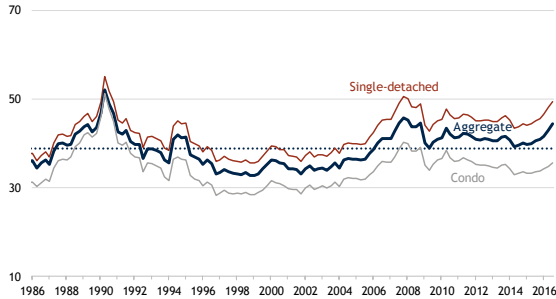


## HOUSING TRENDS AND AFFORDABILITY

December 2016

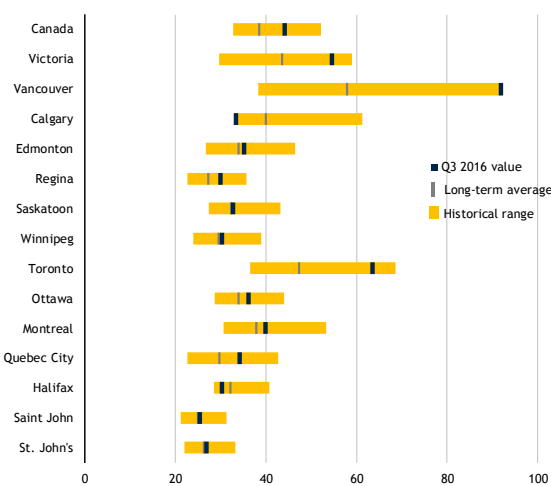
### RBC Housing Affordability Measures - Canada

Ownership costs as % of median household income



### RBC Housing Affordability Measures - major markets

Ownership costs as % of median household income



Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, RBC Economics Research

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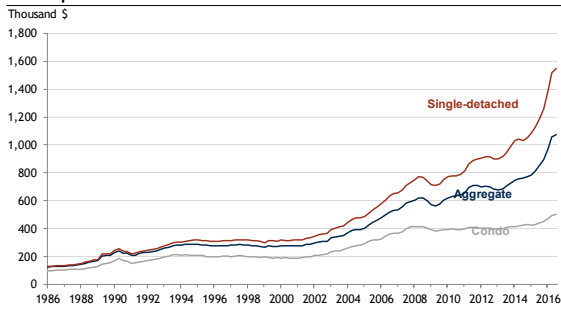
## No housing affordability relief in Canada in Q3/16

- Despite cooling home resale activity overall, housing affordability deteriorated further across all markets in Canada in the third quarter of 2016.
- RBC's aggregate affordability measure for Canada rose for the sixth consecutive quarter by 1.3 percentage points to 44.3%, which represented the most stressed affordability level in eight years (an increase represents deterioration in affordability). Single-detached homes once again led the climb by increasing by 1.3 percentage to 49.4%, followed by condo apartments which edged upwardly by 0.8 percentage points to 35.6%.
- For the first time in almost two years, the Vancouver area did not record the most significant erosion in affordability in Canada. That title went to the Greater Toronto Area in the third quarter, where RBC's aggregate measure jumped by 3.0 percentage points to 63.7%—the highest point since the all-time peak reached in the spring of 1990.
- Still, the Vancouver area remained the market with the steepest ownership costs as a share of household income at 92.0% (for the all-housing category aggregate), following a rise of 2.2 percentage points in the third quarter.
- The latest Vancouver-area aggregate measure also was the highest ever reached anywhere in the country since RBC began compiling housing affordability statistics in the mid-1980s; however, this situation entirely reflects sky high prices for detached homes. Owning a condo apartment in the area remained comparatively more affordable, although the trend has eroded somewhat as well in the past year.
- It is a similar story in the Toronto area, where affordability pressure in Toronto emanates primarily from the detached segment.
- Other than Vancouver and Toronto, housing affordability continued to be generally in line with historical norms across the majority of local markets. Victoria (now displaying increased affordability stress) and Calgary (where ownership has become quite affordable) were among the few exceptions.
- The third quarter could be a turning point for affordability in the Vancouver area with local detached home prices having come under downward pressure in recent months. The near-term outlook for affordability in other markets remains little changed: further deterioration is likely to occur in Toronto and very relaxed conditions are poised to persist in Calgary, while other markets are expected to stay in a holding pattern. 2017 is likely to see a tug of war between rising longer-term interest rates and market-cooling policy measures pulling affordability in opposite directions, the net effect of which is unclear at this point.

### Vancouver and Toronto trade spots as main source of affordability erosion in Canada,...

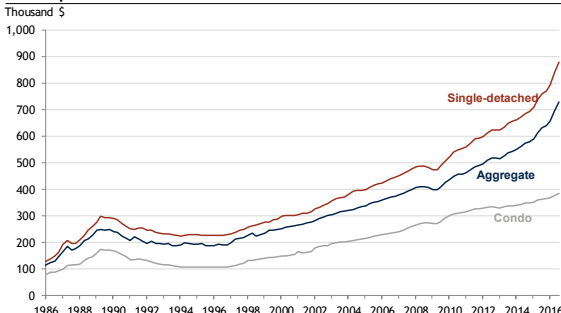
Owning a home at market price in Canada in the third quarter of 2016 was the least affordable since the fourth quarter of 2008 with RBC aggregate measure rising to 44.3%. Affordability has deteriorated persistently overall in Canada

## Home prices - Vancouver area



Source: Brookfield RPS, CREA, Royal LePage, RBC Economics Research

## Home prices - Toronto area



Source: Brookfield RPS, CREA, Royal LePage, RBC Economics Research

since the middle of 2015; however, the pace of deterioration accelerated significantly in the latest two quarters. Until very recently, sky-rocketing home prices in Vancouver were the main driver of mounting ownership costs at the national level, with escalating Toronto prices also contributing materially. In the third quarter, however, it was sharp erosion in the Toronto area that took centre stage. RBC's aggregate measure surged the most (by 3.0 percentage points) in more than 22 years in that area to its highest point (63.7%) since Toronto's all-time peak in the second quarter 1990.

