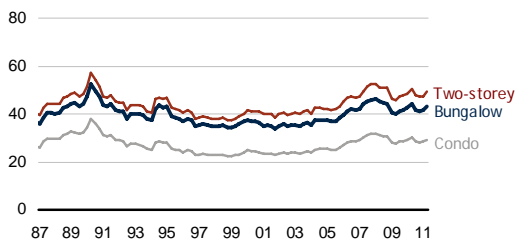


HOUSING TRENDS AND AFFORDABILITY

August 2011

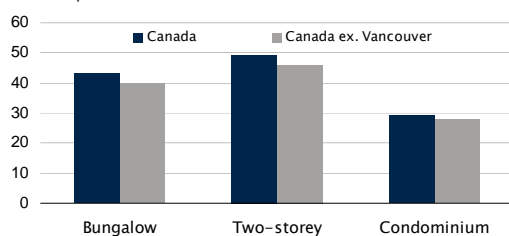
RBC Housing Affordability Measures - Canada

Ownership costs as % of household income



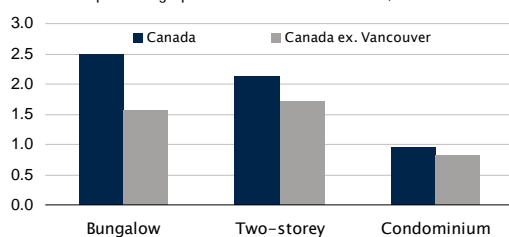
RBC Housing Affordability Measures - Canada

Ownership costs as % of household income in Q2 2011



Change in affordability so far in 2011

Cumulative percentage point variation in Q1 and Q2, Canada



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Affordability deteriorated in the second quarter

Continued gains in home prices and a slight increase in mortgage rates hurt housing affordability in Canada in the second quarter of this year although not enough to cause undue strain in the majority markets across the country. By and large, the share of household budget taken up by the costs of owning a home at current market values remains close to historical norm; however, extremely poor and rapidly eroding affordability in the Vancouver-area market is somewhat skewing the national picture. In the latest quarter, the RBC Housing Affordability Measures rose at the national level for all housing categories that we track (a rise represents a deterioration in affordability), with condominium apartments moving up 0.8 percentage points to 29.2%, detached bungalows up 1.7 percentage points to 43.3%, and two-storey homes up 1.8 percentage points to 49.3%. This represented the second consecutive deterioration and both were largely driven by a surge in homeownership costs in the Vancouver area. Since the start of this year, Vancouver directly accounted for between one-sixth and one-third of the national measures' increases.

Owning a home became more expensive from coast to coast...

While the Greater Vancouver Area—where strong demand in higher-end market segments has bid up prices to unprecedented levels—once again was in a class by itself, all Canadian markets experienced some deterioration in affordability in the second quarter. In the majority of cases, however, the bar to own a home rose only modestly.

...but was still generally affordable

Despite the erosion so far this year, most local housing markets in Canada continue to be reasonably affordable at this juncture or, at worst, just slightly 'unaffordable'. Affordability measures generally continue to stand near their respective long-term averages. Among the markets, Vancouver really stands alone in its extreme unaffordability across all housing types. It is no doubt the most stressed market in Canada and the one facing the highest risk of a downturn. Other markets where some signs of unaffordability are emerging include the two-storey home segments in Quebec (Montreal), Ontario (Ottawa and Toronto), and Saskatchewan where the measures have climbed more clearly above long-run averages. At the other end of the scale, Alberta remains attractive to would be homebuyers, as owning a home in a market such as Calgary is very affordable in both absolute and relative terms.

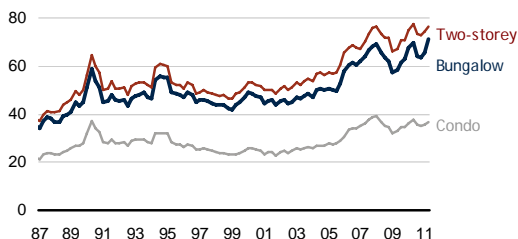
Financial market turmoil to reduce pressure on affordability?

