

HOUSING AFFORDABILITY INDEX

December 2006

Pace of affordability slide slows down; improvements in sight

▲ Housing affordability in Canada continued its four-quarter descent in the third quarter as growth in house prices overwhelmed softening income growth, a modest back-off in utilities costs and stable third-quarter mortgage rates.

▲ After three quarters of sharp deteriorations, however, the pace of decline slowed down for all home classes, although more for town homes and bungalows than for condos and two-storey homes.

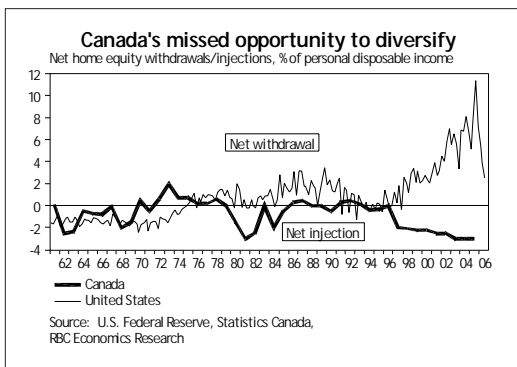
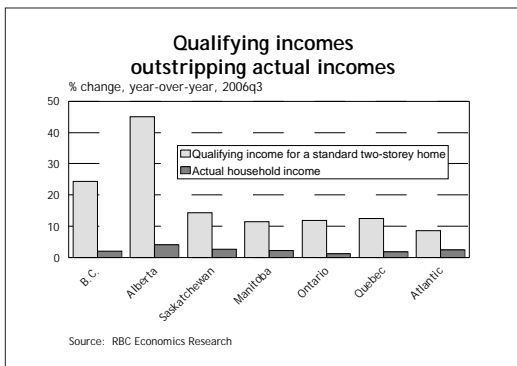
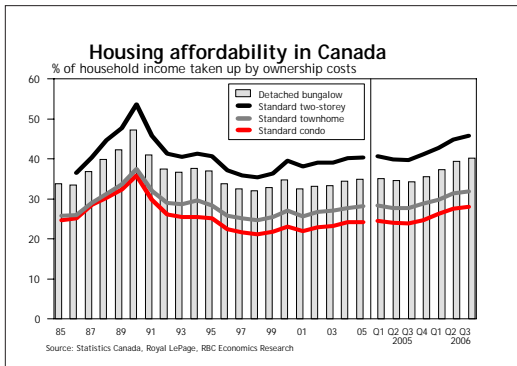
▲ The quarter's hot-spot was once again Alberta, which saw the strongest broad-based quarterly deterioration in affordability since 1990 with the pace of erosion in the 12%-15% range for all home segments. Alberta was the only province to buck the nation-wide trend to a slowing pace of change in the affordability index. Manitoba saw the largest improvements to affordability conditions.

▲ Whether or not Alberta sets a new all-time record low for housing affordability will go down to the wire when final fourth-quarter data are available later this winter. A noteworthy risk is that income growth is cooling in both British Columbia and Alberta, which exacerbates the effects of explosive growth in qualifying incomes (see chart) needed to make a purchase and removes a key support for further price gains.

▲ Going forward, affordability is likely to improve a bit across a number of markets next year as the lagged effects of fourth-quarter mortgage rate declines, easing energy price pressures and a topping-out of home price appreciation have positive effects for home-buyers. Affordability is already improving in some types of housing in central Canada due to cooling price pressures. For example, Toronto prices of two-storey homes and town homes are flat compared to a year ago, bungalow prices are up mildly and strong condo gains are winding down.

▲ Next year, we expect new home construction and resales to weaken in every province alongside reined-in expectations for price gains. However, the overall volume of sales activity should still remain elevated, while the majority of home equity gains enjoyed in recent years are retained.

