Economic Viewpoint

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Simulation results: If residential property prices were to decline, what impact would this have on the financial position of Quebec's households?

After several years of lofty increases, property prices are stabilizing across the province. This period of calm, which was overdue to restore the residential market's bases, is preferable by far to a widespread price decline. While price stagnation seems to be settling in for 2014, the time is right to assess how a major drop in home values would affect the financial health of households. Even if a price plunge seems unlikely in the current economic environment, the consequences of such a jolt on the situation in Quebec's households merit a closer look, which we will present through a simulation. A depreciation in real estate assets would impact the financial balance sheet of borrowers, and this could put some households in a difficult situation without triggering devastating effects on a broad scale.

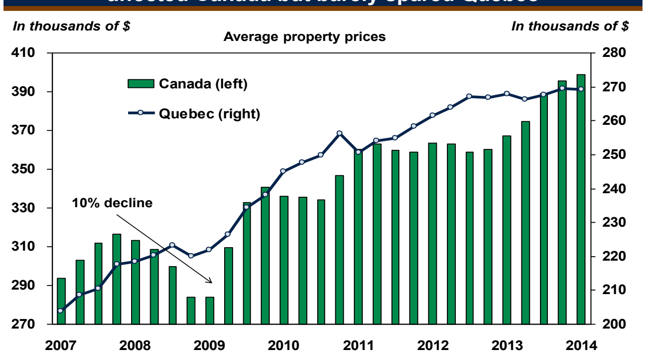
QUEBEC IS NOT IMMUNE

Historically, average property prices in Quebec have not experienced the same number of wild fluctuations as we have seen in Canada or the United States. For example, during the recession of 2008–2009, Canada's real estate market suffered a correction of about 10%, while prices barely dipped in Quebec (graph 1); the jolts were felt in Ontario and Western Canada. In the United States, prices plunged more than 30% from the peak of the cycle in 2006 to the low point reached in early 2012. The U.S. market has since recovered more than 20% of its value. Even if the prices in Quebec were steadier than elsewhere in North America during this period, Quebec is not immune to a correction. The residential real estate cycle in Quebec changes in step with its own dynamic as the recent changes in home prices attest. A stabilization period has settled in for the past few quarters while prices in Canada continue to rise and the United States continues to catch up. When prices begin to stagnate, price declines are often the next step.

PAST EPISODES OF WIDESPREAD DECLINES

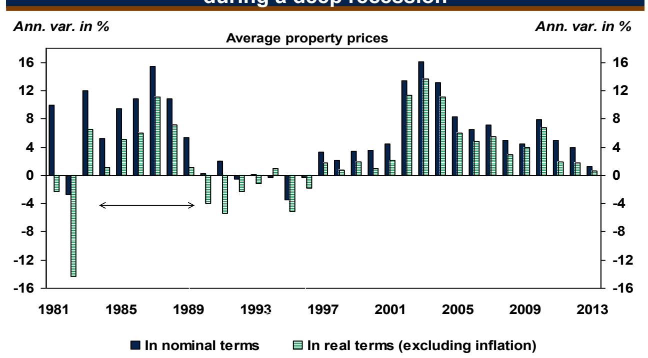
Quebec has felt the brunt of two periods of province-wide declines since the 1980s (graph 2), periods that coincided with two deep recessions that saw the demand for homes

Graph 1 – The price correction during the last recession affected Canada but barely spared Quebec



Sources: Canadian Real Estate Association and Desjardins, Economic Studies

Graph 2 – Quebec had two episodes of price declines during a deep recession



Sources: Canadian Real Estate Association, Statistics Canada and Desjardins, Economic Studies

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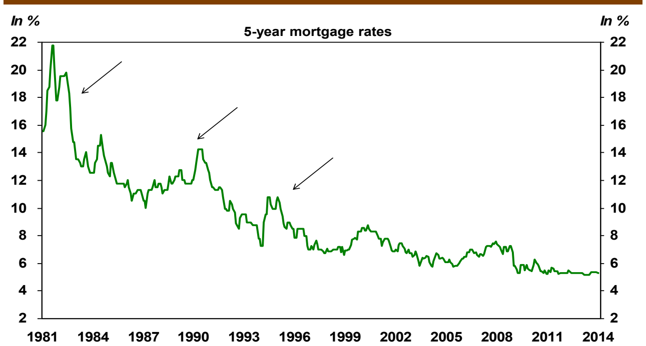
fall sharply. During these two contractions, massive layoffs and a sudden spike in mortgage rates (graph 3) made buyers retreat amid over-construction, just before the correction materialized. This upheaval pushed average prices down significantly at the beginning of the 1980s. And since annual inflation was about 10% at the time, the price declines in real terms reached almost 15% in 1982. The price declines in the early 1990s were not nearly as brutal, but they became entrenched for a period of several years. The recession, followed by an abrupt increase in mortgage loan rates in 1995, prolonged the slump in the residential sector. In the past, property price depreciations in Quebec have been triggered by very difficult economic conditions.

