

United States: Are home prices set to bottom out?

Highlights

- According to most indexes, the price of homes in the United States fell by slightly more than 10% on average since hitting the most recent cyclical peak.
- Given the drop in home sales, the number of homes on the market remains high. Construction will therefore continue to pull back.
- The number of homes for sale has recently increased due to problems linked to the quality of mortgage lending and the resulting increase in the number of foreclosures.
- The tightening of credit conditions by financial institutions is limiting demand for housing.
- To recover the balance between supply and demand, the current downward trend in home prices would have to continue.
- The reduction in home prices will have a negative impact on U.S. consumer spending which would extend to the U.S. economy and on financial markets.

The U.S. economy is currently in a difficult period, which should continue for some time. This weakness is led in most part by the residential real estate market, which has been in pull-back mode for more than two years now. At the beginning of 2006, activity in the construction sector hit its peak and then dropped. Since then, home prices have fallen steadily and the problems linked to mortgage lending began to ripple through to the rest of the economy and in financial markets. Is a stabilization of the residential real estate market in the cards for 2008? Or, on the contrary, will home prices continue to drop for much longer? If so, when will they hit bottom? We will try to answer these questions in this *Economic Viewpoint*.

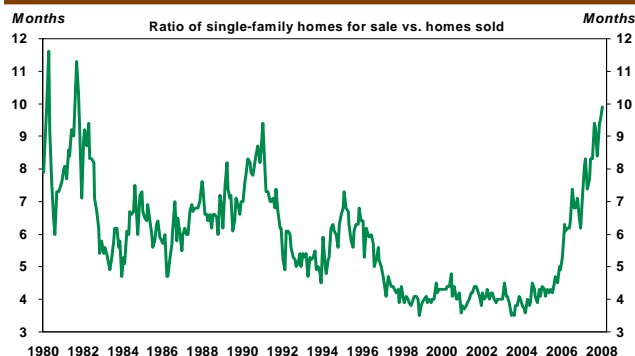
TOO MANY HOMES ON OFFER

One of the first observations on the current state of the residential real estate market in the United States is the overabundance of supply vs. demand. The number of homes that remain unsold is still too high despite a significant reduction in the construction of new homes.

NEW HOMES SUPPLY

According to the data for January released by the Census Bureau, 482,000 new single-family homes remain unsold. This represents 9.9 times the number of new homes that were sold during the same month (Graph 1). This ratio is increasing

Graph 1 – The supply of new homes remains high vs. the volume of sales



Sources: U.S. Census Bureau and Desjardins, Economic Studies

since the marked decrease in construction business is not significant enough to offset the decrease in sales. The 56% decline in housing starts for single-family homes since hitting a peak in 2006 does not seem to be enough to recover the balance and stop prices from sliding. To strike the right balance in this market, housing starts will have to continue to get closer to the levels we saw during the previous two recessions (Graph 2). We anticipate that the annual average in 2008 for housing starts (single-family and condos) will be 896,000 after hitting 1,344,000 in 2007, a drop of 33.3%.

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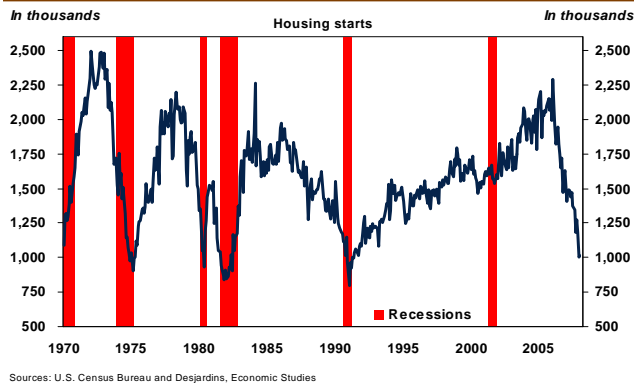
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NOTE TO READERS: The letters **k**, **M** and **B** are used in texts and tables to refer to thousands, millions and billions respectively.

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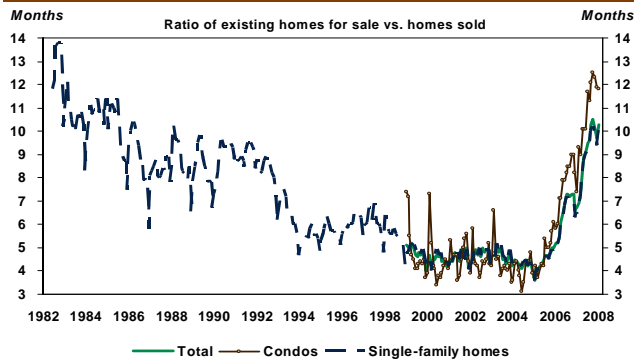
Graph 2 – Significant pullback in new home starts



RESALE MARKET

Since the resale market hit its peak in fall 2005, or a few months after the market for new homes hit its peak, the number of existing homes for sale grew by 43.2%. By comparison, the number of new homes for sale grew by only 7% since this market hit its peak in July 2005. The 4,191,000 existing homes (single-family and condos) on the market in January represent more than 10.3 times the number of resale homes that were sold during the same month (Graph 3).