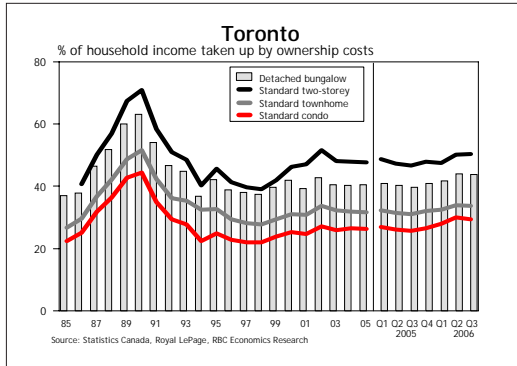
▲ As housing markets cool off, Canadians may have missed an opportunity to diversify as U.S. borrowers have done in recent years by putting one-third of net home equity withdrawals into acquiring net financial assets. About 45% of cashed-out home equity went straight back into homes to fund renovations, while only 20% went to outright consumer spending. Canadians have likely not hopped aboard the withdrawal bandwagon partly because of the Bank Act stipulation that, in the absence of a 25% downpayment, one must pay mortgage insurance premiums. For anyone seeking to change their loan-to-value ratio in order to cash out from home equity and diversify, this is a material constraint and one more reason why the loan-to-value ratio should not only be lowered to 20% as planned, but eliminated outright since it constrains diversification and raises the risks to homeowners of having all of their eggs in one basket.



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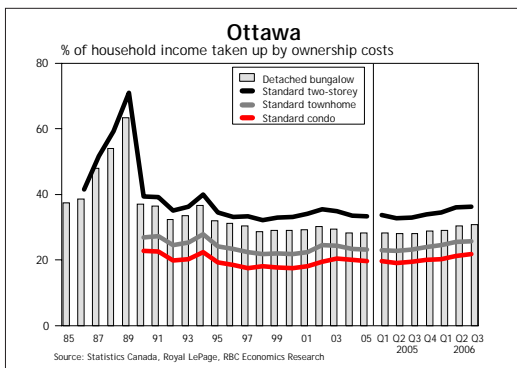
Slight improvement in Toronto's housing affordability

A quarterly decline in house prices, relief in monthly utility bills, a peak in mortgage rates and modest income growth combined to finally fuel a tiny improvement in housing affordability for the detached bungalow, town house and condo markets in the third quarter of 2006. Toronto's housing market has gradually moved into more balanced territory. The mid-point of 2006 marked a turning point for many central and eastern Canadian cities— including Toronto — whereby housing markets cooled off as house prices continued to come off the boil and softening income growth started to kick in. Two-storey home prices are flat over year-ago levels, while prices of condos, bungalows and town homes dipped mildly in the third quarter of 2006 and are up only modestly on an annual basis.



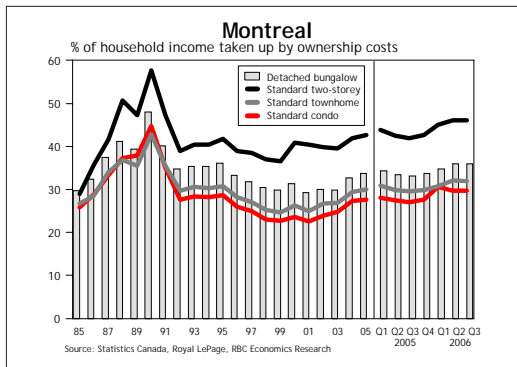
Mild deterioration in Ottawa's range-bound affordability

Ottawa reported a fourth consecutive across-the-board affordability deterioration in the third quarter. This time, however, it was milder as the market appears to have levelled off at a cooler pace of house price growth. The condo market saw the strongest decline in affordability with the cost of homeownership edging up to 21.8% of pre-tax median household income. But relative to local incomes, Ottawa still boasts the most affordable homes among the big cities that we track. Ever since the bursting of the housing bubble in the late 1980s and early 1990s, Ottawa's housing affordability has remained remarkably stable. Even though the housing market still remains modestly skewed towards sellers' territory with an average sales-to-listings ratio hovering around 0.6, the market has managed to avoid the volatile swings observed in other markets.



