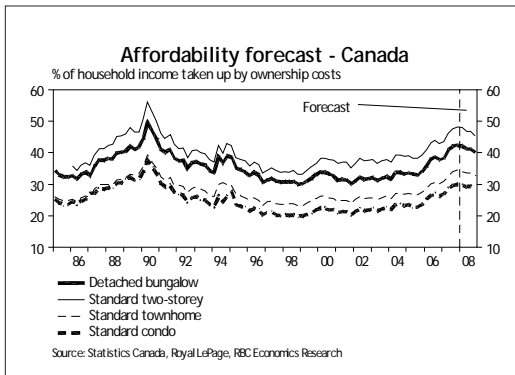


## HOUSING AFFORDABILITY

March 2008



### Snapshot of Canada-U.S. household finances

2007 estimates	Canada	U.S.
<b>% of personal disposable income, annual average</b>		
Total household debt	131.1	184.8
Mortgage debt	79.4	119.0
Consumer debt	51.8	65.7
Total assets	778.1	742.4
Net worth	647.0	557.6
Interest and principal payments	18.2	14.3
<b>% of assets, 2007Q3</b>		
Total household debt	16.9	24.9
Financial assets	56.6	53.0
Real assets	43.4	47.0
<b>Local currency per capita, real 2007 dollars, 2007Q3</b>		
Total debt	35,289	62,212
Total assets	209,414	249,996
Disposable income	26,811	33,800
Net worth	174,130	187,784
<b>Other, 2007Q3</b>		
Mortgages as % of real estate	27.4	39.5
Other debt as % of other assets	10.6	14.9
Cash & deposits as % of fin. asset	19.0	16.7
Unemployment rate	6.0	4.7

Note: As per the usual treatment, these figures combine household and the unincorporated businesses that they manage and upon which they hold the residual claims.

Source: Statistics Canada, Bank of Canada, U.S. Federal Reserve, BEA, RBC Economics Research

#### Derek Holt

Assistant Chief Economist  
(416) 974-6192  
derek.holt@rbc.com

#### Amy Goldbloom

Economist  
(416) 974-0579  
amy.goldbloom@rbc.com

### Alberta on watch

▲ Nationwide housing affordability deteriorated in every consecutive quarter throughout 2007 to end up at its most unaffordable level since the housing bubble peaked in 1990. Back then, soaring interest rates and a recession sparked much of the trouble. Today, however, a long upward trend in house prices driven by sounder macroeconomic fundamentals like job growth is primarily responsible. Adding more fuel to this housing cycle is mortgage product innovation that has expanded the market to more potential buyers since mortgage insurance liberalization began two years ago.

▲ Only Alberta bucked the trend in the latest quarter. Outside of Alberta, affordability deteriorated in every single market and for each type of housing.

▲ The lagged effects of higher fixed mortgage rates continue to be a significant part of deteriorating affordability, but our forecast sees the popular five year mortgage rate dropping by a further 75 basis points by year-end. Going forward, falling mortgage rates, cooler forecast house price gains and decent income growth should all lead to improved affordability across most markets.

▲ It's premature to get too concerned, but Alberta's housing market is on watch for possible further negative developments. The average price of a standard two-storey home fell by 4.3% last quarter over the previous quarter. Bungalow prices fell by 7.3%, townhomes were off by 4% and condos fell by 5.3% in their second consecutive quarterly dip. The price of the benchmark two-storey home is still 63% higher than two years ago, and one quarter does not make a trend. However, the year-over-year pace of price gains has gone from about 50% a year ago to only 11% today. Furthermore, the sales to listing ratios in Calgary and Edmonton remain at about 0.4, or about half the peak recorded over the past two years, which points to the risk of further price cooling in a market with more slack.

▲ The arrival of slipping house prices in Alberta may well enhance a growing tendency to make comparisons between Canadian and U.S. household finances. Americans are still modestly richer, but much more heavily leveraged and further indebted with less liquidity (see table). That, in turn, makes them more vulnerable to ongoing credit market turmoil and risks to house prices than Canadians.

▲ The sharp depreciation in the U.S. dollar over the past six years has made Canadians relatively much richer over time by raising the relative value of what their wealth will buy in world markets compared to Americans. The table uses figures in local currency terms and a C\$ floating around parity makes for fairly direct comparisons. If, however, this were six years ago when the C\$ bottomed out at 62 cents against the greenback, then Canadian household net worth would be over 40% lower than in the United States. Even if a long-run average C\$ value (say, 85 cents) were assumed, Canadian household net worth is still relatively much higher than years past.