Graph 3 – Periods of declining home prices collided with high mortgage rates



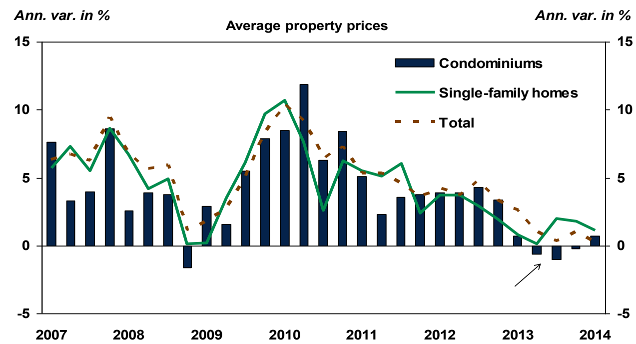
Sources: Statistics Canada and Desjardins, Economic Studies

The situation is clearly more favourable now than it was then. This time, the labour market is in better shape and interest rates are expected to remain low for some time. Still, a widespread decline in prices cannot be completely excluded. Spiralling prices in the 2000s have made properties unaffordable for many young households, which has already weakened demand. Even a condominium, which is often less expensive than a house, has become out of reach for many of them. The imbalance in the condominium market is already pushing down prices slightly. Even if this is insufficient to trigger an across-the-board correction in Quebec, an adjustment could also affect single-family homes and the high prices for single-family homes could continue to chip away at demand. While an overall price decline is not expected in Quebec in the short term, the possibility still has to be considered, especially since one market segment is already grappling with this problem.

CONDOMINIUMS: PRICES HAVE STARTED TO DIP

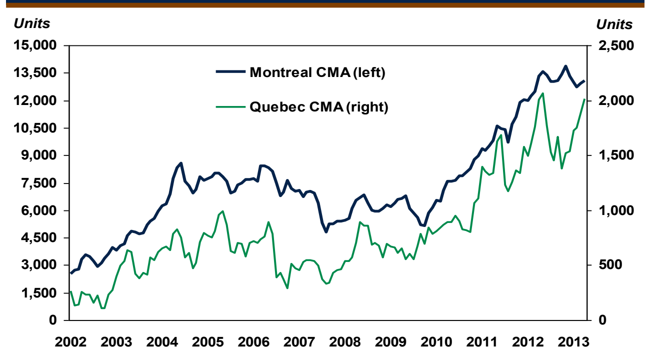
Prices for condominiums across the province started to slip in 2013 (graph 4), due in most part to over-construction in recent years (graph 5). Demand has also dropped off sharply since the summer of 2012, when the maximum amortization period was reduced from 30 years to 25 years. Moreover, the federal government has also tightened mortgage rules four times since 2008. The increased supply of condominiums for sale has created a surplus situation, which pushes prices to the downside. Given that the scope of the imbalance is not as extensive as it was in the 1990s (graph 6 on page 3) and the abrupt pullback in condominium housing starts last year, price drops in 2014 should be contained between 5% and 10%.

Graph 4 – Condo prices have started to slip while home prices continue to climb



Sources: Fédération des chambres immobilières du Québec by Centris® and Desjardins, Economic Studies

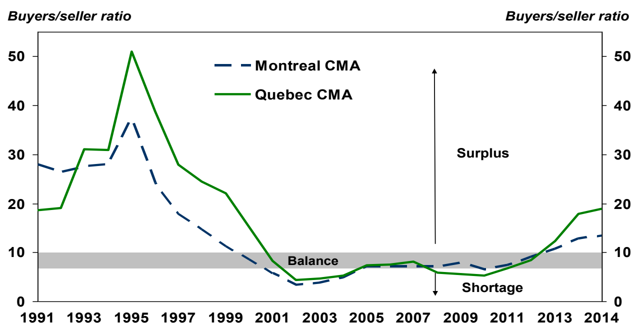
Graph 5 – Very high number of condos under construction