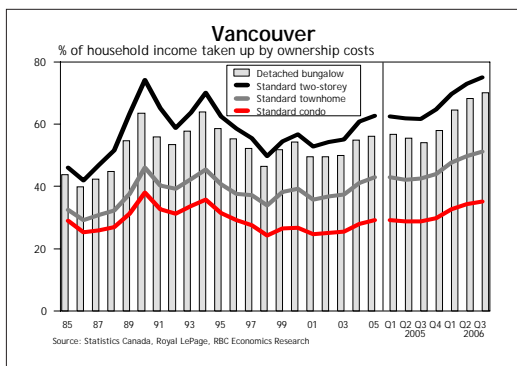
Montreal's affordability conditions level off

Montreal's housing market continues to mirror our soft-landing theory with price gains cooling off gradually. Annual growth in house prices is now bouncing around the 2% -5% range compared to the double-digit growth experienced in the last couple of years. There was little change to housing affordability conditions in the third quarter. Detached bungalows, two-storey homes and condos reported very slight deteriorations in affordability conditions as modest income gains, flat interest rates and utilities relief were roughly able to offset small house price gains and higher property taxes. Town homes reported a very slight improvement to affordability conditions because of nearly flat prices.



Vancouver's housing fundamentals change course

For a fourth consecutive quarter, an across-the-board slide in affordability conditions has bumped the Vancouver market into new territory. Average prices were up in all categories with two-storey homes reporting the largest dollar value gain this quarter — being up nearly \$12,000 to an average price of about \$575,000. While markets still remain hot, the pace of affordability deterioration has started to show signs of slowing in the last two quarters, signalling that the market is near a turning point. Extremely low inventory levels in the earlier part of 2006 were keeping markets tight, but since April there has been a change of course with the pace of sales turning negative and an increasing supply of new listings on the market. This marked reversal of supply and demand fundamentals should make way for softer real estate conditions ahead, particularly since income growth is cooling off. Look for 2007 to spell some relief for buyers, while the majority of home equity gains booked in recent years are retained.



Some relief for buyers is coming in Calgary and Edmonton

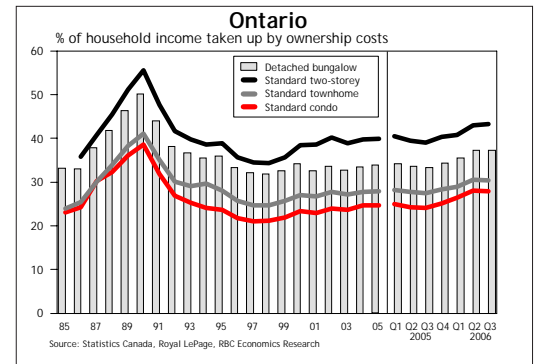
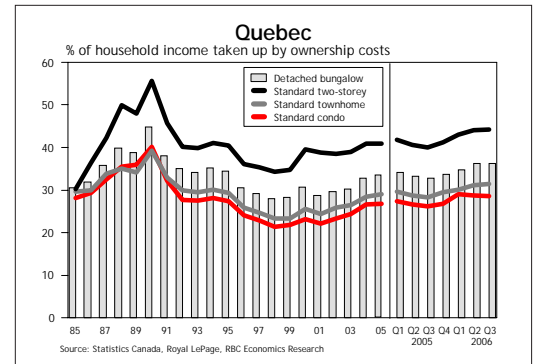
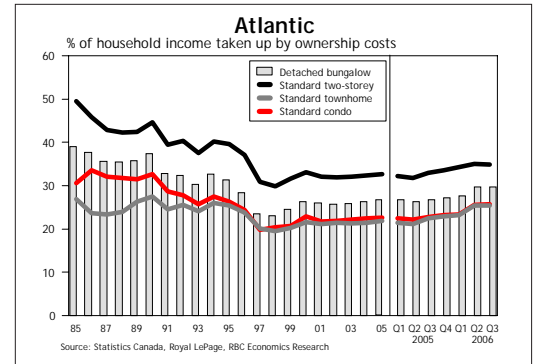
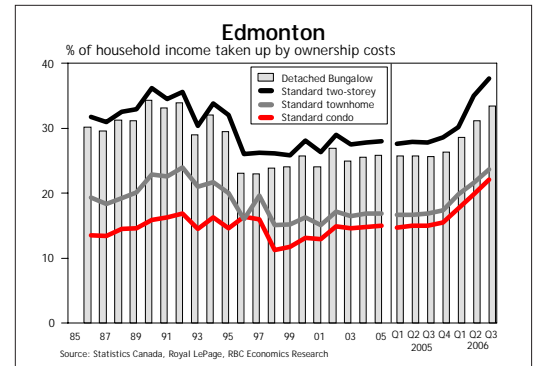
Deteriorating affordability in Calgary and Edmonton has been both severe and rapid. Calgary reported a deterioration of roughly 20% across all home classes in just one quarter. In fact, the average price of a detached bungalow in Calgary surpassed that in Toronto for the first time ever, while Calgary town homes are just \$3,000 shy of average prices in Toronto. But, while price growth in Toronto has been fairly gradual and sustained, the eye-popping speed of price growth in Calgary (reaching annual gains of 50%-60%) has moved up so quickly that the current pace of price appreciation is simply unsustainable. While income growth in Alberta came in at about 5% for the year, qualifying incomes grew by about 45% clearly making the point that this boom is not supported even by higher income growth than in other provinces. We expect cooling prices to set in as incomes try to keep pace. An increased supply of homes on the market should help contain the dramatic price growth by easing some of the demand pressures.