The renewed turmoil in global financial markets and heightened uncertainty about the pace of global growth that have taken hold since late July have

RBC Housing Affordability Measures

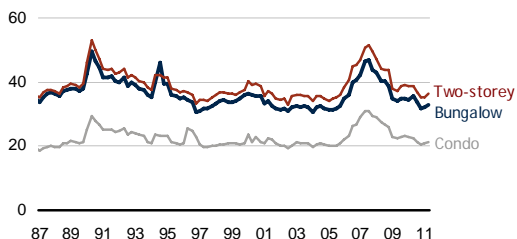
British Columbia

Ownership costs as % of household income



Alberta

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

raised questions for the near-term direction of housing affordability in Canada. We had previously expected that an imminent resumption of the Bank of Canada's interest rate hike campaign (we had penciled its start in September of this year) would dominate all other factors determining affordability and keep homeownership costs on a deteriorating track in the quarters to come. The latest developments on the world stage, however, have prompted us to delay our call for future interest rate hikes until the middle of 2012 in Canada. In and of itself, this would work to reduce near-term pressure on affordability via lower interest payments than would have been the case otherwise. What is less clear, however, is the degree to which affordability will be affected via price changes. Our most recent forecast had prices levelling off through the latter part of this year and remaining essentially flat in 2012. However, the postponement of interest rate increases, which is expected to sustain the economic expansion, might extend the upward momentum in prices in the coming quarters and thereby exerting some negative force on affordability.

Data revisions

This issue of *Housing Trends and Affordability* includes revisions to the RBC measures back to 2009 that take into account, among other things, new estimates for household incomes across major cities and provinces. For the most part, the changes were minor and caused just slight increases in the measures. The revisions for Vancouver and British Columbia were quite significant, however, representing as much as an 11 percentage point deterioration in affordability measures. The unaffordability of those markets, therefore, now appears that much more severe. The measures for Montreal and the province of Quebec were revised modestly lower.

Provincial overviews

British Columbia – Affordability eroding fast

Elevated home values appreciated ever more in British Columbia in the second quarter of this year, making it even harder for the provincial households to own a home. Hefty price gains for bungalows, in particular, contributed to a significant loss of affordability in the province. The RBC Affordability Measures for British Columbia rose between 1.0 and 5.7 percentage points in the quarter, representing the steepest increases among the provinces. The measures for all housing types are now either at or very close to their worst levels on record. Such poor affordability almost entirely reflects the sky-high market valuations in the Vancouver area. Elsewhere in the province, home prices are taking a much lesser toll on homebuyers' budget. We expect that poor affordability will weigh on housing demand by B.C. households and pressure prices down next year.

Alberta – Benefits of strong affordability on the way

While deteriorating slightly in the second quarter, housing affordability remains attractive in Alberta. In the second quarter, the RBC measures for

Alberta were still the lowest among the provinces despite rising between 0.5 and 1.3 percentage points. The benefits for the market of such attractive affordability have nonetheless been slow in coming. Homebuyer demand has been stuck in low gear up to this point with existing home sales, new home construction, and home prices continuing to exhibit flat month-to-month trends. This persistent hesitation on the part of homebuyers is likely the result of scars from the bust that followed the 2006-2007 boom and that left many households in financial trouble. We expect that robust economic growth and rising employment will shore up confidence in Alberta's housing market, thereby leading to stronger resale activity in the period ahead.

Saskatchewan – Market strains no yet evident

Strong price increases for two-storey homes and, to a lesser extent, bungalows weighed on Saskatchewan's housing affordability in the second quarter. The RBC measures for the province's two-storey homes and bungalows rose the most in more than two years—by 2.8 percentage points and 2.0 percentage points, respectively. The change in the measure for condominium apartments was more subdued, moving up by just 0.6 percentage points. Despite three quarters of improvement, affordability has remained above long-term averages for the province and has moved more significantly away from such in the second quarter. This indicates to us that Saskatchewan homebuyers are being modestly strained at this point. However, this has not prevented home resales in markets such as Regina and Saskatoon from picking up their pace after slowing in the winter.

Manitoba – Affordability in the neutral zone

While it became a little more financially difficult to own a home in Manitoba in the second quarter, housing affordability remains in the 'neutral zone' in this province. From a historical perspective, the latest RBC measures stand either slightly below or slightly above their long-term averages, and compared to measures for other parts of the country, they continue to be near the middle of the pack. Nonetheless, the modest deterioration in the latest quarter—ranging from 0.7 to 1.2 percentage points—could have contributed to some cooling in the home resale activity during the spring season, although major flooding in the province likely caused some disruptions in certain areas. Prior to the spring, the Manitoban market registered its best first quarter ever in terms of existing home sales (on a seasonally-adjusted basis), led by strong gains in Winnipeg.