Graph 3 – Supply of homes is very high in the resale market



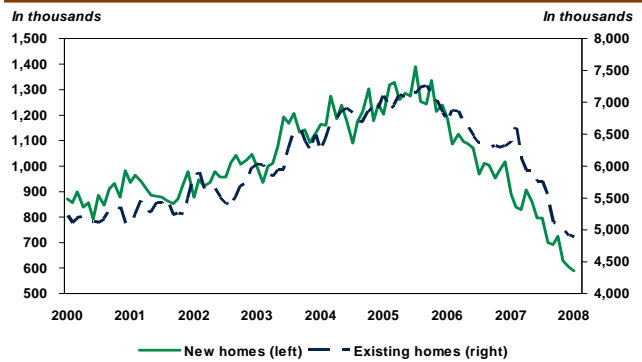
The troubles related to mortgage loans quality, notably the growing number of foreclosures and the drop in home values, have contributed to the gradual increase in the number of existing homes for sale. Based on data released by Realtytrac, 2,203,295 foreclosure procedures were set in motion in 2007, a 75% increase over 2006. Given that financial institutions have little interest in keeping foreclosed homes on their rosters, these homes are quickly put back on the market, which increases the supply and depresses prices.

DEMAND REMAINS LIMITED

The surplus of homes for sale and the drop in homes prices in the real estate market can also be attributed to a far more

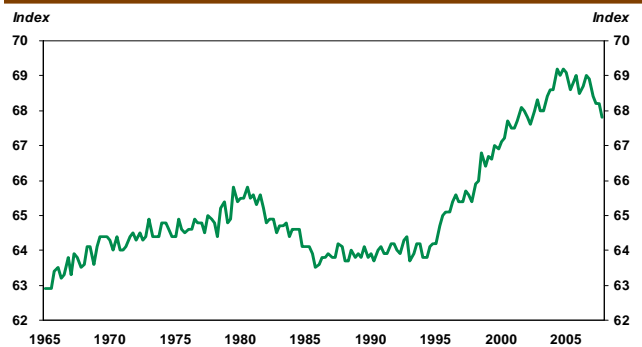
limited demand for housing. Since its peak in 2005, new home sales plummeted by 57.7% while sales of existing homes fell by 30.2% (Graph 4). Many factors have contributed to limiting

Graph 4 – Home sales drop



demand, such as higher interest rates and the tightening of credit conditions by financial institutions. Before reaching a peak in 2005, demand was over stimulated by very weak interest rates, slackened credit conditions (also for less solvable households) and buoyant optimism about the future of property values that bordered on the euphoric. As such, access to property ownership grew by leaps and bounds until 2004. The rate of ownership vs. the number of households went from 64% in 1995 to reach a historical peak of 69.2% in the fall of 2004 (Graph 5). The lull in demand we are currently seeing could be similar to a return to normal conditions.

Graph 5 – Rate of home ownership hit a peak in 2005

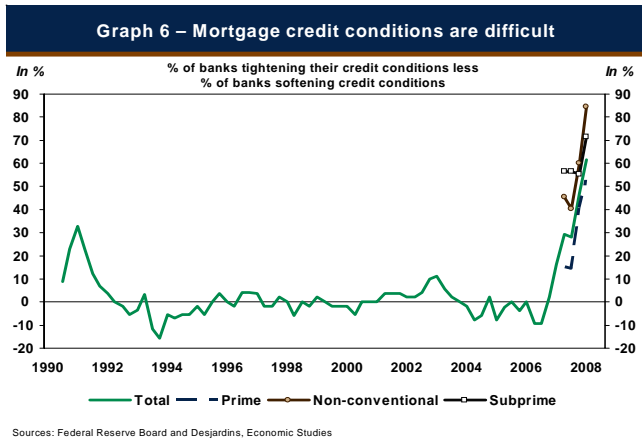


SUBPRIME AND CREDIT CONDITIONS

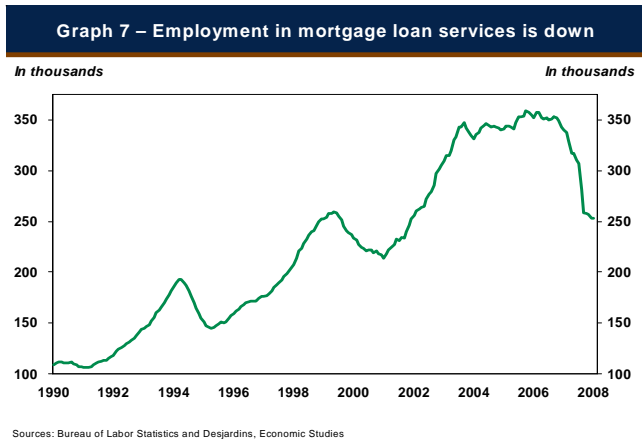
Until 2003, the fluctuation in demand and home prices could be easily explained by fundamental factors such as household income and variations in interest rates. Back then, the period of strong growth in home sales and prices was sustained by other considerations such as the softening, or indeed slackening, of credit conditions. It was also during this period

