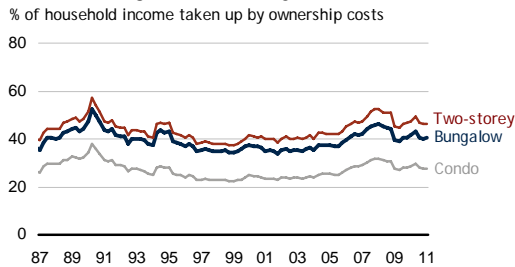


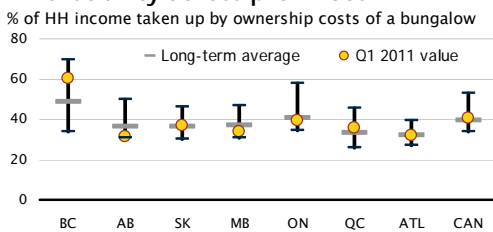
HOUSING TRENDS AND AFFORDABILITY

May 2011

RBC Housing Affordability Measures - Canada

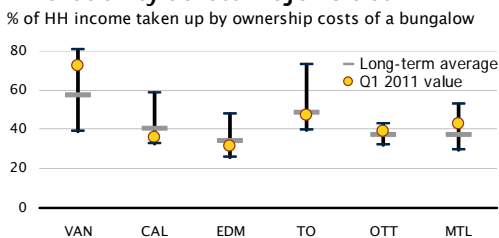


Affordability across provinces



Note: the top of each scale is the all-time high; the bottom, the all-time low.

Affordability across major cities



Note: the top of each scale is the all-time high; the bottom, the all-time low.

Affordability improvement window closed in the first quarter

The reprieve from the rising trend in homeownership costs that Canadian homebuyers enjoyed during the second half of 2010 came to an end in the early months of this year. Following two consecutive quarterly improvements, housing affordability eroded slightly in the first quarter of 2011 amid continued home price gains in the majority of markets. Mortgage rates, whose declines were the principal source of affordability amelioration last year, were essentially flat during the first three months of the year (based on their quarterly average). At the national level, the RBC Housing Affordability Measures inched higher for all three major housing types that we track, rising 0.2 percentage points for both two-storey homes and condominium apartments (to 46.2% and 27.7%, respectively) and 0.7 percentage points for detached bungalows (to 40.5%) in the first quarter (a rise represents a deterioration in affordability). Still, these increases reversed only part of the back-to-back declines in the previous two quarters. Current levels of RBC's Measures remain slightly above long-term averages but well below their recent cyclical peaks reached in early 2008 and their all-time peaks reached in 1990. In our opinion, this corresponds to affordability being moderately strained overall in Canada.

Homeownership costs surge in British Columbia...

Data for the latest period indicate that affordability eroded in the majority of markets across Canada. The sharpest deterioration occurred in British Columbia – more specifically in Vancouver – where significant home price gains since the start of the year have propelled the already elevated cost of homeownership even higher. The Quebec market also experienced noticeable rises in ownership costs for some housing categories. In particular, a detached bungalow or a two-storey home in Montreal became markedly more expensive in the first quarter of 2011. Alongside British Columbia and Quebec, Atlantic Canada was the only other region showing deterioration in affordability (albeit modest) across all housing types. The picture was mixed elsewhere in the country, with provinces showing both small improvement and deterioration (or no change at all) depending on the housing type.

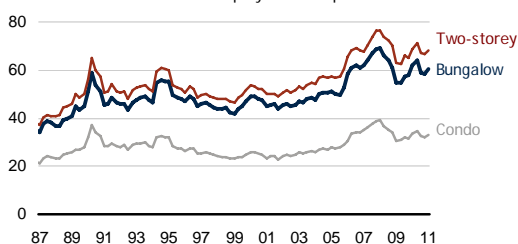
...fueling concerns but most Canadian markets are still reasonably affordable

On a provincial basis, the latest affordability levels generally continue to stand near their respective long-term averages. For the most part, this suggests that provincial markets are still reasonably affordable or, at worst, just slightly 'unaffordable'. In cases such as Alberta, homeownership even appears to be very affordable at this point in both absolute and relative terms. Calgary and Edmonton are, in fact, the major Canadian cities where affordability is the most attractive. Manitoba, and to a lesser extent, Atlantic Canada also enjoy better-than-average affordability levels. However, British Columbia is a significant exception. While affordability levels improved somewhat last year in

RBC Housing Affordability Measures

British Columbia

% of household income taken up by ownership costs



Source: Statistics Canada, Royal LePage, RBC Economics Research

the province, they are still extremely poor, especially for the key Vancouver market. The bad news is that they are likely to worsen still as interest rates rise in the period ahead (as we expect). Such strained conditions warrant close monitoring for any sign that the Vancouver and B.C. markets have become dangerously disconnected from prevailing local housing demand fundamentals.