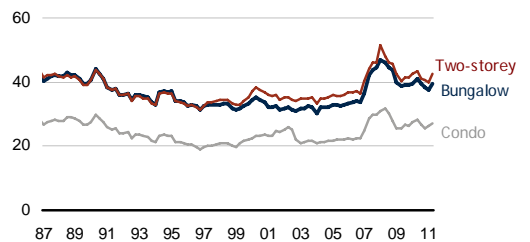
Ontario – Mostly affordable but for how much longer?

Existing home sales eased in the second quarter in Ontario, but sellers remained in the driver's seat in many local markets, including the Toronto area. This supported further and, in some cases, sizeable price increases, which in turn raised the costs of homeownership moderately in the province. The RBC measures moved up between 1.1 and 2.0 percentage points, depending on the housing type, thereby further reversing some of the declines registered in the latter half of last year. Despite the return to a deteriorating

RBC Housing Affordability Measures

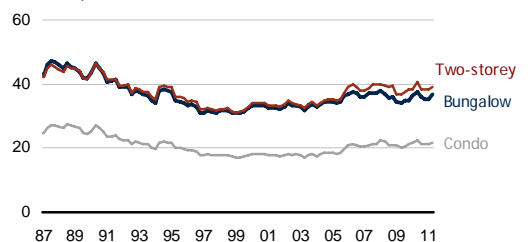
Saskatchewan

Ownership costs as % of household income



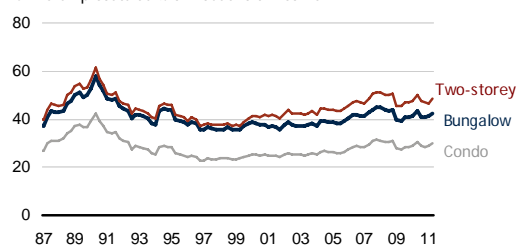
Manitoba

Ownership costs as % of household income



Ontario

Ownership costs as % of household income

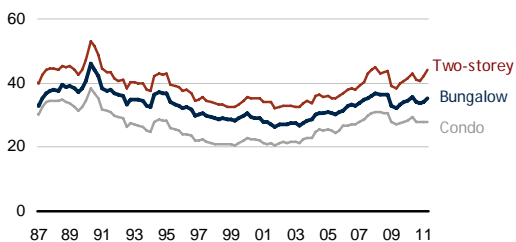


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

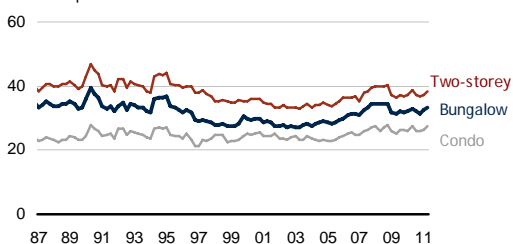
Quebec

Ownership costs as % of household income



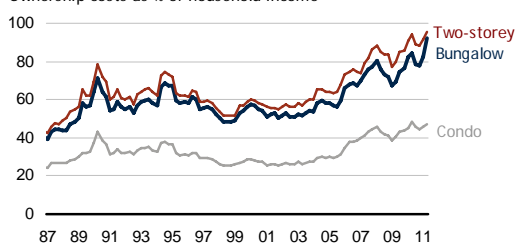
Atlantic Provinces

Ownership costs as % of household income



Vancouver

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

trend this year, the evidence mostly suggests that affordability is not being overly strained at this point in Ontario. The RBC measures are still generally close to long-term averages; however, the reading for the two-storey home category is beginning to look somewhat elevated, and any further deterioration would likely weigh on homebuyer demand going forward.

Quebec – Mixed picture

The affordability picture has been mixed in Quebec so far this year. The cost of owning freehold homes slipped for two successive quarters, but costs for owning a condominium apartment did not change materially. The RBC measures for bungalows and two-storey homes climbed 1.0 and 1.8 percentage points, respectively, in the second quarter. By contrast, the measure for condominiums barely rose (up marginally by 0.2 percentage points) following a slight decline in the first quarter of 2011. The divergent affordability patterns reflected similarly diverging patterns in home prices whereby two-storey homes and, to a lesser extent, bungalows appreciated notably while some price declines were registered in the condominium category. The cost of owning a two-storey home in the province is now beginning to pinch households' budget—the RBC measure has moved further above its long-term average—and will likely be a factor for restraining homebuyers in the period ahead. Other housing types remain largely affordable.