that the number of subprime loans shot up from 6% to 14% of the total loan amount. This excess demand backed by easy credit has been readjusted, if not substantially wiped out. The increase in short-term interest rates and the end of the grace period (fixed promotional interest rate for periods ranging from six months to three years) sounded the bell that brought recess to an end.

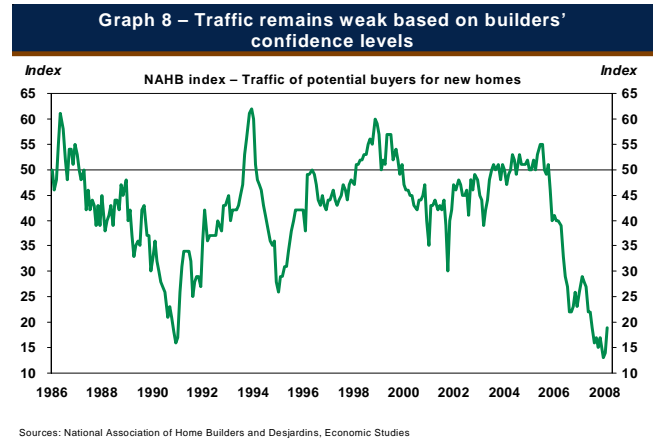
The U.S. Federal Reserve Senior Loan Officer opinion survey on Bank Lending Practices clearly shows the relaxing and subsequent tightening of credit conditions. Between 2004 and 2006, a majority of banks confirmed that they had softened their requirements to grant new mortgage loans (and for loan refinancing). Today, this situation is reversed and we have seen the most substantial tightening of credit conditions since the start of the inquiry during the summer of 1990 (Graph 6). This tightening is usually carried out by



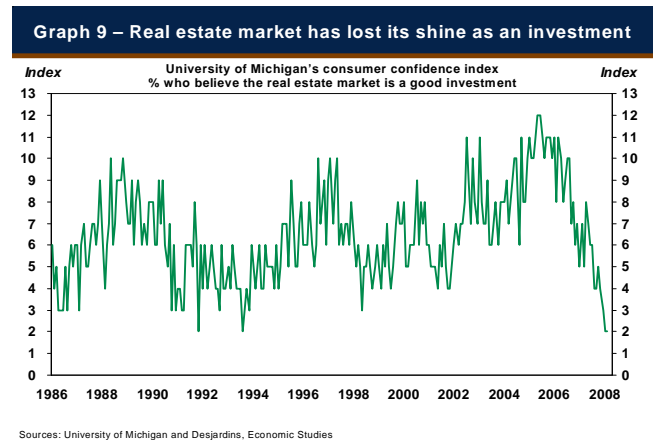
requiring larger down payments, higher effective interest rates and by requiring better quality credit. Households with questionable creditworthiness are not the only ones feeling the pinch of tighter conditions. Higher quality borrowers are also having trouble. Business in the area of mortgage lending has clearly slowed down. In fact, more than 100,000 jobs in this sector have been lost in the past two years (Graph 7).



The slow bursting of the real estate bubble over much of the past two years has put a chill on buyers' enthusiasm, especially those who are looking to buy new homes. The National Association of Home Builders (NAHB) publishes an index that tracks the traffic of potential buyers on a monthly basis. Centered at 50 to represent non-existent monthly growth (much like ISM indexes), the NAHB index fell from 55 in mid-2005 to 19 in February 2008 (Graph 8). This market seems to have few potential buyers.

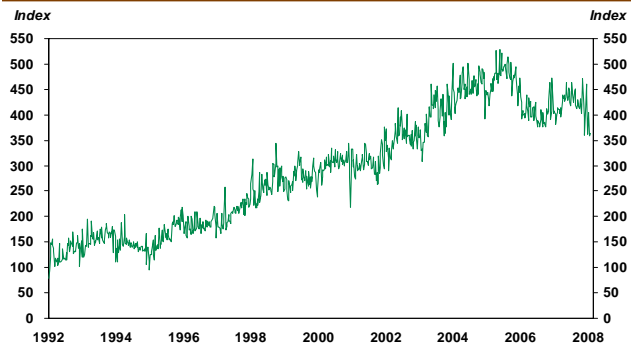


Consumer confidence indexes also hint at a certain level of pessimism about the real estate market even though some signs of improvement have been noted over the past few months. When questioned as to why the market is ripe for buyers, 2% of households responded that real estate is a good investment now vs. 12% who felt that way in mid-2005 (Graph 9).