### ...although the slippage was generalized across Canada

Toronto was far from being alone in seeing home ownership becoming less affordable in the third quarter. In fact, RBC's measures rose in all major markets across Canada, including the Vancouver area which registered a ninth consecutive quarterly increase (2.2 percentage points) to set yet another new record-high mark of 92.0% for any market in Canada. Victoria also stood out with an increase of 2.7 percentage points in its aggregate measure (to 54.8%) in the third quarter. All other markets saw their aggregate measure rise by less than the national average.

### Affordability stress still mainly concentrated in two markets...

Despite the generalized slippage in the third quarter, it remains the case that affordability tensions are concentrated mainly in the Vancouver and Toronto areas—with some evidence that stress is spreading to some extent to other markets within British Columbia (e.g. Victoria) and Southern Ontario (e.g. Hamilton). Outside of Canada's few housing hot spots, housing affordability generally continue to be close to historical norms. Calgary continued to be an exception where RBC's affordability measure was well below the long-term average for the area.

### ...and in one segment—detached homes—within those markets

It also is still the case that within the Vancouver- and Toronto-area markets, affordability stress by far is highest within the single-detached home segment, reflecting a lack of supply in the face of strong demand for this type of housing. Land development policy designed to limit urban sprawl is among the factors contributing to constrain the supply of new detached homes. Other forms of housing such as condo apartments comparatively are more affordable to own and constitute a rapidly growing source of supply in both Vancouver and Toronto.

### New mortgage insurance rules may help affordability over time

If successful at reining in the rate of home price increases, the latest round of mortgage insurance rule tightening implemented in October and November, 2016, by the federal government ultimately would help to relieve affordability pressure. The near-term effects are likely to be quite complex, however. More stringent rules to qualify for a mortgage in actual fact will represent a higher ownership hurdle for some buyers (primarily first-time buyers). Rule changes also are poised to restrict or alter the pricing of certain mortgage options available in the marketplace, similarly constituting further impediments to ownership for some buyers.

### There is high sensitivity to any rise in longer-term interest rates

Any benefits to affordability from the new rules may be overshadowed by a rise in longer-term interest rates. Canada's extended housing boom and attendant surge in home prices have rendered home ownership costs very sensitive to changes in interest rates—especially so in high-priced markets such as Vancouver and Toronto. Therefore, the recent jump in bond yields and the likelihood of further increases in the period ahead pose a material risk to housing affordability in Canada in the short to medium term.

## British Columbia

### Victoria – Attracting more attention

Some of the heat from the Vancouver market continued to make its way to Victoria where home prices escalated further in the third quarter. Despite home resales slowing markedly from an all-time high in the second quarter, demand-supply conditions remained exceptionally tight. Surging prices weighed heavily on the market's affordability which recorded its most significant deterioration in more than six years. RBC's aggregate measure climbed 2.7 percentage points to 54.8% in the third quarter, well above the historical average of 43.9%. Recent property transfer statistics showed that foreign buyers represented more than 10% of the value of transactions in the Capital Regional District in October, up from less than 5% in June. The BC government indicated that it monitors the data closely in this district where the foreign-buyer tax does not apply currently.

### Vancouver area – Still making (un)affordability history

The sharp drop (-41%) in home resales since the all-time peak reached in the winter of 2016 had yet to bring any affordability relief to the Vancouver-area by the third quarter. RBC's aggregate measure for the area continued to soar by 2.2 percentage points in the latest period, thereby setting yet another record high (92.0%) for any market in Canada since RBC began compiling affordability data in the mid-1980s. While much of the stress and erosion occurred in the detached home segment—by now clearly a luxury form of housing in Vancouver—the condo apartment segment also has exhibited a mildly deteriorating trend in the past year. The fact that the third quarter's increase in RBC's aggregate measure was the smallest since the second quarter of 2015 may be a sign that the market is at a turning point. Indeed, recent indications that detached home prices have come under downward pressure suggest that some affordability relief is on the way in the area.

## Alberta

### Calgary – Market trend is (finally) improving

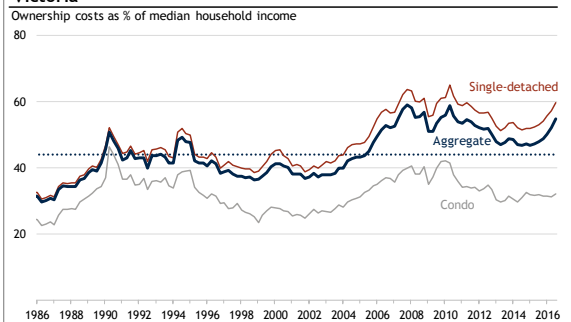
Despite significant volatility in recent months, the worst of the housing downturn may be over for the Calgary market, as home resales have picked up modestly from their six-year trough reached in the first quarter of 2016. Nonetheless, the level of activity remains historically weak and prices receive little support amid still-challenging economic conditions—Calgary's unemployment rate climbed above 10% this fall—and softening demographic trends—more people left Calgary than moved into the area in the past year. Past improvements in housing affordability have made Calgary one of only two local markets in Canada (along with Halifax) where RBC's aggregate measure stands well below historical norms. Although the measures inched upwardly by 0.5 percentage points in the third quarter to 33.6%, it still compares favourably to its long-run average of 40.3%. Relatively attractive housing affordability conditions could play a stimulative role for the market once the provincial economy turns a corner and confidence returns.

