20 YEARS OF CDFI BANKS AND CREDIT UNIONS

1996–2015: An Analysis of Trends and Growth

OPPORTUNITY FINANCE NETWORK™

Published January 31, 2017

20 Years of CDFI Banks and Credit Unions 1996-2015: An Analysis of Trends and Growth

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Funding for this report was provided by

Table of Contents

Executive Summary iv

I. Introduction 1

II. Twenty-Year Trends among CDFI Banks and Credit Unions 2

Characteristics of CDFI Banks and Credit Unions 4

Loan Portfolio Distribution by Sector 7

Sources of Funds 10

Financial and Portfolio Performance 13

Geographic Focus 17

Minority Depository Institutions and Minority Credit Unions 22

Services Targeted to Low- and Moderate-Income Consumers 26

Financial and Portfolio Performance in Relation to Asset Size 28

III. Growth Characteristics of Long-Term CDFI Banks and Credit Unions - Longitudinal Analysis 31

IV. Key Findings and Opportunities for Future Research 41

Appendix A: Supplementary Figures 44

Appendix B: Commonly Used Abbreviations and Terms 51

List of Figures 54

References 56

Executive Summary

Community development financial institution (CDFI) banks and credit unions provide much needed capital in areas underserved by conventional financial institutions. Targeting low-income and other underserved communities, they often take on what appear to be riskier loans, yet their portfolio performance is on par or better than conventional financial institutions.

These are the findings of an analysis of CDFI bank and credit union performance and growth over 20 years. Based on publicly available data, the study covers the period beginning 1996 and ending in 2015. During the study period:

- Assets in CDFI banks increased from $926 million to $35 billion, increasing their share of all bank assets from 0.02% to 0.22%. Assets in CDFI credit unions grew from $150 million to $55 billion, increasing their share of all credit union assets from 0.1% to 4.6%.

- Despite CDFI banks experiencing higher delinquency rates than all banks (5.29% vs. 3.53% during 2001-2015), CDFI banks experienced lower net charge-off rates than all banks (0.65% vs. 1.05%), suggesting that CDFI banks' missions compel them to manage delinquencies rather than charge-off late loans. Likely because credit unions' non-profit mission aligns with the CDFI industry's mission, the discrepancy between higher delinquency rates and lower net charge-off rates at CDFI banks vs. all banks does not resurface when comparing CDFI credit unions vs. all credit unions.

- CDFI banks and credit unions provide important financial services to low-income areas, both rural and urban. Based on headquarters locations, rural CDFI banks represent 51% (58 out of 113) of all CDFI banks and 50% of all CDFI bank assets ($17.7 billion out of $35 billion). CDFI bank assets are more concentrated in rural areas compared with non-CDFI banks (19% based on headquarters location).

- Minority-led institutions account for sizable shares of CDFI banks and of CDFI credit unions (34% in each case in 2015), far outweighing minority banks' share of all banks (3%) and minority credit unions' share of all credit unions (13%).

- CDFI credit unions are more likely to provide services that are particularly relevant to low- to moderate-income consumers than all credit unions (56% average service rate versus 34%).

OFN wishes to thank the Community Development Bankers Association and the National Federation of Community Development Credit Unions for their invaluable comments on drafts of this report and suggestions for future research topics.

I. Introduction

To explore the role, importance, and growth of non-regulated community development financial institutions (CDFIs), Opportunity Finance Network (OFN) recently released the report titled: *20 Years of Opportunity Finance: 1994-2013: An Analysis of Trends and Growth* (2015). The report (hereinafter: *OFN 2015*) includes a brief history of CDFIs and highlights trends in OFN Member CDFI loan funds' financial performance and growth.

20 Years of CDFI Banks and Credit Unions 1996-2015: An Analysis of Trends and Growth serves as a companion to *OFN 2015*. In addition to focusing on regulated rather than non-regulated CDFIs, this report differs from *OFN 2015* in two respects. First, since *OFN 2015* presents CDFIs' history and general background, we do not include a similar section here. Second, since data on banks and credit unions are publicly available, here we do not focus only on the subset of CDFI banks and credit unions that are OFN Members, but explore instead the broader group of all CDFI Fund certified banks and credit unions. While CDFI bank and credit union data are publicly available in Call Reports (FRBC 2016, FFIEC 2016, and NCUA 2016a), the academic and professional literatures have, thus far, not quantitatively explored their long-term evolution in depth.[1]

It is important to recognize that CDFI banks and credit unions comprise a tiny fraction of the more than ten thousand banks and credit unions operating in the U.S. today. Most of these financial institutions were chartered long before CDFI certification came into being and some effectively operate as functional CDFIs, even if they have not sought CDFI certification. The same is true of mission-oriented loan funds and other non-depository financial institutions. For example, the National Federation of Community Development Credit Unions (The Federation) estimates that only one-third of eligible credit unions have pursued CDFI certification (Ratigan 2014). This report is not intended to suggest that becoming a certified CDFI inherently changes an institution's growth and impact trajectory.

This report follows the structure and approach of *OFN 2015* to the extent possible. Section II explores data for all CDFI banks and credit unions during a 20-year period (1996-2015), including their growth, financial performance, loan portfolios, sources of funds, geographic and demographic reach, and the breadth of services offered (i.e., a trend analysis). Section III provides a trend analysis of the 26 banks and 27 credit unions that have been in existence for at least 20 years and have been certified CDFIs for at least 10 years (i.e., a longitudinal growth analysis). Section IV summarizes key findings and suggests future research questions.

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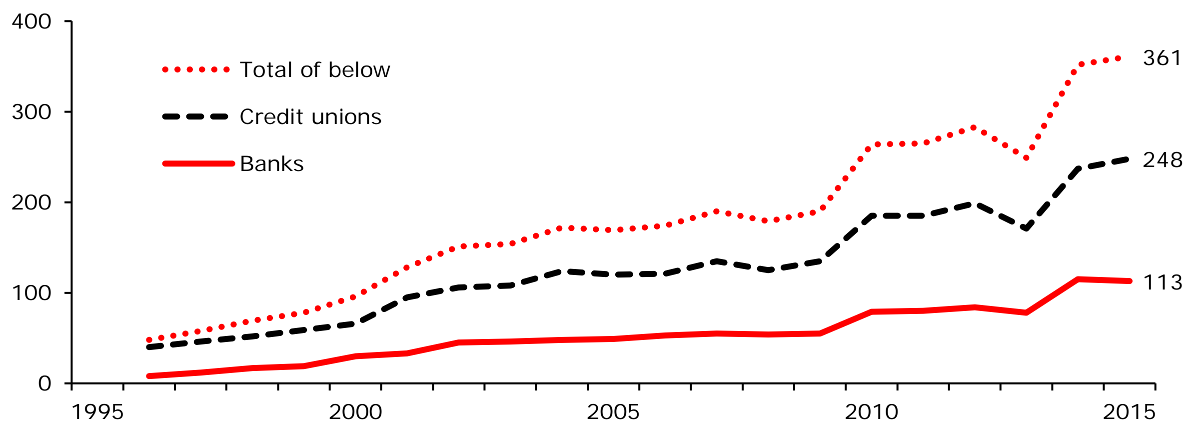
[1] Ratigan (2014) analyzes CDFI credit union certification trends between 2009 and 2013, size and performance measures in 2013, and credit union service offerings in 2009 and 2013. NCIF annual reports (e.g., 2016) analyze CDFI five-year bank trends in financial performance (i.e., for 2010-2015 in the 2015 report). Fairchild and Jia (2014) evaluate statistically the risk of institutional failure among CDFI banks and credit unions during 2002-2011. CDFI Coalition (2014) provides a brief history of CDFIs and detailed qualitative profiles for a large number of CDFIs. GAO (1998) and Kolodinsky et al. (2006) explore how individual CDFIs should measure their performance. Largely qualitative academic and professional studies about CDFIs include Pinsky (2001) and Nembhard (2013).

II. Twenty-Year Trends among CDFI Banks and Credit Unions

The number of CDFI banks and credit unions has increased markedly during 1996-2015. Figure II-1 shows the number of CDFI banks expanded steadily from eight to 113, and that for CDFI credit unions from 40 to 248 (CDFI Fund, 1998-2016; see note in Figure II-1). During this period, consolidation massively reduced the number of banks from 9,529 to 5,393 (FRBC 2016, FFIEC 2016) and credit unions from 11,392 to 6,021 (NCUA 2016a).[1] Thus, the share of institutions that were CDFI certified grew from 0.07% to 1.8% for banks and from 0.4% to 4.1% for credit unions. While CDFI certification remains quite rare among banks and credit unions, CDFI banks' 2015 share of all banks is 26 times that of 1996 and CDFI credit unions' 2015 share is 10 times that of 1996.

Figure II-1. Total Number of Banks and Credit Unions Certified as CDFIs, 1996-2015

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).



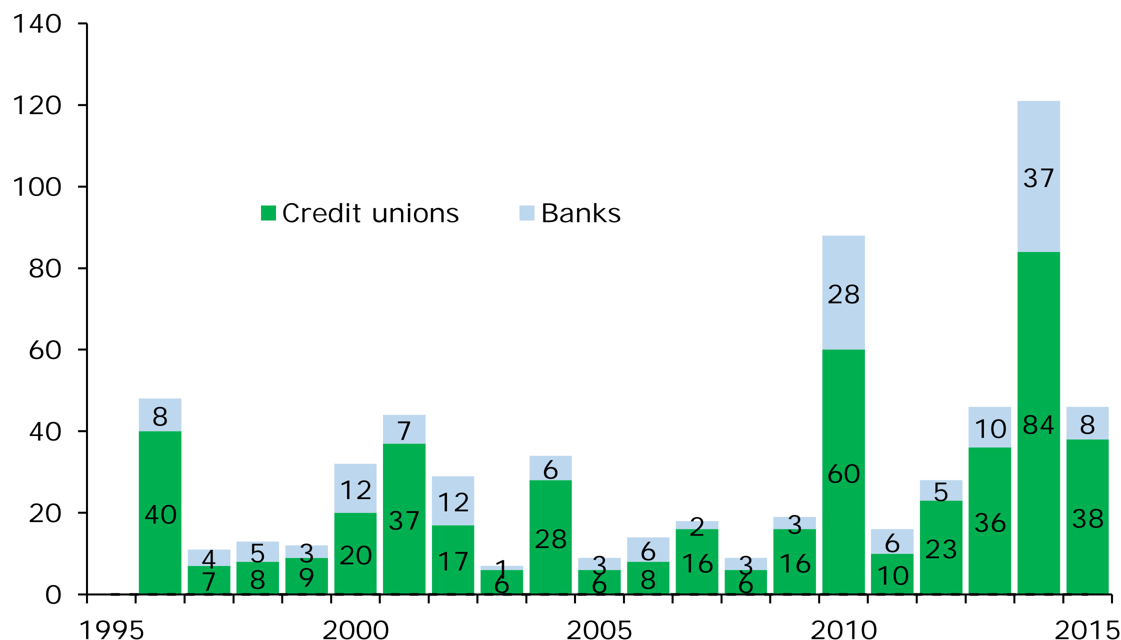
Notes: The values included here do not match exactly those reported by the CDFI Fund (1998-2016) for several reasons: First, early CDFI lists often include banks for the three years after they became certified, even if the banks had ceased to exist separately, for instance following a merger. Second, we do not report bank holding companies and the banks they own separately. Third, we only include banks that were included in the Call Reports released by the FRBC and FFIEC; this includes most savings banks, but excludes most savings associations. Fourth, we only include credit unions included in the call reports released by National Credit Union Administration (NCUA), which excludes credit unions insured by Puerto Rico's share insurer (Corporación Pública para la Supervisión y Seguro de Cooperativas, COSSEC).

[2] Throughout this report, for simplicity we refer to non-corporate, federally-insured credit unions as "all credit unions."

Figure II-2 shows that banks and credit unions were certified in each year during 1996-2015. In years since the financial crisis, private and public efforts have increased the pace at which banks and credit unions became certified (NCUA 2016b). One quarter of the growth in the number of CDFI banks is concentrated in the last two years, resulting from a targeted private-sector effort to certify banks in the Mississippi Delta and nearby areas. The spike in credit union certifications in 2014 is likely due to The Federation and NCUA educating low-income designated (LID) credit unions of their CDFI eligibility and the associated benefits.

Figure II-2. Number of Banks and Credit Unions Newly Certified by the CDFI Fund Each Year, 1996-2015

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).



Notes: We were unable to locate a single comprehensive listing of original certification dates. We used various CDFI Fund publications to piece together this timeline.

This figure includes only institutions becoming certified. It does not include institutions that ceased to be reported as certified. Such "subtractions" result largely from mergers, but would include institutions that did not renew their certification.

Characteristics of CDFI Banks and Credit Unions

In this section, we further highlight the growing importance and role of CDFI banks and credit unions in their communities and for the U.S. economy as a whole. Figure II-3 presents values for the number of CDFI banks and credit unions presented graphically above in Figure II-1. Figure II-3 also presents numerical values for average assets, loans per assets, and capital per assets for CDFI banks and credit unions (they are presented graphically below in Figures II-4 and II-5), as well as the average age of CDFI credit unions.[3]

The growing average sizes of CDFI banks and credit unions mean that each institution can reach a larger number of consumers and, thus, have larger impacts in their communities. During 1996-2015, average assets among CDFI banks grew nearly threefold from $116 million to $314 million (column 1); this growth was not as rapid as that of all banks, which grew nearly six fold from $480 million to $2,763 million. Among uncertified banks, the key driver in average asset growth is consolidation, as smaller banks continue to be acquired by larger banks.

Average CDFI credit union assets grew from $3.8 million to $222 million, making the average CDFI credit union larger than the average of all credit unions, which grew from $29 million to $200 million during this period.

Growth in CDFI bank and credit union average assets is mostly a result of larger banks and credit unions becoming certified in recent years, as opposed to asset growth among the smaller CDFI banks and credit unions that have been certified for more than five years. Until 2000, there were no CDFI credit unions larger than $100 million, and none larger than $1 billion until 2010. In 2015, 50% of CDFI credit union assets were held by institutions larger than $1 billion.

Newly-certified CDFI credit unions are not only larger, but older. During 1996-2015, the average age of CDFI credit unions increased markedly from 21 to 57 due to three key, interrelated, reasons: (1) the overall drought in new credit union formation (Dopico 2014), (2) the resulting aging of institutions in the overall credit union system (from 41 to 61), and (3) the fact that the pool of larger credit unions becoming CDFI certified was older than the once relatively younger CDFI credit unions.

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[3] For readers more familiar with CDFI loan funds, here "capital" is defined as the difference between assets and liabilities (i.e., banks' equity or credit unions' net worth) and is the equivalent of the loan fund terminology "net assets." It is important to note that among loan fund CDFIs, assets and loans outstanding are, while not identical, at least broadly comparable. Among depository institutions, liquidity management and regulatory incentives call for holding large amounts of non-loan investments, including, for instance, short-term securities. Thus, among depository institutions, loans are substantially smaller than assets.

Figure II-3. CDFI Bank and Credit Union Average Assets ($ million), Loans per Assets, and Capital per Assets, 1996-2015

	CDFI banks				CDFI credit unions					CDFI banks and credit unions			
	Avg. Assets ($ million) (1)	Loans (% of assets) (2)	Capital (% of assets) (3)	Number of institutions (4)	Avg. Assets ($ million) (5)	Loans (% of assets) (6)	Capital (% of assets) (7)	Number of institutions (8)	Ave. age (9)	Avg. Assets ($ million) (10)	Loans (% of assets) (11)	Capital (% of assets) (12)	Number of institutions (13)
1996	116	49	9	8	3.8	63	8	40	21	23	50	9	48
1997	116	57	10	12	5.5	62	10	46	22	28	57	10	58
1998	104	54	9	17	5.6	57	11	52	23	30	54	9	69
1999	104	54	8	17	6.1	56	11	59	24	28	54	8	76
2000	114	57	8	30	9.5	59	12	66	25	42	57	9	96
2001	125	56	8	33	12	60	13	95	27	41	56	8	128
2002	156	57	8	45	13	60	13	106	30	56	57	9	151
2003	171	59	8	46	15	59	13	108	30	62	59	9	154
2004	175	62	9	48	16	69	13	124	32	60	62	9	172
2005	229	61	8	49	19	63	13	120	35	80	61	9	169
2006	256	61	8	53	22	68	12	121	36	93	62	9	174
2007	265	64	8	55	25	68	12	135	39	94	64	9	190
2008	268	67	9	54	28	71	11	125	40	100	67	9	179
2009	286	64	10	55	37	62	12	135	41	109	64	10	190
2010	268	62	10	79	64	69	10	185	46	125	64	10	264
2011	317	59	11	80	84	62	10	185	47	154	60	11	265
2012	315	57	11	84	89	61	10	199	48	156	58	11	283
2013	304	61	10	78	120	66	10	171	52	178	62	10	249
2014	283	62	11	115	178	67	10	237	54	212	64	10	352
2015	314	65	11	113	222	69	10	248	57	251	67	11	361
Percentage changes through 2015 since:													
1996	171				5,742					991			
2000	175				2,237					498			
2005	37				1,068					214			
2010	17				247					101			

Note: We compute average assets as total assets for each type of institution in a given year, divided by the number of institutions in that year.

Sources: CDFI Fund (1996-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).

Figures II-4 and II-5 present graphically average assets, total assets, loans per assets, and capital per assets for CDFI banks and credit unions. During 1995-2016, total assets in CDFI banks grew markedly from to $0.9 billion to $35.5 billion. Their share of all bank assets grew from 0.02% to 0.22%. Total assets in CDFI credit unions grew even more, from $0.15 billion to $55.0 billion, or from 0.1% to 4.6%, surpassing CDFI banks in 2014 as larger credit unions became CDFI-certified. While assets managed by both types of institutions have grown substantially, their shares of all banks and all credit unions, respectively, remain very small.

Figure II-4. Average and Total Assets for CDFI Banks and Credit Unions, 1996-2015

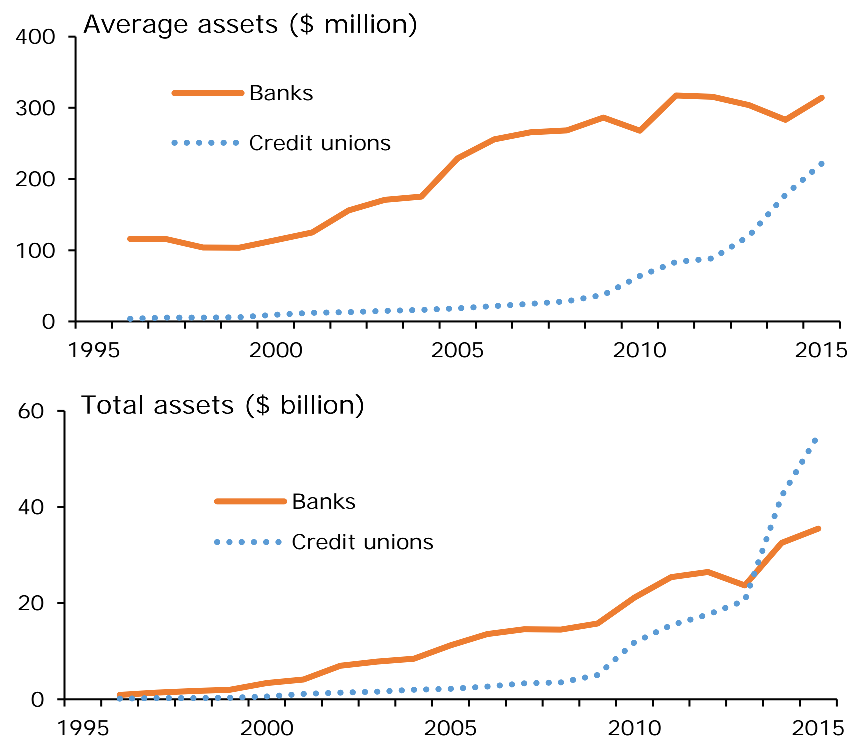
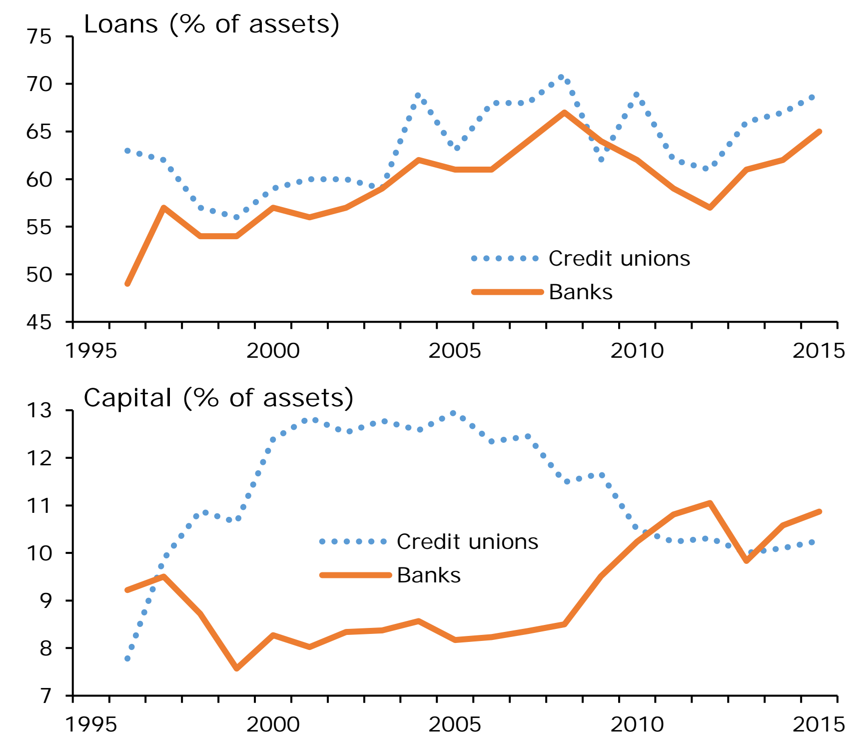


Figure II-5. Loans and Capital (each per Assets) for CDFI Banks and Credit Unions, 1996-2015



Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).

