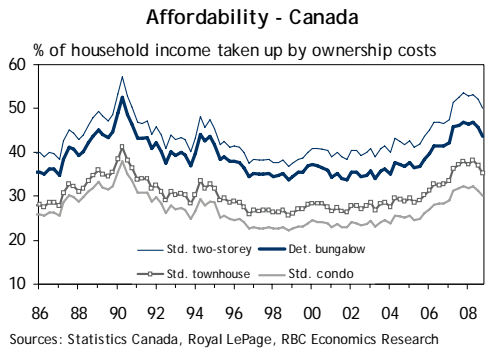
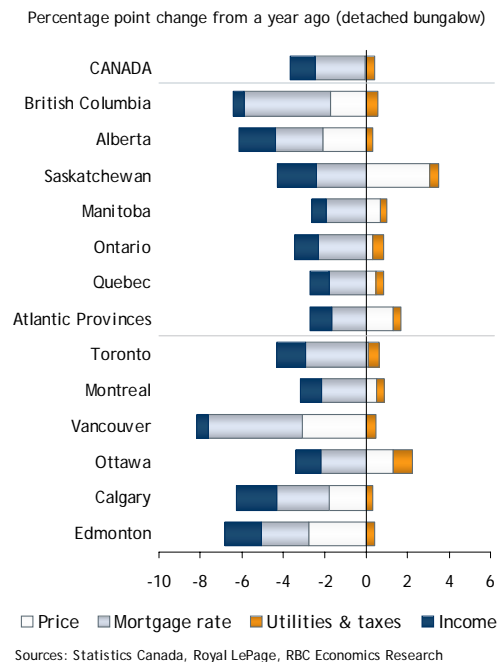


Fourth quarter of 2008



Factors contributing to the change in affordability



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HOUSING TRENDS AND AFFORDABILITY

April 2009

Recession weighs on Canadian housing markets

The maelstrom that capsized global financial markets and knocked over the world economy has moved deeper into Canadian territory since last fall, causing damage to the domestic side of Canada's economy, which, until then, had been resilient even though the external side had been feeling the strains for some time. As a result, overall economic activity began to contract in the fourth quarter of 2008 and the weakness is expected to continue until about mid-year this year.

Facing dimmer employment prospects and already unsettled by the constant flow of dismal financial news globally, Canadian households were struck with a serious case of the blues and became skittish about any major spending plans. Tighter availability of credit – in part due to the evaporation of the securitization business and the reduction of the presence of foreign financial institutions in the Canadian marketplace – diminished the appetite for big-ticket items in particular. In the case of housing – for most, the biggest ticket item of all – demand was further hampered by generally poor affordability levels, which set the bar too high for an increasing number of Canadian families.

The impact of such poor underpinnings to Canada's housing markets has been predictable: home sales have dropped; prices have given in to intense downward pressure; and residential construction has slowed substantially. The market correction took hold first and has been most pronounced in the western part of the country, although nearly all regional markets are now feeling the pinch to some degree.

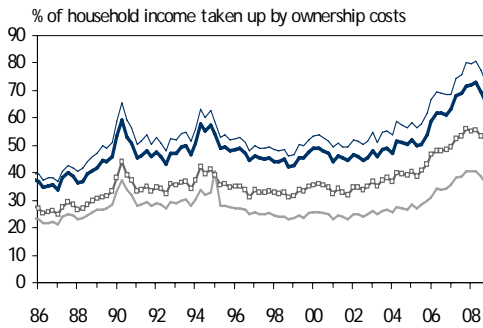
As we head into the all-important spring season, the ongoing cyclical correction will put the entire housing sector to the test. However, while the pain will likely persist for many homeowners and industry participants, there are encouraging signs on the affordability front in light of developments through the fourth quarter of 2008. The sharp deteriorating trend in RBC's affordability measures from about 2004 to late 2007-early 2008 has reversed in the past year. At the national level, the RBC measures improved 2.3 to 3.5 percentage points between the final quarters of 2007 and 2008, with markets in Alberta and British Columbia showing more sizable repair (although this largely reflects the extent of the earlier impairment).

The improvement can be primarily credited to monetary policy during that period because lower mortgage rates account for the largest portion of the reversal in RBC's measures in almost all major urban areas in Canada except for cities in Alberta. Rising family income also contributed positively across the country. Only in Calgary, Edmonton and Vancouver was price a constructive factor in the year-over-year change – although price has played a wider beneficial role in recent more quarters. Higher utilities and property taxes have remained a modest undermining factor.

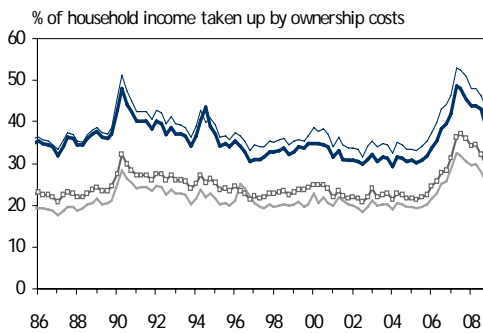
Going forward, low mortgage rates and persisting downward pressure on housing prices will continue to help repair affordability, but slowing income growth will act as a restraint.

