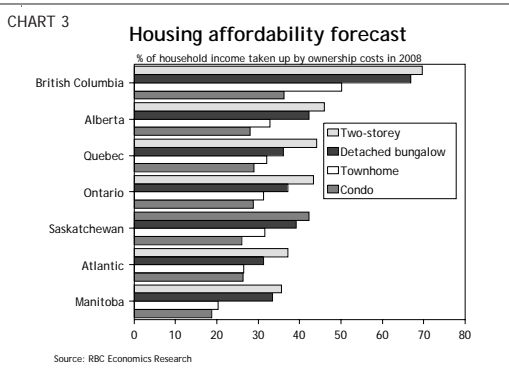
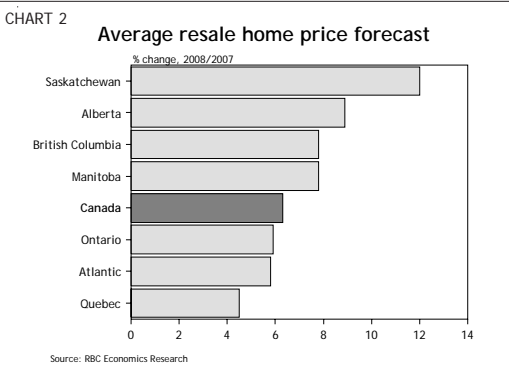
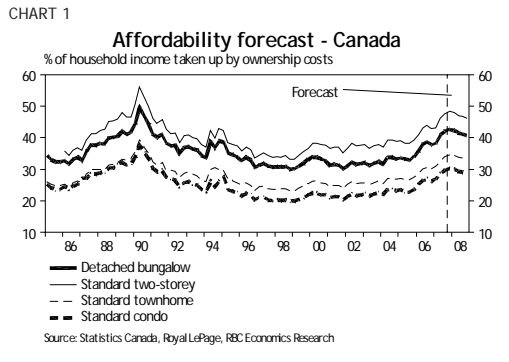


HOUSING AFFORDABILITY

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Housing affordability is forecast to improve in 2008

▲ Although the result is heavily skewed by western Canada's housing costs, typical Canadians, on average, now have to give up a greater share of their income to afford home ownership than at any other point since the fourth quarter of 1990.

▲ A long string of strong house price gains that have outstripped income gains has been the prime culprit, unlike the period of the very late 1980s and early 1990s when both interest rates and unemployment rates pushed into double digits.

▲ Housing affordability worsened for the third consecutive quarter in the third quarter of 2007, and our newly developed econometric models are estimating another deterioration in the fourth quarter before an improving trend unfolds this year. This will tilt the balance in housing markets more towards buyers and away from sellers. Some markets like Calgary and Edmonton are already near that point.

▲ The latest deterioration was broadly based. Almost every housing class in every province and major city saw an affordability deterioration in the latest quarter except for slight improvements in Alberta condominiums (led by improvements in Calgary) and detached bungalows in Edmonton.

▲ New all-time record highs for the share of income going towards homeownership costs are now the norm across most housing classes in British Columbia, Alberta and Saskatchewan. Their economies have been strong, but the gains have been increasingly leveraged. The Saskatchewan-Manitoba border remains the dividing line on talk of overheated markets in Canada. Everything from Manitoba eastward remains well below the previous record highs for affordability that were set in the late 1980s and early 1990s.

▲ The fourth quarter is likely to offer a repeat of this experience. We estimate that income growth was likely quite healthy, but house price appreciation remained strong, albeit at a cooling pace, and mortgage rates climbed higher.

▲ We expect the rate of resale house price appreciation to slow to about the 5-7% mark in 2008, with Saskatchewan likely to lead the pack again (see chart at left). New home construction volumes and income growth are also expected to gear down from previous highs. The popular five-year posted mortgage rate is also forecast to drift about 50-75 basis points lower by year-end, and the Bank of Canada's overnight rate is forecast to drop a further 100 basis points.

▲ While our base-case forecast is for affordability to improve, risks to this forecast are reasonably well-balanced. If credit problems worsen, fixed mortgage rates could be higher than we are assuming amidst softer income and price growth, with the net effect being worsened affordability. Or, a further acceleration in the adoption of new mortgage products could also lead to a faster-than-expected deterioration in affordability in line with last year's experience.

