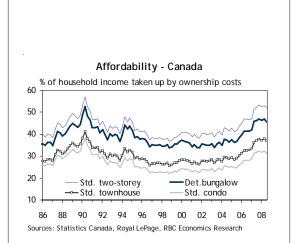


ECONOMICS I RESEARCH



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HOUSING TRENDS AND AFFORDABILITY

December 2008

Housing downturn – Canadian-style

▲ Canadians have watched with amazement for nearly two years now at the collapse of the housing sector in the United States, the United Kingdom and other countries that experienced overvalued housing prices with the sense that markets in this country stand on much more solid ground. After all, the sub-prime business never represented more than a marginal phenomenon here; Canadian households, while carrying heavier debt loads than in the past, were not financially overstretched; Canadian banks emerged islands of stability amid the global financial storm; incomes remained well supported by steady job creation and a strong domestic economy; and the influence of speculation — especially on new construction — was deemed to be subdued.

▲ Then, late in 2007, red-hot Alberta markets began to slide, followed earlier this year by British Columbia's markets. Most recently, Saskatchewan, last year's hotspot, and areas in Ontario joined the weakening trend. All of a sudden, Canada no longer appeared immune to a generalized housing downturn. In fact, the souring of economic conditions, eroding consumer confidence and, in some instances, past excesses are creating a downdraft that the majority of Canada's housing markets will be hard-pressed to resist.

▲ As a sluggish economy threatens income growth and makes households much more skittish about major financial commitments, issues of affordability are coming to the fore. Much of the market correction taking place in British Columbia, Alberta and, now, parts of Saskatchewan can be traced to very poor affordability levels in those provinces.

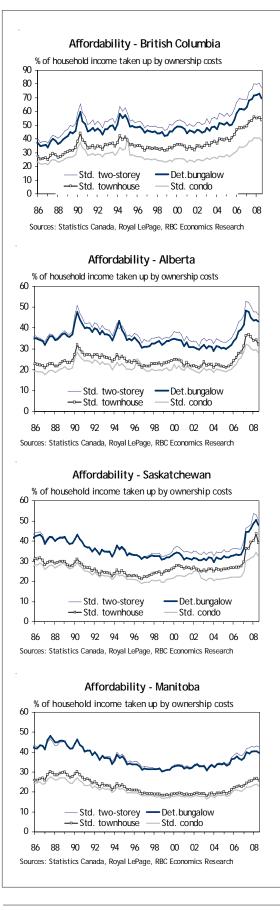
▲ However, high home ownership costs are not unique to western Canada. RBC's affordability measures lie above long-run averages in all provinces and across all housing segments, which suggests that the downdraft will be felt widely.

▲ Still, the extent of "unaffordability" varies substantially by province, with measures running as high as 48% above average in the B.C. standard townhouse segment and as low as 6% above average in the Quebec detached bungalow segment. Overall, British Columbia, Saskatchewan and Alberta remain the least affordable markets in Canada (relative to their respective historical norms).

▲ While the Canadian housing sector is undoubtedly entering a cyclical downturn, the risk of experiencing a U.S.-style meltdown is remote. The supportive factors mentioned above are still mostly in play and should provide enough backing to prevent markets from spiraling down even as the Canadian economy slips into recession.

Note on data: We have undertaken an in-depth review of the methodologies for calculating the various housing affordability measures and, as of this December issue, we are introducing a number of changes in the way we calculates house prices, property taxes, the costs of utilities and median family income by cities, provinces and housing types. The revisions have resulted in level changes in RBC's measures of affordability, mortgage carrying costs and qualifying income, although patterns, or trends, over time have remained largely unaffected. The new estimates for cities better reflect local housing valuations as assessed by Royal LePage experts, and those at the provincial level take better account of the relative size of the various cities and areas within them.

Regional overviews



British Columbia - In full-blown correction mode

The situation is unraveling fast in British Columbia. Provincial housing markets are correcting from extremely tight conditions that built up during the boom and drove prices sharply higher (more than doubling between 2002 and early 2008). By the first quarter of this year, RBC's housing affordability measures for British Columbia ranged from 38% to 50% above long-term averages — the most inflated ownership costs of all provinces (the higher the measure, the least affordable is home ownership) and clearly an unsustainable position. Demand has subsequently dried up, while elevated prices have attracted more sellers, swiftly shifting pricing power to buyers. Prices began to decline in the spring, a trend that gathered speed through the early fall. This has helped improve affordability modestly in the second and third quarters, but levels in British Columbia still suggest that further price correction should be expected in the near term.