Atlantic – Positioned to remain resilient

Fairly flat market activity kept a lid on gains in property value in Atlantic Canada, which limited the deterioration in housing affordability in the second quarter. The RBC measures rose modestly between 0.9 and 1.2 percentage points in the region, thus still staying close to historical norms and maintaining the region's long-standing affordability advantage relative to most other Canadian markets. During the quarter, several markets experienced a slowing in resale activity, including Halifax, St. John's, and Saint John. Other markets such as Moncton saw meaningful gains. While eroding somewhat this year, Atlantic Canada's affordability continues to be favourable to the region's homebuyers. This is a positive fundamental factor that will help sustain housing demand going forward, even as uncertainty related to global financial turmoil mounts. The Atlantic Canada market displayed impressive resilience during the 2008-2009 downturn and is well positioned to continue to do so in the face of possible adversity.

Major city markets

Vancouver – Is homeownership becoming a far-fetched dream?

There is growing evidence that extreme unaffordability in the Vancouver area is driving local buyers away. Home resales fell since mid-winter in the area, and the earlier tight availability of homes available for sale eased off a little. This moderation in housing market activity did not translate into weaker prices, however—quite the contrary. In fact, a double-digit surge in bungalow values marked the strongest increase among Canada's major cities

(Vancouver's other housing types appreciated less rapidly). Anecdotal reports suggest that foreign buyers continue to propel higher-end property values, and part of the momentum created is cascading down to other market segments. The RBC measure for bungalows jumped by a whopping 10.4 percentage points—a record—in the second quarter to an all-time high of 92.5%. The measures for two-storey homes and condominium apartments rose 4.0 and 1.5 percentage points, respectively—both are also at or near to record high levels. With the bar set so high, owning a home is a dream that only the area's highest-earning households can contemplate.

Calgary – Two steps forward, one step back

The long hoped for rebound in the Calgary-area market that appeared to be back on track earlier this year lost some momentum in the second quarter. After posting two successive increases, home resales edged down during the April-June period, providing little impetus to prices, which continued to move sideways for the most part. With such absence of price pressure, the loss of housing affordability was minimal in the quarter. The RBC measures for the Calgary area rose between 0.4 and 1.1 percentage points, representing a smaller deterioration among major Canadian cities. Owning a home in the area, therefore, continues to be close to the most affordable that it has been in almost six years. Notwithstanding the latest bout of uncertainty, we believe that the strong economic fundamentals of Alberta and Calgary will find their way into the housing market and will support homebuyer demand in the period ahead.

Toronto – Homebuyers still motivated

Home resales in the Toronto-area market maintained a fairly brisk pace in the second quarter, if slightly slower than that which marked the opening months of this year. Perhaps more importantly, however, was the fact that the availability of homes for sale continued to be somewhat tight, lending a strong hand to sellers in the price-setting process. Tight market conditions set the stage for multiple offers and bidding contests, and this resulted in higher prices for sellers. So far this year, Toronto-area homebuyers remained motivated despite a loss of affordability. In the second quarter, the RBC measures went up between 1.2 and 2.9 percentage points, representing the second consecutive increases in the majority of cases. Homebuyers' enduring motivation likely stems from the fact that affordability levels are still far from extreme in the Toronto area. The RBC measures are just slightly above their long-term averages—more substantially so in the case of the two-storey home category—and are nowhere near the peaks reached in 1990.

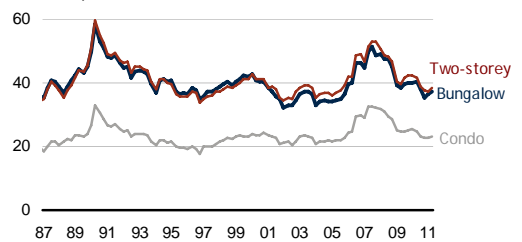
Ottawa – Pushing the limits of affordability

Likely dampened by higher homeownership costs, homebuyer demand softened so far this year in the Ottawa area. Home resales fell 4.5% in the first quarter and 4.2% in the second, with resales hovering close to 2006's levels. In the latest period, the cost of owning a home rose for the third straight

