NATIONAL BANK OF CANADA
FINANCIAL MARKETS

Monthly Fixed Income Monitor

Economics and Strategy

May 2018

Highlights

- With the U.S. economic expansion still on track, we think the 10-year yield will drift to a new trading range slightly above 3%. Though we recognize that the risks are skewed toward a more aggressive Fed, we think FOMC members will shy away from delivering more than three rate hikes in total in 2018, since some headwinds to growth can be expected from the rise of long rates. We see 10-year Treasuries trading around 3.18% by year end.

- Our forecast for the longer portion of the Canadian yield curve is little changed from last month: 10-year Canadas trading at 2.63% (down 5 bps) at the end of this year and at 3.09% (up 3 bps) a year later. Given our expectation of a Fed more aggressive than the BoC in 2019, we expect the Canada-U.S. spread of 2-year yields to remain wide out to our forecast horizon.

Paul-André Pinsonnault

Forecast dated April 27, 2018

United States

Quarters	Fed Fund	3 Mth Bill	2YR	5YR	10YR	30YR
04/27/18	1.75	1.81	2.49	2.80	2.96	3.13
Q2	2.00	1.91	2.55	2.88	3.03	3.18
Q3	2.25	2.13	2.68	2.95	3.07	3.20
Q4	2.25	2.08	2.77	3.03	3.18	3.30
Q1/19	2.50	2.25	2.89	3.09	3.29	3.40
Q2	2.50	2.37	2.98	3.13	3.33	3.43
Q3	2.75	2.62	3.12	3.22	3.40	3.49
Q4	3.00	2.83	3.20	3.32	3.47	3.55

Canada

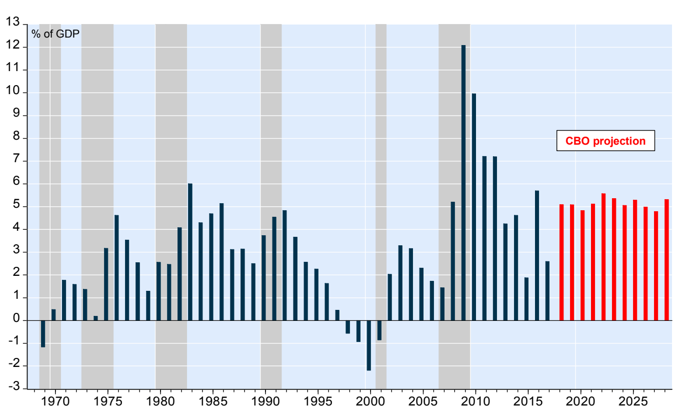
Quarters	Overnight	3 Mth Bill	2YR	5YR	10YR	30YR
04/27/18	1.25	1.20	1.90	2.13	2.32	2.41
Q2	1.25	1.43	1.99	2.25	2.42	2.53
Q3	1.50	1.65	2.11	2.30	2.54	2.63
Q4	1.75	1.88	2.17	2.35	2.63	2.70
Q1/19	2.00	1.96	2.32	2.50	2.82	2.89
Q2	2.00	2.18	2.38	2.63	2.93	2.99
Q3	2.25	2.21	2.48	2.74	3.01	3.06
Q4	2.25	2.21	2.55	2.78	3.09	3.14

Eurozone economy softens, U.S. economy stronger than expected

The global economy continued to expand in the first quarter, albeit at a slower pace. Cooling was especially evident in the euro area, where although some normalization had been expected after a period of very strong growth, the extent of the deceleration surprised the ECB. Mr. Draghi described the loss of momentum as broad-based across countries and sectors. Against this backdrop, the ECB Governing Council spent its April policy meeting analysing the indicators rather than discussing the roadmap for monetary policy, though Mr. Draghi expressed confidence that inflation will converge to the ECB target in the medium term with support from ample monetary stimulus. So the mix of forward guidance on interest rates and ongoing asset purchases was left unchanged. Interestingly, when the ECB talks about its policy stance it refers to the sizable stock of assets acquired and forthcoming reinvestment. This reflects the ECB's view that its reinvestment policy "will ensure that the amount of duration risk to be borne by price-sensitive private investors will increase only very moderately over time" and thus "limit the risk of an unwarranted decompression of the term premium"(Benoit Coeuré, member of the ECB Executive Board, New York City February 23, 2018).