Affordability

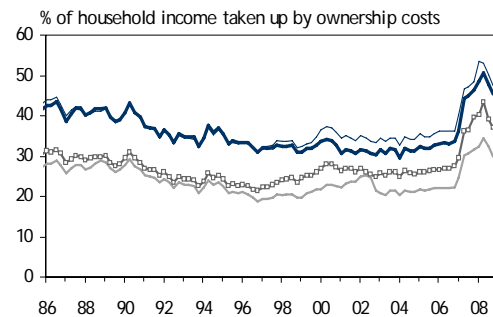
British Columbia



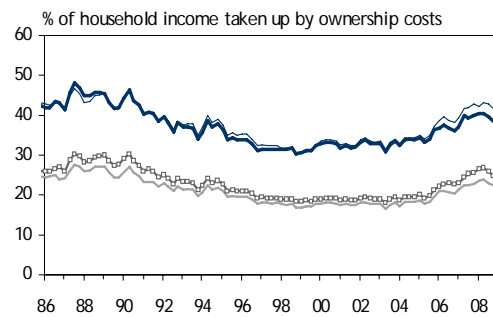
Alberta



Saskatchewan



Manitoba



— Standard two-storey — Detached bungalow
 — Standard townhouse — Standard condo

Sources: Statistics Canada, Royal LePage, RBC Economics Research

British Columbia – A market bottom in sight?

Housing markets remain under heavy downward pressure in British Columbia. With the sharp rise in unemployment since last summer worrying households in the province, demand is generally weak and falls well short of available supply. This is sustaining the declining trend in prices for both existing and new homes. Nonetheless, there are signs that the situation might be close to stabilizing. After falling precipitously since hitting nearly record high levels in 2007, sales of existing homes appeared to have found a floor in the closing months of 2008 and the first two in 2009 – although at historically depressed levels. This, in part, might reflect a notable improvement in affordability, which removes a thorn in the B.C. markets' side that emerged in the aftermath of the boom. From the end of 2007 to the end of 2008, RBC's affordability measures in the province improved between 4.1 and 6.3 percentage points, depending on the housing type. Still, the restoration process has much further to go as measures remain significantly worse than historical averages.

Alberta – Running low on fuel

The turn for the worse in the Alberta economy since last fall has intensified the downdraft on the province's housing markets. With consumers in full retreat, home resales dropped to a 12-year low at the end of 2008 and rebounded only modestly in early 2009. Generally plentiful availability of properties on the market – in sharp contrast to the very tight situation that had prevailed for years until about mid-2007 – has caused sellers to further ratchet down prices in recent months at an accelerated pace in many cases. Poor economic conditions have thus risen as the key market driver, overtaking poor affordability, which had been largely behind the initial stages of the downturn. Affordability has been on an improving track since about the middle of 2007 and further progress was achieved in the fourth quarter of 2008, with RBC's measures coming down 2.3 to 3.6 percentage points. However, given that these measures have yet to return to historical averages, poor affordability will remain an issue in the short-term.

Saskatchewan – Boom is over but no bust

The housing boom is officially over in Saskatchewan. Market activity has cooled considerably from the frenzied pace of 2006-early 2008 and prices have begun to come off the heights they reached during their spectacular run-up. However, the post-boom period so far has been a mostly orderly affair thanks to the province's largely supportive economic and demographic fundamentals (Saskatchewan's economy is the strongest in Canada and is forecast to remain so during 2009). These positive factors overshadow extremely poor affordability levels that have resulted from the spike in prices of recent years. While lower mortgage rates, income gains and, in more recent quarters, lower prices have helped improve affordability in the past year, RBC's measures remain at worrisome levels compared to historical averages. This represents an element of risk if the province's economic performance is weaker than expected.

Manitoba – Minimal downside risks

Manitoba's housing markets have not been immune to the cyclical downturn, but they have fared much better than the vast majority of other markets in Canada. Resale activity in the province has slowed only moderately in recent months and prices have either held their own or edged down just slightly. The relatively good standing in Manitoba is owed in part to the province's decent economic performance (Manitoba ranks second among provinces in terms of growth) and the absence of past excesses. The housing boom had been a rather low-key affair in the province, keeping affordability out of the danger zone. RBC's affordability measures for the fourth quarter of 2008 were just barely off long-term averages and showed some improvement over the latter half of the year. This should limit downside risks to the

Regional overviews

markets in the period ahead.