### Edmonton – Moving in slow motion

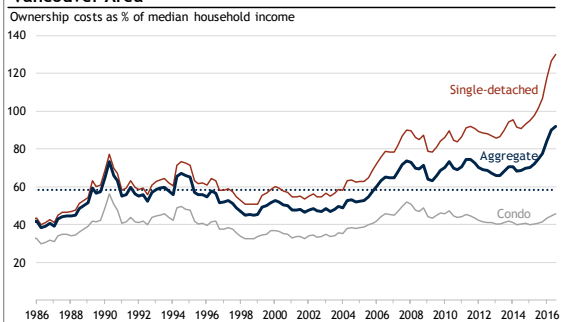
There was little change in either the level of market activity or affordability conditions in the third quarter in Edmonton. Resale activity remained sluggish in the area but off the six-year lows recorded at the start of 2016; and affordability eroded marginally for the second time in the past three quarters. RBC's aggregate measure crept upwardly by 0.2 percentage points to 35.3% in the third quarter. As is the case for other markets in Alberta—including Calga-

## RBC Housing Affordability Measures

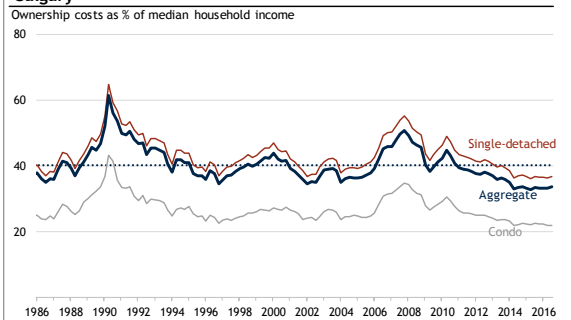
### Victoria



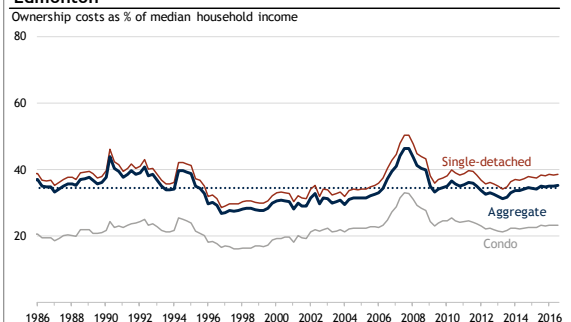
### Vancouver Area



### Calgary



### Edmonton

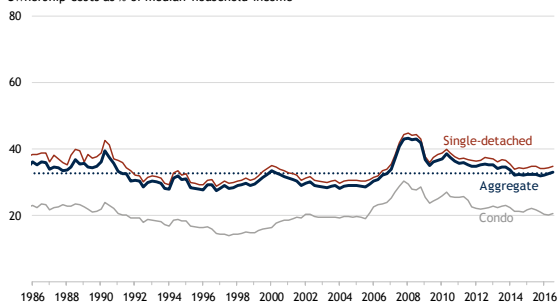


Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, RBC Economics Research

## RBC Housing Affordability Measures

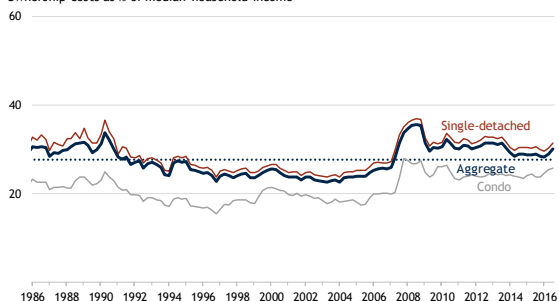
### Saskatoon

Ownership costs as % of median household income



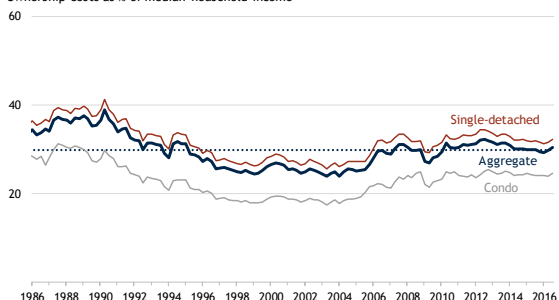
### Regina

Ownership costs as % of median household income



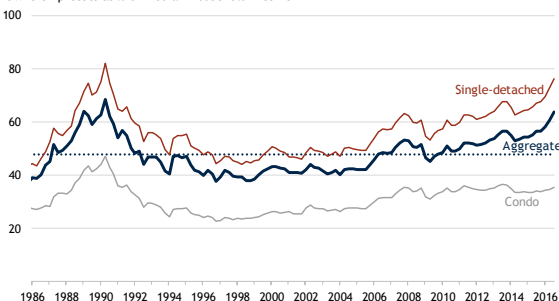
### Winnipeg

Ownership costs as % of median household income



### Toronto Area

Ownership costs as % of median household income



Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, RBC Economics Research

ry—the Edmonton housing market continues to be hampered by a tough economy that drove the local unemployment rate higher to a decades-high of 8.0% in August (it has since moderated to slightly below 7%). Our expectation of a return to positive growth for the provincial economy in 2017 would be positive for the housing market in Edmonton.

## Saskatchewan

### Saskatoon – Back in balance but still facing challenges

Market conditions firmed up modestly in Saskatoon in the third quarter thanks to a 3.6% quarterly bump in home resales. The sales-to-new listings ratio rose above 0.40—the threshold above which demand and supply are considered to be in balance—for the first time since the end of 2014, thereby signaling that sellers have regained some sway in setting prices in the market. At this stage, however, home price increases have been subdued, which has contained any pressure in ownership costs. RBC's aggregate measure for the area rose slightly by 0.4 percentage points to 32.7% in the third quarter, effectively matching the long-term average. The near-term outlook for the market remains clouded by a significant weakening in the local employment conditions, in part reflecting the prolonged downturn in the provincial energy and mining sectors.