Loan Portfolio Distribution by Sector

Despite substantially larger assets under management among CDFI banks and credit unions, these institutions' portfolio composition has remained largely stable during 1996-2015 (see Figures II-6 and II-7).[4] During this period, CDFI banks primarily financed businesses and residential mortgages. Bank business financing is commonly sub classified as (1) "business loans" (i.e., not collateralized by real estate) and (2) commercial real estate (CRE). Over the years, the two types of business financing accounted for 61%-75% of outstanding loans and residential mortgages comprised 19%-27%. Other loans accounted for the remaining 6%-12% of outstanding loans. The main long-term change in portfolio composition has been a shift away from business loans, falling from 36% to 12%, and toward CRE, rising from 35% to 49%.

CDFI banks' distribution of outstanding loan types exhibit cyclical shifts with macroeconomic conditions and trends. For example, the share of CRE loans grew from 39% in 2001 to 61% in 2008 as the real estate boom proceeded, and then fell to 49% by 2015. In contrast, CDFI banks' residential mortgage lending was countercyclical, as mortgage lending decreased from 24% in 2000 to 19% in 2008. During most of that period, funding for residential mortgages from other sources had been plentiful. However, as other sources of funding for residential mortgages retrenched following the financial crisis, CDFI banks' residential mortgage lending increased its share of all loans outstanding, reaching 27% in 2015.

[4] We use loan types that are comparable to those used in *OFN 2015*: business loans (excluding commercial real estate, CRE), CRE, housing to individuals (residential mortgages, including first [or senior] mortgages and junior mortgages, such as home equity loans and home equity lines of credit), and all other loans. For banks, the other category includes consumer loans and agricultural loans.

Figure II-6. Types of Loans Outstanding for CDFI Banks, 1996-2015

Note: Throughout this report, we compute shares of loans by dollar amount, not by number of loans.

Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

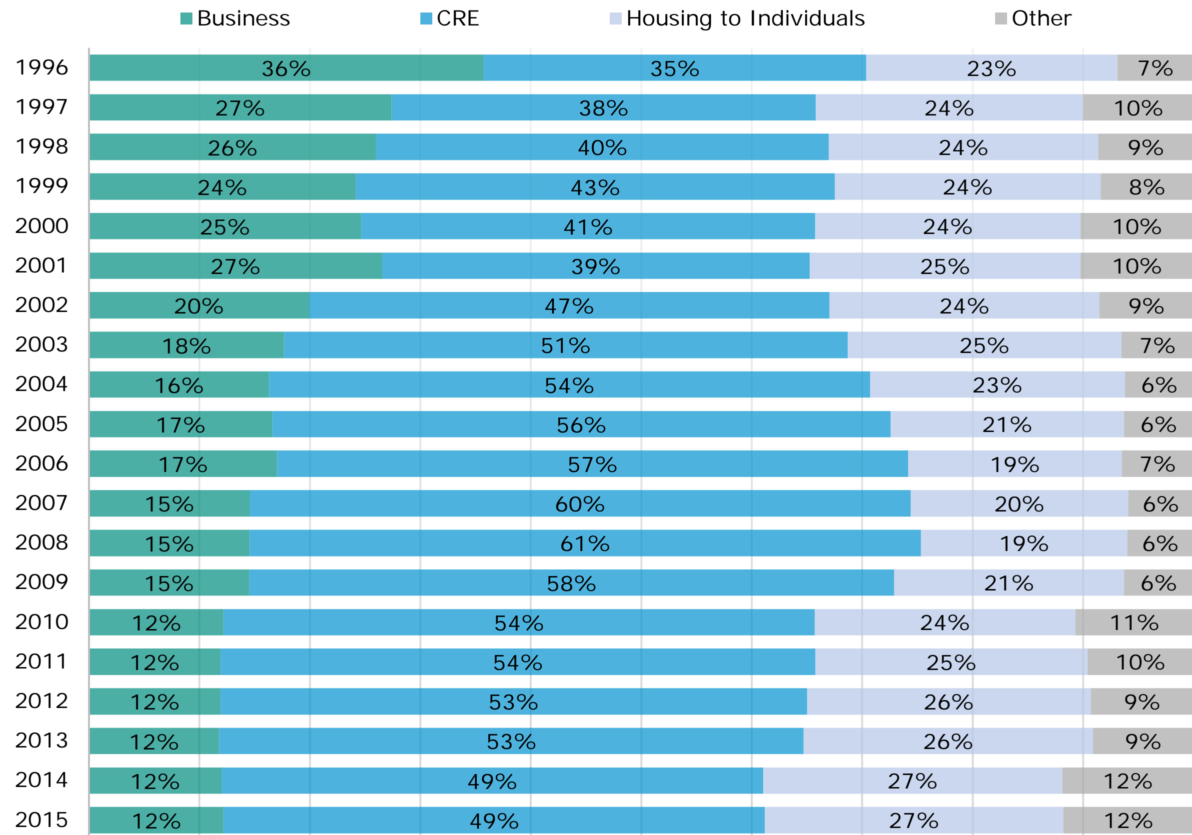


Figure II-7 presents CDFI credit union loan types during 1996-2015.[5] Despite being exempt from the cap on business lending that applies to most credit unions,[6] CDFI credit unions' business loans represent a relatively small share of total activity (2%-12%, including CRE, during this period); however, Figure II-7 shows somewhat of an upward trend from 2004 through 2015. CDFI credit unions focused far more on residential mortgages (37%-47%) and other consumer loans (46%-53%; chiefly auto, but also credit card and personal unsecured loans). Since the financial crisis, CDFI credit unions have shifted their lending from mortgages (from 44% in 2007 to 37% in 2015) toward consumer loans (from 48% to 53%).

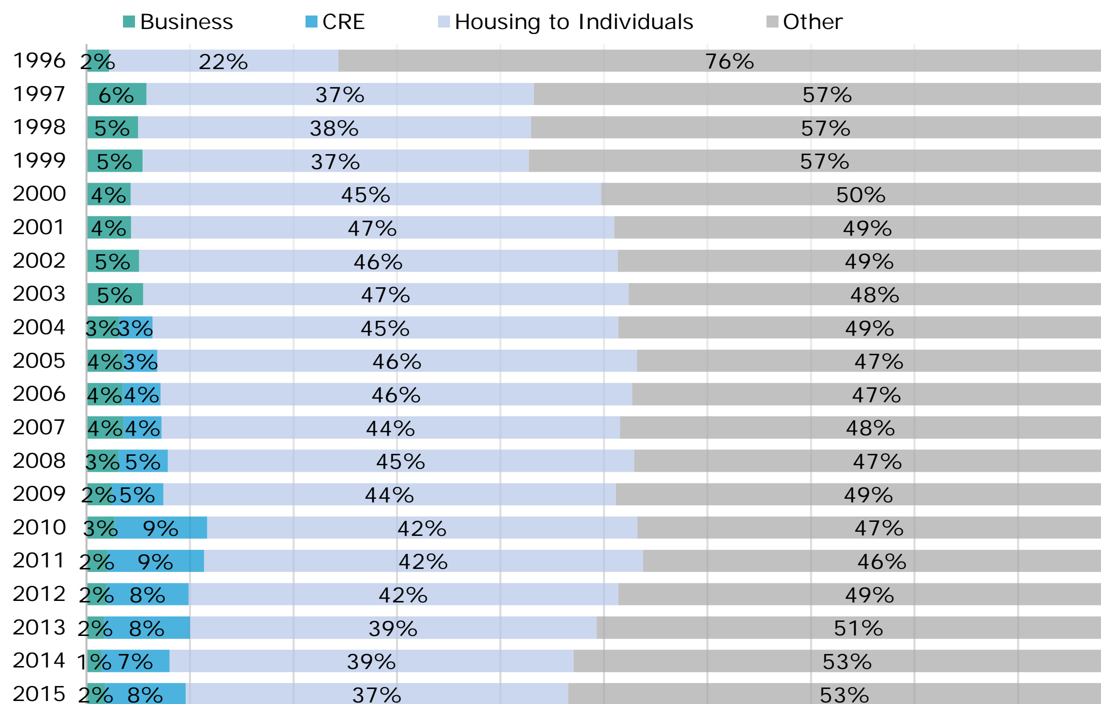


Figure II-7. Types of Loans Outstanding for CDFI Credit Unions, 1996-2015

Note: Until 2003, credit union call reports did not separate CRE and (non-CRE) business loans as separate categories.

Source: CDFI Fund (1998-2016) and NCUA (2016a).

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[5] For credit unions, agricultural loans are classified among business loans, instead of among other loans.

[6] The Federal Credit Union Act (U.S. Congress 2013) broadly caps most credit unions' business lending at 12.25% of assets. The complex details of the cap are set forth in the Act's §1757a. For instance, loans under $50,000 are not classified as business loans. The following credit unions are exempt from the cap: (1) low-income designated (LID), (2) CDFIs, or (3) those with large amounts of business loans when the cap was introduced in 1998. In 2015, 141 credit unions held member business loans in excess of 12.25%. Among these, 86 were LID, 20 were CDFI, and 42 had histories as very active business lenders.

Sources of Funds

Figures II-8 through II-10 illustrate sources of funds for CDFI banks and credit unions during 1996-2015. All three figures show that, unlike CDFI loan funds, the key source of funds for depository institutions is, unsurprisingly, deposits,[7] and the distribution of sources of funds is remarkably stable over time.

Figure II-8 displays historical trends in sources of funds for CDFI banks and credit unions. Although CDFI banks and credit unions have historically been less reliant on non-traditional forms of regulatory capital, such as banks' subordinated debt or credit unions' secondary capital accounts, Figure II-8 shows that recently these sources became somewhat more important to credit unions.[8] Credit unions' sharp increase in secondary capital accounts between 2008 and 2010 is due to two factors: (1) $65 million in TARP funds injected into 46 credit unions through the Community Development Capital Initiative (CDCI) and (2) $58 million from private sources (including charitable foundations) injected into two Self-Help Credit Unions.[9] While TARP funds will eventually have to be repaid, and will not be rolled over, the experience may elicit credit unions with experience with secondary capital accounts to seek further funding from other non-government sources that may be interested in supporting their mission.

Figures II-9 and II-10 present sources of funds as a percentage of assets. Deposits are the primary source of funds for both banks and credit unions, with 2015 deposits (from sources other than governments and other financial institutions) accounting for 71% of CDFI bank assets and 86% of CDFI credit union assets. Government deposits account for substantial amounts of CDFI bank assets (9%), but, due to unfavorable government regulations in most states, government deposits account for negligible amounts for CDFI credit unions (Dopico and Jackson 2013 and forthcoming). Bank equity contributed by investors and retained earnings (in bank equity and credit union net worth) account for about 10% of funds for both CDFI banks and credit unions. These equity and net worth (or regulatory capital) ratios are largely similar across institutions and stable over time, in large part because both sets of institutions face similar incentives to maintain similar regulatory capital (equity or net worth) ratios.

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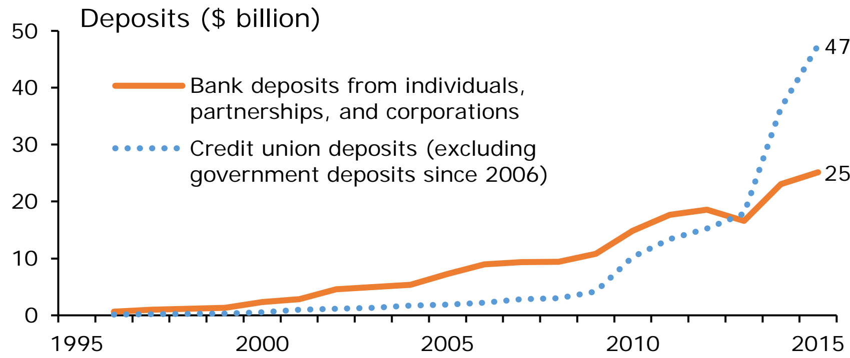
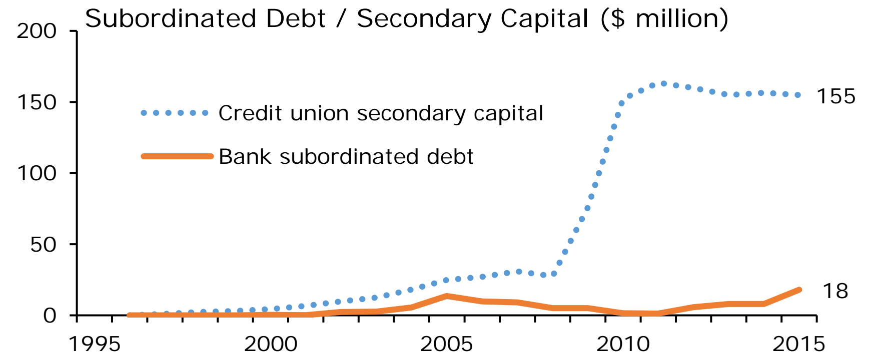
[7] Credit unions commonly refer to their deposits as "shares" or as "shares and deposits."

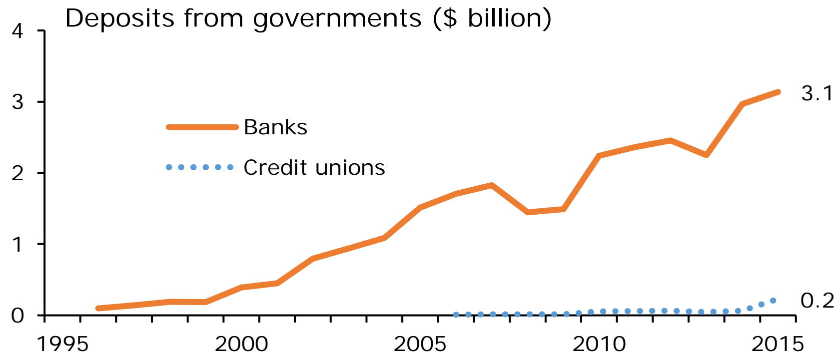
[8] Non-traditional forms of regulatory capital for CDFI banks and credit unions have historically been in short supply (secondary capital) or are avoided due to regulatory scrutiny (subordinated debt).

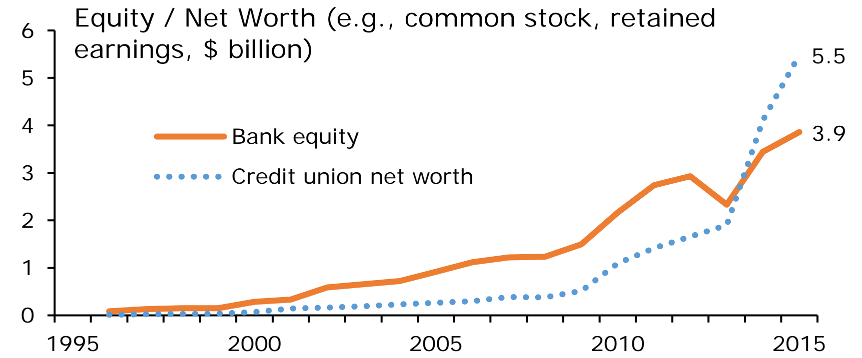
[9] The Troubled Asset Relief Program (TARP) invested in specific industries and markets to stabilize the U.S. financial system. The Community Development Capital Initiative (CDCI) supported CDFI banks and credit unions that provide financial services to low- and moderate-income, minority, and other communities underserved by traditional banks and financial service providers.

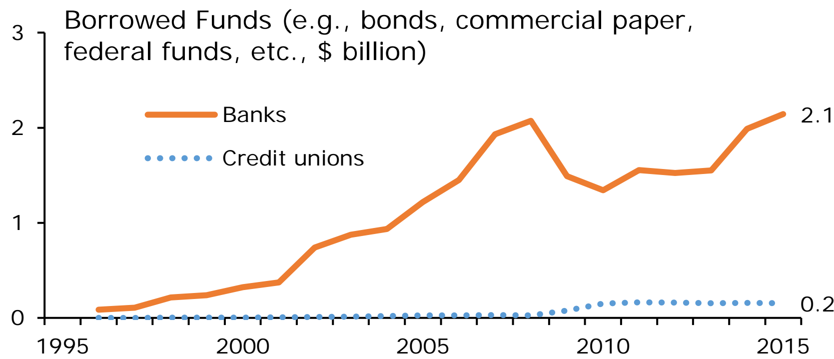
Figure II-8. Sources of Funds for CDFI Banks and Credit Unions (Total $ Amounts), 1996-2015











Notes: Bank deposits from individuals, partnerships, and corporations do not include deposits from other financial institutions. Credit union call reports started reporting government deposits separately only in 2006.

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).

Figure II-9: Sources of Funds for CDFI Banks (% of assets), 1996-2015

Note: Borrowings (i.e., borrowed funds) include very small amounts of subordinated debt (under 0.1% of assets).

Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

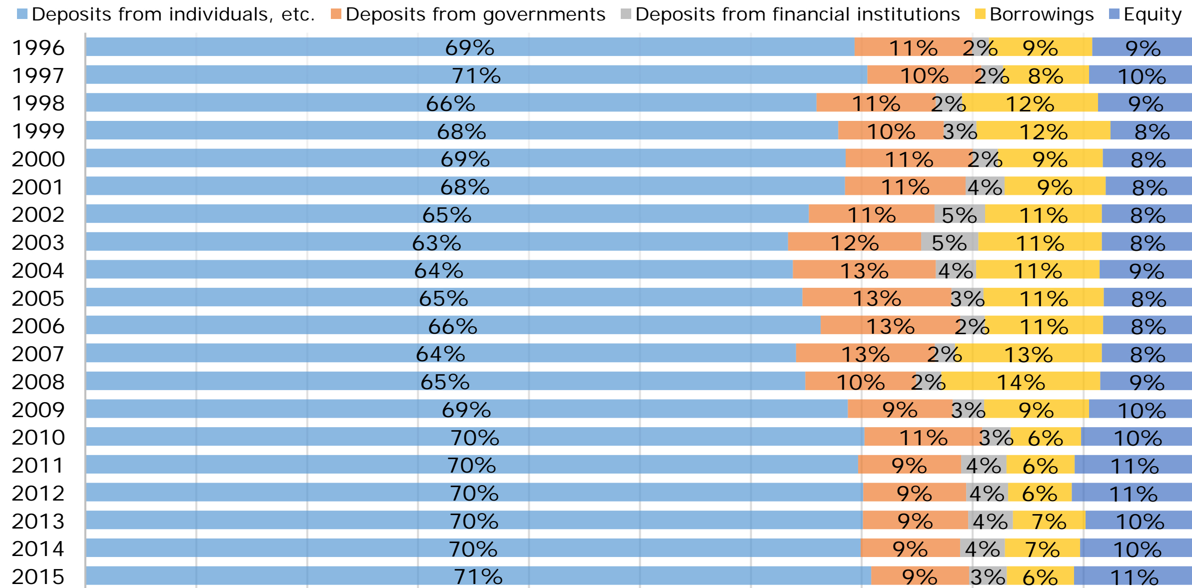
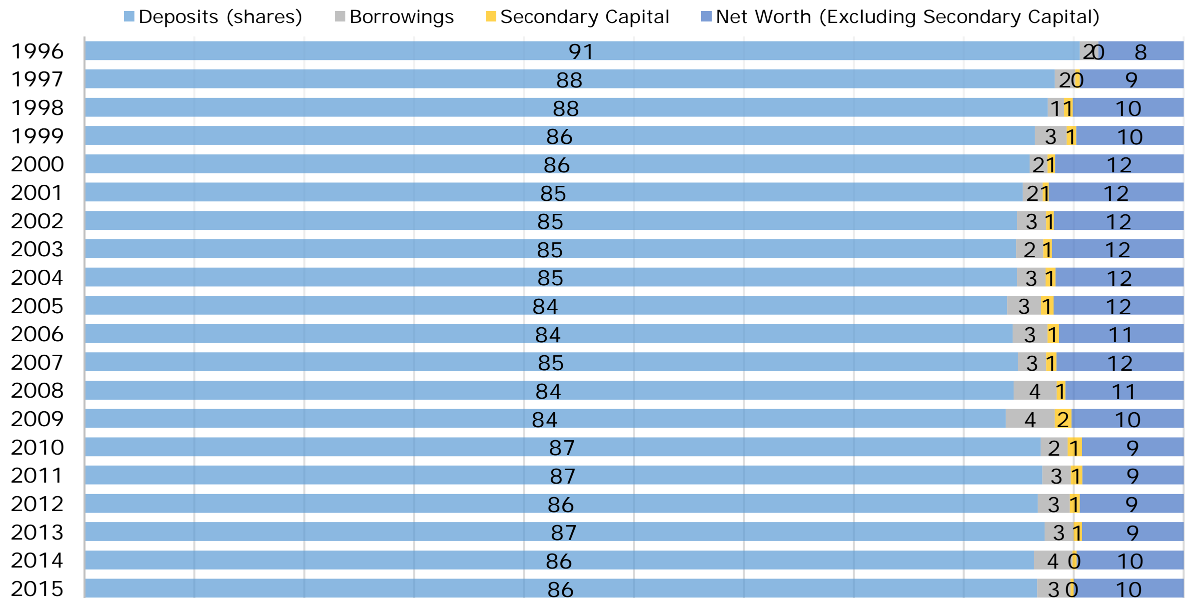


Figure II-10: Sources of Funds for CDFI Credit Unions (% of assets), 1996-2015

Notes: NCUA started reporting government deposits separately in 2006. They average close to 0% for both CDFI credit unions and for all credit unions.