Expected rise in interest rates will bite

In previous issues of Housing Trends and Affordability, we warned that the prospects of further improvement in affordability in 2011 were dim. We pointed to the fact that the declines in the Affordability Measures observed in the latter half of 2010 rested principally on declines in mortgage rates and that the expected resumption of the Bank of Canada's campaign to normalize its interest rate policy this year would have the opposite effect and set affordability on a deteriorating track – with sustained growth in household income softening the blow. The first quarter of this year turned out to be a transition period in that process. Flat mortgage rates (relative to the fourth quarter of 2010) ceased to help affordability but did not yet contribute to undermine it (higher home prices did). Developments in the early part of the second quarter – mortgage rates rose modestly amid mostly flat home prices – however, suggest that interest rates will soon start to work against affordability. For this reason, we believe that we have now entered a period of steady increases in homeownership costs, which will act to restrain growth in homebuyer demand in Canada for the quarters to come.

Possible near-term turbulence but Canadian market to remain on track

The most likely scenario, in our view, is a mostly flat trend in housing demand in Canada overall in the next two years (and potentially beyond). The risk of a significant, sustained and widespread drop will be limited given our expectation of a positive economic context that will sustain growth in household income and of a gradual pace of interest rate policy normalization – the Vancouver market could be an exception. Nonetheless, some market turbulence may occur in the coming months as the latest tightening in the mortgage lending rules in March and April of this year has likely brought forward into the early months of 2011 some resales activity that otherwise would have taken place later this year, thereby creating a lull this spring and summer. We expect the flat trend to reassert itself once this temporary factor has run its course.

Provincial overviews

British Columbia – High home prices straining affordability

Demand for housing in British Columbia continued to recover in the first quarter of 2011 at a pace that slightly exceeded growth in the supply of homes for sale. The resulting modest tightening in market conditions transferred a bit of pricing power to sellers, although the sales-to-new-listings ratio in the province did not indicate a clear-cut sellers' market at this point. Yet sellers made out surprisingly well in the early months of this year, enjoying strong price increases for their homes, particularly for bungalows and

two-storey dwellings. The downside of sharp property appreciation, however, has been a worsening of affordability in the province. The RBC Affordability Measures for British Columbia, in fact, rose the most in the first quarter (between 0.8 and 1.8 percentage points) among all the provinces. We believe that deteriorating affordability will weigh increasingly on housing demand by B.C. households and raise the risk that they may be forced to the sidelines in substantial numbers, potentially causing painful market disruptions.

Alberta – No bubble here

The Alberta market continues to be stuck in low gear, as both sales of existing homes and construction of new housing units are showing very modest increases at best so far this year. Persistent hesitation on the part of homebuyers is likely symptomatic of long-lasting payback from their overextension during the 2006-07 boom when home prices jumped by more than 50%. This has since driven up the rate of mortgages in arrears to a generational high in the province. Until the latter stages of 2010, plentiful supply of homes for sale combined with sluggish demand to keep home prices firmly under wraps. Stable or slightly declining prices, in turn, contributed to substantial improvement in affordability in Alberta last year. While market conditions have become more balanced in recent months, there remains very little pricing momentum in the provincial market at this stage, maintaining attractive affordability levels – the RBC Measures for all housing categories in Alberta stood below their long-term average in the first quarter.

Saskatchewan – Taking a cooling break

The Saskatchewan market cooled a little in the early months of this year, following solid performance in the second half of last year. Home resales eased by 2% and new listings rose by close to 7% in the first quarter of 2011, thereby loosening market conditions somewhat. Home prices reacted to the market cooling with bungalows and two-storey homes reversing part of their gains in the previous quarter. Within the province, both the Regina and Saskatoon markets saw greater availability of supply amid a sharp slowing in home resales growth in the first quarter. Signs of softening property values led to further reduction in the cost of owning a home in the province. The RBC Measures for bungalows and two-storey homes fell by 0.7 percentage points in the first quarter, representing the third consecutive quarterly declines. Condominium apartments bucked the trend and saw their affordability deteriorate modestly amid higher prices.

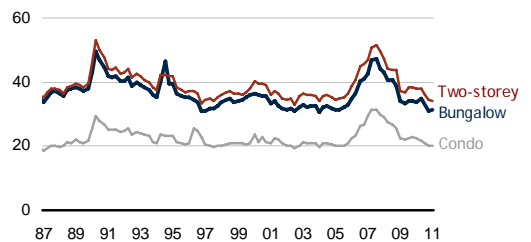
Manitoba – Still sound

The Manitoba market lived up to its reputation for sound behaviour in the early part of 2011. Rising homebuyer demand in the first quarter continued to be met with an equal-sized increase in homes being put on the market, which maintained the reasonably firm tone in market conditions of the past year or so and kept property value appreciation under control. In the latest quarter, home prices went up modestly for detached bungalows and two-storey homes, while edging lower for condominium apartments following a sizeable gain in the previous quarter. Housing affordability continues to be attractive in the province with little change registered in the first quarter: the RBC Measures for Manitoba rose marginally by 0.1 percentage points for