### Regina – Remaining within recent ranges

Owning a home was still reasonably affordable, and demand and supply remained in balance in the Regina market in the third quarter. RBC's aggregate measure of affordability rose by 1.2 percentage points; however, the level it reached (30.1%) was only slightly above the long-run average (27.6%), thereby suggesting little in the way of undue stress for buyers. Home resales activity in the third quarter moved toward the higher end of the 3,300-3,500 unit (annualized) range in place since mid-2015. Importantly, the number of homes newly listed for sale fell for the third straight quarter, which along with stronger resales contributed to further re-balance the market after it flirted with conditions favouring buyers in 2015. While gains are still modest, prices have gathered some momentum since the second quarter.

## Manitoba

### Winnipeg – Quickly clearing earlier excess supply

The plentiful supply of homes that weighed on Winnipeg's housing market for much of the past two years has been absorbed at a strong rate in the past two quarters. The number of newly-built homes still unsold and properties newly listed for sale both fell noticeably since spring, which has firmed up demand-supply conditions in the market. This firming in turn provided a boost to property values following a period of minimal increases. There were few affordability issues to restrain homebuyer demand in 2016, which has been solid all year based on the historically elevated resale levels sustained in the first three quarters. RBC's aggregate measure edged slightly upwardly by 0.7 percentage points to 30.4% in the third quarter, or just marginally above the 29.9% average since 1985.

## Ontario

### Toronto area – Pedal to the metal

There are effectively no signs that the Toronto-area market was either slowing down or getting any reprieve from intense affordability stress in the third quarter. Fueled by a vibrant regional economy, strong demographic flows and continued investor interests, home resales set yet another record high

(115,200 units, annualized) in the third quarter—keeping the market well on pace for its best year ever in 2016. Poor and still-rapidly deteriorating affordability (especially for detached homes) does not appear to be a significant impediment for buyers at this stage. Already at a 26-year high, RBC’s aggregate measures for the area, in fact, rose the most (by 3.0 percentage points) among all major markets in Canada in the third quarter. The latest reading for the measure (63.7%) signals intense affordability stress, although much of it continued to be concentrated in the detached home segment which is characterized by a severe lack of supply relative to demand. The condo apartment segment (with a measure of 35.5%) remains a more affordable ownership option in the area, and represents a rapidly growing share of the resale market. Escalating prices in the area no doubt are being closely monitored by policymakers who may be pressured to intervene further to reduce housing risks.

### Ottawa – Gathering momentum

The Ottawa-area market has been on an upswing since spring with momentum building briskly in the third quarter when home resales reached their second-strongest level ever (16,500 units, annualized). Homebuyer demand likely has been re-energized this year by improving local job market where the unemployment rate has fallen to its lowest point (6.2% by October) in four years. The market upswing helped to draw down the earlier elevated inventory of unsold condos and restore some pricing power for sellers. Home prices picked up quite noticeably in the third quarter—posting the fastest year-over-year rate (6.6%) in five years. The downside of such pace of property appreciation, however, is that it contributed to an erosion of housing affordability in the area. RBC’s aggregate measure rose for the third consecutive quarter by 1.1 percentage points to 36.3%.

## Quebec

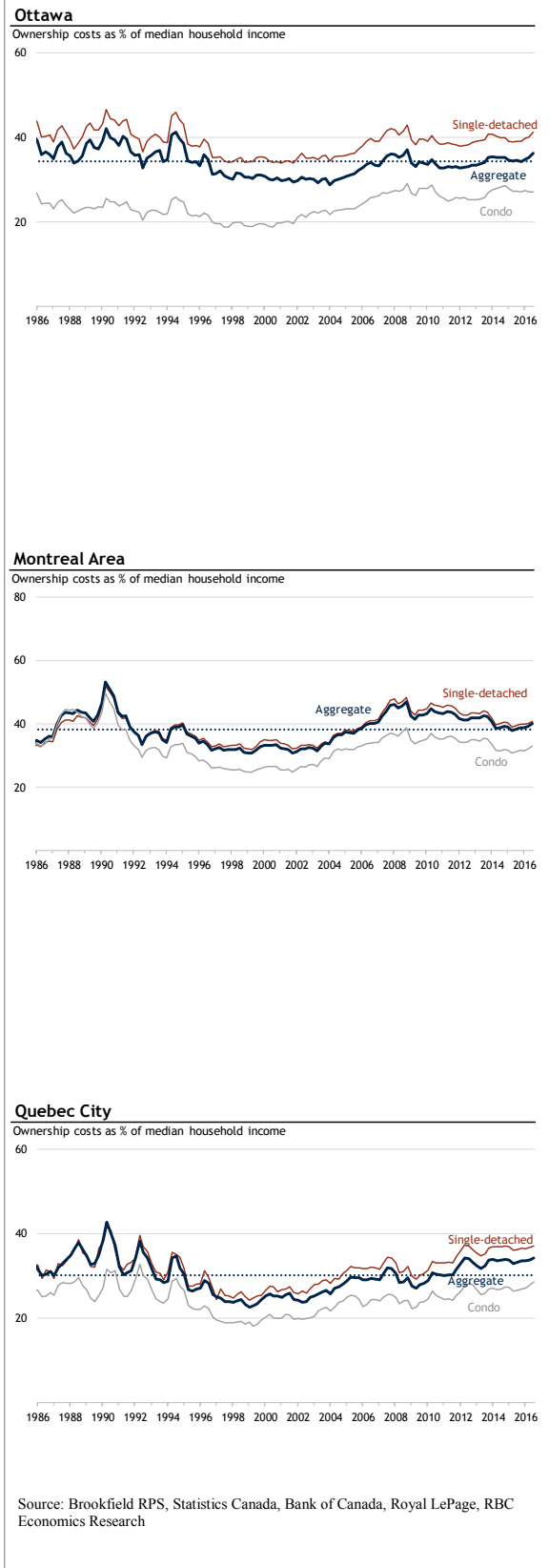
### Montreal area – The turnaround continues