Ontario – Recession taking a toll

With the recession pounding many communities, housing market conditions have deteriorated notably across Ontario since mid-year last year. Areas particularly exposed to the woes in the manufacturing sector, such as Windsor, St. Catharines and Kitchener, have ranked high on the injured list with plummeting resale activity and dwindling prices. Even the Toronto area has clearly entered a corrective phase. The recession will continue to be the dominant factor weighing on the province's housing markets in coming months. However, the impact is unlikely to develop into a rout similar to that of the early 1990s. Affordability, while still causing some stress, is quickly being restored to levels closer to long-term averages thanks in large part to lower mortgage rates. This suggests that there is generally little excess currently for markets to clear.

Quebec – Barely yielding to the downturn

Quebec's housing markets have put up surprisingly strong resistance to the general downturn and have been among the last in Canada to yield to the weakening trend. In fact, the main sign of cooling thus far has been a drop in resale activity since the final quarter of last year from the near record levels that prevailed until just a few months earlier. Prices have held up reasonably well even if showing hints of tracking slightly lower in recent months. Some of the persisting market strength in Quebec can be ascribed to sensible affordability levels, which had eroded only modestly during the market heat-up of the past few years. Moreover, this modest erosion has begun to reverse since the beginning of 2008 thanks to lower mortgage rates, higher family income and, in more recent months, flat or slightly declining home prices. At the current pace of improvement, RBC's affordability measures for the province will be back to historical averages by about mid-year, which should work as a mitigating factor against the effects of the recession.

Atlantic – Still standing tall, but cracks are showing

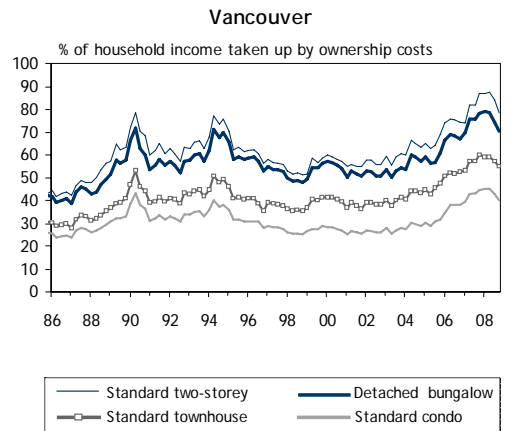
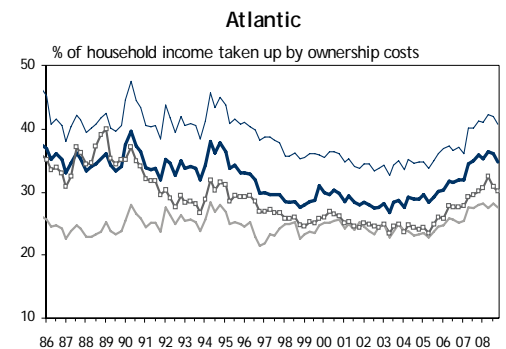
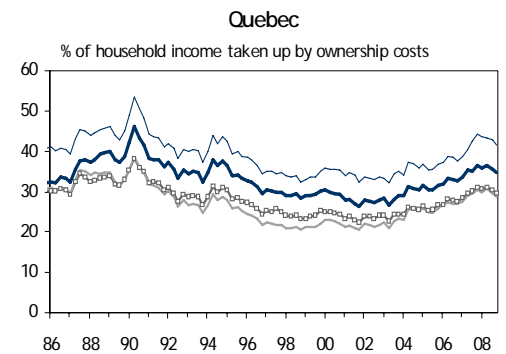
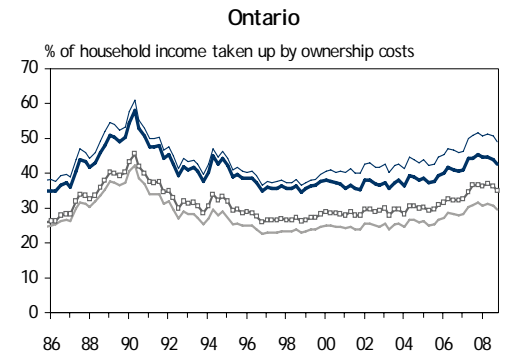
The Atlantic fortress is still standing against the assault of the housing downturn, but some cracks are finally showing. St. John's has become the housing hot spot in Canada, having taken the lead with the fastest pace of price appreciation. Other markets such as Halifax and Saint John are also maintaining steady upward price momentum. In general, markets in the Atlantic region continue to be supported by a reasonably good balance between buyers and sellers. Improving affordability is also a positive factor as lower mortgage rates and rising income are helping to repair some of the deterioration of the past two years. Nonetheless, the all-round economic gloom is likely to soften market conditions in the region in the period ahead. As an early sign, sales of existing homes have dropped in recent months. With demand for housing facing significant headwinds, positive market sentiment is set to tone down.

