

Home affordability improved significantly in the third quarter of 2020

By Kyle Dahms & Alexandra Ducharme

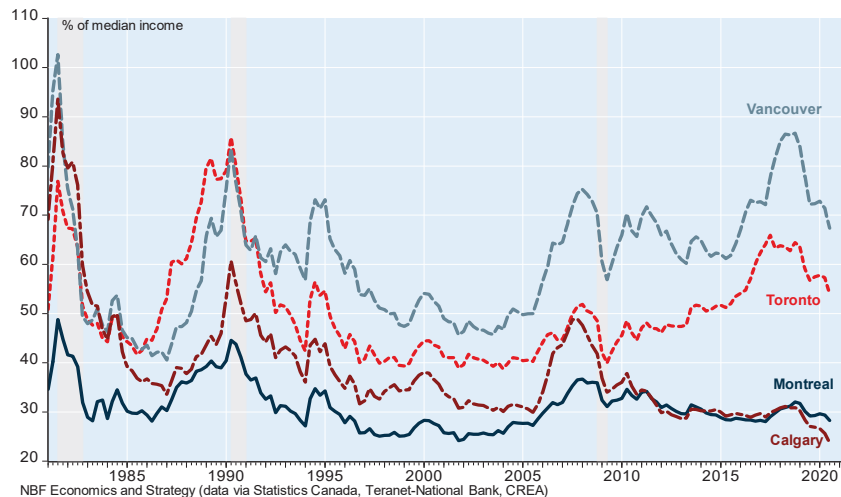
Housing affordability in Canada's large urban centers improved in the third quarter of 2020, a second improvement in a row. Higher incomes helped in Q3, but the largest portion of the improvement came in the form of lower interest rates. Indeed, our 5-year mortgage benchmark rate declined 43 basis points in the quarter, driven by central bank easing and improving financial conditions. Combined, income and mortgage rates were more than enough to offset the slight increase in home prices. Our benchmark rate experienced a 62 basis point decline since the start of the pandemic, but that was the second leg of a decline that started in early 2019. As a result, affordability improved substantially in Canada with Toronto, Montreal and Vancouver being now the cheapest since 2016 and the Calgary market being the least expensive on record (see left chart). It should come as no surprise that such a context helped keep the housing market afloat during the pandemic. Looking ahead, despite rising home prices, affordability is set to improve in the fourth quarter as homebuyers have enjoyed a further decline in mortgage interest rates (25 basis point so far). Will the improvement in affordability be enough to avoid a marked slowdown in the housing market in 2021? With extraordinary government support to household income phasing out and payment deferrals not at play in 2021, the housing market is facing some headwinds given the still recovering labour market. Immigration could also continue to run below targets which would translate into lower household formation than previously thought.

HIGHLIGHTS:

- In the third quarter of 2020, Canadian housing affordability improved for a second consecutive quarter. The mortgage payment on a representative home as a percentage of income (MPPI) fell 2.3 points after a 0.66-point decline in Q2'20. Seasonally adjusted home prices increased 0.7% in Q3'20 from Q2'20; the benchmark mortgage rate (5-year term) declined 43 basis points; while median household income rose 1.3%.
- Among the ten markets covered, affordability improved for all of them. Indeed, Vancouver, Victoria and Toronto led the advance (see chart on the right). Toronto and Vancouver were both at their most affordable level since 2016. Countrywide, affordability improved in both the condo (-1.8pp) and non-condo (-2.8pp) segments. See detailed statistics on page 12.

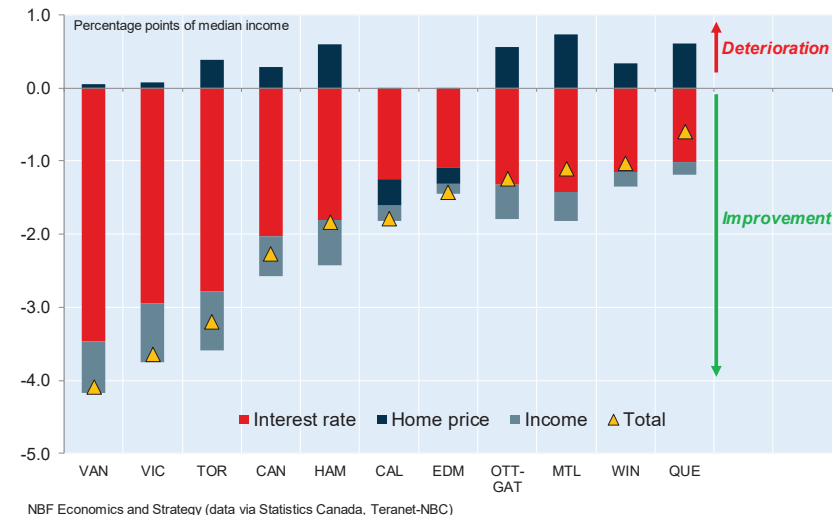
Canada : Perspective on housing affordability

Monthly mortgage payment on median home price (25 year amortization, 5-year term)



Canada: Q3 change in housing affordability in 10 metropolitan areas

Q/Q change in mortgage payment on median-price home (25-year amortization, 5-year term)



Toronto

Toronto's housing affordability improved at a fast pace relative to the urban average in both the non-condo and condo segments in the third quarter of the year. Dwelling prices rose +0.4% in the condo segment and +0.7% in the non-condo segment, which was more than offset by an increase of median income (+1.4 %) and by declining interest rates. As a result, the MPPI* improved -2.2 pp in the condo segment and -3.4 pp for non-condo dwellings. For the composite of dwellings, home prices rose at the same pace than the urban composite (+0.7%) during the quarter. However, a higher increase in median income contributed to outpace the average improvement of the MPPI*. All told, on a q/q basis, housing affordability improved 3.2 pp, bringing the annual progress to -2.7 pp, which is a hair better than the progress of the composite average. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	57.4%	▼	- 3.4%	Q/Q
Condo	35.4%	▼	- 2.2%	Q/Q



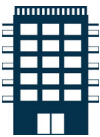
**Non-
Condo**

\$983,921
Price of the representative home in the metropolitan market

\$203,405
Household annual income needed to afford the representative home

103
Months of saving required for the down payment (saving rate of 10%)

29.8%
Premium for buying compared to the national urban composite



Condo

\$608,164
Price of the representative condo in the metropolitan market

\$127,858
Household annual income needed to afford the representative condo

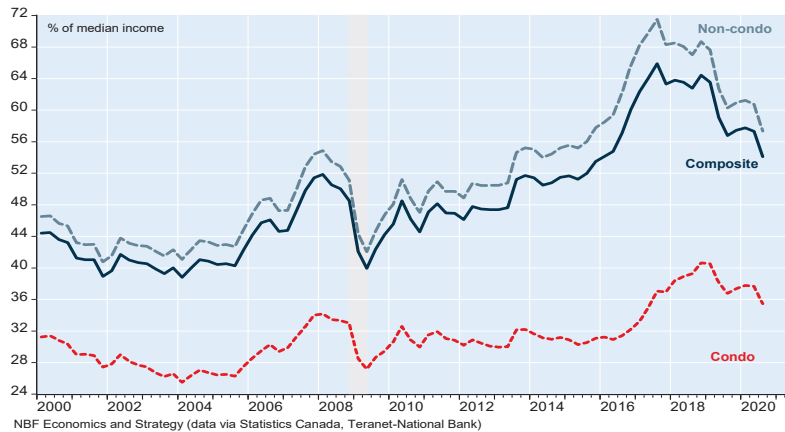
50
Months of saving required for the down payment (saving rate of 10%)

1.8%
Premium/discount for buying compared to renting a two-bedroom condo in the GTA

Toronto : Perspective on housing affordability

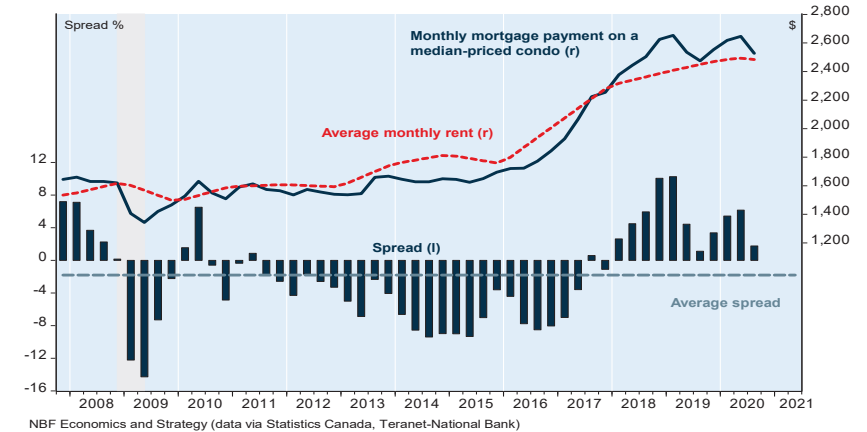
Monthly mortgage payment on median home price (25 year amortization, 5-year term)

