



Residential Mortgage Industry Report

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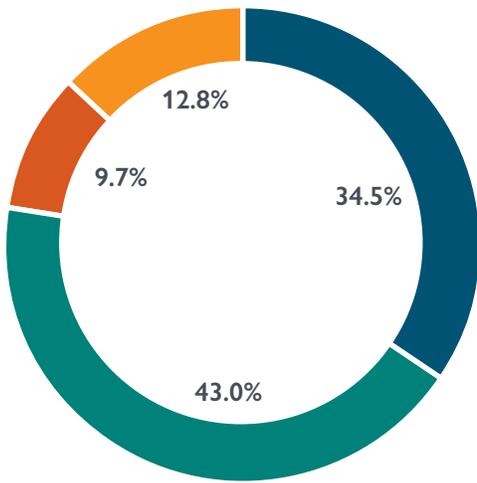
Canada 



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Housing Finance in Canada 101

DASHBOARD



Share of outstanding residential mortgages, dollar-based volume 2018 Q2

- FRFI insured
- FRFI uninsured
- Non-FRFI insured
- Non-FRFI uninsured

Key variables 2018

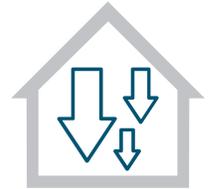
\$488,699 average price | -4.1% decrease

Housing Starts



housing starts reached
212,843
-3% decrease

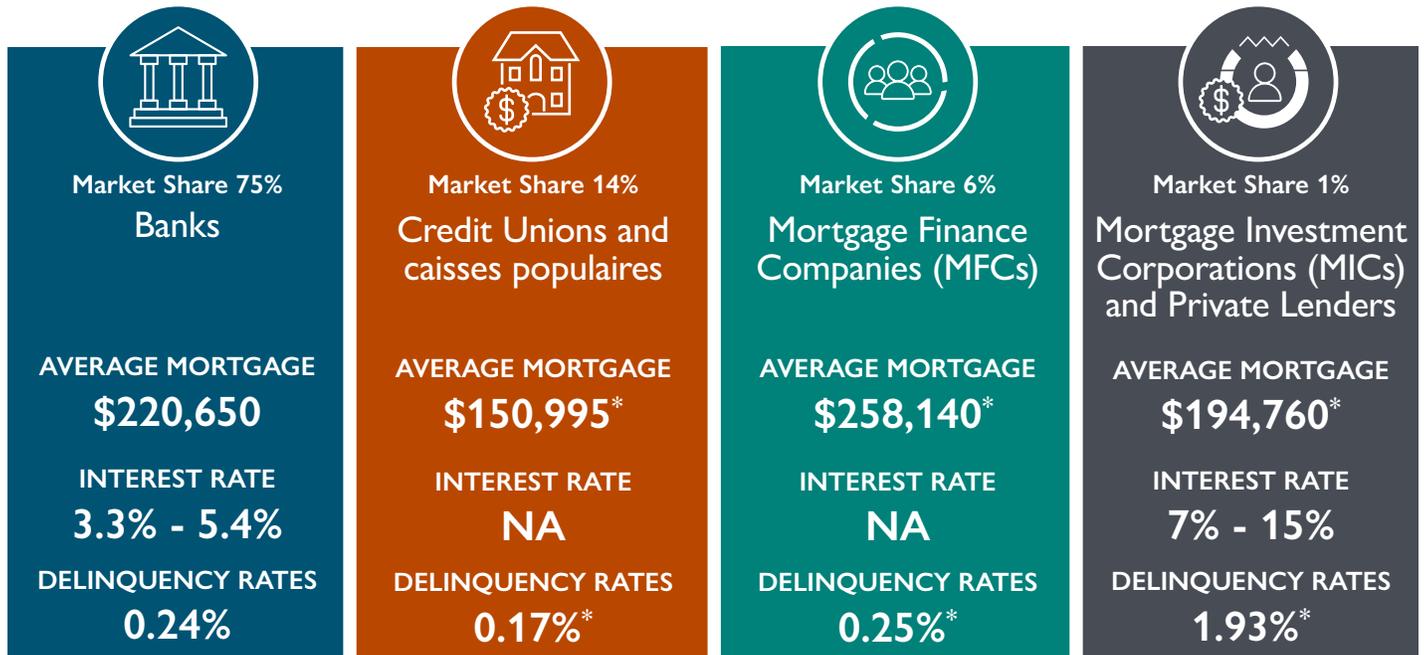
Home Sales



458,442
MLS® sales
-11.1% growth

	5 Year Fixed Rate	Variable Rate
Interest Rate	3.30%	3.15%
Share of New Mortgages	29.2%	27.6%

Key insights on 4 different types of lenders in 2018



Sources: Canadian Bankers Association, CMHC calculations based on Statistics Canada Custom request, Fundamentals Research and CMHC calculations based the Non-Bank Mortgage Lenders Survey

* Results from 2018 Q3

EXECUTIVE SUMMARY



2018 marked the slowest year-over-year growth rate of outstanding mortgages in over 25 years.



The gap between **uninsured** and **insured** new mortgage originations continues to increase.

78%

Federally regulated financial institutions held an estimated **78%** of the total outstanding mortgage debt in 2018.

Mortgage Lender Type Trends

- In 2018, Federally regulated financial institutions (FRFIs) held an estimated 78% of the total outstanding mortgage loans in Canada.
- Credit Unions and Mortgage Finance Companies (MFCs) held approximately 14% and 6% respectively.
- Mortgage Investment Corporations (MICs) held an estimated \$13-14 billion, approximately 1%.
- The share of MIC mortgage originations is close to double their share of the stock, which is partly due to their increasing market share in the uninsured space.
- Interest rates on MIC loans are higher than those found in the traditional market with loan terms typically ranging from 6 to 24 months.

Mortgage Rate Trends

- The majority of Canadian mortgage consumers typically opt for fixed-rate mortgages, more specifically with 5-year terms.
- In the first quarter of 2019, the average share of new mortgages with a variable rate stood at 29%, a 12 percentage point increase relative to the same period in 2017.

Mortgage Lending Trends

- The decrease in mortgage originations in 2018 resulted in the slowest growth rate of outstanding mortgages in over 25 years.
- This decline in new mortgage activity is due to a combination of factors including tighter underwriting criteria and non-underwriting criteria, increased borrowing costs, modest economic conditions and to some extent changes in behavioural factors, which resulted in softer housing demand in some major centers in Canada.
- New mortgage for the purchase of property decreased by 19%.

Mortgage Insurance Trends

- The increasing gap between uninsured and insured mortgage originations resulted from adjustments to regulatory changes, wavering economic conditions and changes to portfolio insurance.
- In 2018, insured mortgage originations counted for less than 1 in 3 new mortgage loans.
- Given increasing prices of residential properties in Canada, newly originated mortgage loan values have also trended higher.
- In 2018, uninsured mortgage loan originations with values of \$500,000 or more accounted for 35% of the total, up from 29% in 2016.

Mortgage Funding Trends

- Deposits are the main source of mortgage funding for chartered banks and credit unions.
- Covered bonds have gained close to 1-percentage point of the funding market, reaching a record 9.5% in 2018Q4.
- Private securitization such as RMBS and ABCP still account for a very small share of funding sources in Canada, hovering between 0.5% and 1.5%.

Share of outstanding mortgages in Canada, 2018 Q1

By institution and funding type

NON-FEDERALLY REGULATED FINANCIAL INSTITUTIONS (NON-FRFI) UNINSURED

NON-FRFI uninsured Deposits & Other **14%**

NON-FRFI uninsured Covered Bonds **0.3%**

NON-FRFI uninsured private securitization **0.01%**

NON-FRFI INSURED

NON-FRFI insured Deposits & Other **1%**

NON-FRFI insured NHA-MBS & CMB **6%**

FEDERALLY REGULATED FINANCIAL INSTITUTIONS (FRFI) INSURED

FRFI insured NHA-MBS & CMB **18%**

FRFI insured Deposits & Other **16%**

FRFI UNINSURED

FRFI uninsured private securitization **0.4%**

FRFI uninsured Covered Bonds **9%**

FRFI uninsured Deposits & Other **35%**

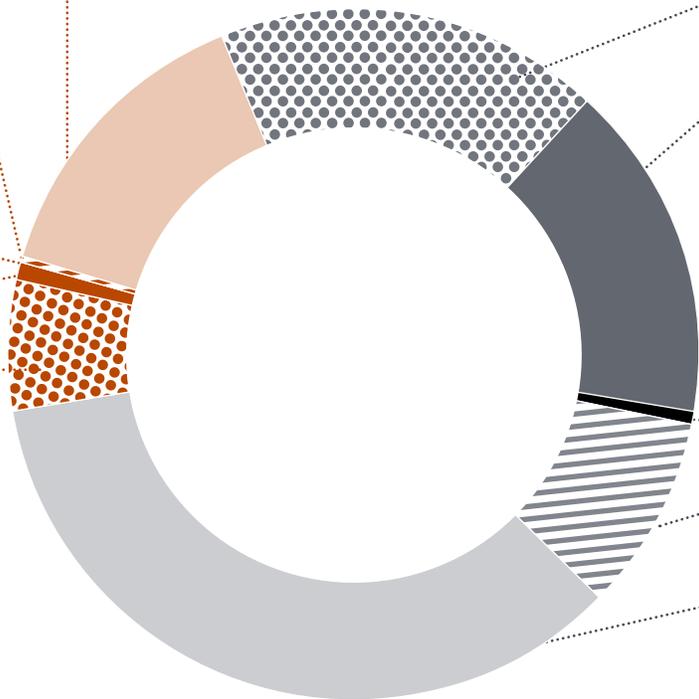


Chart legend

Colors and shades represent the type of institution and the loans that are insured and uninsured. Dark shade represent the insured loans and the light shade are uninsured.

- All steel shades are FRFIs
- All orange shades are Non-FRFIs

Filling patterns represent the type of funding.

- ■ Solid-colored areas are funded by deposits or other private funds
- ■ Dotted areas are funded by NHA-MBS
- ■ Striped areas are funded by covered bonds or private securitization

SHIFTING TRENDS IN THE MORTGAGE LANDSCAPE

Mortgage originations decline due to new mortgage regulations, rising rates and softening housing markets

Over the last year, activity in the Canadian mortgage landscape slowed after many years of strong increases, which had been driven by rising housing prices and strong sales in the residential real estate market. In 2018, the decline of new mortgages resulted in the slowest year-over-year growth rate of outstanding mortgages in over 25 years. In the first quarter of 2019, residential mortgage debt has maintained a slower pace at 3.4%. (See figure 1.1)

The decrease in activity in 2018 can be attributed to a combination of factors including tighter underwriting criteria and non-underwriting criteria, increased borrowing costs, modest economic conditions and to some extent changes in behavioural factors, which have induced softer demand on new home and resale markets in some major centers in Canada such as Toronto and Vancouver. More specifically, housing starts reached 212,843¹, a 3% dip below the 10-year high of 2017. In parallel, the resale market recorded an 11.1% drop compared to the previous year, settling at 458,442 MLS[®] sales. As a result, house prices decreased to an average of \$488,699 in 2018, a 4.1% decrease from the previous year, leaving MLS average prices slightly below their 2016 level. Despite softer housing demand at the national scale, markets vary significantly between regions. (For further information and analysis on the housing market in Canada, see the Housing Market Assessment Report <https://www.cmhc-schl.gc.ca/en/data-and-research/publications-and-reports/housing-market-assessment>)

Figure 1.1 Residential outstanding mortgage debt grows at its lowest pace in 25 years



Source: Statistics Canada. Table 10-10-0129-01 Residential mortgage credit, outstanding balances of major private institutional lenders, Bank of Canada (x 1,000,000)