Home resale activity continued to follow an upward trend in the third quarter in the Montreal area with gains registered in all housing categories. Clearly, confidence in the market has been rebuilding this year in part thanks to improved conditions in the region’s job market, and despite some slippage in housing affordability. RBC’s aggregate measure climbed by 0.7 percentage points to 40.0% in the third quarter; however, this level still was unlikely to signal the presence of any undue stress for buyers (since it remained close to the long-term average of 38.3% in the area). Recent slippage in affordability primarily has reflected moderately accelerating price increases. While demand and supply are balanced overall, sellers have regained some pricing power in 2016 amid steady absorption of previously high inventories of condos for sale.

### Quebec City – Buyers stressed out by sub-par affordability?

While comparing favourably to the national average and several major markets across Canada, housing affordability may be stressing homebuyers out in Quebec City. RBC’s aggregate measure has been consistently—albeit moderately—above the long-term average for the area since 2012, and resale activity has been stuck on a mostly static trend during this interval. The third quarter of 2016 saw a continuation of this sluggish trend, with resales remaining flat compared to a year earlier, which was inconsistent with reasonably positive signs from the local labour market—Quebec City’s unemployment rate has been among the lower ones in Canada (easing to 4.4% in November)—

## RBC Housing Affordability Measures

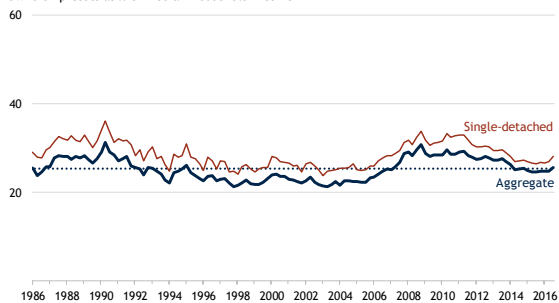




## RBC Housing Affordability Measures

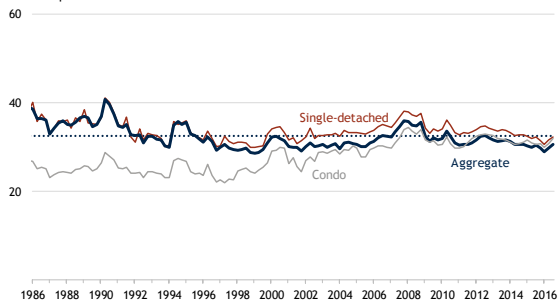
### Saint John

Ownership costs as % of median household income



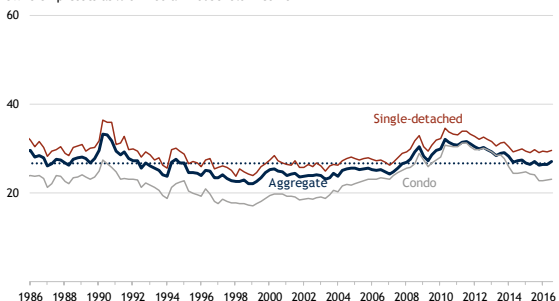
### Halifax

Ownership costs as % of median household income



### St. John's

Ownership costs as % of median household income



Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, RBC Economics Research

and slightly accelerating population growth. The supply side of the market continues to struggle with high inventories of homes for sale. As a result, the balance between demand and supply remains tilted in favour of buyers at this stage, which keeps price increases subdued for the most part. RBC's aggregate measure inched upwardly by 0.5 percentage points to 34.3% in the third quarter.

## Atlantic Canada

### Saint John – Buyers emboldened by attractive affordability

It continues to be more affordable to own a single-detached home in Saint John than a condo apartment in many cities in Canada. On aggregate basis, the Saint John market reins supreme as the most affordable among the major markets that we cover, with an RBC measure of 25.5%—miles below the 44.3% at the national level. Some slight erosion occurred in the third quarter (RBC's measure edged upwardly by 0.7 percentage points); however, this did little to alter the favourable affordability picture in the area. It appears that local buyers have started to take advantage of these favourable conditions since the middle of 2015, as home resales have climbed substantially by almost 19% in the past year. In fact, home resales in the area were the strongest in the second and third quarters in more than six years.

### Halifax – In a quiet period

The Halifax housing market has been relatively quiet in 2016. Home resale activity remained mostly steady at historically moderate levels, housing starts eased after a strong year in 2015, home prices increased only modestly and housing affordability was little changed. RBC's aggregate measure rose slightly by 0.7 percentage points to 30.5%, thereby remaining below the historical average of 32.5% in the area. The main development in the third quarter has been a second-consecutive drop in the number of homes newly listed for sale, which tightened demand-supply conditions the most since mid-2012; yet still within balanced market territory. That being said, any further tightening in the period ahead likely would apply increasing upward pressure on prices.

### St. John's – Tough economic times weigh on the market

Home resale activity remained soft in St. John's in the third quarter, as a quarterly decline of 8.7% reversed most of a 10.8% gain recorded in the second quarter. In fact, notwithstanding usual month-to-month volatility, the trend in resales has been largely flat in St. John's since 2014. Buyers have maintained control of the market during this period, and this continued to be the case in the third quarter of 2016 with plenty of homes available for sales from which to choose. Such conditions have kept upward price pressures in check for the most part, and contributed to some modest affordability improvement in recent years. This improving affordability trend took a pause in the third quarter, however, as RBC's aggregate measure rose edged upwardly by 0.6 percentage points, although the latest reading of the measure (27.0%) was unchanged from a year ago. Housing demand in St. John's is being hampered by a very tough economic landscape resulting from weak oil prices and provincial fiscal austerity.