Alberta - Still digesting the boom

Since prices peaked mid-2007, home ownership has become progressively less expensive in Alberta, although affordability still has a fair distance to go before returning to long-term averages. In the third quarter, further price declines in most housing segments led to affordability measures improving between 0.8 and 2.2 percentage points. After spending much of the past 10 years in very tight territory, market conditions have loosened considerably since the summer of 2007 with new sellers rushing in and would-be buyers moving to the sidelines. Sales-to-new listings ratios are now lower, in a range that typically indicates a better balance between buyers and sellers. Nonetheless, still-poor affordability levels suggest that Alberta markets likely continue to be overvalued, at least relative to household income. As stiff headwinds blow on the provincial economy and erode consumer confidence in the year ahead, would-be buyers will be hard-pressed to step into play until affordability improves more significantly.

Saskatchewan - Hangover after last year's party

Like Alberta and British Columbia before it, Saskatchewan is about to feel the downside of frenzied markets. Housing demand in the province greatly benefited from the red-hot prairie economy (thanks largely to strong demand and prices for commodities) and the inflow of people into the province. However, housing markets got carried away as skyrocketing prices significantly overstepped historical relationships with household income. RBC's provincial affordability measures spiked in all housing segments last year, reaching the poorest levels on records dating back to the mid-1980s. As is often the case, a wild party ends with a hangover and Saskatchewan's fête last year will be no different. Housing resales and prices are already showing clear signs of weakening. More is likely to occur.

Manitoba - Well-positioned to weather the storm

The housing market party in Manitoba has been a rather low-key affair, with price increases solid in the last few years but well within sane territory. Ownership costs have risen moderately since 2005, although as a share of income they remain reasonably close to historical norms — certainly much closer than in most other provinces. RBC's affordability measures in Manitoba stood between 6% and 13% above long-term averages in the third quarter, suggesting only a modest risk of markets being overextended. Still-elevated sales-to-new listings ratios are also consistent with reasonably firm support for pricing. Nonetheless, given mounting economic uncertainty, housing market activity is expected to cool in the province in the period ahead with prices giving up some ground.

Ontario – Markets succumbing to economic blues

A number of worrying developments have emerged in past few months across housing markets in Ontario. Several areas — including Toronto — have reported



Regional overviews

notable price declines and plummeting resales activity, clear evidence that the sector is no longer able to resist the downdraft from a quickly souring provincial economy. Overall, markets in Ontario appear to have peaked during the first half of 2008 and are likely to sustain a weakening tone until the economy shakes off its blues. However, the market correction is unlikely to be as devastating as the early 1990s downturn. Ontario markets are entering this part of the cycle with much less threatening imbalances compared to those that had built during the late 1980s. In particular, the erosion in affordability in the province during the past few years has been much more restrained, so that current measures are not as far off long-run averages as they were at the onset of the early 1990s meltdown.

Quebec - Controlled landing

The upside of markets not catching fire is that they are unlikely to burn out! Housing markets in Quebec have enjoyed a steady rise in the past several years, but the vigour and price appreciation paled in comparison to the sizzle in the west. However, as western markets must now shed their past excesses, those in Quebec have relatively little fat to lose. While affordability in the province followed the general trend and slipped in the past three to four years, it has done so rather benignly. Following slight improvements in the third quarter, RBC's affordability measures most recently stood just 6% to 9% above long-run averages, which could hardly be construed as posing a significant risk. Nonetheless, storm clouds are gathering and are expected to rain on activity and prices in the period ahead. Relatively solid fundamentals heading into the storm should limit damages.

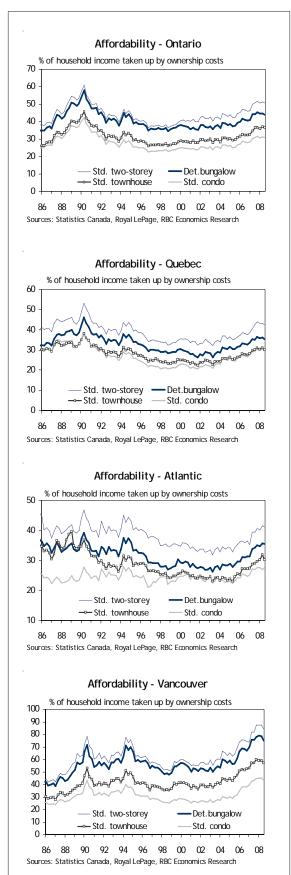
Atlantic – Canada's new housing hotspots... for now