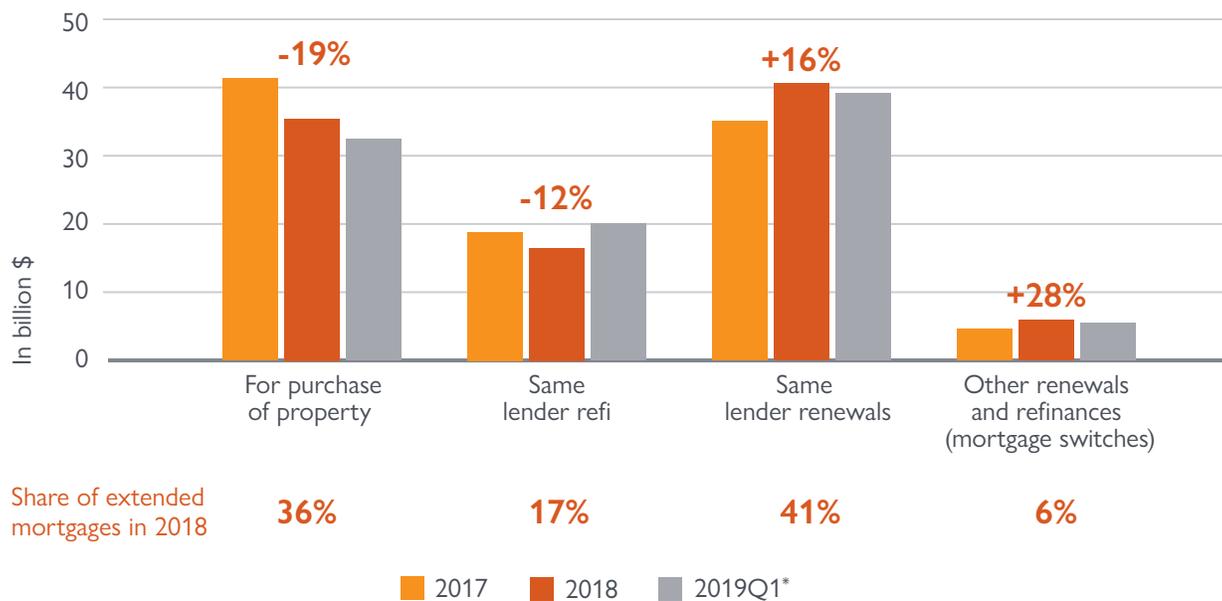
¹ CMHC, All areas

New mortgages for purchases of properties and refinances with same lenders decrease in 2018

Growth in residential mortgage credit is derived from different sources, including new residential property purchases and refinancing of loans, which consist of renegotiating terms on existing mortgages, typically for a larger amount. In 2018, new purchase loans and refinances accounted for approximately 36% and 17% respectively of residential mortgage loan originations amongst chartered banks. Renewals of loans at the end of their term also contribute to maintaining the amount of the financial institutions' residential mortgage portfolios. Renewals are a time when consumers with existing mortgages may switch their business to other institutions and when lenders will make efforts to retain their own and attempt to attract borrowers from their competitors.

In 2018, loans extended for both the purchase of a property and refinances by the same lender recorded decreases of 19% and 12% respectively compared to 2017. Meanwhile, renewals with the same lender increased by 16% relative to the previous year and now count for close to 1 out of 2 loans extended (see figure 1.2). Mortgage switches between institutions, which include refinances and renewals with a different lender, are estimated at approximately 6% of all transactions and increased by 28% in 2018 compared to the same period in 2017.

Figure 1.2 New mortgage loans by type of loans, Residential mortgages, Non-Federally Regulated Financial Institutions (FRFI)



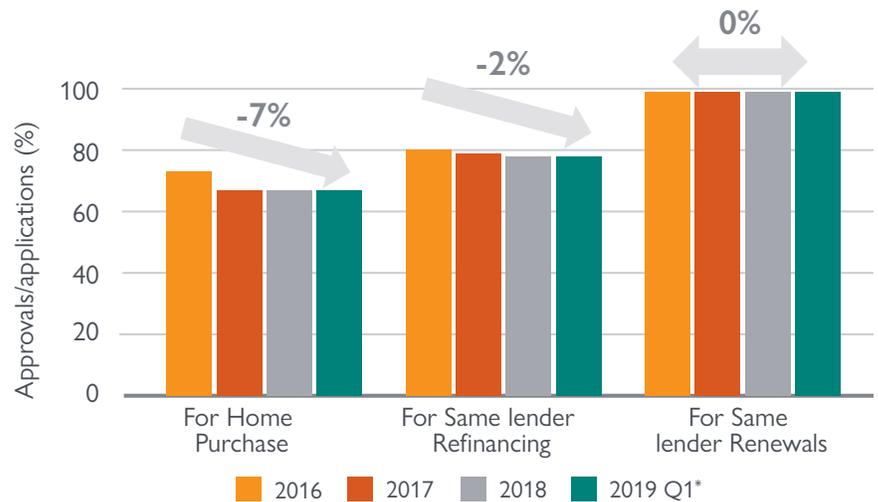
Sources: CMHC calculations based on Statistics Canada Custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers

* Based on four quarter average (2018 Q2 - 2019 Q1)

In addition to a larger number of mortgages originated in the previous 3 to 5 years, factors that may have contributed to large increases in loan renewals with the same institution are the tighter approval criteria and limited growth potential of new business. This is consistent with the declining ratio of approvals per applications in both home purchases and same lender refinances. (See figure 1.3.) Meanwhile, the approval rate for same lender renewals remained stable at approximately 99%, showing almost all renewal applications are approved. Renewals are not specifically subject to the new stress test and are more likely to meet current lender criteria. This is also consistent with lenders being focused on client retention which could impact profits and market share.

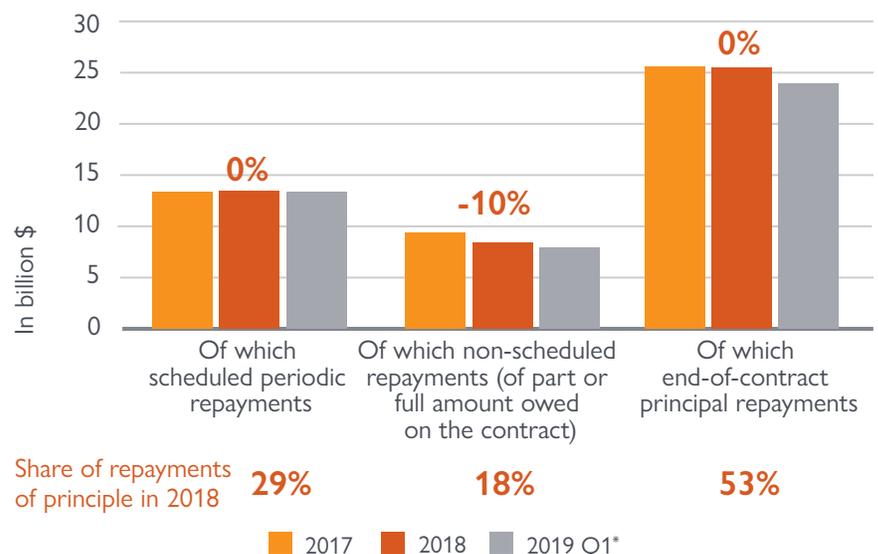
There are also different ways in which the value of outstanding mortgage debt decreases. Borrowers may pay down their debt by meeting their normal payment obligations or by making lump sum prepayments. These two categories count for 29% and 18% of the decreases in total mortgage debt. Borrowers can also repay the entire balance of a loan, which occurs typically when they transfer their mortgage to another institution or sell their property. We find that end-of-contract repayments of principal accounted for 53% as of the first quarter of 2019 (smoothed four quarter average) (a lower share than in 2018 and in 2017) which is consistent with the fact that lenders are increasingly renewing mortgage loans with existing clients. (See figure 1.4)

Figure 1.3 Approvals/Application Ratio by type of loan, Residential Mortgages, Chartered Banks



Sources: CMHC calculations based on Statistics Canada Custom request and CMHC Residential Mortgage data reporting of NHA MBS issuers
* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.4 Decreases in mortgage loans – Repayments of principal, Residential loans, Chartered Banks



Share of repayments of principle in 2018: **29%** (scheduled), **18%** (non-scheduled), **53%** (end-of-contract)

Sources: CMHC calculations based on Statistics Canada Custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers
* Based on four quarter average (2018 Q2 - 2019 Q1)

Mortgage default insurance

For federally regulated lenders, default insurance is mandatory for mortgages where the borrower's down payment is less than 20% of the purchase price. These insured mortgages are also referred to as high ratio mortgages. Lenders can also request mortgage default insurance for homebuyers with a 20% or more down payment, generally when the borrower has a poor or relatively short credit history or is self-employed. These insured mortgages are referred to as low ratio transactional mortgages. Whether high or low ratio, the borrower typically pays for transactional insurance, which is obtained at the point of origination.

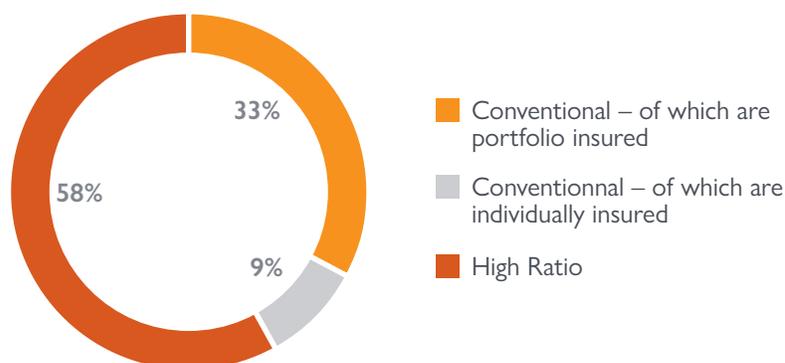
By providing lenders insurance against borrower default, borrowers with smaller down payments are able to obtain mortgage loans at competitive interest rates as insurance reduces the overall risk level supported by the lenders. Reduced risk ensures the availability of mortgage funding to homebuyers with lower levels of equity during an economic downturn as the availability of mortgage credit is often reduced. This provides added stability to housing and financial markets.

Portfolio insurance allows lenders to bulk-insure pools of previously uninsured mortgage loans and is typically paid for by the lender. Bulk-insuring mortgages helps lenders manage their capital, reduces lender risk and increases competition in the mortgage market by lowering entry barriers. Mortgage lending requires access to large sources of funds and capital. Public securitization provides a low cost option for funding mortgages and this portfolio insurance primarily supports lender access to mortgage funding through government-sponsored securitization programs. This enables smaller players, who do not have as many funding options as large banks, to better compete with large deposit-taking institutions.

Across federally regulated financial institutions (FRFIs), 42% of all mortgages were insured in the first quarter of 2019. Of that 42%, 58% were high ratio, 9% were low ratio transactional (conventional) and 33% were portfolio insured.

As of 2018, 16% of all active mortgages held by chartered banks in Canada had a loan-to-value (LTV) ratio greater than 80%. Half of all loans, however, had an LTV of 65% or less.

Figure 1.5 Share of insured residential mortgages in Q1 2019, Chartered banks, Canada



Sources: CMHC calculations based on Statistics Canada custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers

Increasing share of uninsured new mortgages

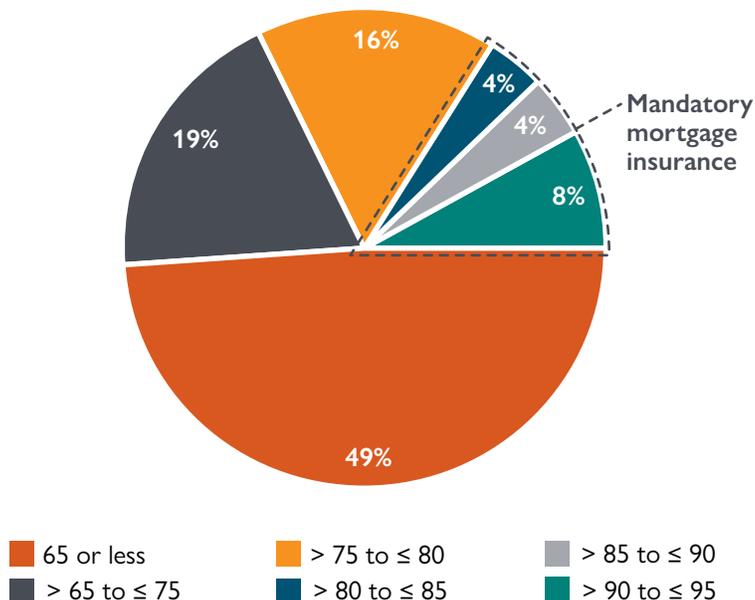
An increasing gap between uninsured and insured new mortgage originations has been observed. Currently insured mortgage originations account for less than 1 in 3 new mortgage loans. As a result, the share of outstanding insured mortgages has decreased by about 16 percentage points from 57% in the first quarter of 2015 to 41% in the same period in 2019.

The increasing shift to uninsured mortgages is partly a result of lenders and borrowers adjusting to regulatory changes, notably the 2016 stress testing for high-ratio mortgages, as well as changing economic conditions. Homebuyers must meet stricter conditions in order to qualify for mortgage insurance. Changes to the portfolio insurance program have also impacted the relative size of the insured mortgage space.