Lastly, weekly applications for mortgage financing to buy homes continue to decline. The index published by the association of mortgage lenders hit its lowest level since May 2003 (Graph 10). This represents a decline of 33% vs. the peak reached in mid-2005¹.

Graph 10 – Weekly applications for mortgage loans fall once again

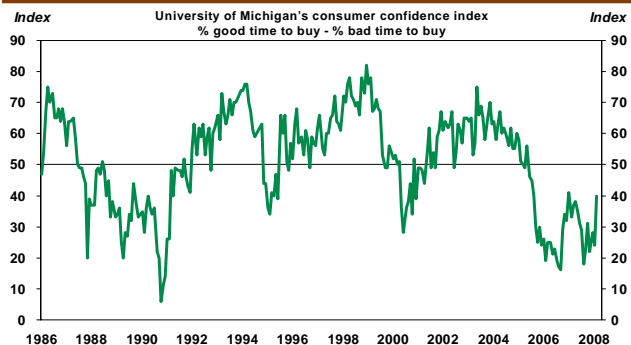


Sources: Mortgage Bankers Association and Desjardins, Economic Studies

A GLIMMER OF HOPE?

The one positive point that allows us to anticipate the stabilization or even growth in the demand for housing is consumer confidence. The University of Michigan survey conducted monthly verifies whether households believe the time is right to purchase a home or not. The difference between these two series of responses indicates overall sentiment towards the housing market. For the past two months, we have noted some improvement (Graph 11), stemming mainly

Graph 11 – Due to interest rate cuts, households are once again showing interest in the real estate market



Sources: University of Michigan and Desjardins, Economic Studies

from a reduction in interest rates and, to a certain extent, the decline in home prices that offers more buying opportunities. However, we must remain cautious. This indicator increased at the end of 2006, but it was short lived and was certainly not reflected in the volume of sales.

PRICES HAVE ALREADY FALLEN CONSIDERABLY

The majority of home price indexes have declined. According to the Census Bureau, the price of new homes has declined

¹ Applications for mortgage loan refinancing have shot up sharply over the past few weeks. Interest rate cuts and assistance from the government and the private sector to facilitate the refinancing of burdensome mortgage loans support this increase in activity.

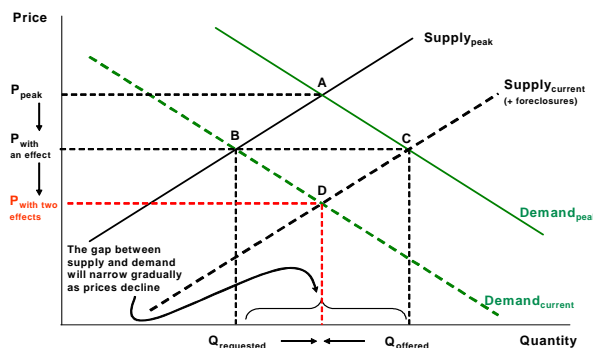
by 15.1% in the past year and 17.7% since reaching their peak in March 2007. For existing homes, the National Association of Realtors claims that prices have fallen 5.1% in the past year and 13.9% since reaching their peak in July 2006. The S&P/Case-Shiller index, which calculates average home prices in 20 urban zones in the United States², showed even greater declines in prices, i.e., 9.1% in one year and 10.5% since the peak in July 2006. Lastly, the quarterly index of the Office of Federal Housing Enterprise Oversight (OFHEO) showed price declines of only 0.3% in the past year (Graphs 12 to 19 on the next page).

If we focus on the price of existing homes, we have noted that the current trend downward is clearly more significant than the price declines seen in the early 1990s. Based on the S&P/Case-Shiller index in 10 urban zones, prices declined only 8.3% between October 1989 and February 1994. Home prices gained ground in just under four years.