RBC Housing Affordability Measures

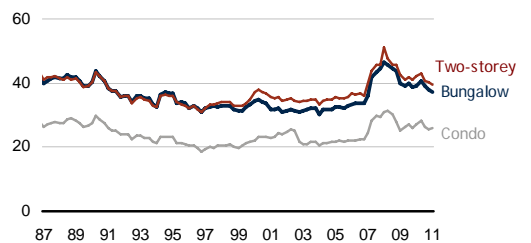
Alberta

% of household income taken up by ownership costs



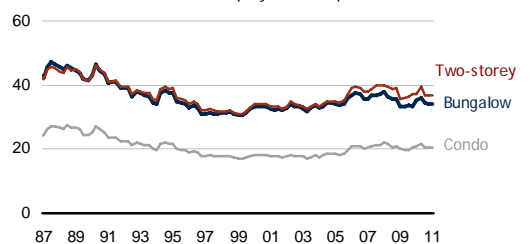
Saskatchewan

% of household income taken up by ownership costs



Manitoba

% of household income taken up by ownership costs

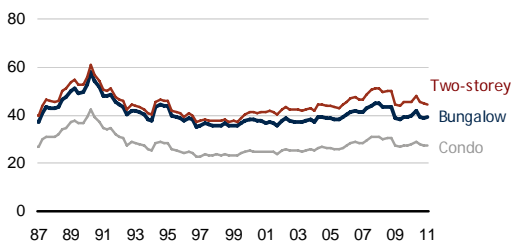


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

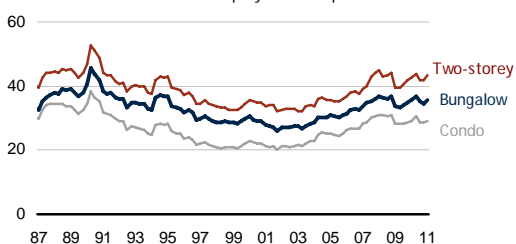
Ontario

% of household income taken up by ownership costs



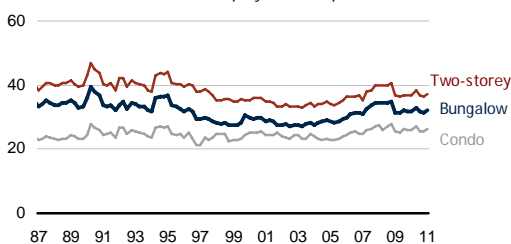
Quebec

% of household income taken up by ownership costs



Atlantic Provinces

% of household income taken up by ownership costs



Source: Statistics Canada, Royal LePage, RBC Economics Research

detached bungalows, declined by 0.2 percentage points for condominium apartments and stayed flat for two-storey homes. Manitoba is still one of the only two provincial markets in Canada (with Alberta) in which Affordability Measures stand below long-term averages for all housing categories.

Ontario – Cruising along

After getting back into gear in the latter stages of 2010, the Ontario housing market kept moving at a decent cruising speed in the early part of 2011. In the first quarter, home resales increased at a sustained yet subdued rate, and home prices generally rose modestly. The demand-supply equation remained roughly in balance but firmed just a tad to give sellers a slightly stronger hand. Housing affordability levels were little changed – with both modest improvement and deterioration registered during the quarter depending on the housing type – and still stood very close to long-term averages in the province, which we believe is having a mostly neutral impact on homebuyer demand in the province. All things considered, the Ontario market appeared to be on a sustainable path so far this year; yet it is nonetheless likely to face some headwinds in coming months arising from the latest changes in mortgage lending rules and expected rise in interest rates. In the latest period, the RBC Measures went up for bungalows and condominiums (by 0.5 and 0.1 percentage points, respectively) but down (by 0.6 percentage points) for two-storey homes.

Quebec – Affordability slips

Quebec homebuyers faced higher ownership costs in the first quarter, following some declines in the previous two quarters. In fact, the slippage in affordability in the early months of this year was among the most significant of all provinces for certain housing types. The RBC Measures for detached bungalows rose by 1.1 percentage points and the increase was 1.3 percentage points for two-storey homes; in each case, the magnitude was second only to British Columbia on a provincial basis. The deterioration was substantially less for condominium apartments, however, where the Measure inched up by only 0.1 percentage points. The Quebec market saw fairly strong price increases in the past year, which have raised the bar for homebuyers in the province. The RBC Measures now stand above long-term averages for all housing types in Quebec, which we believe corresponds to a moderately strained affordability situation in the province. Higher expected interest rates are likely to add more stress in the period ahead.