Effective July 2016, the portfolio insurance 'Purpose Test' restored low ratio portfolio insurance to its original purpose of supporting mortgage funding. Loans must belong, for insurance purposes, to a portfolio of loans with an approved mortgage insurer. At least 95% of all portfolio insured loans must be securitized within 6 months or the insurance will be voided. The goal of this purpose test is to ensure lenders use bulk insurance for funding purposes and not capital relief. Prior to this rule change, some lenders purchased bulk insurance for reducing the capital requirements associated with holding mortgages (i.e. capital relief).

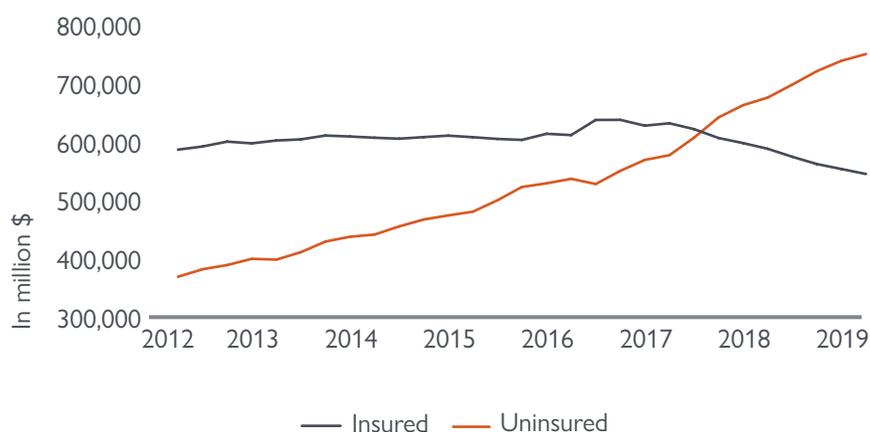
At the end of November 2016, regulations required low ratio insured mortgages, including portfolio insurance, meet the eligibility criteria that previously only applied to high ratio insured mortgages. More specifically, this development restricted low ratio mortgage insurance to those loans with amortization periods of 25 years or less. Prior to this change, 30-year amortization periods amongst uninsured loans were extremely popular.

Figure 1.6 Distribution of Loan-To-Value (LTV ratio) on residential portfolio, 2019 Q1, Chartered Banks, Canada



Sources: CMHC Residential Mortgage data reporting of NHA MABS issuers, CMHC calculations

Figure 1.7 Insured and uninsured residential mortgage outstanding in Canada



Source: Statistics Canada. Table 10-10-0134-01 Chartered banks, mortgage loans report, end of period, Bank of Canada (x 1,000,000 \$)

Thus, the implementation of the new eligibility criteria resulted in a decline in the demand for mortgage portfolio insurance.

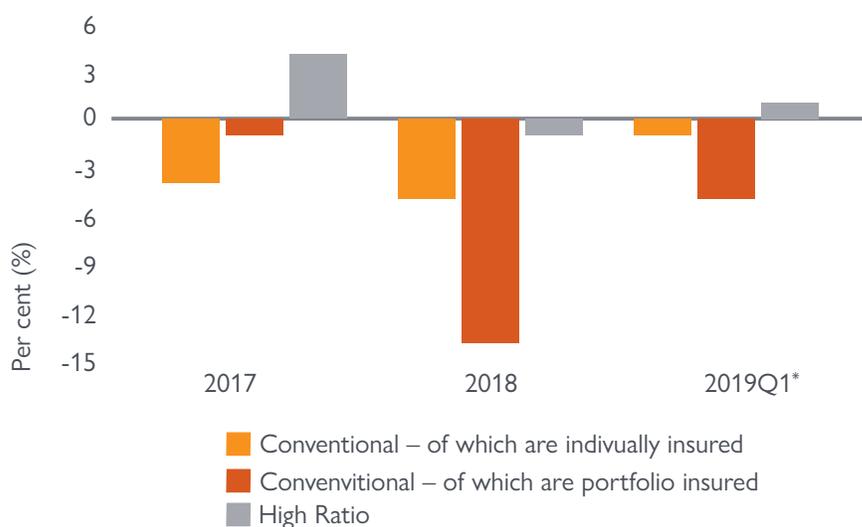
Another important change that affected insurance was the new regulatory capital requirements for mortgage insurers, which led to a corresponding increase in premium rates for individual and portfolio insurance in 2017. The cost of portfolio insurance rose in some market segments resulting in portfolio insurance volume declines, especially for financial institutions that had access to other means of low cost funding. More specifically, portfolio insured low ratio mortgages declined 14% in 2018 relative to 2017. Demand for high and low ratio transactional insurance also declined during that period albeit at slower pace than portfolio insurance.

Rising house prices affect the insured mortgage space

The increasing share of uninsured mortgages during this period was affected by a series of mortgage insurance regulations related to house prices as well. Since 2016, for properties over \$500,000 the minimum down payment required is 5% for the first \$500,000 and 10% for the remaining portion. This meant the overall down payment required from potential homebuyers in high-priced housing markets could become a barrier to first-time buyers. It should also be noted that Canada Mortgage and Housing Corporation (CMHC) stopped offering mortgage insurance for homes that cost over \$1 million in August 2014.

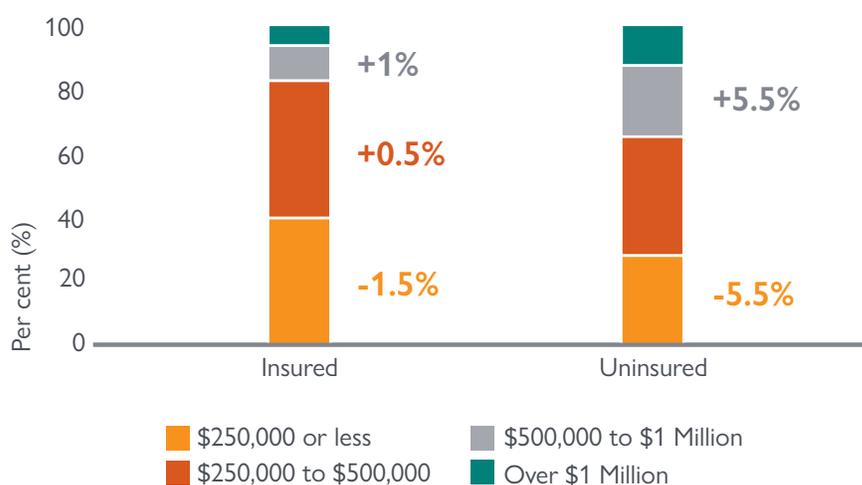
Given increasing prices of residential properties in Canada, newly originated mortgage loan values have also trended higher. In 2018, uninsured mortgage loan originations with values of \$500,000 and over accounted for 35% of the total, up from 29% in 2016. Conversely, mortgages that originated at \$250,000 or less now account for 28% of loans, down from 34% in 2016. (See figure 1.9)

Figure 1.8 Mortgage Insurance growth by type, Federally Regulated Financial Institutions



Sources: CMHC calculations based on Statistics Canada Custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers
* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.9 Mortgage value at origination of outstanding mortgage stock, Insured and Uninsured breakdown, FRFIs, Canada, 2018



Sources: CMHC Residential Mortgage data reporting of NHA MABS issuers, CMHC calculations

Mortgage trends by lender type

*Federally-Regulated Financial Institutions (FRFIs)*² such as chartered banks, trust and loan companies, and some life insurance companies³ are estimated to hold 78% of the total mortgage credit outstanding in Canada. *Provincially-Regulated Financial Institutions (PRFIs)*, mainly composed of credit unions and *caisses populaires*, and *quasi-regulated* lenders such as Mortgage Finance Companies (MFCs) hold market shares of the residential mortgage industry of approximately 14% and 6% respectively in 2018.

The remainder of the lenders are often categorized as *unregulated lenders*, which mostly consist of Mortgage Investment Entities (MIEs) such as Mortgage Investment Corporations (MICs) and other incorporated mortgage-financing businesses that pool money from investors. Unregulated lending could also include purely private lenders, in which individuals lend directly to other individuals.⁴

MIEs do not fall under the purview of regulators in the same way as FRFIs and PRFIs. Their underwriting criteria and mortgage lending products are not subject to the lending rules set by federal or provincial governments, such as stress testing or loan-to-value limits. MICs are typically regulated by securities regulators as non-redeemable investment funds under applicable provincial legislation. In order to sell securities to raise funds from investors, most MIEs will have to file, depending upon provincial rules, a prospectus which discloses information such as the entities' management, products and business risk. Some of the larger MIEs are publicly-traded companies and must report their activities and financial results. In the case of purely private lending, the lien placed against the borrower's property will be registered on the appropriate land registry, but is not legally required to be reported to a regulatory body.

We estimate that MICs held more than \$13-14 billion in 2018, or approximately 1% of total outstanding mortgage debt. That is an increase from the \$12 billion estimated for 2017 and the \$10 billion in 2016. Market shares held by other incorporated private lending institutions and purely private lenders are still unknown at this time.

Mortgage originations vary with business model of lender types

In collaboration with Statistics Canada, CMHC has developed a new survey that gathers information on mortgage lending activity in the non-bank mortgage lending space. The first results of the Non-Bank Mortgage Lenders Survey by lender type are now made available through this report.⁵

Results from the survey showed that, as of the third quarter of 2018, uninsured mortgages accounted for 58% of non-bank mortgage portfolios; a slightly higher share than the 57% in the FRFI segment (see figure 1.9). These uninsured outstanding mortgages are primarily held by credit unions at 81% while the remaining 9% is split between the other non-bank players. However, the insured mortgage stock is more diversified amongst the lenders as MFCs hold 36% of the non-bank outstanding insured debt.

While MFCs are not directly subject to regulation, their reliance on public securitization programs and wholesale funding for their operations incentivizes them to originate homeowner insured loans or conventional loans that are compliant with OSFI's guidelines. This partly explains why MFC loans count for more than 1 out of 3 mortgage loans in the insured market but approximately 2% of the uninsured market.

The results also suggest that the share of uninsured mortgages could be growing in the non-bank space as well as in specific urban markets. Similar to the mortgage activity in the banking sector, the share of uninsured mortgage originations is greater than their share of outstanding mortgages (see figure 1.10).

The share of MIC mortgage originations is close to two times their share of the uninsured mortgage stock. While this may reflect the fact that MICs generally issue shorter term loans – meaning more flow is needed to maintain constant business levels – this is also in line with the idea that these lenders are increasing their market share in the uninsured space.

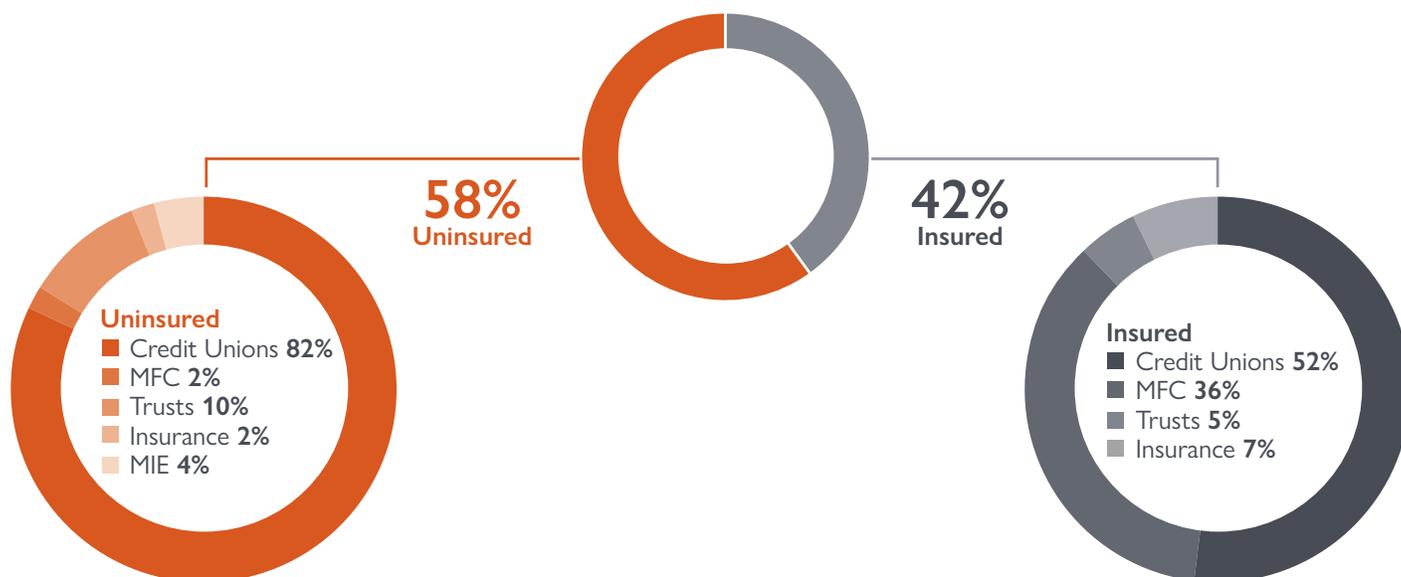
² FRFIs are supervised by the Office of the Superintendent of Financial Institutions (OSFI).

