux, 1992), preface, pp. 3–4. It is likely that during the latest credit crisis, Zabau Shepard was able to keep her house, probably because she could not borrow against it. For the present, at least, there are no known federal, state or local protocols for producing title documents, appraisals, and insurance binders on a doghouse.

¹² Nothing demonstrated the dominance of trading over lending more than the passage of the Gramm-Leach-Bliley Act in 1999, which effectively repealed the sections of the 1933 Glass-Steagall Act that had

prohibited the joint ownership of investment banks (trading function) and commercial banks (lending function). The provision of Federal Reserve support and federal insurance for mutual funds in 2008 completes the picture. Washington is now awash with speculation that our great grandparents may have been wiser than we thought.

¹³ John Kenneth Galbraith, *The Great Crash* (New York: Houghton, Mifflin, 1954), from Chapter 4, "In Goldman, Sachs We Trust."

¹⁴ For those who wish to pursue the issue further, the work of Roman Frydman and Michael D. Goldberg, *Imperfect Knowledge Economics: Exchange Rates and Risk* (Princeton, NJ: Princeton University Press, 2007), and "Financial Markets and the State: Price Swings, Risk, and the Scope of Regulation," *Capitalism and Society*, vol.4 (2009) is helpful. While debunking the myth of free-market-based rational expectations, they assert, collaterally, that rational expectations cannot be expected of the federal authorities, either. In short, cleaning up the mess involves a yin-yang of opposing forces, neither of which can or will adhere to rational expectations because, among other things, neither actually knows what to expect. For a perspective on the rational market debate see Justin Fox, *The Myth of the Rational Market: A History of Risk, Reward and Delusion on Wall Street* (New York: HarperCollins, 2009). On market crashes see Jeffrey Sachs, "Comment on 'Financial Markets and the State: Long Swings, Risk, and the Scope of Regulation'" (by Roman Frydman and Michael D. Goldberg), *Capitalism and Society*: 4 (2), available at www.bepress.com/cas/vol4/iss2; and C. Kindleberger, R. Aliber, and R. Solow, *Manias, Panics, and Crashes: A History of Financial Crises*, (Hoboken, NJ: John Wiley & Sons, 2005). The latter has an appendix that lists the crashes from 1618 to the present.

¹⁵ David J. Erickson, "The Secondary Market for Community Development Loans, Conference Proceedings," *Community Development Investment Review*, vol. 2, issue 2, 2006.

¹⁶ *The Wall Street Journal*, "Money and Investing," June 30, 2009.

Notes to Chapter 2

¹⁷ David J. Erickson, "The Secondary Market for Community Development Loans, Conference Proceedings," *Community Development Investment Review*, vol. 2, issue 2, 2006.

¹⁸ CDFI Fund website: July 2009, www.cdfi.treas.gov.

¹⁹ Opportunity Finance Network website: July 2009, www.opportunityfinance.org.

²⁰ CDFI Data Project, *Providing Capital, Building Communities, Creating Impact: The CDFI Data Project Fiscal Year 2006*, 6th ed. (Washington, DC: CDI).

²¹ Ibid.

²² James Rosenthal and Juan M. Ocampo, *Securitization of Credit Inside the New Technology of Finance* (Crockett, TX: McKinsey & Company, 1988).

²³ Moody's Investors Service, "Credit Analysis of Structured Securities." 1991.

²⁴ "Asset-Backed Commercial Paper Criteria: Asset-Backed Commercial Paper Explained," *Fitch's Report* November 8, 2001.

²⁵ Elizabeth Wroth and Lynn Homa, "Standard and Poor's Loan-Backed Commercial Paper Criteria" (New York: Standard and Poor's, 1998), p. 1.

²⁶ See section on "Risk-Focused Bank Examinations: Regulators of Large Banking Organizations Face Challenges."

²⁷ "Rating the Adequacy of Risk Management Processes and Internal Controls at State Member Banks and Bank Holding Companies," May 24, 1996. SSR Letter 95-51 (SUP), Division of Banking Supervision and Regulation, Board of Governors of the Federal Reserve System.

²⁸ He has been proven right so far; his long-term interest swap rate at the time was about 12 percent.