## 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 based on the average market price for single-family detached homes and condo apartments, as well as for an overall aggregate of all housing types in a given market.

Current home prices are sourced from Brookfield RPS, and established from sales prices from monthly transactions, which are filtered to remove extreme values and other outliers.

The aggregate of all categories includes information on prices for housing styles not covered in this report (semi-detached, row houses, townhouses and plexes) in addition to prices for single-family detached homes and condominium apartments. In general, single-family detached homes and condo apartments represent the bulk of the owned housing stock across Canadian markets.

The affordability 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 14 major urban markets in Canada and a national composite. 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 home. 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.

## Summary tables

Aggregate of all categories							
Market	Price			RBC Housing Affordability Measure			
	Q3 2016 (\$)	Q/Q % ch.	Y/Y % ch.	Q3 2016 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada	453,200	3.2	11.0	44.3	1.3	3.7	38.9
Victoria	655,600	4.6	16.8	54.8	2.7	6.9	43.9
Vancouver area	1,073,400	1.4	26.2	92.0	2.2	17.5	58.2
Calgary	477,800	1.3	-1.2	33.6	0.5	0.2	40.3
Edmonton	397,600	0.4	-1.3	35.3	0.2	0.3	34.4
Saskatoon	379,100	0.8	2.1	32.9	0.4	0.7	32.7
Regina	343,800	5.0	5.3	30.1	1.2	1.2	27.6
Winnipeg	288,400	1.8	1.6	30.4	0.7	0.5	29.9
Toronto area	730,000	5.1	15.8	63.7	3.0	7.3	47.6
Ottawa	373,800	3.2	6.6	36.3	1.1	1.7	34.3
Montreal area	370,000	2.0	5.3	40.0	0.7	1.7	38.3
Quebec City	287,900	1.5	3.9	34.3	0.5	1.0	30.1
Saint John	208,100	3.1	8.5	25.5	0.7	0.9	25.3
Halifax	299,800	3.1	2.0	30.5	0.7	0.2	32.5
St. John's	314,900	2.1	0.7	27.0	0.6	0.0	26.7

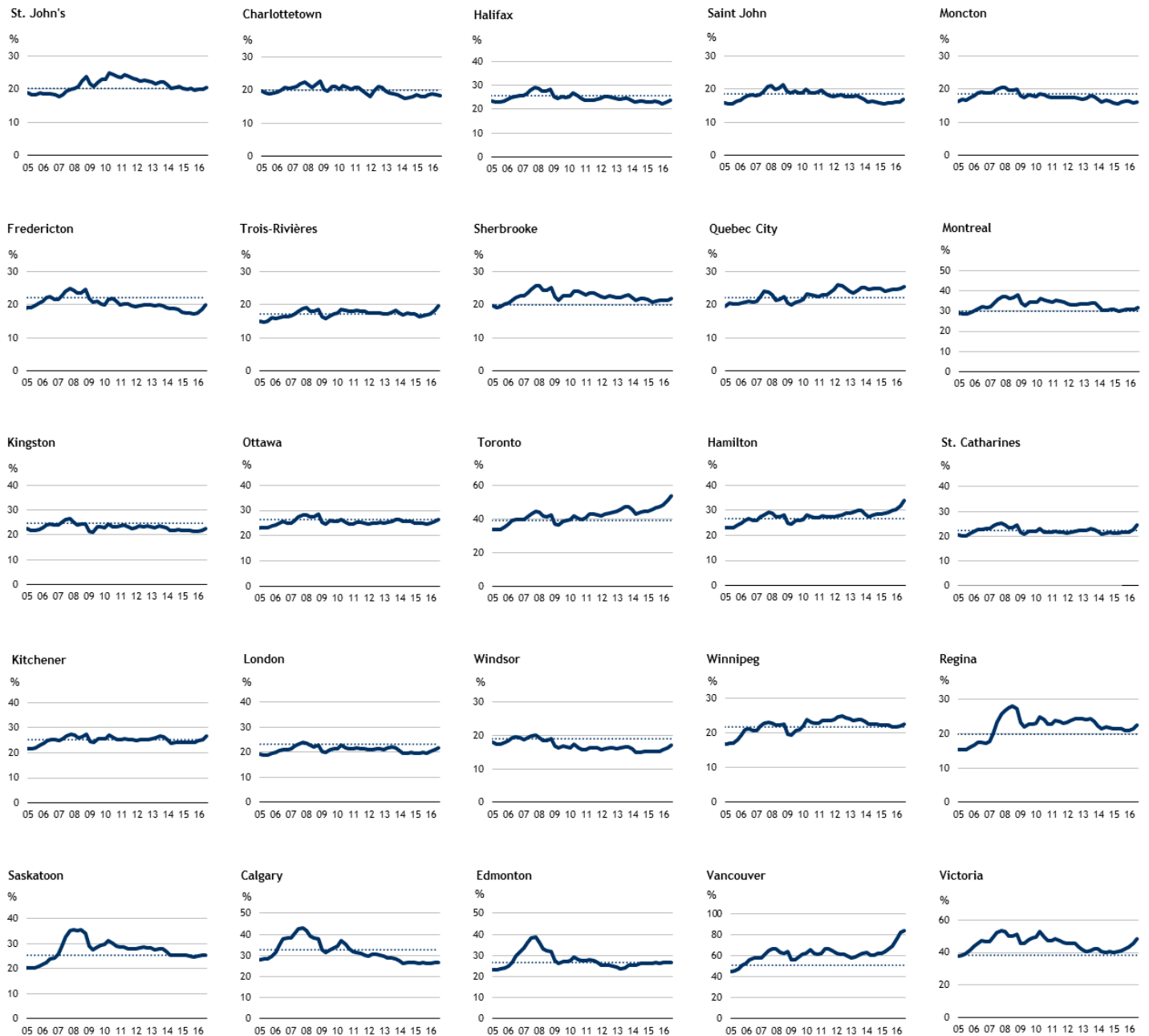
Single-family detached							
Market	Price			RBC Housing Affordability Measure			
	Q3 2016 (\$)	Q/Q % ch.	Y/Y % ch.	Q3 2016 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada	504,100	2.9	11.5	49.4	1.3	4.2	42.1
Victoria	713,400	3.5	14.6	59.7	2.4	6.7	47.0
Vancouver area	1,547,900	1.8	30.7	130.0	3.6	28.5	68.4
Calgary	524,000	1.1	-1.6	36.8	0.4	0.0	43.4
Edmonton	433,500	0.1	-1.5	38.5	0.1	0.3	36.9
Saskatoon	392,500	0.9	-0.6	34.7	0.4	0.0	34.6
Regina	349,500	4.6	3.1	31.4	1.2	0.8	29.0
Winnipeg	299,600	1.4	0.7	32.3	0.7	0.4	31.9
Toronto area	880,000	4.6	16.0	76.1	3.3	8.9	56.0
Ottawa	422,000	2.8	7.2	41.2	1.1	2.1	39.0
Montreal area	367,800	1.9	4.7	40.9	0.8	1.6	38.8
Quebec City	304,300	0.9	2.5	37.1	0.4	0.8	31.8
Saint John	225,800	4.7	11.9	28.0	1.1	1.5	28.6
Halifax	310,800	3.0	0.9	32.2	0.7	-0.1	33.9
St. John's	342,700	0.6	-0.1	29.6	0.3	-0.2	29.0