Metro markets

Vancouver – Battling tough times

To say that things continue to be tough in the Vancouver housing market would be an understatement. A small up-tick in existing home sales since December has brought only cold comfort after the collapse of more than 60% in the preceding 15 months. Prices are down 4% to 9% from peak – or more than 30% if no account is made for the changing mix of housing types being sold – and still sliding. Pricing power remains firmly in the hands of buyers with the sales-to-new listings ratio at historical lows, indicating an enormous imbalance and suggesting that prices will likely correct further in the months ahead. Despite the price decline to date and the break on mortgage rates in the past year, the cost of homeownership in Vancouver is still exorbitant both in absolute terms and relative to income or rent. As families in the

Affordability

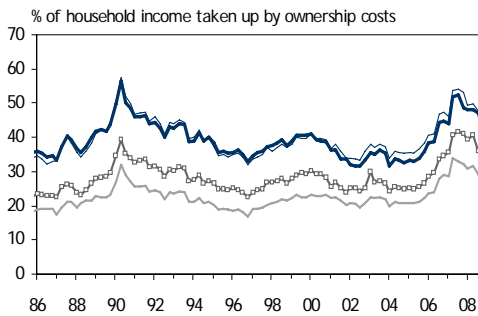


Sources: Statistics Canada, Royal LePage, RBC Economics Research

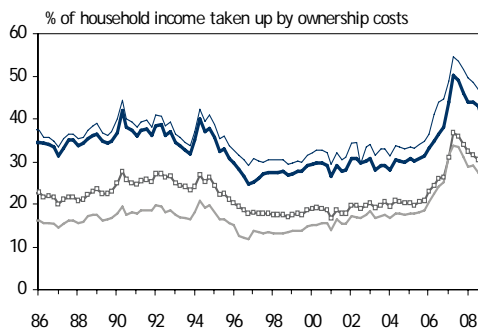
Metro markets

Affordability

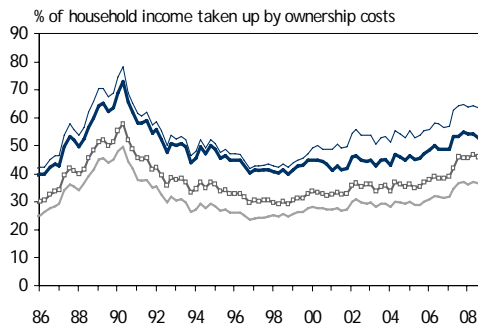
Calgary



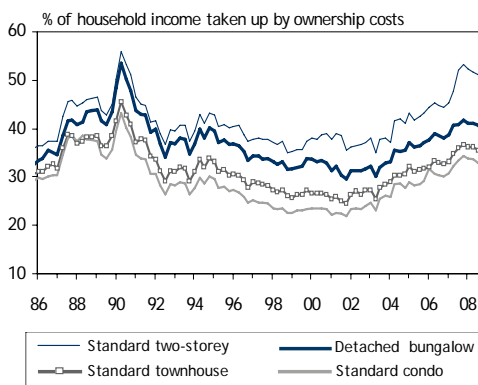
Edmonton



Toronto



Montreal



Sources: Statistics Canada, Royal LePage, RBC Economics Research

area worry increasingly about dwindling job prospects, poor affordability will continue to weigh on the market.

Calgary and Edmonton – Not out of the woods yet

The economic slump that ensued from the sudden and precipitous drop in oil and gas prices has thrown more cold water on Alberta's top two housing markets. Already in correction mode since late 2007, housing market activity in Calgary and Edmonton contracted sharply during the second half of 2008 as the cancellation of major capital projects in the province's energy sector and rising unemployment upset confidence, further cooling demand for housing. Sales of existing homes tumbled in both cities starting early fall after showing some signs of stabilizing mid-year. This caused price declines to accelerate. At the end of 2008, prices in Calgary had dropped 12% to 14% from their peak and 8% to 20% in Edmonton. With low sales-to-new listings ratios giving the upper hand to buyers, further price erosion is likely to take place. On a brighter note, the market correction is helping to restore some degree of affordability in both cities, although RBC's measures still have a fair distance to go before returning to long-term averages.

Toronto – Cyclical downturn, but no collapse

Considering how sharply resale activity fell in the closing months of last year and how quickly market sentiment has soured in the face of worsening economic conditions, the relatively moderate pace of price correction so far in the Toronto area should alleviate fears that the market is on the brink of collapse. Overall, prices in the area have retreated between 2% and 6% from the peak (depending on the housing type) or just a portion of the cumulative 31% to 47% rise in the previous five years. Poor affordability remains an issue, but some improvement has taken place in the past year. To be sure, the degree of "unaffordability" is much less of a threat at this stage than it was at the onset of the 1990s housing downturn. As Toronto's economy continues to struggle with the recession in the coming months, housing market conditions will likely deteriorate further, extending the downward drift in prices.