Sources: Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

During the 2008–2009 recession, prices for this type of housing had fallen briefly without dragging prices down in the rest of the residential sector. The condo market is usually more sensitive to the ups and downs of the economic

Graph 6 – The condo resale market is far from the surplus situation of the early 1990s



Sources: Fédération des Chambres immobilières du Québec by Centris®, Canada Mortgage and Housing Corporation and Desjardins, Economic Studies

situation than are house prices. It is also more vulnerable to over-construction. Most projects usually target building hundreds of units, a good portion of which remain unsold when the project breaks ground, which can quickly create a surplus situation if buyers are scarce. In Quebec, about 85% of property owners live in single-family, semi-detached and row houses, while 15% opt for condominiums.[1] In principle, a price decline in this type of housing will not be enough to trigger a correction in the broader residential market. The average price for all types of residential properties should remain steady this year since the price of single-family homes will rise slightly—offsetting the decline in the condo market.

Even if our forecasts call for stability in 2014, we carried out a simulation to evaluate the potential impact a widespread decline in prices would have on the financial position of Quebec's households. In the event the residential real estate market suffers a drop in prices, what impact would this have on the value of debts and assets held by Quebecers? What proportion would find themselves in an uncomfortable situation?

THE REPAYMENT CAPACITY IS THE SAME

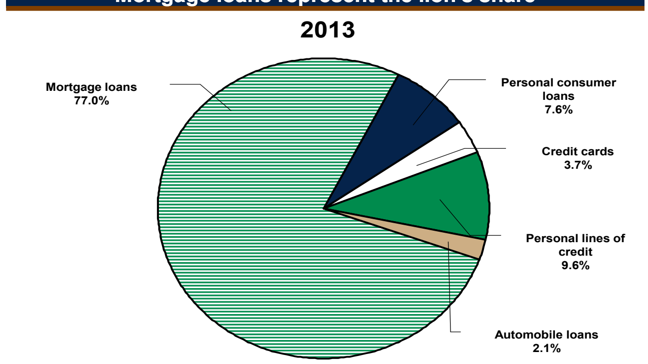
A decline in property prices does not affect a household's capacity to repay its mortgage loan. This depends more on employment income and changes in interest rates. Monthly payments are determined based on the mortgage amount at the outset and the monthly payments made, regardless of price fluctuations. Unlike a sudden deterioration in the labour market or a sudden hike in interest rates that can directly impact a household's financial capacity to repay its loan, a drop in property prices only affects the value of the assets themselves. A depreciation in the property market would not affect the usual ratios that determine a household's capacity to meet its financial obligations, such as the debt service ratio (DSR).[2]

However, a depreciation would sideswipe another indicator that measures households' financial position: the debt-to-asset ratio (DAR), which determines the extent to which households have enough assets (financial, real estate or other) to cover their loans. According to Statistics Canada, "The debt-to-asset ratio shows the value of a household's debts compared to the value of its assets. A high debt-to-asset ratio can indicate that debts are not adequately backed by assets. Moreover, should the value of the assets decrease because of fluctuations in the market, the ratio will increase." So if average home prices were to drop sharply, this is precisely what would happen to owners; they would suffer a capital loss if they sold their home.

HOUSEHOLDS' CURRENT FINANCIAL POSITION

To find out what comprises their debt and assets, we first have to draw a comprehensive picture of the financial position in Quebec's indebted households.[3] Mortgage loans represent the largest loan in homeowner households (graph 7), followed, in order of importance, by personal lines of credit such as consumer loans (including conventional loans for road vehicles), credit card balances and lease automobile loans. In terms of assets, there are financial assets (savings accounts and various types of investments)[4] and non-financial assets: residences and automobiles. For many homeowner households, the real estate asset is often

Graph 7 – Breakdown of household debt: Mortgage loans represent the lion's share



Sources: Ipsos Reid and Desjardins, Economic Studies

[1] Based on the property assessment roll of the Quebec government's Ministère des Affaires municipales, des Régions et de l'Occupation du Territoire.