Regional overviews

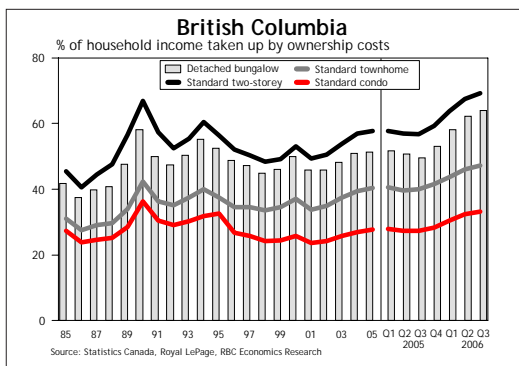
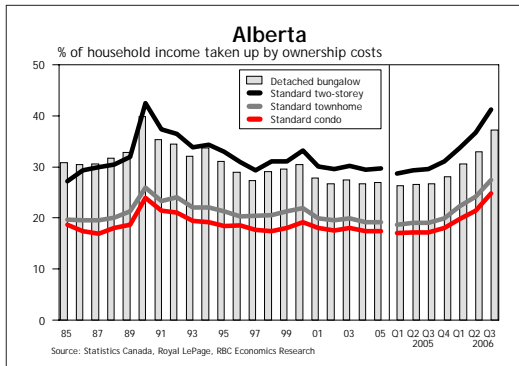
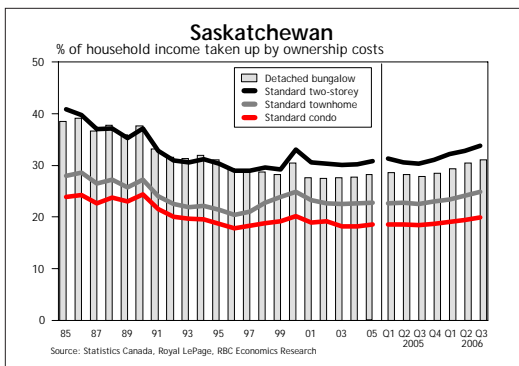
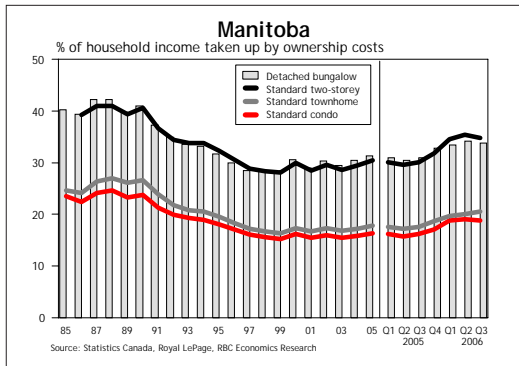
Atlantic — A gradual, controlled cooling remains under way across the Atlantic provinces as house price growth continues to moderate and income gains cool off. Overall affordability conditions hardly moved in the third quarter compared to the prior quarter. The two-storey home segment reported a slight improvement to affordability, which was driven by a minor dip in house prices. Shadowing the trend unfolding in central Canada, a more balanced housing market has emerged during the second half of 2006. Growth of inventory on the market has just recently started to outpace resale activity, relieving pressure on the demand side. Even Nova Scotia's hot housing market (primarily in Halifax) has started to lose steam with a gradual return to more balanced market conditions.