Forget the west! The new housing hotspots are out east. In particular, St. John's housing market is firing on all cylinders, trailing only Regina among Canada's major urban areas in terms of year-over-year price increases. Saint John is not far behind and Halifax is also showing solid price momentum. Market conditions in all three eastern cities are still much more favourable to sellers. With such meaningful price gains, affordability has deteriorated overall in Atlantic Canada in the past two years. Yet affordability measures have not degraded excessively relative to long-term averages — they stood 5% to 13% above average in the third quarter, depending on home segments. Market momentum in the region is expected to wane in the year ahead as economic uncertainty takes the wind out of its sail.

Metro markets

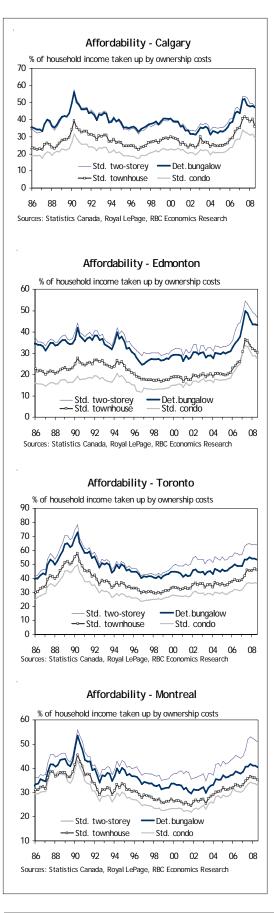
Vancouver - Bumpy ride on its way back to earth

Despite price declines since the first quarter, valuations in Greater Vancouver continue to reign supreme atop Canada's housing markets. In the third quarter, prices were roughly double the national average for most housing types, with standard condominiums the exception at "only" 70% above average. Meanwhile, median family income in Vancouver is estimated to exceed the Canadian norm by just 8%. Poor affordability is nothing new to the city, as its home ownership costs have long been the highest in the country. However, the significant deterioration in the past three years or so has exacerbated the situation, attaining unprecedented levels by the start of 2008 and adding tremendous stress on the local market. Price drops so far this year have brought some minor relief but much more is likely coming. With qualifying income estimated at more than \$150,000 for a standard two-storey home and \$135,000 for a detached bungalow, the vast majority of Vancouver families are effectively shut out of those market segments. The only option for many remains standard condominiums where the cost of ownership is not as steep.





Metro markets



Calgary & Edmonton - Shine is gone, now in retreat

With the two-year boom ending in the latter part of 2007, markets in Calgary and Edmonton have retreated significantly. Sales of existing homes have plummeted by 26% in the first 10 months in Calgary and are down 14% in Edmonton. Sellers are no longer in the driver's seat and prices have softened considerably. Since the third quarter of last year, the market value of the four housing types tracked by RBC has dropped between 6% and 11% in Calgary and between 9% and 17% in Edmonton. This has contributed to reduced home ownership costs, although RBC's affordability measures remain well above historical averages. In the case of Edmonton, measures in the third quarter still exceeded levels prior to the onset of the early 1990s housing downturn. As mounting concerns about the economic consequences of the recent sharp drop in energy prices send shivers down the spine o f households, housing markets should be expected to retreat further in the year ahead.

Toronto – No reason to panic, but consolidation ahead

In about two months, market sentiment turned on a dime in the Greater Toronto Area this fall. Until the end of the summer, the feeling was that the GTA was successfully negotiating a landing to a slower, more sustainable pace of activity since home resales had been gracefully trending lower since peaking in the middle of 2007 at never-before-seen levels. However, reports of notable declines in prices and activity in many Toronto communities during September and October suddenly challenged that view. While there is no cause to panic at this stage, the GTA market has undoubtedly entered a phase of consolidation. Earlier tightness has eased and buyers now hold more sway. The area's economy is facing serious headwinds, which will undermine household confidence. Affordability generally remains an obstacle to would-be buyers, although it has improved modestly in the past few quarters.