Condominium apartment							
Market	Price			RBC Housing Affordability Measure			
	Q3 2016 (\$)	Q/Q % ch.	Y/Y % ch.	Q3 2016 (%)	Q/Q Ppt. ch.	Y/Y Ppt. ch.	Avg. since '85 (%)
Canada	370,000	2.1	6.6	35.6	0.8	1.9	34.3
Victoria	365,000	2.8	1.1	32.2	1.0	0.3	32.0
Vancouver area	503,700	2.6	14.5	45.8	1.4	5.0	40.2
Calgary	291,500	-0.1	-5.8	22.0	0.1	-0.6	27.0
Edmonton	243,000	-0.7	-2.8	23.1	-0.1	-0.1	22.0
Saskatoon	225,900	2.5	-6.3	20.7	0.5	-0.9	20.8
Regina	307,100	0.6	11.1	25.7	0.2	2.0	21.3
Winnipeg	238,500	2.0	1.5	24.5	0.6	0.4	23.1
Toronto area	384,100	2.1	5.6	35.5	0.9	1.5	30.8
Ottawa	289,700	-0.6	-0.5	27.1	0.1	-0.1	23.9
Montreal area	313,900	3.1	6.4	33.0	0.9	1.7	32.9
Quebec City	256,400	3.3	8.9	28.5	0.8	1.9	24.6
Saint John	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Halifax	339,900	4.8	6.3	32.0	1.3	1.4	27.8
St. John's	281,300	0.7	-4.6	23.1	0.2	-1.0	23.1

Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, 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 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.