In the U.S., it appears that the FOMC will face a different picture in coming years. The ECB's asset purchase program was larger than net new issuance. For example, only about 10% of German Bunds are held by private investors, according to the ECB, while about half of marketable U.S. Treasuries are in private hands. FOMC holdings peaked at 20% in Q3 2014 and had drifted down to 17% by Q4 2017. In light of the FOMC balance sheet normalization that began last October and the CBO projection of U.S. Treasury borrowing requirements, FOMC holdings could shrink to only 7% of marketable Treasury securities by 2022, leaving a much smaller FOMC footprint on the Treasury term premium.

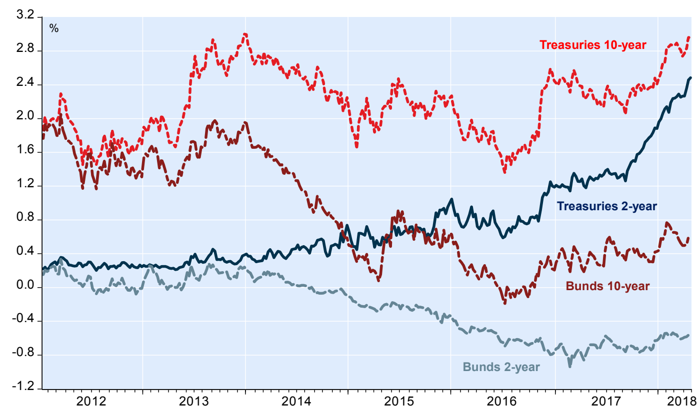
U.S. Treasury borrowing requirements as % of GDP
Net change in gross debt less debt held by governments accounts, end of fiscal year



NBF Economics and Strategy (data from CBO report "The Budget and Economic Outlook: 2018 to 2028," April 2018)

This will not happen overnight, of course, but with a larger portion of marketable securities held by price-sensitive investors, we would expect the term premium of Treasuries to prove more sensitive than that of Bunds to economic surprises and uncertainties.

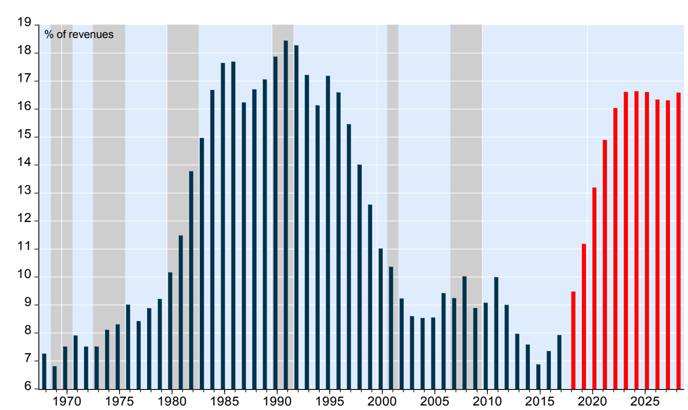
Yields of U.S. Treasuries and German Bunds



NBF Economics and Strategy (data via Bloomberg) 2018-04-27

The CBO's projection is of course based on current fiscal policy and much could change after the next presidential election. Under current fiscal policy, the cost of debt service would grow to exceed military spending and is projected by the CBO to amount to just above 16% of all Treasury revenue by 2022. The resulting loss of budget flexibility is a prospect that could trigger a response from U.S. politicians. Will they come up with a plan — other than inflating their way out of deficit — to contain the effect of the buildup of debt held by the public? Maybe. The question would then become: Will the resulting pattern of borrowing requirements be like that of 1985-1989 or more like that of 1991-1999? Time will tell.