Quebec — Affordability of detached bungalows and condos improved modestly in the third quarter of 2006 as income gains and lower utilities bills outpaced still-positive house price growth. Two-storey homes and town homes were hit with deteriorating affordability conditions for a fourth consecutive quarter. The impact was less severe in the third quarter as markets began to show much cooler fundamentals. Montreal, Quebec City, Saguenay and Trois-Rivières have all seen their residential markets shift from sellers' territory into more balanced supply and demand conditions. Overall, we continue to see the pace of sales cooling, new listings becoming more common and price growth moderating at a gradual pace across the Quebec market.

Ontario — Ontario's market epitomizes the soft landing scenario that continues to take hold across most of central and eastern Canada. The market has pulled off from earlier growth peaks in house prices and incomes, but in an orderly and controlled fashion that should mean that most of home equity gains are retained going forward. Housing affordability sagged slightly for the detached and two-storey home, while it improved for town homes and condos. However, all of the changes were within a +1% band, confirming that conditions have flattened out. A quarterly price dip brought annual gains for condo owners down to the 8%-10% range. In the last year, the price of a condo has edged up by roughly \$17,000 to an average value of \$212,783 in the third quarter of 2006. Even though condos



Regional overviews



have reported the strongest dollar gains compared to the other home types, relative to household income they remain the most affordable option.

Manitoba — The province reported the strongest overall affordability improvements in all home classes except town homes. The two-storey home reported the strongest improvement with its index retreating 2% in the third quarter to 34.8%. Town homes reported a third-quarter deterioration, pushing up the cost of homeownership to 20.6% of pre-tax median household income. However, Manitoba still offers the most affordable markets for townhomes and condos compared to the other provinces. Several factors worked in Manitoba's favour to create more attractive housing conditions in the third quarter. Homeowners were offered some relief in monthly payments through a decline in property taxes and utility bills. While price growth appears to be moderating, annual price growth for two-storeys, town homes and condos climbed in the 15%-20% range