TORONTO



Toronto: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



Montreal

Montreal was the city with the second largest increase in home prices during the quarter, with a +2.5% growth. The increase in income (+1.3%) was not enough to offset the increase in home prices, but decreasing interest rates contributed to improve the overall affordability in the city (MPPI* down 1.1pp), although at a modest pace compared to the urban composite (-2.3 pp). Improvements occurred in both the non-condo (-1.2pp) and the condo segments (-1.0pp). On an annual basis, Montreal was the second city with the slowest MPPI decrease (-0.9 pp), following Ottawa/Gatineau. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non- Condo	30.5%	▼	- 1.2%	Q/Q
Condo	23.4%	▼	- 1.0%	Q/Q



**Non-
Condo**

\$418,060

Price of the representative home in the metropolitan market

\$88,722

Household annual income needed to afford the representative home

37

Months of saving required for the down payment (saving rate of 10%)

-44.9%

Premium for buying compared to the national urban composite



Condo

\$320,797

Price of the representative condo in the metropolitan market

\$68,080

Household annual income needed to afford the representative condo

28

Months of saving required for the down payment (saving rate of 10%)

6.0%

Premium/discount for buying compared to renting a two-bedroom condo in Montreal

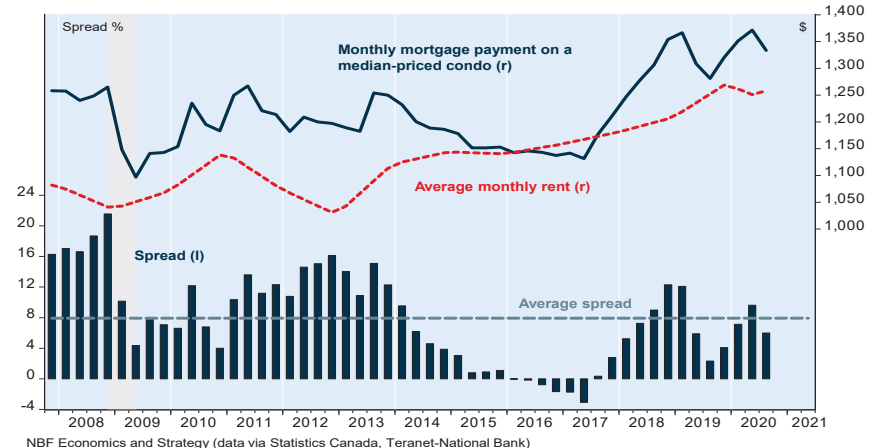
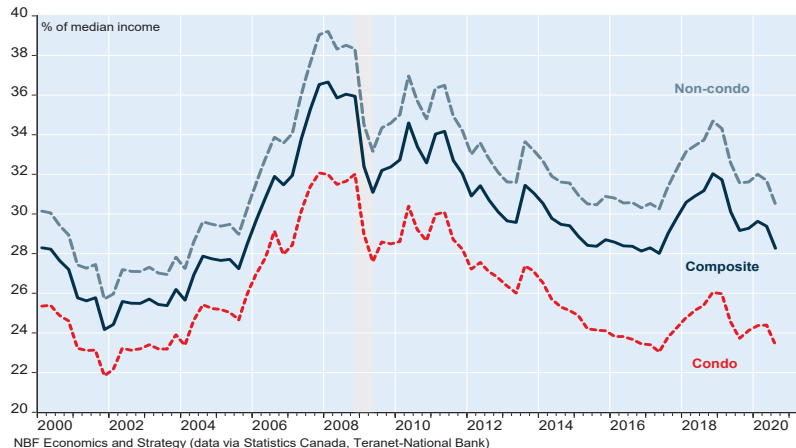
Montreal : Perspective on housing affordability

Monthly mortgage payment on median home price (25 year amortization, 5-year term)

Montreal: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo

MONTREAL



Vancouver

Vancouver's housing affordability as quantified by the MPPI* saw the largest improvement of all urban areas during the third quarter of the year, with a -4.1 pp decrease. This improvement was reflected in both the condo segment and the non-condo sector (-2.7 pp and -4.9 pp respectively). The mortgage payment as a percentage of income remains the highest of all urban areas, although it stood at its lowest level since the first quarter of 2016. An increase in median income (+1.0 %) combined to almost steady home prices (+0.1%) and low interest rates contributed to the improvement. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	82.0%	▼	- 4.9%	Q/Q
Condo	40.1%	▼	- 2.7%	Q/Q



Non-Condo

\$1,281,670

Price of the representative home in the metropolitan market

\$229,052

Household annual income needed to afford the representative home

394

Months of saving required for the down payment (saving rate of 10%)

69.1%

Premium for buying compared to the national urban composite



Condo

\$627,574

Price of the representative condo in the metropolitan market

\$131,761

Household annual income needed to afford the representative condo

58

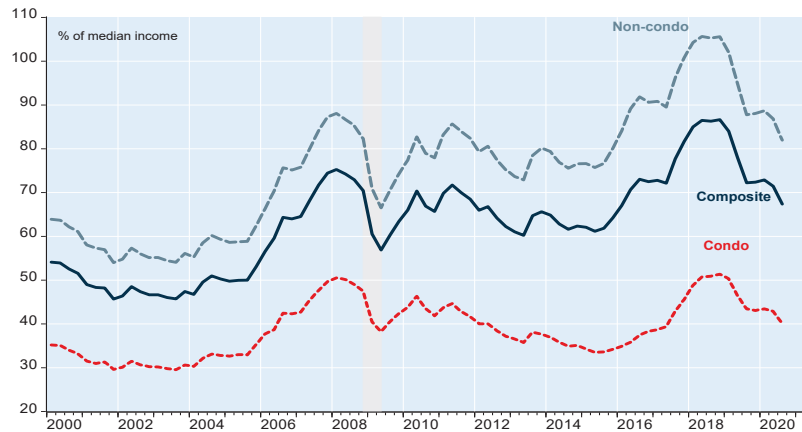
Months of saving required for the down payment (saving rate of 10%)

29.6%

Premium/discount for buying compared to renting a two-bedroom condo in Vancouver

Vancouver : Perspective on housing affordability

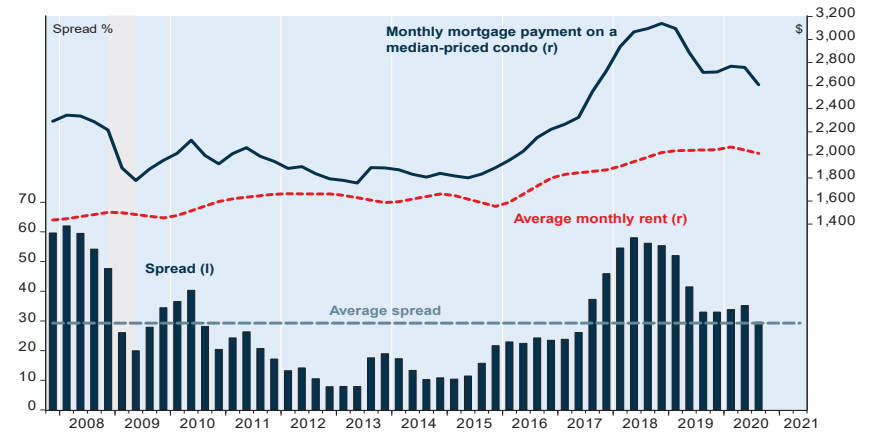
Monthly mortgage payment on median home price (25 year amortization, 5-year term)



NBF Economics and Strategy (data via Statistics Canada, Teranet-National Bank)

Vancouver: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



NBF Economics and Strategy (data via Statistics Canada, Teranet-National Bank)