Ottawa – No longer immune to a correction

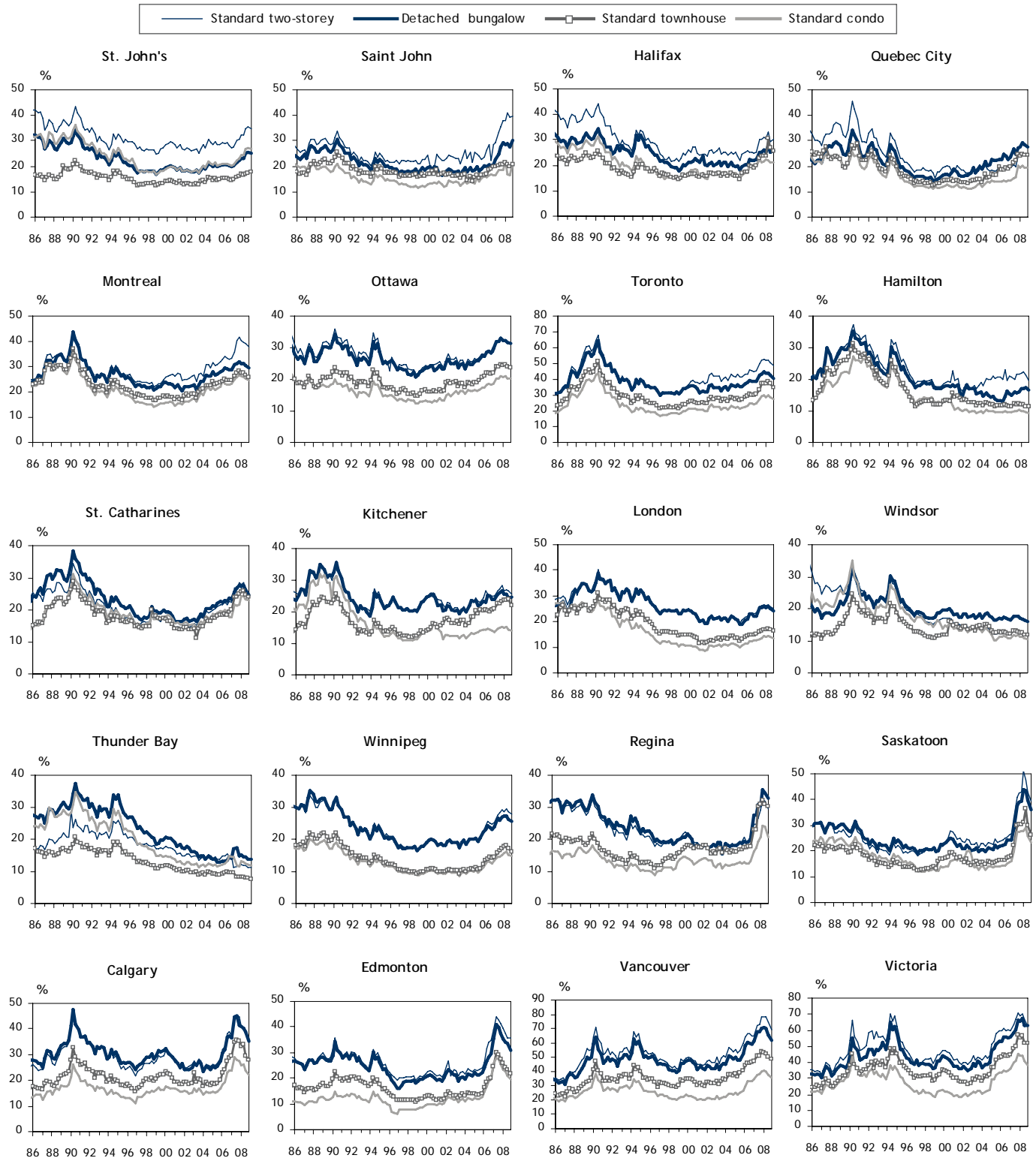
Ottawa has been one of the most robust housing markets in Ontario recently. The area's relatively low exposure to troubled manufacturing industries and stronger dependence on the more stable public sector have provided it with some protection against the general downturn. However, there are signs that it is no longer immune. Sales of existing homes dropped off notably late in 2008, rebounding only modestly in the first two months of 2009 but only to levels that prevailed more than five years ago. Prices are beginning to feel the effects of cooling activity, losing much of their upward momentum, although they have largely resisted outright declines so far. They might well continue to stay above water in the near-term thanks to reasonably balanced market conditions currently as depicted by the sales-to-new listings ratio, but the weight of the recession and high homeownership costs will make price erosion nearly impossible to withstand later this year.

Montreal – Downshifting gears

Housing market activity has shifted down several gears in the Montreal area since the end of last summer, but prices have held up reasonably well so far, edging down just slightly from peak levels in recent months. The area's market fundamentals are benefiting from improved affordability in the past year – the work of lower mortgage rates and rising family income – although RBC's affordability measures have further to go before being restored to long-run averages, especially in the case of the two-storey homes segment. Nevertheless, Montreal's resilience will be seriously tested in coming months as the recession causes further job losses and undermines confidence. The recent weaker tone in prices is likely to accelerate.