Atlantic – Attractiveness diminished just a bit

Rebounding housing market activity in Atlantic Canada has heated up property values a few degrees and eroded slightly the region's long-standing affordability advantage relative to most other Canadian markets. In the first quarter of this year, home resales in Atlantic Canada climbed solidly for the second consecutive period – led by strong advances in St. John's – and further reversed some of the notable declines that occurred in the middle of 2010. Brisk homebuyer demand restored part of the pricing power that sellers lost last year and supported home price rises between 2.0% and 3.8% depending on the housing type. The downside has been a modest deterioration in the region's attractive affordability position. The RBC Measures for

Atlantic Canada increased between 0.6 and 0.9 percentage points in the latest period. While these increases exceeded those for Canada, the region's affordability levels were still in line with their long-term averages and among the best in the country.

Major city markets

Vancouver – Testing the boundaries of rationality

Frenzied pricing action in the Vancouver-area market has shown few signs of letting up since the start of 2011. Fuelled by strong demand for high-end properties (according to local reports), home prices crushed old records in the first quarter of this year, surging between 4.5% and 7.2% depending on the housing type relative to the closing three months of 2010. This represented increases of as much as \$50,000 in a single quarter based on Royal LePage data. Such steaming up of property values far outpaced income gains of Vancouver-area households and further exacerbated the market's already poor affordability. The RBC Measures climbed by between 1.0 percentage point for condominium apartments and 3.4 percentage points for detached bungalows, moving closer to their all-time highs reached at the start of 2008. We fear that the Vancouver market is becoming increasingly disconnected from local demand conditions and vulnerable to a painful correction, especially once interest rates resume their ascent.

Calgary – Transitioning to a more vigorous phase

While still somewhat tentative at this stage, signs are accumulating that the Calgary housing market is finally overcoming its protracted slump and entering a more vigorous phase. Home resales grew for the second consecutive time in the first quarter of this year, advancing the most since the middle of 2009. This helped remove even more of the earlier market slack and set a healthier balance between demand and supply. Home prices have yet to break out of their listless trends but they did rise at their fastest rate in more than a year, with detached bungalows leading the way. The firming of market conditions and higher prices had only limited impact on Calgary's affordability, which remains among the most attractive of Canada's major cities. In the first quarter, the RBC Measures for Calgary rose by 0.9 percentage points for detached bungalows but eased by 0.2 percentage points for both two-storey homes and condominium apartments.

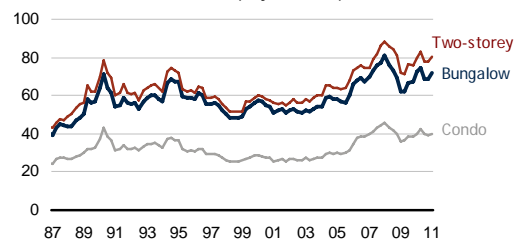
Toronto – Carrying strong momentum

Housing market activity in the Toronto area carried strong momentum in the early months of this year with home resales recovering more ground lost during the lull last spring and summer. Part of the recent strength likely reflected activity brought forward by the latest round of mortgage lending rule tightening that took effect in March and April, and could be reversed in coming months. Somewhat tense market conditions in the first quarter fuelled further appreciation in property values for most housing categories in the Toronto area, which in turn led to some erosion of affordability. The RBC Measures rose 0.8 percentage points for detached bungalows and by 0.1 percentage points for condominium apartments, although it fell by 0.9 percent-