RBC Housing Affordability Measures

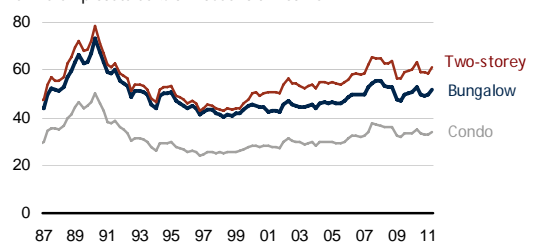
Calgary

Ownership costs as % of household income



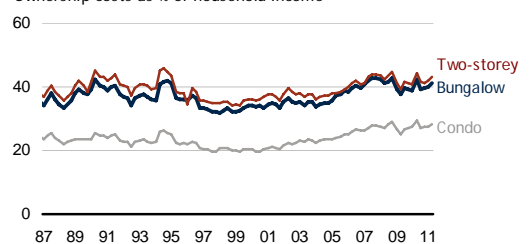
Toronto

Ownership costs as % of household income



Ottawa

Ownership costs as % of household income

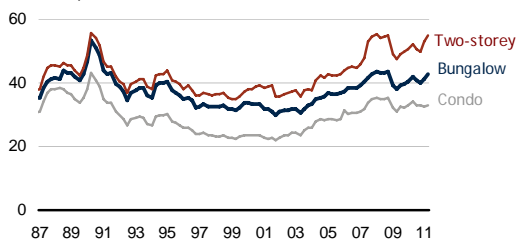


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

Montreal

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

quarter in the area, as property values appreciated moderately across all housing types. The RBC measures increased between 0.7 and 1.3 percentage points and are now above long-term averages for all categories. Although still comparing favourably against other major Canadian cities, affordability in the Ottawa area is likely pinching local homebuyer demand. Any further deterioration will put that market at greater risk of slowing further.

Montreal – Affordability erosion not yet worrying buyers

It is increasingly tougher to become a homeowner in the Montreal area. Hefty price increases in the past year hurt the area's status as an affordable market. While the rate of property appreciation slowed considerably in the second quarter—condo prices even showed declines—the cumulative effect of earlier gains caused the Montreal area to drop a few notches in the rankings of Canada's most affordable major cities. In the second quarter, the RBC measures rose for all housing types—marginally for condominium apartments (up 0.1 percentage points) but more noticeably for bungalows (up 1.4 percentage points) and two-storey homes (up 2.3 percentage points). The RBC measures for all types are currently above their historical averages—quite markedly in the case of two-storey homes—and the national levels for two of the categories. Poorer affordability did not seem to concern homebuyers much in the second quarter as they increased their purchases of homes for the second consecutive time. Their enthusiasm might wane, however, if affordability deteriorates further in the period ahead.

How the RBC Housing Affordability Measures work

The RBC Housing Affordability Measures show the proportion of median pre-tax household income that would be 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) at the going market prices.

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 (\$) Q2 2011	RBC Housing Affordability Measure			
	Q2 2011 (\$)	Y/Y % ch.		Q2 2011 (%)	Q/O Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	347,600	5.2	77,200	43.3	1.7	-0.9	39.4
British Columbia	621,900	10.9	122,300	71.3	5.7	1.7	49.3
Alberta	339,500	-2.6	76,100	32.8	0.7	-2.7	36.3
Saskatchewan	323,100	3.1	72,700	39.5	2.0	-1.6	36.8
Manitoba	268,100	7.5	64,100	36.6	1.2	-0.8	37.0
Ontario	358,900	4.3	82,500	42.5	1.4	-1.1	40.8
Quebec	230,200	4.4	53,900	35.1	1.0	-0.5	33.1
Atlantic	209,700	6.9	52,300	33.4	1.0	0.3	32.0
Toronto	497,100	5.1	107,100	51.9	2.0	-1.2	48.9
Montreal	286,100	8.2	64,900	42.6	1.4	0.6	37.3
Vancouver	822,300	19.4	157,800	92.5	10.4	8.0	58.4
Ottawa	371,900	5.1	87,400	41.2	1.3	-1.0	37.1
Calgary	411,700	-2.0	86,900	37.1	0.6	-3.1	40.2
Edmonton	325,400	-3.1	74,500	33.8	0.6	-2.9	34.2

Standard two-storey

Region	Average Price		Qualifying Income (\$) Q2 2011	RBC Housing Affordability Measure			
	Q2 2011 (\$)	Y/Y % ch.		Q2 2011 (%)	Q/O Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	393,100	5.0	87,900	49.3	1.8	-1.1	43.8
British Columbia	664,000	6.4	131,400	76.6	2.5	-1.0	54.6
Alberta	370,300	-1.1	84,400	36.4	1.3	-2.4	38.9
Saskatchewan	340,900	6.3	78,500	42.7	2.8	-0.6	38.2
Manitoba	289,000	4.7	68,700	39.2	1.0	-1.6	38.0
Ontario	408,400	3.6	94,300	48.6	2.0	-1.5	44.5
Quebec	291,100	10.0	67,500	44.0	1.8	1.1	39.2
Atlantic	234,300	4.5	60,300	38.5	1.2	-0.1	38.4
Toronto	586,600	3.9	126,800	61.4	2.9	-2.1	54.4
Montreal	377,200	13.5	83,900	55.0	2.3	2.7	42.3
Vancouver	843,300	9.7	163,100	95.5	4.0	1.3	63.7
Ottawa	377,300	5.2	91,400	43.1	1.2	-1.1	39.6
Calgary	415,200	-1.6	90,100	38.5	1.1	-2.9	40.8
Edmonton	375,500	0.5	86,100	39.1	1.4	-2.1	37.5