VANCOUVER

Calgary

Calgary saw the MPPI* improved for both the non-condo (-1.9 pp) and condo segments (-1.4 pp). Home prices were down at the fastest pace of all urban areas on both a quarterly (-1.4%) and an annual (-2.6%) basis. This decline, combined to higher incomes (+0.8%) and lower interest rates, improved the affordability of all dwellings by -1.8pp for the quarter. The MPPI* for all dwellings now stands at 23.8%, the lowest value on record for this city. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	27.1%	▼	- 1.9%	Q/Q
Condo	13.8%	▼	- 1.4%	Q/Q



Non-Condo

\$478,989

Price of the representative home in the metropolitan market

\$101,652

Household annual income needed to afford the representative home

33

Months of saving required for the down payment (saving rate of 10%)

-36.8%

Premium for buying compared to the national urban composite



Condo

\$243,496

Price of the representative condo in the metropolitan market

\$51,675

Household annual income needed to afford the representative condo

17

Months of saving required for the down payment (saving rate of 10%)

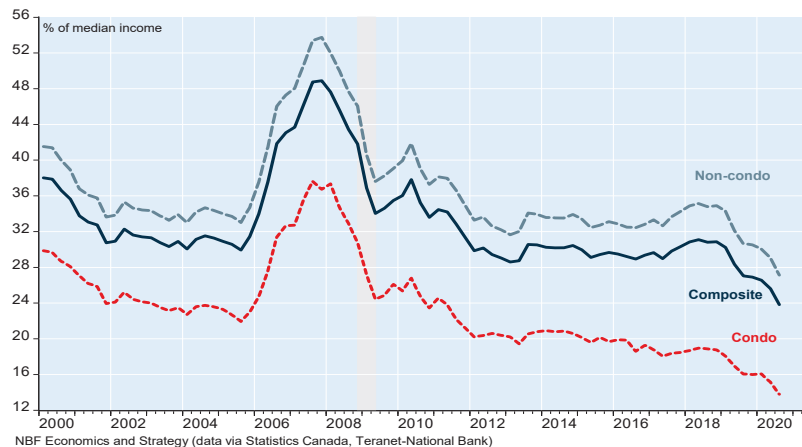
-36.3%

Premium/discount for buying compared to renting a two-bedroom condo in Calgary

Calgary : Perspective on housing affordability

Monthly mortgage payment on median home price (25 year amortization, 5-year term)

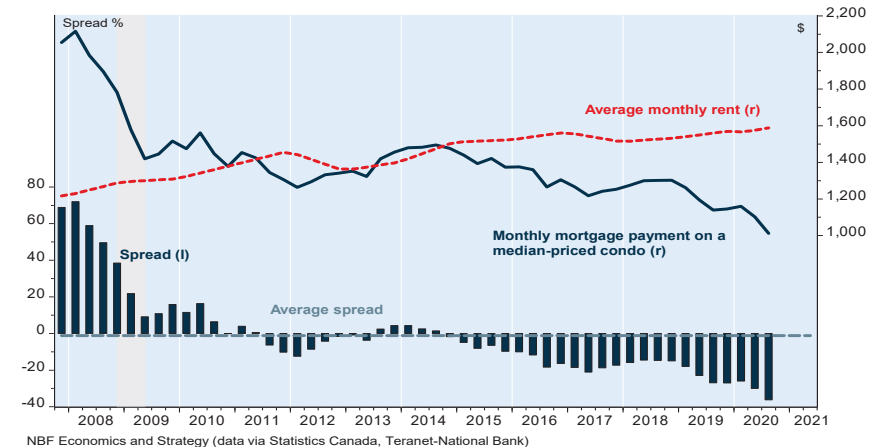
CALGARY



NBF Economics and Strategy (data via Statistics Canada, Teranet-National Bank)

Calgary: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



NBF Economics and Strategy (data via Statistics Canada, Teranet-National Bank)

Edmonton

Home prices in Edmonton decreased during the quarter (-0.9%) and the year (-2.0%). This, combined to higher incomes and lower interest rates, caused the MPPI* to decrease -1.4pp for all dwellings in the quarter. There was an improvement of affordability for both the non-condo (-1.5 pp) and the condo (-0.8 pp) segments. On an annual basis, even with the median income growing at a slower pace than that of the urban composite average, the MPPI* for the all dwellings fell by -2.5pp, roughly in line with the urban average, due to the declining home prices. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	22.6%	▼	- 1.5%	Q/Q
Condo	11.8%	▼	- 0.8%	Q/Q



Non-Condo

\$408,459
Price of the representative home in the metropolitan market

\$86,684
Household annual income needed to afford the representative home

27
Months of saving required for the down payment (saving rate of 10%)

-46.1%
Premium for buying compared to the national urban composite



Condo

\$214,248
Price of the representative condo in the metropolitan market

\$45,468
Household annual income needed to afford the representative condo

14
Months of saving required for the down payment (saving rate of 10%)

-35.6%
Premium/discount for buying compared to renting a two-bedroom condo in Edmonton

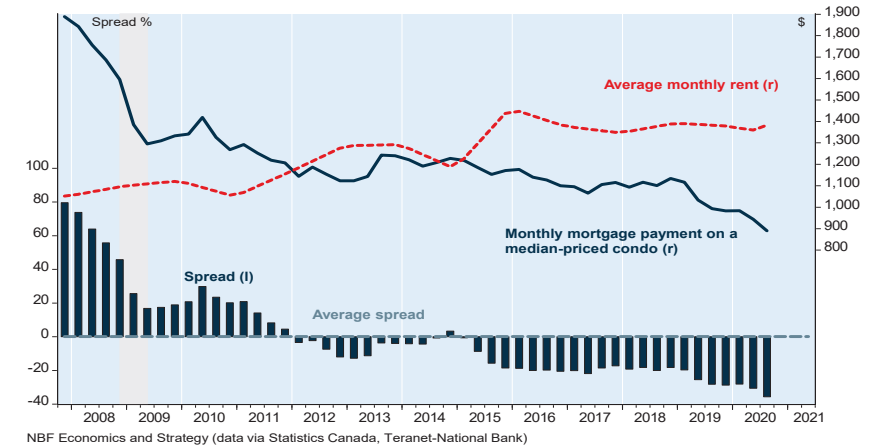
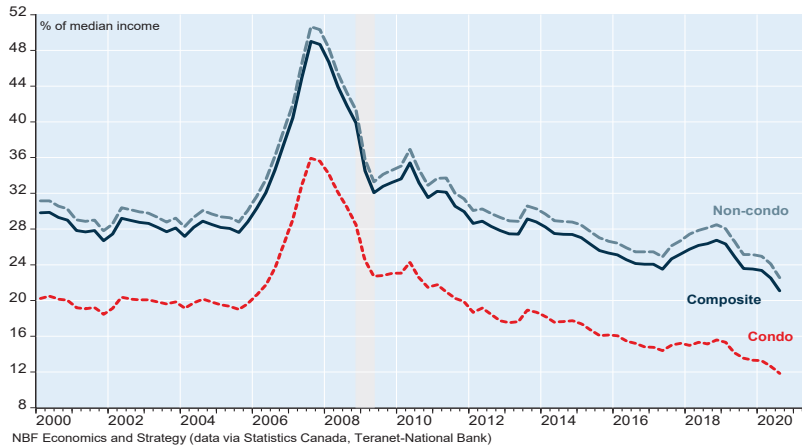
Edmonton : Perspective on housing affordability

Monthly mortgage payment on median home price (25 year amortization, 5-year term)

Edmonton: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo

EDMONTON



Ottawa/Gatineau

In Ottawa-Gatineau, the MPPI* decreased for all dwellings (-1.2 pp), with improvement in both the condo (0.7 pp) and the non-condo (-1.4 pp) segments. Despite home prices rising +2.1% in the quarter, a +1.7% increase in median income and lower interest rates were enough to improve the affordability in the city. On an annual basis, however, the -0.5 pp improvement of the MPPI* is the lowest of all cities, even with the highest increase in median income (+7.3%). This is explained by the highest increase in home prices of all cities (+12.7%). *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	28.1%	▼	- 1.4%	Q/Q
Condo	17.8%	▼	- 0.7%	Q/Q



