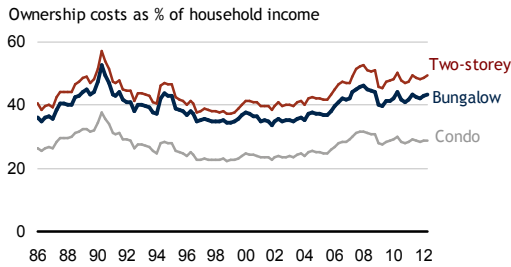


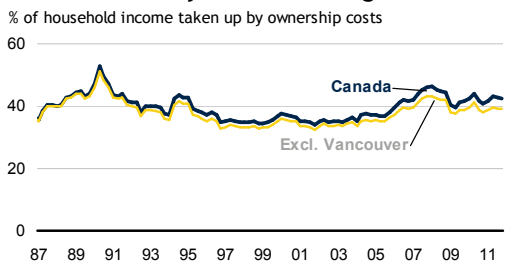
HOUSING TRENDS AND AFFORDABILITY

August 2012

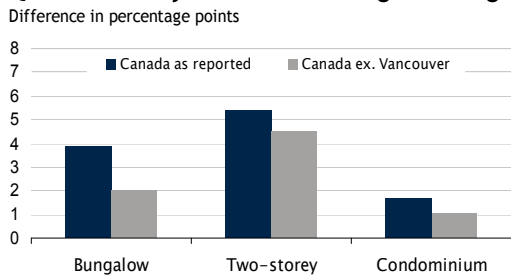
RBC Housing Affordability Measures - Canada



RBC Affordability Measure - bungalow



Q2 affordability measures vs. long-term avg.



Source: Statistics Canada, Royal LePage, RBC Economics Research

Craig Wright

Chief Economist
(416) 974-7457
craig.wright@rbc.com

Robert Hogue

Senior Economist
(416) 974-6192
robert.hogue@rbc.com

Slight erosion in housing affordability in Canada in the second quarter of 2012

Modest rises in home prices and mortgage rates eroded housing affordability in Canada in the second quarter of 2012. This represented the second consecutive quarter during which the costs of owning a home at market prices grew as a share of household income, following back-to-back quarterly declines in the latter half of 2011. At the national level, RBC's housing affordability measures edged higher in the latest quarter in two of three categories (detached bungalows and two-storey homes) with the third (condominium apartments) remaining flat (an increase in the measure represents a deterioration in affordability). The measure for detached bungalows rose 0.2 percentage points to 43.4%, while the increase was 0.6 percentage points to 49.4% for two-storey homes. The measure for condominium apartments was unchanged at 28.8%.

Minimal affordability-related stress, except perhaps in the two-storey homes category

The erosion in the single-family home categories in the past two quarters pushed the levels of these measures further above their long-term averages in Canada; however, national figures are exaggerated by extremely poor affordability in the Vancouver-area market. This is particularly the case for detached bungalows, where the margin above the historical average in the second quarter (3.9 percentage points) would be cut by half if we were to exclude Vancouver from the national tally. For two-storey homes, excluding Vancouver makes just a small difference. The level remains somewhat historically elevated, and this likely signifies that some affordability-related stress is building in this category across many regions of the country. On the other hand, any such stress, at most, is minimal for condominium apartments in Canada at this point, because the second-quarter level still only barely exceeded the long-term average—with or, especially, without Vancouver.

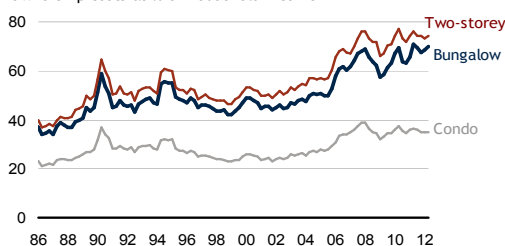
Vancouver still the least affordable market

The Vancouver-area market continued to be, by far, the least affordable in Canada in the second quarter of 2012. RBC's affordability measures further deteriorated for all housing types in this market to levels that stood very close to the worst on record. The Toronto-area market also saw some modest deterioration. While homeownership costs in Canada's most populous city take on larger shares of household income currently than it has been the case on average historically, these shares remained well below the peaks at the time of the housing bubble of the late 1980s. Strong activity in markets in Saskatchewan and Manitoba led to some of the more significant worsening in affordability in Canada in the most recent quarter. Affordability levels in these markets remained near their

RBC Housing Affordability Measures

British Columbia

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

historical norms, however, and the latest developments, therefore, do not likely signal the presence of undue stress. Similarly, moderate affordability deterioration in the Atlantic region in the second quarter left the RBC measures still within close range of their long-run averages, also indicating little in the way of undue stress in this region. Finally, Montreal and markets in Alberta bucked the trend in the second quarter of 2012 by experiencing improvements in affordability. Calgary and Edmonton, thus, continue to enjoy some of the more attractive affordability among Canada's largest cities. In Montreal, the RBC measures remain roughly in line with historical norms for most housing categories, although the measure for the two-storey homes segment still stood notably above its long-term average, indicating that some greater than usual tensions likely persist in this market segment.