Federal legislation recognizes low-income credit unions' secondary capital as part of their net worth for the purposes of capital requirements. Here we report them separately.

Sources: CDFI Fund (1998-2016) and NCUA (2016a).



Financial and Portfolio Performance

CDFIs' social mission includes serving low-income and low-wealth communities. In times of acute financial need (e.g., unemployment, unexpected health expenses, large business expenses), borrowers without savings and/or wealth are more likely to be late with loan payments. However, CDFIs show that, appropriately managed, higher credit risks need not hamper lenders' overall financial performance.

Figure II-11 presents loan delinquencies, net charge-offs, operating margins, and returns on assets (ROAs) for all banks and for CDFI banks during 1996-2015. All four variables, unsurprisingly, display large swings surrounding the financial crisis, followed by slow recoveries.

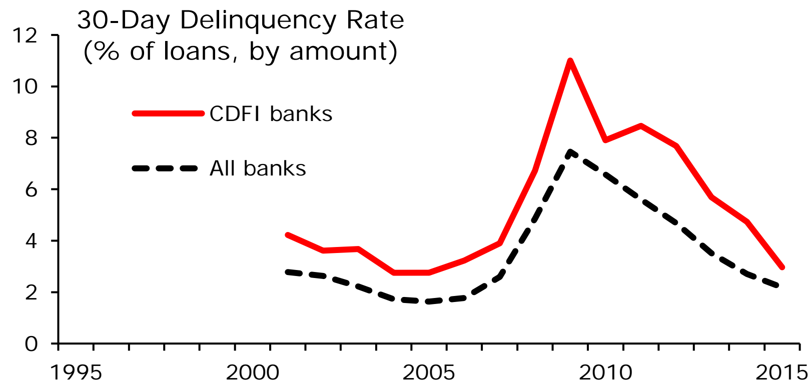
Beyond the short-term dynamics of the financial crisis, and consistent with their social mission, CDFI banks exhibit higher loan delinquency rates than all banks (averaging 5.29% vs. 3.53% during 2001-2015). However, CDFI banks actually show lower loss rates from loans (net charge-offs) than all banks (0.65% vs. 1.05% during the same period). What explains this dichotomy?

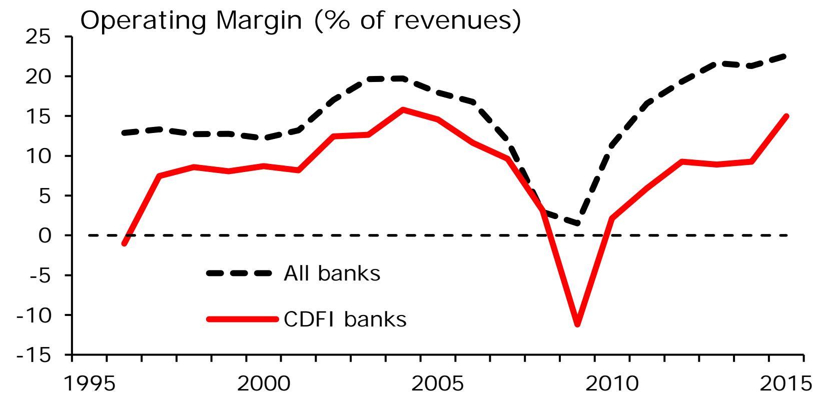
To manage credit risk and maximize profits, non-CDFI banks are motivated to channel their lending toward borrowers that are less likely to become delinquent. When borrowers do become delinquent, non-CDFI banks appear ready to charge off those loans more quickly than CDFI banks: 30% (= 1.05% / 3.53%) of delinquent loan amounts (dollars) in all banks are eventually charged off compared with only 12% (= 0.65% / 5.29%) of CDFI banks' delinquent loan amounts. CDFI banks' missions are rooted in lending to borrowers and communities that non-CDFI banks consider to be higher credit risks. CDFI banks manage the increased risk by providing technical assistance and/or restructuring loans to delinquent borrowers to achieve lower net charge-off rates than for all banks.

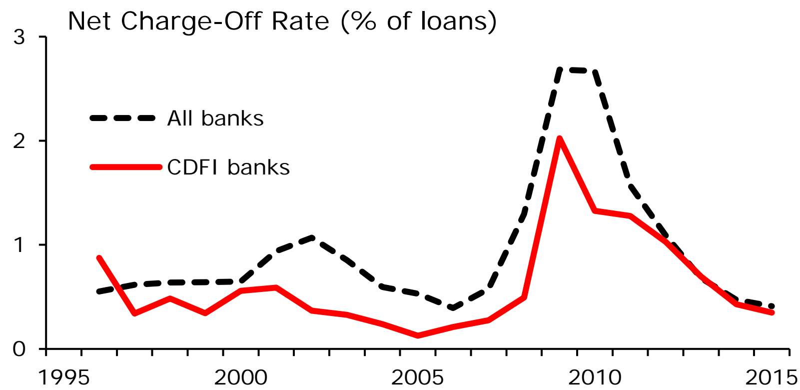
Despite their successful management of credit risk, the right-side panels of Figure II-11 show that, during 1996-2015, CDFI banks had substantially lower ROAs (0.54%) than all banks (1.00%). Theoretically, many factors could push CDFI banks' ROAs to be lower than the ROAs for all banks, though it is reasonable to assume that additional costs stemming from technical assistance, borrower preparation, and loan restructuring might be important contributors.

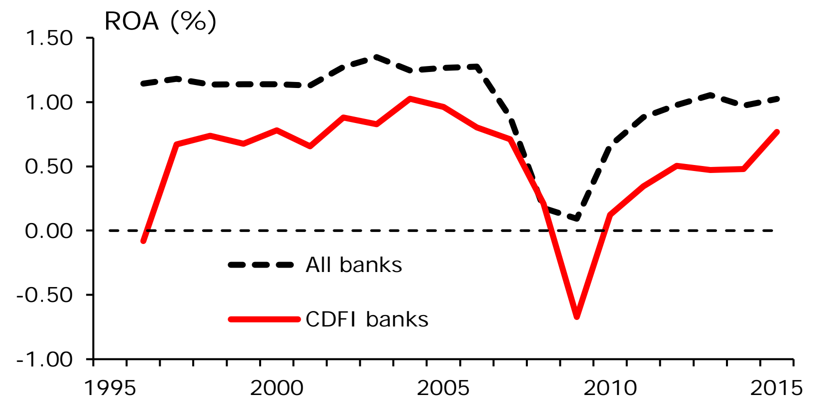
Lower ROAs do not appear to be caused by mission-related underpricing of loans, since CDFI banks do not have lower interest income per assets than all banks (5.74% vs. 4.86% during 1996-2015). Instead, CDFI banks bore higher interest expenses per assets (2.07% vs. 1.80%). CDFI banks also had far lower noninterest income per assets (1.11% vs. 2.05%), and substantially higher noninterest expenses (e.g., additional costs of maintaining lower net charge-off rates described in previous paragraph) per assets (3.61% vs. 3.10%).

Figure II-11. Loan Delinquencies, Net Charge-Offs, Operating Margins, and ROAs for CDFI Banks, 1996-2015









Sources: CDFI Fund (1996-2016), FRBC (2016), and FFIEC (2016).
Notes: 30-Day delinquency rate data were not available prior to 2001.

Figure II-12 presents loan delinquencies, net charge-offs, operating margins, and ROAs for all credit unions and for CDFI credit unions during 1996-2015. As with banks, the variables for all credit unions display large swings surrounding the financial crisis followed by slow recoveries.[10]

Figure II-12 shows that CDFI credit unions' delinquency rates are nearly three times those of all credit unions (averaging 2.84% vs. 1.01% during 1996-2015), yet their net charge-off rates only exceed those of all credit unions by a factor of 1.4 (0.84% vs. 0.61%).

Why are net charge-off rates lower at CDFI banks than at non-CDFI banks, but higher at CDFI credit unions than at non-CDFI credit unions? Certified CDFI banks differ from conventional banks in that they implement policies that are more patient toward delinquent borrowers, and more focused on preventing charge-offs. In contrast, all credit unions—both conventional and CDFI—are nonprofit institutions with policies that are more universally patient toward delinquent borrowers and focused on preventing charge-offs, regardless of CDFI certification. CDFI credit unions' higher delinquency rates suggest their loan portfolio might be more mission-focused than non-CDFI credit unions because they accept higher-risk borrowers.

While CDFI credit unions have had consistently higher loan delinquency rates and net charge-off rates than non-CDFI credit unions in almost all years during 1996-2015, the gap has narrowed markedly over time. The most likely explanation is the ongoing change in the mix of CDFIs. Larger credit unions are typically more focused on collateralized loans (mortgage and auto) and have lower loan delinquency rates and lower net charge-off rates. As larger credit unions become certified, the averages for CDFI and non-CDFI credit unions are likely drawing closer together.

Moving to the right-hand panel of Figure II-12, CDFI and all credit unions operated with broadly similar operating margins and ROAs during 1996-2015. Despite bearing higher net charge-off rates, CDFI credit unions maintained similar ROAs as all credit unions in large part because they take their borrowers' higher credit risks into account in their loan pricing. For instance, during 1996-2015 loan interest income per loans averaged 7.47% for CDFI credit unions and 6.57% for all credit unions. Similar operating margins and ROAs ensure that both sets of institutions can maintain similar asset growth rates and stable market shares.

Additional data on CDFI bank and credit union financial and portfolio performance can be found in the appendix in Figures A-1 and A-2.

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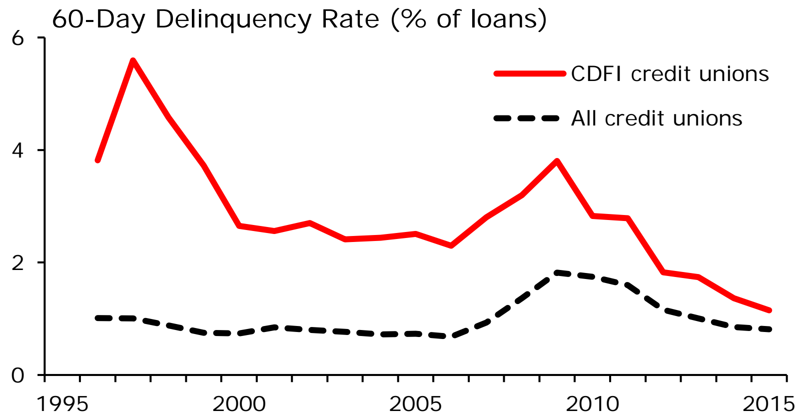
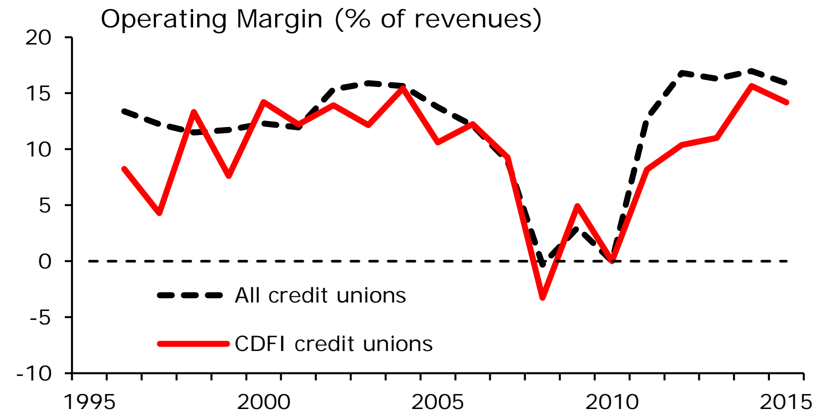
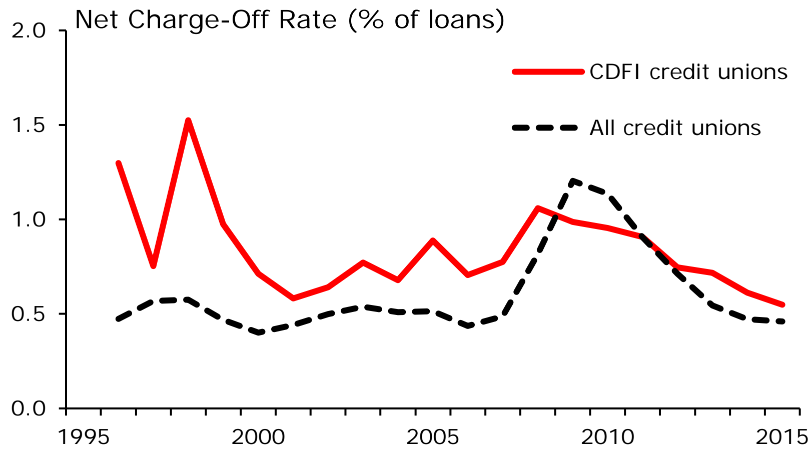
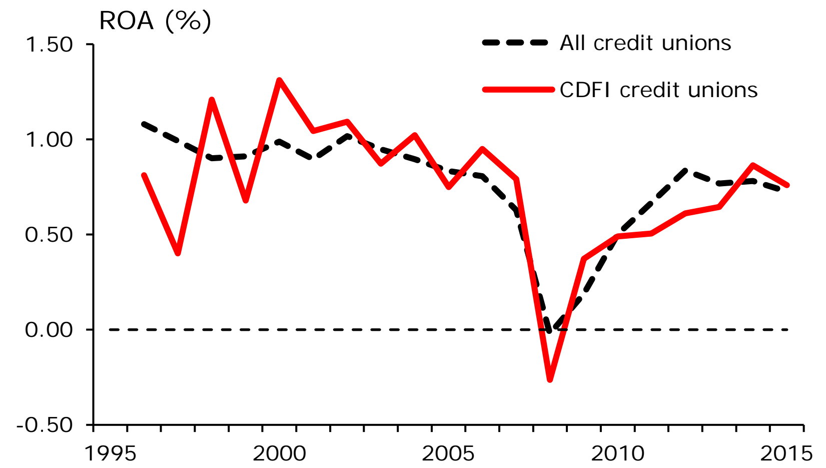
[10] CDFI credit unions' loan delinquencies and net charge-offs during the financial crisis are not unprecedented. In fact, CDFI credit unions' highs during the late 1990s (5.59% and 1.52%) were higher than those reached during the financial crisis (3.80% and 1.06%).

Figure II-12. Loan Delinquencies, Net Charge-Offs, Operating Margins, and ROAs for CDFI Credit Unions, 1996-2015









Sources: CDFI Fund (1998-2016) and NCUA (2016a).

Geographic Focus

Figure A-3, in the appendix, presents the number and assets of CDFI banks and credit unions in 2015 by headquarter state.[11] There are CDFI banks headquartered in 30 states and CDFI credit unions headquartered in 45 states. While the remaining states (Nevada, New Hampshire, Rhode Island, and Wyoming) do not contain CDFI bank or credit union locations, OFN's CDFI Locator Map shows at least one CDFI loan fund location in each state.[12]

While CDFI bank and credit union operations are nationwide, their distributions are not strongly correlated with each state's population, GDP, or assets in all financial institutions. For example, despite not being one of the most populous states, Mississippi has the most CDFI banks and assets largely due to recent efforts there promoting CDFI certifications.[13]

The three states with the most CDFI banks include Mississippi (31), Louisiana (13), and California (12); these same states have the most CDFI bank assets (in slightly different order): Mississippi ($13 billion), California ($3.5 billion), and Louisiana ($3.4 billion). Mississippi, Louisiana, and Alabama alone account for about 50% of CDFI banks and their assets. The three states with the most CDFI credit unions include Missouri (27), Louisiana (21), and Texas (16), which is quite different from the top three states when measured by assets: Florida ($9.8 billion), Virginia ($4.7 billion), and Texas ($4.4 billion).

Further, CDFI banks and credit unions provide financing to both rural and urban areas. Figure II-13 presents the number and percentage of rural and urban CDFI banks along with their average assets and percentage of assets, during 1996-2015. Based on U.S. Census Bureau definitions, we classify banks as rural if they are headquartered in ZIP codes with population densities under 150 inhabitants per square mile in 2010; all other banks are classified as urban.[14] The number of rural CDFI banks has dramatically expanded from one to 58, as has the number of urban CDFI banks (seven to 55).

The 2015 distribution of CDFI bank locations across rural (51%) and urban (49%) areas shows a higher concentration in urban areas compared with all banks (60% and 40%, respectively). Average assets in rural and urban CDFI banks have grown steadily, with rural CDFI banks growing from $102 million to $306 million and urban institutions from $118 million to $323 million. Despite this growth, CDFI banks remain small compared with the average rural bank ($865 million) and the average urban bank ($5.6 billion). Total assets in CDFI banks are also far more concentrated in rural areas ($17.7 billion or 50%) than in urban areas ($17.8 billion or 50%) when compared with all banks ($2.8 trillion or 19% in rural areas vs. $12.1 trillion or

[11] For simplicity, we refer to all of the 51 main U.S. jurisdictions (50 states plus D.C.) as "states."

[12] Most CDFI banks and credit unions are relatively small community-based institutions with a small geographic footprint. For instance, in 2015, CDFI credit unions on average had 4.9 offices per institution (including their headquarters). Also in 2015, 92% of credit union offices were within the state where the institution was headquartered.

[13] Much of the growth in the number of rural CDFI banks is concentrated in the last two years, as a result of a recent private initiative to certify institutions mostly in the Mississippi Delta and nearby areas.

[14] For simplicity, we classify institutions as urban or rural based on the location of their headquarters, without taking into account the locations of the branches in its network. Our methodology is, therefore, only broadly indicative of the results that one would find from a more granular analysis of both headquarter and branch locations.

81% in urban areas), largely due to the fact that banks with national and regional operations tend to be headquartered in urban areas, while rural banks tend to be small community banks. Figure II-13 also shows that in recent years, rural banks have become certified CDFIs at much faster rates than urban banks, increasing their share of all CDFI bank assets from 11% in 1996 to 50% in 2015.

Figure II-13. Number and Percentage of Rural and Urban CDFI Banks, and their Average Assets, and Percentage of Assets, 1996-2015

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and Proximity One (2016).

	Rural CDFI Banks				Urban CDFI Banks			
	Number thereof (1)	% of CDFI banks that are rural (2)	Average assets ($ million) (3)	% of assets in CDFI banks that are rural (4)	Number thereof (5)	% of CDFI banks that are urban (6)	Average assets ($ million) (7)	% of assets in CDFI banks that are urban (8)
1996	1	13	102	11	7	87	118	89
1997	1	8	112	8	11	92	116	92
1998	3	18	61	10	14	82	113	90
1999	2	11	36	4	17	89	112	96
2000	4	13	80	9	26	87	119	91
2001	6	18	87	13	27	82	133	87
2002	8	18	80	9	37	82	172	91
2003	8	17	84	9	38	83	189	91
2004	10	21	86	10	38	79	199	90
2005	12	24	237	25	37	76	227	75
2006	12	23	271	24	41	77	252	76
2007	12	22	291	24	43	78	258	76
2008	11	20	160	12	43	80	296	88
2009	11	20	210	15	44	80	306	85
2010	30	38	274	39	49	62	264	61
2011	28	35	304	34	52	65	324	66
2012	29	35	307	34	55	65	320	66
2013	27	35	314	36	51	65	298	64
2014	59	51	274	50	56	49	293	50
2015	58	51	306	50	55	49	323	50

Next, Figure II-14 presents the number and percentage of rural and urban CDFI credit unions along with their average assets and percentage of assets, during 1996-2015. The number of rural CDFI credit unions has expanded markedly from 11 to 57, as has the number of urban CDFI credit unions (from 29 to 191). The distribution of CDFI credit unions across rural (23% in 2015) and urban (77%) locations roughly matches that among all credit unions, with 1,144 rural (19%) and 4,872 urban (81%). The large concentration of credit unions in urban areas likely reflects the early missions of many credit unions to serve unbanked and underbanked populations that were typically concentrated in poor urban communities.

Average assets in rural and urban CDFI credit unions have grown steadily, with rural CDFI credit unions growing from $6 million to $155 million and urban CDFI credit unions from $3 million to $242 million. Assets in CDFI credit unions are distributed across rural ($8.8 billion or 16%) and urban ($46.2 billion or 84%) areas somewhat similarly to assets in all credit unions ($125 billion or 10% and $1,079 billion or 90%, respectively).

Figure II-14. Number and Percentage of Rural and Urban CDFI Credit Unions, and their Average Assets, and Percentage of Assets, 1996-2015

Sources: CDFI Fund (1998-2016), NCUA (2016a), and Proximity One (2016).