Non-Condo

\$505,055
Price of the representative home in the metropolitan market

\$107,128
Household annual income needed to afford the representative home

34
Months of saving required for the down payment (saving rate of 10%)

-33.4%
Premium for buying compared to the national urban composite



Condo

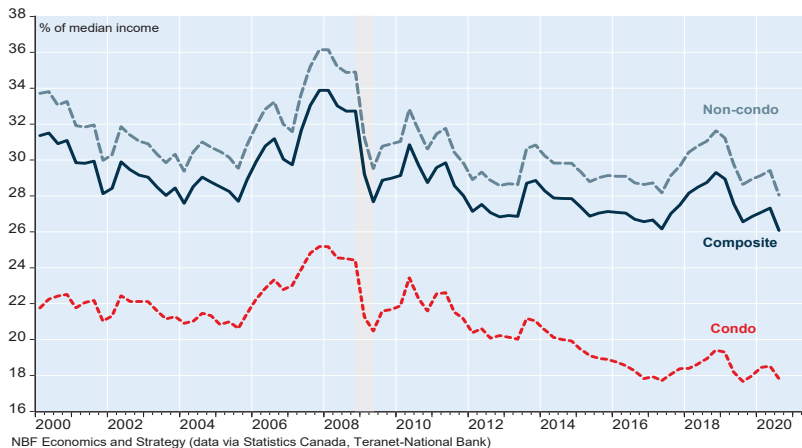
\$320,982
Price of the representative condo in the metropolitan market

\$68,120
Household annual income needed to afford the representative condo

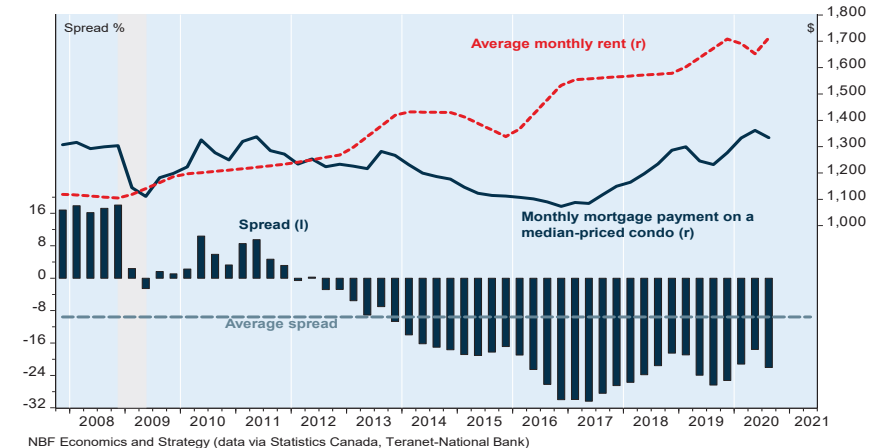
21
Months of saving required for the down payment (saving rate of 10%)

-22.0%
Premium/discount for buying compared to renting a two-bedroom condo in Ottawa/Gatineau

Ottawa/Gatineau : Perspective on housing affordability
Monthly mortgage payment on median home price (25 year amortization, 5-year term)



Ottawa/Gatineau: Buying compared to renting
Premium/discount for buying compared to renting a two-bedroom condo



OTTAWA/GA

Quebec City

With the highest quarterly increase in home prices of all urban areas, Quebec city's MPPI* improved at the slowest pace of all cities in the quarter (-0.6 pp), but remained Canada's most affordable market. The improvement was more important for the condo segment (-1.0 pp), which can be attributed to declining dwelling prices combined to higher revenues (+0.8%) and lower interest rates. The MPPI* for this segment now stands at its lowest value on record. Meanwhile, prices for non-condo dwellings improved at the fastest pace of all cities (+3.5%), which was offset by the increase in income and declining interest rates. As a result, the MPPI* for the non-condo segment improved -0.5 pp in the quarter, the most timid advance of all cities. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non- Condo	20.9%	▼	- 0.5%	Q/Q
Condo	14.6%	▼	- 1.0%	Q/Q



**Non-
Condo**

\$302,763

Price of the representative home in the metropolitan market

\$64,253

Household annual income needed to afford the representative home

25

Months of saving required for the down payment (saving rate of 10%)

-60.1%

Premium for buying compared to the national urban composite



Condo

\$211,404

Price of the representative condo in the metropolitan market

\$44,865

Household annual income needed to afford the representative condo

18

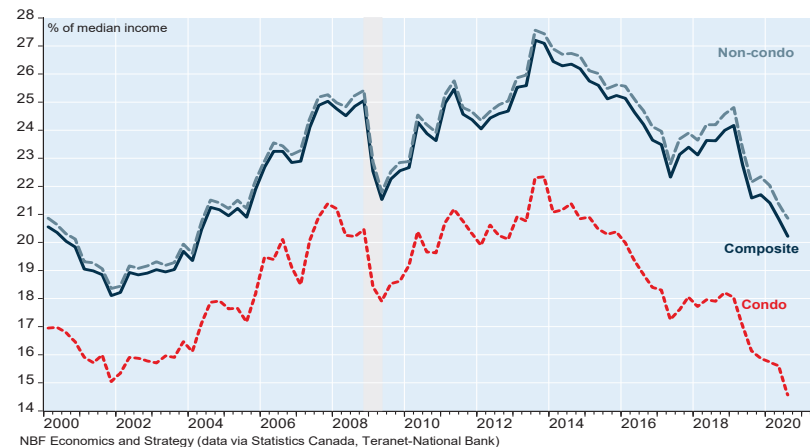
Months of saving required for the down payment (saving rate of 10%)

-21.2%

Premium/discount for buying compared to renting a two-bedroom condo in Quebec City

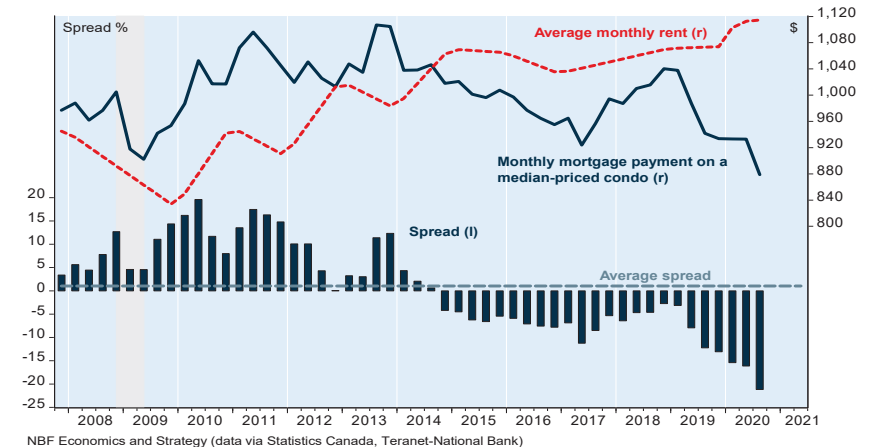
Quebec city: Perspective on housing affordability

Monthly mortgage payment on median home price (25 year amortization, 5-year term)



Quebec City: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



QUEBEC CITY

Winnipeg

Winnipeg saw its affordability improve for the seventh time in a row in the third quarter of the year. Indeed, the MPPI* declined 1.3pp in the condo sector and -1.0pp in the non-condo sector. For the aggregate of all dwellings, home prices increased 1.4% on a quarterly basis, faster than the composite average, while income improved at a slower pace than the Canadian average. This, combined to lower mortgage rates, resulted in a -1.0pp decline of the MPPI* for all dwellings, less than half the urban composite improvement. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	22.9%	▼	- 1.0%	Q/Q
Condo	15.4%	▼	- 1.3%	Q/Q



Non-Condo

\$334,888

Price of the representative home in the metropolitan market

\$71,071

Household annual income needed to afford the representative home

28

Months of saving required for the down payment (saving rate of 10%)

-55.8%

Premium for buying compared to the national urban composite



Condo

\$224,934

Price of the representative condo in the metropolitan market

\$47,736

Household annual income needed to afford the representative condo

18

Months of saving required for the down payment (saving rate of 10%)