Mortgage carrying costs by city

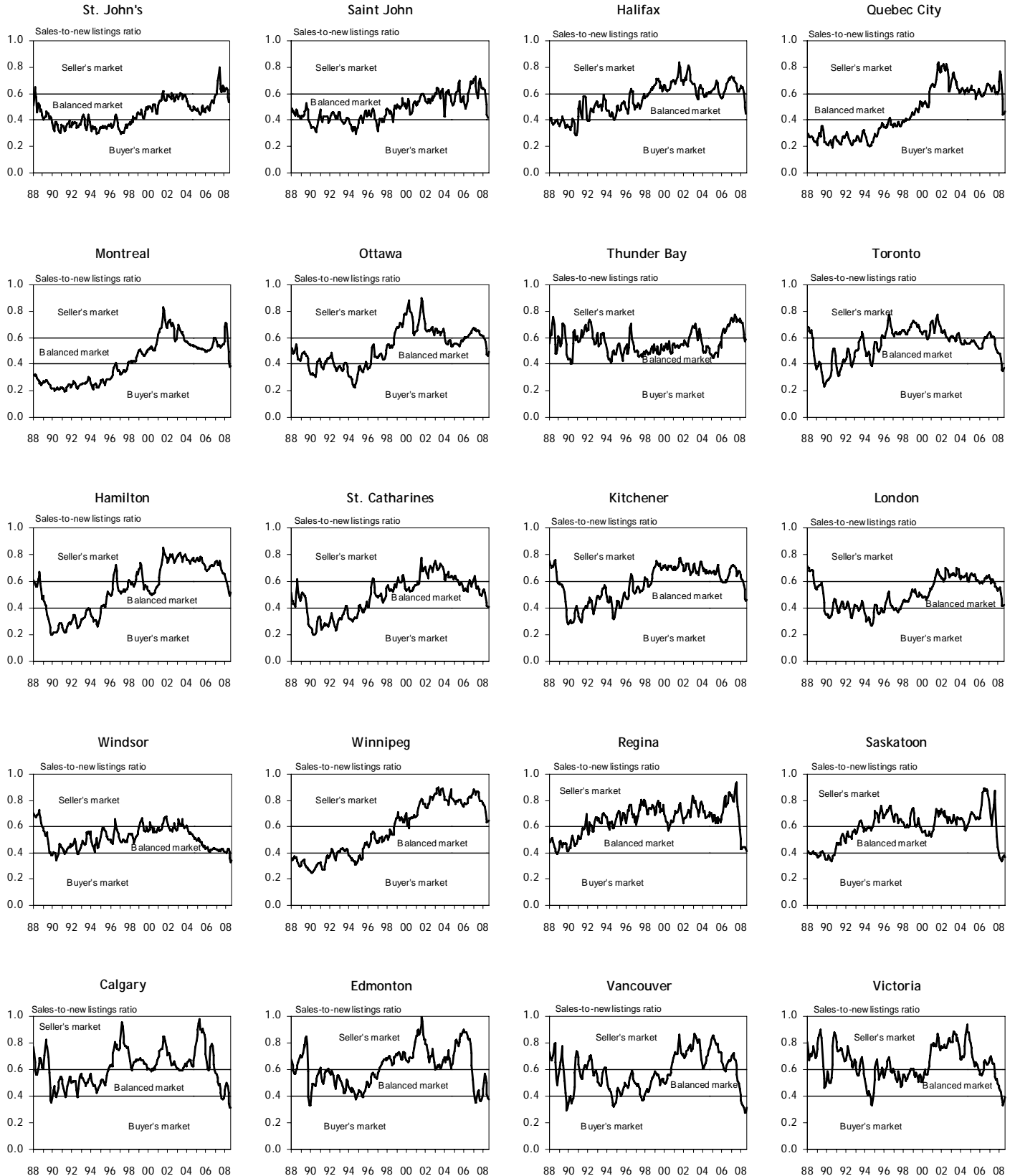
Our standard housing affordability measure captures the proportion of median pre-tax household income required to service the cost of a mortgage on an existing housing unit at going market price, including principal and interest, property taxes and utilities; the modified measure used here includes the cost of servicing a mortgage, but excludes property taxes and utilities due to data constraints in the smaller CMAs. This measure is based on a 25% down payment and a 25-year mortgage loan at a five-year fixed rate and is estimated on a quarterly basis. The higher the measure, the more difficult it is to afford a house.