Housing market showed signs of cooling in the second quarter

The housing market in Canada showed signs of cooling in the second quarter of 2012. Home resales fell in May and June (they subsequently stabilized in July), following surprisingly strong activity at the start of this year when mild weather conditions and time-limited mortgage rate 'promotions' by Canadian financial institutions likely stimulated homebuyer demand. Despite this cooling in activity, market conditions remained generally balanced in the majority of markets in the second quarter and, therefore, were conducive to further modest price increases. Going forward, we expect the latest modifications to government-backed mortgage insurance rules implemented in July, as well as the prospects for further erosion in affordability, to restrain homebuyer demand in Canada.

Rising interest rates would threaten to erode affordability further

The main factor threatening to erode housing affordability further is an increase in interest rates. We expect the Bank of Canada to start normalizing its interest rate policy early next year, assuming that the European crisis remains contained and that the US fiscal challenges are addressed. Exceptionally low interest rates have been the key reason that kept affordability from reaching dangerous levels in Canada in recent years. Affordability-related pressures, therefore, could well intensify next year. We anticipate, however, that the central bank will proceed at a gradual pace and that household income will continue to grow. These considerations will provide some offset, thereby lessening any negative effect of rising interest rates on the housing market.

Provincial overviews

British Columbia – Affordability situation much less severe outside Vancouver

Owning a home at market prices became even more difficult, budget-wise, for BC households in the second quarter of 2012. Housing affordability deteriorated for the second straight quarter for all categories in the province, with the RBC measures rising between 0.2 percentage points and 1.2 percentage points.

Affordability, thus, remains poor overall in British Columbia, although this largely reflects extreme unaffordability in the Vancouver-area market. The situation is much less severe elsewhere in the province. In Victoria, for instance, the share of income needed to carry the costs of a mortgage at market prices is almost half the share in Vancouver for some housing types. Recent housing activity in the province owed much to the contrasting affordability-related pressures by region. The entire quarterly decline in home resales in British Columbia in the second quarter resulted from weakness in the Vancouver-area market. Resales were flat in the rest of the province.

Alberta – Lower utility cost lend a helping hand

Significant drops in the prices for electricity and natural gas in the second quarter of 2012 in Alberta further solidified this province's position as the market with the lowest homeownership costs as a share of household income in Canada. A 17% decline in utility costs was the biggest contributor to across-the-board improvements in housing affordability in the most recent quarter. The RBC measures eased by 0.6 percentage points for both two-storey homes and condominium apartments, while the measure for detached bungalows edged lower by 0.3% percentage points. In all cases, the levels stood well below their long-run average. Attractive affordability and a vibrant provincial economy are providing powerful incentives for Alberta homebuyers to spring into action. And, to an increasing degree, they are responding. Second-quarter 2012 home resales were the best in five years in the province, surging 18% relative to the same period a year ago.

Saskatchewan – Strong price increases dent affordability

Markets in Saskatchewan experienced some of the more significant deteriorations in affordability in the country in the second quarter of 2012. Such deteriorations were in fact the corollary of very brisk market activity in the past year, which tightened market conditions considerably and applied upward pressure on home prices. With strong demand relative to the supply of homes for sale tipping the scale in favour of sellers, home prices rose quite noticeably in the province in the most recent quarter, thereby propelling homeownership costs (calculated at market prices) higher and denting housing affordability in the process. All RBC measures increased in the province—significantly in the case of two-storey homes. The two-storey homes measure surged by 2.8 percentage points, while the measures for condominium apartments and detached bungalows climbed 1.6 percentage points, respectively. Home resales in the second quarter set a new high-water mark for this period in the province.

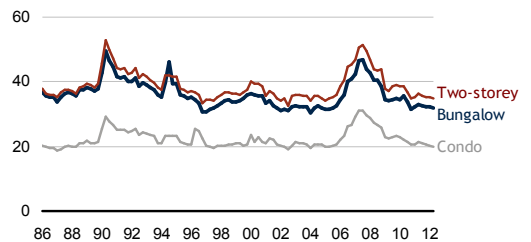
Manitoba – Still manageable despite recent affordability slippage

Markets in Manitoba also saw notable slippage in affordability in the most recent quarter, yet households in this province still face some of the lower ownership costs as a share of their income in the country. The deterioration in the second quarter mirrored the situation in Saskatchewan: ownership costs rose primarily because very strong demand relative to the supply of