THE CURRENT IMBALANCE BETWEEN THE SURPLUS IN SUPPLY AND WEAK DEMAND COULD LEAD TO FURTHER DECLINES IN HOME PRICES

The significant imbalance between supply and demand in the U.S. residential real estate market translates into an unusually high inventory of homes for sale and a downward trend in the price of homes. Over-stimulated demand led to rising home prices until the peak was reached in mid-2006. The softening of credit conditions and a sense of euphoria, not unlike those that have taken hold of the intangible assets market like the stock market, allowed home prices to experience unprecedented growth over an unprecedented period of time. In Graph 20, the peak attained corresponds to

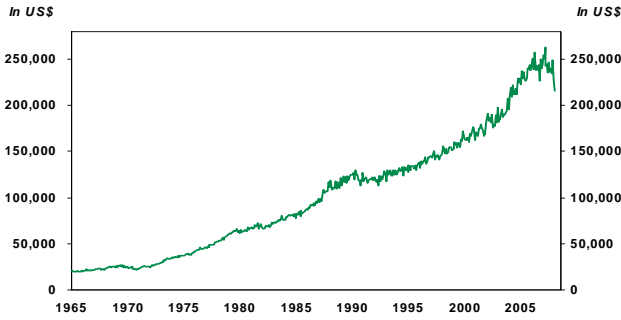
Graph 20 – Price declines help regain balance in a market with surplus housing for sale



Source: Desjardins, Economic Studies

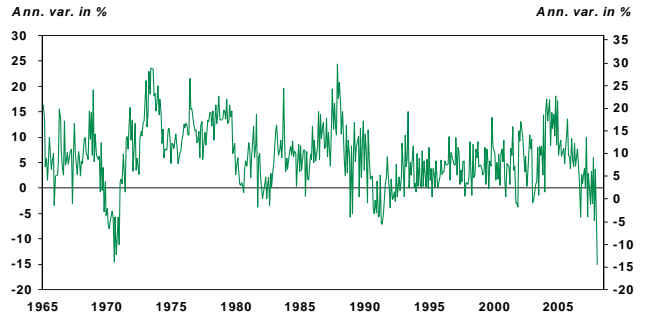
² There are three aggregate S&P/Case-Shiller indexes. The first, a monthly index, covers 20 urban zones, and compiles data as of 2000. The second, also monthly, covers 10 urban zones and compiles data gathered as of 1987. The last is national in scope and is indexed on a quarterly basis, compiling data as of 1987 as well. Its decline, since the peak of 2006, is 10.2%.

Graph 12 – Price of new homes according to the Census Bureau (1)



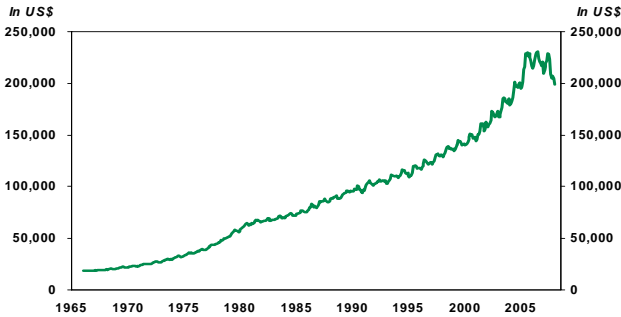
Sources: U.S. Census Bureau and Desjardins, Economic Studies

Graph 13 – Price of new homes according to the Census Bureau (2)



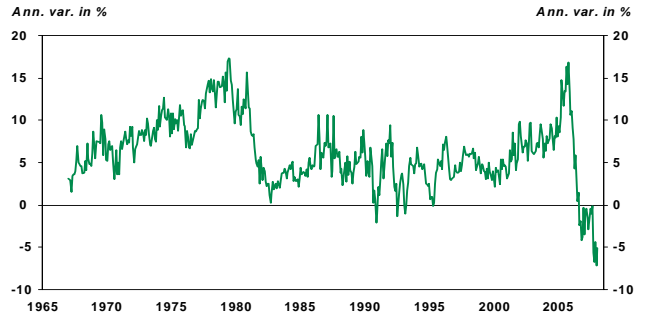
Sources: U.S. Census Bureau and Desjardins, Economic Studies

Graph 14 – Price of existing homes according to the National Association of Realtors (1)



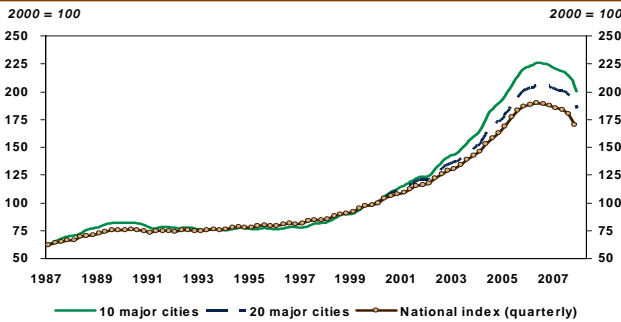
Sources: National Association of Realtors and Desjardins, Economic Studies

Graph 15 – Price of existing homes according to the National Association of Realtors (2)