British Columbia – Stressed conditions to slow market

The least affordable housing market in the country entered uncharted waters last year as affordability deteriorated to its highest level on record (we started tracking conditions in 1985). House prices have not accelerated as sharply during the current housing cycle as they have in neighbouring Alberta. Unlike Alberta, however, British Columbia's affordability levels were already sitting at stressed levels and so a pick-up in prices this cycle has added further strain to an already-stretched market. We expect that affordability reached a peak stress point late last year and that modest improvements are in store for 2008. Slower demand, proxied by a downward trending sales-to-listing ratio, has already helped ease some of the upward pressure on prices. Price gains are on a moderating path, dropping from 18% in 2006 to 12% last year. We expect an even softer rate of 8% this year.

Alberta – Markets take a breath

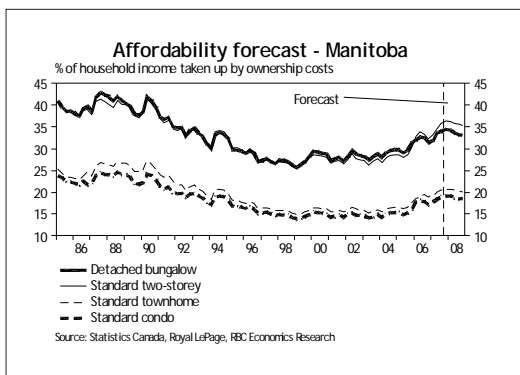
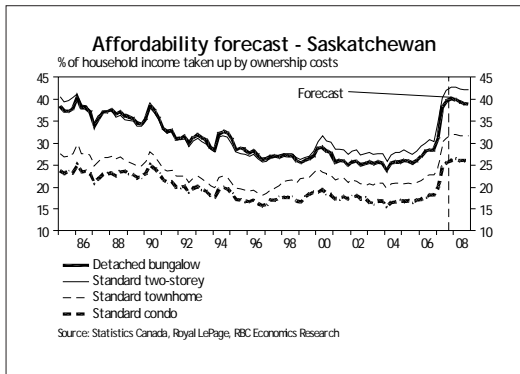
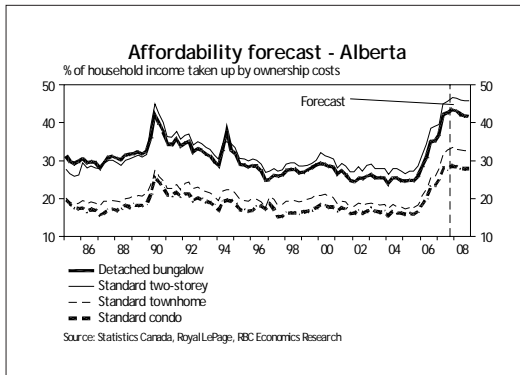
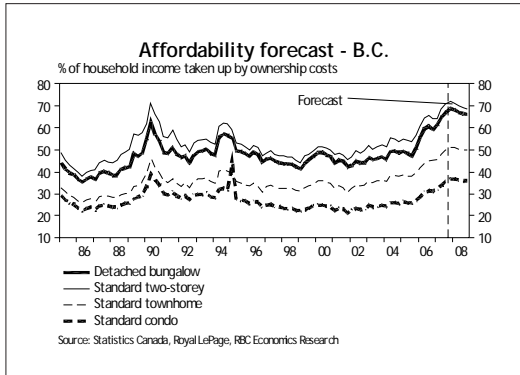
Underlying fundamentals are signalling that housing markets are ripe for a significant slowdown this year. Migration flows sharply reversed in the third quarter, leading to the first net outflow of migrants in more than a decade. A softer migration outlook will reinforce already-evident cooling in the construction sector. Housing starts plateaued in 2007 at 48,000 units and this year we anticipate an outright retrenchment with starts expected to drop by 10,000 units. A significant erosion in affordability last year quickly pushed markets into unsustainable territory and aggressively priced out many prospective homebuyers. Demand for new and existing homes has already slowed sharply with markets expected to continue to decelerate this year. Price gains are expected to slow dramatically from 30% in 2007 down to the 9% range this year. A slower market this year points to affordability improvements in 2008.

