The Rise of Mortgage Finance Companies in Canada: Benefits and Vulnerabilities

Don Coletti, Marc-André Gosselin and Cameron MacDonald

- The structure of the Canadian mortgage market has changed over the past decade, with non-traditional players such as mortgage finance companies (MFCs) rising in importance, driven in part by government policy and advances in information technology.
- MFCs have a complex relationship with the major banks that is both co-operative and competitive. While some banks rely on MFCs to underwrite and service broker-originated mortgages, MFCs also rely on banks to fund their operating capital and a significant share of their mortgage lending. At the same time, MFCs and banks compete for broker-originated mortgages.
- Mortgage borrowers have benefited from the presence of MFCs through the lower mortgage rates and increased availability of credit that arise from greater competition. These benefits have been accompanied, however, by an increase in certain financial system vulnerabilities.
- The systemic risk associated with MFCs is largely mitigated by the fact that their mortgages are mostly insured and their lending practices are influenced by federal regulations. Nonetheless, the performance of MFC-originated mortgages remains important, since it can affect their access to funding and potentially strain their limited capital and contingent liquidity, particularly in a severe economic and housing downturn. If a large MFC were to fail or be unable to fund new loans, it would be disruptive for the mortgage market, possibly magnifying the impact of the downturn.
- Due to MFCs' reliance on government-backed insurance and securitization programs, they are expected to be more affected by the policy changes announced by the federal government in early October than traditional lenders such as banks and credit unions.
- Since MFCs are not directly subject to prudential regulation and supervision, there remains an ongoing need to monitor their business models and the impact of their activities on financial system vulnerabilities.

Introduction

Obtaining a residential mortgage in Canada has traditionally involved a single prudentially regulated and supervised institution handling the entire process from application to ongoing administration.[1] Since the mid-1990s, this has typically been one of the Big Six Canadian banks. Over the past decade, however, new players have become more important and have changed the face of the Canadian mortgage market.[2]

New lenders such as mortgage finance companies (MFCs), mortgage investment corporations (MICs) and private investors have increased their presence in the market.[3] MFCs are non-depository financial institutions that underwrite and administer mortgages sourced through brokers. Their lending is funded mainly through securitization or direct sales to third parties, primarily the Big Six banks. MFCs also generally service the mortgages they underwrite or contract with other MFCs that provide this service.

MICs and other private investors typically deal in uninsured, customized mortgage products that are not available through traditional channels. These products include non-prime loans, second mortgages and very short-term mortgages.[4] Investors in MICs take on greater risk and therefore receive higher returns. While MICs and private investors remain a small part of the Canadian residential mortgage market, MFCs have become more significant.

This report provides an overview of the increased importance of MFCs in the Canadian mortgage market. We discuss the MFC business model, highlighting their complex relationship with banks as well as the benefits MFCs bring to Canadian borrowers. Finally, we assess the impact of their presence in the mortgage lending chain on financial system vulnerabilities.[5]

The Evolving Structure of the Canadian Mortgage Market

The traditional process for obtaining a residential mortgage in Canada is relatively simple. Most commonly, potential borrowers begin with an application at a bank or credit union (“origination”). Documentation is collected and the institution assesses the credit risk of the applicant and the value of the property (“underwriting”). If approved, the mortgage is typically funded by the institution’s own deposits (“funding”). The ongoing administration of the mortgage is also done by the same institution (”servicing”).

The residential mortgage market in Canada is still heavily dominated by the traditional process and institutions. Nonetheless, since the late 1990s, MFCs have taken on a progressively larger role in the underwriting and servicing of mortgages.

1 The dominance of the Big Six banks began during the period of consolidation that followed the passing of the 1992 *Bank Act*, when they acquired nearly all of the trust companies. See Freedman (1998).

2 See Crawford, Meh and Zhou (2013) for a broader discussion of the Canadian mortgage market.

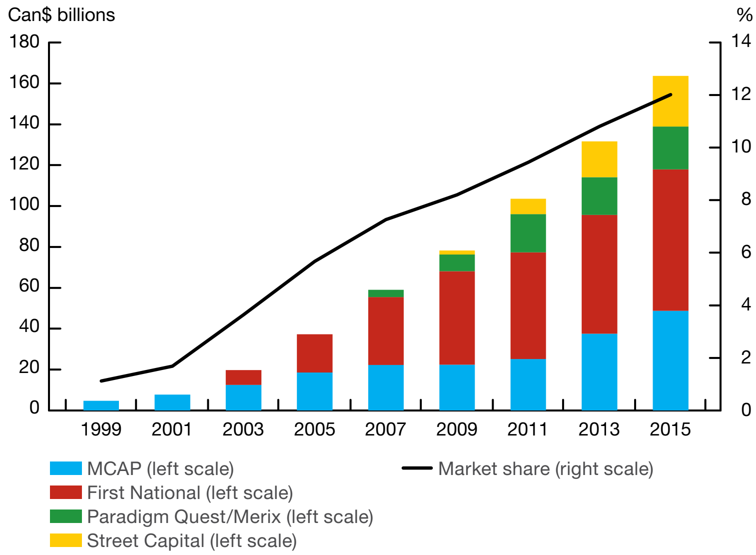
3 See Box 2, Bank of Canada *Financial System Review* (June 2015).