US: Net cost of debt service as % of revenues
Net interest cost on gross debt less debt held by governments accounts



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In the shorter run, bond investors face a U.S. economy that has surprised on the upside in Q1 2018. In our view the good beginning of the year puts the U.S. economy firmly on track for growth of 2.8% in 2018. Not only has the overall expansion been encouraging for the Fed, but the Q1 growth of private-sector wages and salaries was the fastest since 2008. This development will be welcome to FOMC participants. It has certainly reinforced the view that a total of three or four rate rises this year is a reasonable expectation.

The 10-year Treasury yield has risen 24 bps since March 29, though from a level somewhat depressed by March fears of trade wars and a debacle of FAANG stocks. With geopolitical tension eased, trade rhetoric softened and inflation numbers firmer, bond yields have drifted above those that followed Trump's tax cuts.

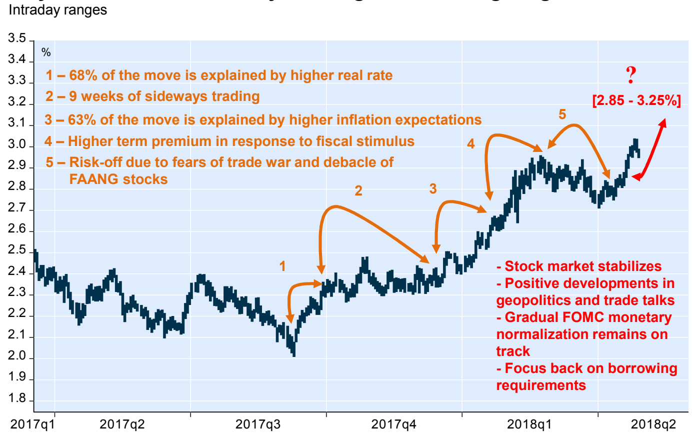
U.S. bond yields, %

	Date			Change
	Feb. 27	March 29	April 26	Feb.–April
Treasuries 2-yr	2.264	2.270	2.484	0.220
Treasuries 10-yr	2.895	2.741	2.983	0.088
TIPS 10-yr	0.765	0.687	0.808	0.043
BEIR	2.130	2.054	2.175	0.045
Slope 10-yr–2-yr	0.631	0.471	0.499	-0.132

NBF Economics and Strategy (data via Bloomberg)

With the economic expansion still on track, we think the 10-year yield will drift to a new trading range slightly above 3%. Though we recognize that the risks are skewed toward a more aggressive Fed, we think FOMC members will shy away from delivering more than three rate hikes in total in 2018, since some headwinds to growth can be expected from the rise of long rates.

10-year Treasuries: Are they entering a new trading range?
Intraday ranges



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Interest rate forecast									
	04/27/18	Q2	Q3	Q4	Q1/19	Q2	Q3	Q4	Q1/20
F.F. - upper bound	1.75	2.00	2.25	2.25	2.50	2.50	2.75	3.00	3.00
2-YR	2.49	2.55	2.68	2.77	2.89	2.98	3.12	3.20	3.26
10-YR	2.96	3.03	3.07	3.18	3.29	3.33	3.40	3.47	3.48
Forward 10-yr rate		3.01	3.05	3.07	3.09	3.11	3.12	3.14	3.15

Some of the upward drift in long rates that we see, out to our forecast horizon, will reflect term-premium increases over time as the FOMC unwinds its balance sheet and Treasury financing requirement remain high. At the front end of the yield curve we expect policy normalization to take the target fed funds range to 2.75%—3.0% by year end 2019. In this view, the slope of the curve as measured by the difference between the 10-year yield and the upper bound of the fed funds range will flatten from 123 bps currently to 47 bps in Q4 2019.