Standard condominium

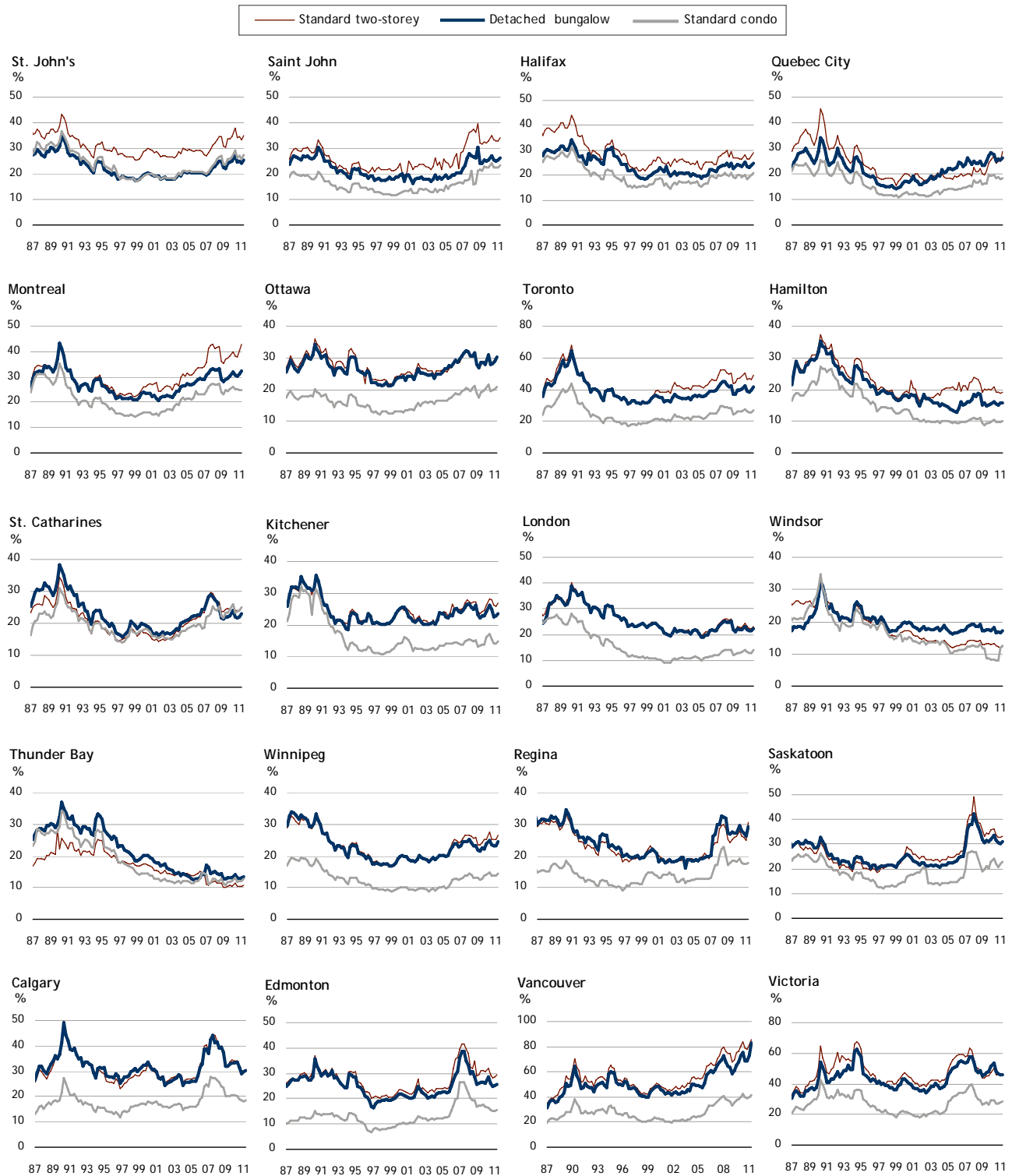
Region	Average Price		Qualifying Income (\$) Q2 2011	RBC Housing Affordability Measure			
	Q2 2011 (\$)	Y/Y % ch.		Q2 2011 (%)	Q/O Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	230,000	3.4	52,000	29.2	0.8	-0.9	27.1
British Columbia	312,300	5.2	63,200	36.8	1.0	-0.9	28.2
Alberta	216,200	1.0	49,300	21.3	0.5	-1.0	22.4
Saskatchewan	218,200	1.5	49,500	26.9	0.6	-1.4	24.6
Manitoba	158,200	6.6	38,200	21.8	0.7	-0.6	21.2
Ontario	248,700	4.8	57,800	29.8	1.1	-0.6	28.1
Quebec	185,900	-0.5	43,000	28.0	0.2	-1.5	27.1
Atlantic	176,200	5.2	42,800	27.4	0.9	0.0	24.7
Toronto	321,200	5.4	70,600	34.2	1.2	-0.7	31.6
Montreal	220,400	1.2	50,000	32.8	0.1	-1.3	29.5
Vancouver	410,800	5.7	80,500	47.1	1.5	-1.0	32.3
Ottawa	255,500	3.2	60,000	28.3	0.7	-1.1	23.9
Calgary	249,000	-1.1	53,800	23.0	0.4	-1.6	23.3
Edmonton	200,600	4.7	46,600	21.2	0.6	-0.4	18.5