Ottawa - Holding its own for the time being

Considering that it came off a banner year in 2007, housing activity in the Ottawa area is holding its own so far this year. Sales of existing homes are declining but at a more restrained pace than in many other Canadian cities, easing by just 5% in the first 10 months — and still above 2006 levels. Market conditions are considered reasonably balanced (based on the sales-to-listings ratio), although sellers had a slight upper hand until very recently, keeping prices on a gentle upward track in the third quarter. However, the most recent monthly data have begun to show some price moderation overall. Going forward, historically high home ownership costs will likely weigh on the market's performance in the context of a weakening economy. The Ottawa area will be vulnerable to the notable erosion in affordability that resulted from price increases outpacing family income growth in the past three years. RBC's affordability measures stand between 14% and 22% above historical averages currently, which suggests downside risk to prices.

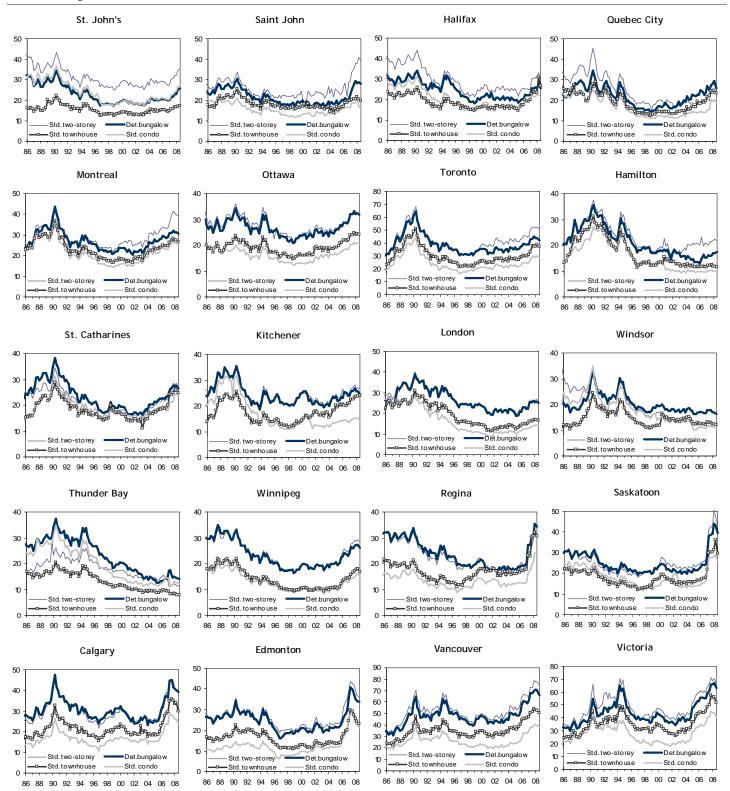
Montreal - Chugging along, but for how long?

The Montreal area market has been generally chugging along since the spurt of activity during 2003-2004, with sales and prices moving softly higher and affordability gradually eroding. The main exception has been the two-storey segment where prices took off in 2007 and the affordability measure surged to its third highest (therefore, worst) level on record by year-end. While two-storey home prices have stabilized so far this year and its affordability measure has improved slightly, that segment remains the most overstretched. The other segments appear much less expensive, with RBC's affordability measures between 10% and 13% above long-term averages in the third quarter, suggesting only modest overvaluation. The latest market reports in the area are now showing some slowing in resales activity relative to last year (a high-water mark), but prices are generally holding up. A weaker tone should be expected going forward until clear signs of vigour in the economy emerge.



Mortgage carrying costs by city

Our standard housing affordability measure captures the proportion of median pre-tax household income required to service the cost of a mortgage on an existing housing unit at going market price, including principal and interest, property taxes and utilities; the modified measure used here includes the cost of servicing a mortgage, but excludes property taxes and utilities due to data constraints in the smaller CMAs. This measure is based on a 25% down payment and a 25-year mortgage loan at a five-year fixed rate and is estimated on a quarterly basis. The higher the measure, the more difficult it is to afford a house.



Source: Statistics Canada, Royal LePage, RBC Economics Research



Resale housing market conditions in Canada's metro cities



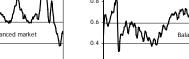








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Sales-to-listings ratios are based on a 3-month moving average.