³ Insurance companies providing mortgage lending and subject to provincial regulations are categorized as PRFIs.

⁴ PRFIs, quasi-regulated and unregulated lenders can be included in the broader category of Non-Federally Regulated Financial Institution (Non-FRFIs).

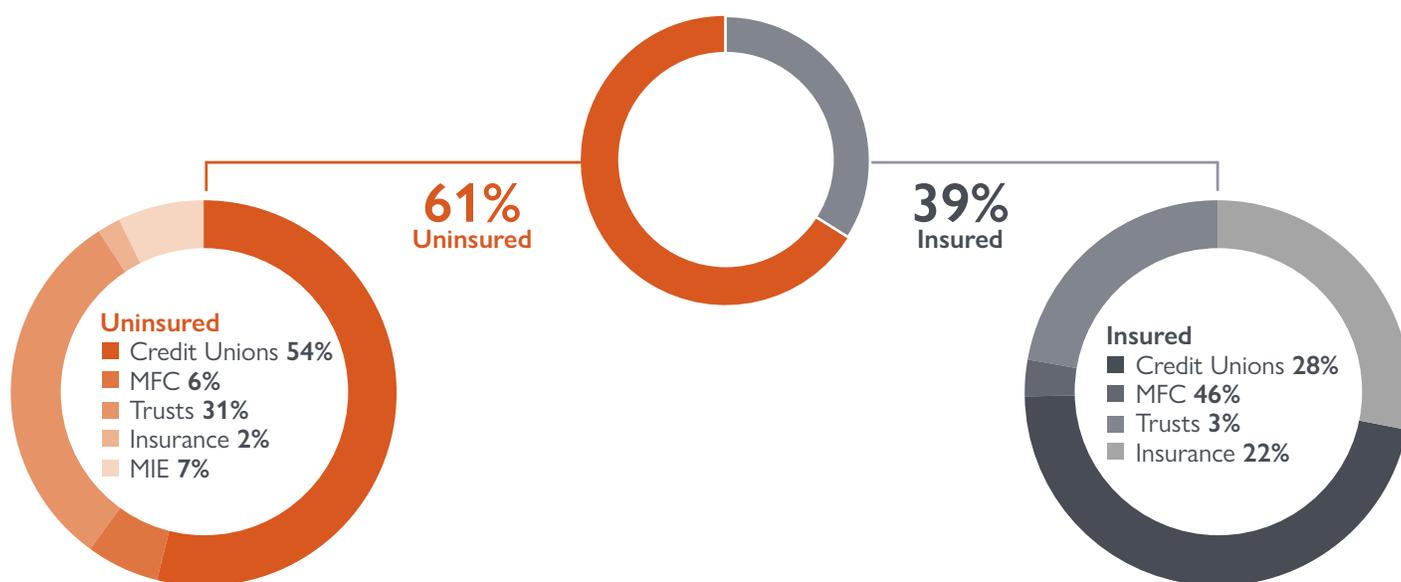
⁵ The level of granularity of the estimates will be released in subsequent quarterly updates and/or reports.

Figure 1.10 Mortgage Credit Outstanding of Non-Bank Mortgage lenders, Breakdown by Insured vs Uninsured Space



Sources: CMHC calculations, Non-Bank Mortgage Lenders Survey, Statistics Canada

Figure 1.11 Mortgage Credit Flows of Non-Bank Mortgage Lenders, Breakdown by Insured vs Uninsured Space



Sources: CMHC calculations, Non-Bank Mortgage Lenders Survey, Statistics Canada

What do we know about MICs?

In 2018, there were between 200 to 300 active MICs in Canada. Data from a survey of MICs conducted on CMHC's behalf shows interest rates on MIC loans are typically higher than those found in the traditional market because they reflect the riskier profiles of the clientele. Also MICs typically provide shorter term loans (Table 1.1). More specifically, the lending rate of MICs averaged close to 9% in 2018. Loan terms range from 6 to 24 months.

About two-thirds of the loans held by MICs have a first claim on the property, meaning that the remaining third of the loans have lower claim positions amongst creditors to satisfy the debt obligation in the case of a foreclosure and are therefore riskier for the lender. Second mortgages are another way in which Canadians can take on additional secured credit. From a lender perspective, having a larger share of mortgages in second or third position would however increase the probability of not recovering their assets in part or in full if borrowers begin to default.

Table 1.1 Insights into Mortgage Investment Corporations

Insights into Mortgage Investment Corporations (MICs)	2016	2017	2018
Estimated total market size	\$8 B – \$10 B	\$11 B – \$12 B	\$13 B – \$14 B
Mortgage Credit outstanding of 100 MIC sample	\$6.3 B	\$8.75 B	\$10.3 B
Assets Under Management (AUM) of largest 10 MICs	\$3.9 B	\$5.3 B	\$6.3 B
Assets Under Management (AUM) of largest 25 MICs	\$5.3 B	\$7.1 B	\$8.4 B
Average Lending rate	9.67%	9.63%	8.99%*
Range of lending rates	4.5%-15%	4.5%-15%	7.3-11%*
Average Share of 1 st mortgages	67%	66%	65%*
Range of share of 1 st mortgages	0-100%	0-100%	50%-100%*
Range of Loan-To-Value (LTV ratio)	38%-92%	30%-92%	43%-73%*

Sources: Fundamentals Research, CMHC Calculations

* Sample of top 25 MICs

There is a range of business models encountered in the MIC market, which are reflected in wide ranges across some of the key metrics including average lending rates and share of first mortgages. For example, the share of first mortgages varies extensively from one lender to another as some MICs will not hold any first mortgages while others will have a first-mortgage-only portfolio. Those that tend to have a lower share of first mortgages also record the highest interest rates and shorter terms. Those institutions will be more likely to have interest rates ranging between 9% and 15% although the interest rate varies accordingly to the borrowers' risk profile and loan terms.

In contrast, institutions that have very high shares of first mortgages, typically have lower average LTVs, longer term loans (between 12 and 24 months) and interest rates ranging between 4.5% and 9%. This is more or less comparable to mortgage rates on 1 year term uninsured loans found in the traditional market – approximately 5.4% in October 2018.

For further insights on Mortgage Investment Corporations, see CMHC's report *Risk Profile of Mortgage Investment Corporations*⁶).

⁶ <https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/cmhc/pubsandreports/pdf/68768.pdf?sv=2017-07-29&ss=b&s-rt=sco&sp=r&se=2019-05-09T06:10:51Z&st=2018-03-11T22:10:51Z&spr=https>

MIEs: A summary from industry roundtables

In 2018, CMHC organized a set of 3 industry roundtables, gathering players active in the alternative lending space, which were held in Toronto, Montréal and Vancouver. Participants included MICs and other private lending corporations as well as large portfolio brokers. Gathering on-field information from stakeholders is an additional way to understand fundamental changes affecting the mortgage industry.

Here are a few highlights from the participants' observations:

On borrowers

- Typical residential borrower profiles of MIEs include self-employed, business entrepreneurs, real estate investors carrying more than one property and borrowers with short term cash needs due to various reasons such as bruised credit, divorce, health issues and bridging presales or home purchases.
- Recent interest rate increases and Stress Test requirements have encouraged some borrowers to seek financing from other types of lenders, notably from the MIE space. Many lenders highlighted a marked increase in the quality of borrowers and applications in light of the recent changes.
- Exit strategies are more difficult for existing MIE borrowers to complete, as the stricter underwriting criteria in traditional lending is harder to meet.

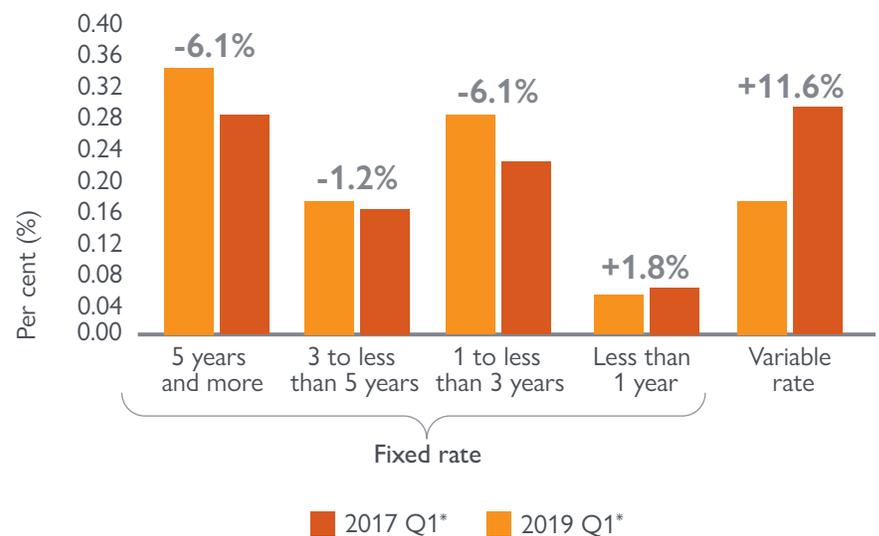
On business management

- While there are no prescriptive underwriting criteria, participants agreed upon the importance of well-defined exit strategies to determine borrowers' eligibility to the loan. Lenders will therefore analyze borrower capability to improve their financial situation and return to the traditional lending space at the end of the loan term. From this perspective, MIEs monitor mortgage regulations to insure that borrows have a viable exit strategy. Cash flows and property locations are also important factors.
- MIEs are more concentrated in urban centers, but their share in local markets such as Toronto, Vancouver and Calgary remain relatively small in market size compared to other lenders. This geographical concentration forces MICs to closely watch the market for changes as they are highly exposed to market trends and may need to quickly adjust their target markets and expand opportunities where there is a business need.
- When in seniority position on the loan i.e. first mortgage on the property, many responding MICs said they will prioritize the sale of the property and rely on the liquidity of the housing market to avoid foreclosure. This has been a key factor for markets with a low supply of housing such as Vancouver and Toronto. In general, borrowers cooperate to save foreclosure costs.
- MICs closely monitor the performance of the loans in their portfolio as investor sensitivity threatens the retrieval of capital in the face of rising delinquencies, making MICs more susceptible to changes in market conditions.

Variable rates gain popularity in 2018 despite expectations of rate increases

The majority of Canadian mortgage consumers typically opt for fixed-rate mortgages, more specifically with 5-year terms. Although, 5-year fixed rate mortgages continued to represent the largest proportion of residential mortgages, variable rates have increasingly gained in popularity, reaching 44% of mortgage loans newly advanced in June 2018, well above any other point in the previous 5 years. In the first quarter of 2019, the average share of new mortgages with a variable rate stood at 29%, a 12 percentage point increase relative to the same period in 2017.⁷ Conversely, the share of mortgage loans with fixed terms decreased, notably in the 1-3 year term and 5-years and over segment (see figure 1.12).