## British Columbia - expect more balance in 2008

As forecast, affordability conditions deteriorated across every home segment in the final quarter of 2007 and we still believe the market is poised for some affordability relief. The two-storey segment continues to carry the brunt of the deterioration as the hot Vancouver market remains in deeply stressed territory. The province-wide sales-to-new listings ratio is slowing, indicating a gradual re-balancing of markets. Mortgage rates should be a positive for markets this year as we still expect the five-year fixed rate to drift about 75 basis points lower from current levels. Although house price growth picked up at the end of last year, softening economic fundamentals are expected to temper demand for existing homes and slow price gains in 2008 from the 12% pace in 2007 to the 7% range.

## Alberta's housing markets on watch

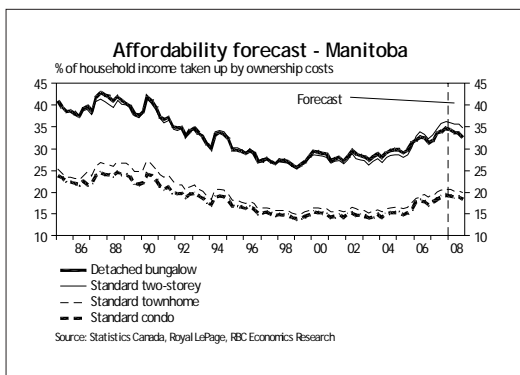
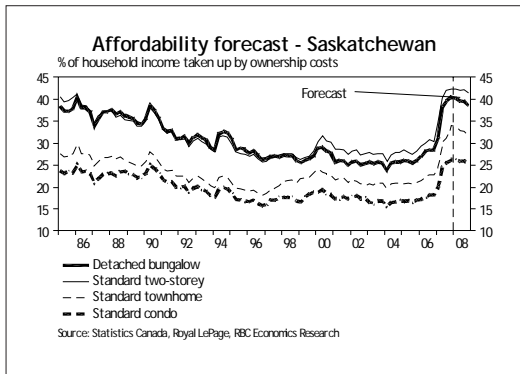
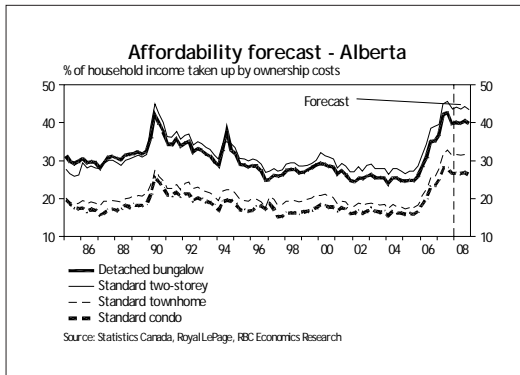
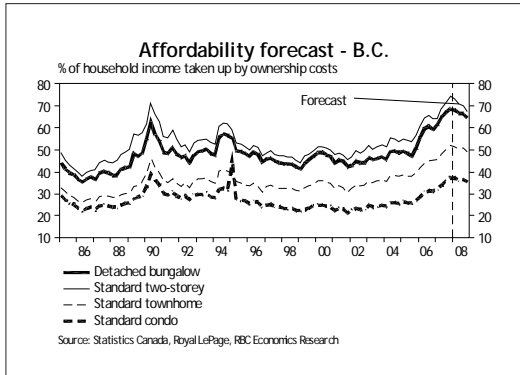
Affordability appears to have peaked about midway through last year. Conditions are now already on an improving track with more relief in the pipelines over the coming quarters. Healthy income gains (running at 5% year-over-year in the final quarter of 2007) combined with a decline in house prices led to overall affordability improvements for new homeowners trying to tap into the overvalued Alberta market. This marks the first time in over three years that the market has witnessed a broad-based affordability improvement across all home segments. This also marks the start of what we fear could become a trend. All of the key housing measures are in contraction mode right now including house prices, housing starts, and resale activity. The sales-to-new listings ratio has swung dramatically from deep seller's territory into a more balanced state and has remained in steady balance for the last six months. Further improvements are expected as the market continues unwinding and mortgage rate relief materializes.

## Saskatchewan is the new Alberta... but for how long?

Saskatchewan now holds the top spot on growth across all key housing indicators including housing starts, house prices, residential building permits, and resale activity. Supply constraints in the existing home market have meant overflowing demand into the new home market. Housing starts soared 62% last year and we expect Saskatchewan to be the only province to see an increase in housing starts in 2008. New house prices continue to escalate with year-over-year growth running at 45% in Saskatoon and 26% in Regina. Supply shortages continue to push up prices and overall inflationary pressures in the province. The latest month's data is still signaling a sales-to-new listings ratio in deep seller's market. The major erosion of affordability that has occurred over the last year should gradually take a bite out of current momentum over the coming year.

## Manitoba - more upside potential ahead

Resale markets across the province continue to heat up. Excess demand is driving 12%-15% year-over-year house price gains across all home segments. Strong price gains led to another quarterly deterioration in housing affordability at the end of last year. Manitoba has not seen anything close to the magnitude of the deterioration witnessed in Saskatchewan and Alberta. Overall affordability conditions are still within reason as household income continues to grow at a healthy 5% year-over-year pace - the third fastest in the country. We expect an improving trend to take hold over the coming quarters as price gains weigh on existing demand and sales-to-new listings ratios let-up.