4 Some MICs offer co-lending products, where an MIC provides a second mortgage in conjunction with a first mortgage from a traditional lender. Although the interest costs are high, this type of product allows borrowers with down payments of less than 20 per cent to avoid the requirement to purchase mortgage insurance.

5 A vulnerability is a pre-existing condition that can amplify and propagate shocks throughout the financial system, leading to a rise in systemic risk. See Christensen et al. (2015) for further details about the Bank’s approach to monitoring vulnerabilities in the financial system.

Chart 1: Mortgage finance companies have gained significant market share in residential mortgage underwriting since the early 2000s

Mortgages under administration and market share of the top four MFCs



Sources: MFC reports, Standard & Poors and Bank of Canada calculations Last observation: 2015

MCAP Financial Corporation, the first MFC in Canada, was incorporated in 1997 as a wholly owned subsidiary of Mutual Trust (a federally regulated financial institution) to manage the trust's residential mortgage operation. In 1998, MCAP was split off as an independent entity so that it could originate, trade and service mortgages for a broader range of companies.[6]

In the early 2000s, First National Income Trust (later First National Financial) became the second MFC to enter the market. The market share of MFCs grew rapidly between 1999 and 2007, from $5 billion of outstanding mortgages (about 1 per cent) to $60 billion (about 7 per cent). Several other MFCs have emerged since 2007, including Paradigm Quest Incorporated/Merix Financial and Street Capital Financial Corporation. The collective market share of these four MFCs rose to more than 12 per cent in 2015 (**Chart 1**).[7] While activity is concentrated in a few large entities, other smaller MFCs, such as Radius Financial, CMLS Financial and Canadiana Financial Corporation, are also active lenders.

The rise of MFCs in Canada has been supported by the combination of government policies designed to promote increased competition in the mortgage market and a number of advances in information technology. Most importantly, the availability of government-backed mortgage insurance and securitization programs has improved the viability of the "originate-to-sell" business model used by MFCs.

Because it eliminates credit risk for investors, mortgage insurance greatly enhances the marketability of mortgages, whether they are sold as whole loans or through securitizations. As a result, the vast majority of the mortgages originated by MFCs are insured, either individually at origination or

6 This information is taken from the MCAP website at www.mcap.com/about-mcap/history.

7 Mortgages under administration include mortgages underwritten and serviced by the institutions themselves, as well as mortgages originated by smaller MFCs that are subcontracted to the institutions for servicing. Unless otherwise noted, the amounts associated with MFCs in this report include those for the biggest four MFCs for which there is publicly available information.

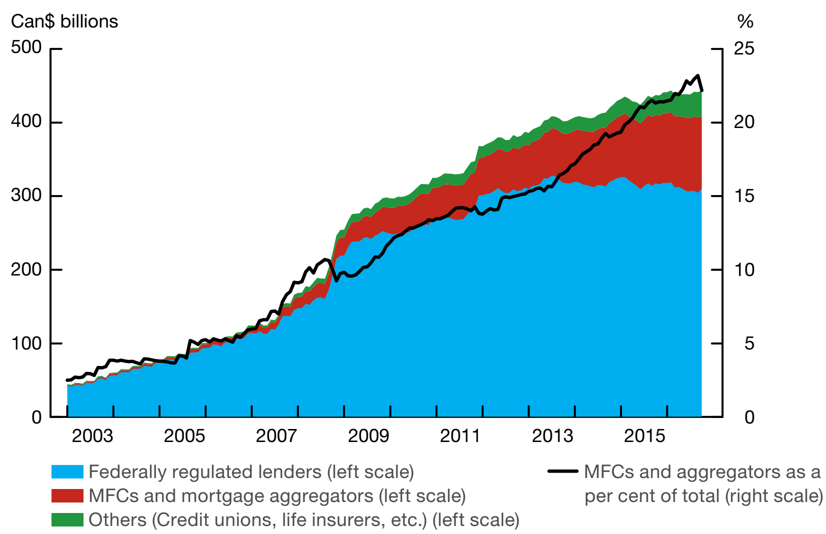
afterward, through portfolio insurance. Similar to those of other lenders that use government-backed mortgage insurance, the underwriting practices of MFCs are subject to federal requirements that limit the credit risk assumed by the taxpayer. These requirements are discussed in more detail later in the report, where we review the influence of guidelines issued by the Office of the Superintendent of Financial Institutions (OSFI).

The growth in public securitization programs has further enabled the success of MFCs.[8] The improved marketability of *National Housing Act* Mortgage-Backed Securities (NHA MBS) and Canada Mortgage Bonds (CMBs) relative to whole mortgage loans has played a key role in broadening the investor base of MFCs to include insurance companies, pension funds and other wealth managers. In particular, the timely payment guarantee of interest and principal by the Canada Mortgage and Housing Corporation (CMHC) removed payment risk for investors buying NHA MBS. Furthermore, the CMB program initiated in 2001 eliminated the remaining prepayment risk by converting monthly cash flows from NHA MBS into typical bond-like payments.