RBC Housing Affordability Measures

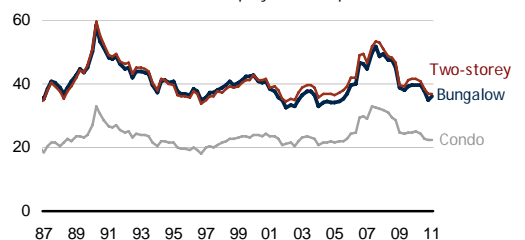
Vancouver

% of household income taken up by ownership costs



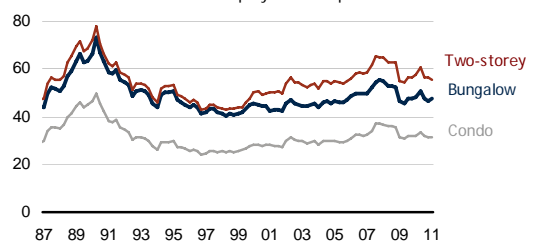
Calgary

% of household income taken up by ownership costs



Toronto

% of household income taken up by ownership costs

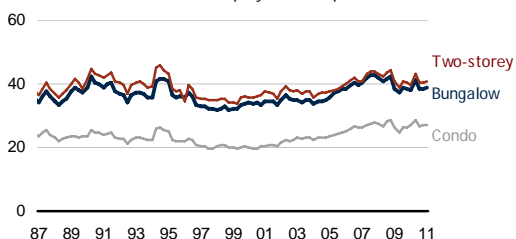


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

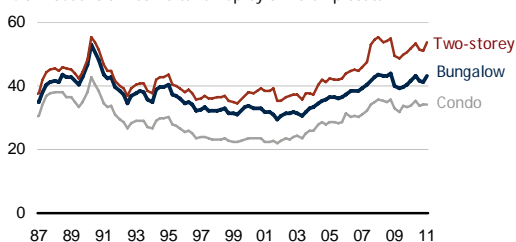
Ottawa

% of household income taken up by ownership costs



Montreal

% of household income taken up by ownership costs



Source: Statistics Canada, Royal LePage, RBC Economics Research

age points for two-storey homes. Notwithstanding the mild degradation, the area's affordability levels remain near their long-term averages, indicating to us that the cost of owning a home in the GTA has not reached perilously high levels at this point.

Ottawa – Deteriorating affordability pinching demand

It became a little less affordable for an Ottawa-area family to own a home in the first quarter. Residential property values appreciated for the second consecutive quarter and boosted the ownership costs of most housing types. Home prices rose despite homebuyer demand easing during the opening months of this year – after a strong finish to 2010 – because a comparatively larger decline in new properties being offered for sale actually tightened market conditions slightly. Still, the impact of higher prices on area homebuyers' ability to afford a home was tempered by continued income gains, which provided some extra budget room. The Ottawa-area's RBC Measures increased modestly in the first quarter by 0.4 percentage points for both detached bungalows and two-storey homes but recorded no change for condominium apartments. With the level of most of the Measures moving further above their long-run averages, we believe that deteriorating affordability in the area will increasingly restrain housing demand.

Montreal – Losing its status as an affordable market

Rapid home price increases in the past year are starting to squeeze home-ownership affordability in the Montreal-area market. In the first quarter of 2011, the market value of some housing segments in the area (particularly, detached bungalows and two-storey homes) appreciated substantially, contributing to crown Montreal as the major Canadian city where home price gains have been the strongest in percentage terms relative to this time a year ago (according to Royal LePage data). While good news for sellers, this has made owning a home more difficult for a typical family in the area. The RBC Measures for Montreal rose between just 0.1 percentage points for condominium apartments to a significant 2.8 percentage points for two-storey homes, pushing levels for all housing types further above long-term averages for the area. With Montreal's affordability measures now ranking above national averages and narrowing the gap with Toronto, the *métropole* is quickly losing its status of as an affordable market.

How the RBC Housing Affordability Measures work

The RBC 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 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 bungalow 1,200 square feet and a standard two-storey 1,500 square feet.

The measures are based on a 25% down payment, 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, Edmonton 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 RBC Housing Affordability Measure is based on gross household income estimates and, therefore, does not show the effect of various provincial property-tax credits, which could 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).

Summary tables

Detached bungalow

Region	Average Price		Qualifying Income (\$) Q1 2011	RBC Housing Affordability Measure			
	Q1 2011 (\$)	Y/Y % ch.		Q1 2011 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	338,700	4.3	74,100	40.5	0.7	-0.8	39.2
British Columbia	578,300	3.0	112,400	60.2	1.8	-1.9	48.8
Alberta	339,500	0.3	73,900	31.3	0.4	-2.6	36.4
Saskatchewan	311,100	1.7	69,500	37.1	-0.7	-2.0	36.5
Manitoba	256,800	3.8	61,000	34.1	0.1	-1.0	36.8
Ontario	352,500	4.9	79,700	39.3	0.5	-0.2	40.6
Quebec	232,200	7.4	53,300	35.6	1.1	0.1	33.1
Atlantic	206,900	6.2	50,700	32.2	0.9	0.4	32.0
Toronto	486,900	4.0	103,000	47.5	0.8	-0.7	48.6
Montreal	290,700	12.3	64,600	43.1	2.0	1.5	37.1
Vancouver	736,000	6.3	139,900	72.1	3.4	-0.3	57.3
Ottawa	364,300	9.4	84,500	39.0	0.4	1.1	36.9
Calgary	413,400	-1.4	85,000	35.9	0.9	-3.6	40.3
Edmonton	325,400	4.5	72,600	31.5	0.5	-1.4	34.1