## Ontario - slower economy, improved affordability

As the province teeters on the brink of recession through 2008, we expect the impacts of slower growth (largely stemming from slower job growth and wage gains) to restrain housing activity in 2008. The annual pace of income growth for the fourth quarter of 2007 came in at the slowest pace among the provinces. Housing starts are still expected to remain elevated but should decline from 2007 levels. Affordability conditions deteriorated across all home segments but the pace of deterioration slowed. We expect this trend to continue in 2008 as some affordability relief materializes through a lower mortgage rate environment, softer price gains, and an overall slower economic growth profile.

## Quebec - affordability still manageable

The nationwide deterioration in affordability conditions hit every province last year. The hit to Quebec, however, was much more muted. A generally balanced market has helped keep affordability conditions generally in check. House prices continue to modestly outpace income gains but the gap between the two measures is expected to narrow this year as price growth moderates to the 5% range in 2008. Housing starts have been running at elevated levels (close to 49,000 units) in each of the last three years. New home construction is expected to slow modestly in 2008 (46,000 units) and more significantly by 2009 (40,000 units) as housing markets shift into slower gear.

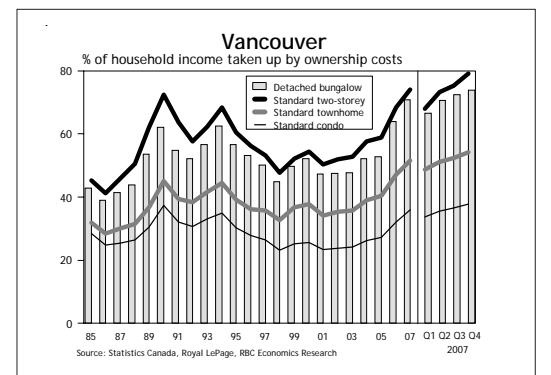
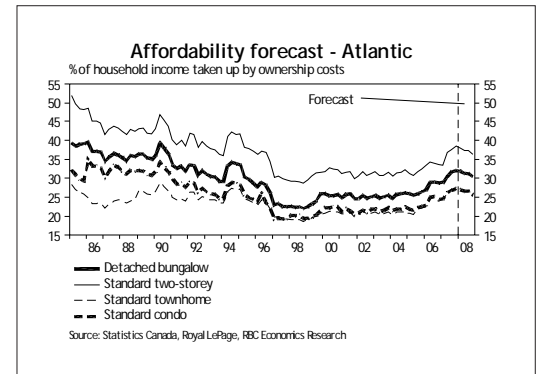
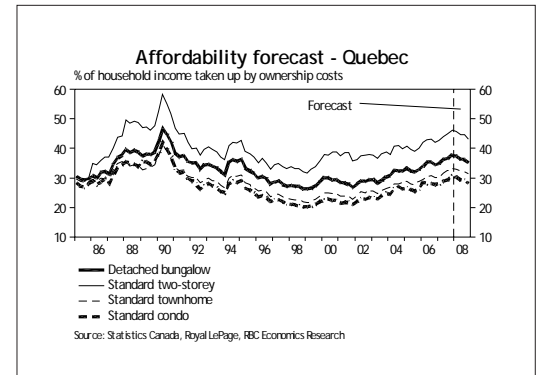
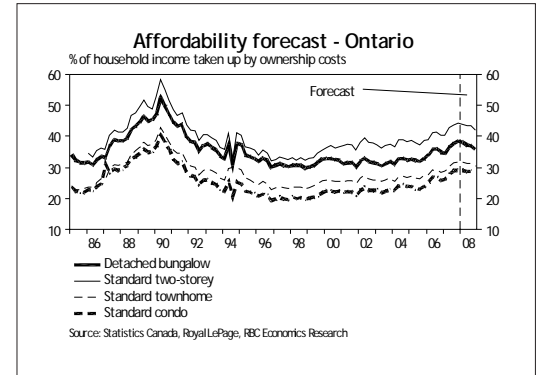
## Atlantic - broad-based improvements ahead

Affordability continued to deteriorate in the final quarter of 2007 but we are still forecasting some modest improvements across all types of home segments in 2008. Housing markets across the region are cruising along at a healthy speed with markets generally balanced. The improvements are expected to stem from the combination of decent income growth, moderate house price gains, and anticipated mortgage rate relief. House price growth should moderate into the mid-single digit range and construction is expected to taper down. Softer markets are likely to gradually tilt the balance in favor of buyers over sellers. Newfoundland was the regional outlier toward the end of 2007. The market heated up late last year as a result of tight supply and rising prices in the St. John's market. However, it is also expected to join the Atlantic region in an overall cooling in 2008.