	Rural CDFI Credit Unions				Urban CDFI Credit Unions			
	Number thereof (1)	% of CDFI credit unions that are rural (2)	Average assets ($ million) (3)	% of assets in CDFI credit unions that are rural (4)	Number thereof (5)	% of CDFI credit unions that are urban (6)	Average assets ($ million) (7)	% of assets in CDFI credit unions that are urban (8)
1996	11	28	6	43	29	73	3	57
1997	11	24	7	31	35	76	5	69
1998	12	23	7	30	40	77	5	70
1999	12	20	8	25	47	80	6	75
2000	14	21	5	11	52	79	11	89
2001	25	26	6	13	70	74	15	88
2002	32	30	7	16	74	70	16	84
2003	34	31	8	17	74	69	18	83
2004	44	35	13	28	80	65	18	72
2005	44	37	14	28	76	63	21	72
2006	41	34	16	25	80	66	25	75
2007	45	33	20	27	90	67	27	73
2008	43	34	24	29	82	66	31	71
2009	43	32	25	21	92	68	43	79
2010	64	35	88	47	121	65	52	53
2011	66	36	92	39	119	64	79	61
2012	66	33	96	36	133	67	85	64
2013	44	26	136	29	127	74	115	71
2014	60	25	149	21	177	75	188	79
2015	57	23	155	16	191	77	242	84

Figures II-15 through II-18 present the loan types held by rural and urban CDFI banks and credit unions during 1996-2015. The main difference between rural and urban CDFI bank lending distributions is, unsurprisingly, that agricultural (or farm) loans account for far larger fractions of loans for rural CDFI banks (6% - 21%) than for urban CDFI banks (0-1%). We discussed the cyclical trends of business and housing loan distribution in Figure II-6 (page 8).

Figure II-15. Types of Loans Outstanding for Rural CDFI Banks, 1996-2015

Note: Here, we separate farm loans from the "other" category.

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and Proximity One (2016).

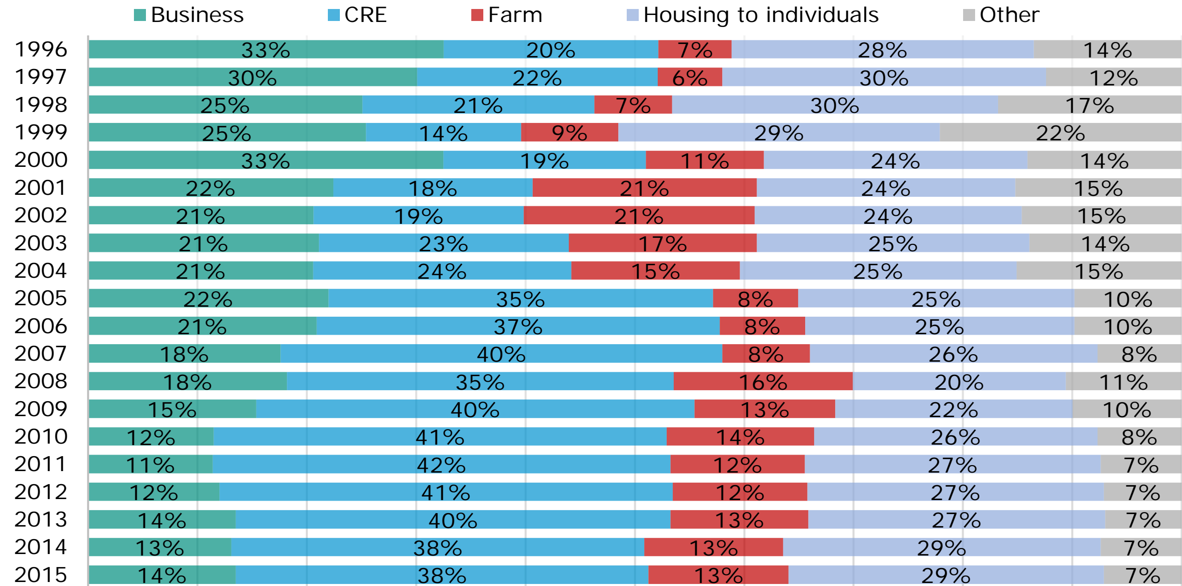


Figure II-16. Types of Loans Outstanding for Urban CDFI Banks, 1996-2015

Farm loans in urban CDFI banks averaged under 0.5% during this period.

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and Proximity One (2016).

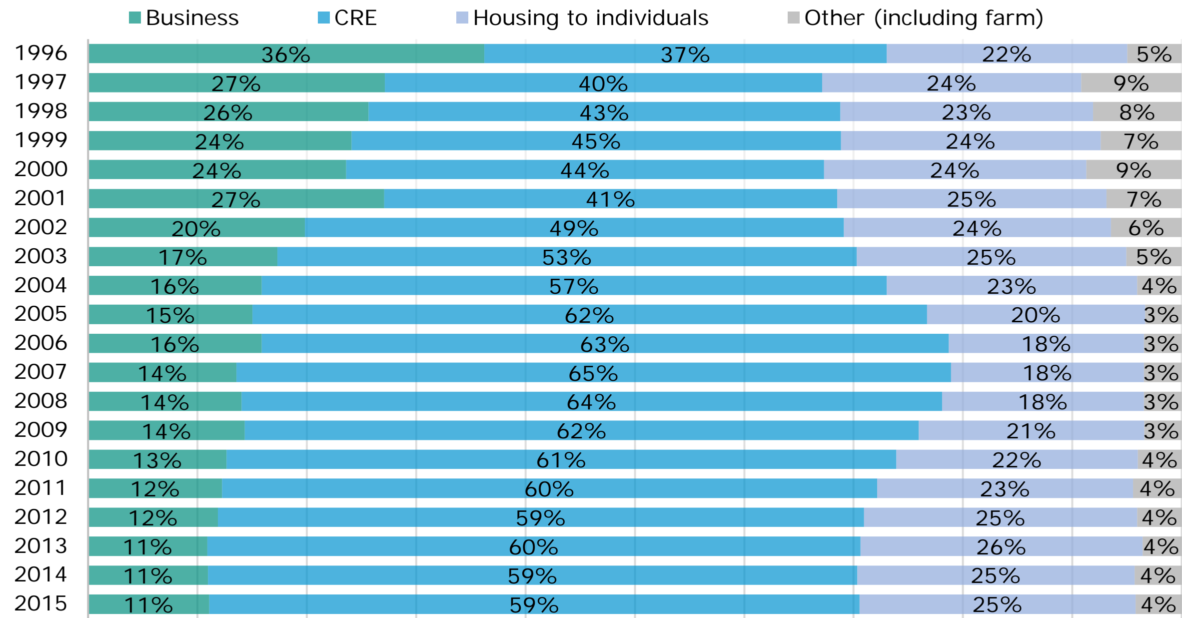


Figure II-17. Types of Loans Outstanding for Rural CDFI Credit Unions, 1996-2015

Note: The "other" category mostly includes consumer lending.

Notes for Figure II-7 also apply here. Following common credit union practice, in Figure II-7, farm loans are included within business and CRE loans.

Sources: CDFI Fund (1998-2016), NCUA (2016a), and Proximity One (2016).

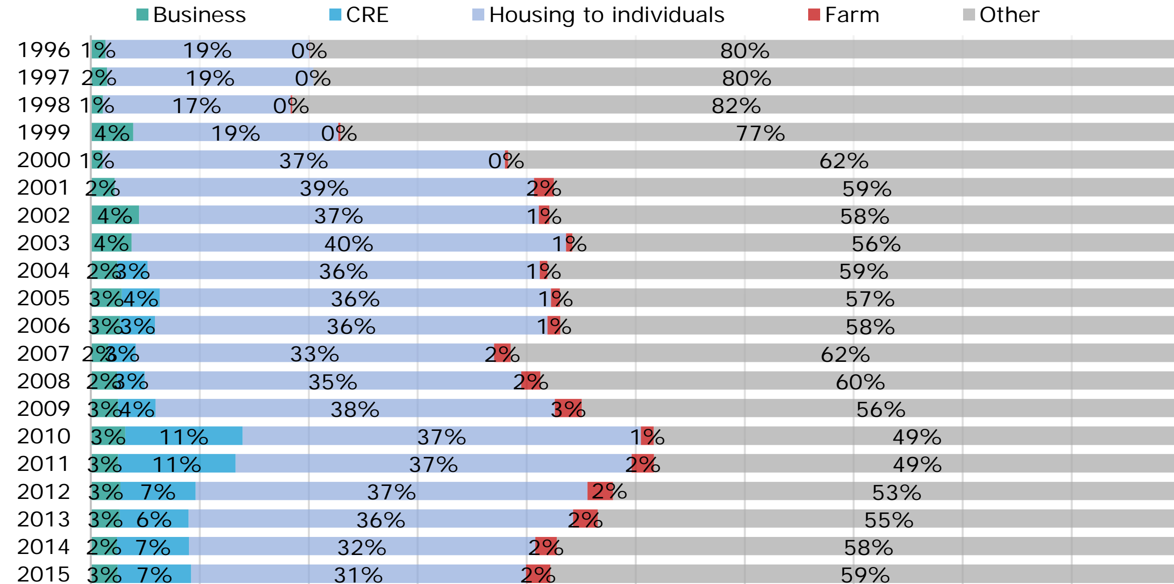
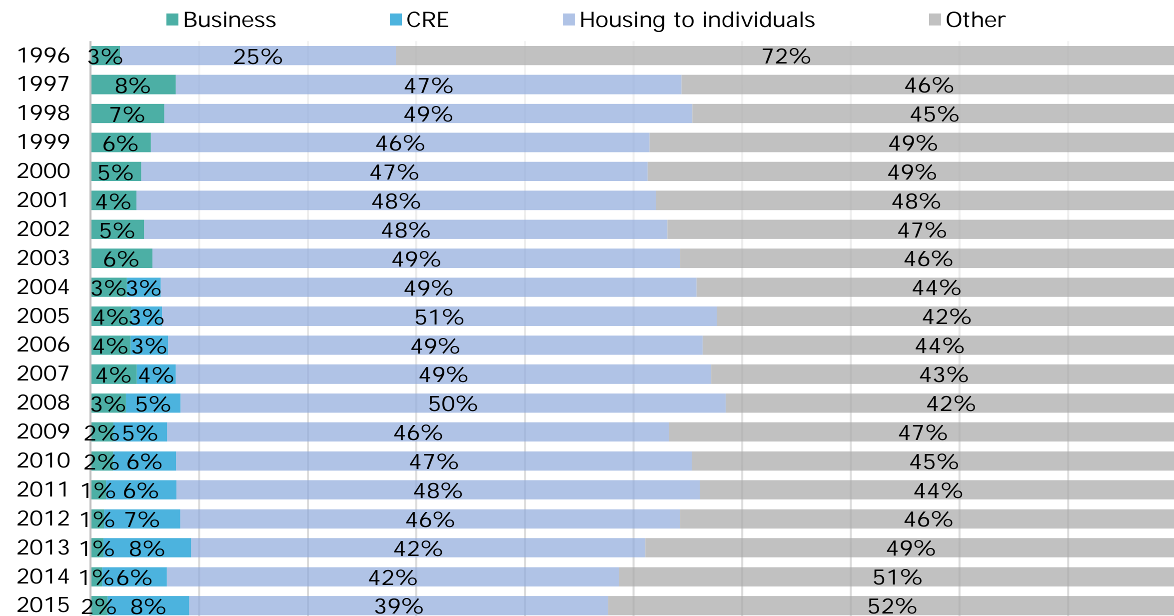


Figure II-18. Types of Loans Outstanding for Urban CDFI Credit Unions, 1996-2015

Notes for Figure II-7 and Figure II-17 also apply here.

Among urban CDFI credit unions, farm loans average under 0.1% of loans.

Sources: CDFI Fund (1998-2016), NCUA (2016a), and Proximity One (2016).



Minority Depository Institutions and Minority Credit Unions

CDFI banks and credit unions provide financing to people and communities of color. Figure II-19 presents the number of minority depository institution (MDI) CDFI banks and their share of all CDFI banks, average assets, loans per assets, and capital per assets, during 1996-2015. The number of MDI CDFI banks has expanded markedly from two to 38, accounting for 34% of CDFI banks in 2015. While MDI CDFI banks' share of all CDFI banks decreased from its peak in 2003 (due to rapid growth in the number of non-MDI CDFI banks), their 34% share far exceeds MDI banks' 3% (or 165) share of all banks (FDIC 2016 and Dopico 2016c).

Figure II-19. Number of MDI CDFI Banks, and their Assets, Loans, and Capital 1996-2015

Notes: We define banks as minority depository institutions (MDIs) if either FRBC Call Reports identified them as more than 50% minority owned or if FDIC (2016) identifies them as such from 2001 onward. We identified banks that FDIC (2016) identified as MDIs in 2001 as MDIs in earlier years.

Sources: CDFI Fund (1998-2016), FDIC (2016), FRBC (2016), and FFIEC (2016).

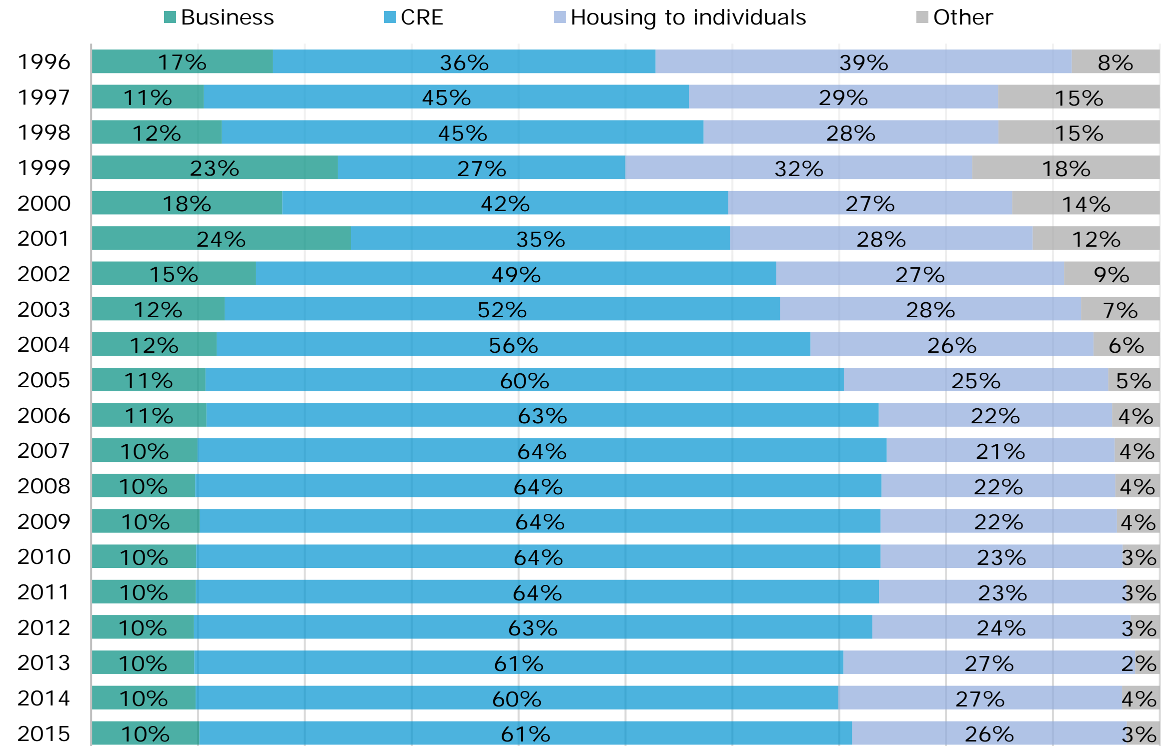
	Number of MDI CDFI banks (1)	Number of non-MDI CDFI banks (2)	MDI CDFI banks			
			% of all CDFI banks (3)	Average assets ($ million) (4)	Loans (% of assets) (5)	Capital (% of assets) (6)
1996	2	6	25	62	56	6
1997	6	6	50	83	65	10
1998	7	10	41	87	59	9
1999	9	10	47	65	46	8
2000	18	12	60	98	57	8
2001	17	16	52	110	55	8
2002	28	17	62	141	57	8
2003	30	16	65	148	61	8
2004	30	18	63	148	64	9
2005	31	18	63	161	65	8
2006	32	21	60	182	63	8
2007	31	24	56	189	65	8
2008	30	24	56	207	67	8
2009	31	24	56	211	65	9
2010	35	44	44	200	64	9
2011	35	45	44	211	62	9
2012	38	46	45	218	60	10
2013	39	39	50	244	61	9
2014	41	74	36	239	65	10
2015	38	75	34	279	68	11

Average assets in MDI CDFI banks have grown steadily. During 1996-2015, average assets in MDI CDFI banks grew from $62 million to $279 million. Despite this growth, MDI CDFI banks remain small compared with the average MDI bank ($1.2 billion). Total assets in MDI CDFI banks ($10.6 billion) account for a small share (6%) of assets in all MDI banks ($198 billion).

Figure II-20 presents the types of loans held by MDI CDFI banks during 1996-2015 and shows that MDI CDFI banks' loan distribution is similar to that of urban CDFI banks. Most MDI CDFI banks are urban.[15]

Figure II-20. Types of Loans Outstanding for MDI CDFI Banks, 1996-2015

Sources: CDFI Fund (1998-2016), FDIC (2016), FRBC (2016), and FFIEC (2016).



[15] In 2015, 33 of 38 (82%) of MDI CDFI banks were urban. They accounted for 96% of assets in MDI CDFI banks.

Figure II-21 presents the number of CDFI minority credit unions (CDFI MCUs) and their average assets, loans per assets, and capital per assets, during 1996-2015. The number of CDFI MCUs has expanded markedly from 11 to 84. CDFI MCUs account for a sizable share of CDFI credit unions (34% in 2015). This substantial share is far larger than MCUs' share of all credit unions (13%). Average assets in CDFI MCUs have grown steadily from $8 million to $108 million, making them larger than the average MCU ($72 million). CDFI MCU assets comprise $9.1 billion of $57 billion (16%) MCU assets.

Figure II-21. Number of CDFI MCUs, and their Assets, Loans, and Capital, 1996-2015

Notes: We define credit unions as MCUs if, since NCUA began collecting such data in 2012, they self-identified as having more than 50% minority membership. Before then, we identified credit unions as minority if they were so in 2012. Unlike the FDIC and NCUA, here we focus on the makeup of credit union memberships only, not taking into account the makeup of credit unions' boards of directors.

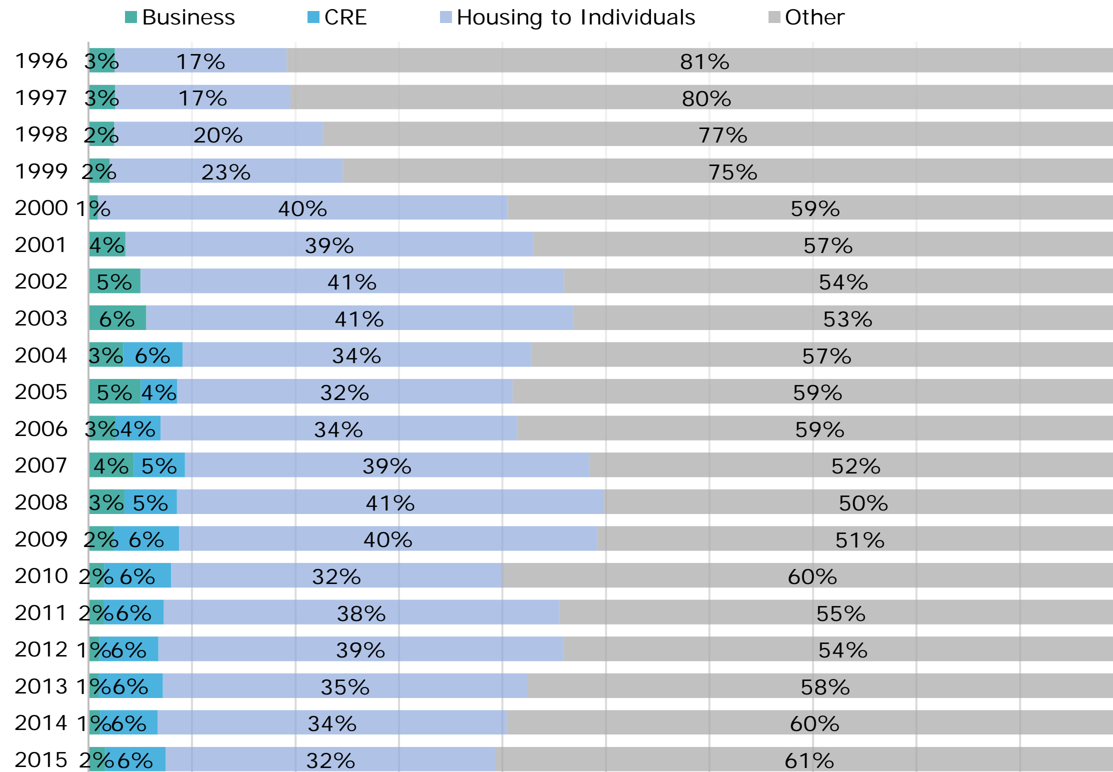
Sources: CDFI Fund (1998-2016) and NCUA (2016a).