RBC Housing Affordability Measures

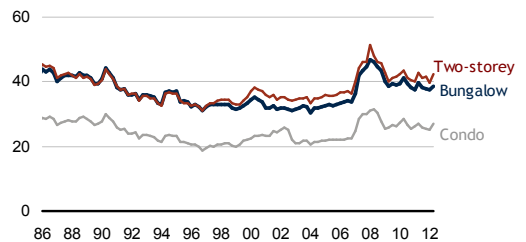
Alberta

Ownership costs as % of household income



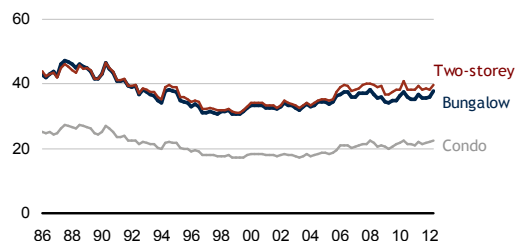
Saskatchewan

Ownership costs as % of household income



Manitoba

Ownership costs as % of household income

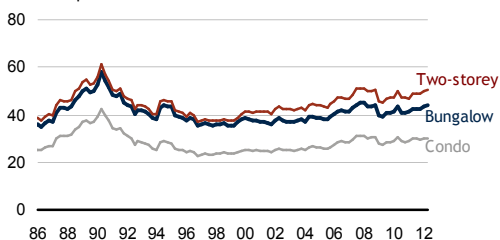


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

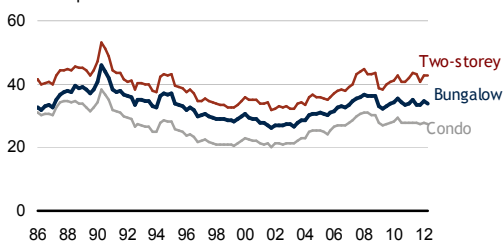
Ontario

Ownership costs as % of household income



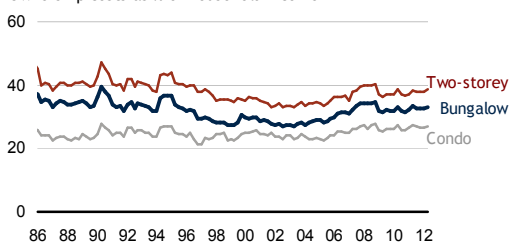
Quebec

Ownership costs as % of household income



Atlantic Provinces

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

homes available for sale drove prices up. Manitoba's market was quite hot this spring, as second-quarter 2012 home resales were the highest ever in the province for that period, although monthly figures showed substantial volatility since the beginning of this year. Resales statistics for June and July indicated that some cooling of activity has taken place more recently. The RBC measures moved up for all housing categories in the second quarter, led by a 1.9 percentage-point rise for detached bungalows. Increases were 1.2 percentage points for two-storey homes and 0.4 percentage points for condominium apartments. All measures in the province were slightly above their long-run averages.

Ontario – Modest deteriorating trends persist

Owning a home at market prices in Ontario took a slightly larger share of households' income in the second quarter, thereby extending the modest rising trends since 2009. The affordability situation in the province, thus, continues to be somewhat more strenuous than it has been historically, especially for the single-family home categories, where affordability has been hampered by some of the stronger appreciation in property values in Canada in the past year. Until very recently, homebuyer demand was quite brisk, and conditions in key markets in the province were tilted in favour of sellers, which fuelled price gains. Activity has moderated since then, however, and we have begun to see some easing in prices on a month-to-month basis, although it is still uneven across local markets at this stage. RBC measures for all categories in Ontario exceeded their long-term averages modestly in the second quarter, increasing between 0.1 percentage points and 0.8 percentage points during this period.

Quebec – Affordability trending sideways

Affordability measures continued to trend sideways in the second quarter in Quebec. As has been the case many times since 2010, the most recent changes in the measures generally went in opposite direction of changes in the previous period. This time, the RBC measures for the province declined in two of three categories (detached bungalows by 0.7 percentage points and condominium apartments by 0.5 percentage points), following widespread increases in the first quarter of this year. The measure for two-storey homes was the lone exception, as it edged higher for a second consecutive quarter by 0.2 percentage points. Affordability levels remain close to historical averages in Quebec and do not appear to be restraining homebuyer demand at this point. Housing activity was brisk in the province this spring, with home resales reaching their third-highest second-quarter total on record, and rising 8.6% from the same period a year ago.

Atlantic – Long-standing favourable affordability position maintained

Housing affordability trends in Atlantic Canada continued to evolve in characteristically gradual fashion in the second quarter, maintaining the slow, yet relatively harmless, pace of deterioration seen since the end of the recession. RBC measures rose in all housing categories in the region in the most recent

period—up by 0.7 percentage points for two-storey homes, 0.5 percentage points for detached bungalows, and 0.3 percentage points for condominium apartments. These increases did little damage to the region's long-standing favourable affordability position, however. The second-quarter levels remained well within the region's historical norms and still compared advantageously with the majority of other markets in Canada. The further erosion in affordability in the most recent period did not faze homebuyers in Atlantic Canada the least. They remained very active, pushing up second-quarter home resales 7% above the year-ago levels. Record-high resales were registered in Newfoundland.