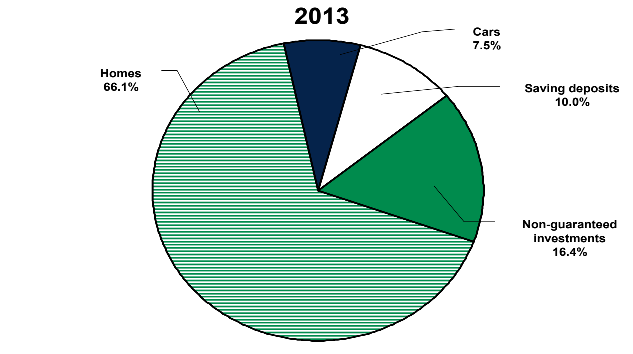
[2] Weight of monthly payments for all types of debts (principal and interests) compared to gross income.

[3] Based on the Ipsos Reid survey, about 30% of Quebec households are debt-free, usually people who are further along in their life cycle when many homeowners have completely discharged their mortgages. This analysis focuses on indebted households only.

[4] Bonds and other types of guaranteed investments, guaranteed investment certificates, mutual funds and equities. Assets held in a pension fund were not taken into account as they are not a liquid asset that can be used to settle debts during the employee's working life.

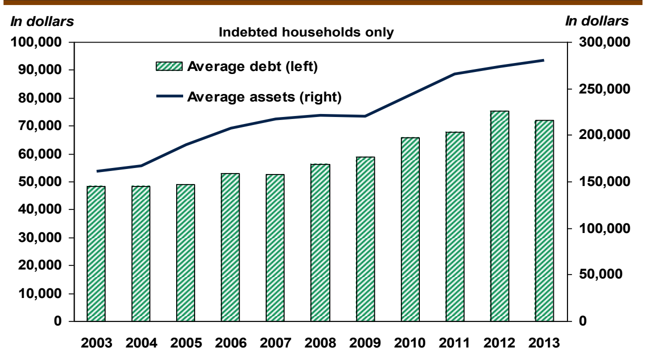
the biggest non-financial asset held (graph 8). The value of assets held by indebted households has kept pace with rising debt (graph 9) for about the past 10 years. The rise in property prices played an important role in both cases: mortgage debt rose at the same pace as the value of property holdings. As a result, the debt-to-asset ratio in households has remained steady.

Graph 8 – Real estate represents the biggest household asset in indebted households



Sources: Ipsos Reid and Desjardins, Economic Studies

Graph 9 – Quebec's household debt has risen practically in step with assets



Sources: Ipsos Reid and Desjardins, Economic Studies

Furthermore, the breakdown of households according to their degree of vulnerability has varied little in the past 10 years. Despite the increase in home prices—which boosted mortgage debt—the proportion of households at risk of encountering difficulties has remained practically the same over the years. According to Statistics Canada,[5] if a household's debt-to-asset ratio is lower than 0.8, this household is in the comfort zone since its debts represent less than 80% of its total assets. In contrast, a ratio greater than 0.8 is considered high and shows that households are in a financial discomfort zone. In this case, if the assets ever have to be liquidated, such as the residential property for example, the proceeds of the sale may be insufficient to repay all debts. While these households may not all be in difficulty, insolvent households usually have twice as much debt as they have assets, according to the Office of the Superintendent of Bankruptcy. In 2013, according to the Ipsos Reid database, 85% of Quebecers who carried debt were in a financially secure situation compared to 15% who may be in a difficult spot. If the residential property market were to sustain a severe price drop, what impact would this have on the value of household debt and assets in Quebec? What proportion of households would be thrust into an uncomfortable situation?

START-OFF POINT FOR SIMULATION

A few analysis[6] have been published in recent years by Desjardins Economic Studies that monitor the development of balance sheets in Quebec's households based on the micro-data gathered by Ipsos Reid since the start of the 2000s. This time however, our forecasts assumed a sudden drop in average property prices using data updated in 2013. The Ipsos Reid Canadian Financial Monitor survey, which gathers data by province, is the start-off point for this simulation. This allows us to determine the potential impact on the debt-to-asset ratio and thus assess the changes in the financial position of indebted households. **The assumption—a 15% decline in average property prices in 2014—is far more negative than our forecast scenario, which instead calls for stability this year.** In truth, the average price of condominiums has already started to slide while the price of single-family homes continues to climb, albeit slowly. The assumption of a sharp dive in residential real estate prices would have a greater impact on condominiums, but other housing would not be spared.