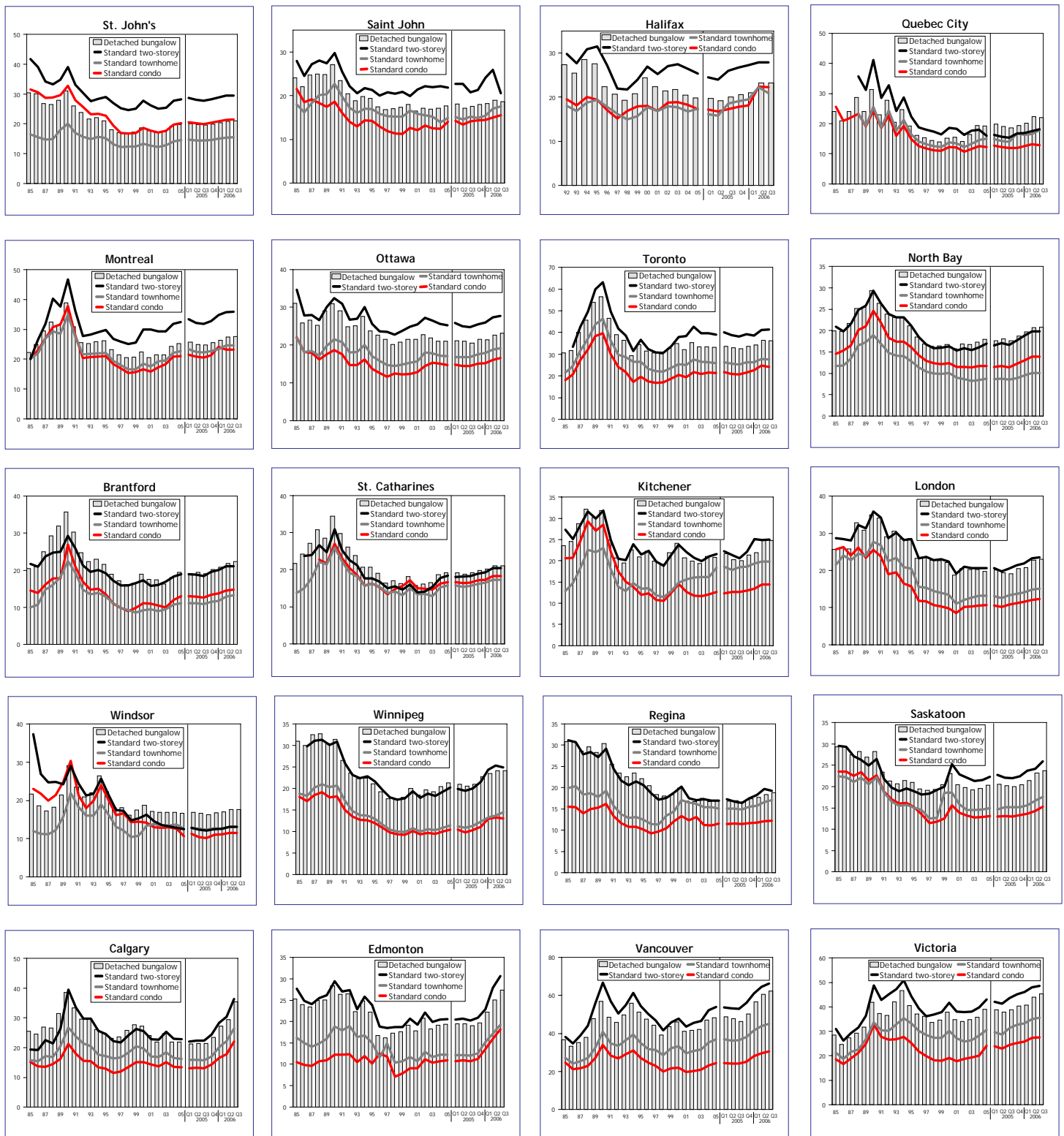
Saskatchewan — The third quarter marked a small, but broad-based, deterioration in affordability chiefly driven by a small decline in household income combined with an increase in house prices. But with rates expected to remain stable and price growth expected to continue to moderate, we expect to see affordability improve in the coming year. Even with the deterioration, Saskatchewan still offers the most affordable homeownership option for a detached bungalow and a two-storey home compared to the other provinces. Ultimately the Saskatchewan housing market remains well supported by key fundamentals in the economy. Despite a dip in third-quarter income, on a year-to-date basis the province continues to track solid employment growth, low unemployment and healthy wage gains.

Alberta — Affordability has been plummeting at a blistering and accelerating pace for four quarters. This quarter marked the strongest broad-based quarterly deterioration in affordability since 1990 with the pace of erosion in the 12%-15% range for all home segments. Commodity-related spin-off effects continue to pump provincial residential housing markets. Ample job opportunities have driven up wages and pushed unemployment to record lows. The condo affordability was hardest hit with its index climbing to 24.8%. Despite spending less of their incomes on housing than in other major Canadian cities, it is the speed of the run-up in Alberta's house prices that concerns us. Housing markets are now gradually shifting away from an environment of excess demand; in January of 2006, the sales-to-listings ratio stood at 1.04 and has since dropped to 0.66. As demand winds down, house prices will likely ease off, but this will stimulate buyers as the economy remains in decent shape going into 2008.