In addition, changes to the securitization programs in recent years have favoured small lenders such as MFCs. In 2013, CMHC introduced an annual cap for total NHA MBS issuance that was to be allocated equally among the program participants, regardless of their size (CMHC 2013). Since 2007, outstanding NHA MBS issued by either MFCs or mortgage aggregators[9] have increased from $15 billion, or 9 per cent of outstanding NHA MBS, to $100 billion, or 22 per cent of outstanding NHA MBS (**Chart 2**).

Chart 2: Mortgage finance companies account for a growing share of outstanding NHA MBS

Outstanding *National Housing Act* Mortgage-Backed Securities, by issuer type



Sources: Canada Mortgage and Housing Corporation and Bank of Canada calculations

Last observation: October 2016

8 Mortgage securitization is the process of converting illiquid mortgage assets into tradable securities. Public securitization represents a cost-effective supply of funding to mortgage lenders. For example, Mordel and Stephens (2015) estimate that the all-in funding cost advantage of Canada Mortgage Bonds versus the next-cheapest private alternative ranges from 28 to 51 basis points.

9 Mortgage aggregators act as an additional intermediary between MFCs and securitization investors and are particularly important for small MFCs that are unable to issue NHA MBS on their own. Of the five major aggregators in Canada, four are broker/dealer subsidiaries of the Big Six banks and the other, Merrill Lynch, is a broker/dealer subsidiary of a foreign bank.

Technological innovation in the origination and underwriting process as well as in the servicing of mortgages has also played an important role in the rise of MFCs. Underwriting, for example, has historically been entirely paper-based and involved many intermediaries. MFCs have improved on this process through document-management services, extensive automation, highly integrated paperless systems and easy-to-use web-based platforms for clients. Lenders that successfully implement these technologies are able to offer enhanced services to borrowers, which has also helped fuel growth in market share for these companies. In addition, the increased use of the Internet by consumers to compare mortgage products and interest rates is a key development. According to CMHC's Mortgage Consumer Survey 2016, nearly three-quarters of mortgage consumers research mortgage options and features online; of these, about half use rate-comparison websites. MFCs have been highly successful in this environment, since their pricing tends to be transparent and competitive.

The Role of MFCs in the Mortgage Market

In this section, we discuss the business models of MFCs in more detail, highlighting their relationship with mortgage brokers and banks, as well as the benefits they bring to mortgage borrowers. Understanding the MFC business model is also important for assessing their potential for contributing to financial system vulnerabilities.

The mortgage broker channel

When shopping for a mortgage contract in Canada, borrowers often try to negotiate a discount from the posted interest rate offered by the big banks. Lenders benefit from this process, since it allows them to earn a larger profit margin on those borrowers less able or willing to shop around, while still remaining competitive among borrowers that obtain quotes from multiple lenders. This feature of mortgage pricing is documented in Allen, Clark and Houde (2014), who show that a significant amount of the variation in mortgage rates in Canada is attributable to differences in the search efforts and bargaining power of borrowers.

Rather than independently negotiate the interest rate, borrowers can choose to hire a broker to search for the best rate on their behalf. Allen, Clark and Houde also demonstrate that among borrowers who use brokers, the dispersion in mortgage rates due to bargaining power is significantly diminished.

As a result, the Canadian mortgage market is roughly segmented between a broker channel, in which price-sensitive borrowers are able to get a competitive interest rate, and the direct bank channels, in which borrowers' ability and willingness to negotiate plays an important role. Importantly, other factors not related to mortgage rates could motivate borrowers to choose the direct bank channel. For example, borrowers may value the price discounts they receive on other financial products from having their services bundled at the same institution. They may also value the convenience of "one-stop banking" or may perceive the search costs as too high.

In addition to reducing the cost of obtaining multiple quotes, the broker channel also facilitates the participation of lenders such as MFCs that do not have branch networks. As a result, borrowers who hire brokers typically have access to a greater number of potential lenders—both traditional lenders and branchless institutions that operate exclusively in the broker channel.

Characteristics of broker channel borrowers

In regions where house prices are high relative to incomes, borrowers need larger mortgages and are more likely to have the amount of their loan constrained by underwriting guidelines or mortgage insurance rules that limit the size of mortgage payments and housing costs relative to income (debt-service requirements). These borrowers are thus highly price-sensitive and are more likely to use a mortgage broker to get the lowest possible rate. This is reflected in the composition of insured mortgages originated by MFCs, which have a greater proportion of borrowers with high loan-to-income and debt-service ratios than traditional lenders (**Box 1**).

