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Are bond markets about to pay the price for their complacency?

Following the onslaught of aggressive interventions by central banks in recent years, investors seem to have taken for granted that they will perpetually stand to support the bond market. This has developed into a situation of very low long-term yields, even negative in many cases. However, central banks currently in quantitative easing mode have begun a deep reflection on the future of this policy. Meanwhile, a movement advocating a transition to expansionary fiscal policies seems to be making its way in several developed countries. These conditions could cause investors to reassess their expectations as they relate to the forces of supply and demand in bond markets. Inflation is another major neglected risk to keep an eye on, in a context of continually depressed private investment and weak productivity growth. In this Economic Viewpoint, we assess the current situation and draw the lessons offered by previous selloff episodes. We believe bond market investors that want to hedge against the risk of a selloff should focus on yield curve steepening strategies. With respect to riskier assets, although bond selloff episodes have traditionally been synonymous with equity market rallies, a number of factors argue for the opposite to apply in the present context.

The sustained dwindling in bond yields in recent years has surprised most observers and raised many concerns about the consequences of a very low interest rate environment. Recently, Bank of Canada Governor Stephen Poloz preached on the need to adjust to this kind of environment. He stressed the reduced level of the neutral interest rate, a situation implying that policy rates near zero do not have as much stimulative effect than in the past. This kind of discourse, which was also used by U.S. central bankers recently, is not illegitimate. After all, the struggles experienced by central banks attempting to align inflation to their respective targets, are there to testify. This type of rhetoric may nonetheless come with pernicious effects since it only reinforces the skepticism held by investors with regards to the likelihood of spikes in long-term yields. This can easily turn into complacency, a situation which culminates mostly in very sudden market movements.

A STRETCHED RUBBER BAND?

Investors remain focused on the very recent events, seeming to ignore the risk of a bond market shock. This stems largely from the efforts deployed by central banks. Again in 2016, their actions have only consolidated the long-term

downward movement in bond yields: the Bank of Japan (BoJ) announced by surprise a negative rate policy, the European Central Bank (ECB) cut its rates on deposits deeper into negative territory, the Bank of England and the Reserve Bank of Australia reduced their policy rates by 25 basis points each. The Reserve Bank of New Zealand has so far reduced its rate by 50 basis points. These decisions came on top of ever more intense asset purchasing activity. In recent years, quantitative easing policies in Europe and Japan have taken over those of the US and UK in the immediate years following the crisis, such that the combined balance sheet of these four central banks has more than quadrupled over the last decade (graph 1 on page 2).

The low volatility in bond markets indicate that investors see very little likelihood of a lasting bond selloff that would come to break the recent trend. The MOVE bond volatility index has kept on a downward trend pretty much throughout the year (graph 2).

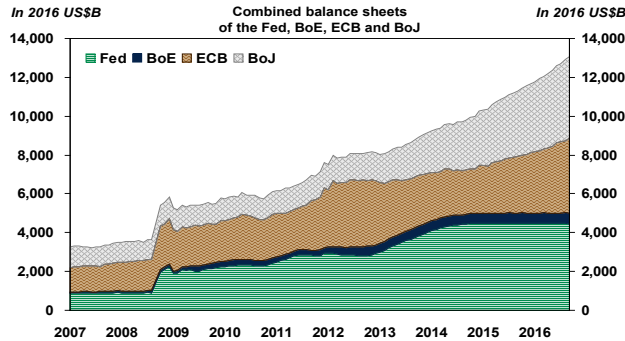
The complacency phenomenon is also observed from the term premium perspective. The term premium is the portion of the bond yield that compensates the investor for the risk

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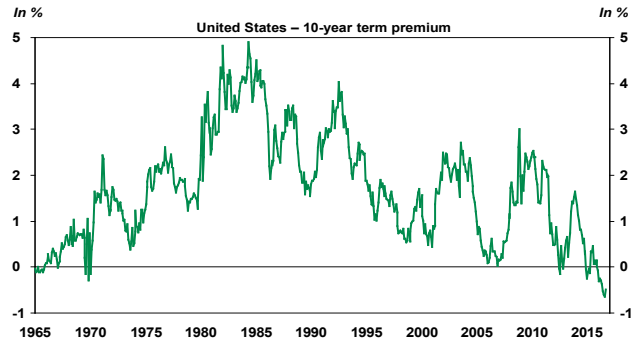
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Graph 1 Central banks have inflated their balance sheets at a rapid pace in recent years