… and in Canada

Like many concepts in economics, the neutral policy rate is more easily defined than evaluated. On that everyone will agree. Put simply, the neutral rate is the policy rate consistent with full employment, trend growth and stable prices. It is an important concept. As St. Louis Fed president James Bullard has said, policymakers need to know its value in order to decide whether a policy rate is accommodative, neutral or restrictive.

So when Bank of Canada governor Stephen Poloz, talking to reporters in Washington April 21 about the neutral rate in Canada, said "we just don't know where that is," adding that he couldn't defend a 3% call any more than 2%, or "even 1.5," his remarks surprised some but to a certain extent echoed those of Fed chair Alan Greenspan in June 2005:

"It's very difficult to know where that so-called neutral rate is. But we probably will know it when we are there because we will observe a certain degree of balance, which we had not perceived before, which would suggest that we are somewhere very close to where that is."

But Mr. Poloz's comments in Washington were at odds with his opening statement at the Monetary Policy Report press conference on April 18, when he said "we have reviewed our work on the neutral interest rate and concluded that it still lies somewhere in the range of 2.5 to 3.5 percent, given a 2 percent inflation rate."

So the governor's conviction about the neutral rate appears rather weak, and sheds some light on his statement that most of the Governing Council deliberations leading to the April 18 rate announcement were about the appropriate pace of rate increases. Without some conviction about the goal post of policy normalization, or at least a good handle on it, we can only guess how difficult it would be to agree on how much is needed and how fast. The easy part of the Governing Council deliberations was to recognize that the need for a negative real policy rate continues to diminish in Canada.

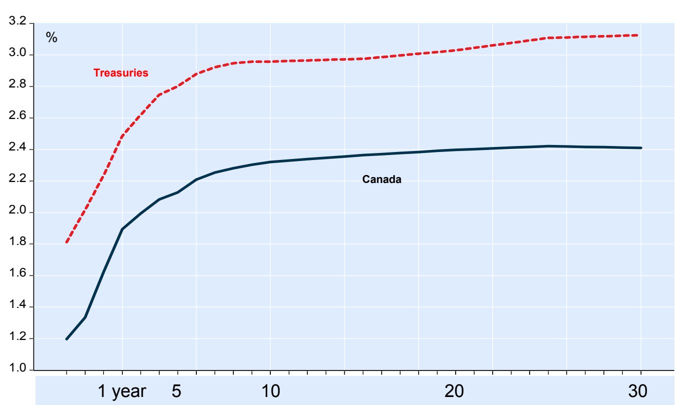
With the Bank going out of its way to explain that its policy decisions are part of a risk-management process, and given its view that high debt may make monetary policy less potent in boosting confidence and increasing demand if that is needed (deputy governor Lawrence Schembri, February 15), we are left thinking that policy decisions are not symmetrical — that the BoC is likely to respond less aggressively than in the past to shocks that push the economy above equilibrium. The bias is to let the economy test how far capacity-building can go without threatening the credibility of its regime of flexible inflation targeting.

Given this bias and the data dependence of our central bank, we expect monetary normalization to proceed slowly. It will take an accumulation of good news to prompt policy action. In this regard, the strong headwinds felt by the economy in early Q1, with GDP reported to have contracted 0.1% in January, have left the central bank with room for patience. The BoC now has the luxury of waiting to see how the housing market performs in May and June before updating its economic projections for the July 11 Monetary Policy Report. By then we expect that evidence of a pickup in growth will be widespread enough to prompt a rate hike. We continue to see the overnight rate ending 2018 at 1.75%.

While financial markets are giving 31% odds of the Canadian overnight rate reaching at least 2.0% (three more BoC rate hikes) in 2018, the fed funds futures market gives 80% odds of the effective fed funds rate trading at or above 2.125% by year end. So it is not surprising that yields to maturity of short-term Government of Canada bonds are trading well below those of comparable Treasuries. Given our expectation of a Fed more aggressive than the BoC in 2019, we expect the Canada-U.S. spread of 2-year yields to remain wide out to our forecast horizon. We see 2-year Canadas trading around 2.55% by year end 2019 and 2-year Treasuries around 3.20%.