Major city markets

Vancouver – Market slows amid intense affordability pressure

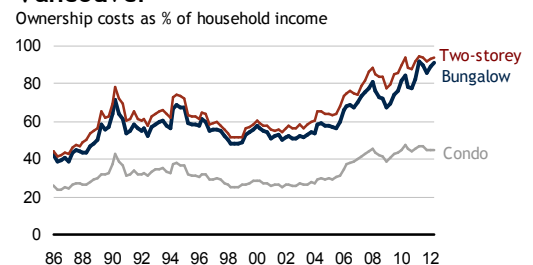
Extremely poor affordability appears to have caught up with the Vancouver-area market. Since spiking unexpectedly at the start of 2011, home resales in the area have fallen steadily. So far this year, resales plummeted 18% from a year ago. Such weakness significantly loosened market conditions to the point that sky-high prices have started to wind down recently. The MLS Home Price Index for Vancouver topped out in May and has since declined (month to month) in both June and July. (Average prices of homes sold in Metro Vancouver, which swung widely in the past 18 months due to unusual sales patterns, fell every month since March and were down 12% year over year in July.) On a quarterly basis, however, home prices used in the RBC measures still moved higher sequentially in the second quarter, which contributed to further widespread deterioration in affordability in the area. The RBC measures increased between 0.4 percentage points and 2.2 percentage points, inching yet closer to the worst levels in the annals of Canadian real estate. We expect such intense affordability-related pressure to continue to weigh heavily on the Vancouver market.

Calgary – Enjoying the best of all worlds

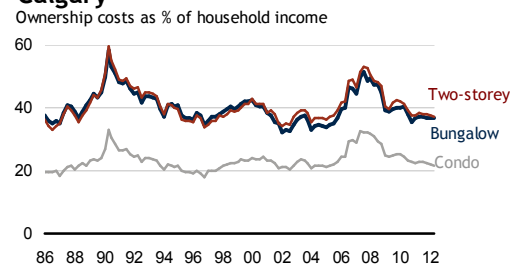
The Calgary-area market enjoyed the best of all worlds recently: stronger home resales and home building, moderately rising prices, and attractive and *improving* affordability. Such a combination is a rare feat, but it follows years of sluggish performance in the aftermath of the area's mid-2000s boom. In the second quarter of 2012, a sharp drop in the costs of utilities provided unusual help to affordability in the area. Utilities and property taxes—two small components of homeownership costs—typically do not sway affordability, but the sudden reversal of earlier electricity rate increases led to a substantial 17% quarterly decline in utilities, which was more than enough to move the affordability needle. In the second quarter, the RBC measures edged lower for condominium apartments and two-storey homes by 0.6 percentage points and 0.4 percentage points, respectively, while the measure for detached bungalows was unchanged. Such general amelioration kept housing affordability in check at some of the better levels among Canada's largest cities.

RBC Housing Affordability Measures

Vancouver



Calgary

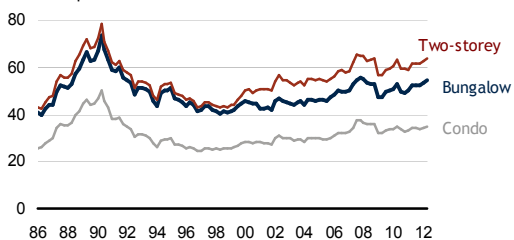


Source: Statistics Canada, Royal LePage, RBC Economics Research

RBC Housing Affordability Measures

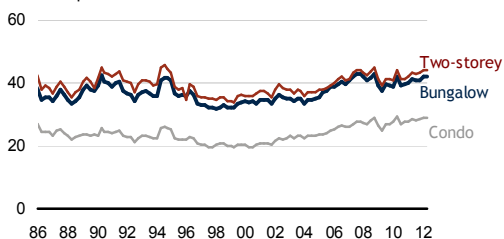
Toronto

Ownership costs as % of household income



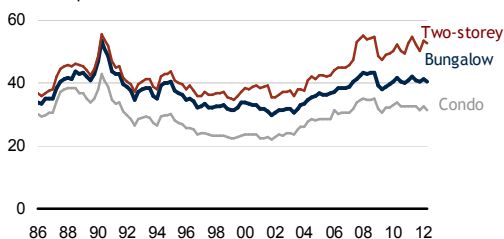
Ottawa

Ownership costs as % of household income



Montreal

Ownership costs as % of household income



Source: Statistics Canada, Royal LePage, RBC Economics Research

Toronto – Market heat dissipating

After showing signs of serious heat this winter and early spring, Toronto-area activity cooled down several degrees more recently. Home resales fell 1.4% sequentially in the second quarter, and the monthly pattern showed even heftier declines since May. At the same time, the number of homes listed for sale increased notably in the past few months. This combination of factors eased the market tightness that gave sellers the upper hand in setting Toronto-area home prices during much of the past two years. Nonetheless, home prices continued to rise in the second quarter, particularly in the single-family home categories. These increases further contributed to erode housing affordability in the area—the RBC measures rose by 0.3 percentage points to 1.1 percentage points. While still far below their clearly excessive levels reached in 1990, the measures currently exceed their long-term averages, which, we believe, will restrain homebuyer demand in the period ahead.