British Columbia — Affordability fell for a fourth consecutive quarter across all four types of homes. While last quarter's deterioration was driven primarily by higher house prices and rising interest rates, this quarter's was chiefly driven by a 0.7% decline in average monthly incomes and higher utility bills that were unable to mitigate rising house prices. However, the annual pace of resale activity has slowed consecutively since April, while the growth of inventory on the market has simultaneously started to accelerate. A moderating sales-to-listings ratio and income growth already showing signs of slowing down lend evidence that house prices are likely to cool off going forward. A cooling market will be welcome relief for future homeowners as current conditions have pushed many prospective buyers out of the market.

Mortgage carrying costs by city

Our standard housing affordability index measures 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 index used here includes the cost of servicing a mortgage, but excludes property taxes and utilities due to data constraints in the smaller CMA. This measure is based on a 25% downpayment and a 25-year mortgage loan at a five-year fixed rate and is estimated on a quarterly basis. The higher the index, the more difficult it is to afford a house.



Source: Statistics Canada, Royal LePage, RBC Economics Research



Housing affordability summary tables

Detached bungalow

| Region | Average Price | | Qualifying Income (\$) Q3 2006 | Affordability Index (%) | |
|------------------|---------------|-----------|-----------------------------------|-------------------------|---------|
| | Q3 2006 (\$) | Y/Y % ch. | | Q2 2006 (rev) | Q3 2006 |
| Canada* | 276,293 | 12.4 | 67,777 | 39.5 | 40.2 |
| British Columbia | 462,231 | 23.8 | 102,804 | 62.3 | 63.9 |
| Alberta | 318,709 | 45.6 | 74,400 | 32.9 | 37.2 |
| Saskatchewan | 170,667 | 9.3 | 46,957 | 30.5 | 31.0 |
| Manitoba | 191,726 | 6.7 | 52,501 | 34.1 | 33.8 |
| Ontario | 281,829 | 4.1 | 70,463 | 37.3 | 37.3 |
| Quebec | 206,300 | 4.8 | 53,547 | 36.3 | 36.2 |
| Atlantic | 158,075 | 7.7 | 42,040 | 29.7 | 29.7 |
| Toronto | 391,012 | 2.6 | 92,343 | 43.9 | 43.8 |
| Montreal | 219,017 | 2.9 | 56,134 | 36.0 | 36.0 |
| Vancouver | 539,889 | 24.3 | 119,004 | 68.3 | 70.1 |
| Ottawa | 254,357 | 3.2 | 66,425 | 30.4 | 30.8 |
| Calgary | 395,067 | 56.5 | 89,334 | 34.6 | 40.9 |

Standard two storey

| Region | Average Price | | Qualifying Income (\$) Q3 2006 | Affordability Index (%) | |
|------------------|---------------|-----------|-----------------------------------|-------------------------|---------|
| | Q3 2006 (\$) | Y/Y % ch. | | Q2 2006 (rev) | Q3 2006 |
| Canada* | 314,659 | 10.0 | 77,176 | 44.9 | 45.8 |
| British Columbia | 497,264 | 16.3 | 111,292 | 67.5 | 69.2 |
| Alberta | 347,600 | 46.8 | 82,304 | 36.7 | 41.2 |
| Saskatchewan | 182,600 | 9.7 | 51,104 | 32.8 | 33.8 |
| Manitoba | 198,003 | 16.2 | 54,060 | 35.5 | 34.8 |
| Ontario | 327,173 | 2.7 | 81,645 | 42.9 | 43.2 |
| Quebec | 251,658 | 5.0 | 65,357 | 44.0 | 44.2 |
| Atlantic | 182,789 | 0.6 | 49,366 | 35.1 | 34.9 |
| Toronto | 446,625 | 0.0 | 106,271 | 50.2 | 50.4 |
| Montreal | 285,413 | 4.2 | 71,902 | 46.1 | 46.1 |
| Vancouver | 574,897 | 15.7 | 127,265 | 72.9 | 75.0 |
| Ottawa | 305,000 | 2.9 | 78,278 | 36.0 | 36.3 |
| Calgary | 405,778 | 53.5 | 92,952 | 36.2 | 42.5 |