Market are pricing a more rate hike south of the border

Yield spreads at the front end of the yield curve will stay wide over the horizon forecast



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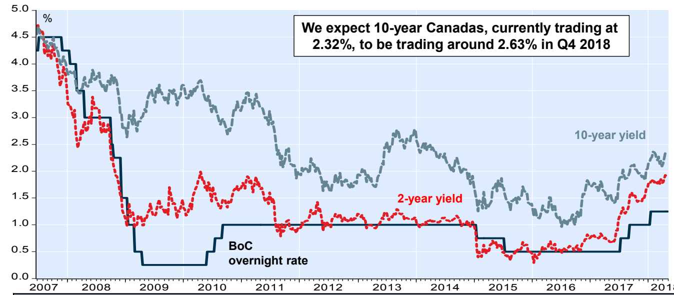
Our forecast for the longer portion of the yield curve is little changed from last month: 10-year Canadas trading at 2.63% (down 5 bps) at the end of this year and at 3.09% (up 3 bps) a year later.

Canada: More policy normalization coming in 2018

Normalization needs to be gradual to balance risks to financial stability, economy and inflation



Interest rate forecast

	04/27/18	Q2	Q3	Q4	Q1/19	Q2	Q3	Q4	Q1/20
Overnight	1.25	1.25	1.50	1.75	2.00	2.00	2.25	2.25	2.25
2-YR	1.90	1.99	2.11	2.17	2.32	2.38	2.48	2.55	2.60
10-YR	2.32	2.42	2.54	2.63	2.82	2.93	3.01	3.09	3.12
Forward 10-yr rate		2.39	2.42	2.44	2.45	2.46	2.47	2.48	2.49

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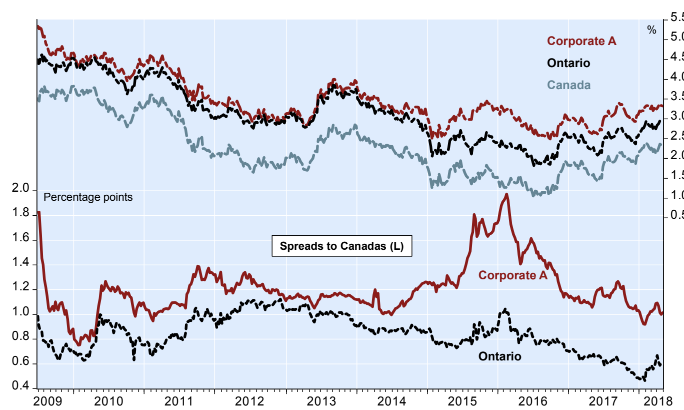
The Canadian bond market returned a negative 0.95% in April according to the ICE BofAML broad market index.

Spread products, after disappointing in the first quarter, added some value relative to Canadas in April. Provincials maturing in more than 10 years have returned 43 bps more than long Canadas and long corporates returned 93 bps more.