Saskatchewan – Affordability to stabilize in 2008

Housing affordability deteriorated sharply across all home segments in the province last year. A commodity-led pick-up in growth drove a surge in job opportunities and a sudden influx of migrants after years of a shrinking population. The impact of such a swift turnaround strained existing housing capacity and led to a more than 60% surge in housing starts and a 30% gain in house prices. Higher prices are weighing down demand. Sales-to-listings ratios have slowed from their start-of-year peak at 0.92 down to 0.67 in the last six months. In 2008, we expect softer, but still elevated, conditions. Price gains should moderate from the 30% range down to somewhere in the 15% range. Unlike every other province where housing starts are expected to decline and affordability conditions to improve, Saskatchewan should actually see a modest increase in housing starts and only a stabilization in affordability rather than an outright improvement.

Manitoba – A more sustainable story

While many markets have shown signs of slowing down, Manitoba's market is still running at full tilt. Sales-to-listings ratios still point to a seller's market and new home construction grew 13% last year. Elevated conditions and higher mortgage rates led to an overall affordability deterioration last year. Rising costs should start to weigh on demand in 2008 and help the market to rebalance. Underlying fundamentals in Manitoba's economy remain supportive of housing markets, with migration inflows up sharply and labour markets tight. As markets rebalance and mortgage rate relief materializes, affordability should improve.



Regional overviews

Ontario – On the brink of affordability improvements

After topping out in 2003, housing markets across the province have orchestrated a soft landing. House price growth peaked in 2002 at 9% and housing starts in 2003 at 85,000 units. Since hitting these peaks, the trend in both of these key indicators has been a decelerating one. Despite a cooling path, homeowners have since realized healthy annual returns in the 5%-7% range. Ontario's market seems tame compared to many of the western markets, but it has not avoided a marked deterioration in affordability as higher mortgage costs filter through to costlier conditions. We expect markets to continue to soften with starts poised to drop 3% this year and a further 10% in 2009. Income growth is also expected to cool amidst what we expect will be a tough year for the provincial economy. On balance, our affordability forecast in 2008 points to overall improving conditions as mortgage rates drift lower and price gains moderate further.

Quebec – Steady but soft

Housing affordability continued to deteriorate last year, but the deterioration in the third quarter and our estimate for the final quarter are showing a fairly mild erosion. Prices continue to grow consistently in the 5% range and we expect this trend to continue in 2008. Stable and modest price gains combined with some mortgage rate relief this year should translate into an overall improvement in affordability conditions across all four home segments. The market is well-balanced with new listings coming to market satisfying existing demand. A slower economic growth profile for most of central Canada will further reinforce already-softening demand. New home construction is also expected to taper off, with starts expected to dip by 2,500 units this year and a further 7,000 units in 2009.