Source: Statistics Canada, Royal LePage, RBC Economics Research



Resale housing market conditions in Canada's metro cities

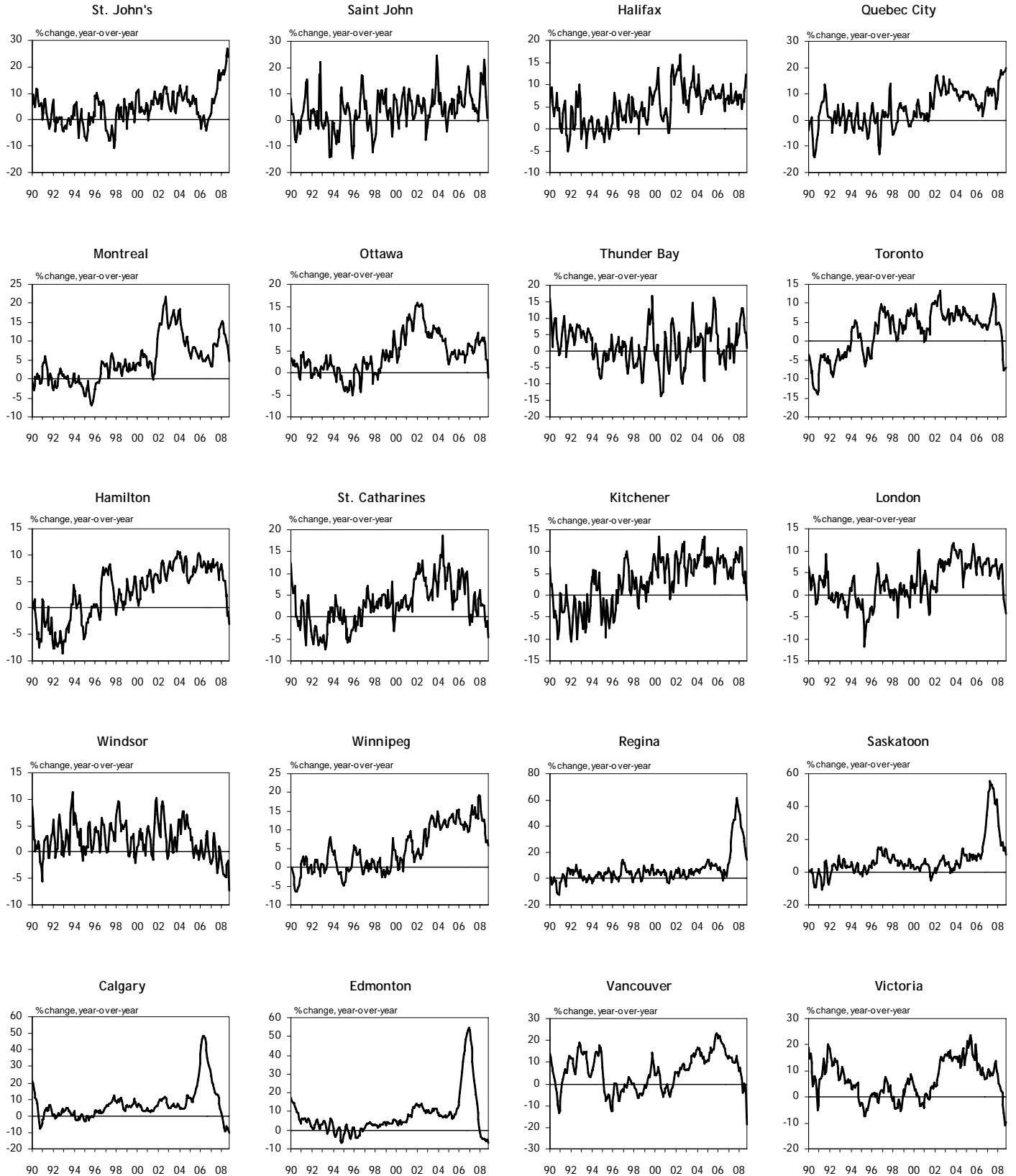


Sales-to-listings ratios are based on a 3-month moving average.

Source: Canadian Real Estate Association, RBC Economics Research



House prices in Canada's metro cities



House prices are based on a 3-month moving average.

Source: Canadian Real Estate Association, RBC Economics Research



Housing affordability summary tables

Detached bungalow

Region	Average Price		Qualifying Income (\$) Q4 2008	Affordability Measure (%)	
	Q4 2008 (\$)	Y/Y % ch.		Q3 2008 (rev)	Q4 2008
Canada*	296,200	-0.1	73,900	45.6	43.7
British Columbia	480,000	-2.8	107,000	69.5	66.0
Alberta	345,000	-6.1	83,800	42.9	39.3
Saskatchewan	288,100	9.4	73,100	47.9	45.6
Manitoba	214,300	2.6	59,000	39.6	38.4
Ontario	311,900	0.9	79,900	43.9	42.6
Quebec	190,600	1.8	50,600	35.7	34.6
Atlantic	181,600	5.5	50,400	36.1	34.8
Toronto	428,100	0.3	103,400	53.1	51.3
Montreal	236,700	1.8	60,500	40.5	39.4
Vancouver	576,300	-4.6	126,300	74.6	70.3
Ottawa	321,300	4.1	84,300	43.2	42.7
Calgary	410,300	-4.5	95,500	47.2	42.7
Edmonton	329,200	-8.0	81,700	43.1	39.4