Ottawa – Steady affordability across the board

There was no change in the costs of owning a home as a share of household income in the second quarter in the Ottawa-area market. Increases in income fully offset increases in mortgage payments (changes in utilities and property taxes were negligible). This was true for all housing categories that we track, as none of the RBC measures moved in the quarter. The RBC measures, therefore, continued to stand not only above their long-run average but also near historical peaks in the area (albeit low ones by major Canadian city standards), which means that affordability still represented a somewhat greater than usual strain for Ottawa homebuyers. This strain, however, has had little adverse effect on the market so far if we consider that the market just registered its third-best ever second quarter in terms of home resales. Nonetheless, resales' momentum shifted down in the past two quarters from the brisk pace from last year, and month-to-month volatility increased. These may be early signs that homebuyers may feel increasingly stretched.

Montreal – Volatility in the numbers recently

Affordability measures for the Montreal-area market in the second quarter of 2012 reversed most of the significant deterioration that took place in the first quarter by falling between 0.9 percentage points and 1.0 percentage point. This improvement in affordability bucked the trend elsewhere in the country, although this may be simply a reflection of greater than usual volatility in the Montreal numbers recently. Seeing through this quarter-to-quarter volatility so far this year, affordability in Montreal has deteriorated modestly relative to the end of last year, as has been the case nationally. Despite the drop in its measure in the most recent quarter, the two-storey home category continues to look a little stressed in Montreal. At 52.6%, the two-storey home measure exceeded both its long-run average of 42.6% and the current national mark of 49.4%. The measures for the other categories remained close to their respective historical norms.

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 lays 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 2012	RBC Housing Affordability Measure			
	Q2 2012 (\$)	Q/Q % ch.	Y/Y % ch.		Q2 2012 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	365,200	1.3	5.0	79,000	43.4	0.2	0.0	39.5
British Columbia	634,900	0.9	2.1	122,800	69.7	1.2	-1.1	50.0
Alberta	354,200	1.8	4.3	75,900	32.0	-0.3	-0.8	36.1
Saskatchewan	337,500	2.6	4.5	74,000	38.7	1.4	-1.0	36.9
Manitoba	289,200	7.0	7.9	66,600	37.8	1.9	0.9	36.9
Ontario	386,500	1.7	7.7	86,200	43.9	0.3	1.3	40.8
Quebec	236,700	-1.3	2.8	54,000	34.0	-0.7	-0.9	33.1
Atlantic	219,700	2.6	4.7	54,000	33.2	0.5	-0.2	32.0
Toronto	545,200	2.8	9.7	113,700	54.5	0.9	2.5	49.0
Montreal	287,600	-1.7	0.5	63,800	40.4	-1.0	-1.8	37.3
Vancouver	846,800	1.7	3.0	159,500	91.0	2.2	-0.8	59.4
Ottawa	390,200	0.8	4.9	89,800	41.9	0.0	0.5	37.3
Calgary	432,300	2.2	5.0	87,800	36.7	0.0	-0.4	40.1
Edmonton	330,200	2.3	1.5	73,000	32.4	-0.1	-1.4	34.1

Standard two-storey

Region	Average Price			Qualifying Income (\$) Q2 2012	RBC Housing Affordability Measure			
	Q2 2012 (\$)	Q/Q % ch.	Y/Y % ch.		Q2 2012 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	412,600	2.1	5.0	89,900	49.4	0.6	0.0	44.0
British Columbia	670,300	0.2	0.9	130,600	74.2	0.9	-1.8	55.3
Alberta	376,200	0.9	1.6	82,400	34.8	-0.6	-1.6	38.8
Saskatchewan	365,300	7.5	7.1	81,300	42.5	2.8	-0.4	38.3
Manitoba	302,600	4.1	4.7	69,800	39.6	1.2	0.1	38.0
Ontario	443,000	2.9	8.5	99,100	50.5	0.8	1.7	44.7
Quebec	300,800	2.2	3.3	67,900	42.7	0.2	-1.0	39.3
Atlantic	248,400	2.8	6.0	62,700	38.6	0.7	0.2	38.4
Toronto	636,000	2.9	8.4	133,400	63.9	1.1	2.3	54.7
Montreal	382,500	-0.7	1.4	83,000	52.6	-0.9	-1.9	42.6
Vancouver	865,700	0.0	2.7	164,300	93.8	0.9	-1.0	64.8
Ottawa	398,100	1.1	5.5	94,300	44.0	0.0	0.7	39.7
Calgary	425,500	1.7	2.5	89,000	37.2	-0.4	-1.3	40.7
Edmonton	368,100	-1.0	-2.0	82,100	36.4	-1.1	-2.7	37.5