## Metro markets

### Vancouver - markets still stressed

The strong house price gains recorded over the last few years continue to weigh on affordability conditions across the Vancouver market. Two-storey homes are the affordability outliers compared to other major markets with the average selling price now nearing a whopping \$650,000 - this sits 35% above the average price for a comparable Toronto home. The sharp erosion in conditions is expected to start filtering through the resale market this year allowing the pace of activity to calm down. The new home market is being driven by the multiples segment that soared in February by 45%. Despite the surge in February starts, some moderation in activity is expected for 2008. This projected slowing is consistent with the sharp deterioration in housing affordability in recent quarters and the fact that most of the strength so far this year has been in the volatile multiples component. As well, a generalized slowing in economic activity, with attendant downward impact on employment and income, will also weigh on housing going forward.



## Metro markets

### Calgary & Edmonton - rapid slowdown underway?

The pendulum has swung quite rapidly from a red-hot seller's market to one that is decelerating at a remarkable pace. All home segments witnessed sizeable improvements to affordability conditions in the final quarter of 2007 with momentum expected to continue this year. Sales-to-new listings ratios in both cities continue to decline and still remain in the soft end of a balanced market. Year-over-year house price gains continue to slow sharply dropping in January to 8% in Calgary and 11% in Edmonton. The softness is also evident in the new home market. Housing starts in Calgary have slowed dramatically dropping 33% year-over-year in the final quarter of last year and a further 11% in January. The rapid run-up in house prices has triggered automatic stabilizers to kick-in by aggressively pricing prospective homeowners out of the market. As more supply gradually makes its way to market, the pace of price gains are expected to continue to fall closer in line with income growth and underlying market conditions.

### Toronto - more moderation in 2008

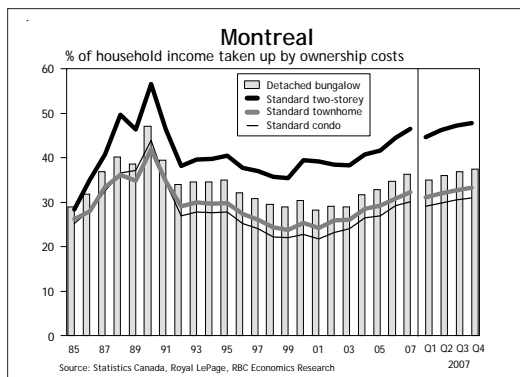
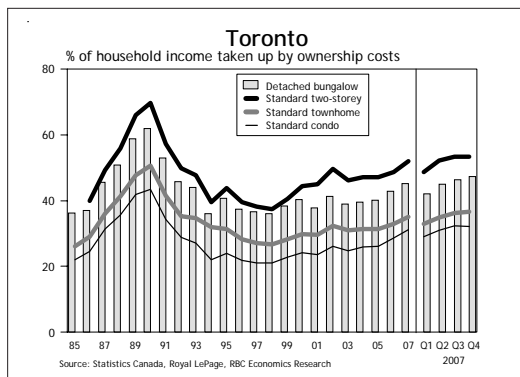
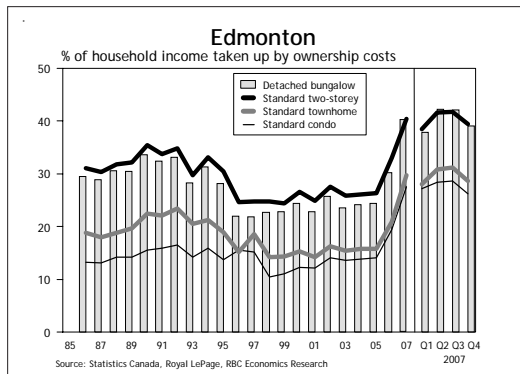
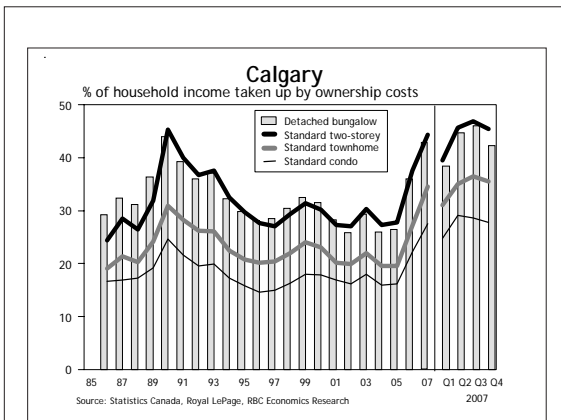
Affordability across Toronto deteriorated modestly for bungalows and townhomes and stabilized for condos and two-storeys. An overall improving affordability trend is expected in 2008 as new home and resale markets cool off amidst an increasingly lower mortgage rate environment. It is difficult to speak of the Toronto market without drilling into the different pockets of strength within the city. The core Toronto area remains tight and continues to bias the headline numbers up. Outside of the core, several other sub-regions will see a continued moderation in average house price growth in 2008. To date, the condo market has proved quite resilient with house prices still growing at a 10% year-over-year pace. However, a sizeable increase in supply coming to market over the next two years is expected to shave some of the excitement off price growth.