Figure 1.12 Mortgage share by interest rate term, Fixed and Variable rate breakdown



Sources: Statistics Canada. Table 10-10-0006-01 Funds advanced, outstanding balances, and interest rates for new and existing lending, Bank of Canada, CMHC Calculations
* Based on four quarter average (2018 Q2 - 2019 Q1)

Table 1.2 Interest rate shares by term, Fixed and Variable rate breakdown

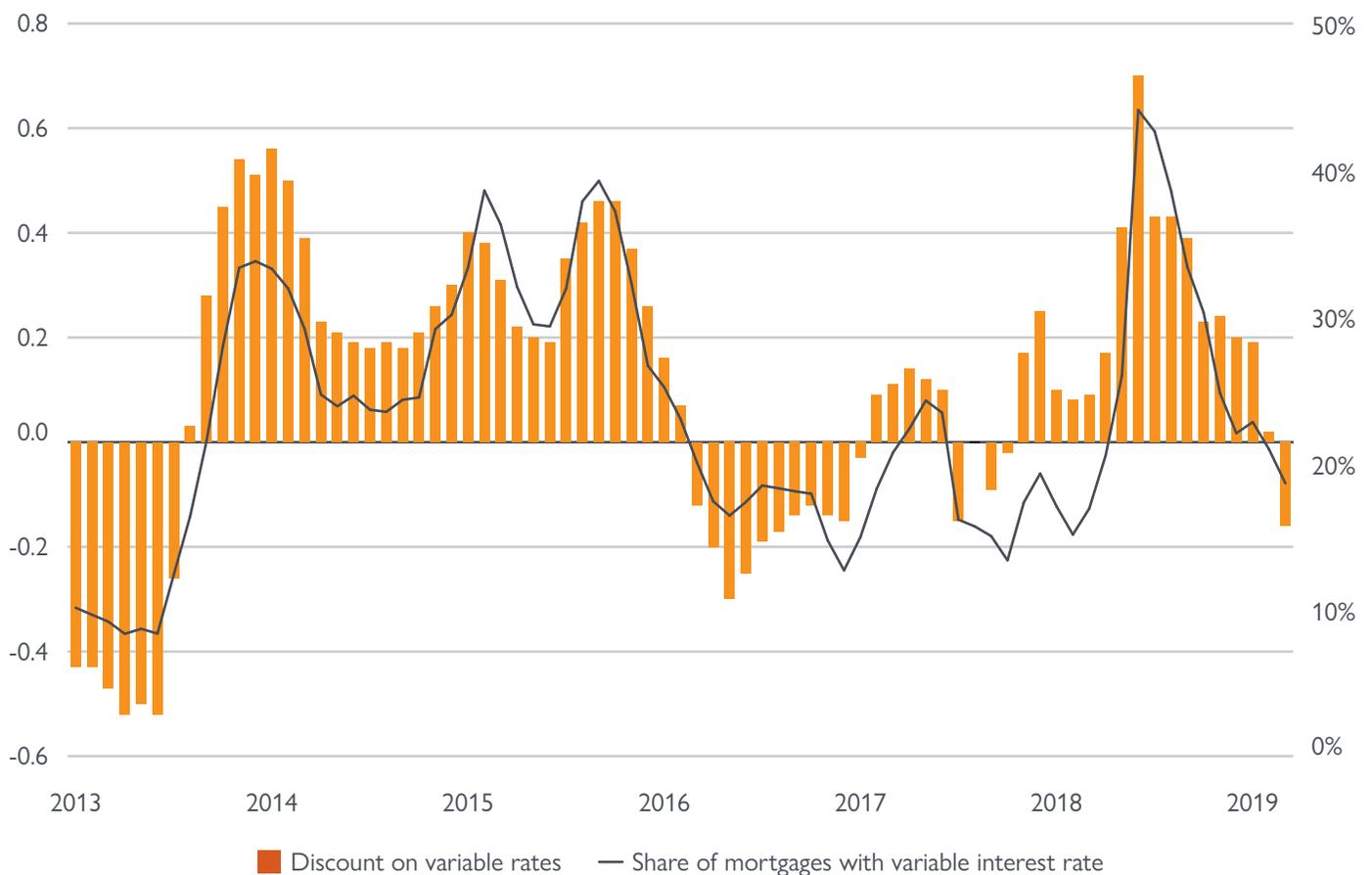
	2019Q1	2018	2017
Fixed rate, 5 years and more	3.64%	3.30%	2.72%
Fixed rate, from 3 to less than 5 years	3.51%	3.19%	2.74%
Fixed rate, from 1 to less than 3 years	3.61%	3.14%	2.79%
Fixed rate, less than 1 year	5.25%	5.34%	5.06%
Variable rate	3.52%	3.15%	2.74%

Sources Statistics Canada. Table 10-10-0006-01 Funds advanced, outstanding balances, and interest rates for new and existing lending, Bank of Canada, CMHC Calculations

⁷ Based on four quarter average (2018 Q2 2019 Q1)

The discount on variable rates, calculated as the difference between the variable rate at the current prime rate and the 5-year fixed originated at the same period, was estimated at 29 basis points on average in 2018. In comparison, interest rates offered on 5 year-fixed and variable mortgage loans were practically the same during the same period in 2016. The larger discount offered on variable rates in 2018 partly reflected both expectations of rising interest rates and increasing efforts to attract new borrowers as the housing market began to slow down. Figure 1.13 shows the increasing discount on variable rates reached its highest point in 5 years in June 2018, resulting in the increasing share of variable rate mortgages advanced. In the following months, anticipation of smaller interest rate increases began to narrow the discounts on variable rates to 2 basis points in February 2019, compared to a high of 77 basis points in June 2018.

Figure 1.13 Increased gaps between fixed and variable rates favoured interest for discounted variable rates



Sources: Statistics Canada. Table 10-10-0006-01 Funds advanced, outstanding balances, and interest rates for new and existing lending, Bank of Canada, CMHC Calculations

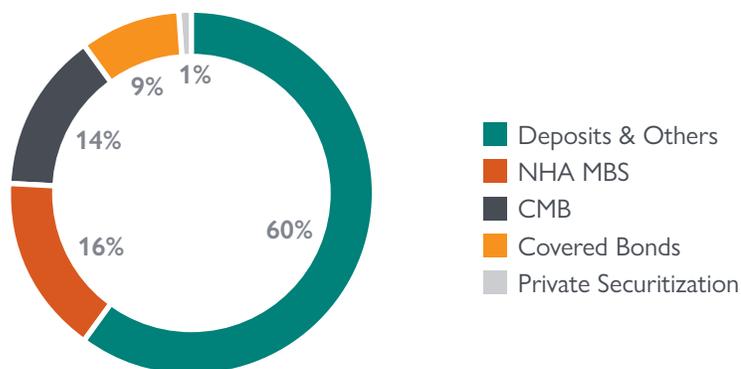
Mortgage Funding Trends

Financial institutions (FIs) in Canada have access to various funding sources, including retail and corporate deposits, senior unsecured funding, covered bonds, public securitization programs, whole loan sales, and private-label securitization. The secondary mortgage market is where financial institutions trade mortgages that have been bundled into investment products to raise funds. In Canada, there are 3 capital market-based sources of funding backed by residential mortgage loans: 1) public securitization, which includes *National-Housing Act Mortgage-Backed Securities*⁸ (NHA-MBS) and Canada Mortgage Bonds (CMB) (both require insured mortgages), 2) covered bonds (backed by uninsured mortgages) and 3) private-label securitization (backed by uninsured mortgages as well) through Asset-Backed Commercial Paper (ABCP) and Residential Mortgage Backed Securities (RMBS).

Deposits remain the primary source of mortgage funding for financial institutions such as chartered banks and credit unions since it is the least expensive source on average. As of the fourth quarter of 2018, the Big Six Banks⁹ funded over 64% of their residential mortgages through deposits, while credit unions used this funding source for more than 3 out of 4 mortgages. All deposit-taking lenders have slightly reduced the usage of deposits for mortgage funding in the past year.

Other financial institutions which lack access to deposits, such as MFCs, rely greatly on public securitization programs such as NHA-MBS and CMB, (54% and 30% respectively in 2018Q4 excluding whole loan sales). Due to its desirable bond-like features and its government guarantee, CMBs attract a broad base of investors from around the world, making it one of the less costly funding sources. NHA-MBS mainly attract domestic investors, and are a popular funding option for lenders since it is less complicated and more flexible to issue.

Figure 1.14 Residential Mortgage Funding Market Share, 2018 Q4

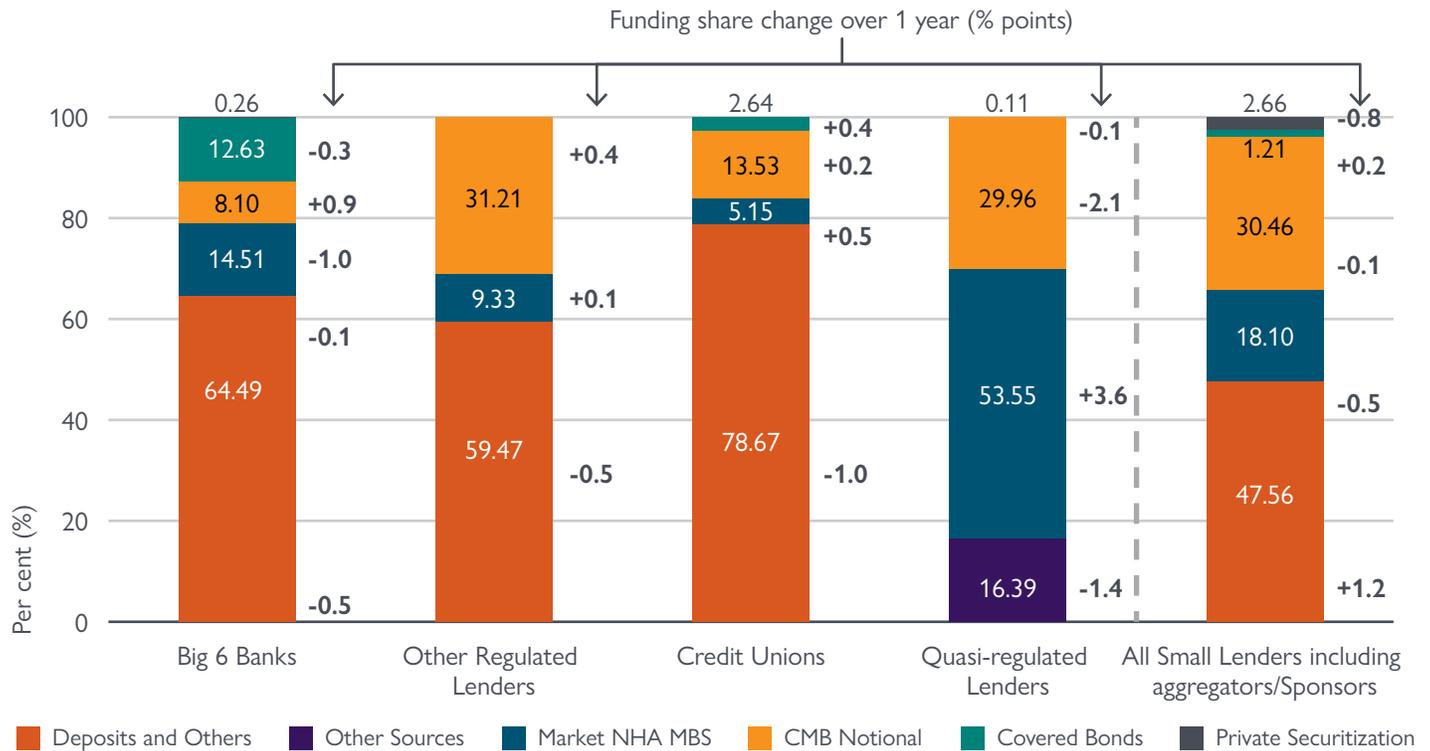


Sources: OSFI, BDRS, CMHC

⁸ NHA MBS includes those created and held on a lender's balance sheet as a potential liquidity source.

⁹ The Big Six Banks in Canada include: the Royal Bank of Canada (RBC), Toronto Dominion Bank (TD), the Bank of Nova Scotia (Scotiabank), the Bank of Montreal (BMO), the Canadian Imperial Bank of Commerce (CIBC) and the National Bank of Canada).