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

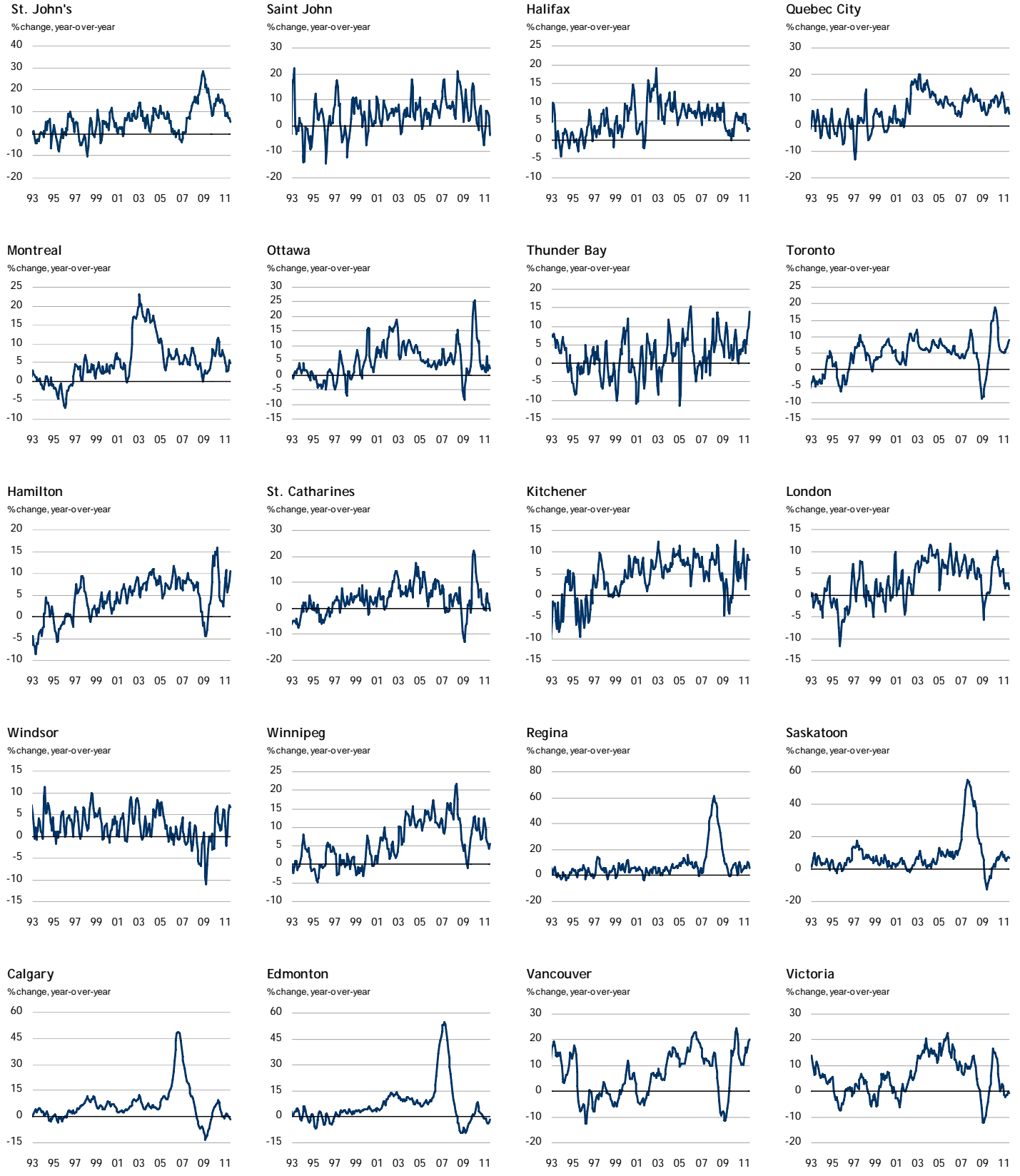
Mortgage carrying costs by city

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