### Ottawa - balance still tilted toward a seller's market

Healthy housing market fundamentals continue to underscore Ottawa's market. The market is moderately tilted toward seller's territory with the sales-to-new listings ratio currently teetering around 0.7. Price gains are holding steady in the 5% year-over-year range. Price gains relative to incomes are manageable and have helped keep the market in affordable territory. The market witnessed only a slight deterioration in conditions in the final quarter of 2007. Affordability is expected to improve in 2008 due to mortgage rate relief and somewhat slower housing demand. New home construction looks to be tapering down but should remain at elevated levels. Support from the growing multiples sector will be a critical driver of housing starts this year.

### Montreal - housing market stability continues

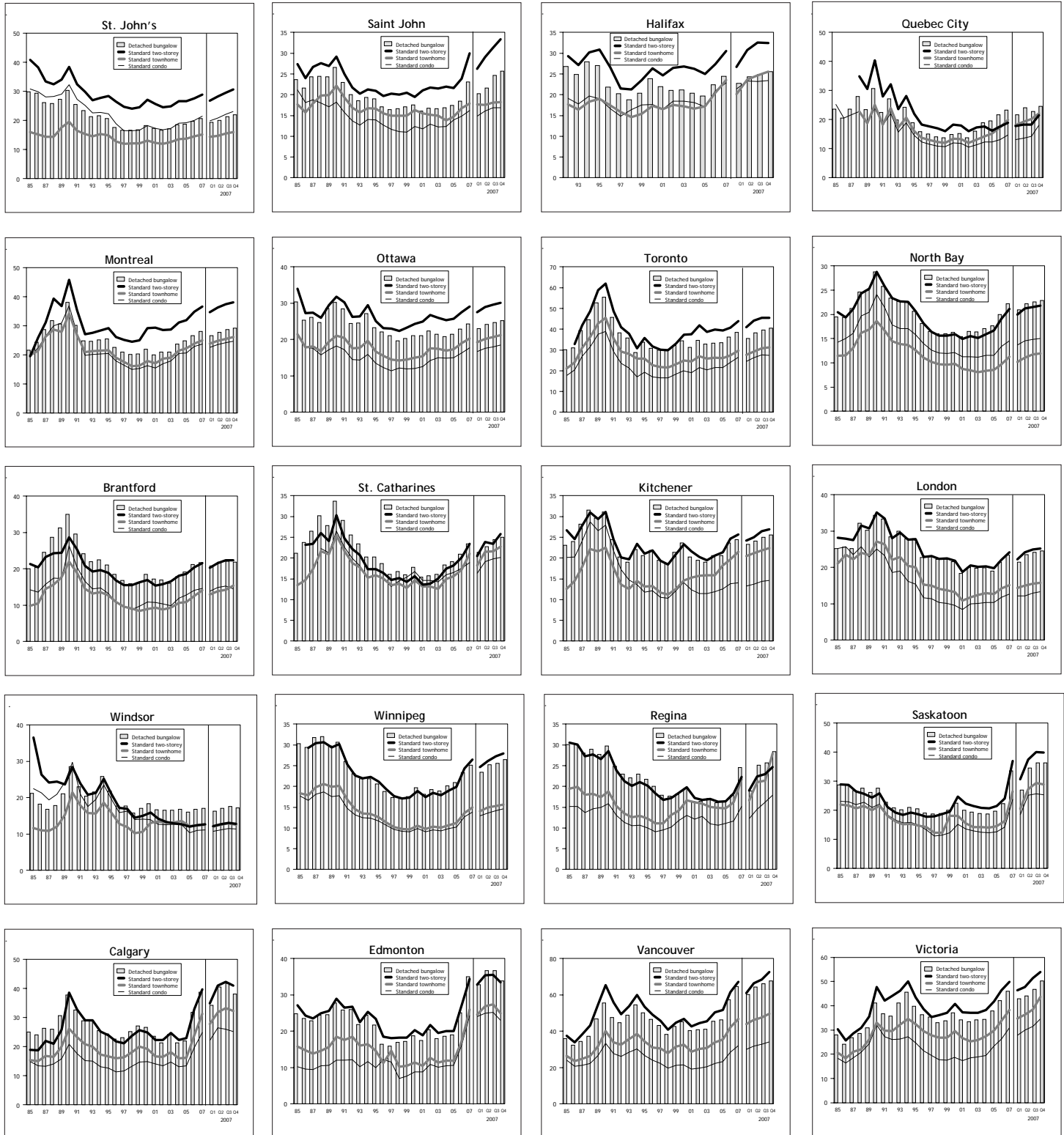
The sales-to-new listings ratio continues to signal balanced conditions. House price gains are moving along at a healthy 5% year-over-year pace across all home segments. Steady real-estate markets are providing a good support to the domestic side of the economy. The combination of somewhat softer income gains in the final quarter of the year combined with rising mortgage rates led to an erosion of affordability, but the change was only modest. Going forward, the trend on overall affordability is expected to be an improving one. We expect the resale market to soften in 2008. The new home market has already slowed. Housing starts came in at 25,000 units last year but activity should cool this year as new construction in both singles and multiple units decline.