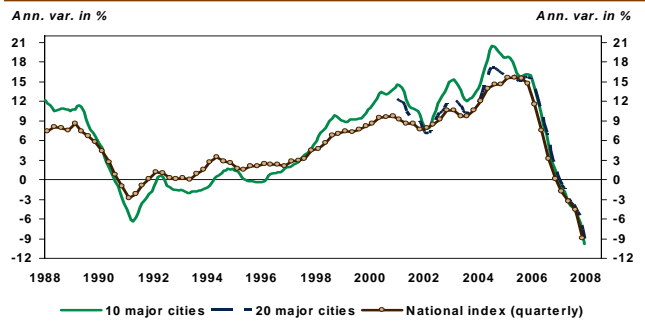
Sources: National Association of Realtors and Desjardins, Economic Studies

Graph 16 – Price of existing homes according to the S&P/Case-Shiller index (1)



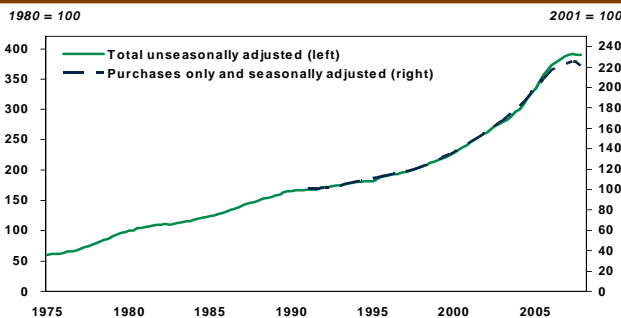
Sources: Standard & Poor's and Desjardins, Economic Studies

Graph 17 – Price of existing homes according to the S&P/Case-Shiller index (2)



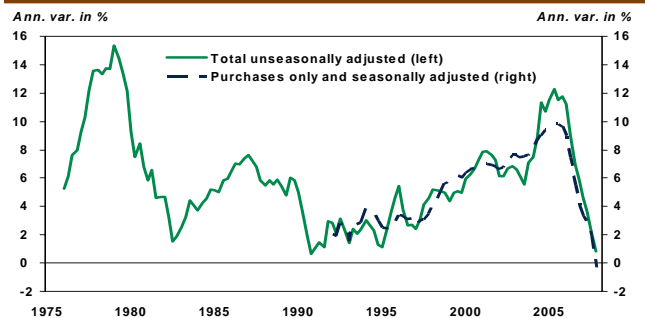
Sources: Standard & Poor's and Desjardins, Economic Studies

Graph 18 – Price of existing homes according to the OFHEO index (1)



Sources: Office of Federal Housing Enterprise Oversight and Desjardins, Economic Studies

Graph 19 – Price of existing homes according to the OFHEO index (2)



Sources: Office of Federal Housing Enterprise Oversight and Desjardins, Economic Studies

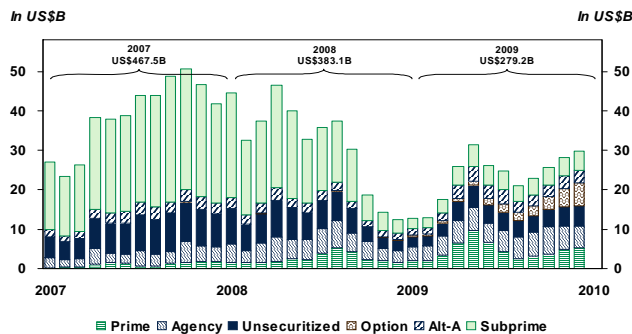
point A. Since the bursting of the real estate bubble, some factors lessened demand while others increased the supply. Points B and C correspond respectively to the market balance following a decline in demand or an increase in supply. Each shift generates a price decline. Point D represents the balance when both factors are combined. What was first observed in practice, it's a decrease in demand and a significant drop in prices. Now that the number of foreclosures is rising, (increased supply), we expect home prices to continue their downward trend.

In short, as long as the number of surplus homes remains high, prices will have to be adjusted downward. This surplus can be measured by applying inventory/home sales ratios. In the short term, many factors lead us to believe that the surplus of homes should remain at the high levels we have recently seen for some time to come, especially for existing homes.

DEFAULT AND FORECLOSURE RATES

The increased supply of houses as a result of foreclosures should continue in 2008. Estimates for this year are that approximately US\$400B in variable-rate loans will be reset this year under less favourable conditions (Graph 21). Public

Graph 21 – Subprime loans will continue to be renewed in 2008



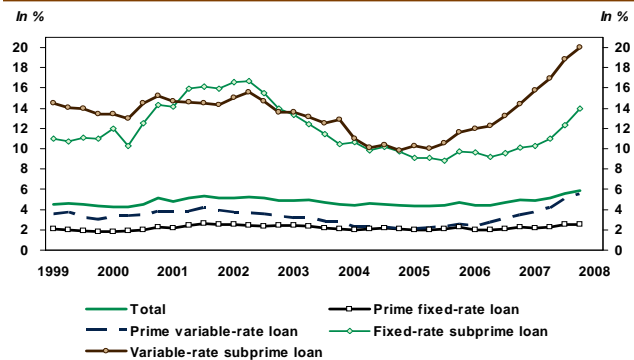
Sources: Moody's Economy.com, First American LP, Mortgage Bankers Association and Desjardins, Economic Studies

administrations are seeking ways to soften the blow, which will nevertheless hit hard. The default rate on mortgage loans is up sharply, especially for variable-rate mortgages (Graph 22). Inevitably, this situation will translate into other foreclosures.

