

Page 9 of 17 Focus — May 4, 2018

Is U.S. Housing Still Affordable?

Alongside robust job growth, easier credit standards and favourable demographics, the U.S. housing market's recovery has been greased by healthy affordability. Following the bust, ownership was never cheaper in recent decades than in early 2013 (*Chart 1*). But since then, galloping house prices and rising interest rates have chipped away at buying power. If current trends persist, the affordability tailwind will reverse and the economy will lose a stable source of support from housing activity.

So far, housing remains affordable in most regions. Nationally, the median mortgage payment is still below 2006 levels, while family income is almost 30% higher. The typical family looking to buy a median-priced house spends 16.2% of gross income on mortgage payments, still below the two-decade norm (17.5%) and well below 2006's high (24.7%). The mortgage-service ratio, however, is well above the 2013Q1 record low of 12.1%, for two reasons. First, the 30-year fixed mortgage rate is up one percentage point to 4.6%, accounting for a third of the 4-ppt increase.

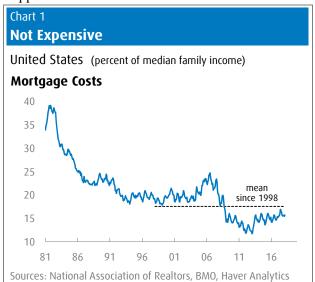
Second, house prices have jumped more than 40% to above long-run trends (*Chart 2*), outrunning a 28% increase in family income. On a regional basis, affordability has fallen the fastest in the West and, to a lesser extent, the South, while remaining relatively healthy in the Northeast and Midwest.

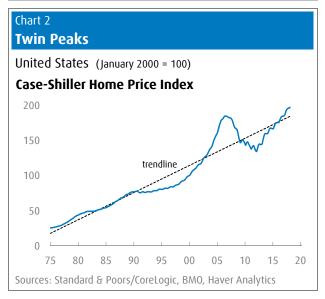
Rising house prices and interest rates threaten to spoil the affordability party. Fed policy tightening, a strong economy and firmer inflation are expected to lift long-term interest rates by 0.7 percentage points in the next two years, raising the mortgage-service ratio about one percentage point. While this alone would not drive affordability below long-run norms, house prices show no sign of slowing. In fact, the Case-Shiller national index is now climbing the fastest in nearly four years, up 6.3% y/y in February. A few regions, including Seattle and Las Vegas, are seeing double-digit gains. If the current pace of appreciation continues and long-term rates increase as expected, mortgage payments will consume an above-average 18% of family income by the spring of 2020.²

Heady house price gains are likely to persist this year. Sales are supported by rising wages and rents, looser credit standards and "fear of missing out". Ownership rates are rising after falling for a decade, as family-raising millennials abandon apartments (*Chart 3*). Demographic support should continue for several years, as the largest single-age cohort (27-year olds) approaches prime-home buying age (31). At the same time, builders are struggling to keep up with demand amid worsening labour shortages and rising material costs (no thanks to the softwood lumber duties). At around



Sal Guatieri Senior Economist sal.guatieri@bmo.com 416-359-5295





¹ Even 2006 pales against the record 39% of income required to service a mortgage in 1981 when mortgage rates were 16%.

Median family income is assumed to pick up to a 4.0% rate from 3.7% last year due to a stronger economy and faster wage growth.



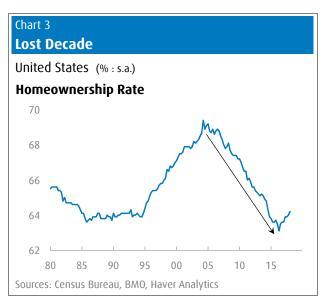
Page 10 of 17 Focus — May 4, 2018

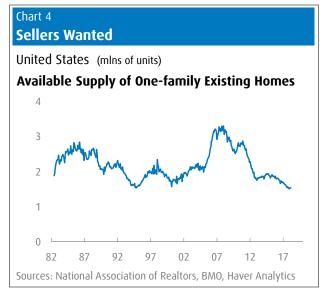
five months, the supply of new single-family homes remains below its long-run norm (six). Buyers will find no relief in the resale market, where the available number of single-family properties is among the lowest in at least three decades (*Chart 4*) amid low rates of foreclosure.

The takeaway is that ebbing affordability will likely begin to impact the economy in 2020. As home sales slow, so will the rate of appreciation and construction. The latter added a quarter percentage point to annual GDP growth, on average, in the past six years, while rising wealth from real estate likely tacked on a similar amount last year. If the housing market cools in response to fading affordability, the economy could lose a moderate source of support.

Bottom Line: Despite the rising cost of ownership, housing remains inexpensive across most of the country. However, this economic tailwind will fade in 2020 if house prices don't pipe down soon and interest rates rise moderately further.