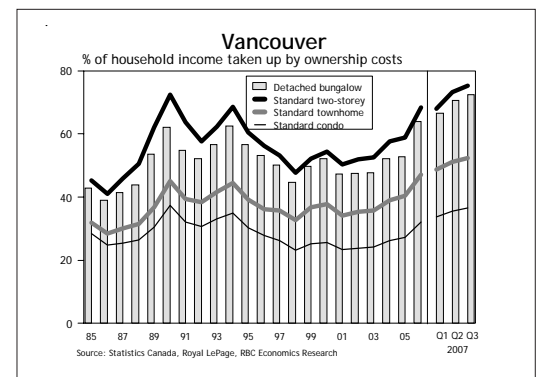
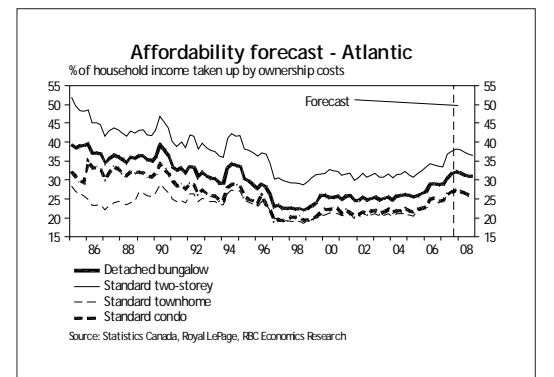
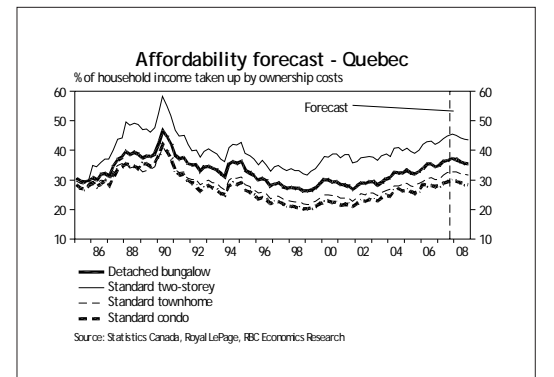
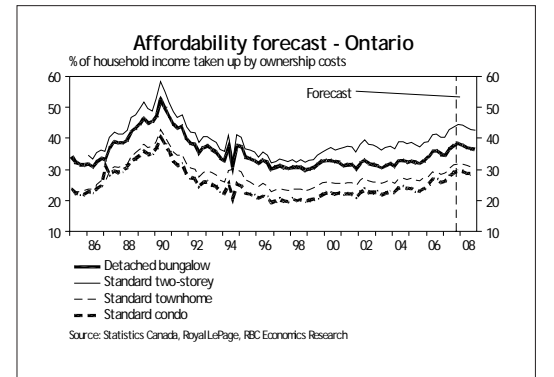
Atlantic – Price gains to moderate in 2008

Strong house price gains and rising mortgage rates chipped away at the region's housing affordability in 2007. We anticipate that regional housing markets will move onto a softer growth path in 2008 as construction activity gears down. House price growth should moderate from the 10% range in 2007 to the mid single-digit range in 2008. Nova Scotia and New Brunswick housing markets are expected to be stronger than the other Atlantic markets as a series of major capital projects start construction and spur new job opportunities. More opportunity in the region overall should help to partially offset the migration outflows (mostly to western Canada) that have characterized the last few years.

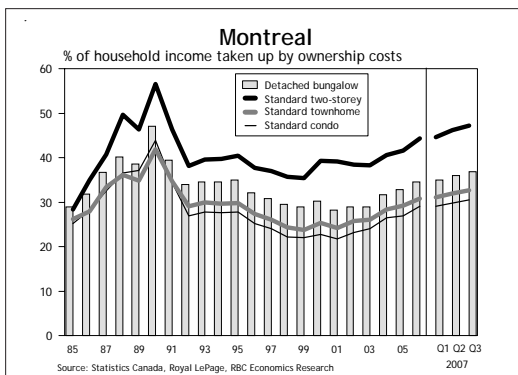
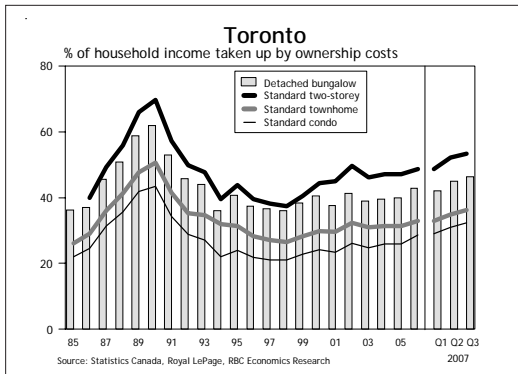
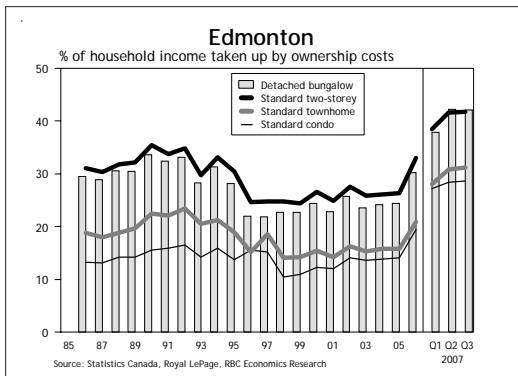
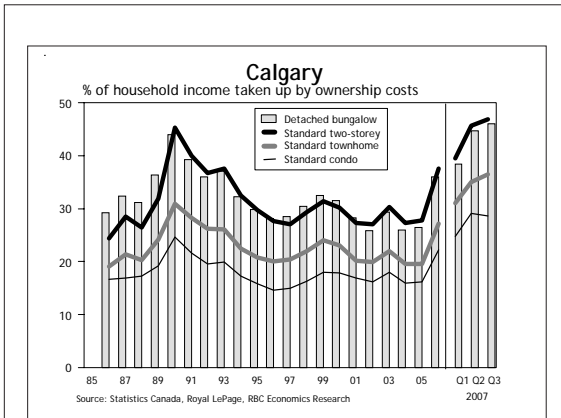
Metro markets