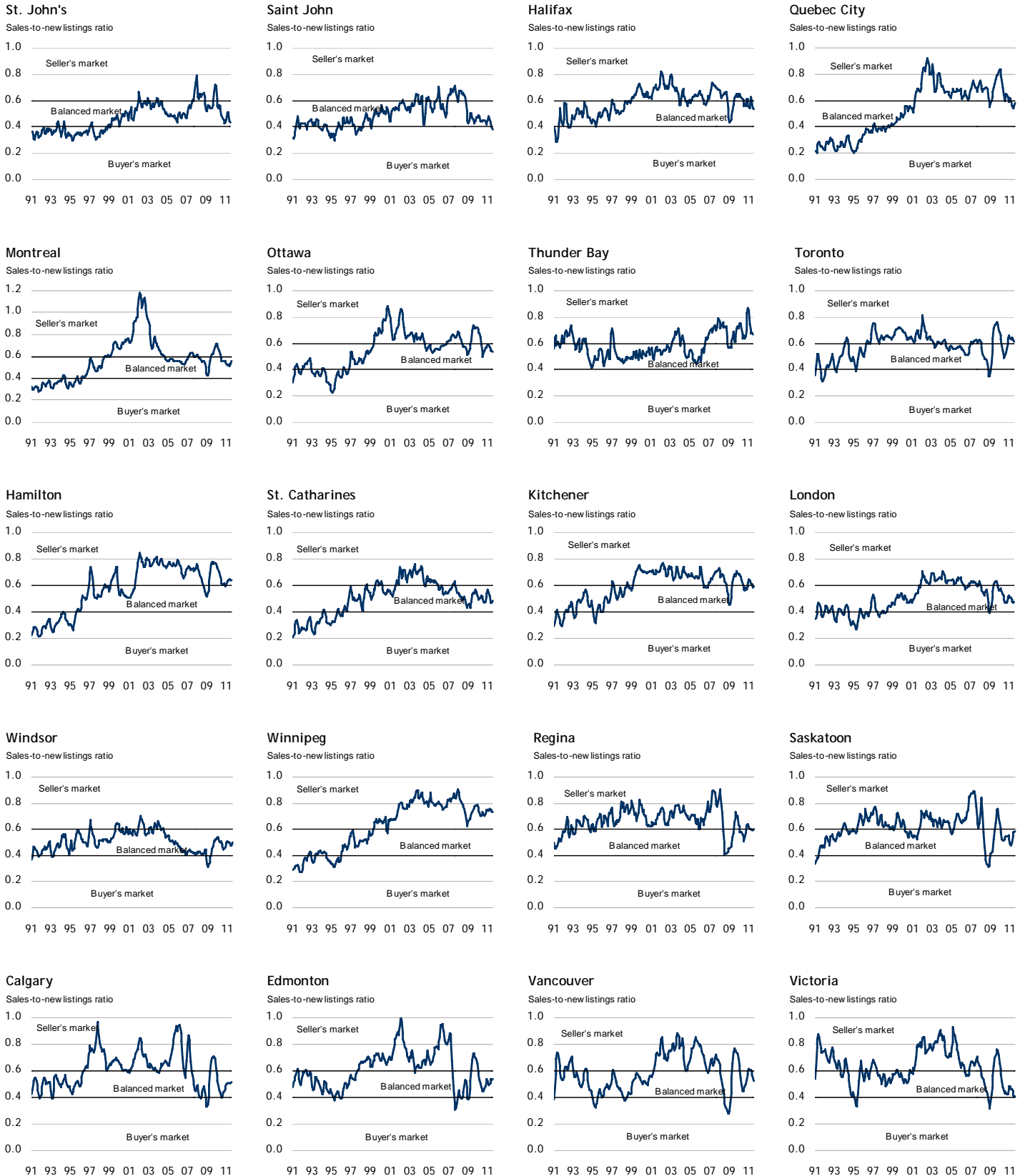


House prices are based on a three-month moving average.

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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