Standard two-storey

Region	Average Price		Qualifying Income (\$) Q1 2011	RBC Housing Affordability Measure			
	Q1 2011 (\$)	Y/Y % ch.		Q1 2011 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	383,200	4.2	84,500	46.2	0.2	-0.9	43.6
British Columbia	653,700	5.5	126,900	67.9	1.2	-0.7	54.1
Alberta	363,000	-3.0	80,800	34.2	-0.2	-3.7	39.0
Saskatchewan	321,200	-0.2	73,900	39.4	-0.7	-2.7	37.9
Manitoba	279,400	7.3	65,800	36.8	0.0	-0.2	37.7
Ontario	396,900	2.9	90,500	44.6	-0.6	-0.8	44.2
Quebec	282,300	10.0	64,800	43.2	1.3	0.7	39.1
Atlantic	230,900	4.7	58,300	37.1	0.7	0.2	38.5
Toronto	566,700	1.8	120,700	55.6	-0.9	-1.9	54.0
Montreal	365,800	12.7	80,500	53.7	2.8	2.0	42.1
Vancouver	821,900	7.7	156,000	80.4	2.5	0.6	62.6
Ottawa	371,200	9.5	88,800	40.9	0.4	1.1	39.3
Calgary	410,900	-4.9	87,000	36.8	-0.2	-4.8	40.9
Edmonton	367,700	0.0	82,600	35.8	0.4	-2.9	37.3

Standard condominium

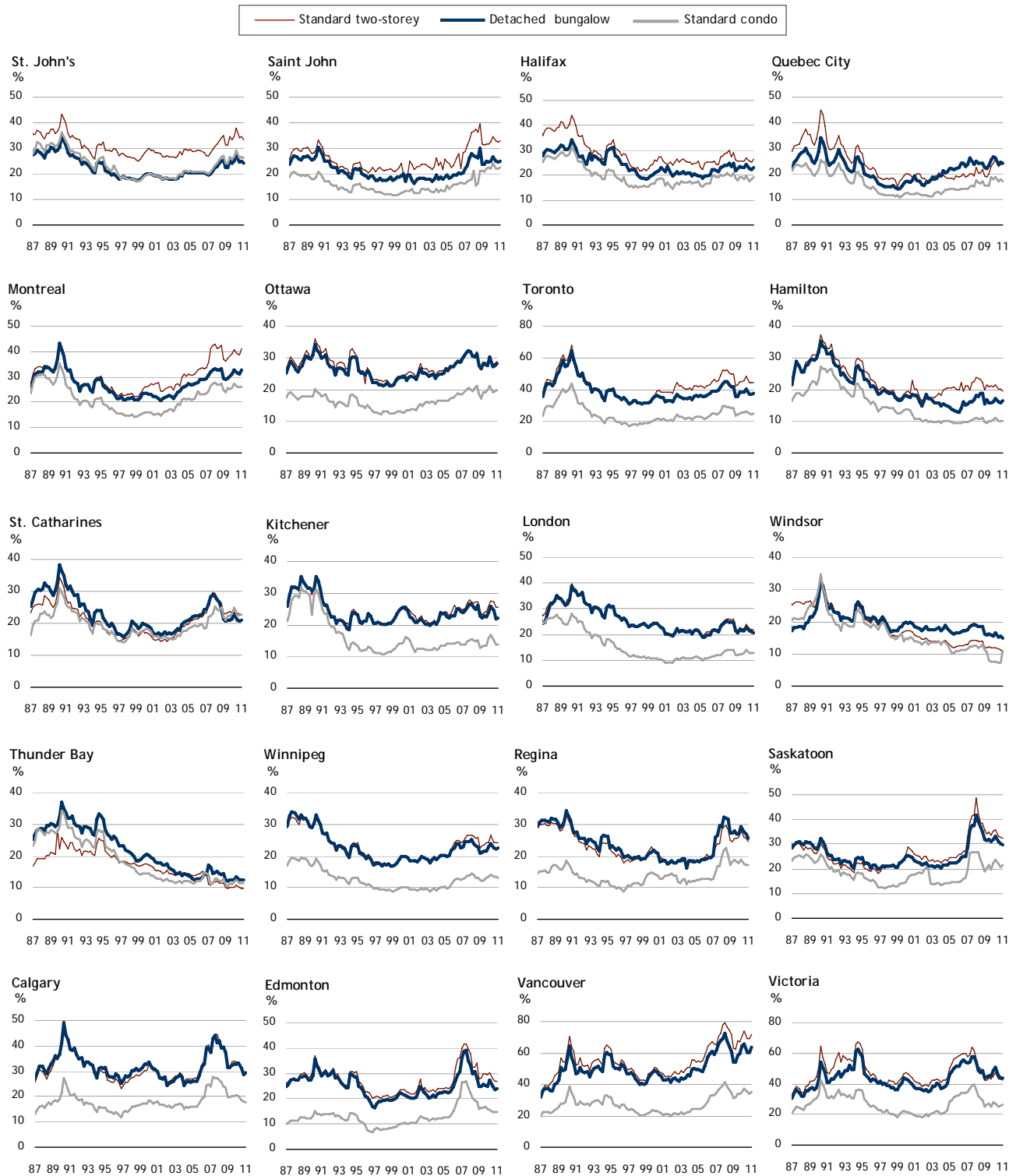
Region	Average Price		Qualifying Income (\$) Q1 2011	RBC Housing Affordability Measure			
	Q1 2011 (\$)	Y/Y % ch.		Q1 2011 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	228,600	3.8	50,700	27.7	0.2	-0.7	27.0
British Columbia	309,200	4.6	61,300	32.8	0.8	-0.6	27.9
Alberta	216,000	-3.0	47,800	20.2	0.0	-2.3	22.4
Saskatchewan	217,800	3.1	48,700	26.0	0.6	-1.1	24.4
Manitoba	151,700	3.4	36,400	20.3	-0.2	-0.7	21.0
Ontario	243,800	3.8	55,800	27.5	0.1	-0.4	27.9
Quebec	191,700	6.0	43,300	28.9	0.1	-0.2	27.1
Atlantic	173,500	6.9	41,400	26.3	0.6	0.4	24.7
Toronto	315,900	3.1	68,200	31.4	0.1	-0.7	31.4
Montreal	231,800	8.0	51,100	34.1	0.1	0.2	29.4
Vancouver	404,600	7.2	77,700	40.1	1.0	0.2	31.8
Ottawa	253,200	5.2	58,500	27.0	0.0	0.0	23.7
Calgary	250,200	-5.1	52,500	22.2	-0.2	-2.9	23.4
Edmonton	198,300	-1.3	45,000	19.5	0.1	-1.8	18.5