Vancouver – Affordability crunch to ease

Vancouver had another across-the-board deterioration last year, but the pace of deterioration slowed substantially by year-end. A more moderate pace of house price growth combined with a slight pick-up in income growth helped to restrain the magnitude of the deterioration. At this point, the market is still moving ahead at a robust pace with price growth clocking in a 12% gain in 2007 and sales-to-listings ratios still signalling a tight market skewed towards sellers. We expect some affordability relief to materialize this year as the significant erosion of the last few years weighs on demand. An increased supply of homes coming to market has already helped to moderate price gains, and this is poised to continue more aggressively as the year unfolds.



Regional overviews



Calgary and Edmonton – Easy money no more

Warning signs have been mounting as markets soared well above their fundamentals to unsustainable levels. Markets are still in elevated territory but are coming off sharply from their 2006-2007 peaks. After a sharp erosion in affordability in the first half of 2007, the latest quarter showed only a modest deterioration across most home segments. Condos in Calgary and bungalows in Edmonton actually saw slight affordability improvements — a testament to a rapidly cooling market. House price gains in Calgary and Edmonton have dropped from 50% last year to more recent gains in the 10%-15% range. Sales-to-new listings ratios in both cities have swung dramatically from a deep seller's market early in 2007 to the soft end of a balanced market in both Calgary and Edmonton. All signs point to improvements in affordability conditions in both cities this year.

Toronto – Balanced market guides controlled cooling

The market is expected to continue on its current softening path into 2008. The cooling is expected to remain steady and controlled, just as it has been since peaking in 2003. Affordability continued to deteriorate across all home segments last year but remains well below peaks reached in the late 1980s housing bubble. We anticipate the deteriorating trend to begin to reverse in 2008 as house price growth continues to moderate and some modest mortgage rate relief materializes. The fundamentals driving markets are expected to soften in 2008 but still remain largely intact with the unemployment rate holding at historically low levels and income gains growing at a healthy pace. The active condo market witnessed rapid price growth last year and a corresponding surge in construction activity. With an increased supply of multiple units coming to market, pressure on the condo market should gradually ease during the next few years.