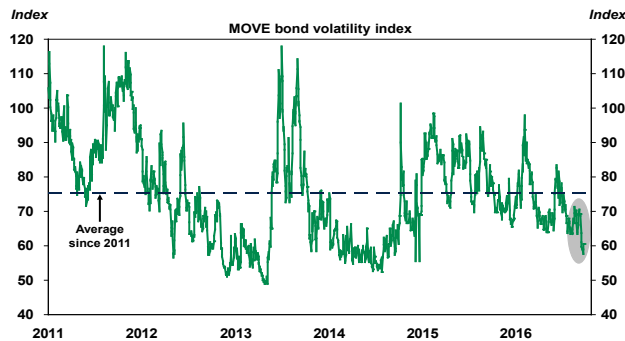
Fed: Federal Reserve; BoE: Bank of England; ECB: European Central Bank; BoJ: Bank of Japan
Sources: Datastream and Desjardins, Economic Studies

Graph 3 In more than 50 years, the term premium has never been this low



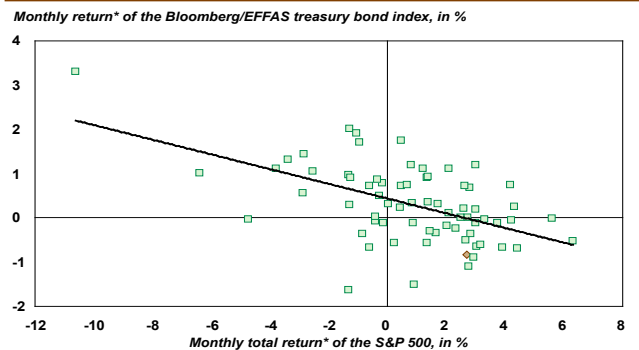
Sources: Federal Reserve and Desjardins, Economic Studies

Graph 2 Low bond market volatility is indicative of a certain level of complacency



Sources: Bloomberg and Desjardins, Economic Studies

Graph 4 Even though they have returned little, bonds have played their diversifying role



* Between 2011 and 2016.
Sources: Bloomberg and Desjardins, Economic Studies

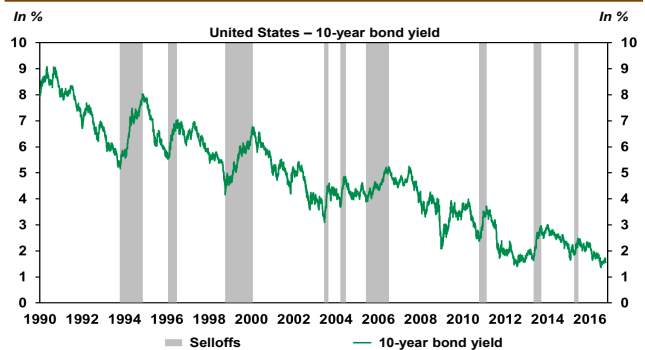
borne by locking capital in a long-term bond. Compared to an investor with a similar horizon and continually rolling an investment in a short-term bond, one who commits capital over the long-term will extract a lower return if yields rise. The term premium serves to compensate for this risk (called duration risk). The more investors will assign a high probability to duration risk, the higher the premium of the term will be. Currently, the 10-year term premium is not only in negative territory in the U.S., but it is at its lowest level in more than half a century (graph 3).

A negative term premium implies that investors are currently willing to pay for duration exposure. While this might seem absurd at first glance, it reflects the near absence of fears of a potential bond selloff, and also the fact that long-term bonds enjoy a captive demand from investors with duration-matching requirements, or for which the composition of the balance sheet is subject to regulatory requirements. Even investors who are not subject to these constraints can still see benefits from holding long-term bonds in their portfolios. They have generally proven effective diversification instruments in recent years, tending to gain value when riskier assets fell, and vice versa (graph 4).

LESSONS FROM THE PAST

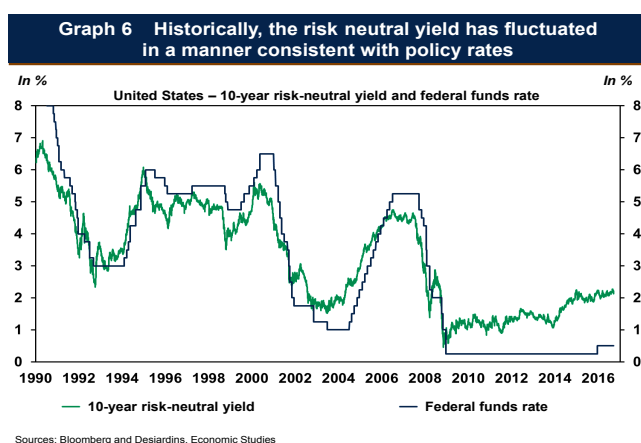
The current situation is far from without dangers. The long downward trend in yields has always been punctuated by selloff episodes sometimes very pronounced. Since 1990, there have been five selloff episodes that featured a jump of over 100 basis points in the U.S. 10-year yield including two since the crisis (graph 5). The latter ones occurred despite an extremely easy monetary policy environment.