Standard townhouse

| Region | Average Price | | Qualifying Income (\$) Q3 2006 | Affordability Index (%) | |
|------------------|---------------|-----------|-----------------------------------|-------------------------|---------|
| | Q3 2006 (\$) | Y/Y % ch. | | Q2 2006 (rev) | Q3 2006 |
| Canada* | 218,890 | 9.8 | 53,876 | 31.4 | 32.0 |
| British Columbia | 339,519 | 12.2 | 76,050 | 46.1 | 47.3 |
| Alberta | 234,458 | 52.1 | 54,809 | 24.2 | 27.4 |
| Saskatchewan | 133,650 | 7.8 | 37,576 | 24.2 | 24.8 |
| Manitoba | 114,824 | 19.3 | 32,006 | 20.1 | 20.6 |
| Ontario | 228,738 | 2.6 | 57,325 | 30.5 | 30.4 |
| Quebec | 179,624 | 5.2 | 46,460 | 31.2 | 31.4 |
| Atlantic | 137,214 | 10.7 | 36,030 | 25.4 | 25.5 |
| Toronto | 297,861 | 0.8 | 71,136 | 34.0 | 33.7 |
| Montreal | 195,390 | 1.9 | 49,812 | 32.1 | 31.9 |
| Vancouver | 391,827 | 14.4 | 86,811 | 49.8 | 51.1 |
| Ottawa | 210,357 | 4.5 | 55,556 | 25.5 | 25.7 |
| Calgary | 294,967 | 58.2 | 67,062 | 26.2 | 30.7 |

Standard condo

| Region | Average Price | | Qualifying Income (\$) Q3 2006 | Affordability Index (%) | |
|------------------|---------------|-----------|-----------------------------------|-------------------------|---------|
| | Q3 2006 (\$) | Y/Y % ch. | | Q2 2006 (rev) | Q3 2006 |
| Canada* | 191,337 | 12.7 | 47,210 | 27.6 | 28.0 |
| British Columbia | 233,063 | 16.1 | 53,411 | 32.4 | 33.2 |
| Alberta | 209,484 | 53.3 | 49,531 | 21.5 | 24.8 |
| Saskatchewan | 106,250 | 5.2 | 30,134 | 19.4 | 19.9 |
| Manitoba | 104,024 | 17.9 | 29,181 | 19.1 | 18.8 |
| Ontario | 212,783 | 8.6 | 52,687 | 28.1 | 27.9 |
| Quebec | 163,837 | 3.9 | 42,394 | 28.7 | 28.7 |
| Atlantic | 141,550 | 9.2 | 36,318 | 25.5 | 25.7 |
| Toronto | 260,513 | 7.3 | 62,141 | 30.1 | 29.5 |
| Montreal | 184,978 | 4.3 | 46,428 | 29.7 | 29.8 |
| Vancouver | 263,980 | 17.0 | 59,740 | 34.3 | 35.2 |
| Ottawa | 182,357 | 5.3 | 46,952 | 21.3 | 21.8 |
| Calgary | 245,844 | 59.8 | 55,920 | 21.1 | 25.6 |

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

How RBC's Housing Affordability Indexes work

RBC Economics Research's housing affordability indexes shows 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 indexes 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 indexes use household income rather than family income to account for the growing number of unattached individuals in the housing market. The indices are 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 index 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 indexes, the more difficult it is to afford a house. For example, an affordability index 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 a borrower's gross annual income should go to "mortgage expenses" — principal, interest, property taxes and heating costs (plus maintenance fees for condo mortgages).