²⁹ CDFI Data Project, *Providing Capital, Building Communities, Creating Impact*.

³⁰ Mark Willis, "It's the Rating Stupid: A Banker's Perspective on the CRA" (New York: Ford Foundation, 2009).

Notes to Chapter 3

³¹ Lindley R. Higgins, *The Coming Storm: The Effect of Rising Foreclosures on Distressed Communities* (Washington, DC: NeighborWorks America, 2008), p 6.

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- ³² Irvine H. Sprague, *Bailout: An Insider's Account of Bank Failures and Rescues* (Frederick, MD: Beard Books, 2000), p.163. Also helpful is the FDIC's history of the bailout, available at http://www.fdic.gov/bank/historical/history/235_258.pdf.
- ³³ For the reasons for this unexpected performance, see Robert J. Shiller, *The Subprime Solution* (Princeton, NJ: Princeton University Press, 2008), pp.6-7.
- ³⁴ Douglas W. Diamond and Raghuram G. Rajan, "The Credit Crisis: Conjectures about Causes and Remedies," *American Economic Review: Papers & Proceedings*, vol. 99, no. 2 (2009), p. 607.
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- ³⁶ James A. Rosenthal and Juan M Ocampo, *Securitization of Credit, Inside the New Technology of Finance* (Crockett, TX: McKinsey & Company, 1988), pp. 5, 12, 14.
- ³⁷ Shiller, *The Subprime Solution*, p. 10.
- ³⁸ "Risk-Based Capital Guidelines; Capital Adequacy Guidelines; Capital Maintenance: Capital Treatment of Recourse, Direct Credit Substitutes and Residual Interests in Asset Securitizations." *Federal Register*, vol. 66, no. 230 (November 29, 2001), p. 59614.
- ³⁹ "Ibid., p. 44908.
- ⁴⁰ Board of Governors of the Federal Reserve Board, Division of Banking, "The Asset-Backed Commercial Paper Rule." Supervisory Letter SR 05-6 on risk-based capital treatment for unrated direct credit substitutes extended to asset-backed commercial paper programs, March 30, 2005.
- ⁴¹ Thomas H. Stanton, "Credit Scoring and Loan Scoring: Tools for Improved Management of Federal Credit Programs" (PricewaterhouseCoopers Endowment for the Business of Government, 1999), p. 7.
- ⁴² Edward M. Gramlich, *Subprime Mortgages: America's Latest Boom and Bust* (Washington, DC: Urban Institute Press, 2007).
- ⁴³ For a closer look at the economic analysis of the financial innovations of the 1980s and what went wrong, see Walter Adams and James W. Brock, *Dangerous Pursuits* (New York: Pantheon Books, 1989), chapters 2-5. For a chronology of the boom (pp. 19-227) and bust of the LBO boom, see James B. Stewart, *Den of Thieves* (New York: Simon & Schuster, 1991), p. 450.
- ⁴⁴ See, for example, Ned Eichler, *The Thrift Debacle* (Berkeley: University of California Press, 1989).
- ⁴⁵ It is interesting that, following Hurricane Katrina, the states of Mississippi and Louisiana were quick to comprehend this fact. The only difference between the present housing disaster and that which followed Hurricane Katrina is that currently the houses are still standing. Perhaps this is one reason why so many in the banking sector are still prioritizing the LTV instead of the borrower's capacity to pay as a guideline for loan modifications.
- ⁴⁶ Shiller, *The Subprime Solution*, pp. 50-51.
- ⁴⁷ Diamond and Rajan, "The Credit Crisis," p. 607.
- ⁴⁸ *The Wall Street Journal*, "Money and Investing," June 30, 2009. Note that in this example we mix different asset classes with differing credit-risk profiles to illustrate the yield curve in the context of the key indices that lenders would track for both borrowing and lending.
- ⁴⁹ Michael Mackenzie, "Talk of Quick Fix Recedes as Libor Gap Fails to Close," *The Financial Times*, July 29, 2008.
- ⁵⁰ Nancy Andrews, "Strength in Adversity: Community Capital Faces up to the Economic Crisis," in the working paper, "The Economic Crisis and Community Development Finance: An Industry Assessment" (San Francisco: Community Development Investment Center, Federal Reserve Bank of San Francisco, 2009).
- ⁵¹ Richard K. Green, "Can Capital Markets Replace Banks for Funding," *Community Development Investment Review*, vol. 3, issue 2 (2007).
- ⁵² Basel Committee on Banking Supervision, *Proposed Revisions to the Basel II Market Risk Framework, Consultative Document* (Basel, Switzerland: Bank of International Settlements, July 2008).