# Mortgage carrying costs by city

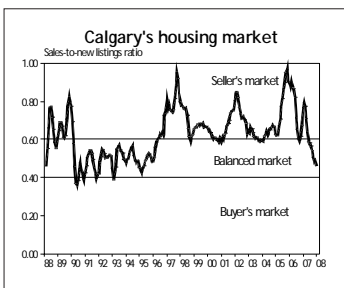
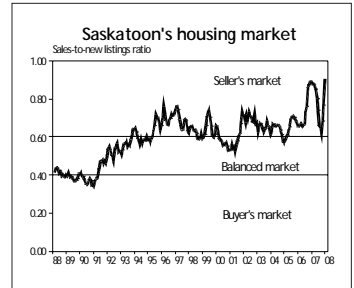
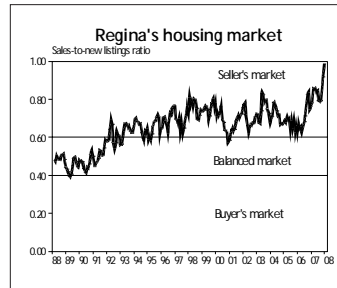
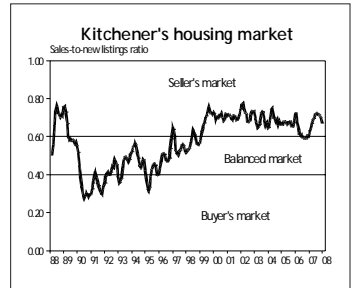
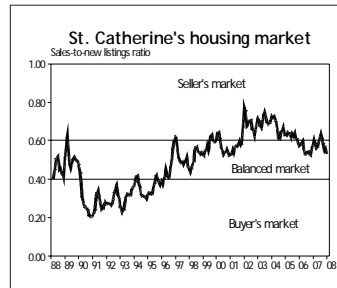
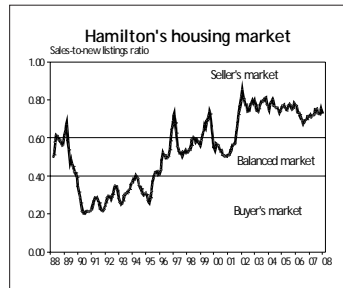
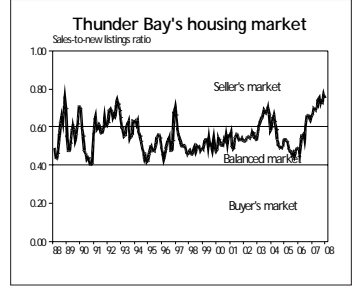
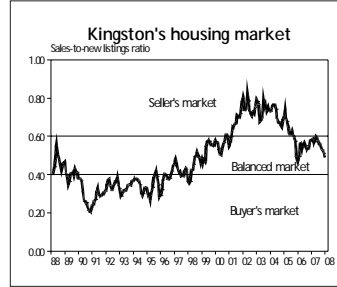
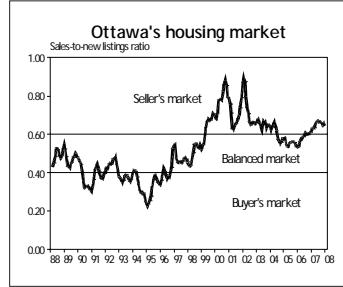
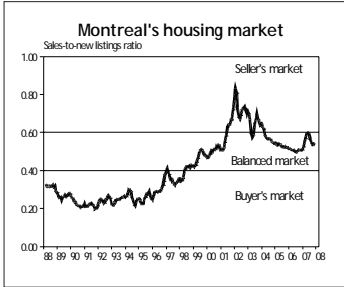
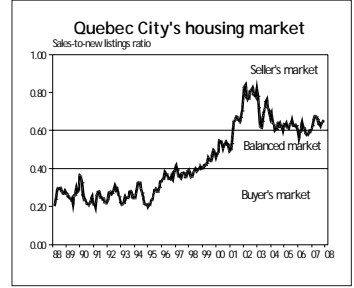
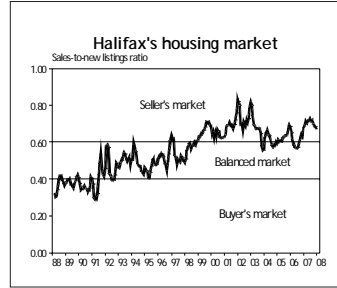
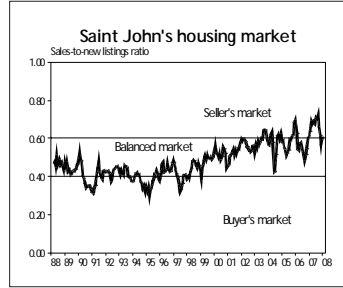
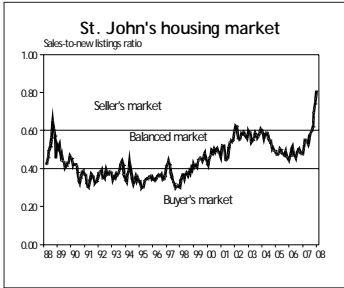
Our standard housing affordability measure captures the proportion of median pre-tax household income required to service the cost of a mortgage, including principal and interest, property taxes and utilities; the modified measure used here includes the cost of servicing a mortgage, but excludes property 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\*