*Last data point available for Montreal and Quebec City is December 2007





Seller's market

home

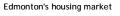
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St. Catherine's housing market



Winnipeg's housing market











Kitchener's housing market Sales-to-new listings ratio 1.0 Seller's market 0.8 0.6 Balanced marke 0.4 0.2 Buyer's market 0.0

Regina's housing market Sales-to-new listings ratio









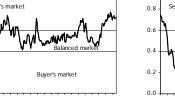
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Vancouver's housing market



Source: Canadian Real Estate Association, RBC Economics Research

Quebec's City housing market*



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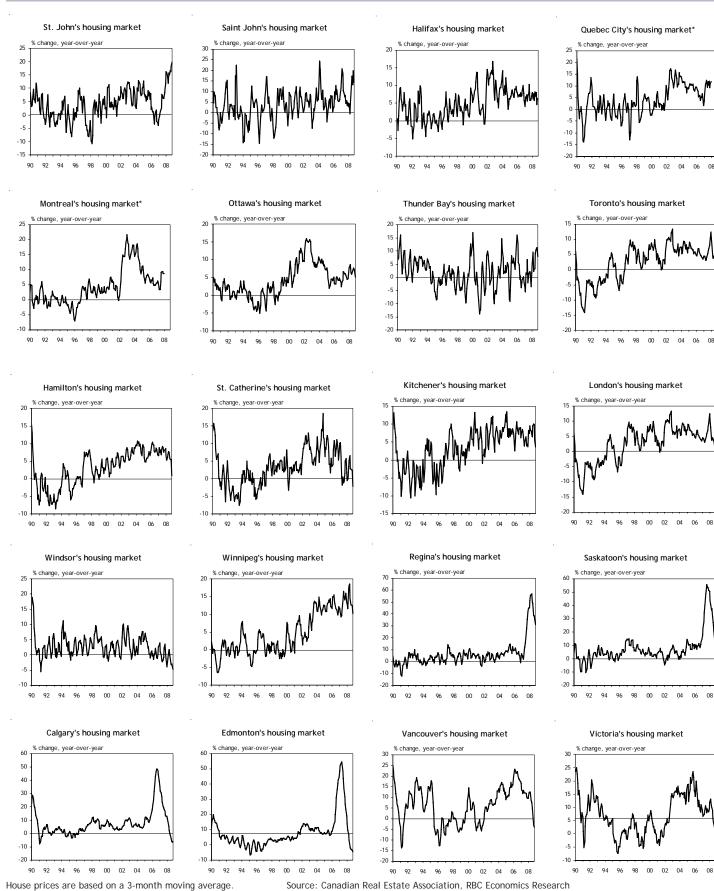


House prices in Canada's metro cities

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08

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House prices are based on a 3-month moving average.

*Last data point available for Montreal and Quebec City is December 2007



Housing affordability summary tables

	De	etache	d bungalow					
	Average Price		Qualifying	Affordability Measure (%)				
Region	Q3 2008	Y/Y	Income (\$)					
	(\$)	% ch.	Q3 2008	Q2 2008 (rev)	Q3 2008	_		
Canada*	304,100	3.3	76,200	46.8	45.7	C		
British Columbia	507,000	5.0	113,400	73.0	69.7	E		
Alberta	367,400	-7.1	89,600	43.8	43.0	A		
Saskatchewan	301,900	18.7	75,500	50.6	47.7	S		
Manitoba	217,300	7.0	60,100	40.4	39.5	Ν		
Ontario	316,500	3.8	81,700	44.8	44.1	(
Quebec	189,200	4.5	50,800	36.3	35.3	C		
Atlantic	182,900	7.1	50,900	35.7	35.4	A		
Toronto	436,400	3.9	106,300	54.3	53.3	1		
Montreal	237,700	3.2	61,100	41.1	40.4	Ν		
Vancouver	612,400	2.3	135,000	78.8	74.8	١		
Ottawa	318,800	4.3	84,700	43.4	43.3	C		
Calgary	443,200	-6.2	103,500	48.1	47.3	(
Edmonton	352,500	-9.0	87,600	43.6	43.2	E		

Standard two-storey

	Average Price		Qualifying	Affordability Mea	sure (%)		
Region	Q3 2008	Y /Y	Income (\$)	And dabinty weasure (%)			
	(\$)	% ch.	Q3 2008	Q2 2008 (rev)	Q3 2008		
Canada*	343,700	3.2	86,800	53.1	52.0		
British Columbia	564,000	6.4	126,400	80.9	77.7		
Alberta	387,200	-9.0	96,800	47.6	46.4		
Saskatchewan	307,900	18.4	79,300	53.0	50.1		
Manitoba	236,500	7.6	64,900	43.2	42.6		
Ontario	363,000	3.5	94,000	51.3	50.7		
Quebec	227,400	3.4	61,300	43.2	42.5		
Atlantic	207,300	9.2	59,100	41.5	41.2		
Toronto	521,400	3.0	127,100	64.5	63.7		
Montreal	303,600	1.7	77,100	51.6	51.0		
Vancouver	691,800	7.2	152,100	87.3	84.3		
Ottawa	317,500	4.8	87,700	44.9	44.9		
Calgary	435,200	-8.7	104,900	49.4	47.9		
Edmonton	375,000	-9.8	95,200	48.3	46.9		