⁵³ Basel Committee on Banking Supervision. *Guidelines for Computing Capital for Incremental Risk in the Trading Book, Consultative Document* (Basel, Switzerland: Bank of International Settlements, July 2008).

⁵⁴ Peter V. Darrow, Carol A. Hitselberger, and Richard C. Cummings, "Rating Agency Requirements." In *Securitization of Financial Assets*, edited by Mayer, Brown, and Platt (chapter 7) (2000-2 Supplement SS 7.02E). (New York, Aspen Publishers, 2000).

⁵⁵ Douglas Winn, "Growing Pains," *Community Development Investment Review*, vol. 2, no. 2 (2006).

Notes to Chapter 4

⁵⁶ Participants included Greg Stanton, Charles Tansey, Michael Swack, Frank Altman, Bob Schall, Kathy Stearns, Shari Berenbach, Lori Chatman, Fred Cooper, Steven Davey, Dan Leibsohn, Andrea Levere, Kent Marcoux, Marcus Weiss, Thomas O'Brien, Steve Davidson.

⁵⁷ For comparative purposes, during the period in which we constructed the Mini-Fed in 2001 to 2003, the yields on U.S. Treasuries ran between 4 and 5 percent, but the short rates dropped from 4 percent to approximately 1 percent. The intention with the Mini-Fed was to peg the interest rates charged to the borrowers at 50 basis points over the cost of the liabilities for the respective maturities, with an asset/liability mismatch generating a somewhat larger spread. The rates we describe in the text are considered particularly attractive because the loans were unsecured.

Notes to Chapter 5

⁵⁸ William P. Ryan, "Nonprofit Capital: A Review of Problems and Strategies" (New York: Rockefeller Foundation and Fannie Mae Foundation, 2001), p 5.

⁵⁹ This phase of the FIR effort at gaining access to the capital markets for unsecured obligations based on organizational credit risk lasted from July 2003 through November 2005. Participants included Greg Stanton, Charles Tansey, Michael Swack, Frank Altman, Mary Tingerthal, Bob Schall, Austin McClintock, Annie Donovan, Jeff Brenner, Kathy Stearns, Ellen Seidman, Thomas O'Brien, Douglas Criscitello, Shelby Chodos, and Steve Davidson.

⁶⁰ Weili Chen and Winston Chang, "Standard & Poor's Small Business Portfolio Model Introduces a Potential New Tool for Community Development," *Community Development Investment Review*, vol. 3., issue 2, 2007.

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⁶¹ Participants included Greg Stanton, Charles Tansey, Michael Swack, Frank Altman, Scott Young, Bob Schall, Deborah Godshalk, Annie Donovan, Jeff Brenner, Warren Horvath, Brian Cosgrove, Paul Ng, Dan Sheehy, Juliana Eades, Vicky Stein, Steve Davidson, Thomas O'Brien, Shelby Chodos, and Douglas Criscitello.

⁶² Rate for the CMBS fixed rate conduit at January 21, 2009 (Commercial Mortgage Alert).

⁶³ Ben Bernanke, "The Economic Crisis and Community Development Finance: An Industry Assessment," speech delivered at the Global Financial Literacy Summit, Washington, DC. June 17, 2009. Available as Community Development Center Working Paper, no. 2009-05 (San Francisco: Federal Reserve Bank of San Francisco, June 2009), p. 4. Available at <http://frbsf.org/cdinvestments>.

⁶⁴ Kirsten Moy and Alan Okagaki, "Changing Capital Markets and Their Implications for Community Development Finance" (Washington, DC: Brookings Institution, Metropolitan Policy Program, 2001).

⁶⁵ Mark Pinsky, "The New Normal: The Extraordinary Future of Opportunity Markets." Working Paper no. 2009-05 (San Francisco: Federal Reserve Bank of San Francisco, Community Development Center, June 2009), p. 4. Available: <http://frbsf.org/cdinvestments>).