Ottawa – Active construction markets

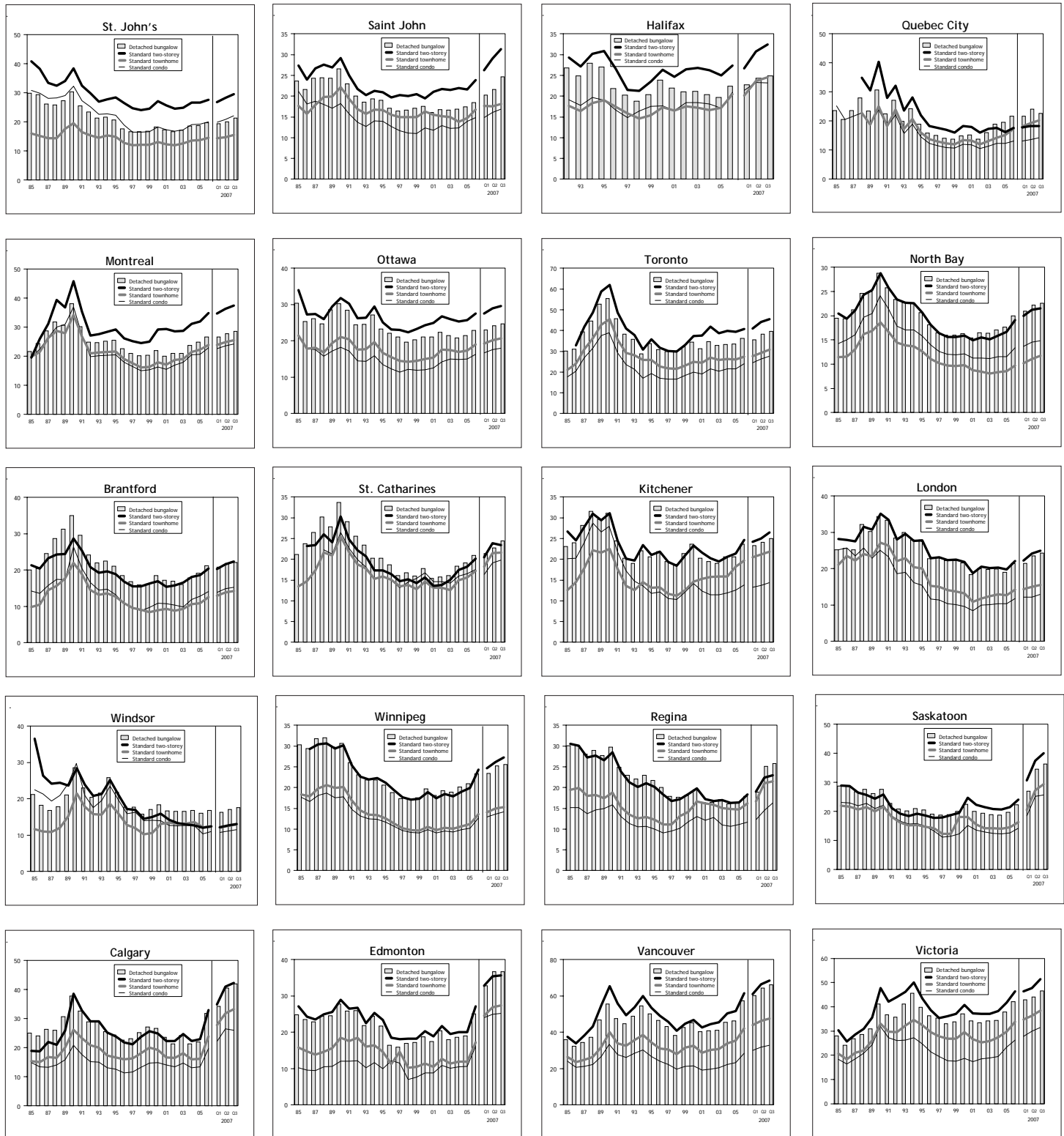
Resale markets have maintained a relatively stable growth pattern, recording annual price gains in the 3%-7% range through most of last year. Affordability conditions continued to deteriorate in the third quarter of 2007, but the pace of deterioration slowed significantly compared to the prior quarter. Of the four home segments that we track, strong demand for condos has made this segment the upside outlier with stronger-than-average price gains last year. New home construction was strong last year, led by a surge in demand for condos. Moving into 2008 we expect construction activity to taper off as overall demand softens — relieving some pressure on the resale market. A softer market combined with some relief on mortgage rates is pointing toward improving affordability.

Montreal – Steady, steady

At a time when many markets have been changing course rapidly, conditions in Montreal have remained somewhat more stable. Price growth continues to rise at an annual 5% pace across all home segments and income growth has been decent as well. A rising mortgage rate environment last year contributed to the deterioration in affordability conditions last year — a trend that swept across the country. However, underlying housing market fundamentals are still supportive of a healthy outlook in 2008. Prospective homeowners can look for some modest relief as mortgage rates recede from their peaks and price gains soften modestly, but generally we do not expect much of a change in overall conditions. Sales-to-listings ratios have consistently signalled balanced markets.