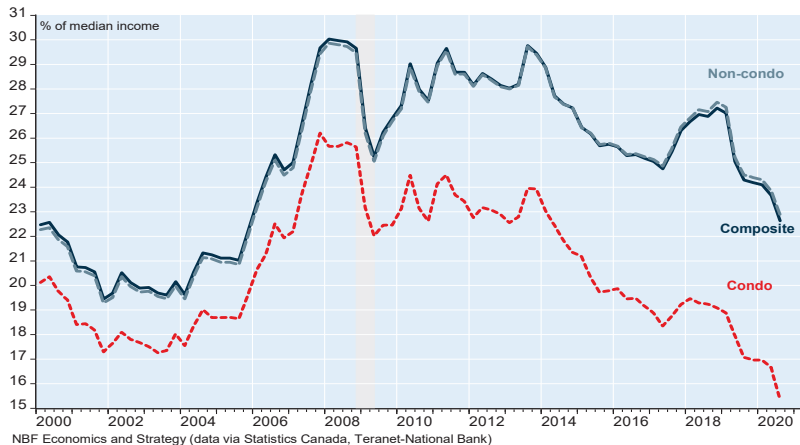
-33.0%

Premium/discount for buying compared to renting a two-bedroom condo in Winnipeg

Winnipeg: Perspective on housing affordability

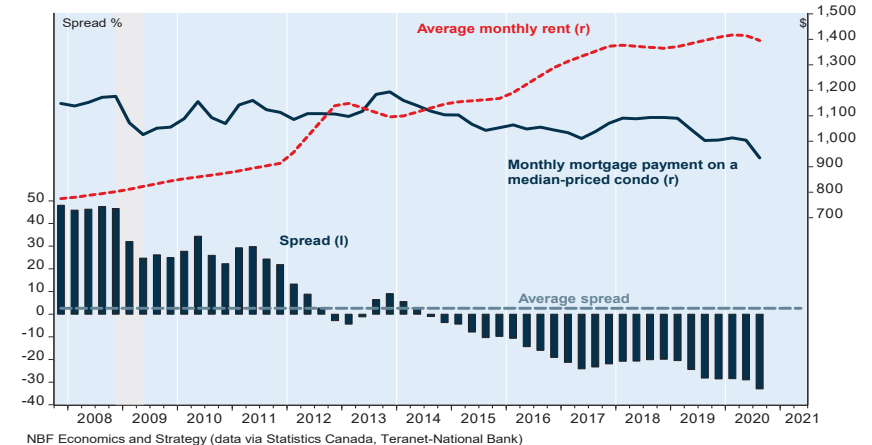
Monthly mortgage payment on median home price (25 year amortization, 5-year term)

WINNIPEG



Winnipeg: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



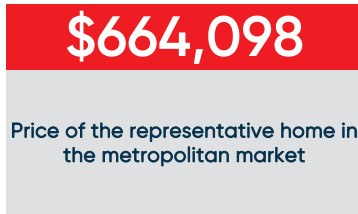
Hamilton

In Hamilton, the MPPI* for both the non-condo and condo segments showed an improvement in affordability of -1.3pp and -2.0pp respectively. For the aggregate of all dwellings, home prices rose 1.6% in the quarter, but with the increase in revenues and lower mortgage rates the MPPI decreased by 1.8pp in Q3. The mortgage payment requires a 35.3% share of the median household pre-tax income to service, below the urban composite but above the 20 year average in Hamilton. *See tables page 12.

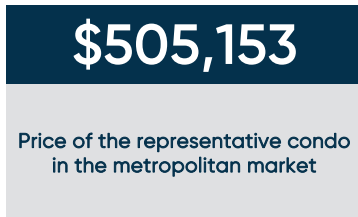
Mortgage payment as a % of income (MPPI)				
Non-Condo	37.3%	▼	- 2.0%	Q/Q
Condo	28.4%	▼	- 1.3%	Q/Q



Non-Condo



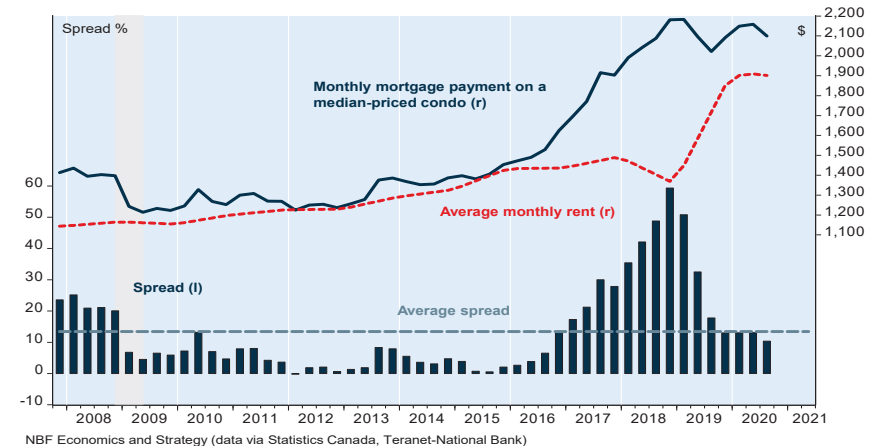
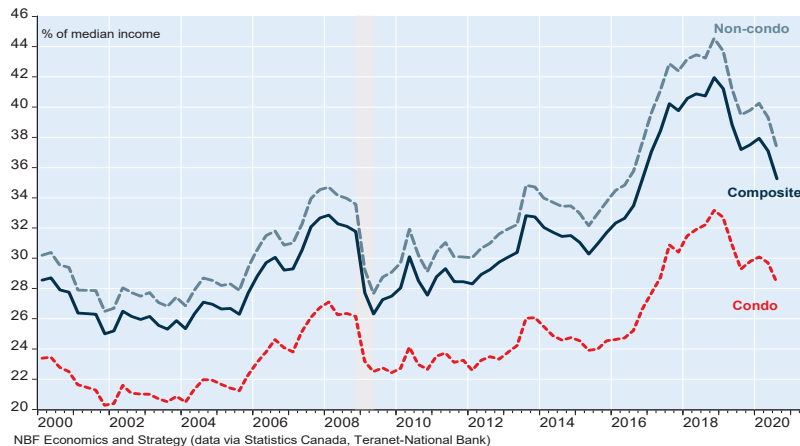
Condo



Hamilton: Perspective on housing affordability
Monthly mortgage payment on median home price (25 year amortization, 5-year term)

Hamilton: Buying compared to renting
Premium/discount for buying compared to renting a two-bedroom condo

HAMILTON



Victoria

In Victoria, the MPPI* improved -3.6 pp during the quarter, more than the urban composite average. This improvement can be seen by a decrease of the MPPI* in both the condo (-2.8pp) and the non-condo (-3.7pp) sectors. On an annual basis, the MPPI* improvement (-5.6 pp) was the largest of all cities. Even with this important progress, Victoria remains Canada's second most expensive market, only surpassed by Vancouver. *See tables page 12.

Mortgage payment as a % of income (MPPI)				
Non-Condo	60.2%	▼	- 3.7%	Q/Q
Condo	34.3%	▼	- 2.8%	Q/Q



Non-Condo

\$865,447

Price of the representative home in the metropolitan market

\$179,586

Household annual income needed to afford the representative home

103

Months of saving required for the down payment (saving rate of 10%)

14.2%

Premium for buying compared to the national urban composite



Condo

\$494,110

Price of the representative condo in the metropolitan market

\$104,861

Household annual income needed to afford the representative condo

41

Months of saving required for the down payment (saving rate of 10%)