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

Mortgage carrying costs by city

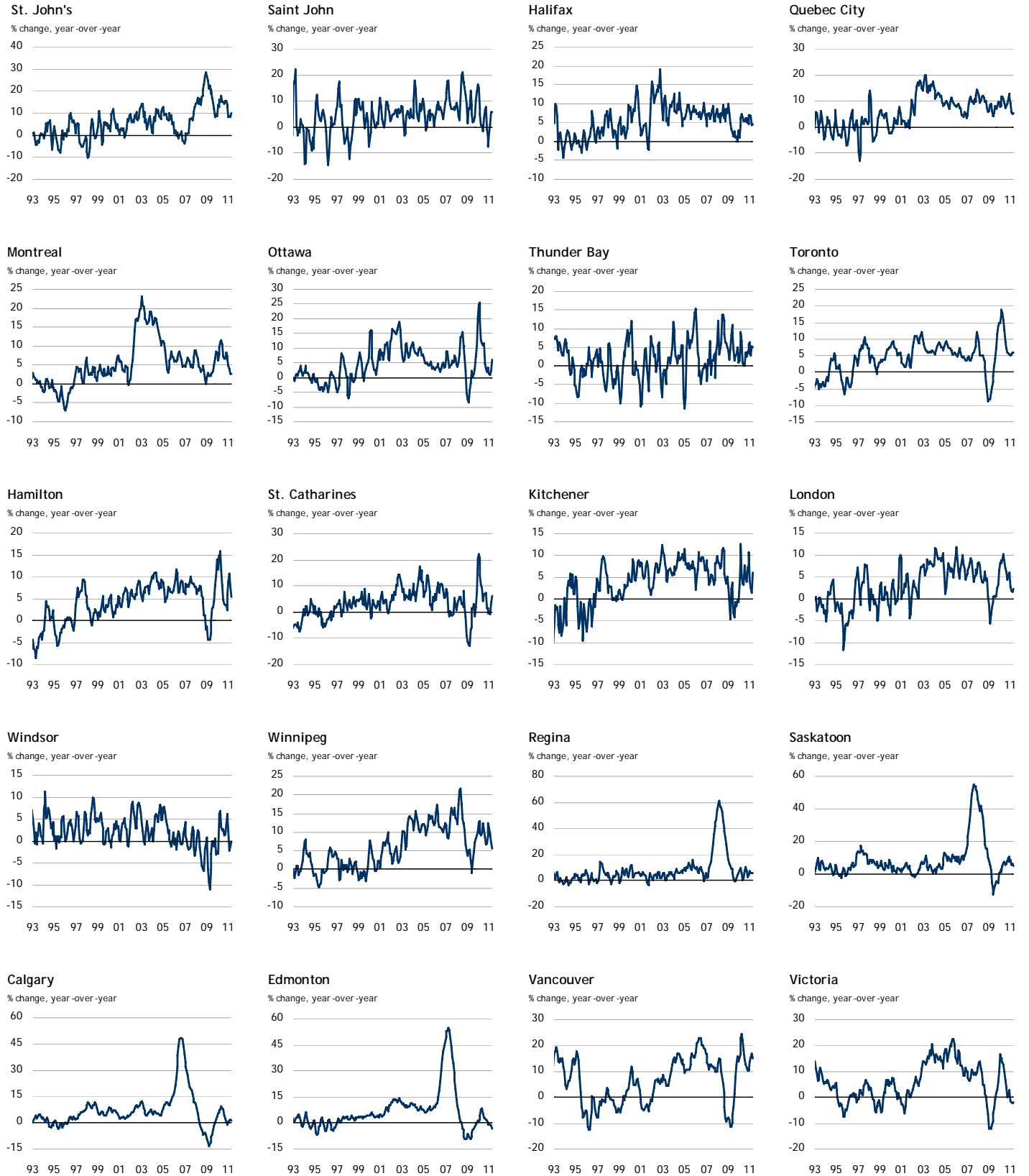
Our standard RBC Housing Affordability Measure captures the proportion of median pre-tax household income required to service the cost of a mortgage on an existing housing unit at going market prices, including principal and interest, property taxes and utilities; the modified measure used here includes the cost of servicing a mortgage, but excludes property taxes and utilities due to data constraint in the smaller CMAs. This measure is based on a 25% down payment, 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