Banks and MFCs: Co-operation and competition

An important development since the emergence of MFCs has been the declining direct participation of the major banks in the broker channel.[10] Instead, many of the major banks access the broker channel only indirectly by purchasing mortgages from MFCs or through outsourcing agreements with MFCs. Mortgage purchases typically take one of two forms: either the bank (or other buyer) pre-commits to purchasing a certain dollar amount of mortgages, which are funded by the purchaser when the transaction closes, or the mortgage is funded by the MFC at closing and is sold to a buyer at a later date. In the latter type of arrangement, mortgages need to be temporarily "warehoused" before being sold. In aggregate, about 6 per cent of outstanding MFC-underwritten mortgages are warehoused at a given time, although there is considerable heterogeneity among MFCs. These warehousing operations are financed primarily through asset-backed commercial paper (ABCP) conduits and lines of credit that MFCs typically source from multiple banks.[11]

Banks may choose to contract the origination and servicing of broker channel mortgages to MFCs for a number of reasons. First, as discussed earlier, many MFCs employ technologies that have significantly improved the efficiency of originating and servicing broker channel mortgages. These technologies improve the turnaround time on mortgage underwriting decisions and reduce costs. As a result, it may be more profitable for some banks to outsource these activities to MFCs than to replicate the processes themselves. Second, banks are able to scale up or down the amount of mortgages they purchase from MFCs more easily than they are able to scale their in-house operations. While this is advantageous for a bank that wants to reduce its exposure to the housing market in a downturn, it can represent a vulnerability for MFCs (this point is discussed below in the section on concentrated MFC funding sources). Third, banks can use MFCs to access borrowers in regions where they may have less of a presence.

MFCs and government-backed securitization programs

While direct purchases from banks account for about 40 per cent of MFC funding, the largest share of MFC-originated mortgages is funded through the NHA MBS and CMB programs (**Figure 1**). NHA MBS issued by MFCs and mortgage aggregators are sold either directly to investors or to Canada Housing Trust, which repackages them as CMBs. While some of these NHA MBS and CMBs are bought by the major banks for contingent

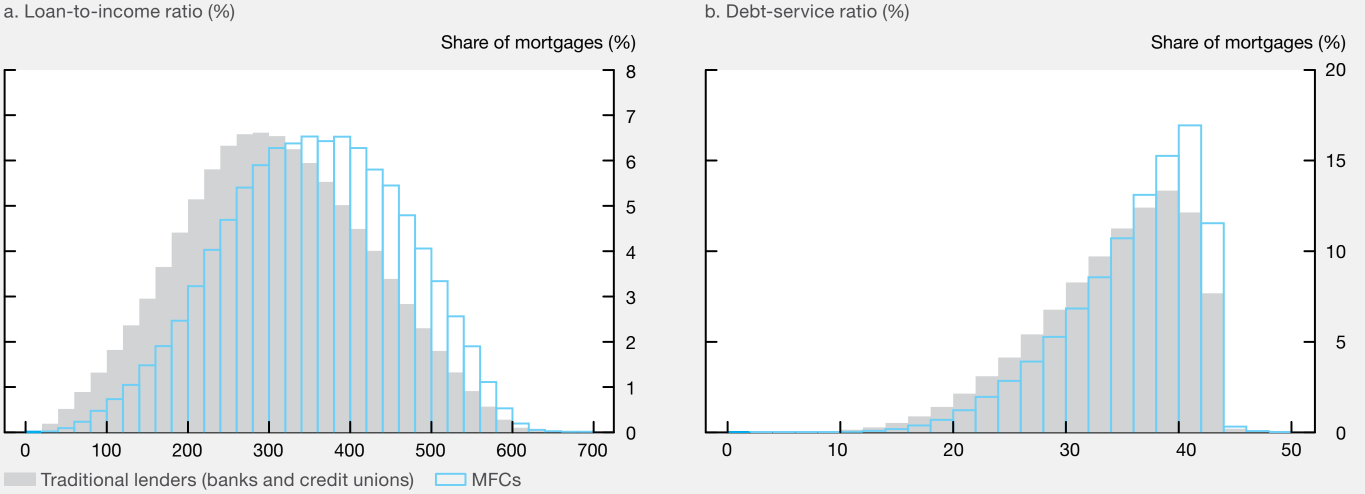
10 In the past decade, the Bank of Montreal (2007), HSBC (2010) and CIBC (2012) have exited or significantly reduced their presence in the broker channel. The Royal Bank of Canada has not participated in the broker channel for more than 10 years.

11 MFCs use ABCP securitization vehicles administered by the major banks as a flexible funding source for the short-term warehousing of mortgages. Compared with NHA MBS and CMBs, ABCP funding is relatively expensive, since it requires the MFC to post cash collateral as a means of credit enhancement and to pay standby fees on unused portions of committed facilities.

Box 1

Insured Mortgages Underwritten by MFCs Tend to Have Higher Loan-to-Income and Debt-Service Ratios

Chart 1-A: Characteristics of high-ratio insured mortgage originations by mortgage finance companies, 2013Q1–2016Q3



Sources: Department of Finance Canada and Bank of Canada

Last observation: 2016Q3

Table 1-A provides a comparison of the characteristics of the median mortgage borrower at mortgage finance companies (MFCs) with those of borrowers at traditional lenders (i.e., banks and credit unions). The comparison is based on high loan-to-value mortgages originated over the period from the first quarter of 2013 to the third quarter of 2016.[1]

On the one hand, the arrears rates of mortgages issued at MFCs tend to be notably lower than those of traditional lenders.[2] MFCs also lend to borrowers with higher incomes, which is often a good predictor of job stability. On the other hand, compared with mortgages originated at traditional lenders, MFC-underwritten mortgage loans tend to be larger, and the associated debt-service costs higher, relative to the borrowers' income.