			CDFI MCUs			
	Number of CDFI MCUs (1)	Number of CDFI non-MCUs (2)	% of all CDFI credit unions (3)	Avg. assets ($ million) (4)	Loans (% of assets) (5)	Capital (% of assets) (6)
1996	11	29	28	8	65	9
1997	11	35	24	9	60	10
1998	11	41	21	10	62	10
1999	11	48	19	11	61	10
2000	14	52	21	16	74	10
2001	23	72	24	14	69	10
2002	26	80	25	14	66	10
2003	26	82	24	15	64	10
2004	29	95	23	9	58	13
2005	32	88	27	12	65	13
2006	35	86	29	19	69	10
2007	38	97	28	21	70	11
2008	40	85	32	21	72	12
2009	49	86	36	28	58	13
2010	75	110	41	52	70	10
2011	78	107	42	71	64	10
2012	86	113	43	69	62	10
2013	76	95	44	95	64	10
2014	88	149	37	95	68	11
2015	84	164	34	108	69	11

Figure II-22 shows that CDFI MCUs' loan distribution is similar to that of all CDFI credit unions, regardless of urban or rural classification.

Figure II-22. Types of Loans Outstanding for CDFI MCUs, 1996-2015

Sources: CDFI Fund (1998-2016) and NCUA (2016a).



Services Targeted to Low- and Moderate-Income Consumers

CDFI banks and credit unions provide a wide variety of financial services to low- and moderate-income people and communities. Figure II-23 illustrates the percentage of institutions offering 21 services across several groups of credit unions.[16] These services either focus specifically on the needs of low- and moderate-income consumers or are underprovided by conventional financial institutions. Examples include individual development accounts (IDAs); several no cost, low cost, or low minimum balance saving products; small volume loans; financial literacy services; and products often used by underbanked communities, such as check cashing and money orders (FDIC 2014). Columns 1-4 present these percentages for the following four groups: 23 OFN Member credit unions (OFN 2016), all 248 CDFI credit unions, 2,303 low-income-designated (LID) credit unions (NCUA 2013, Dopico 2014), and all 6,021 credit unions.[17] The bottom row presents the average service rate across all products (hereinafter: average offerings).

Figure II-23 highlights large differences in the percentages of mission-driven services offered across groups of credit unions, ranging from OFN Member credit unions (72% of cases) to all CDFI credit unions (56%), LID credit unions (36%), and all credit unions (34%). We also compare a sample of 27 long-term CDFI credit unions (which we define in Section III below) and the sample of 37 credit unions that became newly certified in 2015. While we found some evidence that long-term CDFIs are more likely to offer mission-related services (average offerings of 60%), the most recently-certified CDFIs exhibit average offerings that are not much lower (52%) and are much higher than those of non-CDFI credit unions. In other words, both long-term and more recent CDFIs offer more mission-related services to low- and moderate-income people and communities. As was previously noted, more recent CDFIs tend to be larger than long-term institutions, which defies any assumptions that large financial institutions are inherently mainstream, or not as mission-oriented. This is further borne out by our analysis of credit unions by asset size described below.

We also compare urban vs. rural CDFI credit unions (columns 7 and 8), and find their average offerings to be remarkably similar. Comparing CDFI minority credit unions (MCU) vs. CDFI non-MCUs (columns 9 and 10) also shows broadly similar offerings. The lower offerings by CDFI MCUs are likely the result of their smaller size, on average, compared with CDFI non-MCUs (Dopico 2016c). Last, we present average offerings for CDFI credit union across broad asset size ranges, from very small (under $1 million) to small ($1 million- $10 million), somewhat small ($10 million- $100 million), medium ($100 million- $1 billion), and large ($1 billion - $10 billion). Our findings broadly match those common in analyses across credit union sizes: Larger credit unions, which benefit from economies of scale, are able to offer more services in general, including those targeted to low- and moderate-income consumers (Dopico 2016a and b). From the asset size ranges in Figure II-23, average offerings climb markedly from 21% to 38%, 57%, 65%, and 72%, respectively.

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[16] We use the same list of services included in OFN's annual Side by Side publication, Table 13 (page 44). Bank call reports do not include similar data for banks. Credit union call reports include these data, with coverage increasing over time, starting in 2006. Since long-term data are not available, here we focus on recent conditions.

[17] We included a column for OFN Member credit unions because Figure II-23 is this report's only measure of mission, and because the differences between OFN Members and other groups are particularly substantial.

Figure II-23. Selected Services Offered across Selected Groups of Credit Unions, 2015

	1. OFN Member credit unions	2. CDFI credit unions	3. Low-income designated (LID) credit unions	4. All credit unions	5. Long-term CDFI credit unions	6. Credit unions that were newly CDFI in 2015	7. Urban CDFI credit unions	8. Rural CDFI credit unions	9. CDFI minority credit unions	10. CDFI non-minority credit unions	11. Very small CDFI credit unions (Under $1 million in assets)	12. Small CDFI credit unions ($1 million- $10 million)	13. Somewhat small CDFI credit unions ($10 million- $100 million)	14. Medium CDFI credit unions ($100 million- $1 billion)	15. Large CDFI credit unions ($1 billion - $10 billion)
Number of Credit Unions	23	248	2,303	6,021	27	37	191	57	84	164	12	35	112	75	14
	Percentage of credit unions offering each service														
1. Individual Development Accounts	52%	16%	5%	3%	41%	14%	18%	9%	19%	14%	0%	17%	16%	19%	7%
2. No Cost Share Drafts	83%	89%	76%	74%	96%	92%	88%	93%	80%	94%	17%	66%	98%	96%	100%
3. Low Minimum CDs	96%	87%	76%	74%	74%	95%	87%	86%	77%	92%	25%	66%	96%	91%	93%
4. Financial Counseling	91%	76%	39%	34%	85%	68%	76%	74%	83%	71%	75%	77%	71%	80%	86%
5. Financial Education	87%	76%	38%	34%	70%	73%	78%	70%	76%	76%	67%	77%	71%	81%	100%
6. Financial Literacy Workshops	87%	55%	24%	20%	59%	46%	57%	49%	64%	50%	42%	46%	45%	72%	79%
7. First Time Homebuyer Program	57%	30%	13%	13%	48%	27%	32%	23%	32%	29%	0%	17%	23%	39%	93%
8. Bilingual Services	70%	40%	23%	21%	48%	38%	42%	33%	50%	34%	8%	34%	35%	52%	57%
9. No Cost Bill Payer	74%	72%	56%	58%	59%	78%	72%	70%	53%	82%	0%	11%	80%	95%	100%
10. No Cost Tax Preparation Services	52%	21%	6%	3%	44%	11%	21%	21%	28%	17%	17%	20%	22%	16%	50%
11. Member Business Loans	70%	60%	34%	33%	59%	54%	61%	56%	41%	70%	8%	14%	54%	89%	100%
12. Credit Builder	78%	60%	28%	23%	67%	54%	58%	67%	63%	59%	50%	54%	64%	61%	43%
13. Micro Business Loans	65%	42%	14%	11%	63%	32%	42%	40%	30%	48%	8%	20%	39%	56%	71%
14. Micro Consumer Loans	65%	40%	19%	16%	59%	32%	39%	44%	32%	45%	17%	26%	43%	47%	43%
15. Pay Day Alternatives	48%	25%	14%	10%	37%	16%	26%	23%	32%	22%	17%	40%	26%	17%	29%
16. Share Secured Credit Cards	65%	52%	36%	37%	44%	35%	56%	37%	50%	53%	0%	9%	60%	71%	36%
17. Check Cashing	83%	70%	61%	57%	70%	70%	67%	79%	63%	74%	25%	54%	71%	79%	86%
18. International Remittances	43%	39%	22%	24%	26%	38%	40%	35%	30%	44%	0%	3%	38%	60%	64%
19. Low Cost Wire Transfers	91%	83%	70%	68%	85%	81%	82%	84%	80%	84%	33%	66%	89%	88%	86%
20. Money Orders	87%	76%	56%	51%	74%	76%	76%	77%	73%	78%	33%	49%	81%	87%	86%
21. No Surcharge ATMs	70%	67%	49%	48%	44%	70%	64%	77%	61%	70%	0%	34%	74%	76%	93%
Average Offerings	72%	56%	36%	34%	60%	52%	56%	55%	53%	57%	21%	38%	57%	65%	72%

Sources: NCUA (2016a).

Financial and Portfolio Performance in Relation to Asset Size

Figure II-24 shows financial performance and loan types for CDFI banks and credit unions across asset size ranges in 2015. The top panel provides general information about the number of institutions, branches, and asset ranges. CDFI banks and their assets are concentrated in our medium size range ($100 million - $1 billion), accounting for 87 of 113 (77%) institutions and $28 billion out of $35.5 billion (79%) in assets. Unlike among credit unions, there are no CDFI banks smaller than $10 million. Also, while most conventional bank assets are concentrated in very large institutions, CDFI banks include very few institutions in our largest range ($1 billion - $10 billion), and none above $10 billion.

In contrast, CDFI credit unions exhibit a broader range of asset sizes, including 12 very small (under $1 million), 35 small ($1 million- $10 million), a larger number (112) of somewhat small ($10 million- $100 million), 75 medium, and 14 large entities. While CDFI credit unions under $100 million (including very small, small, and somewhat small) are quite numerous (totaling 159), together they account for a small share of CDFI credit unions' assets (10%), while medium CDFI credit unions account for 39%, and large entities hold 51% of assets.

Similarly, while CDFI credit unions under $100 million account for the most institutions (159 out of 248, or 64%), they have far fewer headquarters and branch locations (317) than medium CDFI credit unions (588). Medium and large entities average eight and 21 locations, respectively, compared to one or two locations per smaller CDFI credit union. Credit union branch networks are also smaller than banks' even across comparable asset size ranges. Among somewhat small institutions, credit unions have fewer locations (2.4) than banks (6.8), with similar patterns for medium (8 vs. 24) and large institutions (21 vs. 60).

Figure II-24's middle panel presents several performance measures for CDFI banks and credit unions that are drawn from their income statements. Assuming interest income as a percentage of assets is a reliable proxy for interest rates on loans, Figure II-24 suggests that smaller CDFI credit unions charge higher interest rates to borrowers, ranging from 4.28% for very small to 4.15% for somewhat small, 3.81% for medium, and 3.34% for large institutions. Numerous factors jointly influence financial institutions' earned interest income, including their size and quasi-fixed noninterest costs, credit profiles of their actual and potential customers, customer demand for various loan types, competitors' interest rates, and loan sector concentration. On average, larger credit unions with lower noninterest costs (per assets) will be able to offer lower interest rates for any loan product and any borrower, and will be able to profitably concentrate more on low-interest loan types (e.g., collateralized mortgages), thus relying less on high-interest loan types (i.e., on non-collateralized personal loans).

Similarly, assuming interest expense as a percentage of assets is a reliable proxy for interest rates on deposits, Figure II-24 suggests that smaller CDFI credit unions pay lower interest rates to depositors, ranging from 0.29% to 0.52%. Moreover, smaller CDFI credit unions have far higher noninterest incomes, ranging from 4.19% to 1.56%. Since smaller institutions offer fewer services (see Figure II-23 on page 27), these higher noninterest incomes imply that smaller institutions charge higher fees per service provided.

Figure II-24. Financial Performance and Types of Loans of CDFI Banks and Credit Unions across Asset Size Ranges, 2015

	CDFI Banks				CDFI Credit Unions					
	All sizes (1)	Somewhat small ($10 million - $100 million) (2)	Medium ($100 million - $1 billion) (3)	Large ($1 billion - $10 billion) (4)	All sizes (5)	Very small (Under $1 million) (6)	Small ($1 million - $10 million) 7)	Somewhat small ($10 million - $100 million) (8)	Medium ($100 million - $1 billion) (9)	Large ($1 billion - $10 billion) (10)
1. Number of institutions	113	22	87	4	248	12	35	112	75	14
2. Number of locations	2,462	150	2,070	242	1,203	12	40	265	588	298
3. Locations per institution	21.8	6.8	23.8	60.4	4.9	1	1.1	2.4	7.8	21.3
4. Assets ($ billion)	35.5	1.3	28.1	6.1	55.0	0.01	0.14	5.3	21.5	28.1
Below figures are % of assets										
5. Interest income	3.96	3.85	4.05	3.59	3.60	4.28	5.06	4.15	3.81	3.34
6. Interest expense	0.44	0.40	0.48	0.28	0.48	0.29	0.31	0.36	0.46	0.52
7. Noninterest income	1.17	1.38	1.11	1.40	1.75	4.19	3.71	1.84	1.96	1.56
8. Noninterest expense	3.69	4.32	3.72	3.40	3.77	7.71	7.22	4.60	4.23	3.25
9. Provisions for loan losses*	0.13	0.23	0.14	0.08	0.34	1.41	1.35	0.51	0.39	0.27
10. Net income (ROA)	0.77	0.31	0.75	0.94	0.76	-0.93	-0.11	0.52	0.70	0.86
11. Asset growth rate**	3.53	-0.2	3.5	4.6	7.8	-1.3	3.5	4.7	7.0	8.9
12. Capital (equity/net worth)	11	11	11	10	10	10	11	12	10	10
13. Total loans	65	54	66	64	69	38	61	61	69	71
Below figures are % of all loans										
14. Business	12	15	12	15	2	0	4	2	3	1
16. CRE	49	36	51	42	8	0	2	3	9	8
17. Housing to individuals	27	33	26	30	37	0	17	31	36	38
18. Other loans	12	16	11	13	53	100	77	64	52	53

Sources: CDFI Fund (2016), FFIEC (2016), NCUA (2016a), and author's calculations.
Notes: All averages are weighted by assets.
* For simplicity, we do not include both "provisions for loan losses" and "net charge-offs" since data for the two concepts are generally similar when considering groups of institutions over the long term.
**Asset growth rates are adjusted for both inflation and mergers.

While performance varies across individual institutions, on average, larger CDFI credit unions benefit from being able to spread out quasi-fixed costs (e.g., the costs of signing up for technology platforms, various compliance costs, etc.) over larger asset bases, and thus benefit from substantial economies of scale (Dopico 2016b). In particular, noninterest expenses per assets range from 7.71% for very small credit unions to 7.22%, 4.60%, 4.23%, and 3.25%, respective to categories in Figure II-24. Among CDFI banks, we observe somewhat similar patterns, as noninterest expenses per assets are 4.32% for somewhat small, 3.72% for medium, and 3.40% for large institutions.

Moreover, the advantages for larger institutions are not limited to economies of scale, as smaller CDFI credit unions have experienced higher loss rates (net charge-offs and, in this figure, their related provisions for loan losses) than their larger counterparts. In 2015, provisions for CDFI credit unions ranged from 1.41% for the smallest institutions, falling steadily to 0.27% for the largest. Among CDFI banks, there is a similar pattern of smaller credit losses for larger institutions, but the magnitude of the losses is far smaller, ranging from 0.23% to 0.08%.

Less attractive pricing and offerings (higher interest rates for loans, lower interest rates for deposits, narrower offerings of services, and higher fees) for smaller institutions contribute to lower asset growth rates, while the converse supports higher asset growth rates for larger institutions. As shown in Figure II-24, growth rates range from -1.3% to 3.5%, 4.7%, 7.0%, and 8.9% among CDFI credit unions, and -0.2%, 3.5%, and 4.6% among CDFI banks. Moreover, the combination of higher noninterest expenses and higher provisions for loan losses among smaller institutions yields lower ROAs compared with larger institutions, ranging from -0.93% to -0.11%, 0.52%, 0.70%, and 0.86% among CDFI credit unions, and 0.31%, 0.75%, and 0.94% among CDFI banks. Thus, larger institutions not only have more consumers, but their lower costs simultaneously permit them to offer attractive pricing and services and maintain the higher profitability levels needed to set aside capital (equity or net worth) so that growth in assets does not result in falling regulatory capital ratios.

These patterns are key contributors to the long-term process of bank and credit union consolidation, through which thousands of smaller institutions have merged into lower-cost, faster-growing larger institutions. It is also important to recognize that, despite ongoing differences in average performance between smaller and larger institutions (Dopico 2016b), it has taken decades for the number of banks and credit unions to fall by about two thirds, and thousands of separate banks and credit unions still operate independently in the U.S. When CDFI legislation was adopted in 1994, there were roughly 12,600 banks and thrifts; today there are about 6,000.

One key reason for the slow process and continuing operation of small institutions is that size is not the only factor explaining performance. Within each asset range, there is a large degree of variation in costs. While smaller asset ranges include many high-cost, slow-growth institutions, they also include some low-cost, entrepreneurial institutions that adapt to changing conditions, innovate, and successfully identity market niches and deserving social needs. For the foreseeable future, it is likely that the steady process of consolidation will continue, with many small independent institutions merging into larger institutions, thereby enabling them to provide lower costs and broader service offerings. However, it is also likely that smaller banks and credit unions will be counted in the thousands for many years to come. Hundreds of these institutions will successfully continue to experiment with changing business models, and identifying new markets and approaches, such as becoming CDFI certified.

Finally, the bottom panel of Figure II-24 presents CDFI bank and credit union loan types across asset ranges in 2015. As discussed above, CDFI banks focus far more on business loans, and that pattern holds across asset size ranges. Among CDFI credit unions, larger, faster-growing institutions are more likely to engage in CRE and mortgage lending, though consumer lending (the primary source of “other”) dominates across all asset ranges.

III. Growth Characteristics of Long-Term CDFI Banks and Credit Unions - Longitudinal Analysis

To focus more clearly on factors that may drive CDFI performance, in this section we focus on 26 CDFI banks and 27 CDFI credit unions that met the following conditions (hereinafter: long-term CDFIs):

- They were CDFI certified for at least ten years.[1]
- They were CDFI certified in 2015; and
- They were included in bank or credit union call reports for every year during 1996-2015;

Ideally, our subsample of long-term CDFIs would have been larger to allow for more reliable longitudinal comparisons. However, despite the limitations of smaller sample sizes, this section's findings illustrate distinct and important trends among our subsample of CDFI banks and credit unions.

Figure III-1 presents median assets and loan volume for long-term CDFI banks and credit unions and for all other CDFI banks and credit unions. Long-term CDFI banks are larger (with median assets of $246 million in 2015) than all other CDFI banks ($203 million). In contrast, long-term CDFI credit unions are smaller ($18 million) than all other CDFI credit unions ($64 million), in large part because many large credit unions became CDFI certified in recent years. Long-term CDFIs have grown markedly during 1996-2015, from median assets of $61 million to $246 million for CDFI banks (Column 1) and from $4 million to $18 million for CDFI credit unions (Column 5). Growth among long-term CDFI credit unions was far less pronounced than among all other CDFI credit unions, which grew from $1.6 million to $64 million. Again, growth among long-term CDFI credit unions is driven by individual institutions adding assets organically and through CDFI Fund awards (as well as some mergers). In contrast, growth in median assets among all other CDFI credit unions is largely driven by larger institutions being added to the mix.

[1] This definition includes some institutions that were CDFI certified for some years, stopped being so, and then became certified again.

Figure III-1. CDFI Bank and Credit Union Median Assets and Loans Outstanding ($ million): Long-Term vs. All Other CDFIs, 1996-2015

	CDFI Banks				CDFI Credit Unions			
	Median Assets		Median Loans Outstanding		Median Assets		Median Loans Outstanding	
	Long-term CDFI banks (1)	All Other CDFI banks (2)	Long-term CDFI banks (3)	All Other CDFI banks (4)	Long-term CDFI credit unions (5)	All Other CDFI credit unions (6)	Long-term CDFI credit unions (7)	All Other CDFI credit unions (8)
1996	61	49	39	22	4.1	1.6	2.2	0.8
1997	65	43	40	23	4.1	1.9	2.4	1.1
1998	83	40	38	21	4.7	1.5	2.8	0.9
1999	94	42	45	23	5.3	2.0	3.0	1.0
2000	89	55	45	36	6.1	2.1	3.8	1.2
2001	90	61	50	37	6.8	2.5	3.9	1.3
2002	111	65	64	41	7.5	2.9	4.5	1.6
2003	119	89	78	55	7.9	3.0	5.3	1.7
2004	129	91	83	59	8.8	3.5	5.3	2.0
2005	141	112	91	64	8.9	4.3	5.1	2.2
2006	161	111	100	69	8.2	4.5	4.9	3.0
2007	177	116	116	68	8.6	5.6	5.6	3.7
2008	176	138	126	92	11.1	6.5	6.8	4.6
2009	199	134	146	101	14.9	6.9	6.9	4.3
2010	200	131	129	94	14.7	12.9	7.1	8.0
2011	238	162	136	120	15.1	15.5	7.7	9.7
2012	237	153	140	113	13.0	18.5	8.5	10.1
2013	226	143	156	84	13.2	33.2	8.6	18.5
2014	230	144	154	100	14.8	52.5	9.2	31.1
2015	246	203	155	145	17.9	64.4	10.0	40.1
Average annual growth in median values (not adjusted for inflation, mergers, or (for other CDFIs) changes in the mix of institutions, %)								
	8.0	8.8	7.9	12.1	8.7	23.8	8.6	25.5

Sources: CDFI Fund (1998-2016), FRBC (2016), FFIEC (2016), and NCUA (2016a).