Standard two-storey

Region	Average Price		Qualifying Income (\$) Q4 2008	Affordability Measure (%)	
	Q4 2008 (\$)	Y/Y % ch.		Q3 2008 (rev)	Q4 2008
Canada*	336,700	0.4	84,500	52.0	50.0
British Columbia	536,000	-2.5	119,500	77.4	73.7
Alberta	381,000	-6.6	93,900	46.4	44.0
Saskatchewan	290,300	9.6	76,400	50.3	47.6
Manitoba	235,200	4.5	64,000	42.7	41.7
Ontario	356,900	2.1	91,800	50.6	48.9
Quebec	228,700	1.5	61,000	42.8	41.7
Atlantic	207,000	7.2	58,900	42.0	40.6
Toronto	512,500	2.8	124,000	63.6	61.4
Montreal	303,200	1.0	76,500	51.1	49.8
Vancouver	645,700	-4.5	141,200	84.1	78.6
Ottawa	320,100	4.4	87,300	44.8	44.2
Calgary	417,500	-9.6	99,700	47.9	44.5
Edmonton	383,700	-3.5	95,300	46.9	46.0

Standard townhouse

Region	Average Price		Qualifying Income (\$) Q4 2008	Affordability Measure (%)	
	Q4 2008 (\$)	Y/Y % ch.		Q3 2008 (rev)	Q4 2008
Canada*	239,700	0.2	59,800	36.9	35.4
British Columbia	383,700	-0.7	85,100	53.6	52.5
Alberta	260,600	-11.1	63,500	32.1	29.8
Saskatchewan	232,400	2.9	59,600	39.3	37.2
Manitoba	136,100	2.6	38,000	25.9	24.8
Ontario	255,200	2.1	65,300	36.5	34.8
Quebec	161,800	2.0	43,200	30.4	29.5
Atlantic	159,900	9.9	43,600	30.8	30.0
Toronto	363,800	2.0	87,200	46.0	43.2
Montreal	206,600	0.9	52,800	35.4	34.4
Vancouver	453,900	-2.5	99,000	57.1	55.1
Ottawa	243,800	5.4	66,200	33.9	33.5
Calgary	325,000	-10.9	75,700	36.1	33.8
Edmonton	233,000	-11.4	58,400	30.3	28.2

Standard condo

Region	Average Price		Qualifying Income (\$) Q4 2008	Affordability Measure (%)	
	Q4 2008 (\$)	Y/Y % ch.		Q3 2008 (rev)	Q4 2008
Canada*	201,200	-0.6	50,800	31.4	30.1
British Columbia	262,100	-5.3	59,500	38.6	36.7
Alberta	224,700	-7.9	55,200	28.2	25.9
Saskatchewan	184,500	3.8	47,900	32.6	29.9
Manitoba	123,300	6.7	34,600	23.1	22.6
Ontario	215,200	1.2	55,900	30.8	29.8
Quebec	162,700	1.4	42,100	29.7	28.8
Atlantic	145,600	7.5	39,900	28.0	27.5
Toronto	287,300	1.1	70,300	36.5	34.8
Montreal	196,700	1.2	49,400	33.0	32.2
Vancouver	327,500	-5.1	72,300	43.0	40.2
Ottawa	207,800	5.6	55,500	28.5	28.1
Calgary	257,200	-9.5	60,800	29.3	27.2
Edmonton	213,200	-12.1	53,100	27.4	25.6

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

How RBC's housing affordability measures work

RBC Economics Research's housing affordability measures show the proportion of median pre-tax household income required to service the cost of mortgage payments (principal and interest), property taxes and utilities on a detached bungalow, a standard two-storey home, a standard town house and a standard condo (excluding maintenance fees).

The qualifier 'standard' is meant to distinguish between an average dwelling and an 'executive' or 'luxury' version. In terms of square footage, a standard condo has an inside floor area of 900 square feet, a town house 1,000 square feet, a bungalow 1,200 square feet and a standard two-storey 1,500 square feet.

The measures are based on a 25% down payment and a 25-year mortgage loan at a five-year fixed rate and are estimated on a quarterly basis for each province and for Montreal, Toronto, Ottawa, Calgary and Vancouver metropolitan areas. The measures use household income rather than family income to account for the growing number of unattached individuals in the housing market. The measure is based on quarterly estimates of this annual income, created by annualizing and weighting average weekly earnings by province and

by urban area. (Median household income is used instead of the arithmetic mean to avoid distortions caused by extreme values at either end of the income distribution scale. The median represents the value below and above which lie an equal number of observations.)

The housing affordability measure is based on gross household income estimates and, therefore, does not show the impact of various provincial property tax credits, which can alter relative levels of affordability.

The higher the measure, the more difficult it is to afford a house. For example, an affordability measure of 50% means that home ownership costs, including mortgage payments, utilities and property taxes, take up 50% of a typical household's pre-tax income.

Qualifying income is the minimum annual income used by lenders to measure the ability of a borrower to make mortgage payments. Typically, no more than 32% of a borrower's gross annual income should go to "mortgage expenses" — principal, interest, property taxes and heating costs (plus maintenance fees for condos).

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