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⁶⁶ Board of Governors of the Federal Reserve System, "The Asset-Backed Commercial Paper Rule," Supervisory Letter SR 05-6, "On Risk-Based Capital Treatment for Unrated Direct Credit Substitutes

Extended to Asset-Backed Commercial Paper Programs” (New York: Board of Governors of the Federal Reserve System, Division of Banking Supervision and Regulation, March 30, 2005), p.1.

⁶⁷ Clara Miller, “Hidden in Plain Sight: Understanding Nonprofit Capital Structure,” *The Nonprofit Quarterly*, Spring 2003, pp. 2,4, 5.

⁶⁸ Charles Tansey, Jack Northrup, and Eric Hangen, *Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding, and Management of Loans and Development Assets* (Durham, NH: Carsey Institute, University of New Hampshire, NeighborWorks America, 2009), p. 33.

Notes to Chapter 8

⁶⁹ Ellen Seidman, “Executive Summary: The Economic Crisis and Community Development Finance: An Industry Assessment” (San Francisco: Federal Reserve Bank of San Francisco, May 2009), p. 3.

⁷⁰ Charles Tansey, Jack Northrup, and Eric Hangen, “Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding and Management of Loans and Development Assets” (2009). The course was created by NeighborWorks America, Wall Street Without Walls, members of the FIR team and Southern New Hampshire University in 2003, under a grant from the Fannie Mae Foundation.

⁷¹ The bulk of this chapter is adapted from Module II: Statement Analysis of the Chase Manhattan Bank Management Training Program; the SBA Office of Lender Oversight; the World Council of Credit Unions’ PEARLS performance monitoring system; the Aspen Institute’s FIELD Microtest program; the NeighborWorks America PROMPT assessment program; and Opportunity Finance Network’s CARS.

⁷² We would also normally be able to run cash-on-hand ratios at this point to get a read on liquidity. But in this example, we are assuming no cash on hand.

⁷³ Michiyo Nakamoto and David Wighton, “Citigroup Chief Stays Bullish on Buyouts,” *Financial Times*, July 9, 2007. Available at: <http://www.ft.com/cms/s/0/80e2987a-2e50-11dc-821c-0000779fd2ac.html>

⁷⁴ Clara Miller, “An Introduction to Nonprofit Capitalization,” in *Linking Mission and Money* (New York: Nonprofit Finance Fund, 2001), p. 1.

⁷⁵ The Four Major Categories and the 21 key decisions are from the Carsey Institute and NeighborWorks, *America’s Sustainable Mission*, course ML 375, at the NeighborWorks Training Institutes, and the training manual, *Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding and Management of Loans and Development Assets* (Durham, NH: Carsey Institute, University of New Hampshire, and NeighborWorks America, 2009).

⁷⁶ A substantial portion of this section is taken from the Chase Manhattan Bank Management Training Module II on Statement Logic.

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⁷⁷ Charles Tansey, Jack Northrup, and Eric Hangen, introduction to the *Sustainable Mission*, course ML 375, at the NeighborWorks Training Institutes, and the training manual, *Advanced Financial Analysis for a Sustainable Mission: Pricing, Funding and Management of Loans and Development Assets* (Durham, NH: Carsey Institute, University of New Hampshire, and NeighborWorks America, 2009).

⁷⁸ Ibid.

⁷⁹ Heidi Kaplan, “First Mover: The CDFI Funds’ CIIS Database Holds Promise to Create Substantial Data Repository for Community Development Investments,” *Community Development Investment Review*, vol. 3, issue 2, 2007, p. 54.

⁸⁰ Thomas H. Stanton, “Promising Practice: The Lender Monitoring System of the Small Business Administration’s Office of Lender Oversight from Federal Credit Programs: Managing Risk in the Information Age” (IBM Center for the Business of Government, 2005), pp. 20, 21.

⁸¹ Tansey, Northrup, and Hangen, *Advanced Financial Analysis for a Sustainable Mission*.