To analyze factors that might drive growth, we follow the "longitudinal growth analysis" methodology employed in *OFN 2015*,[2] dividing each of long-term CDFI banks and CDFI credit unions into three groups. High Growth (merger-adjusted and inflation-adjusted asset growth rates higher than 5%, or substantially higher than long-term GDP growth, [BEA 2016]); Moderate Growth (2.5%-5%); and Low Growth (under 2.5%, or lower than long-term GDP growth).[3] High growth rates result in institutions that steadily gain market share relative to the

[2] Dopico (2016a) explores more formally (i.e., statistically) the impacts of more than 100 potential factors on credit union asset growth rates from 1979 to 2015 across several populations of credit unions, subdivided mainly by asset size. The key factors identified as explaining growth include more attractive (i.e., higher) interest rates on deposits, high ROA, broad ranges of key loan and deposit products, and high marketing expenses. Attractive interest rates are necessary to attract deposits and high ROAs are necessary to maintain net worth per asset ratios in the face of deposit inflows.

[3] To classify institutions across the three growth groups, we computed long-term growth averages weighting each year's growth rate by assets on the initial (not final) value for each growth rate. This approach limits the possibility that unusually high growth rates for new, very small institutions might inappropriately inflate group averages, as might happen if we had relied on simple, unweighted averages.

economy as a whole. Moderate growth rates more or less maintain market share. Low growth rates imply losing market shares (Dopico 2016b).

Figures A-4 and A-5, in the appendix, present average and median initial (1996) and final (2015) levels of assets, and average annual growth rates for long-term CDFI banks and credit unions across the following periods:

- 1996-2015: entire period
- 1996-2000: end of the 1990s expansion
- 2001: recessionary year
- 2002-2006: expansion and housing boom of the mid-2000s
- 2007-2009: housing crisis, financial crisis, and recession
- 2010-2015: subsequent atypically-weak recovery

Over extended periods of time (1996-2015), and not adjusting for inflation or mergers, most groups exhibit substantial growth. Average assets for the High Growth banks (row 2) grew from $24 million to $388 million (or 16 times, see Columns 2 and 3).[4] Moderate Growth banks grew from $58 million to $332 million (six times). Low Growth banks grew from $123 million to $298 million (roughly doubling). Adjusting for mergers and inflation, the annual growth rates for the three groups were markedly different, at 11%, 5% and 1%.

Although this report does not include a detailed analysis of CDFI Fund financial awards, our preliminary analysis of the CDFI Fund's Searchable Awards Database shows that High Growth CDFI credit unions and banks have received much larger awards as a percentage of total assets over the 20-year study period.[5] OFN intends to more formally analyze the effects of CDFI Fund awards on growth and performance as part of its future research efforts.

Figures A-6 and A-7, also in the appendix, present median, mean, minimum, and maximum loans outstanding, for long-term CDFI banks and credit unions across the three growth groups in 1996 and 2015.

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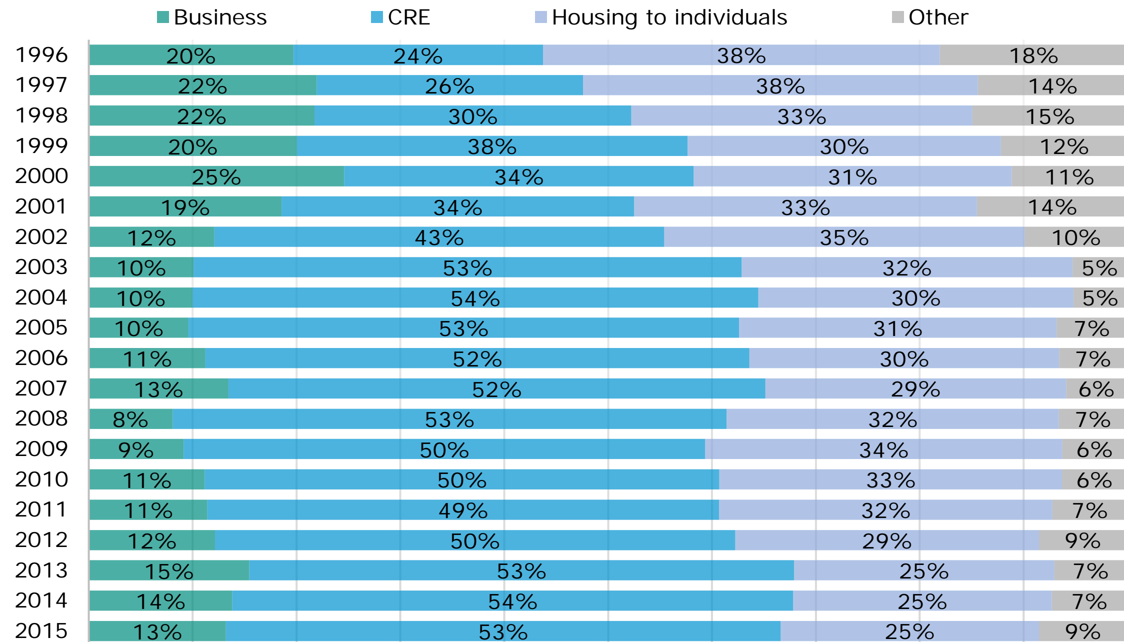
[4] The High Growth group includes some newly-formed institutions, which often exhibit unusually high growth rates due to their low initial asset size. For example, growing from startup funds of $200,000 to $1 million in deposits equates to 400% growth, and from $1 million to $2 million equates to 100% growth. Meanwhile, most CDFIs analyzed in this report have assets far exceeding $1 million or $2 million, thus assuring more moderate growth rates from a larger starting denominator.

[5] CDFI Fund Searchable Awards Database: https://www.cdfifund.gov/awards/state-awards/Pages/default.aspx

Figures III-2 and III-3 present the loan types held by long-term CDFI banks and credit unions across growth groups during 1996-2015. Loan distributions among long-term CDFI banks do not suggest clearly that High Growth CDFI banks have had more or less of any particular loan type than Moderate or Low Growth institutions. Among long-term CDFI credit unions, High Growth institutions hold more commercial real estate loans, more residential mortgages, and fewer consumer loans than Slow Growth institutions. Dopico (2016a) highlights that while changes in a credit union's loan portfolio composition can help explain asset growth, their impact's magnitude is relatively small.

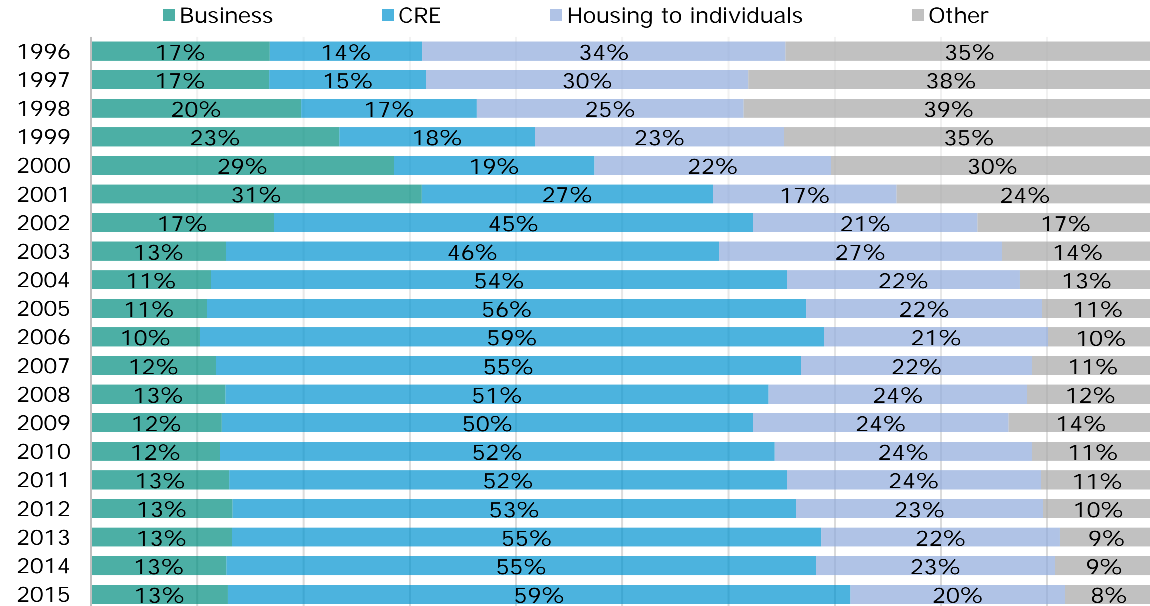
Figure III-2. Types of Loans Outstanding for CDFI Banks across Growth Groups, 1996-2015

High Growth CDFI Banks

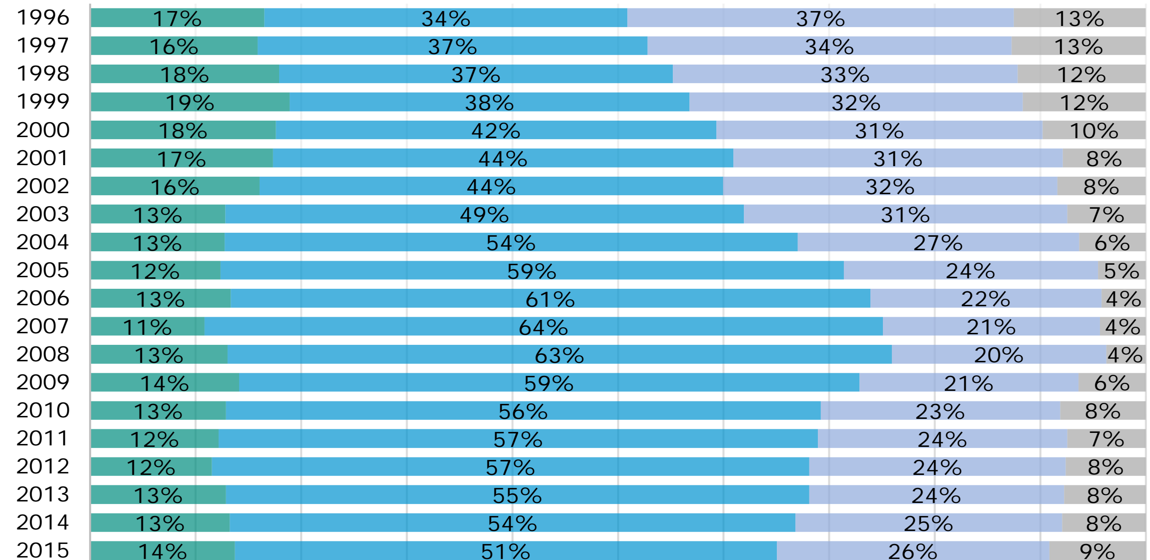


Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

Moderate Growth CDFI Banks



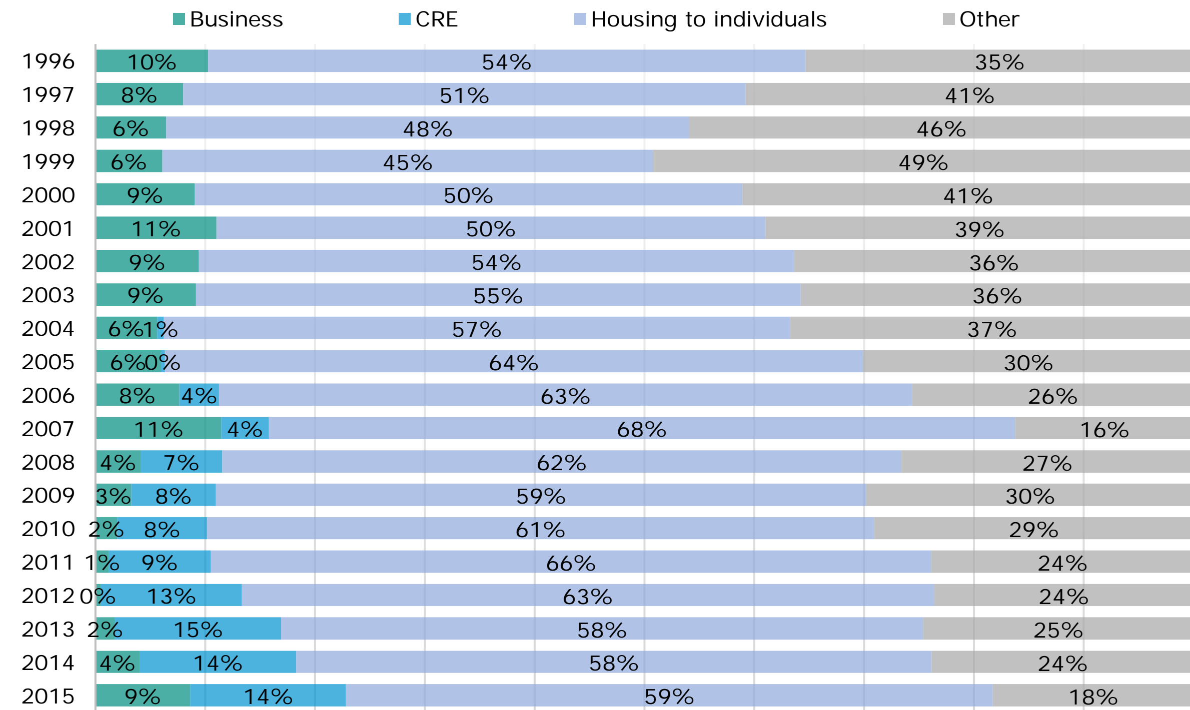
Low Growth CDFI Banks



Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

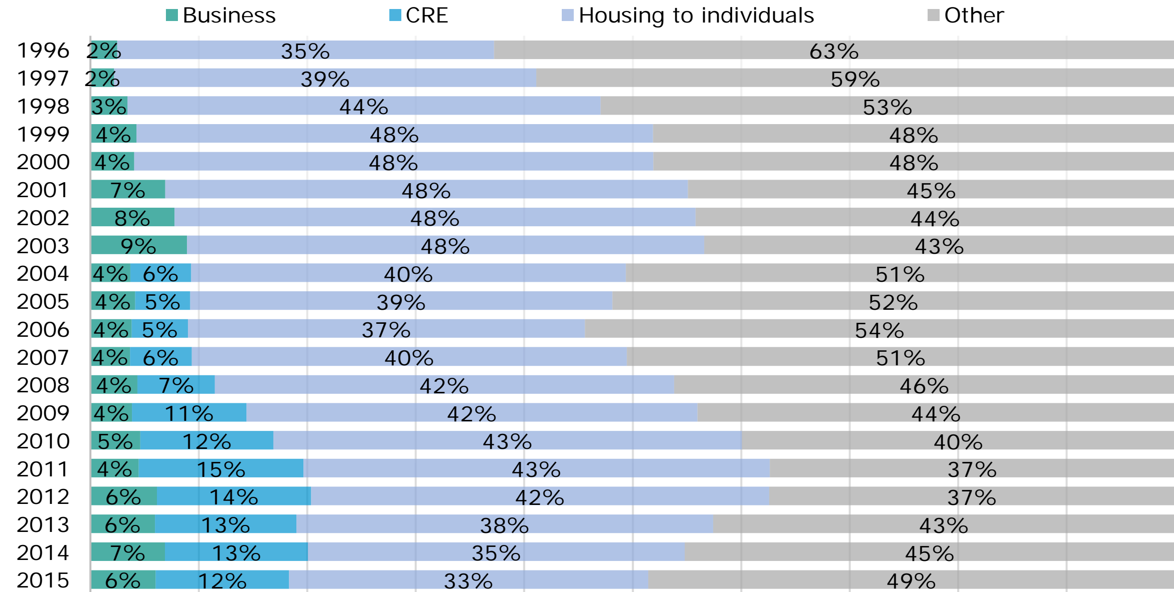
Figure III-3. Types of Loans Outstanding for CDFI Credit Unions across Growth Groups, 1996-2015

High Growth CDFI Credit Unions

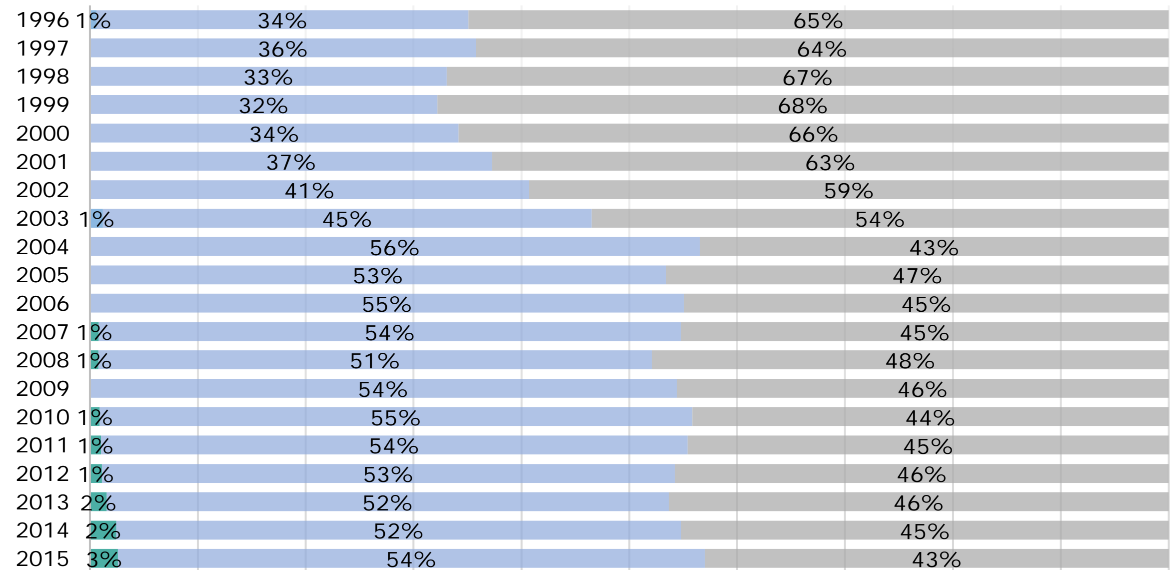


Sources: CDFI Fund (1998-2016) and NCUA (2016a).

Moderate Growth CDFI Credit Unions



Low Growth CDFI Credit Unions



Sources: CDFI Fund (1998-2016) and NCUA (2016a).

Figures A-8 and A-9, in the appendix, show interest income, interest expense, and net interest income (each per assets) for long-term CDFI banks and credit unions, across growth groups. We assume that interest income as a percentage of assets is a reliable proxy for interest rates charged to borrowers and interest expenses as a percentage of assets is a reliable proxy for interest rates paid to depositors. While this approach does not account in full for the effects of loan sector distributions (e.g., unsecured personal loans average much higher interest rates than mortgage loans), these simplified measures are generally representative of results computed across interest rates for individual loan and deposit types among credit unions.

These figures suggest that High Growth banks and credit unions, on average, charge their borrowers lower interest rates than Low Growth institutions (5.53% vs. 5.88% for banks and 5.56% vs. 6.58% for credit unions); and Low Growth CDFI banks have lower interest expenses (1.69%) than High Growth banks (1.90%). The same holds for credit unions, as Low Growth CDFI credit unions have slightly lower rates on deposits than High Growth institutions. For both banks and credit unions, interest rates for Low Growth and High Growth institutions have converged since the financial crisis, a period of time when all interest rates and interest rate margins in financial markets have become compressed

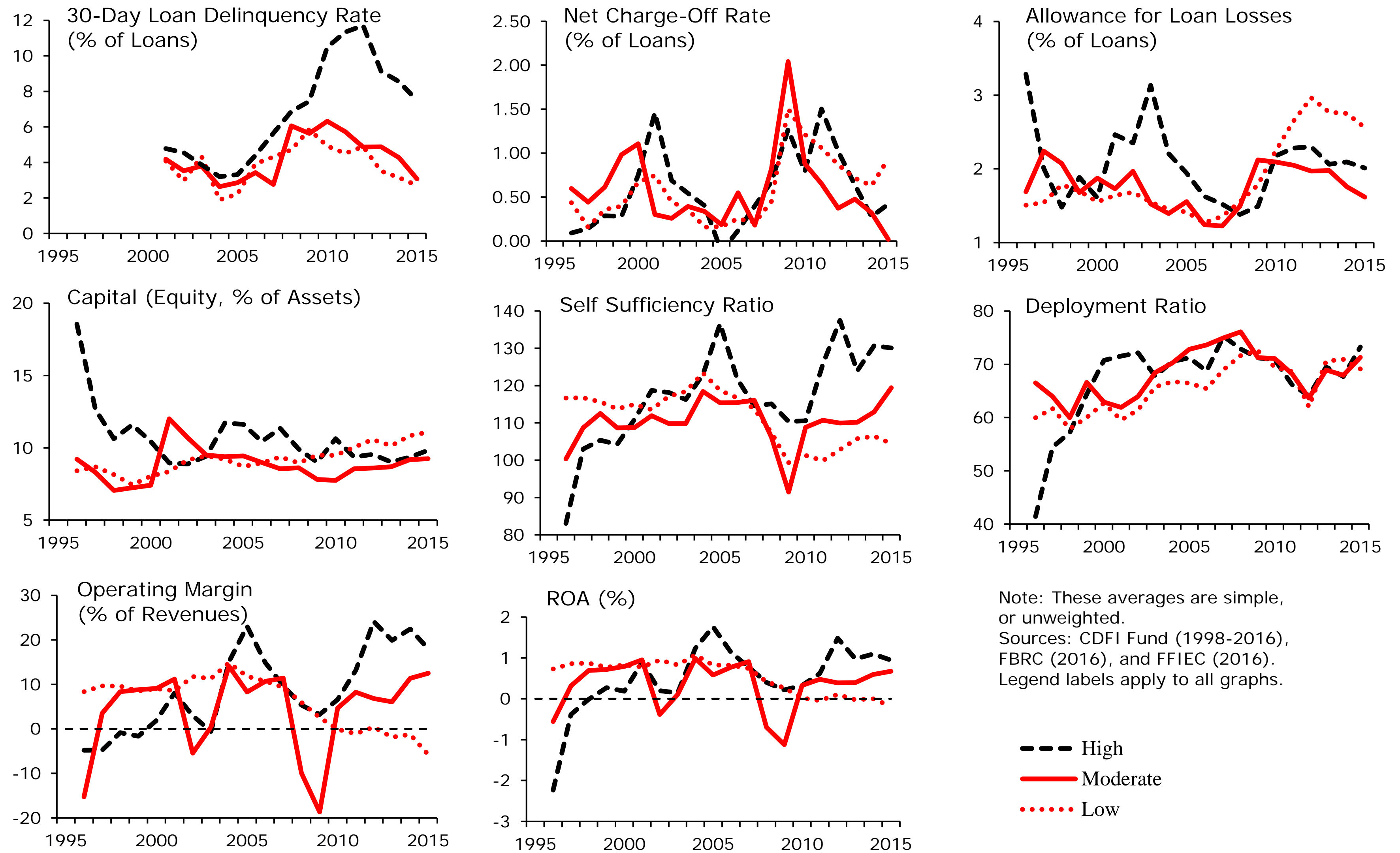
Despite the mixed evidence about deposit interest rates, the combination of lower rates on loans and higher rates on deposits results in smaller net interest incomes (margins) for High Growth CDFI banks (3.63% during 1996-2015) than for Low Growth CDFI banks (4.19%). Similarly, High Growth CDFI credit unions have lower margins (4.24%) than Low Growth CDFI credit unions (4.94%).