From a national or a more regional perspective, the number of foreclosures influences home prices. In states where the number of foreclosures is very high, the drop in home prices is more severe (Graph 23). This situation is also true in regional communities (the correlation is assessed at 0.79³).

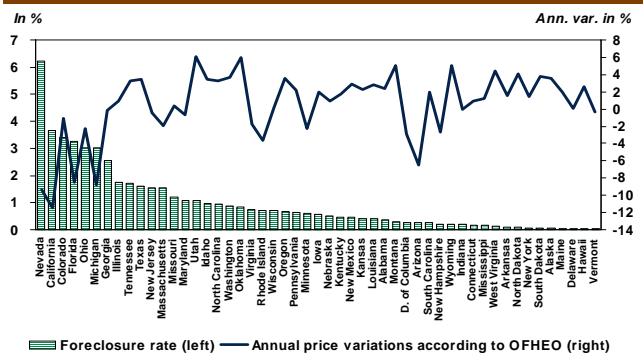
³ FRBSF Economic Letter, 2007-14, *House Prices and Subprime Mortgage Delinquencies*, Federal Reserve Bank of San Francisco, June 2007.

Graph 22 – Foreclosure rate is higher for variable-rate mortgage loans



Sources: Mortgage Bankers Association and Desjardins, Economic Studies

Graph 23 – Price drops and foreclosures go hand in hand



Sources: Office of Federal Housing Enterprise Oversight, RealtyTrac and Desjardins, Economic Studies

Nevertheless, the causal relation between these two variables is bi-directional. Foreclosures increase supply, causing prices to drop. These price drops reduce the net value of homes, an incentive to default on mortgage loans⁴, which leads to new foreclosures. It is estimated that each additional foreclosure reduces by 1% the value of similar houses in the surrounding area⁵.

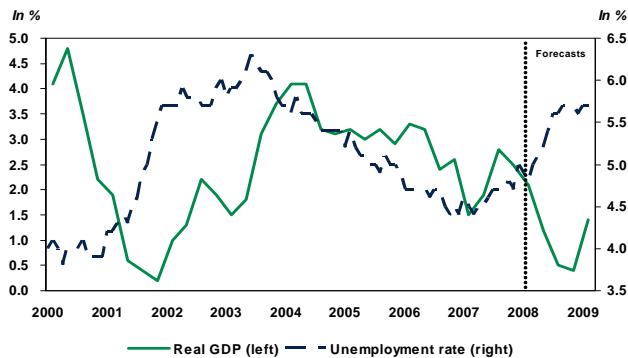
THE IMPACT FROM THE ECONOMIC SITUATION

The contagion caused by troubles in the housing market and the mortgage credit crisis and their impact on financial markets and credit conditions will halt the growth of the U.S. economy. Our scenario points to real GDP growth of only 1.0% in 2008. We anticipate some pullback in activity through Q1 this year. However, cuts to the key interest rate and especially the fiscal stimulus plan put forth by the federal government should support growth as of the start of summer. Nevertheless, we expect the labour market to deteriorate (Graph 24) and slower

⁴ Moody's/Economy.com estimates that the number of homeowners with negative or no real estate equity will grow to more than 15% shortly vs. less than 5% at the start of 2007.

⁵ Dan Immergluck, Testimony before the Committee on Oversight and Government Reform Subcommittee on Domestic Policy, March 21, 2007.

Graph 24 – Economic growth and the labour market will not be able to support demand for housing in 2008



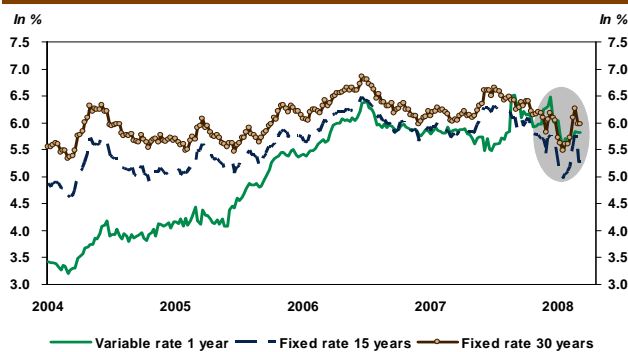
Sources: Bureau of Labor Statistics, Bureau of Economic Analysis and Desjardins, Economic Studies

growth in the personal income of Americans, two factors that can limit demand for houses.