The assumption of a slow recovery starting in 2015 was also retained. **Using these parameters, the scope and duration of the price decline would be similar to what occurred in the early 1980s. Even if such a shock is unlikely in the current economic situation, it is important to know the financial repercussions this could have on**

[5] MATT, Hurst. "Debt and family type in Canada," Statistics Canada, Canadian Social Trends, catalogue no. 11-008-X, April 21, 2011.

[6] How vulnerable are Québec households to interest rate increases? November 2, 2010.
http://www.desjardins.com/en/a_propos/etudes_economiques/actualites/point_vue_economique/pv1102a.pdf

Taking stock: Québec households' financial position: Debt vs. household assets, June 17, 2011. http://www.desjardins.com/en/a_propos/etudes_economiques/actualites/point_vue_economique/pv1106a.pdf

Financial situation in Québec households: Vulnerability depends heavily on borrowers' profiles, October 27, 2011.
http://www.desjardins.com/en/a_propos/etudes_economiques/actualites/point_vue_economique/pv111027a.pdf

Update on Quebec households' financial position, December 3, 2012.
http://www.desjardins.com/en/a_propos/etudes_economiques/actualites/point_vue_economique/pv121203a.pdf

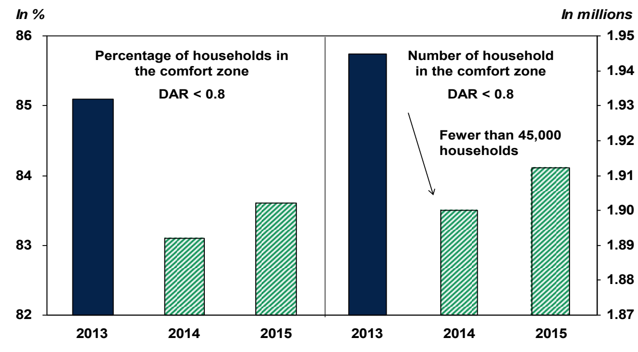
indebted households. Unfortunately, since statistics on debt and assets in the 1980s and 1990s are not available, no comparisons can be made with that period, which was punctuated by declines.

To assess the potential consequences of a fictitious decline in home prices on homeowner households, the value of real estate assets held by each household was reduced by 15% in 2014, compared to the 2013 benchmark data. No changes were made to the value of household debt for the simulation since mortgage debt contracted when acquiring a property usually stays the same, even if the asset loses value. The borrower simply has to repay the amount determined at the outset with the financial institution. If prices fall, the debt level in households would remain unchanged even if the asset loses value, at least in principle. In reality, the true loss in value will only materialize if the home is sold while prices are in a declining trend. This simulation enables us to measure the potential impact for all homeowner households. A debt-to-asset ratio projection was made for each of them based on the simulation parameters, which allows us to classify indebted households based on whether they are in a financially vulnerable zone and assess the number of households that could be in a difficult situation.

MORE HOUSEHOLDS SLIPPING INTO THE FINANCIAL DISCOMFORT ZONE

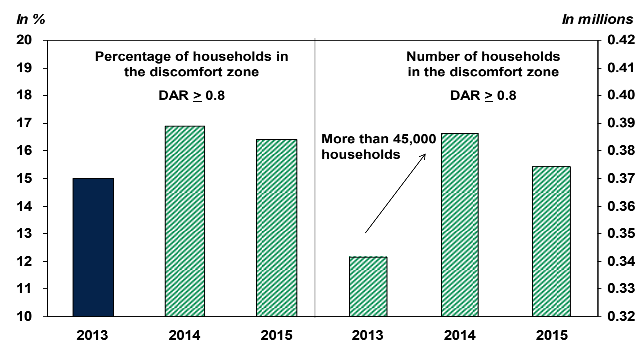
Based on the Ipsos Reid survey, in 2013 about 85% of households were in the financial comfort zone. Based on the assumptions described above, this portion would decline by 2% in 2014. While the percentage of change may seem small, the results paint a much different picture once the number of households is analyzed (graph 10). From 2013 to 2014, about 45,000 Quebec households would shift from the secure zone to the discomfort zone (graph 11). Not all of these households would be in financial straits: only those who would have sold their homes at this time would have suffered a capital loss. The simulation enables us to estimate the number of potentially at-risk households. Other than the breakdown of households based on the debt-to-asset ratio, other elements also have to be considered. In reality, the negative impact of a drop in property values on a household's balance sheet would not be automatic (see box on page 6). Even if the debt-to-asset ratio simulation is a good barometer to go by, the decision to sell the property and absorb the loss in value, as applicable, is the only move that would deal a blow to a household's financial position.