Canada: Corporate and provincial yield spreads

10-year maturities, BFV CAD yields



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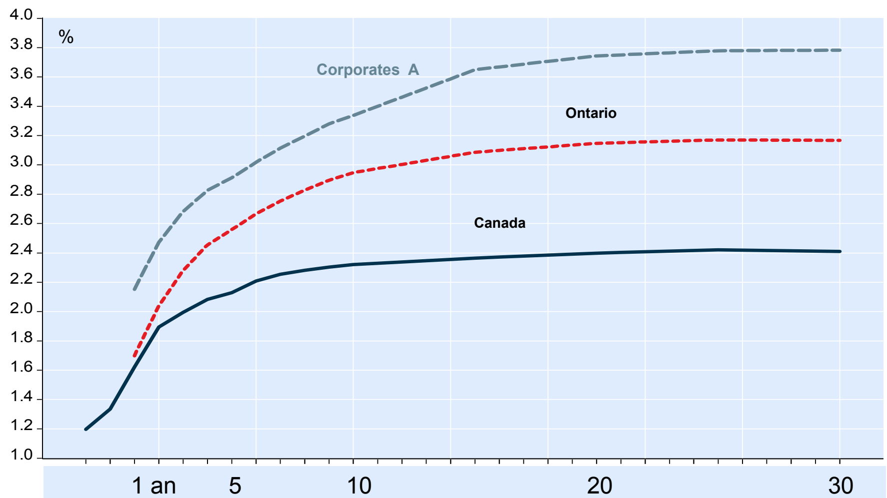
… few more charts

Looking at the Canadian yield curve, one will notice how flat it is at the longer end.

Canadian interest rates
Weekly, last observation April 27, 2018



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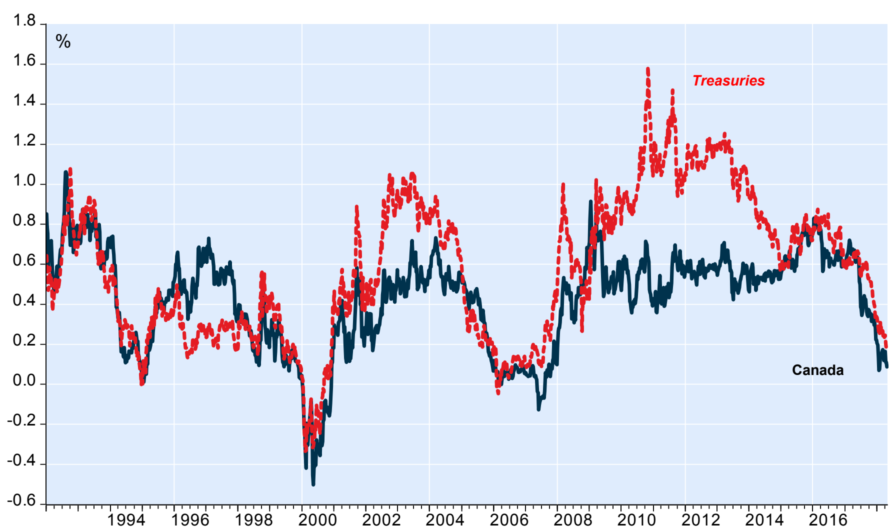
But this is also true south of the border.

Slope of the yield curve since 1992: 30-year yield minus 10-year yield
Canada and U.S. Treasuries



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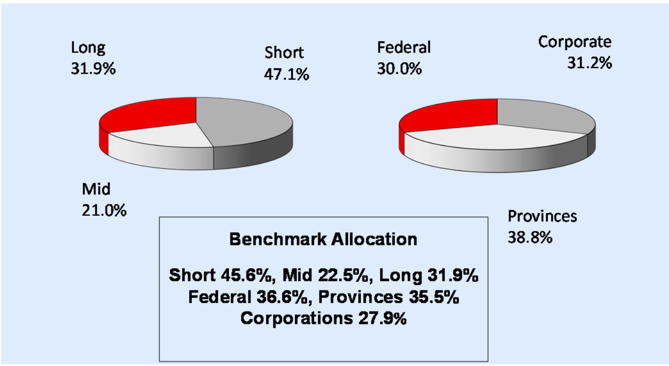
NATIONAL BANK OF CANADA FINANCIAL MARKETS

Recommended bond allocation
Recommended duration 7.28 vs the benchmark 7.39
Maintain overweight in provincial and corporate bonds