Table 1-A: Characteristics of median mortgage borrowers
2013Q1–2016Q3

	Traditional lenders[a]	Mortgage finance companies
Credit score	739	742
90-day arrears rate[b] (%)	0.28	0.14
Household income (annual)	$80,912	$84,404
Loan-to-income ratio (%)	304	357
Total debt-service ratio (%)	35.3	37.2

a. Banks and credit unions
b. Based on mortgages in pools of *National Housing Act* Mortgage-Backed Securities as of 2015Q4

Sources: Department of Finance Canada, Canada Mortgage and Housing Corporation and Bank of Canada calculations

Furthermore, as shown in **Chart 1-A**, insured mortgages underwritten by MFCs are more likely to have particularly high loan-to-income and debt-service ratios relative to traditional lenders. The share of MFC-originated mortgages with a loan-to-income ratio greater than 450 per cent or a total debt-service ratio greater than 42 per cent is 29 per cent, compared with 18 per cent for traditional lenders.[3]

These findings can be partly accounted for by differences in the geographical distribution of high-ratio insured mortgages. Almost one-quarter of MFC originations, 22 per cent, were in Vancouver or Toronto, markets where average loan-to-income and debt-service ratios are higher, compared with 12 per cent for traditional lenders. However, even within Vancouver and Toronto, MFC-originated mortgages are more likely to have high loan-to-income and debt-service ratios.[4]

1 The data set covers all high-ratio mortgage originations (with a loan-to-value ratio greater than 80 per cent) insured by Genworth, Canada Mortgage and Housing Corporation, and Canada Guarantee.

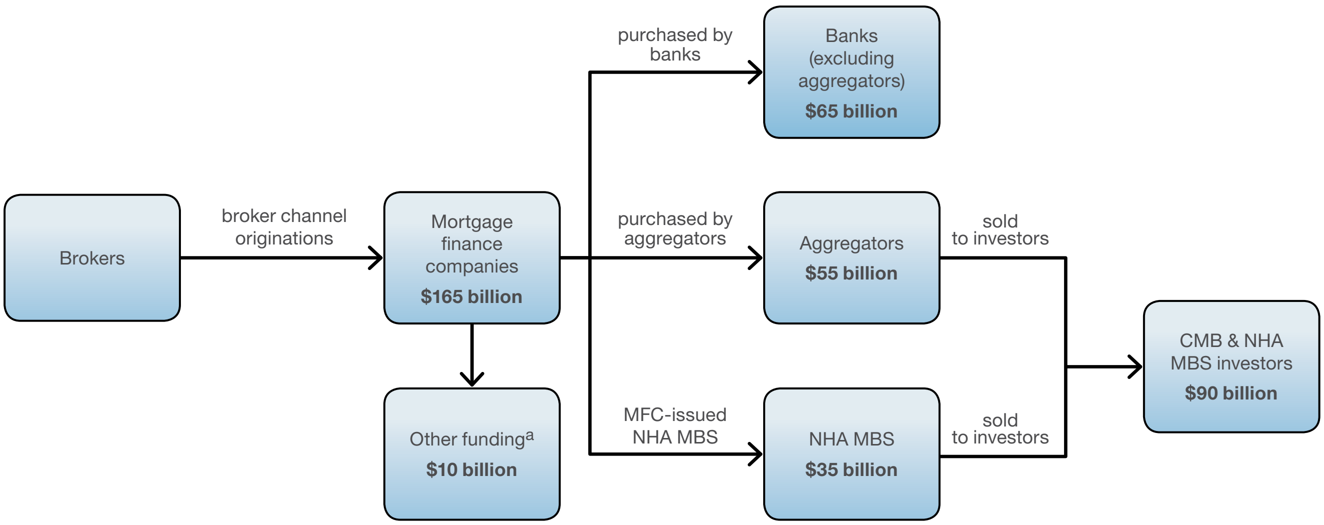
2 Arrears rates are an indicator of financial stress rather than of vulnerabilities. See the June 2016 Bank of Canada *Financial System Review*, page 11, for further discussion.

3 The loan-to-income ratio is a useful through-the-cycle measure for assessing the vulnerability of indebted households. It is particularly useful when interest rates are at historical lows and house prices are at historical highs. A higher ratio is associated with an increased likelihood of a household encountering financial distress, leading to arrears in debt payment obligations.

4 The share of MFC-originated mortgages in Vancouver and Toronto with high loan-to-income or debt-service ratios is 44 per cent, compared with 38 per cent for traditional lenders. To identify the boundaries of each city, the census metropolitan area defined by Statistics Canada is used.

Figure 1: Funding of mortgages underwritten by mortgage finance companies

Estimated funding sources as of 2015Q4 (arrows indicate flow of mortgages)



a. Other funding includes asset-backed commercial paper, credit lines from banks and MFC shareholders' equity.