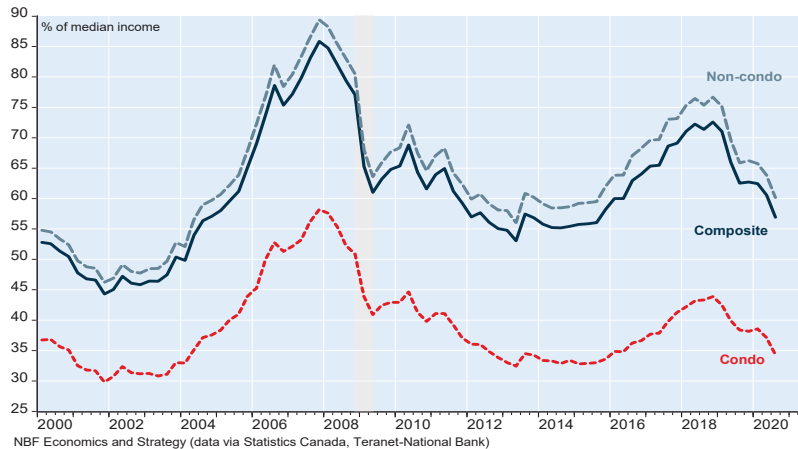
22.5%

Premium/discount for buying compared to renting a two-bedroom condo in Victoria

Victoria: Perspective on housing affordability

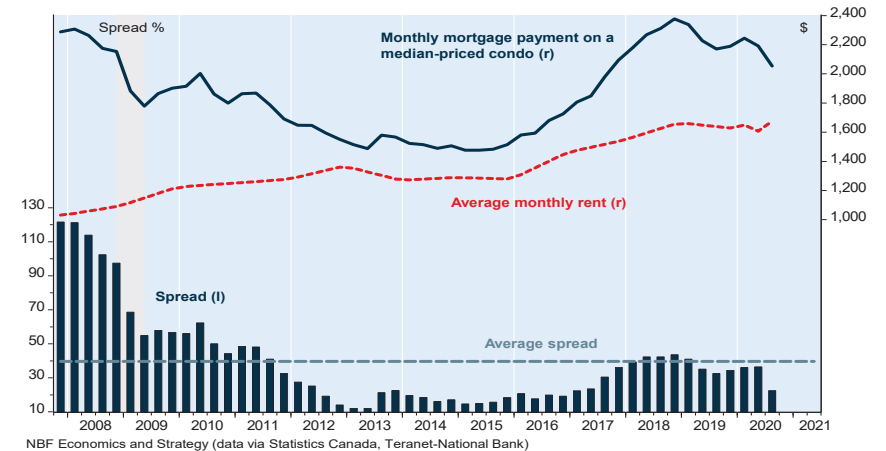
Monthly mortgage payment on median home price (25 year amortization, 5-year term)

VICTORIA



Victoria: Buying compared to renting

Premium/discount for buying compared to renting a two-bedroom condo



Housing affordability statistics

Table 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
All dwellings	Median home price	Q/Q % change	Y/Y % change	Downpayment \$	Downpayment: Months of saving	Avg. Since 2000	Monthly mortgage payment	Mortgage payment as % of income	Q/Q diff. PP	Y/Y diff. PP	Avg. Since 2000	Qualifying annual Income	Median annual Income	Home-ownership rate (2016)
Urban Composite	\$ 604,275	0.7	5.7	\$ 35,428	55.9	35.4	\$ 2,512	39.6	-2.3	-2.6	40.0	\$ 127,076	\$ 76,060	68%
Toronto	\$ 928,171	0.7	7.9	\$ 67,817	95.1	48.6	\$ 3,858	54.1	-3.2	-2.7	48.7	\$ 192,196	\$ 85,568	66%
Montreal	\$ 387,496	2.5	9.4	\$ 19,375	34.0	25.3	\$ 1,611	28.3	-1.1	-0.9	29.8	\$ 82,235	\$ 68,368	56%
Vancouver	\$ 1,053,226	0.1	3.6	\$ 210,645	324.1	97.5	\$ 4,378	67.3	-4.1	-4.9	63.2	\$ 188,226	\$ 78,002	64%
Calgary	\$ 420,699	-1.4	-2.6	\$ 21,035	28.7	26.9	\$ 1,749	23.8	-1.8	-3.2	33.0	\$ 89,282	\$ 88,086	73%
Edmonton	\$ 381,803	-0.9	-2.0	\$ 19,090	25.4	24.0	\$ 1,587	21.1	-1.4	-2.5	29.7	\$ 81,027	\$ 90,326	70%
Ottawa/Gatineau	\$ 469,570	2.1	12.7	\$ 23,478	31.4	24.4	\$ 1,952	26.1	-1.2	-0.5	28.8	\$ 99,653	\$ 89,796	67%
Quebec	\$ 293,436	2.9	3.5	\$ 14,672	24.3	19.7	\$ 1,220	20.2	-0.6	-1.4	22.8	\$ 62,274	\$ 72,388	60%
Winnipeg	\$ 331,258	1.4	3.2	\$ 16,563	27.2	21.6	\$ 1,377	22.6	-1.0	-1.7	25.1	\$ 70,300	\$ 72,993	67%
Hamilton	\$ 627,109	1.6	8.6	\$ 37,711	51.0	27.8	\$ 2,607	35.3	-1.8	-1.9	30.8	\$ 131,667	\$ 88,720	70%
Victoria	\$ 818,993	0.1	2.9	\$ 56,899	95.2	56.7	\$ 3,404	56.9	-3.6	-5.6	61.2	\$ 170,246	\$ 71,757	63%

Table 2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Condo	Median home price	Q/Q % change	Y/Y % change	Downpayment \$	Downpayment: Months of saving	Avg. Since 2000	Monthly mortgage payment	Mortgage payment as % of income	Q/Q diff. PP	Y/Y diff. PP	Avg. Since 2000	Qualifying Income	Median Income	Home-ownership rate (2016)	Monthly average rent
Urban Composite	\$ 431,716	0.1	5.8	\$ 21,586	34.1	24.8	\$ 1,794	28.3	-1.8	-1.8	29.3	\$ 91,620	\$ 76,060	9%	\$ 1,945
Toronto	\$ 608,164	0.4	9.2	\$ 35,816	50.2	27.6	\$ 2,528	35.4	-2.2	-1.3	31.3	\$ 127,858	\$ 85,568	15%	\$ 2,484
Montreal	\$ 320,797	2.2	11.3	\$ 16,040	28.2	22.0	\$ 1,333	23.4	-1.0	-0.3	26.0	\$ 68,080	\$ 68,368	11%	\$ 1,258
Vancouver	\$ 627,574	-0.6	2.7	\$ 37,757	58.1	34.6	\$ 2,608	40.1	-2.7	-3.3	38.8	\$ 131,761	\$ 78,002	22%	\$ 2,013
Calgary	\$ 243,496	-3.5	-5.0	\$ 12,175	16.6	18.7	\$ 1,012	13.8	-1.4	-2.3	23.5	\$ 51,675	\$ 88,086	14%	\$ 1,588
Edmonton	\$ 214,248	-0.8	-4.2	\$ 10,712	14.2	15.7	\$ 891	11.8	-0.8	-1.7	19.9	\$ 45,468	\$ 90,326	12%	\$ 1,383
Ottawa/Gatineau	\$ 320,982	3.0	15.8	\$ 16,049	21.4	17.5	\$ 1,334	17.8	-0.7	0.2	20.9	\$ 68,120	\$ 89,796	9%	\$ 1,711
Quebec	\$ 211,404	-1.0	-0.2	\$ 10,570	17.5	15.9	\$ 879	14.6	-1.0	-1.6	18.5	\$ 44,865	\$ 72,388	9%	\$ 1,115
Winnipeg	\$ 224,934	-2.2	-0.3	\$ 11,247	18.5	17.4	\$ 935	15.4	-1.3	-1.7	20.6	\$ 47,736	\$ 72,993	6%	\$ 1,395
Hamilton	\$ 505,153	2.2	11.0	\$ 25,515	34.5	21.4	\$ 2,100	28.4	-1.3	-0.9	24.6	\$ 107,147	\$ 88,720	11%	\$ 1,902
Victoria	\$ 494,110	-1.5	1.2	\$ 24,706	41.3	32.2	\$ 2,054	34.3	-2.8	-4.0	39.1	\$ 104,861	\$ 71,757	14%	\$ 1,677