Standard townhouse

Standard townhouse					Standard condo						
Region	Average Price Q3 2008 Y/Y		Qualifying Income (\$)	Affordability Me	Affordability Measure (%)		Average Price Q3 2008 Y/Y		Qualifying Income (\$)	Affordability Measure (%)	
	(\$)	% ch.	Q3 2008	Q2 2008 (rev)	Q3 2008		(\$)	% ch.	Q3 2008	Q2 2008 (rev)	Q3 2008
Canada*	245,500	3.0	61,600	38.0	36.9	Canada*	206,500	2.4	52,400	32.3	31.4
British Columbia	391,300	4.7	87,500	55.8	53.8	British Columbia	276,400	3.3	63,000	40.8	38.7
Alberta	272,500	-11.2	66,900	34.2	32.1	Alberta	238,100	-8.5	58,800	29.6	28.2
Saskatchewan	246,000	20.6	61,900	43.4	39.1	Saskatchewan	204,000	18.0	51,400	34.3	32.5
Manitoba	141,000	9.3	39,300	26.8	25.8	Manitoba	124,100	9.4	35,100	24.0	23.0
Ontario	263,800	4.5	67,700	37.1	36.5	Ontario	219,200	3.1	57,200	31.3	30.9
Quebec	161,400	3.1	43,500	30.9	30.2	Quebec	162,800	3.9	42,500	30.6	29.5
Atlantic	158,400	9.2	43,500	31.9	30.3	Atlantic	142,900	5.6	39,600	26.9	27.6
Toronto	383,400	4.9	92,000	47.0	46.1	Toronto	297,300	3.7	73,100	37.0	36.6
Montreal	208,100	2.5	53,400	36.0	35.3	Montreal	196,800	2.3	49,700	33.6	32.9
Vancouver	468,800	3.8	103,200	59.1	57.2	Vancouver	350,300	3.8	77,800	45.1	43.1
Ottawa	242,100	6.1	66,500	34.0	34.0	Ottawa	206,400	6.5	55,800	28.5	28.6
Calgary	335,700	-10.7	79,100	40.4	36.1	Calgary	269,200	-8.2	64,200	31.6	29.3
Edmonton	243,600	-14.0	61,500	31.2	30.3	Edmonton	221,000	-16.9	55,600	28.7	27.4

* Population weighted average

Source: Royal LePage, Statistics Canada, RBC Economics Research

How RBC's housing affordability measures work

RBC Economics Research's housing affordability measures show the proportion of median pre-tax household income required to service the cost of mortgage payments (principal and interest), property taxes and utilities on a detached bungalow, a standard two-storey home, a standard town house and a standard condo (excluding maintenance fees).

The qualifier 'standard' is meant to distinguish between an average dwelling and an 'executive' or 'luxury' version. In terms of square footage, a standard condo has an inside floor area of 900 square feet, a town house 1,000 square feet, a bungalow 1,200 square feet and a standard two-storey 1,500 square feet.

The measures are based on a 25% down payment and a 25-year mortgage loan at a five-year fixed rate and are estimated on a quarterly basis for each province and for Montreal, Toronto, Ottawa, Calgary and Vancouver metropolitan areas. The measures use household income rather than family income to account for the growing number of unattached individuals in the housing market. The measure is based on quarterly estimates of this annual income, created by annualizing and weighting average weekly earnings by province and by urban area. (Median household income is used instead of the arithmetic mean to avoid distortions caused by extreme values at either end of the income distribution scale. The median represents the value below and above which lie an equal number of observations.)

The housing affordability measure is based on gross household income estimates and, therefore, does not show the impact of various provincial property tax credits, which can alter relative levels of affordability.

The higher the measure, the more difficult it is to afford a house. For example, an affordability measure of 50% means that home ownership costs, including mortgage payments, utilities and property taxes, take up 50% of a typical household's pre-tax income.

Qualifying income is the minimum annual income used by lenders to measure the ability of a borrower to make mortgage payments. 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).

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