Sources: MFC reports, Standard & Poor's, DBRS, Canada Mortgage and Housing Corporation, and Bank of Canada calculations

liquidity purposes, the majority are purchased by a broad range of non-bank investors, including pension funds, wealth managers and insurance companies. For example, in 2015, non-bank investors accounted for approximately three-quarters of CMB purchases.[12] Hence, a material part of MFC funding activities is conducted independently of banks.

Overall, the nature of the relationship between banks and MFCs is both co-operative and competitive. On the one hand, MFCs serve as an extension of the major banks that have chosen to "outsource" some mortgage-lending services that MFCs can provide more efficiently. In addition, some MFC operations rely on lines of credit from the big banks. On the other hand, because of the availability of low-cost funding through government-backed securitization, MFCs are able to finance mortgages independently of banks and contribute positively to the level of competition in the mortgage market.

However, as a result of their reliance on government-sponsored mortgage insurance and securitization programs, MFCs are relatively more vulnerable than traditional lenders to certain changes in government policy. In particular, a reduction in the availability of these programs or increased fees would have a more profound effect on MFCs than on traditional lenders. This was evident with the policy changes announced by the federal government in early October (Box 2).[13]

MFCs and OSFI's underwriting guidelines

With the growth of MFCs, a larger share of mortgage underwriting is taking place at institutions that are not directly subject to prudential regulation or supervision. However, since the majority of mortgages underwritten by

12 See "Three Pillars of the Canada Mortgage Bond Program," CMHC, 15 August 2016, available at www.cmhc-schl.gc.ca/en/hoficlincl/in/camobo/upload/canada-mortgage-bonds-fact-sheet-aug-15-2016.pdf.

13 Other recent changes to government programs include an increase in guarantee fees for the NHA MBS and CMB programs and new rules that preclude insured mortgages from being placed in non-CMHC securitizations, such as ABCP conduits (both effective as of July 2016).

Box 2

Impact of Recent Changes to Mortgage Insurance Rules

In October 2016, Canadian authorities announced changes to mortgage insurance rules designed to address high levels of household indebtedness and support the long-term stability of the housing market.[1] Although not targeted at mortgage finance companies (MFCs) or any other lender in particular, these changes will affect MFCs and smaller banks more than traditional lenders.

Effective 17 October 2016, borrowers of high-ratio insured mortgages with five-year fixed terms or longer must qualify for mortgage insurance at an interest rate that is the greater of their contract mortgage rate or the Bank of Canada's conventional five-year fixed posted rate. All else being equal, 43 per cent of high-ratio insured mortgages originated by MFCs over the period from the fourth quarter of 2015 to the third quarter of 2016 would not have qualified under the new rules, compared with 27 per cent of mortgages originated by traditional lenders.

Effective 30 November 2016, mortgage loans that lenders insure using portfolio insurance and other discretionary insurance for mortgages with low loan-to-value ratios must meet the eligibility criteria that previously applied only to high-ratio insured mortgages. In addition, refinanced mortgages will no longer be eligible for portfolio insurance. These changes have many dimensions that could affect MFC business. For example, the requirement that all portfolio-insured mortgages be amortized over 25 years or less would have affected 59 per cent of portfolio-insured MFC loans over the past year, compared with 38 per cent for traditional lenders.

Furthermore, proposed changes to include some level of lender risk sharing in the mortgage insurance framework could also disproportionately affect MFCs. While traditional lenders are already experienced in managing mortgage default risk and could adapt to risk sharing relatively easily, MFCs would need to make significant adjustments to their business model to accommodate a risk-sharing arrangement. Ultimately, the impact of risk sharing on MFCs would depend on the structure of the risk-sharing arrangement and how market participants react.

1 For more details, see Department of Finance Canada (2016).

MFCs end up insured and either securitized through the NHA MBS and/or CMB programs or sold to federally regulated lenders, they are subject to OSFI's B-20 and B-21 guidelines.[14] These guidelines require federally regulated institutions to meet high standards for prudent underwriting practices and require the same standards for mortgages purchased from MFCs.

Moreover, OSFI has recently updated its expectations regarding residential mortgage underwriting and mortgage insurance operations.[15] OSFI will place an even greater emphasis on confirming that federally regulated financial institutions conduct prudent mortgage underwriting and that their internal controls and risk-management practices are sound and take into account market developments. More specifically, OSFI will be enhancing its supervisory scrutiny around the verification of borrowers' income and employment, due diligence on non-conforming loans, stress tests of borrowers' resilience to adverse shocks, and property appraisals. In addition, OSFI expects federally regulated lenders and mortgage insurers to regularly verify that there is a strong alignment between their stated risk appetite and their actual mortgage and mortgage insurance underwriting and risk-management practices.

14 As a result, almost all MFC activity is considered to be part of the regulated sector and is thus excluded from the Bank's measure of shadow banking. See Chang et al. in this issue. Summaries of the guidelines are available on OSFI's website: B-20: www.osfi-bsif.gc.ca/eng/fi-if/rg-ro/gdn-ort/gl-ld/pages/b20.aspx; B-21: www.osfi-bsif.gc.ca/eng/fi-if/rg-ro/gdn-ort/gl-ld/pages/b21_let.aspx.