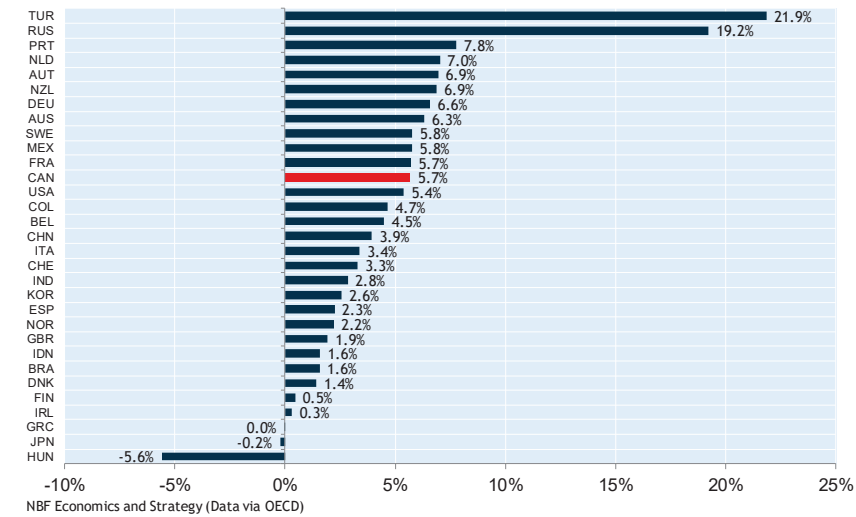
Table 3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Other dwellings	Median home price	Q/Q % change	Y/Y % change	Downpayment \$	Downpayment: Months of saving	Avg. Since 2000	Monthly mortgage payment	Mortgage payment as % of income	Q/Q diff. PP	Y/Y diff. PP	Avg. Since 2000	Qualifying Income	Median Income	Home-ownership rate (2016)
Urban Composite	\$ 758,043	0.8	5.7	\$ 50,804	80.2	46.9	\$ 3,151	49.7	-2.8	-3.2	50.0	\$ 157,992	\$ 76,060	59%
Toronto	\$ 983,921	0.7	7.7	\$ 73,392	102.9	52.5	\$ 4,090	57.4	-3.4	-2.9	51.8	\$ 203,405	\$ 85,568	52%
Montreal	\$ 418,060	2.6	9.0	\$ 20,903	36.7	27.1	\$ 1,738	30.5	-1.2	-1.1	31.9	\$ 88,722	\$ 68,368	45%
Vancouver	\$ 1,281,670	0.2	3.8	\$ 256,334	394.3	136.8	\$ 5,327	82.0	-4.9	-5.8	75.9	\$ 229,052	\$ 78,002	42%
Calgary	\$ 478,989	-1.1	-2.2	\$ 23,949	32.6	29.9	\$ 1,991	27.1	-1.9	-3.5	36.5	\$ 101,652	\$ 88,086	59%
Edmonton	\$ 408,459	-1.0	-1.7	\$ 20,423	27.1	25.2	\$ 1,698	22.6	-1.5	-2.6	31.1	\$ 86,684	\$ 90,326	57%
Ottawa/Gatineau	\$ 505,055	2.0	12.3	\$ 25,505	34.1	26.1	\$ 2,099	28.1	-1.4	-0.6	30.8	\$ 107,128	\$ 89,796	58%
Quebec	\$ 302,763	3.5	4.0	\$ 15,138	25.1	20.0	\$ 1,258	20.9	-0.5	-1.3	23.2	\$ 64,253	\$ 72,388	51%
Winnipeg	\$ 334,888	1.7	3.5	\$ 16,744	27.5	21.5	\$ 1,392	22.9	-1.0	-1.6	25.0	\$ 71,071	\$ 72,993	61%
Hamilton	\$ 664,098	1.5	8.3	\$ 41,410	56.0	29.9	\$ 2,760	37.3	-2.0	-2.2	32.7	\$ 139,104	\$ 88,720	60%
Victoria	\$ 865,447	0.4	3.2	\$ 61,545	102.9	60.4	\$ 3,597	60.2	-3.7	-5.7	64.3	\$ 179,586	\$ 71,757	49%

Global perspective on housing affordability

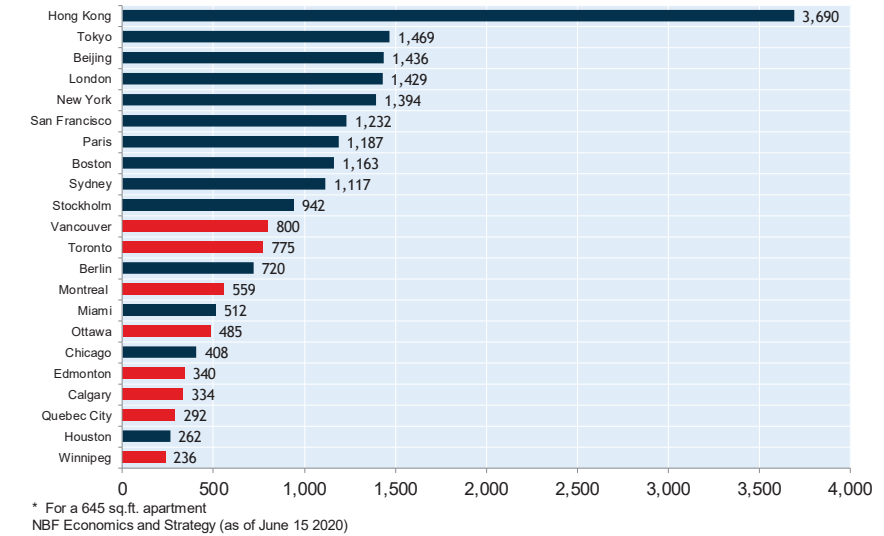
World: Perspective on home price growth

Home price percentage change year over year (Last data available)



World: Home prices do not seem extreme in Canada

Price per square feet in USD for downtown living* (June 2020)



Methodology

The National Bank Housing Affordability Report measures housing affordability in 10 major census metropolitan areas (CMAs) and summarizes the results in a weighted-average composite of the 10 CMAs. We track the **condo market**, **other dwellings** (single detached, semi-detached) and the **market as a whole**.

We measure two hurdles for the purchase of a home. First, a household must save the **down-payment** amount. We measure this requirement as the number of months a median-income household will require to save for the minimum cash down payment (CMHC insured mortgage) of the representative home at a savings rate of 10% of its pre-tax income. We evaluate the representative home using the Teranet–National Bank House Price Index for the market in question to calculate the home price for months before and after the median home price measured by the 2016 Census. For **median household income** in each CMA, we take the Statistics Canada annual data up to 2013. For subsequent months, we extend the series using average weekly earnings growth as a proxy and apply a Hodrick–Prescott filter to smooth short-term fluctuations.

The second hurdle for the purchase of a home is the monthly mortgage payment. We measure this as the monthly payment on a median-priced home assuming a 25-year amortization period and a 5-year term. The resulting amount is presented as a percentage of income calculated as described above (sometimes referred as **MPPI**). Note that we do not take the down payment into account in this calculation because there is an opportunity cost in a household's use of these funds for that purpose. Also, we do not wish policy changes in this regard to affect our indicator over time. We also calculate the income needed to purchase the median property assuming that a household devotes 32% of its pre-tax income for a mortgage payment at the posted rate (defined as **qualifying income** and is adjusted for the down-payment). For the condo market, we also compare the monthly mortgage payment to the average rent for a two-bedroom condo in the same market. We calculate that rent from annual CMHC data, updated to the current month by the rent component of the Consumer Price Index. Note that data in the report was seasonally adjusted when necessary.

Economics and Strategy

Montreal Office

514-879-2529

Stéfane Marion

Chief Economist and Strategist

stefane.marion@nbc.ca

Matthieu Arseneau

Deputy Chief Economist

matthieu.arseneau@nbc.ca

Paul-André Pinsonnault

Senior Economist

paulandre.pinsonnault@nbc.ca

Marc Pinsonneault

Senior Economist

marc.pinsonneault@nbc.ca

Angelo Katsoras

Geopolitical Analyst

angelo.katsoras@nbc.ca

Kyle Dahms

Economist

kyle.dahms@nbc.ca

Jocelyn Paquet

Economist

jocelyn.paquet@nbc.ca

Alexandra Ducharme

Intern Economist

alexandra.ducharme@nbc.ca

Toronto Office

416-869-8598

Warren Lovely

Chief Rate Strategist, Economics and Strategy

warren.lovely@nbc.ca

Taylor Schleich

Associate, Rates Strategist, Economics and Strategy

taylor.schleich@nbc.ca

General

This Report was prepared by National Bank Financial, Inc. (NBF), (a Canadian investment dealer, member of IIROC), an indirect wholly owned subsidiary of National Bank of Canada. National Bank of Canada is a public company listed on the Toronto Stock Exchange.

The particulars contained herein were obtained from sources which we believe to be reliable but are not guaranteed by us and may be incomplete and may be subject to change without notice. The information is current as of the date of this document. Neither the author nor NBF assumes any obligation to update the information or advise on further developments relating to the topics or securities discussed. The opinions expressed are based upon the author(s) analysis and interpretation of these particulars and are not to be construed as a solicitation or offer to buy or sell the securities mentioned herein, and nothing in this Report constitutes a representation that any investment strategy or recommendation contained herein is suitable or appropriate to a recipient's individual circumstances. In all cases, investors should conduct their own investigation and analysis of such information before taking or omitting to take any action in relation to securities or markets that are analyzed in this Report. The Report alone is not intended to form the basis for an investment decision, or to replace any due diligence or analytical work required by you in making an investment decision.