Figures III-4 and III-5 present several additional measures of financial performance for CDFI banks and credit unions across growth groups during 1996-2015. These figures highlight the complex relationship between credit risk and growth, showing that high-growth CDFI banks did not have net charge-off rates that were consistently higher than those of low-growth institutions either before, during, or after the financial crisis.

In contrast, high-growth CDFI credit unions exhibit large spikes in loan delinquency rates surrounding the financial crisis, but not in net charge-off rates. Somewhat akin to CDFI banks' trends in Figure II-11, this finding suggests that mission-driven policies to work with delinquent borrowers can simultaneously be consumer friendly and financially sustainable. Working with delinquent borrowers to restructure debt and keep them current on loans, instead of quickly charging off loans, may actually reduce total losses.

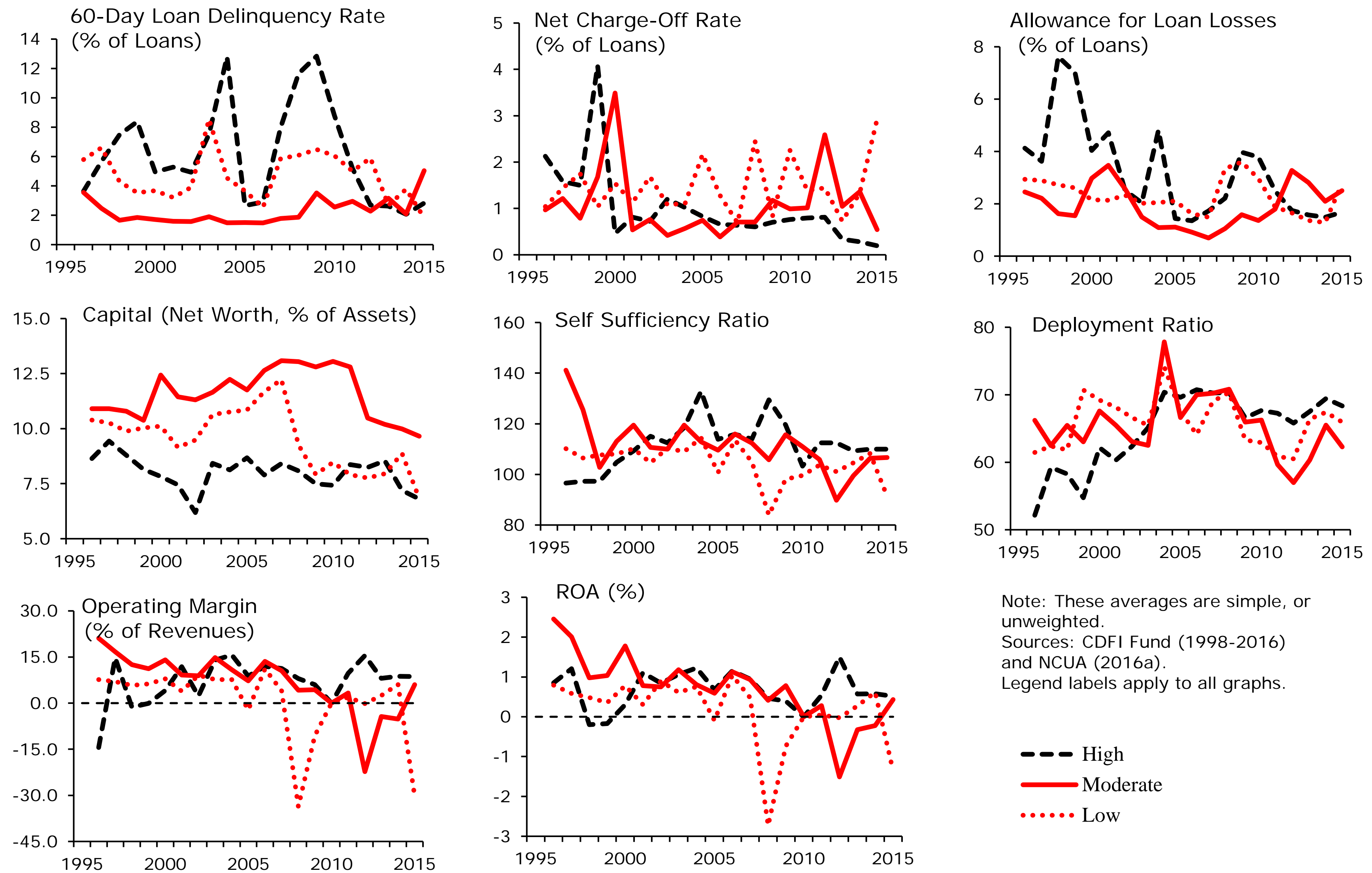
In a further example of the complexities surrounding growth, the simple, or unweighted, averages for the early years of many of the CDFI bank series in these figures are dominated by new institutions. New banks start with only equity and no deposits, i.e., with initially very high capital (equity) ratios. As deposits flow in, these institutions can "grow" into their equity, until deposits are about ten times their original equity and the regulatory capital ratio falls to 10%. Similarly, new banks early on can have very low (or negative) self-sufficiency ratios, operating margins, and ROAs, as initial expenses take place before revenues start to flow in, and while the aforementioned high equity ratios provide a cushion.

Figure III-4. Financial Performance for CDFI Banks by Growth Group, 1996-2015



Note: These averages are simple, or unweighted.
Sources: CDFI Fund (1998-2016), FBRC (2016), and FFIEC (2016).
Legend labels apply to all graphs.

Figure III-5. Financial Performance for CDFI Credit Unions by Growth Group, 1996-2015



Note: These averages are simple, or unweighted.
Sources: CDFI Fund (1998-2016) and NCUA (2016a).
Legend labels apply to all graphs.

IV. Key Findings and Opportunities for Future Research

This section summarizes the key findings from the trend analysis and longitudinal growth analysis. It also highlights opportunities for further research on CDFI banks and credit unions.

Key Findings from the Trend Analysis (Section II)

During 1996-2015, the number of CDFI banks grew from eight to 113, and that of CDFI credit unions from 40 to 248. CDFI banks' share of all banks grew from 0.1% to 1.8%, and CDFI credit unions' share of all credit unions grew from 0.4% to 4.1%.

During this period, assets in CDFI banks increased from $926 million to $35 billion, increasing their share of all bank assets from 0.02% to 0.22%. Assets in CDFI credit unions grew from $150 million to $55 billion, increasing their share of all credit union assets from 0.1% to 4.6%.

- Most CDFI bank and credit union growth is a result of larger banks and credit unions becoming certified in recent years, as opposed to asset growth among the smaller banks and credit unions that have been long been CDFI certified. CDFI bank assets grew from $17 billion in 2007 (before the financial crisis) to $35 billion in 2015, an increase largely attributable to 54 medium-sized banks (with assets between $100 million and $1 billion) becoming certified. During the same period, CDFI credit union assets grew even more markedly, from $4 billion to $55 billion as 14 large credit unions (with assets greater than $1 billion) became CDFI certified.

- Average assets for CDFI credit unions grew from $3.8 million to $222 million during 1996-2015, making the average CDFI credit union larger than the average for all credit unions, which grew from $29 million to $200 million. Until 2000, there were no CDFI credit unions larger than $100 million, and none larger than $1 billion until 2010. In 2015, institutions larger than $1 billion hold 51% of CDFI credit union assets.

- Despite being exempt from the legislative cap on member business lending (12.25% of assets) that applies to other credit unions, business lending represents a relatively small share of CDFI credit unions' portfolios (10% in 2015); however, for credit unions specializing in business lending, exemption from the cap is vital. Twenty CDFI credit unions hold member business loans in excess 12.25%.

- CDFI banks and credit unions rely on deposits as their primary source of funds. Although CDFI banks and credit unions have historically been less reliant on non-traditional forms of regulatory capital, such as banks' subordinated debt or credit unions' secondary capital accounts, more flexible sources of capital would support long-term growth.[1]

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[1] Non-traditional forms of regulatory capital for CDFI banks and credit unions have historically been in short supply (secondary capital) or are avoided due to regulatory scrutiny (subordinated debt).

The CDFI industry's mission includes serving low-income and low-wealth communities. In times of acute financial need (e.g., unemployment, unexpected health expenses, large business expenses), borrowers without savings and/or wealth are more likely to be late with loan payments. However, CDFIs show that, appropriately managed, higher credit risks need not hamper lenders' overall financial performance. During 2001-2015, while non-CDFI banks charged off their delinquent loans at higher rates, CDFI banks worked with delinquent borrowers to bring their loans current. As a result, despite CDFI banks bearing higher loan delinquency rates than all banks (5.29% vs. 3.63%), CDFI banks exhibited lower net charge-off rates than all banks (0.65% vs. 1.05%). CDFI credit unions' net charge-offs were not lower than for all other credit unions presumably because credit unions, as nonprofit institutions, are more likely to be mission-oriented regardless of CDFI certification.

- CDFI banks and credit unions provide important financial services to low-income communities, including both rural and urban. Rural CDFI banks represent 51% (58 out of 113) of all CDFI banks and 50% of all CDFI bank assets ($17.7 billion out of $35 billion). CDFI bank assets are more concentrated in rural areas (50% based on headquarters location) compared with all banks (19%).

Minority CDFI banks and credit unions account for sizable shares of CDFI banks and credit unions (34% in each case in 2015), far outweighing minority banks' share of all banks (3%) and minority credit unions' share of all credit unions (13%).

- Long-term CDFI credit unions provide a wide variety of financial services to people and communities underserved by conventional banks. After identifying 21 services deemed particularly relevant to low- to moderate-income consumers, we calculated the percentage of those services offered by several subsets of credit unions (hereinafter: average offerings). We use this measure as an indicator of mission-related services. OFN Member credit unions have the highest average offerings (72% of services in 2015), followed by all CDFI credit unions (56%), low-income designated (LID) credit unions (36%), and all credit unions (34%). While long-term CDFIs offer a larger percentage of mission-related services (60%), offerings by recent CDFIs were not much lower (52%). CDFI credit unions' average offerings vary markedly across asset sizes: with very small credit unions (under $1 million) at 21%, small credit unions ($1 million - $10 million) at 38%, somewhat small credit unions ($10 million - $100 M million at 57%, medium credit unions ($100 million - $1 billion) at 65%, and large credit unions ($1 billion - $10 billion) at 72%. No comparable financial services data are available for CDFI banks.

Key Findings from the Longitudinal Growth Analysis (Section III)

We explored factors that may contribute to faster asset growth among CDFI banks and credit unions. Our analysis focuses on 26 CDFI banks and 27 CDFI credit unions that have been certified for at least 10 years. We found several measures that correlate with asset growth, such as offering customers attractive interest rates (low rates on loans and high rates on deposits) and having higher ROAs. To combine attractive interest rates for consumers and high ROAs, institutions may, of course, combine effective cost control (low noninterest expenses) and higher noninterest incomes (not necessarily from higher fees per unit, but from selling more services). Ultimately, the factors contributing to higher asset growth among CDFI banks and credit unions are largely similar to those for other institutions.

Opportunities for Future Research

This report – along with *OFN 2015* – is intended to serve as a catalyst for additional research on CDFI banks, credit unions, and loan funds.

The analysis in this report suggests a number of future research questions including:

- What are the effects of consolidation on CDFI bank and credit union trends?
- How have regulatory changes affected CDFI bank and credit union trends? Are there noticeable shifts following the introduction or elimination of relevant regulations?
- How do CDFI Fund financial awards affect CDFI bank and credit union growth and performance over time?
- Have regulations limiting commercial real estate (CRE) lending among all banks (including CDFI banks) caused a corresponding increase in CDFI loan fund lending to CRE? In other words, did loan funds fill the gap?
- How can researchers more accurately measure urban vs. suburban vs. rural CDFI bank and credit union lending?
- Would a regression model help isolate and explain contributing factors to CDFI bank and credit union growth over time? If so, additional research could establish benchmark metrics for financial performance and growth.
- How do rates of growth and performance among more recently formed CDFI banks and credit unions compare with longstanding institutions?
- How does LID status affect growth and performance among credit unions; especially business lending?

Appendix A: Supplementary Figures

Figure A-1. Financial and Portfolio Performance for CDFI Banks, 1996-2015

Interest income per assets and interest expense per assets can serve as proxies for interest rates charged to borrowers and interest rates paid to depositors. Bank call report data does not include actual interest rates, but only interest income and expense.

Sources: CDFI Fund (1998-2016), FRBC (2016) and FFIEC (2016).

	Number of CDFI Banks (1)	30-Day Loan Delinquency Rate (2)	Net Charge-Off Rate (3)	Allowance for Loan Losses (% of Loans) (4)	Capital (Equity, % of Assets) (5)	ROA (6)	Deployment Ratio (7)	Operating Margin (8)	Interest Income (% of Assets) (9)	Interest Expense (% of Assets) (10)
A. Simple Averages										
1996	8		0.7	3.6	16	-0.08	51	-1	6	3
1997	12		0.4	2.7	12	0.67	57	-1	7	3
1998	17		0.7	1.9	14	0.74	61	-11	7	3
1999	19		0.7	1.9	14	0.68	61	-11	7	3
2000	30		0.8	1.6	10	0.78	64	6	7	3
2001	33	3.9	0.6	1.5	9	0.66	64	5	7	3
2002	45	4.3	0.3	1.7	9	0.88	63	8	6	2
2003	46	5.0	0.3	1.8	9	0.83	64	5	5	1
2004	48	3.5	0.4	1.6	10	1.03	67	12	5	1
2005	49	3.9	0.2	1.6	9	0.96	67	11	6	2
2006	53	5.1	0.4	1.6	10	0.80	67	8	6	2
2007	55	5.8	0.4	1.5	10	0.71	70	6	7	3
2008	54	6.4	0.7	1.7	10	0.21	73	-7	6	2
2009	55	8.5	1.8	2.2	10	-0.67	72	-10	5	2
2010	79	7.9	1.2	2.3	10	0.12	71	1	5	1
2011	80	7.9	1.1	2.5	10	0.34	70	1	5	1
2012	84	8.1	0.9	2.5	10	0.50	62	4	4	1
2013	78	6.6	0.7	2.4	10	0.47	68	2	4	1
2014	77	6.0	0.4	2.2	11	0.48	69	4	4	1
2015	113	3.9	0.4	1.7	11	0.77	69	13	4	1
B. Weighted Averages										
1996	8		0.9	1.8	9	-0.08	53	-1	7	3
1997	12		0.3	1.9	10	0.67	61	7	8	3
1998	17		0.5	1.8	9	0.74	58	9	8	3
1999	19		0.3	1.8	8	0.68	58	8	7	3
2000	30		0.6	1.5	8	0.78	61	9	8	4
2001	33	4.2	0.6	1.4	8	0.66	60	8	7	3
2002	45	3.6	0.4	1.4	8	0.88	61	12	6	2
2003	46	3.7	0.3	1.4	8	0.83	64	13	5	2
2004	48	2.8	0.2	1.3	9	1.03	66	16	5	1
2005	49	2.8	0.1	1.3	8	0.96	65	15	6	2
2006	53	3.2	0.2	1.3	8	0.80	65	12	6	3
2007	55	3.9	0.3	1.2	8	0.71	69	10	6	3
2008	54	6.7	0.5	1.5	9	0.21	72	3	6	3
2009	55	11.0	2.0	2.4	10	-0.67	71	-11	5	2
2010	79	7.9	1.3	2.3	10	0.12	70	2	5	1
2011	80	8.5	1.3	2.7	11	0.34	67	6	5	1
2012	84	7.7	1.0	2.7	11	0.50	59	9	4	1
2013	78	5.7	0.7	2.4	10	0.47	67	9	4	1
2014	77	4.7	0.4	2.0	10	0.48	69	9	4	1
2015	113	3.0	0.4	1.5	11	0.77	71	15	4	0

Figure A-2. Financial and Portfolio Performance for CDFI Credit Unions, 1996-2015

Sources: CDFI Fund (1998-2016) and NCUA (2016a).

	Number of CDFI Credit Unions (1)	60-Day Loan Delinquency Rate (2)	Net Charge-Off Rate (3)	Allowance for Loan Losses (% Loans) (4)	Capital (Net Worth, % of Assets) (5)	ROA (6)	Deployment Ratio (7)	Operating Margin (8)	Interest Income (% of Assets) (9)	Interest Expense (% of Assets) (10)
A. Simple Averages										
1996	40	7.0	3.1	3.9	7	0.72	56	1	8	2
1997	46	8.2	1.3	4.8	7	0.17	60	4	8	2
1998	52	6.4	3.7	4.6	7	0.53	53	10	7	2
1999	59	7.9	2.8	5.3	6	0.37	53	-4	7	2
2000	66	6.9	3.3	4.7	8	1.07	56	10	7	2
2001	95	5.2	1.7	3.8	7	0.44	56	0	7	2
2002	106	5.0	2.2	3.0	8	0.82	60	4	6	2
2003	108	5.3	2.1	2.9	8	0.16	61	1	6	1
2004	124	4.2	2.1	2.2	9	0.20	77	1	6	1
2005	120	3.5	1.5	2.7	10	0.61	67	6	6	1
2006	121	3.6	1.2	1.9	10	0.83	67	10	6	1
2007	135	4.3	1.4	2.0	10	0.44	68	0	7	2
2008	125	4.7	1.4	2.2	10	-0.35	68	-3	6	2
2009	135	5.7	1.7	2.4	9	-0.53	65	-10	5	1
2010	185	4.3	1.6	2.4	10	0.00	65	0	5	1
2011	185	4.1	1.3	2.5	10	0.10	63	1	5	1
2012	199	3.0	1.5	2.8	10	0.27	60	-1	5	1
2013	171	2.3	1.1	2.0	11	0.39	64	5	4	0
2014	237	2.0	0.8	1.6	11	0.58	66	6	4	0
2015	248	1.9	1.0	1.6	11	0.41	67	4	4	0
B. Weighted Averages										
1996	40	3.8	1.3	2.7	8	0.81	67	8	9	3
1997	46	5.6	0.8	3.0	9	0.40	65	4	8	3
1998	52	4.6	1.5	2.7	10	1.21	61	13	8	3
1999	59	3.7	1.0	2.5	10	0.68	59	8	7	3
2000	66	2.6	0.7	1.6	12	1.31	63	14	7	3
2001	95	2.6	0.6	1.4	12	1.04	62	12	7	3
2002	106	2.7	0.6	1.4	12	1.09	63	14	6	2
2003	108	2.4	0.8	1.1	12	0.87	64	12	5	1
2004	124	2.4	0.7	1.0	12	1.02	76	15	5	1
2005	120	2.5	0.9	1.0	12	0.75	71	11	5	2
2006	121	2.3	0.7	1.0	11	0.95	73	12	6	2
2007	135	2.8	0.8	1.0	12	0.79	75	9	6	2
2008	125	3.2	1.1	1.7	11	-0.26	76	-3	6	2
2009	135	3.8	1.0	1.7	10	0.37	66	5	5	2
2010	185	2.8	1.0	1.5	9	0.49	74	0	5	1
2011	185	2.8	0.9	1.7	9	0.51	67	8	4	1
2012	199	1.8	0.7	1.6	9	0.61	65	10	4	1
2013	171	1.7	0.7	1.4	9	0.65	71	11	4	1
2014	237	1.4	0.6	1.3	10	0.86	72	16	4	1
2015	248	1.1	0.5	1.1	10	0.76	74	14	4	0

Figure A-3 Number and Assets of CDFI Banks and Credit Unions by State of their Headquarters, 2015

	CDFI Banks		CDFI Credit Unions			CDFI Banks		CDFI Credit Unions	
	Number (1)	Assets ($ million) (2)	Number (3)	Assets ($ million) (4)		Number (1 continued)	Assets ($ million) (2 continued)	Number (3 continued)	Assets ($ million) (4 continued)
Alabama	6	1,646	6	704	Montana	0	0	4	516
Alaska	0	0	2	172	Nebraska	0	0	1	10
Arizona	0	0	2	175	Nevada	0	0	0	0
Arkansas	3	1,397	0	0	New Hampshire	0	0	0	0
California	12	3,535	11	4,379	New Jersey	1	250	4	229
Colorado	2	339	1	48	New Mexico	0	0	3	205
Connecticut	1	104	1	159	New York	5	1,907	15	394
Delaware	0	0	2	318	North Carolina	1	298	7	3,212
Florida	0	0	11	9,798	North Dakota	0	0	1	188
Georgia	2	430	1	66	Ohio	0	0	6	93
Hawaii	0	0	7	1,826	Oklahoma	3	428	2	108
Idaho	0	0	1	85	Oregon	1	163	8	2,693
Illinois	9	2,960	9	1,068	Pennsylvania	2	370	2	40
Indiana	0	0	5	274	Rhode Island	0	0	0	0
Iowa	0	0	1	369	South Carolina	2	852	7	1,505
Kansas	1	23	1	29	South Dakota	1	45	3	163
Kentucky	1	31	0	0	Tennessee	2	215	6	1,052
Louisiana	13	3,444	21	2,551	Texas	1	622	16	4,415
Maine	0	0	1	176	Utah	0	0	1	8
Maryland	1	287	2	1,554	Vermont	0	0	1	20
Massachusetts	1	649	3	1,176	Virginia	2	147	6	4,687
Michigan	1	217	13	3,165	Washington	0	0	9	756
Minnesota	2	967	2	37	West Virginia	1	27	1	82
Mississippi	31	13,237	10	854	Wisconsin	2	118	3	3,003
Missouri	1	139	27	2,433	Wyoming	0	0	0	0
					D.C.	2	646	2	94
					U.S.	113	35,494	248	54,890

Sources: CDFI Fund (2016), FFIEC (2016), and NCUA (2016a).