Graph 5 The long bond market rally has been punctuated by several selloffs

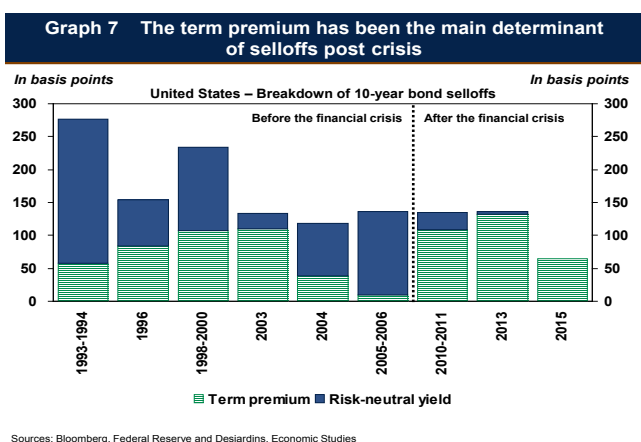


Sources: Bloomberg and Desjardins, Economic Studies

Given the low level of bond yields, there is necessarily much more risk of a large-scale yield movement on the upside than the opposite. As mentioned above, part of the yield of a bond is accounted for by the term premium. The remainder represents the risk-neutral yield. This is the yield that would be required if investors had absolute certainty about future nominal short-term rates. Arbitrage mechanisms would ensure that they would be indifferent between rolling an investment in short-term bonds, and committing their investment over an equivalent horizon via a long-term bond. In the United States, it is observed that fluctuations in the risk-neutral yield are closely linked to those of policy rates (graph 6).



By examining episodes of large increases in U.S. 10-year bond yields since 1990, we note that until the crisis of 2008-2009, the risk-neutral yield component was often the determining factor behind the selloffs (graph 7).



This reflects an environment where bond selloffs were often dictated by monetary tightening. By contrast, in the three selloff episodes recorded since the crisis, the risk-neutral rate generally changed little. Unlike the case before the

crisis, these selloffs have been mainly driven by increases in the term premium.

This has certainly not been without causing some headaches for Fed officials. The taper tantrum episode of 2013 remains imprinted in their memory. Recall that in early 2013, the Fed had announced an open-ended asset purchase program, that is, a program with an indeterminate horizon. By the spring, Ben Bernanke, then chairman of the Fed, told the U.S. Congress that a reduction in the pace of bond purchases would eventually become appropriate. However, many investors, it seemed, had previously interpreted “indeterminate” as synonymous with “infinite” and Bernanke’s remark caused a brutal return to reality in the U.S. Treasury market, and in fact globally.

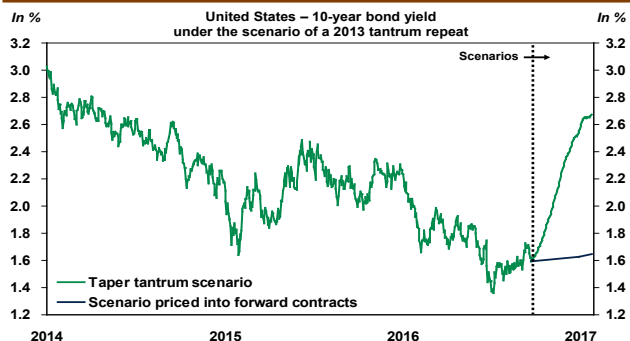
The U.S. 10-year yield then began an ascent that ultimately amounted to 136 basis points over a period of about four months. It is the largest rise in the 10-year yield recorded since the crisis, and it was entirely caused by a rebound in the term premium. In effect, a simple signal indicating a gradually higher amount of bonds available to private investors, managed to radically change the perception of the balance between supply and demand, and by extension, the term premium. Only, for FOMC officials, the problem was that the bond selloff episode caused some damage to the recovery. A push of 144 basis points in the 30-year mortgage rate was recorded during the period, contributing to undermine the housing market’s momentum. Ultimately, the Fed managed to curtail the selloff in September 2013, when it surprised markets by choosing to delay the tapering decision.

QUANTITATIVE EASING COULD BE AT THE CROSSROADS: A NEW TANTRUM IN SIGHT?