Figure 1.15 Funding Share of Outstanding Mortgages by Lender Group



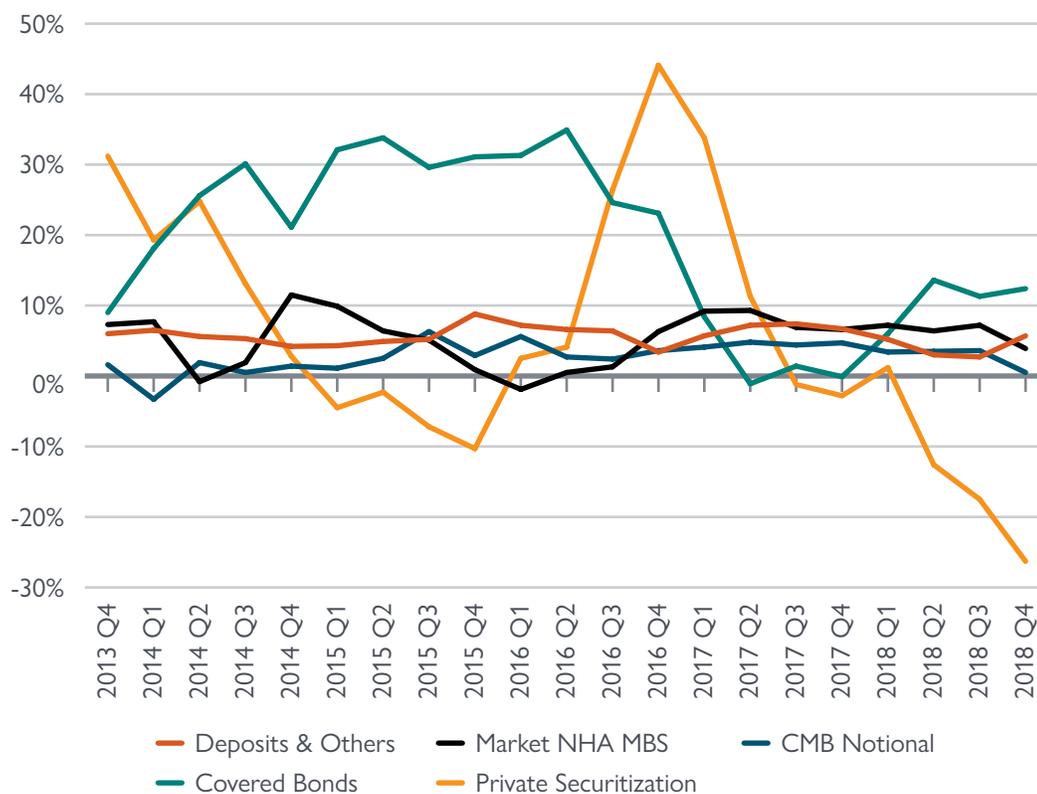
Sources: OSFI; CMHC Securitization; annual/quarterly reports; DBRS

Covered bonds are dual recourse instruments with uninsured mortgages as eligible cover pool assets¹⁰. The dual recourse feature combined with a dedicated covered bond legislation makes them a relatively attractive funding option. Currently, there are 8 registered covered bond issuers in Canada. While all other funding sources have been marked by small decreases between 2017Q4 and 2018Q4, covered bonds have gained close to 1 percentage point of the funding market, reaching a record 9.5 % in 2018Q4. Since the first covered bond issued by a Canadian financial institution in 2007, outstanding issuances have grown steadily, with even further growth followed after the passage of a dedicated covered bond legislation in Canada. In Canada, OSFI (and AMF) applies a cap on issuances based on 4% of total assets.

¹⁰ Dual recourse means that the investor has recourse against both the issuer and the covered pool.

Private securitization is another source of alternative funding available to mortgage lenders for uninsured mortgages, and potentially transfers the underlying mortgage risk to capital market investors. However, it still accounts for a very small share of funding sources in Canada, hovering between 0.5% and 1.5% since 2012Q1. In the last quarter of 2018, private securitization represented 1% of residential mortgage funding. The limited size of this market explains its volatility. Besides ABCP, there were only a few RMBS issuances after the financial crisis. The lack of RMBS activities is primarily due to its less competitive cost of funds versus other funding options, which is in turn caused by the limited investor demand for this emerging funding channel and the lack of mortgage performance data to allow investors to adequately assess the securities' risk profile.

Figure 1.16 Year-over-Year Growth of Mortgage Funding Outstanding



Sources: OSFI; CMHC Securitization; annual /quarterly reports; DBRS

APPENDIX 1

RESIDENTIAL MORTGAGE LENDER TYPES

Chartered Banks

Description	Banks are the dominant players in the mortgage lending landscape in Canada. These depository institutions offer a complete variety of banking and financial services in person through their branch network and online. Bank customers can combine all finances under one institution.
Regulation	Federally regulated by the Office of the Superintendent of Financial Institutions (OSFI)
Funding	All types of funding but mostly deposits.
Regional concentration	While they are widespread across the country, they tend to have greater shares in urban and metropolitan areas.

Credit Unions

Description	Credit unions (or caisses populaires in Québec) are the second largest players in the mortgage lending landscape. They are depository institutions that have a “cooperative” business model, meaning they are owned by their members (every member has an equal vote). They offer an entire range of financial services in terms of banking, lending and investment products. They are generally known for more personalized customer service.
Regulation	Regulation: Most are provincially regulated, with some moving to Federal jurisdiction.
Funding	All types of funding but mostly deposits.
Concentration	Tend to have a higher presence in non-metropolitan areas than other financial institutions.

Mortgage Finance Companies (MFCs)

Description	MFCs only offer mortgage loan products and are usually only accessible via the brokerage lending channel. They are non-depository lenders. MFCs generally have more competitive rates than larger lenders.
Regulation	Quasi-regulated – While not explicitly subject to regulation, they still comply with regulation as they fund their mortgages with public securitization programs and wholesale funding.
Funding	NHA securitization programs and wholesale funding
Regional concentration	As they make use of the broker channel, they are generally widespread across the regions.

Mortgage Investment Entities (MIEs)

Description	MIEs are mortgage lenders that provide products characterized by short term loans (between 6 to 24 months) and higher interest rates. MIEs include Mortgage Investment Corporations (MICs) and other private lenders. MIEs include Mortgage Investment Corporations (MICs) and other private lenders. They generally lend to borrowers that don't qualify with traditional lenders, for either debt consolidation, sickness, bruised/absence of credit, income interruption, financial difficulties and real estate investments. When approving a loan, the main objective is to facilitate exit strategies for customers allowing them to eventually return to the traditional lending space. In many cases, they play an important liquidity role by providing funds to individuals in need of immediate cash to avoid defaulting on their mortgage payments, acting as a buffer in the mortgage landscape.
Regulation	Unregulated in the lending spectrum. However, some MIEs including MICs are regulated on the funding portion of the business.
Funding	MICs generally fund their mortgages by pooling money from a group of investors. Private lenders either lend their own money or professionally managed funds.
Regional concentration	While MIEs are present in all provinces, MIC loans are more concentrated in BC and Ontario, which represent 78% of their lending with the majority concentrated in Vancouver and Toronto.

APPENDIX 2

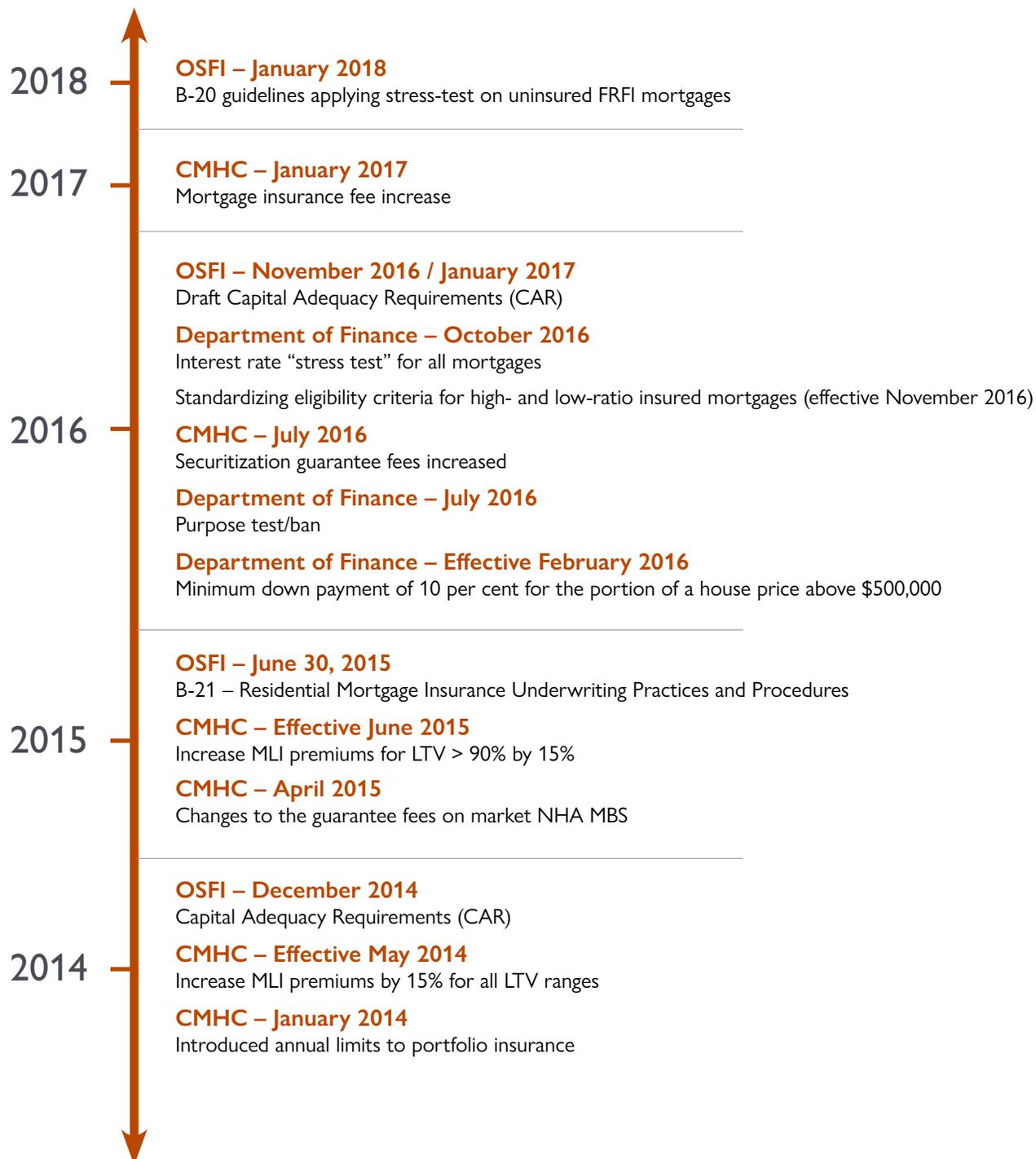
REGULATIONS AND POLICY CHANGES

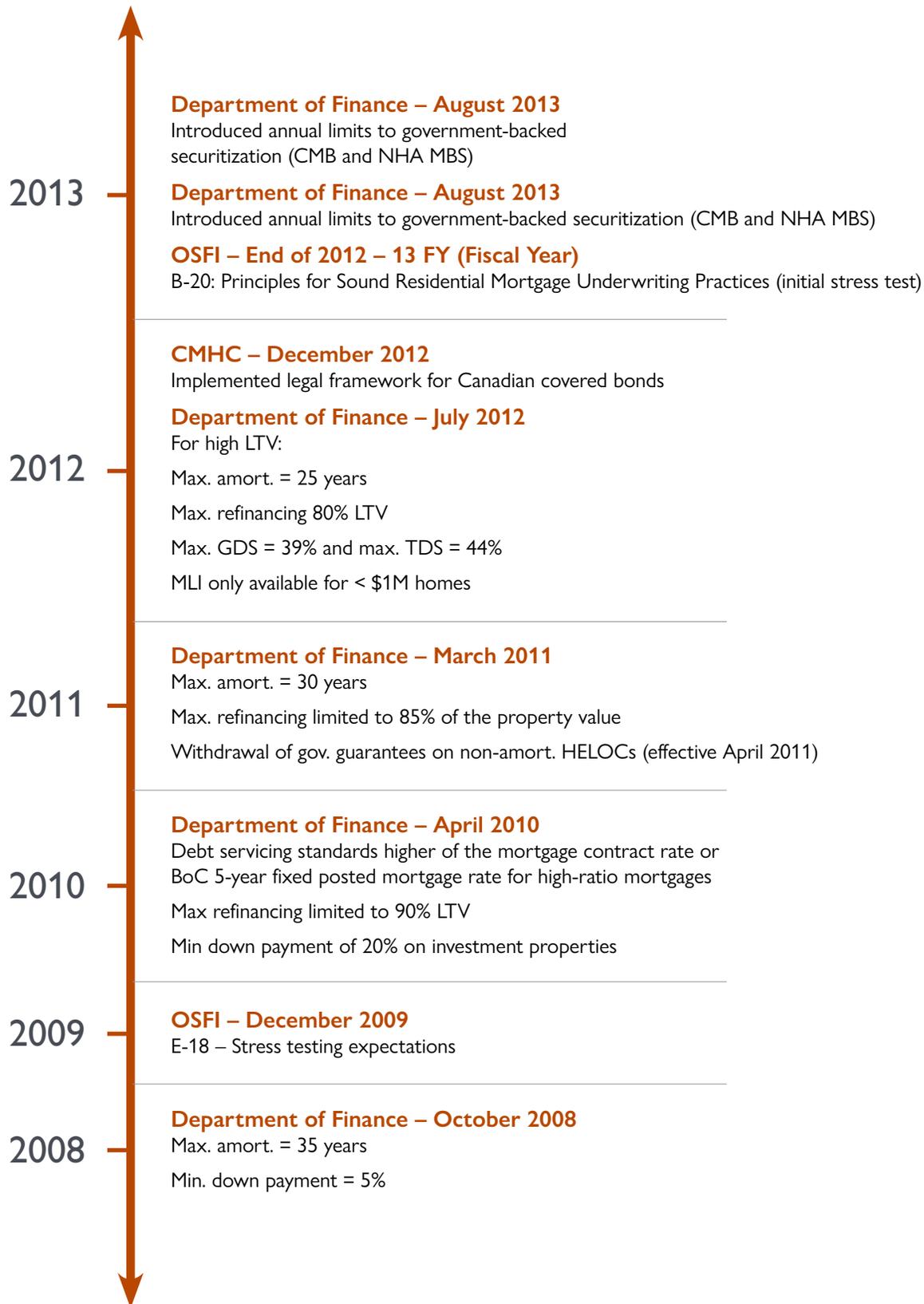
Since 2008, there have been a number of policy actions that have impacted the residential mortgage market. The Department of Finance has implemented multiple rounds of measures adjusting the rules for new government-backed insured mortgages, thereby reducing potential vulnerabilities in the housing market:

- 1. October 2008:** The maximum amortization period was reduced to 35 years, the minimum down payment was increased to 5%, along with minimum credit score requirements and new loan documentation standards.
- 2. April 2010:** The qualifying mortgage rate would be based on the higher of the mortgage contract rate or Bank of Canada conventional 5-year fixed posted mortgage rate for mortgages with variable interest rates or fixed interest rates with terms less than 5 years. The maximum refinancing amount was lowered to 90% of the property value and the minimum down payment for investment properties was raised to 20%.
- 3. March 2011:** The maximum amortization period was reduced to 30 years and the maximum refinancing limit was decreased to 85% of the property value. There also was a withdrawal of government guarantees on non-amortizing secured lines of credit (effective April 2011).
- 4. July 2012:** The maximum amortization period decreased to 25 years while the maximum refinancing was limited to 80% of the property value. The maximum gross debt service ratio was set to 39% and the maximum total debt service ratio was 44%. CMHC also set the maximum purchase price to less than \$1 million.
- 5. February 2016:** The minimum down payment increased to 10% for the portion of a house price above \$500,000.
- 6. October 2016:** All insured mortgages were required to qualify on the higher of the mortgage contract rate or Bank of Canada conventional five-year fixed posted mortgage rate (“stress test”). Standardizing eligibility criteria for high and low-ratio insured mortgages was also introduced (effective November 2016). Refinanced mortgages, rental properties and properties purchased for over one million dollars are no longer eligible to portfolio/bulk insurance.
- 7. January 2018:** The qualifying rate for all uninsured mortgages should be the greater of the contractual mortgage rate plus 2% or the 5-year benchmark rate published by the Bank of Canada.

Other notable policy actions in recent years have been undertaken to strengthen the stability of housing finance: the Office of the Superintendent of Financial Institutions (OSFI) introduced guidelines for prudential mortgage underwriting, applying to lenders for both insured and uninsured mortgages (B-20) and to mortgage insurers (B-21). Lender guarantee fees on National Housing Act Mortgage-Backed Securities (NHA MBS) and Canada Mortgage Bonds (CMB) have increased, along with the introduction of total guarantee and allocation limits for CMHC’s securitization programs. Implementation of the ‘ban’ and ‘purpose test’ for low-ratio portfolio insurance was designed to encourage the development of private market funding alternatives.

HISTORY OF POLICY ACTIONS TO MANAGE HOUSING MARKET RISKS

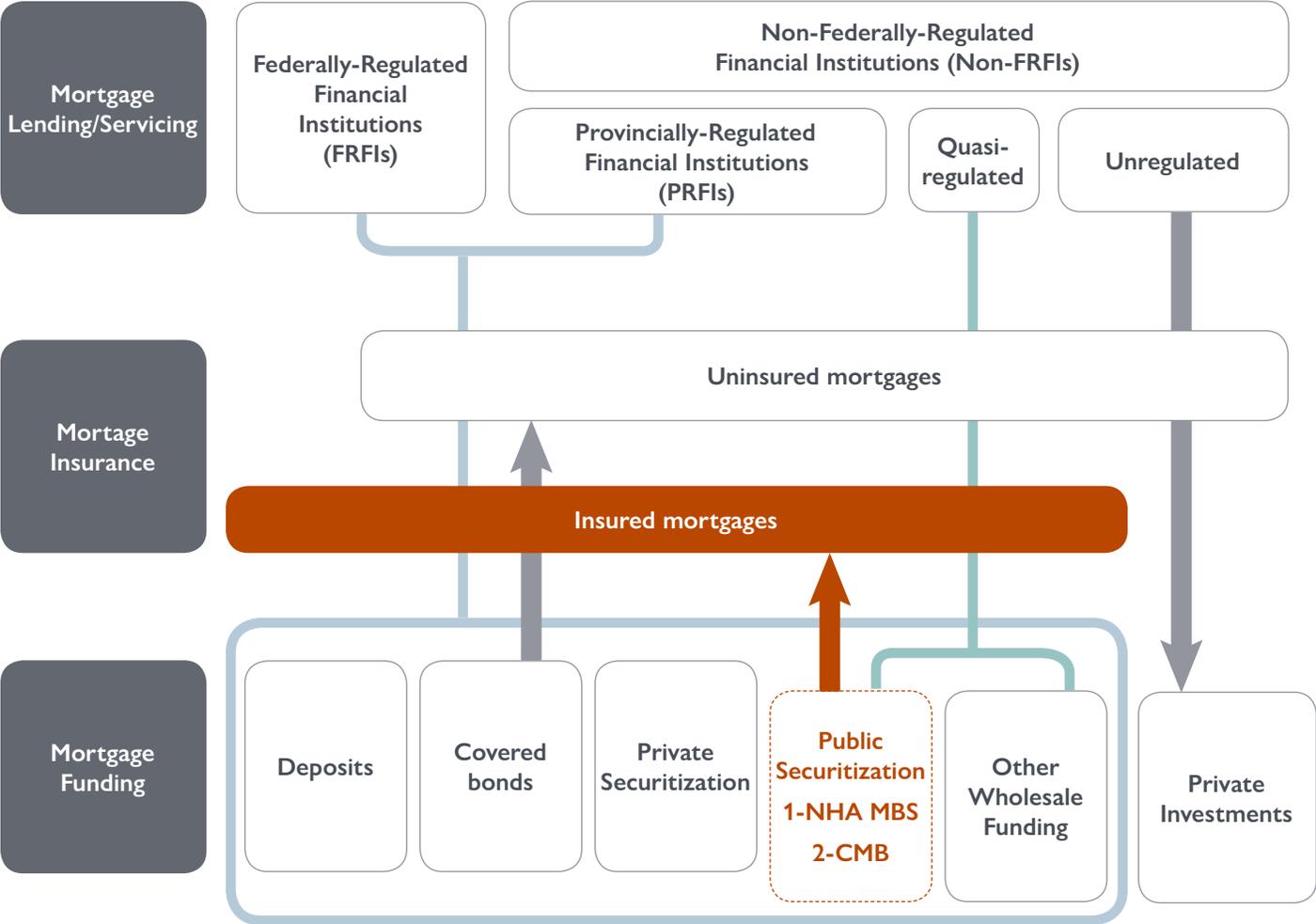




APPENDIX 3

HOUSING FINANCE

IN CANADA 101





ALTERNATIVE TEXT AND DATA FOR FIGURES

Figure 1.1 Residential outstanding mortgage debt grows at its lowest pace in 25 years

Mortgage debt growth rate														
1980	14.7%	1984	9.1%	1988	18.2%	1992	8.0%	1996	3.5%					
	14.1%		9.4%		18.1%		7.9%		3.6%					
	13.2%		9.4%		20.4%		7.7%		4.0%					
	12.8%		9.9%		19.6%		7.7%		4.3%					
	12.2%		9.6%		19.1%		7.5%		4.8%					
	11.4%		9.1%		18.2%		7.4%		4.9%					
	10.1%		8.4%		18.2%		7.1%		4.8%					
	9.2%		8.0%		18.3%		6.8%		4.6%					
	8.9%		7.2%		18.3%		7.1%		4.6%					
	9.0%		6.7%		17.9%		7.3%		4.9%					
	8.6%		6.7%		17.9%		7.4%		5.3%					
	8.5%		6.5%		17.9%		7.5%		5.5%					
	1981		8.8%		1985		6.1%		1989	17.9%	1993	7.3%	1997	5.8%
			7.9%				5.9%			18.1%		7.4%		5.9%
			7.9%				6.1%			15.9%		7.5%		5.8%
7.5%		5.7%	16.1%	7.2%		5.8%								
7.5%		5.7%	16.0%	6.9%		5.7%								
7.4%		5.9%	15.5%	6.5%		5.6%								
6.7%		6.2%	15.3%	6.0%		5.7%								
6.3%		7.1%	14.9%	6.1%		6.0%								
5.6%		8.0%	15.0%	5.4%		5.9%								
4.7%		9.0%	15.3%	4.7%		5.6%								
3.2%		9.7%	15.8%	4.4%		5.4%								
2.5%		10.1%	15.9%	4.2%		5.2%								
1982		2.3%	1986	10.9%		1990	16.3%	1994		4.3%		1998		5.1%
		2.7%		11.4%			16.1%			4.2%				5.4%
		2.3%		11.5%			16.1%			4.2%				5.4%
	1.7%	11.7%		16.0%	4.5%		5.2%							
	1.1%	11.9%		15.8%	5.1%		5.2%							
	0.3%	12.9%		15.6%	5.5%		5.3%							
	0.1%	13.8%		14.9%	6.2%		5.6%							
	-0.6%	14.1%		14.3%	6.3%		5.4%							
	-0.8%	14.2%		13.2%	6.5%		5.6%							
	-0.8%	14.4%		12.4%	6.5%		5.8%							
	0.6%	14.4%		11.4%	6.4%		6.0%							
	0.6%	15.4%		10.7%	6.4%		6.1%							
	1983	0.6%		1987	15.1%		1991		9.6%	1995	6.6%		1999	5.9%
		0.7%			15.1%				9.1%		6.4%			5.0%
		1.3%			15.4%				8.5%		6.0%			5.1%
2.0%		16.2%	7.9%		5.5%	5.2%								
3.0%		17.3%	7.7%		4.6%	5.4%								
4.4%		18.2%	7.7%		4.1%	5.6%								
5.6%		18.2%	7.9%		3.9%	5.3%								
6.7%		18.1%	8.2%		3.7%	5.3%								
7.8%		18.5%	8.3%		3.7%	5.0%								
8.4%		18.6%	8.5%		3.7%	4.8%								
8.1%		18.5%	8.5%		3.4%	4.6%								
8.9%		17.8%	8.1%		3.6%	3.9%								

(continued)

Figure 1.1 Residential outstanding mortgage debt grows at its lowest pace in 25 years

Mortgage debt growth rate											
2000	4.5%	2004	9.0%	2008	13.1%	2012	5.1%	2016	6.4%		
	5.0%		9.1%		13.0%		5.5%		6.3%		
	5.6%		9.2%		13.0%		5.6%		6.3%		
	5.5%		9.6%		12.8%		5.4%		6.3%		
	5.1%		9.8%		12.8%		5.2%		6.4%		
	4.8%		10.1%		12.4%		4.9%		6.4%		
	4.8%		10.2%		12.3%		4.7%		6.2%		
	4.6%		10.1%		11.9%		4.7%		6.4%		
	4.8%		10.2%		11.4%		5.6%		6.5%		
	4.8%		10.1%		10.7%		5.5%		6.3%		
	4.6%		10.5%		10.0%		5.8%		6.4%		
	4.8%		10.4%		10.1%		5.8%		6.1%		
2001	4.4%	2005	10.4%	2009	9.4%	2013	5.5%	2017	6.0%		
	4.1%		10.3%		8.9%		5.4%		6.0%		
	3.5%		10.1%		8.4%		5.3%		6.2%		
	3.5%		10.0%		7.8%		5.2%		6.2%		
	3.7%		9.8%		7.3%		5.3%		6.1%		
	3.6%		9.8%		7.1%		5.4%		6.0%		
	3.8%		9.8%		6.9%		5.3%		5.9%		
	4.2%		10.0%		6.8%		5.3%		5.6%		
	4.3%		10.1%		6.7%		5.2%		5.3%		
	4.1%		10.3%		7.0%		5.3%		5.5%		
	4.8%		10.1%		7.2%		5.3%		5.2%		
	5.7%		10.2%		6.7%		5.1%		5.2%		
2002	6.1%	2006	10.3%	2010	6.9%	2014	5.2%	2018	5.2%		
	6.6%		10.5%		7.0%		5.1%		5.0%		
	7.0%		10.8%		7.0%		4.9%		4.7%		
	7.5%		10.7%		7.4%		4.9%		4.4%		
	8.0%		10.7%		7.8%		4.9%		4.2%		
	8.3%		10.8%		8.1%		4.8%		3.9%		
	8.4%		10.5%		7.7%		4.9%		3.8%		
	8.4%		10.3%		7.6%		4.8%		3.7%		
	8.5%		10.2%		7.6%		4.8%		3.7%		
	8.5%		10.1%		7.3%		4.9%		3.5%		
	8.5%		10.0%		7.3%		4.8%		3.4%		
	8.5%		10.1%		7.3%		5.1%		3.4%		
2003	8.4%	2007	10.1%	2011	7.5%	2015	5.2%	2019	3.5%		
	8.3%		10.2%		7.2%		5.3%		3.3%		
	8.1%		10.2%		7.2%		5.4%		3.4%		
	8.1%		10.6%		6.9%		5.4%		3.3%		
	7.8%		10.6%		6.8%		5.5%		3.4%		
	7.9%		11.0%		6.6%		5.7%		3.5%		
	8.1%		11.3%		6.8%		5.9%		3.6%		
	8.4%		11.7%		7.0%		6.0%		3.7%		
	8.5%		12.1%		5.9%		6.0%		3.8%		
	9.0%		12.4%		5.9%		6.1%		3.9%		
	9.0%		12.7%		5.3%		6.3%		4.0%		
	8.9%		12.9%		5.1%		6.5%		4.1%		