Figure A-4. Asset Growth Rates for CDFI Banks, 1996-2015

	Summary: 1996 through 2015				Average Annual Growth Rate (AAGR, %)				
	Number of institutions	Assets ($ million) 1996	Assets ($ million) 2015	Overall AAGR (%) 1997-2015	1997-2000	2001	2002-2006	2007-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Averages									
1. All Long-term CDFI banks	26	83	328	3	5	5	6	1	-1
2. High Growth CDFI banks	6	24	388	11	14	14	11	11	7
3. Moderate Growth CDFI banks	7	58	332	5	7	7	11	1	1
4. Low Growth CDFI banks	13	123	298	1	4	4	4	0	-4
B. Medians									
5. All Long-term CDFI banks	26	61	249	2	5	9	6	3	0
6. High Growth CDFI banks	6	23	267	9	17	16	10	5	7
7. Moderate Growth CDFI banks	7	33	163	4	5	10	9	3	1
8. Low Growth CDFI banks	13	125	250	1	5	4	4	2	-3

Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

Figure A-5. Asset Growth Rates for CDFI Credit Unions, 1996-2015

	Summary: 1996 through 2015				Average Annual Growth Rate (AAGR)				
	Number of institutions	Assets ($ million) 1996	Assets ($ million) 2015	Overall AAGR (%) 1997-2015	1997-2000	2001	2002-2006	2007-2009	2010-2015
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Averages									
1. All Long-term CDFI credit unions	27	18.2	88.5	6	5	9	9	6	3
2. High Growth CDFI credit unions	10	12.5	130.6	9	8	4	15	8	4
3. Moderate Growth CDFI credit unions	8	24.8	85.8	4	6	11	7	5	0
4. Low Growth CDFI credit unions	9	18.8	44.1	2	2	9	4	0	1
B. Medians									
5. All Long-term CDFI credit unions	27	4.1	17.9	4	5	9	3	6	7
6. High Growth CDFI credit unions	10	3.3	33.6	7	9	6	6	7	14
7. Moderate Growth CDFI credit unions	8	8.4	29.7	4	7	14	2	6	2
8. Low Growth CDFI credit unions	9	4.4	8.5	1	2	6	1	4	-3

Sources: CDFI Fund (1998-2016) and NCUA (2016a).

Figure A-6. Median, Mean, Minimum, and Maximum Loans Outstanding of CDFI Banks across Growth Groups, 1996-2015

	Number of institutions (1)	Loans Outstanding ($ million) Median (2)	Mean (3)	Minimum (4)	Maximum (5)
A. All Long-term CDFI banks					
1996	26	58.3	79.1	10.7	238.3
2015	26	232.9	304.3	35.2	1,049.4
B. High Growth CDFI banks					
1996	6	21.2	22.6	10.7	37.6
2015	6	258.0	372.9	164.3	863.3
C. Moderate Growth CDFI banks					
1996	7	32.6	54.7	14.8	126.7
2015	7	156.3	312.7	75.9	608.9
D. Low Growth CDFI banks					
1996	13	120.5	118.3	17.7	238.3
2015	13	233.1	268.2	35.2	1,049.4

Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

Figure A-7. Median, Mean, Minimum, and Maximum Loans Outstanding of CDFI Credit Unions across Growth Groups 1996-2015

	Number of institutions (1)	Loans Outstanding ($ Million) Median (2)	Mean (3)	Minimum (4)	Maximum (5)
A. All Long-term CDFI credit unions					
1996	27	2.2	11.8	0.00	83.5
2015	27	9.7	55.8	0.17	445.6
B. High Growth CDFI credit unions					
1996	10	1.5	7.5	0.01	29.6
2015	10	24.9	83.6	0.17	445.6
C. Moderate Growth CDFI credit unions					
1996	8	6.2	20.2	0.00	83.5
2015	8	16.0	57.0	0.34	185.5
D. Low Growth CDFI credit unions					
1996	9	2.0	9.2	0.41	38.2
2015	9	4.3	23.9	0.50	122.8

Sources: CDFI Fund (1998-2016) and NCUA (2016a).

Figure A-8. Interest Income, Interest Expense, and Net Interest Income (Margin) for CDFI Banks by Growth Group, 1996-2015

Note: These figures report simple, unweighted, averages.

Sources: CDFI Fund (1998-2016), FRBC (2016), and FFIEC (2016).

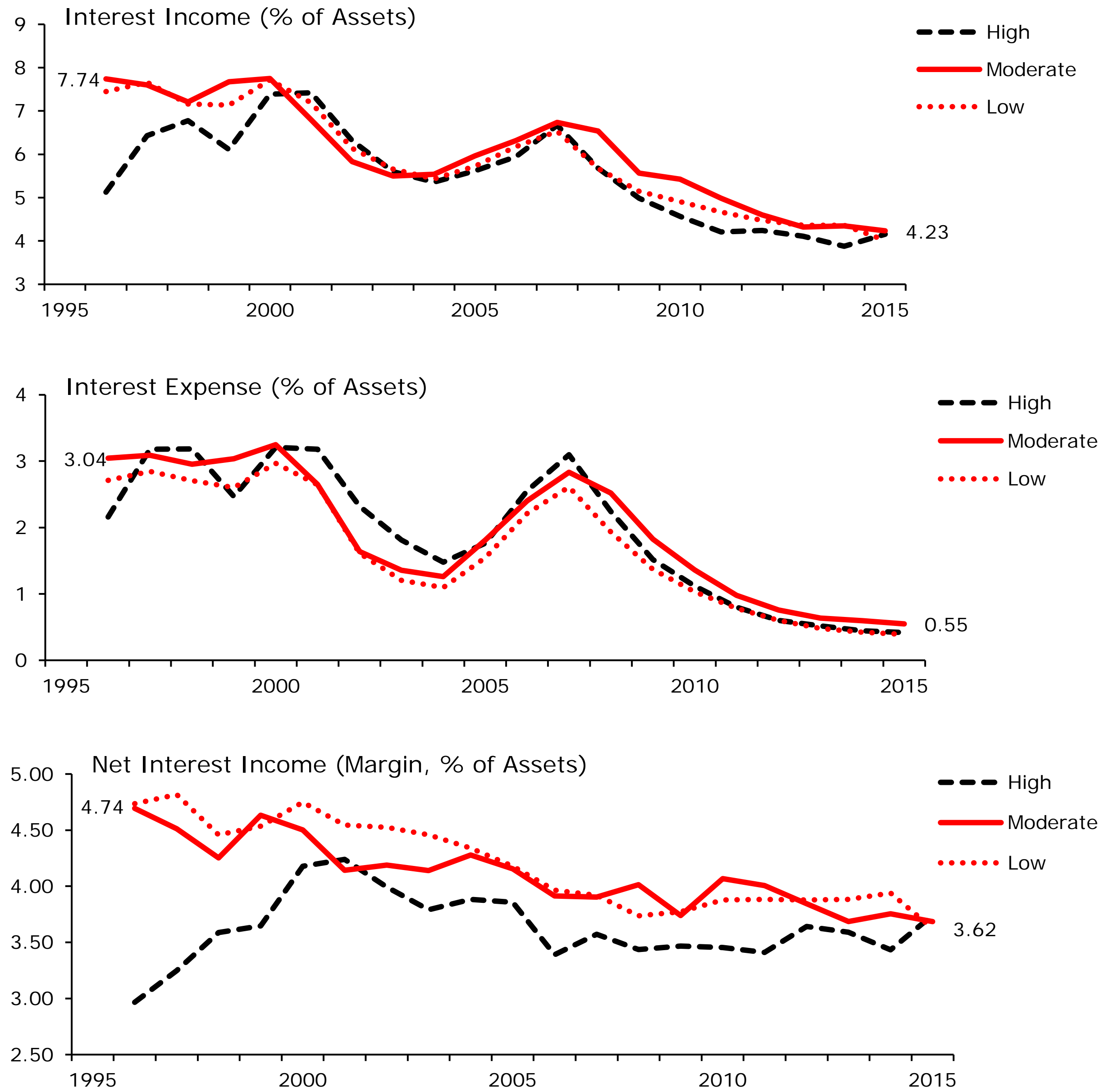
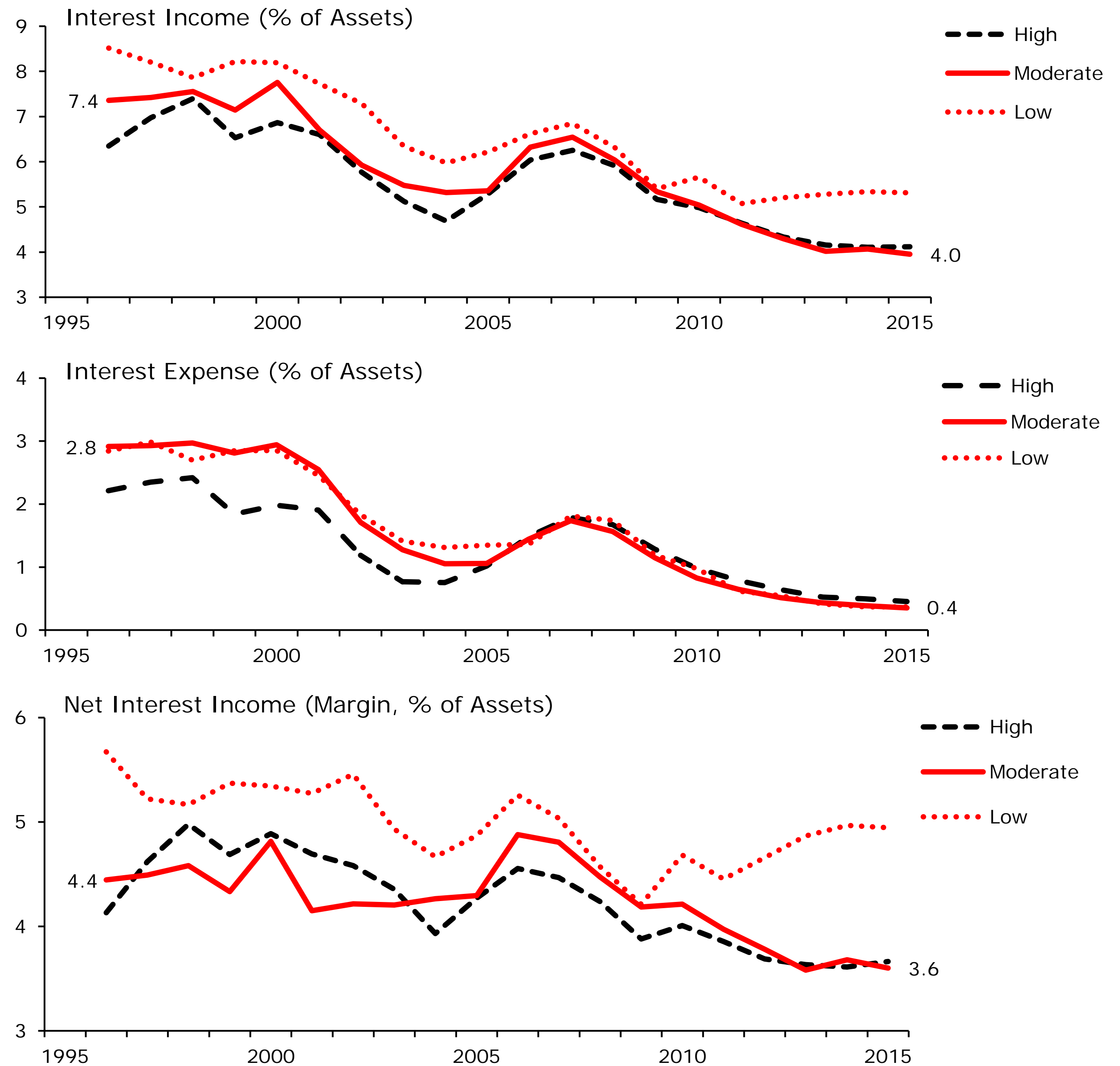


Figure A-9. Interest Income, Interest Expense, and Net Interest Income (Margin) for CDFI Credit Unions by Growth Group, 1996-2015

Note: These figures report simple, unweighted, averages.

Sources: CDFI Fund (1998-2016) and NCUA (2016a).



Appendix B: Commonly Used Abbreviations and Terms

Institution Categories

CDFI	Community development financial institution
CU	Credit union
Minority / non-minority	Banks: Institutions for which more / fewer than 50% of both customers and the board of directors were identified as being minorities by the Federal Deposit Insurance Corporation or Federal Reserve Bank of Chicago (also: Minority Depository Institution MDI / non-MDI). Credit unions: Institutions that self-identified to the NCUA that more / fewer than 50% of members were minorities (also: MCU / non-MCU).
Urban / rural	A financial institution headquartered in a zip code with more / fewer than 150 inhabitants per square mile in 2010
Very small	Assets under $1 million
Small	Assets of or above $1 million, but under $10 million
Somewhat small	Assets of or above $10 million, but under $100 million
Medium	Assets of or above $100 million, but under $1 billion
Large	Assets of or above $1 billion, but under $10 billion[1]

Key Federal Regulatory Entities

FDIC	Federal Deposit Insurance Corporation
FFIEC	Federal Financial Institution Examination Council
FRBC	Federal Reserve Bank of Chicago
NCUA	National Credit Union Administration

[1] Since no CDFI banks or credit unions had above $10 billion in assets, in this report we do not focus on institutions larger than $10 billion.

Measures Related to Loan Portfolio Quality or Financial Solidity

Loan delinquency rate	= Loans delinquent[2] / loans outstanding
Net charge-off rate	= (Loan charge-offs – loan recoveries) / loans outstanding
Allowance for loan losses	= Allowance for loan losses / loans outstanding
Capital ratio	= Equity (for banks) or net worth (for credit unions) / total assets

Performance Indicators

Self-sufficiency ratio	= Earned revenues / operating expenses
	= (total revenue – grants received) / (interest expense + noninterest expense + provisions for loan losses)
Deployment ratio	= Loans outstanding / funds available for lending (i.e., the sum of cash, liquid investments, and loans)
Operating margin	= Net income / operating revenue (i.e., interest income + noninterest income)
Return on assets (ROA)	= Net income / total assets

[2] 30+ days for banks and 60+ days for credit unions.

Loan Types

Business	Banks: Loans for business purposes (excluding agriculture) not collateralized by real estate. Credit unions: Loans for business purposes (including agriculture) with amounts at origination in excess of $50,000. Until 2003, business loans included those collateralized by real estate; thereafter business loans included only those not collateralized by real estate.
Commercial real estate (CRE)	Banks: loans for business purposes collateralized by real estate. Credit unions: loans for business purposes collateralized by real estate. Loans with amounts at origination under $50,000 are not included.
Housing to individuals	Residential mortgages, including both first (or senior) mortgages and junior mortgages (home equity loans and home equity lines of credit).
Other	Banks: non-business, non-residential mortgage loans, chiefly agricultural loans and consumer loans. Credit unions: non-business, non-residential mortgage loans, chiefly consumer loans, but not agricultural loans. Consumer loans include: auto loans, credit card loans, personal or unsecured loans, and student loans.

List of Figures

Figure II-1. Total Number of Banks and Credit Unions Certified as CDFIs, 1996-2015 2
Figure II-2. Number of Banks and Credit Unions Newly Certified by the CDFI Fund Each Year, 1996-2015 3
Figure II-3. CDFI Bank and Credit Union Average Assets ($ million), Loans per Assets, and Capital per Assets, 1996-2015 5
Figure II-4. Average and Total Assets for CDFI Banks and Credit Unions, 1996-2015 6
Figure II-5. Loans and Capital (each per Assets) for CDFI Banks and Credit Unions, 1996-2015 6
Figure II-6. Types of Loans Outstanding for CDFI Banks, 1996-2015 8
Figure II-7. Types of Loans Outstanding for CDFI Credit Unions, 1996-2015 9
Figure II-8. Sources of Funds for CDFI Banks and Credit Unions (Total $ Amounts), 1996-2015 11
Figure II-9: Sources of Funds for CDFI Banks (% of assets), 1996-2015 12
Figure II-10: Sources of Funds for CDFI Credit Unions (% of assets), 1996-2015 12
Figure II-11. Loan Delinquencies, Net Charge-Offs, Operating Margins, and ROAs for CDFI Banks, 1996-2015 14
Figure II-12. Loan Delinquencies, Net Charge-Offs, Operating Margins, and ROAs for CDFI Credit Unions, 1996-2015 16
Figure II-13. Number and Percentage of Rural and Urban CDFI Banks, and their Average Assets, and Percentage of Assets, 1996-2015 18
Figure II-14. Number and Percentage of Rural and Urban CDFI Credit Unions, and their Average Assets, and Percentage of Assets, 1996-2015 19
Figure II-15. Types of Loans Outstanding for Rural CDFI Banks, 1996-2015 20
Figure II-16. Types of Loans Outstanding for Urban CDFI Banks, 1996-2015 20
Figure II-17. Types of Loans Outstanding for Rural CDFI Credit Unions, 1996-2015 21
Figure II-18. Types of Loans Outstanding for Urban CDFI Credit Unions, 1996-2015 21
Figure II-19. Number of MDI CDFI Banks, and their Assets, Loans, and Capital, 1996-2015 22
Figure II-20. Types of Loans Outstanding for MDI CDFI Banks, 1996-2015 23
Figure II-21. Number of CDFI MCUs, and their Assets, Loans, and Capital, 1996-2015 24
Figure II-22. Types of Loans Outstanding for CDFI MCUs, 1996-2015 25

Figure II-23. Selected Services Offered across Selected Groups of Credit Unions, 2015 27
Figure II-24. Financial Performance and Types of Loans of CDFI Banks and Credit Unions across Asset Size Ranges, 2015 29
Figure III-1. CDFI Bank and Credit Union Median Assets and Loans Outstanding ($ million): Long-Term vs. All Other CDFIs, 1996-2015 32
Figure III-2. Types of Loans Outstanding for CDFI Banks across Growth Groups, 1996-2015 34
Figure III-3. Types of Loans Outstanding for CDFI Credit Unions across Growth Groups, 1996-2015 36
Figure III-4. Financial Performance for CDFI Banks by Growth Group, 1996-2015 39
Figure III-5. Financial Performance for CDFI Credit Unions by Growth Group, 1996-2015 40
Figure A-1. Financial and Portfolio Performance for CDFI Banks, 1996-2015 44
Figure A-2. Financial and Portfolio Performance for CDFI Credit Unions, 1996-2015 45
Figure A-3 Number and Assets of CDFI Banks and Credit Unions by State of their Headquarters, 2015 46
Figure A-4. Asset Growth Rates for CDFI Banks, 1996-2015 47
Figure A-5. Asset Growth Rates for CDFI Credit Unions, 1996-2015 47
Figure A-6. Median, Mean, Minimum, and Maximum Loans Outstanding of CDFI Banks across Growth Groups, 1996- 2015 48
Figure A-7. Median, Mean, Minimum, and Maximum Loans Outstanding of CDFI Credit Unions across Growth Groups 1996-2015 48
Figure A-8. Interest Income, Interest Expense, and Net Interest Income (Margin) for CDFI Banks by Growth Group, 1996-2015 49
Figure A-9. Interest Income, Interest Expense, and Net Interest Income (Margin) for CDFI Credit Unions by Growth Group, 1996-2015 50

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