Graph 10 – Snapshot of indebted households in the comfort zone based on the simulation as of 2014



Sources: Ipsos Reid and Desjardins, Economic Studies

Graph 11 – Snapshot of indebted households in the discomfort zone based on the simulation as of 2014



Sources: Ipsos Reid and Desjardins, Economic Studies

CONCLUSION

As soon as prices start to decline in a market segment, as is the case today for condos in Quebec, and prices stabilize for all types of housing combined, the potential for a widespread price drop increases. This would be felt on the value of property assets without affecting the previous debt contracted to acquire the property. And since a home usually constitutes the main household asset held, these owners could find themselves with an unbalanced balanced sheet.

The debt-to-asset ratio of homeowner households would rise temporarily, but not enough to trigger the cataclysm some are expecting. The calculations made using micro-data on Quebecers' finances enable us to evaluate the number of households where the debt-to-asset ratio would tilt to an at-risk zone if this fictitious decline in average prices were to occur. **Based on the simulation results, which measures the potential impact of a 15% drop in home property prices in 2014, about 45,000 households in Quebec would fall from the secure zone to a more worrisome position.**

BOX
THE MECHANICS OF A PRICE DECLINE

What would really happen if home prices were to fall 15% in 2014? Not all homeowners would sustain a drop in value. Several of them have benefitted hugely from stratospheric increases since 2000 and even with a 15% drop, the market value of their home would still be higher than the purchase price paid. A 15% decline would bring average price levels back to where they were in 2009, or five years ago. However, for those who purchased their homes in the ensuing years, as of 2010, a drop in value could affect their property assets. For most though, the depreciation would be felt on paper and would only materialize if the property were sold. Like investments in stocks, the share price may fall but an actual capital loss only occurs when the securities are sold.

Homeowners who hang on to their houses during periods of decline will not suffer actual losses; they may even benefit from the next price upswing. In contrast, those who need to sell for unforeseen reasons—a separation, job loss or a major relocation—would feel the full brunt of the loss in value. For some, the price obtained when selling the property could be less than the purchase price. In cases where the selling price is insufficient to repay the mortgage loan in effect at that time, the borrower could find himself or herself financially strapped. Those with a heavier overall debt burden could even find themselves unable to stay afloat.

Those who were counting on an increase in the value of their residence to ensure greater financial flexibility in the refinancing of their property could also wind up in a serious predicament.

IN BRIEF – OWNERS AT RISK

- Drop in value compared to the purchase price

And:

- Sale of the property if the value declines
- Sales price < purchase price
- Mortgage loan > sales price
- Heavy consumer debt burden

Of these potentially as-risk households, some would not sustain any impact while others would feel the full force of the drop in value of their main asset.

The fact is, a depreciation in the value of property assets would not hurt the balance sheet of all homeowners. Only those who have to sell their homes for less than what they paid could find themselves in trouble. In cases where a current mortgage loan exceeds the selling price, the risk of insolvency would be high. Despite certain concerns about the possibility of a widespread drop in residential property prices in Quebec, the shock alone would not be enough to trigger a major deterioration in households' financial position. Historically, mortgage payment defaults or personal bankruptcies increased following a sudden spike in interest rates or a serious deterioration in the labour market. Unlike a depreciation in asset values, both of these events directly affect a household's financial capacity to repay its loans.

While falling home prices are rarely a singular event, our simulation allows us to isolate the potential impact. It could be the case this time since the economic environment is relatively stable and the temporary imbalance in the housing market could end up causing a widespread decline in home prices. **Should this occur, the consequences would not be disastrous for most households in Quebec, but some could wind up in a serious predicament.**

However, we cannot sidestep the indirect effects falling home prices could have on consumer spending. Whether or not they are selling, homeowner confidence would certainly be shaken, which would compel them to exercise caution when making purchases. Even if the debt-to-asset ratio simulation cannot account for this, the repercussions would be much broader and affect all consumers. The feeling of a loss of wealth would ripple through all households. The feeling of a loss of wealth would affect the spending habits of all households, slowing down Quebec's economic growth.

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