Sources: Statistics Canada. Table 10-10-0129-01 Residential mortgage credit, outstanding balances of major private institutional lenders, Bank of Canada (× 1,000,000)

Figure 1.2. New mortgage loans by type of loans, Residential mortgages, Non-Federally Regulated Financial Institutions (FRFI)

	2017	2018	2019 Q1*
For purchase of property	41.37	35.43	32.42
Same lender refi	18.82	16.47	20.00
Same lender renewals	35.10	40.56	39.14
Other renewals and refinances (mortgage switches)	4.62	5.94	5.50

Sources: CMHC calculations based on Statistics Canada Custom ES request and CMHC Residential Mortgage data reporting of NHA MABS issuers

* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.3 Approvals/Application Ratio by type of loan, Residential Mortgages, Chartered Banks

% approvals/applications	2016	2017	2018	2019 Q1*
For Home Purchase	73	67	67	67
For Same lender Refinancing	80	79	78	78
For Same lender Renewals	99	99	99	99

Sources: CMHC calculations based on Statistics Canada Custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers

* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.4 Decreases in mortgage loans – Repayments of principal, Residential loans, Chartered Banks

	2017	2018	2019 Q1*
Of which scheduled periodic repayments	13.39	13.48	13.31
Of which non-scheduled repayments (of part or full amount owed on the contract)	9.38	8.40	7.92
Of which end-of-contract principal repayments	25.57	25.47	23.87

Sources: CMHC calculations based on Statistics Canada Custom ES request and CMHC Residential Mortgage data reporting of NHA MABS issuers

* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.5 Share of insured residential mortgages in Q1 2019, Chartered banks, Canada

	Share of insured mortgages
Conventional – of which are portfolio insured	33%
Conventional – of which are individually insured	9%
High Ratio	58%

Sources: CMHC calculations based on Statistics Canada custom request and CMHC Residential Mortgage data reporting of NHA MABS issuers

Figure 1.6 Distribution of Loan-To-Value (LTV ratio) on residential portfolio, 2019 Q1, Chartered Banks, Canada

	2019 Q1
65% or less	49%
> 65% to ≤ 75%	19%
> 75% to ≤ 80%	16%
> 80% to ≤ 85%	4%
> 85% to ≤ 90%	4%
> 90% to ≤ 95%	5%
> 95% to ≤ 100%	2%

Sources: CMHC Residential Mortgage data reporting of NHA MABS issuers, CMHC calculations

Figure 1.7 Insured and uninsured residential mortgage outstanding in Canada

	Insured	Uninsured
2012	521,027	303,152
	526,457	316,058
	534,791	323,171
	531,811	333,881
2013	536,693	332,498
	538,631	345,219
	545,199	363,491
	543,558	371,706
2014	541,455	375,481
	539,794	389,429
	542,552	401,293
	545,012	408,300
2015	542,369	414,694
	539,373	434,209
	537,725	457,104
	548,210	463,269
2016	545,986	471,038
	571,970	462,083
	572,114	484,654
	562,133	503,451
2017	566,236	511,516
	556,224	541,464
	540,987	576,260
	532,289	597,267
2018	522,491	610,269
	508,820	632,480
	496,330	655,525
	487,836	673,387
2019	479,269	684,863

Sources: Statistics Canada. Table 10-10-0134-01 Chartered banks, mortgage loans report, end of period, Bank of Canada (x 1,000,000 \$)

Figure 1.8 Mortgage Insurance growth by type, Federally Regulated Financial Institutions

	2017	2018	2019Q1*
High Ratio	-4%	-5%	-1%
Conventional – of which are portfolio insured	-1%	-14%	-5%
Conventional – of which are individually insured	4%	-1%	1%

Sources: CMHC calculations based on Statistics Canada Custom ES request and CMHC Residential Mortgage data reporting of NHA MABS issuers

* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.9 Mortgage value at origination of outstanding mortgage stock, Insured and Uninsured breakdown, FRFIs, Canada, 2018

	Insured	Uninsured
250 000\$ or less	39.58%	27.85%
250 000\$ to 500 000\$	42.90%	37.15%
500 000\$ to 1 Million\$	10.97%	22.24%
Over 1 Million \$	6.55%	12.77%

Sources: CMHC Residential Mortgage data reporting of NHA MABS issuers, CMHC calculations

Figure 1.10 Mortgage Credit Outstanding of Non-Bank Mortgage lenders, Breakdown by Insured vs Uninsured Space

	Insured	Uninsured
Total	42%	58%
Credit Unions	52%	82%
MFC	36%	2%
Trusts	5%	10%
Insurance	7%	2%
MIE	-	4%

Sources: CMHC calculations, Non-Bank Mortgage Lenders Survey, Statistics Canada

Figure 1.11 Mortgage Credit Flows of Non-Bank Mortgage Lenders, Breakdown by Insured vs Uninsured Space

	Insured	Uninsured
Total	39%	61%
Credit Unions	28%	54%
MFC	46%	6%
Trusts	3%	31%
Insurance	22%	2%
MIE	-	7%

Sources: CMHC calculations, Non-Bank Mortgage Lenders Survey, Statistics Canada

Figure 1.12 Mortgage share by interest rate term, Fixed and Variable rate breakdown

	5 years and more	3 to less than 5 years	1 to less than 3 years	Less than 1 year	Variable rate
2017 Q1*	0.34	0.17	0.28	0.05	0.17
2019 Q1*	0.28	0.16	0.22	0.06	0.29
	-6.10%	-1.24%	-6.06%	1.78%	11.62%

Sources: Statistics Canada. Table 10-10-0006-01 Funds advanced, outstanding balances, and interest rates for new and existing lending, Bank of Canada, CMHC Calculations

* Based on four quarter average (2018 Q2 - 2019 Q1)

Figure 1.13 Increased gaps between fixed and variable rates favoured interest for discounted variable rates

	Discount on variable rates	Share of mortgages with variable interest rates		Discount on variable rates	Share of mortgages with variable interest rates		Discount on variable rates	Share of mortgages with variable interest rates
2013	-0.43	10.13%	2015	0.40	33.35%	2017	-0.03	14.94%
	-0.43	9.65%		0.38	38.60%		0.09	18.26%
	-0.47	9.18%		0.31	36.28%		0.11	20.73%
	-0.52	8.35%		0.22	32.03%		0.14	22.35%
	-0.50	8.69%		0.20	29.47%		0.12	24.27%
	-0.52	8.37%		0.19	29.33%		0.10	23.44%
	-0.26	12.39%		0.35	31.91%		-0.15	16.14%
	0.03	16.37%		0.42	37.87%		0.00	15.68%
	0.28	21.49%		0.46	39.26%		-0.09	15.02%
	0.45	27.95%		0.46	37.18%		-0.02	13.37%
	0.54	33.33%		0.37	32.26%		0.17	17.32%
0.51	33.78%	0.26	26.65%	0.25	19.29%			
2014	0.56	33.26%	2016	0.16	25.18%	2018	0.10	17.05%
	0.50	31.91%		0.07	23.01%		0.08	15.12%
	0.39	29.17%		-0.12	20.05%		0.09	16.90%
	0.23	24.68%		-0.20	17.39%		0.17	20.51%
	0.21	23.88%		-0.30	16.42%		0.41	25.97%
	0.19	24.60%		-0.25	17.35%		0.70	44.09%
	0.18	23.64%		-0.19	18.47%		0.43	42.64%
	0.19	23.50%		-0.17	18.28%		0.43	38.61%
	0.18	24.32%		-0.14	18.08%		0.39	33.39%
	0.21	24.48%		-0.12	17.91%		0.23	30.27%
	0.26	29.15%		-0.14	14.73%		0.24	24.77%
0.30	30.13%	-0.15	12.68%	0.20	22.04%			
				2019	0.19	22.80%		
					0.02	20.94%		
					-0.16	18.62%		

Sources: Statistics Canada. Table 10-10-0006-01 Funds advanced, outstanding balances, and interest rates for new and existing lending, Bank of Canada, CMHC Calculations

Figure 1.14 Residential Mortgage Funding Market Share, 2018 Q4

	Deposits & Others	NHA MBS	CMB	Covered Bonds	Private Securitization
2018 Q4	60%	16%	14%	9%	1%

Sources: OSFI, BDRS, CMHC

Figure 1.15 Funding Share of Outstanding Mortgages by Lender Group

	Deposits and Others	Other Sources	Market NHA MBS	CMB Notional	Covered Bonds	Private Securitization
Big 6 Banks	64%	0%	15%	8%	13%	0%
Other Regulated Lenders	59%	0%	9%	31%	0%	0%
Credit Unions	79%	0%	5%	14%	3%	0%
Quasi-regulated Lenders	0%	16%	54%	30%	0%	0%
All Small Lenders including aggregators/Sponsors	48%	0%	18%	30%	1%	3%

Sources: OSFI; CMHC Securitization; annual/quarterly reports; DBRS

Figure 1.16 Year-over-Year Growth of Mortgage Funding Outstanding

	Deposits & Others	Market NHA MBS	CMB Notional	Covered Bonds	Private Securitization	Total Mortgage Credit
2013 Q4	6.0%	7.3%	1.6%	9.0%	31.2%	5.9%
2014 Q1	6.5%	7.7%	-3.3%	18.1%	19.3%	5.7%
2014 Q2	5.6%	-0.8%	1.9%	25.6%	24.8%	5.2%
2014 Q3	5.3%	1.9%	0.5%	30.1%	13.1%	5.4%
2014 Q4	4.2%	11.5%	1.4%	21.1%	2.8%	5.8%
2015 Q1	4.3%	9.9%	1.1%	32.1%	-4.5%	6.2%
2015 Q2	4.9%	6.4%	2.5%	33.8%	-2.3%	6.4%
2015 Q3	5.2%	5.1%	6.3%	29.6%	-7.2%	6.8%
2015 Q4	8.8%	0.9%	2.9%	31.1%	-10.3%	7.8%
2016 Q1	7.2%	-1.9%	5.6%	31.3%	2.5%	7.2%
2016 Q2	6.6%	0.5%	2.7%	34.9%	4.1%	7.2%
2016 Q3	6.4%	1.3%	2.4%	24.6%	26.4%	6.7%
2016 Q4	3.4%	6.3%	3.6%	23.1%	44.1%	6.0%
2017 Q1	5.7%	9.2%	4.1%	8.4%	33.8%	6.6%
2017 Q2	7.2%	9.3%	4.8%	-1.1%	11.3%	6.4%
2017 Q3	7.4%	6.9%	4.4%	1.4%	-1.2%	6.2%
2017 Q4	6.7%	6.6%	4.7%	-0.1%	-2.8%	5.6%
2018 Q1	5.2%	7.2%	3.4%	6.0%	1.2%	5.2%
2018 Q2	3.0%	6.4%	3.5%	13.6%	-12.6%	4.3%
2018 Q3	2.7%	7.2%	3.6%	11.3%	-17.5%	4.0%
2018 Q4	5.7%	3.9%	0.5%	12.4%	-26.3%	4.7%

Sources: OSFI; CMHC Securitization; annual/quarterly reports; DBRS