15 See the open letter from OSFI to federally regulated financial institutions (July 2016), available at www.osfi-bsif.gc.ca/Eng/Docs/rfmrm.pdf.

MFC profitability depends on a healthy mortgage market

In the current environment of strong house price growth and mortgage activity, MFCs have been highly profitable. In 2015, each of the three largest MFCs earned a return on equity of more than 20 per cent. However, as monoline businesses, their revenue sources are highly concentrated. Over 2014 and 2015, about 55 per cent of the revenues of the three largest MFCs was attributable to the sale of mortgages (net of fees paid to brokers) or spreads earned on securitized mortgages. A further 30 per cent of revenues was generated from the ongoing servicing and administration of these mortgages. This revenue is accrued slowly over the term of a mortgage and provides stability to MFC income, which would otherwise depend almost entirely on origination volumes. The remaining 15 per cent of MFC revenues arises from investment income and other sources.

Financial System Vulnerabilities Associated with MFCs

The larger role of MFCs in the mortgage market has brought benefits to mortgage borrowers through increased competition, but it also has the potential to increase certain financial system vulnerabilities. In this section, we discuss channels through which the greater importance of MFCs could exacerbate the impact of a severe economic and housing downturn.[16]

Because of the nature of their business models, MFCs can be more vulnerable to financial distress than traditional lenders in the event of such a downturn. In particular, relative to traditional lenders, MFCs (i) lend disproportionately more to financially stretched borrowers, (ii) have lower levels of capital and contingent liquidity, and (iii) have more highly concentrated funding sources.

MFC mortgages are more concentrated among financially stretched borrowers

As discussed in **Box 1**, MFCs tend to underwrite disproportionately more mortgages with higher loan-to-income and debt-service ratios. In a severe economic and housing downturn, these already financially stretched borrowers are at higher risk of defaulting or being forced to sell their houses. However, since MFCs do not retain the risk associated with most of the mortgages they underwrite, the losses will fall primarily on the mortgage insurers that do business with MFCs. Nevertheless, the performance of an MFC's mortgages remains important, since it can affect the MFC's access to funding and potentially strain its limited capital and contingent liquidity.

MFCs have low levels of capital and contingent liquidity

Another implication of MFCs' "originate-to-sell" business model is their low levels of capital and contingent liquidity relative to traditional lenders. MFCs typically have in the order of 40–90 cents of capital for every $100 of mortgages they have underwritten. Since a vast majority of MFC-underwritten mortgages are insured and a relatively small proportion of the mortgages are kept on MFC balance sheets, this strategy has been successful in the current environment of historically low default rates.

Low levels of capital and contingent liquidity could be more problematic, however, in a severe economic and housing market downturn. In particular, issuers of NHA MBS are responsible for paying amounts due to investors

16 For a detailed discussion of this risk scenario, see Risk 1 in the June 2016 Bank of Canada *Financial System Review*.

whether or not the issuers receive timely payments from borrowers. To protect the program against lender defaults, CMHC subjects NHA MBS issuers to a minimum net worth requirement equal to 2 per cent of the aggregate principal of NHA MBS outstanding. Nevertheless, the simultaneous delinquency of many mortgages could place significant strain on the liquid resources of MFCs while insurance claims are being processed. Moreover, MFCs may be challenged to ramp up servicing capacity to deal with higher arrears rates and borrower workouts in a severe downturn.

As well, mortgage insurers could become more vigilant in processing claims during periods of heightened mortgage defaults, leading to longer processing times that could further strain the liquid resources of MFCs. MFC capital could also be constrained should insurers reject claims at a higher rate, since purchase agreements between banks and MFCs typically allow the bank to put mortgages back to the MFC in cases where the insurance claim is rejected due to deficiencies in the underwriting. For example, in a severe but plausible economic and housing downturn, a rise in the rate at which insurance claims are rejected, from under 1 per cent today to 5 per cent, could result in losses over a three-year period that are equivalent to about 20 per cent of MFC capital.[17]

Furthermore, MFCs have some exposure to private mortgage insurers. While insurance coverage provided by CMHC has the full backing of the federal government, private insurers carry only a 90 per cent federal guarantee. As a result, MFCs could face significant losses if one of the private insurers defaulted and couldn't pay claims. Although the capital framework of banks requires them to hold capital against this possibility, MFCs have no such requirement.

MFCs have more highly concentrated funding sources

While traditional lenders fund mortgages through multiple sources—primarily retail deposits and wholesale funding but also through public securitization and covered bonds—MFCs are highly dependent on two sources only: funding from banks and public securitization programs.

As noted earlier, banks purchase mortgages from MFCs in part because of the relative ease with which these purchases can be scaled up or down. During periods of economic and housing market distress, banks would have the incentive to reduce purchases from MFCs to quickly reduce their exposure to housing markets while limiting the impact on customer relationships. Moreover, banks may demand a higher interest rate on credit lines extended to MFCs or may even curtail these exposures.[18] It could thus become more costly for MFCs to finance on-balance-sheet mortgages or otherwise fund their operations.