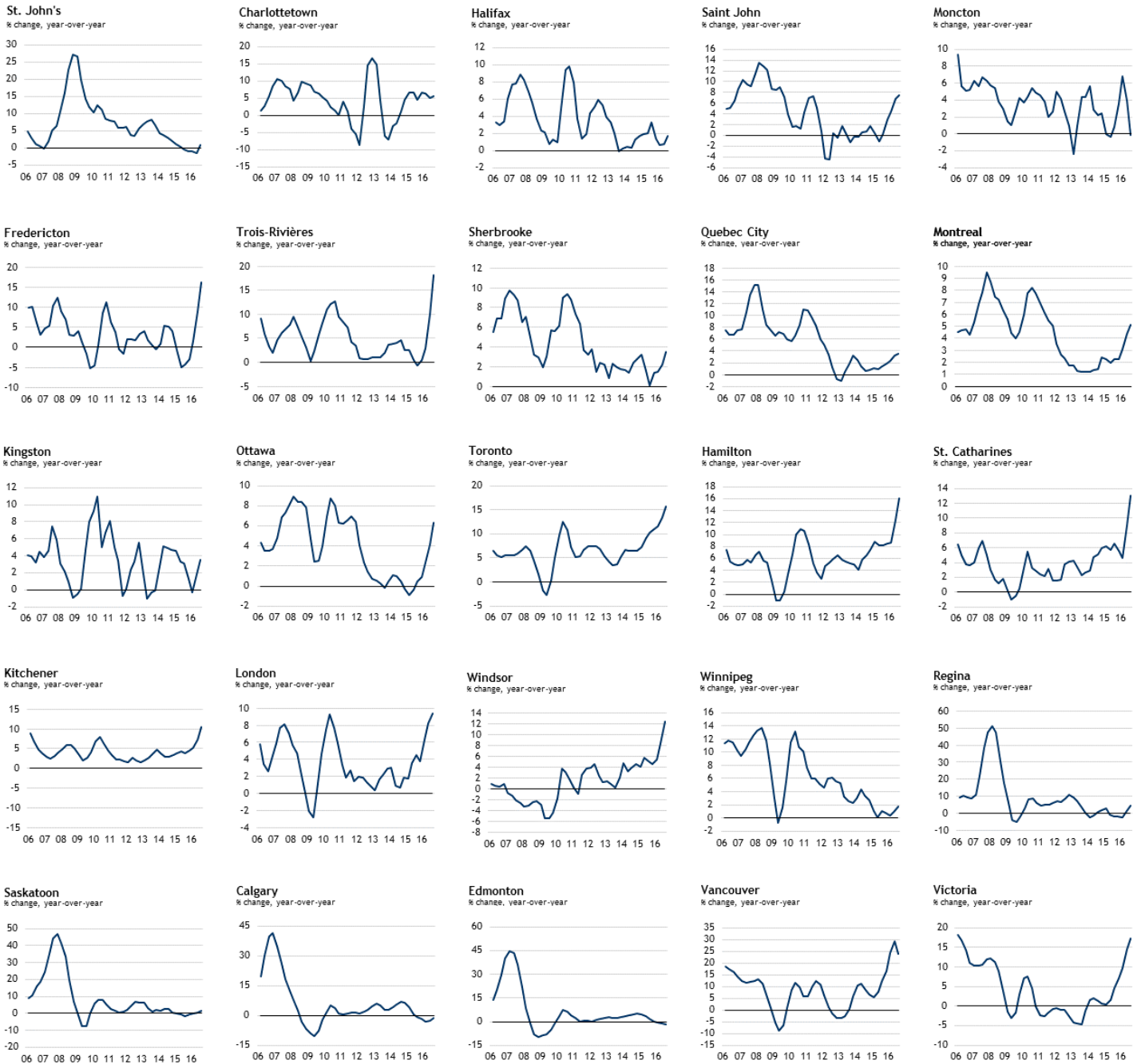


The dashed line represents the long-term average for the market.  
 Source: Brookfield RPS, Statistics Canada, Bank of Canada, Royal LePage, RBC Economics Research





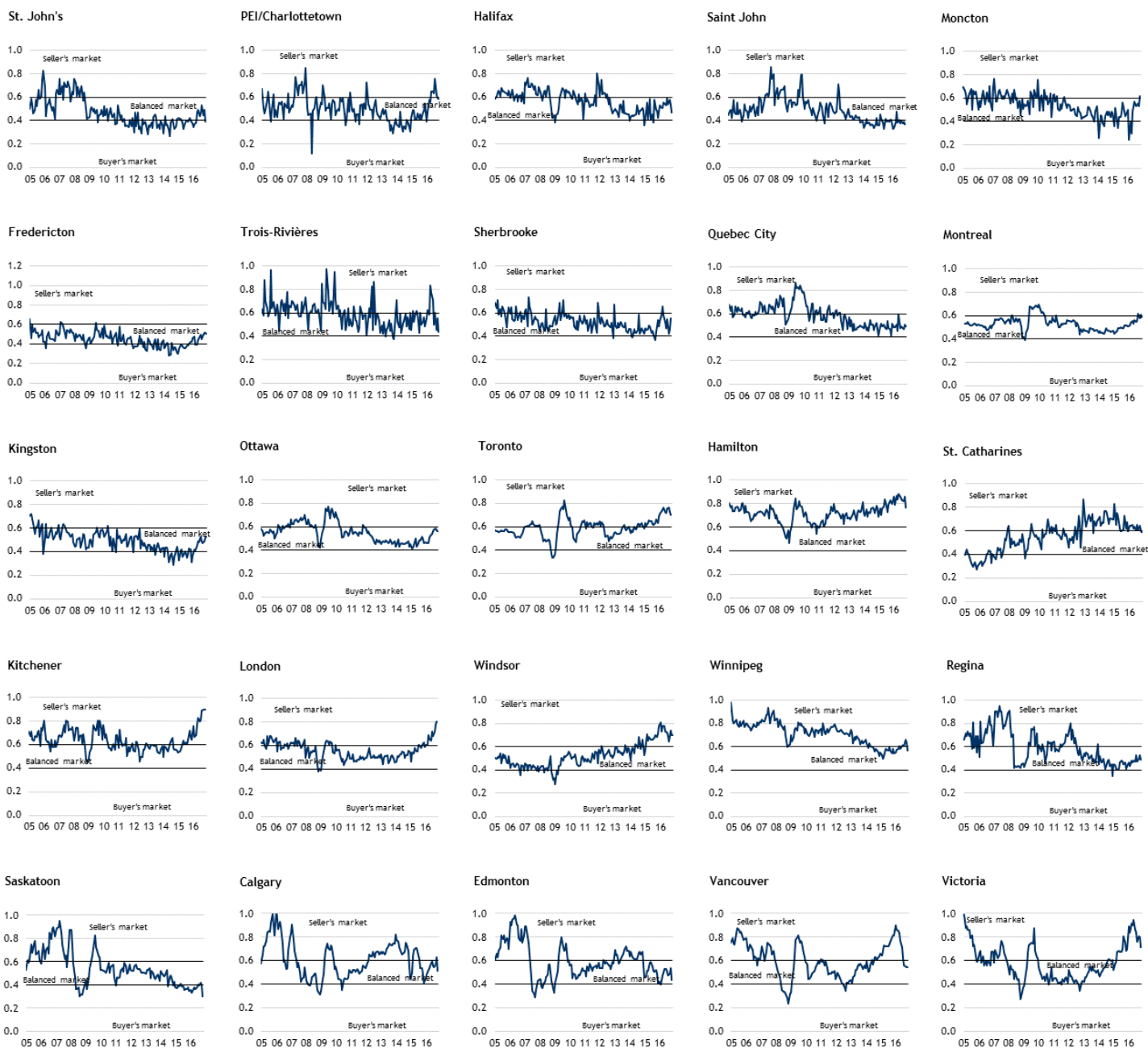
# Aggregate home price



Source: Brookfield RPS, RBC Economics Research



# Home sales-to-new listings ratio



Source: Canadian Real Estate Association, RBC Economics Research

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