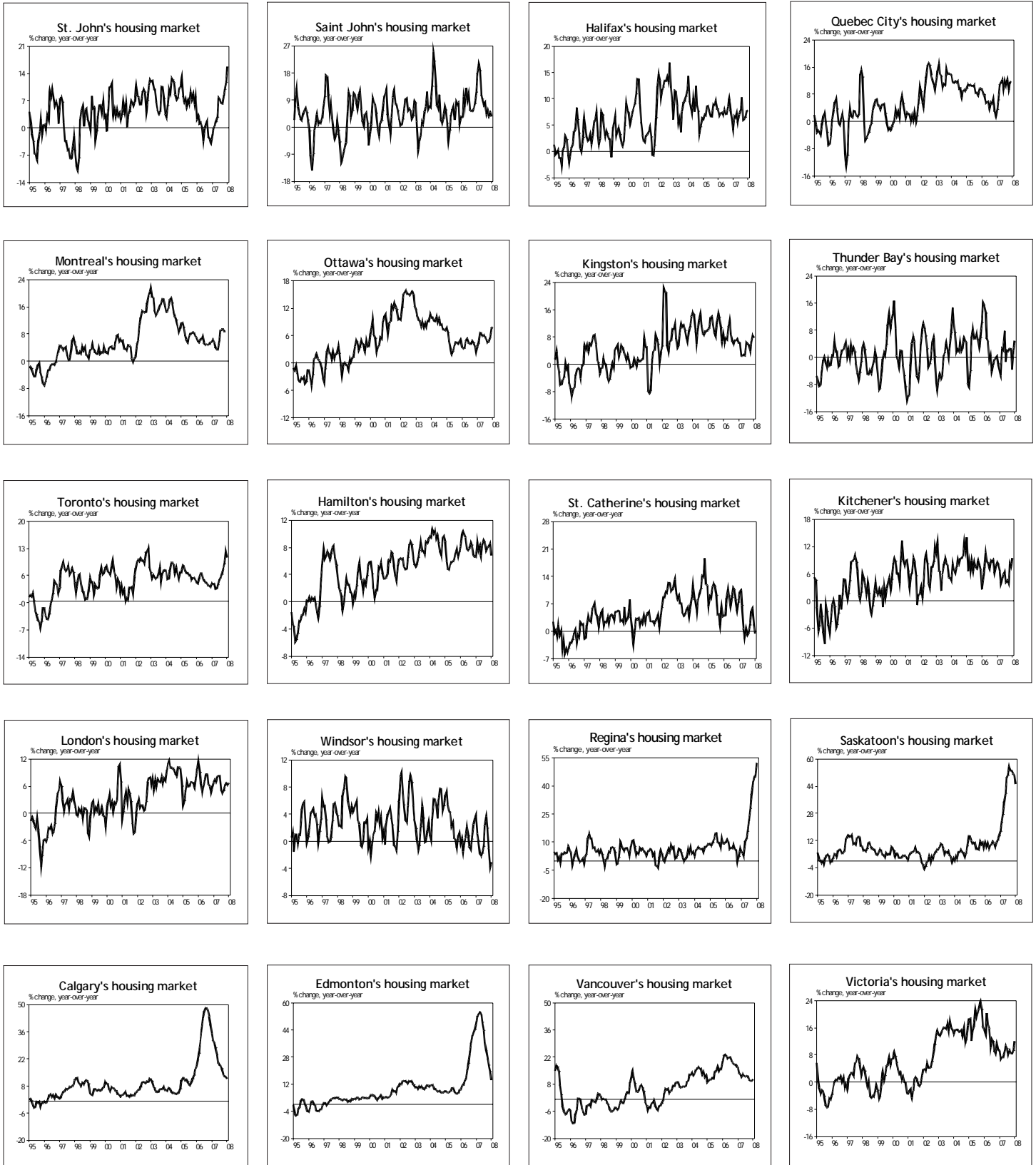


Source: Canadian Real Estate Association, RBC Economics Research

\* 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 (\$) Q4 2007	Affordability Measure (%)	
	Q4 2007 (\$)	Y/Y % ch.		Q3 2007 (rev)	Q4 2007
Canada*	307,990	10.0	76,408	42.0	42.5
British Columbia	522,865	12.4	119,127	67.1	68.5
Alberta	373,826	11.3	87,670	42.6	39.7
Saskatchewan	271,400	54.4	67,534	39.6	40.4
Manitoba	213,274	12.4	57,889	33.9	34.6
Ontario	304,841	7.3	77,097	37.7	38.6
Quebec	219,772	6.6	58,626	36.7	37.7
Atlantic	177,375	8.8	47,261	31.6	32.1
Toronto	425,126	7.9	102,625	46.3	47.3
Montreal	231,939	5.0	61,319	36.8	37.4
Vancouver	604,693	11.6	136,706	72.4	73.8
Ottawa	267,589	4.3	70,985	31.9	32.3
Calgary	429,889	5.2	98,695	46.1	42.3
Edmonton	357,917	19.4	85,549	42.1	39.1

### Standard two-storey

Region	Average Price		Qualifying Income (\$) Q4 2007	Affordability Measure (%)	
	Q4 2007 (\$)	Y/Y % ch.		Q3 2007 (rev)	Q4 2007
Canada*	348,969	9.6	86,612	47.5	48.1
British Columbia	563,312	12.3	128,760	70.9	74.1
Alberta	406,708	11.1	96,276	45.5	43.6
Saskatchewan	280,500	51.2	70,678	41.9	42.3
Manitoba	225,477	13.5	60,412	35.6	36.1
Ontario	349,964	6.5	88,387	43.8	44.3
Quebec	268,783	6.9	71,681	44.7	46.1
Atlantic	210,444	12.3	56,433	37.6	38.3
Toronto	475,888	6.5	115,833	53.4	53.4
Montreal	300,981	5.0	78,364	47.2	47.8
Vancouver	648,592	12.1	146,739	75.4	79.2
Ottawa	320,031	4.6	83,433	37.4	38.0
Calgary	461,811	8.5	106,252	46.9	45.5
Edmonton	354,060	11.7	86,337	41.8	39.5