In addition, NHA MBS issuers are required to keep the 90-day delinquency rate in their mortgage pools below 1 per cent. If delinquencies exceed this amount, issuers can lose access to new NHA MBS guarantees. Because MFC insured-mortgage activities are more concentrated than those of traditional lenders in regions with high loan-to-income and debt-service ratios, it's more likely that their mortgage pools will reach the 1 per cent threshold in a downturn. Losing access to NHA MBS would be a significant problem

17 The mortgage loss rate used in this calculation is equivalent to 150 per cent of the average national loss rate in the Canadian stress scenario under the 2013 International Monetary Fund Financial Sector Assessment Program (FSAP) (IMF 2014).The markup over the FSAP loss rate reflects MFCs' tendency to underwrite disproportionately more mortgages with higher loan-to-income and debt-service ratios and their greater concentrations in regions where concern about a potential downturn in house prices is greatest.

18 See Ahnert (forthcoming), which discusses a generalized case of rollover risk.

for most MFCs and would send a negative signal to other institutions that may also cut back on mortgage purchases from the MFC or other institutions seen as having a similar risk profile.

Financial distress at a large MFC could exacerbate the impact of a housing market downturn

The failure of a large MFC or its inability to fund new loans would be highly disruptive for the mortgage market and could amplify the impact of a severe downturn in the economy or in house prices.

MFCs have a large footprint in the securitization market: NHA MBS issued directly by MFCs or by aggregators account for more than one-quarter of the value of outstanding residential mortgage securitizations. While holders of NHA MBS are protected from the default risk of the underlying mortgages, uncertainty around monthly payments remains, given the potential for early repayments of principal—including liquidations due to borrower default. A disproportionate rise in defaults among MFCs could reduce investor demand for these instruments, raising the funding costs for all NHA MBS issuers. Furthermore, investors may treat NHA MBS issued by banks and those issued by MFCs differently, adversely affecting the liquidity positions of institutions holding these securities.

In addition, MFCs that lost access to their funding sources would likely be unable to fund mortgages coming up for renewal. The orphaned mortgage borrowers would have to seek out new lenders, which could be challenging in a stressed environment, as traditional lenders would be looking to reduce their exposure to housing markets and conserve their liquid resources. These borrowers could be forced to renew at higher interest rates or sell their house at a discount, which could have a negative feedback effect on already weakened housing markets.

Finally, the failure of a large MFC could be disruptive for banks that have become more interconnected with and reliant on MFCs for mortgage origination, underwriting and servicing. While the overall share of banks' mortgages underwritten and serviced by MFCs was only about 7 per cent in 2015, significant heterogeneity existed across institutions. Some large banks have a material exposure to single MFCs for originating and servicing mortgages. As well, a number of smaller banks have become highly reliant on services provided by MFCs and may not have the capacity to fill in the gap quickly. Should a large MFC be unable to underwrite new loans, some segments of the mortgage market may see the availability of credit reduced. Moreover, any interruption of mortgage servicing during a housing market downturn could lead to security on defaulted mortgages not being enforced in a timely manner, resulting in greater losses to lenders.

Conclusion

Spurred by both government policies designed to increase competition and advances in technology, the mortgage market has changed over the past decade, with MFCs becoming significant players. Mortgage borrowers have benefited from the heightened competition brought about by MFCs through lower rates and an increased availability of credit, but these benefits have been accompanied by an increase in financial system vulnerabilities.

Because of MFCs' reliance on mortgage brokers for originations, the pool of mortgages they underwrite contains a greater proportion of loans with high loan-to-income and high debt-service ratios than those of traditional lenders. In a severe economic and housing downturn, these borrowers are at greater risk of defaulting or being forced to sell their houses. Although mortgage insurance would protect MFCs from incurring losses on defaulted loans, the performance of MFC-originated mortgages remains important to them, since it can affect their access to funding and potentially strain their limited capital and contingent liquidity. The failure of a large MFC or its inability to fund new loans would be disruptive for the mortgage market and could amplify the impact of a severe economic and housing market downturn.

Nevertheless, the systemic risk associated with MFCs is largely mitigated, since almost all of the credit risk associated with their activities resides with federally regulated mortgage insurers and lenders, which are required by OSFI to scrutinize the underwriting practices of MFCs. Stress tests such as the International Monetary Fund's 2013 Financial Sector Assessment Program for Canada have demonstrated the resilience of the financial system to large but plausible adverse shocks. Furthermore, recent stress tests conducted by CMHC indicate that the mortgage insurer has sufficient capital to handle an extreme but plausible house price correction.[19] Nonetheless, because MFCs are not prudentially regulated, ongoing monitoring of their business models and the impact of their activities on financial system vulnerabilities is necessary as the mortgage marketplace evolves.

19 Information on CMHC stress testing is available at www.cmhc-schl.gc.ca/en/corp/nero/jufa/jufa_036.cfm.

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