Home prices

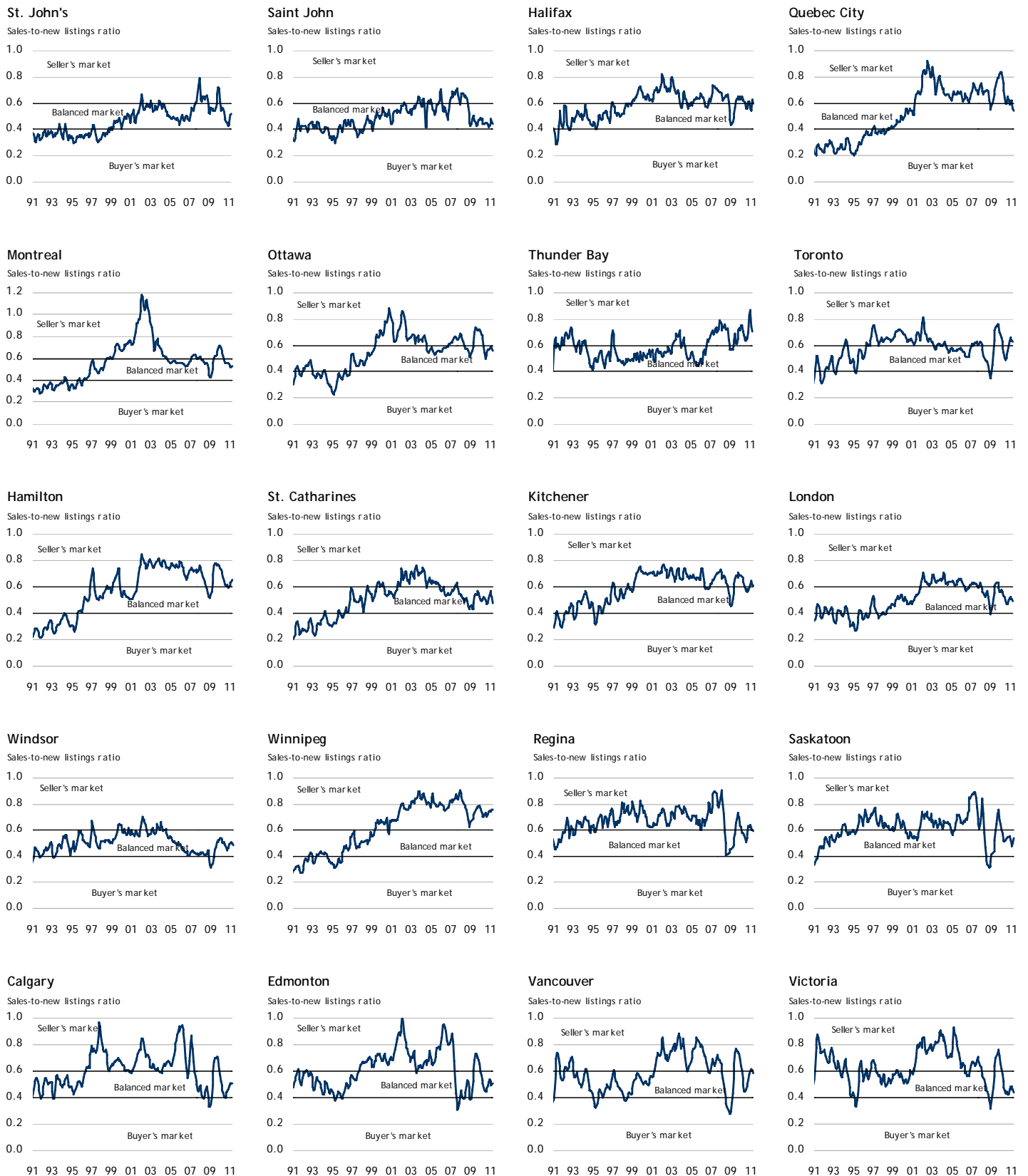


House prices are based on a three-month moving average.

Source: Canadian Real Estate Association, RBC Economics Research



Home sales-to-new listings ratio



House prices are based on a three-month moving averages.

Source: Canadian Real Estate Association, RBC Economics Research



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