### Standard townhouse

Region	Average Price		Qualifying Income (\$) Q4 2007	Affordability Measure (%)	
	Q4 2007 (\$)	Y/Y % ch.		Q3 2007 (rev)	Q4 2007
Canada*	250,813	11.7	62,103	33.9	34.5
British Columbia	394,920	11.6	90,143	49.9	51.9
Alberta	300,558	21.6	69,669	32.8	31.6
Saskatchewan	228,750	65.6	56,937	31.2	34.1
Manitoba	126,593	10.5	34,688	20.4	20.7
Ontario	253,097	8.6	63,869	31.5	32.0
Quebec	195,011	7.8	51,655	32.3	33.2
Atlantic	149,429	7.9	39,635	26.9	26.9
Toronto	326,814	8.3	79,482	36.2	36.7
Montreal	206,581	4.4	54,394	32.7	33.2
Vancouver	443,988	8.8	100,520	52.4	54.3
Ottawa	224,734	6.0	60,051	26.9	27.3
Calgary	364,778	16.0	82,924	36.6	35.5
Edmonton	263,750	30.2	62,727	31.2	28.7

### Standard condo

Region	Average Price		Qualifying Income (\$) Q4 2007	Affordability Measure (%)	
	Q4 2007 (\$)	Y/Y % ch.		Q3 2007 (rev)	Q4 2007
Canada*	216,737	11.5	53,874	29.6	29.9
British Columbia	279,787	15.8	64,622	35.8	37.2
Alberta	248,379	12.2	58,634	28.0	26.6
Saskatchewan	174,500	58.3	43,811	25.6	26.2
Manitoba	117,738	15.2	32,250	18.9	19.3
Ontario	232,626	9.4	58,210	29.0	29.2
Quebec	179,769	7.9	47,531	29.4	30.6
Atlantic	153,925	9.1	40,081	26.8	27.2
Toronto	287,639	10.7	69,767	32.3	32.2
Montreal	195,651	4.6	50,769	30.5	31.0
Vancouver	305,026	11.6	69,851	36.6	37.7
Ottawa	196,264	6.8	51,054	22.8	23.2
Calgary	284,144	9.5	64,896	28.6	27.8
Edmonton	242,600	22.3	57,417	28.6	26.2

\* 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 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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