INTEREST RATES AND CREDIT CONDITIONS

Interest rate cuts have had very little effect on the volume of home sales. Until now, reductions in key interest rates and bond rates have been offset by the difficulties banks have had in seeking financing and the tightening of credit conditions that took place as a result. This situation should persist for a good portion of the year. Since mid-January, we have noted that mortgage rates have trended higher in the United States despite a more accommodating monetary policy (Graph 25).

Graph 25 – Mortgage rates have been rising since the beginning of the year



Sources: Mortgage Bankers Association and Desjardins, Economic Studies

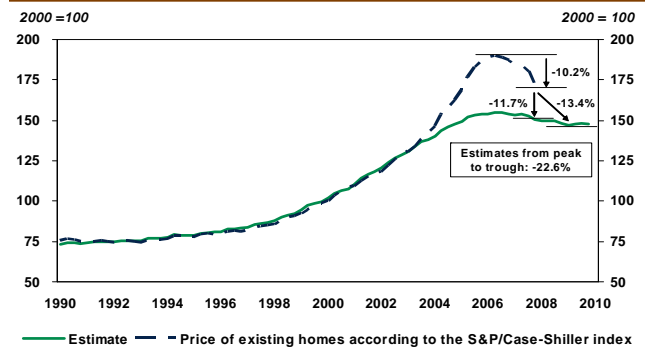
LOWER HOUSEHOLD EXPECTATIONS

In the past few quarters, the University of Michigan survey has asked homeowners to comment on their expectations in terms of the value of their homes over the next year. In February, 28% of households anticipated lower home values, twice as many as in spring 2007. This percentage rises depending on the home’s current value. Among owners who have already seen the value of their homes drop, 45% believe the value of their homes will continue to decline.

WE ARE HALFWAY THERE

We mentioned earlier that the S&P/Case-Shiller index had declined by 10.2% since reaching its peak in 2006. This is a significant decline that does not appear to have hit bottom. Our evaluation of home prices (supported by the use of an econometric model that applies the following variables, among others: interest rates, household disposable income and the inventory/sales ratio)⁶ estimates that the index should be 11.7% lower than the reading in December (Graph 26). In

Graph 26 – The correction in home prices should continue



Sources: Standard & Poor’s and Desjardins, Economic Studies

addition, this estimate makes room for other less dramatic declines before the end of the year. As such, home prices should fall another 13.4% to reach a total decline of 22.6% since prices peaked in mid-2006. These variations are estimates. Prices could shift from these targets. However, the risk of making a forecasting error downward is just as great as it is upward. As such, after several years of brisk price hikes relative to our estimates, price declines could very well be greater than forecast. This is what happened, for example, with the technology bubble at the start of this decade.

CONSEQUENCES

Continuing price declines in residential real estate prices in the United States will have an increasingly negative impact on the U.S. economy and financial markets. In fact, the quality of mortgage credit will be marked by this readjustment and financial institutions, by extension, will in all likelihood tighten credit conditions even further for some time. Further price declines will be required to regain the balance of supply and

⁶ The estimated equation assumes that, over the long term, the increase in real home prices must be in proportion to increases in real household disposable income. In the short term, interest rates and past variations in home prices also have an impact on current market prices. The estimated equation also takes into consideration the oversupply of houses recorded two quarters ago. A growing surplus of homes drives down market prices, and vice-versa. All estimated coefficients are significant. The estimates were based on the period between 1988 and 2003. Following this period, the instability of estimates suggests a structural change, probably as a result of the substantial slackening of credit conditions, including the popularity of subprime loans.

demand in the housing market. With this in mind, any sudden and sustained increase in demand—not currently in our forecast—would help limit the price declines needed to regain this balance. Conversely, if the number of foreclosures surpasses expectations, supply would again outstrip demand and prices would decline even further.

Over the past 15 years, economic growth has been largely dependent on the strength and resilience of spending in U.S. households. In the context where stock markets are unable to offset the negative impact of declining home prices, the negative wealth effect (the declining value of assets in real estate and the stock market) will contribute to limiting consumer spending in the United States. Consumers will still want to replenish their savings to maintain their long-term financial security. We hope this readjustment takes place smoothly. Should this not be the case, the stimulus provided by tax rebate cheques (US\$106B), to be sent to more than 130 million households at the end of spring, could have a less-than-anticipated impact, if any at all. In this case, the current economic downturn could extend beyond next summer and the probability of a classic recession could be much higher. In short, the decline in the value of homes is a real challenge for our neighbours to the south and, as result, to the authorities in the United States in charge of fiscal and monetary policy.

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