Standard condominium

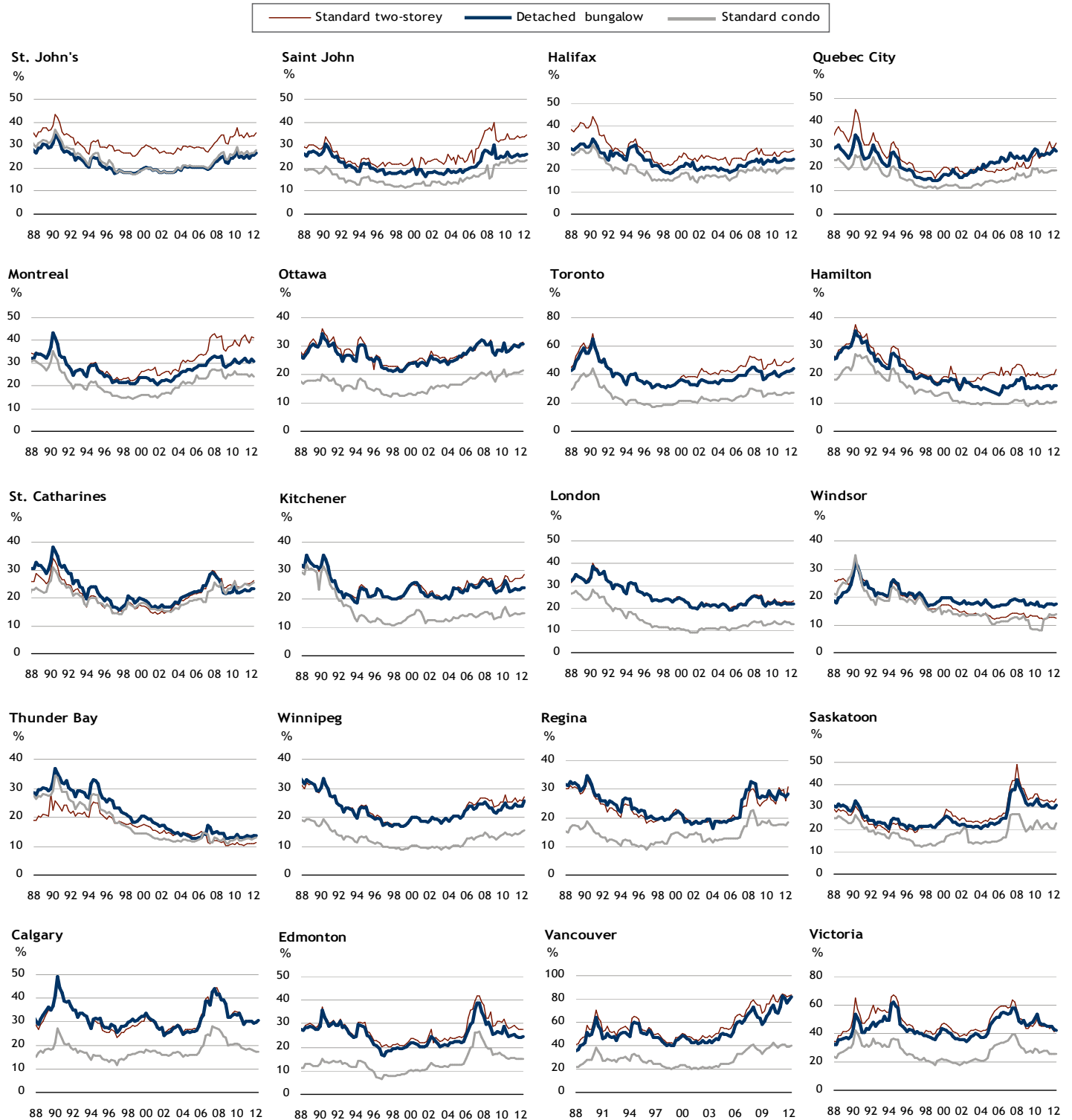
Region	Average Price			Qualifying Income (\$) Q2 2012	RBC Housing Affordability Measure			
	Q2 2012 (\$)	Q/Q % ch.	Y/Y % ch.		Q2 2012 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada*	237,300	0.7	3.2	52,400	28.8	0.0	-0.4	27.1
British Columbia	309,700	-0.5	-0.8	61,900	35.2	0.2	-1.3	28.4
Alberta	212,100	-0.1	-1.9	46,800	19.7	-0.6	-1.6	22.3
Saskatchewan	234,400	6.5	7.4	51,500	26.9	1.6	-0.2	24.6
Manitoba	171,900	2.1	8.7	39,900	22.6	0.4	0.6	21.2
Ontario	261,200	1.5	5.1	59,300	30.2	0.1	0.3	28.1
Quebec	192,900	-0.9	3.8	43,500	27.3	-0.5	-0.5	27.1
Atlantic	184,100	2.2	4.4	44,100	27.1	0.3	-0.2	24.8
Toronto	338,400	1.8	5.4	72,600	34.8	0.3	0.5	31.7
Montreal	226,100	-2.2	2.6	49,900	31.6	-0.9	-0.9	29.5
Vancouver	410,200	-0.2	-0.2	79,200	45.2	0.4	-1.6	32.8
Ottawa	270,400	0.8	5.8	62,100	29.0	0.0	0.6	24.0
Calgary	247,100	-0.4	-0.8	51,700	21.6	-0.6	-1.4	23.3
Edmonton	203,000	-0.6	1.2	45,500	20.2	-0.6	-1.0	18.6