This Report is for distribution only under such circumstances as may be permitted by applicable law. This Report is not directed at you if NBF or any affiliate distributing this Report is prohibited or restricted by any legislation or regulation in any jurisdiction from making it available to you. You should satisfy yourself before reading it that NBF is permitted to provide this Report to you under relevant legislation and regulations.

National Bank of Canada Financial Markets is a trade name used by National Bank Financial and National Bank of Canada Financial Inc.

Canadian Residents

NBF or its affiliates may engage in any trading strategies described herein for their own account or on a discretionary basis on behalf of certain clients and as market conditions change, may amend or change investment strategy including full and complete divestment. The trading interests of NBF and its affiliates may also be contrary to any opinions expressed in this Report.

NBF or its affiliates often act as financial advisor, agent or underwriter for certain issuers mentioned herein and may receive remuneration for its services. As well NBF and its affiliates and/or their officers, directors, representatives, associates, may have a position in the securities mentioned herein and may make purchases and/or sales of these securities from time to time in the open market or otherwise. NBF and its affiliates may make a market in securities mentioned in this Report. This Report may not be independent of the proprietary interests of NBF and its affiliates.

This Report is not considered a research product under Canadian law and regulation, and consequently is not governed by Canadian rules applicable to the publication and distribution of research Reports, including relevant restrictions or disclosures required to be included in research Reports.

Housing Affordability Monitor

Economics and Strategy

UK Residents

This Report is a marketing document. This Report has not been prepared in accordance with EU legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research. In respect of the distribution of this Report to UK residents, NBF has approved the contents (including, where necessary, for the purposes of Section 21(1) of the Financial Services and Markets Act 2000). This Report is for information purposes only and does not constitute a personal recommendation, or investment, legal or tax advice. NBF and/or its parent and/or any companies within or affiliates of the National Bank of Canada group and/or any of their directors, officers and employees may have or may have had interests or long or short positions in, and may at any time make purchases and/or sales as principal or agent, or may act or may have acted as market maker in the relevant investments or related investments discussed in this Report, or may act or have acted as investment and/or commercial banker with respect hereto. The value of investments, and the income derived from them, can go down as well as up and you may not get back the amount invested. Past performance is not a guide to future performance. If an investment is denominated in a foreign currency, rates of exchange may have an adverse effect on the value of the investment. Investments which are illiquid may be difficult to sell or realise; it may also be difficult to obtain reliable information about their value or the extent of the risks to which they are exposed. Certain transactions, including those involving futures, swaps, and other derivatives, give rise to substantial risk and are not suitable for all investors. The investments contained in this Report are not available to retail customers and this Report is not for distribution to retail clients (within the meaning of the rules of the Financial Conduct Authority). Persons who are retail clients should not act or rely upon the information in this Report. This Report does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for the securities described herein nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This information is only for distribution to Eligible Counterparties and Professional Clients in the United Kingdom within the meaning of the rules of the Financial Conduct Authority. NBF is authorised and regulated by the Financial Conduct Authority and has its registered office at 71 Fenchurch Street, London, EC3M 4HD. NBF is not authorised by the Prudential Regulation Authority and the Financial Conduct Authority to accept deposits in the United Kingdom.

U.S. Residents

With respect to the distribution of this report in the United States of America, National Bank of Canada Financial Inc. ("NBCFI") which is regulated by the Financial Industry Regulatory Authority (FINRA) and a member of the Securities Investor Protection Corporation (SIPC), an affiliate of NBF, accepts responsibility for its contents, subject to any terms set out above.

To make further inquiry related to this report, or to effect any transaction, United States residents should contact their NBCFI registered representative.

This report is not a research report and is intended for Major U.S. Institutional Investors only.

This report is not subject to U.S. independence and disclosure standards applicable to research reports.

HK Residents

With respect to the distribution of this report in Hong Kong by NBC Financial Markets Asia Limited ("NBCFMA") which is licensed by the Securities and Futures Commission ("SFC") to conduct Type 1 (dealing in securities) and Type 3 (leveraged foreign exchange trading) regulated activities, the contents of this report are solely for informational purposes. It has not been approved by, reviewed by, verified by or filed with any regulator in Hong Kong. Nothing herein is a recommendation, advice, offer or solicitation to buy or sell a product or service, nor an official confirmation of any transaction. None of the products issuers, NBCFMA or its affiliates or other persons or entities named herein are obliged to notify you of changes to any information and none of the foregoing assume any loss suffered by you in reliance of such information.

The content of this report may contain information about investment products which are not authorized by SFC for offering to the public in Hong Kong and such information will only be available to, those persons who are Professional Investors (as defined in the Securities and Futures Ordinance of Hong Kong ("SFO")). If you are in any doubt as to your status you should consult a financial adviser or contact us. This material is not meant to be marketing materials and is not intended for public distribution. Please note that neither this material nor the product referred to is authorized for sale by SFC. Please refer to product prospectus for full details.

There may be conflicts of interest relating to NBCFMA or its affiliates' businesses. These activities and interests include potential multiple advisory, transactional and financial and other interests in securities and instruments that may be purchased or sold by NBCFMA or its affiliates, or in other investment vehicles which are managed by NBCFMA or its affiliates that may purchase or sell such securities and instruments.

No other entity within the National Bank of Canada group, including National Bank of Canada and National Bank Financial Inc, is licensed or registered with the SFC. Accordingly, such entities and their employees are not permitted and do not intend to: (i) carry on a business in any regulated activity in Hong Kong; (ii) hold themselves out as carrying on a business in any regulated activity in Hong Kong; or (iii) actively market their services to the Hong Kong public.

Copyright

This Report may not be reproduced in whole or in part, or further distributed or published or referred to in any manner whatsoever, nor may the information, opinions or conclusions contained in it be referred to without in each case the prior express written consent of NBF.

Disclaimer: Teranet - National Bank House Price Index

The index data and related information and materials ("Index Data") are protected by copyright law, both individually and as a collective work or compilation, and by trade-mark law, and other applicable laws. National Bank of Canada ("NBC") and Teranet Enterprises Inc. ("Teranet") grant to you a limited non-exclusive, non-transferable license to view, copy and print this report, provided that all copies that you make must be solely for your non-commercial, personal use, and must retain all copyright and other notices that are required. Except as provided in the previous sentence, you may not (for either commercial or non-commercial use) use, distribute, sell, modify, transmit, revise, reverse engineer, republish, post or create derivative works (where applicable) of any content of this report without the prior written permission of Teranet and National Bank (who are referred to collectively herein as the "Index Data Providers"). Without limiting the generality of the foregoing, the Index Data and other Index Data Provider intellectual property contained in this report may not be used as a basis for any financial instruments or products (including, without limitation, passively managed funds and index-linked derivative securities), or used to verify or correct data in any other compilation of data or index, or used to create any other data or index (custom or otherwise), without the Index Data Providers' prior written permission. You acknowledge and agree that you will not acquire any rights or licenses in the content of this report. The Index Data is for informational purposes only, and the user of the information contained in the Index Data assumes the entire risk of any use made of the Index Data. You understand and agree that the Index Data is provided "as is" and neither NBC nor Teranet warrants the accuracy, completeness, non-infringement, originality, timeliness or any other characteristic of the Index Data. The Index Data is not an offer or recommendation to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any particular trading strategy. Further, none of the Index Data is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Reproduction, redistribution or any other form of copying or transmission of the Index Data without the Index Data Providers' prior written consent is strictly prohibited. Without limiting the generality of the foregoing, the Index Data and other Index Data Provider intellectual property may not be used as a basis for any financial instruments or products (including, without limitation, passively managed funds and index-linked derivative securities), or used to verify or correct data in any other compilation of data or index, or used to create any other data or index (custom or otherwise), without the Index Data Providers' prior written permission. In no event shall any of NBC, Teranet, their respective affiliates, any of their or their direct or indirect information providers nor any other third party involved in, or related to, compiling, computing or creating any of the Index Data (collectively, the "Index Data Provider Parties") have any liability to any person or entity for any damages, whether direct, indirect, special, incidental, punitive, consequential (including, without limitation, loss of use, lost profits or revenues or any other economic loss) arising in any manner out of your use or inability to use any of the Index Data contained in this report, even if such party might have anticipated, or was advised or notified of, the possibility of such damages.