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, 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*

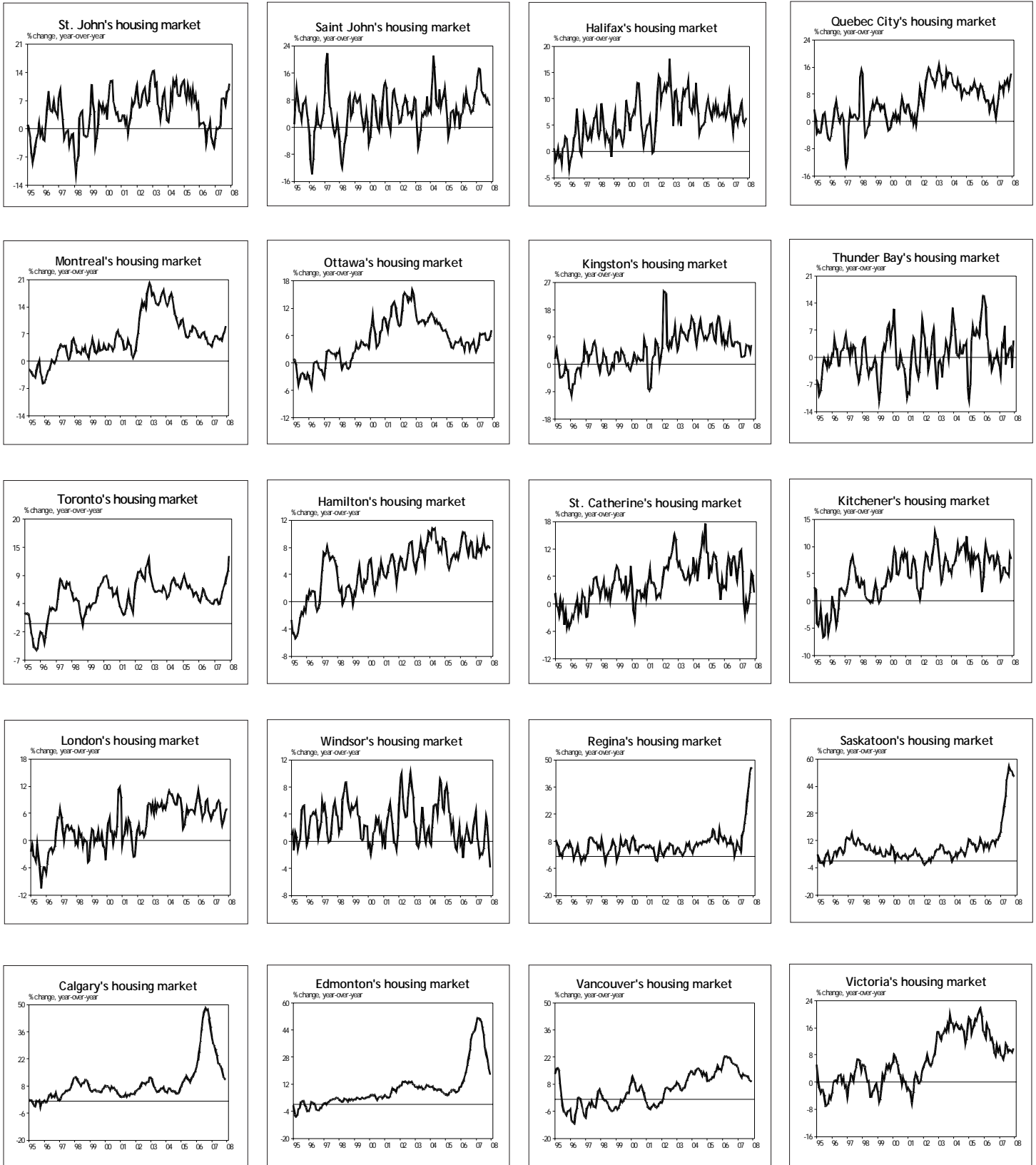


Source: Canadian Real Estate Association, RBC Economics Research

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



House prices in Canada's metro cities*



Source: Canadian Real Estate Association, RBC Economics Research

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

Housing affordability summary tables

Detached bungalow

Region	Average Price		Qualifying Income (\$) Q3 2007	Affordability Measure (%)	
	Q3 2007 (\$)	Y/Y % ch.		Q2 2007 (rev)	Q3 2007
Canada*	306,510	10.5	74,731	41.0	42.0
British Columbia	517,172	11.9	115,825	65.0	67.1
Alberta	403,426	26.6	92,194	42.2	42.6
Saskatchewan	265,167	55.4	65,163	38.3	39.6
Manitoba	206,879	7.9	55,719	33.6	33.9
Ontario	299,692	5.4	74,619	36.8	37.7
Quebec	214,550	4.0	56,535	36.4	36.7
Atlantic	175,745	11.2	45,951	30.5	31.6
Toronto	418,511	5.2	99,412	44.9	46.3
Montreal	229,820	4.9	59,825	36.0	36.8
Vancouver	599,249	11.0	133,158	70.7	72.4
Ottawa	265,589	4.4	69,383	31.4	31.9
Calgary	472,522	19.6	105,529	44.8	46.1
Edmonton	387,500	39.1	90,330	42.2	42.1

Standard two-storey

Region	Average Price		Qualifying Income (\$) Q3 2007	Affordability Measure (%)	
	Q3 2007 (\$)	Y/Y % ch.		Q2 2007 (rev)	Q3 2007
Canada*	345,575	9.8	84,376	46.3	47.4
British Columbia	542,012	9.0	122,134	68.2	70.8
Alberta	424,935	22.2	98,377	44.8	45.5
Saskatchewan	277,667	52.1	68,969	40.2	41.9
Manitoba	220,549	11.4	58,496	34.5	35.6
Ontario	349,406	6.8	86,671	43.0	43.8
Quebec	261,565	3.9	68,953	43.9	44.7
Atlantic	207,222	13.4	54,610	36.9	37.6
Toronto	481,315	7.8	114,834	52.2	53.4