⁸² Glen Yago, Betsy Zeidman, and Jill Manning, “Hunting for Data Sources: How Improving Data Can Increase Capital for Emerging Domestic Markets,” *Community Development Investment Review*, vol. 3, issue 2 2007, p. 22.

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⁸³ Mary Tingenthal, "Turning Uncertainty into Risk: Why Data Are the Key to Greater Investment," *Community Development Investment Review*, vol. 2, issue 2, 2006, pp. 26, 27.

⁸⁴ Laura Choi, "Creating a Marketplace: Information Exchange and the Secondary Market for Community Development Loans" (San Francisco: Community Development Investment Center, Federal Reserve Bank of San Francisco, 2007), pp. 65, 66.

⁸⁵ Douglas Winn, "Growing Pains," *Community Development Investment Review*, vol. 2, issue 2, May 2006, p. 33.

⁸⁶ Nancy Andrews, "The Economic Crisis and Community Development Finance: An Industry Assessment," Community Development Investment Center working paper (San Francisco: Federal Reserve Bank of San Francisco, May 2009), pp. 17, 18.

⁸⁷ Thomas H. Stanton, "Promising Practice: The Lender Monitoring System of the Small Business Administration's Office of Lender Oversight from Federal Credit Programs: Managing Risk in the Information Age" (IBM Center for the Business of Government, 2005), pp. 22, 23.

⁸⁸ Mark Willis, "It's the Rating Stupid: A Bankers' Perspective on the CRA," From *Revisiting the CRA: Perspectives on the Future of the Community Reinvestment Act*, a joint publication of the Federal Reserve Banks of Boston and San Francisco. (New York: Ford Foundation, February 2009), p. 61.

⁸⁹ *Ibid.*, p. 60, 64.

⁹⁰ Ellen Seidman, "Bridging the Information Gap between Capital Markets, Investors, and CDFIs," *Community Development Investment Review*, vol. 2, issue 2, 2006, pp. 37, 38.

Notes to Appendices

⁹¹ *Final Rule: Risk-Based Capital Guidelines; Capital Adequacy Guidelines; Capital Maintenance: Capital Treatment of Recourse, Direct Credit Substitutes and Residual Interests in Asset Securitizations*, 12 CFR Part 567, *Federal Register*, vol. 66, no. 230, November 29, 2001, pp. 59614-59667.

⁹² Note that the agencies use the term recourse to refer to the credit risk that a bank retains in connection with the transfer of its assets. Banks have long provided recourse in connection with sales of whole loans or loan participations; today recourse arrangements frequently are also associated with asset securitization programs. (Middle column, p. 59616, *Federal Register*, 11/29/01).

⁹³ In this final rule, all forms of third-party enhancements, i.e. all arrangements in which a bank assumes the credit risk of from third-party assets or other claims that it has not transferred are referred to as direct credit substitutes. (Middle column, p. 59616, *Federal Register*, 11/29/01).

⁹⁴ For regulatory capital purposes, residual interests refer to when the sponsor of a securitization provides a portion of the total credit enhancement internally, as part of the securitization structure, through the use of excess spread accounts, over collateralization, retained subordinated interests or similar on-balance sheet assets.

⁹⁵ Credit conversion factor refers to the factor used to convert an off-balance sheet obligation to an on-balance sheet asset that can be risk weighted so that its capital charge maybe determined.

⁹⁶ For example, if a direct credit substitute covers losses up to the first 20 percent of \$100 of enhanced assets, then the on-balance sheet credit equivalent amount equals \$20, and risk-based capital is held against only the \$20 amount. In contrast, required capital for a first-loss 20 percent recourse arrangement on \$100 of transferred assets is higher because capital is held against the entire \$100 of the assets enhanced. [*Federal Register* 11/29/01, first column, p. 59618]

⁹⁷ "Final Rule Risk Based Capital Guidelines; Capital Adequacy Guidelines; Capital Maintenance: Consolidation of Asset Backed Commercial Paper Programs and Other Related Issues," *Federal Register*, vol. 69, no. 144, July 28, 2004. This rule is updated by Supervisory Letter SR 05-13, "Interagency Guidance on the Eligibility of Asset-Backed Commercial Paper Program Liquidity Facilities and the resulting Risk-Based Capital Treatment" on August 4, 2005.