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

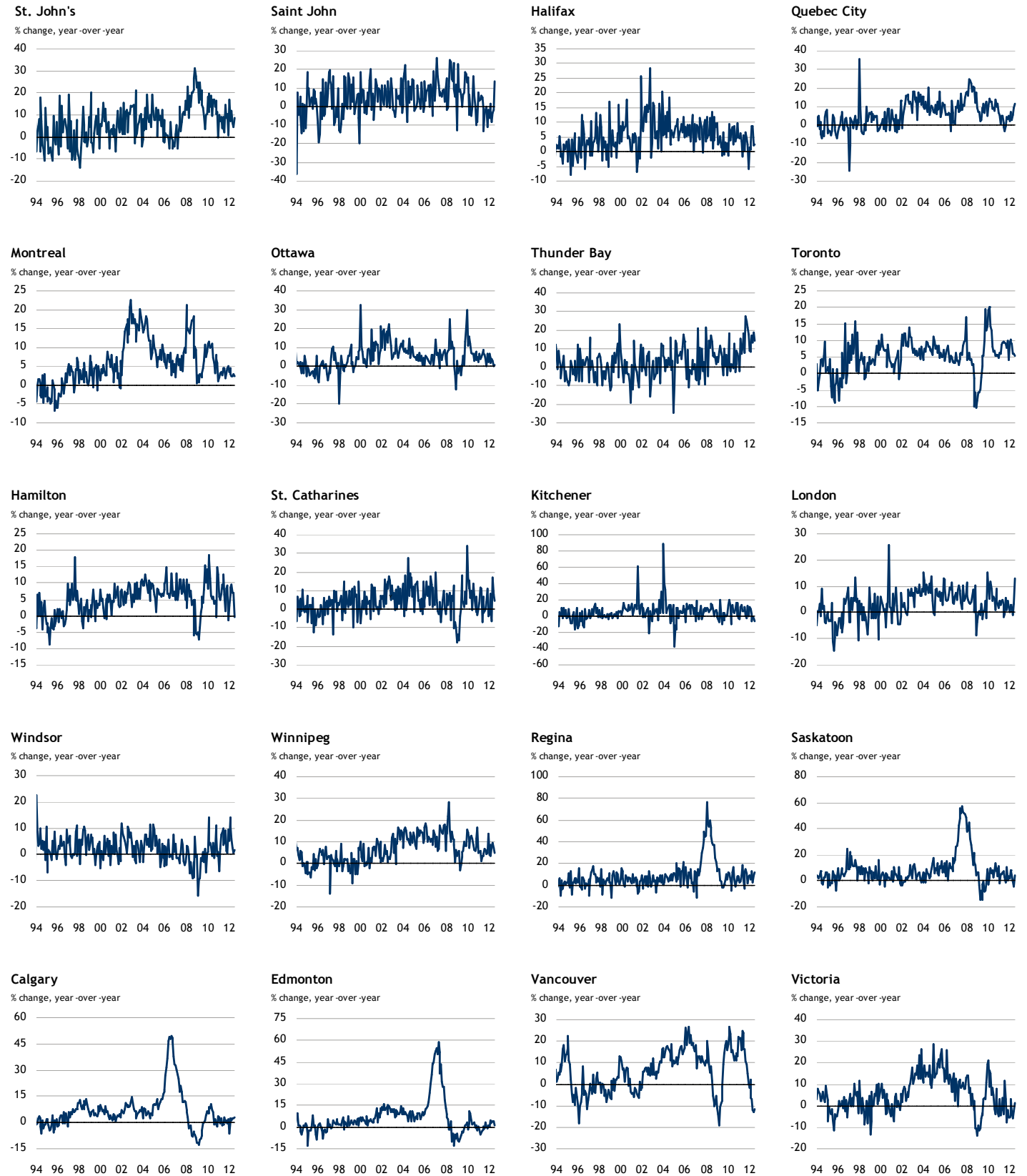
Mortgage carrying costs by city

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

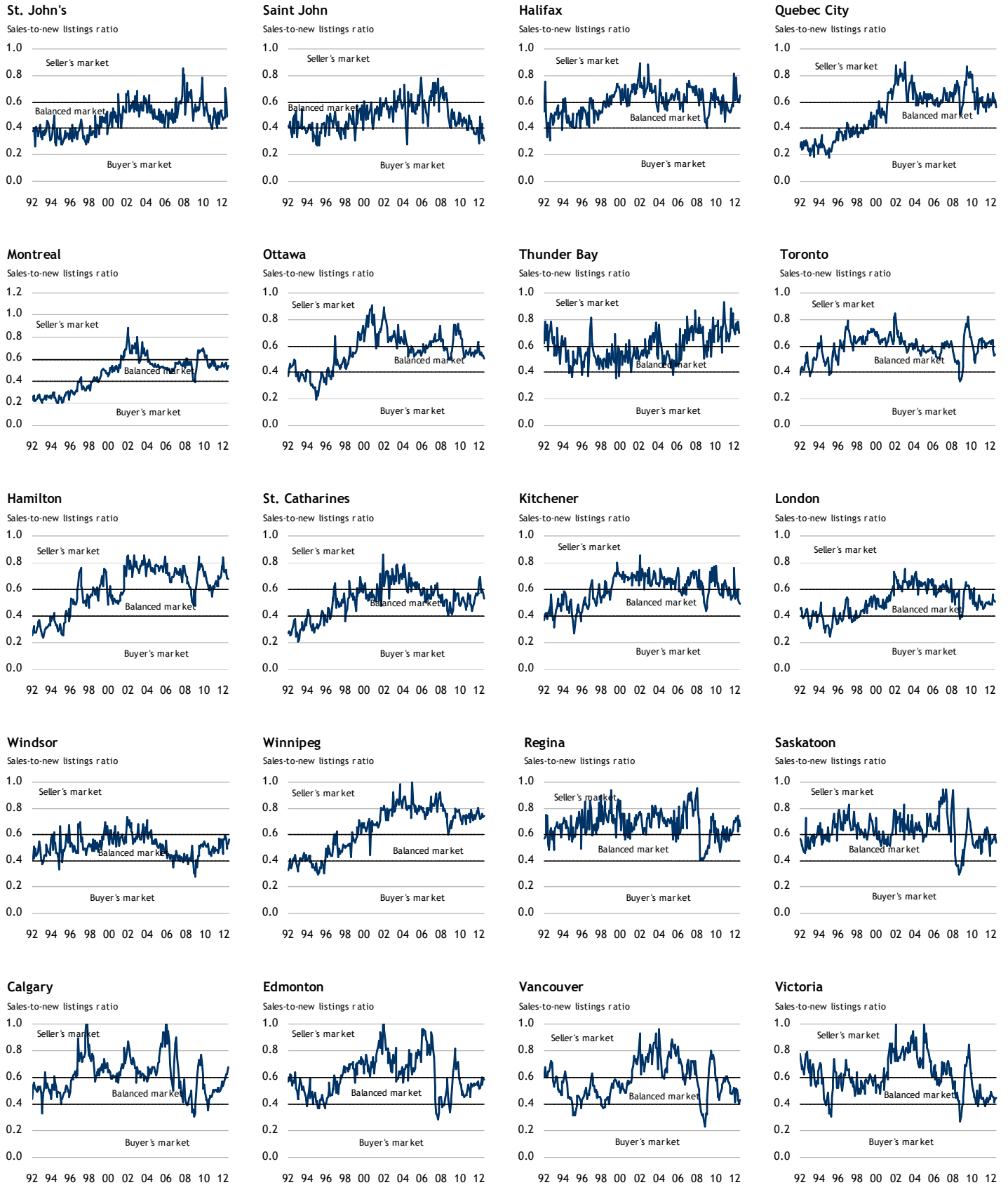
Average price of homes sold on the MLS system



Source: Canadian Real Estate Association, RBC Economics Research



Home sales-to-new listings ratio



Source: Canadian Real Estate Association, RBC Economics Research



The material contained in this report is the property of Royal Bank of Canada and may not be reproduced in any way, in whole or in part, without express authorization of the copyright holder in writing. The statements and statistics contained herein have been prepared by RBC Economics Research based on information from sources considered to be reliable. We make no representation or warranty, express or implied, as to its accuracy or completeness. This publication is for the information of investors and business persons and does not constitute an offer to sell or a solicitation to buy securities.

**®Registered trademark of Royal Bank of Canada.
©Royal Bank of Canada.**