Montreal	299,601	5.0	76,708	46.1	47.2
Vancouver	619,892	7.8	138,309	73.3	75.2
Ottawa	317,642	4.1	81,531	36.9	37.4
Calgary	476,711	17.5	107,329	45.7	46.9
Edmonton	376,060	20.5	89,644	41.7	41.8

Standard townhouse

Region	Average Price		Qualifying Income (\$) Q3 2007	Affordability Measure (%)	
	Q3 2007 (\$)	Y/Y % ch.		Q2 2007 (rev)	Q3 2007
Canada*	247,788	13.2	60,374	32.8	33.9
British Columbia	382,895	12.8	86,085	48.0	49.9
Alberta	313,053	33.5	71,012	31.7	32.8
Saskatchewan	205,500	53.8	51,288	30.1	31.2
Manitoba	123,468	7.5	33,544	20.1	20.4
Ontario	250,911	9.7	62,259	30.4	31.5
Quebec	190,331	6.0	49,793	31.5	32.3
Atlantic	150,585	9.7	39,048	25.8	26.9
Toronto	325,644	9.3	77,803	34.8	36.2
Montreal	204,768	4.8	53,081	32.0	32.7
Vancouver	432,353	10.3	96,373	51.1	52.4
Ottawa	222,020	5.5	58,493	26.4	26.9
Calgary	375,989	27.5	83,660	35.0	36.6
Edmonton	289,125	47.3	66,975	30.8	31.2

Standard condo

Region	Average Price		Qualifying Income (\$) Q3 2007	Affordability Measure (%)	
	Q3 2007 (\$)	Y/Y % ch.		Q2 2007 (rev)	Q3 2007
Canada*	215,658	12.7	52,688	28.7	29.6
British Columbia	271,468	16.5	61,796	33.9	35.8
Alberta	262,311	25.2	60,484	28.1	28.0
Saskatchewan	169,500	59.5	42,090	24.6	25.6
Manitoba	114,440	10.0	31,106	18.4	18.9
Ontario	233,968	10.0	57,411	28.0	29.0
Quebec	173,068	5.6	45,332	28.8	29.4
Atlantic	152,592	7.8	38,980	26.2	26.8
Toronto	291,924	12.1	69,368	31.0	32.3
Montreal	194,170	5.0	49,577	29.9	30.5
Vancouver	298,787	13.2	67,373	35.5	36.6
Ottawa	193,621	6.2	49,649	22.4	22.8
Calgary	293,167	19.2	65,529	29.1	28.6
Edmonton	266,000	43.8	61,329	28.4	28.6

* 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. No more than 32% of

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