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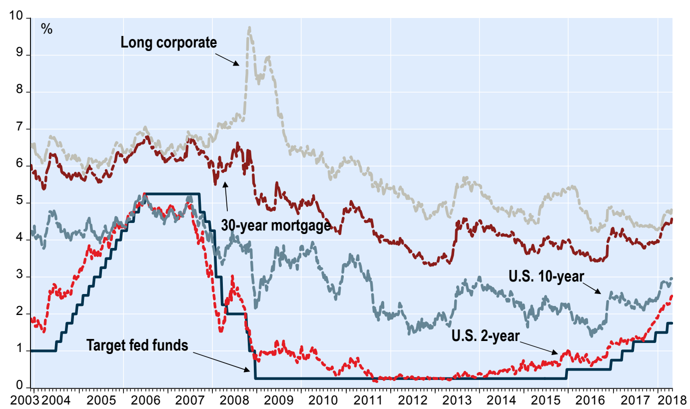
Canadian bond market – total returns

	Total Returns	*04/27/2018*		
	Since 03/30/2018	*Since 01/26/2018*	*Since 10/27/2017*	*Since 04/28/2017*
Cash	0.07	0.31	0.50	0.78
Canada				
Short	-0.14	0.34	-0.19	-1.21
Mid	-1.04	0.21	-1.33	-3.91
Long	-2.60	-0.61	-0.47	-2.65
Universe	-0.79	0.16	-0.45	-1.95
Provincial	-1.34	-0.59	-0.12	-0.56
Municipal	-1.21	-0.31	0.05	-0.04
Corporate				
AA	-0.25	0.17	-0.21	-1.00
A	-0.81	-0.47	0.16	-0.43
BBB	-0.60	-0.22	0.56	-0.10
Universe	-0.65	-0.27	0.25	-0.37
Total	-0.94	-0.22	-0.14	-1.02
S&P/TSX	2.18	-2.75	-0.30	3.48

NBF Economics and Strategy (data via Datastream)

U.S. interest rates
Last observation April 27, 2018



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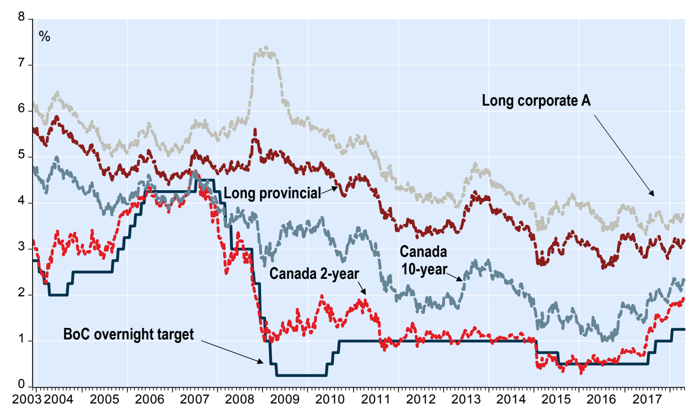
Canadian interest rates
Weekly, last observation April 27, 2018



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Bond Market - Canada

	Close-on 4/27/18	*3/30/18*	*1/26/18*	*10/27/17*	*4/28/17*
Interest Rates					
90-day (B/A's)	1.735	1.734	1.673	1.414	0.924
2 years	1.898	1.775	1.818	1.427	0.682
5 years	2.131	1.969	2.062	1.659	1.011
10 years	2.323	2.091	2.262	1.988	1.547
30 years	2.412	2.228	2.330	2.339	2.162
Spreads					
90 d - 2 years	16.3	4.1	14.6	1.3	-24.2
2 - 5 years	23.3	19.4	24.4	23.2	32.9
2 - 10 years	42.5	31.6	44.4	56.1	86.5
10 - 30 years	8.9	13.7	6.8	35.1	61.5
Currencies					
CAD / USD	1.2829	1.2900	1.2311	1.2808	1.3654
EUR / CAD	0.6426	0.6290	0.6533	0.6726	0.6720

Source: NBF Economics and Strategy (data via Bloomberg)

Monthly Fixed Income Monitor

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