On a more positive note, even if house prices remain strong for the next two years, affordability should remain much better than at the height of the 2006 bubble, when mortgage payments gobbled up a quarter of family income. Combined with superior credit quality today, the risk of another large correction seems low.







Page 11 of 17 Focus — May 4, 2018

General Disclosure

"BMO Capital Markets" is a trade name used by the BMO Financial Group for the wholesale banking businesses of Bank of Montreal and its subsidiaries BMO Nesbitt Burns Inc., BMO Capital Markets Limited in the U.K. and BMO Capital Markets Corp. in the U.S. BMO Nesbitt Burns Inc., BMO Capital Markets Limited and BMO Capital Markets Corp are affiliates. This document is issued and distributed in Hong Kong by Bank of Montreal ("BMO"). BMO is an authorized institution under the Banking Ordinance (Chapter 155 of the Laws of Hong Kong) and a registered institution with the Securities and Futures Commission (CE No. AAK809) under the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). BMO does not represent that this document may be lawfully distributed, or that any financial products may be lawfully offered or dealt with, in compliance with any regulatory requirements in other jurisdictions, or pursuant to an exemption available thereunder. This document is directed only at entities or persons in jurisdictions or countries where access to and use of the information is not contrary to local laws or regulations. Their contents have not been reviewed by any regulatory authority. Bank of Montreal or its subsidiaries ("BMO Financial Group") has lending arrangements with, or provide other remunerated services to, many issuers covered by BMO Capital Markets. The opinions, estimates and projections contained in this report are those of BMO Capital Markets as of the date of this report and are subject to change without notice. BMO Capital Markets endeavours to ensure that the contents have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. However, BMO Capital Markets makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions contained herein and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this report or its contents. Information may be available to BMO Capital Markets or its affiliates that is not reflected in this report. The information in this report is not intended to be used as the primary basis of investment decisions, and because of individual client objectives, should not be construed as advice designed to meet the particular investment needs of any investor. This document is not to be construed as an offer to sell, a solicitation for or an offer to buy, any products or services referenced herein (including, without limitation, any commodities, securities or other financial instruments), nor shall such Information be considered as investment advice or as a recommendation to enter into any transaction. Each investor should consider obtaining independent advice before making any financial decisions. This document is provided for general information only and does not take into account any investor's particular needs, financial status or investment objectives. BMO Capital Markets or its affiliates will buy from or sell to customers the securities of issuers mentioned in this report on a principal basis. BMO Capital Markets or its affiliates, officers, directors or employees have a long or short position in many of the securities discussed herein, related securities or in options, futures or other derivative instruments based thereon. The reader should assume that BMO Capital Markets or its affiliates may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein.

Dissemination of Research

Our publications are disseminated via email and may also be available via our web site http://economics.bmocapitalmarkets.com. Please contact your BMO Financial Group Representative for more information.

Conflict Statement

A general description of how BMO Financial Group identifies and manages conflicts of interest is contained in our public facing policy for managing conflicts of interest in connection with investment research which is available at http://researchglobal.bmocapitalmarkets.com/Public/Conflict_Statement_Public.aspx.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

BMO Financial Group (NYSE, TSX: BMO) is an integrated financial services provider offering a range of retail banking, wealth management, and investment and corporate banking products. BMO serves Canadian retail clients through BMO Bank of Montreal and BMO Nesbitt Burns. In the United States, personal and commercial banking clients are served by BMO Harris Bank N.A., Member FDIC. Investment and corporate banking services are provided in Canada and the US through BMO Capital Markets. BMO Capital Markets is a trade name used by BMO Financial Group for the wholesale banking businesses of Bank of Montreal, BMO Harris Bank N.A., BMO Ireland Plc, and Bank of Montreal (China) Co. Ltd. and the institutional broker dealer businesses of BMO Capital Markets Corp. (Member SIPC), BMO Nesbitt Burns Securities Limited (Member SIPC) in the U.S., BMO Nesbitt Burns Inc. (Member Canadian Investor Protection Fund) in Canada, Europe and Asia, BMO Capital Markets Limited in Europe, Asia and Australia and BMO Advisors Private Limited in India.

"Nesbitt Burns" is a registered trademark of BMO Nesbitt Burns Inc., used under license. "BMO Capital Markets" is a trademark of Bank of Montreal, used under license. "BMO (M-Bar roundel symbol)" is a registered trademark of Bank of Montreal, used under license.

- ® Registered trademark of Bank of Montreal in the United States, Canada and elsewhere.
- ™ Trademark Bank of Montreal in the United States and Canada.

© COPYRIGHT 2018 BMO CAPITAL MARKETS CORP.

A member of BMO Financial Group