Up until recently, markets paid little attention to the possibility of a repeat of the 2013 scenario. At the current levels, a taper tantrum part 2 episode would lead the 10-year yield to around 2.75% by early 2017. In contrast, forwards are pricing in a level of yield barely higher than at present (graph 8 on page 4).

Investors can hardly be blamed for this state of affairs, given the effect of ultra-expansionary monetary policies discussed earlier. The most recent decisions of the BoJ and the ECB, could nonetheless have defined a turning point. The BoJ conducted a review of its programs during the summer, and even though it has kept the goal of expanding its balance sheet by ¥ 80,000 billion annually, it introduced a target of 0% for 10-year rates. Targeting a specific level opens the possibility of asset buying and selling transactions in the 10-year segment of the curve, akin to the open market operations that serve to align policy rates

Graph 8 Markets are poorly prepared for a repeat of the 2013 experience



Sources: Bloomberg and Desjardins, Economic Studies

to their target. The objective of targeting the 10-year bond yield could ultimately prove incompatible with an objective of a fixed annual balance sheet expansion. At the very least, it is a first sign of a transition to a more targeted approach to asset purchases, unlike the sustained purchasing that has characterized recent years.

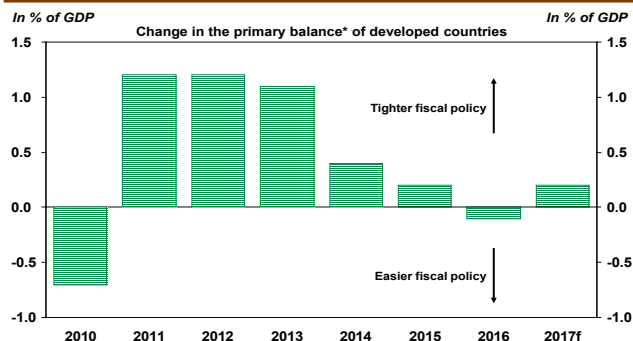
Two factors seem to motivate the adoption of such an approach. First, the BoJ was on track to run short of government bonds to acquire. Second, it seems more cognizant of the harmful effects of extremely low long-term yields for many economic agents. In particular, the very flat slope of the yield curve has the effect of squeezing profitability in the banking sector and ultimately impede the transmission of monetary policy to the real economy.

The ECB has also started a policy reappraisal process, even refusing to firmly commit to extend its quantitative easing policy beyond March 2017. The ECB is probably not as operationally limited the BoJ. It can still relax some rules governing its bond purchases in order to extend the program's life. The rate of €80B in monthly purchases still remains high, and the moment of truth could end up sounding for the ECB as well. It is quite a novel situation for a central bank that has spent the last few years persuading investors that it was not impotent. The mere rumour of discussions among ECB officials on a possible tapering decision already seems to have rekindled some level of volatility in global bond markets in early October.

THE POLICY MIX REBALANCING ALSO CARRIES IMPLICATIONS FOR MARKETS

The medium-term orientation of the policy mix is something that investors should keep a close eye on, as a shift might be occurring. After the consolidation efforts that characterized the years following the crisis, fiscal policies have become less restrictive in advanced economies (graph 9). However, they still offer very little support to growth and policymakers

Graph 9 While not as restrictive as in the aftermath of the crisis, fiscal policies currently offer little support



f. International Monetary Fund forecasts; * Cyclically-adjusted. Sources: International Monetary Fund and Desjardins, Economic Studies

are now preaching in favour of targeted interventions, such as public infrastructure investment, by the same token softening their rhetoric of recent years, which mainly advocated austerity.

Signs to this effect are beginning to accumulate. The UK has abandoned its goal of balancing the budget in the 2019-2020 fiscal year and the new British Chancellor has recently opened the door to investments in the road network. In Germany, Minister of Finance Wolfgang Schäuble dangled tax cuts, less than a year from the next federal election. The case of Canada is naturally one of the most notorious, as a government was elected a year ago on the promise of an expansionary fiscal policy. In the U.S., the two candidates for the November presidential election are proposing infrastructure investments.

The rebalancing that might be beginning could help central banks to gradually abandon their interventionist instincts. The Bank of Canada is a good example. It was one of the few advanced-country central banks not to ease its policy this year. Despite a weak economy, it partially justified its inaction by the still forthcoming effects of the fiscal stimulus initiatives that were announced last spring. If this model proves successful, it could be replicated elsewhere. The combination of a higher bond supply and central banks that could somewhat let go, could well result in a rise in bond yields. Apart from a more extreme scenario of monetary financing, it would in effect turn into a situation where an entity that tries to stimulate growth by buying bonds, would be replaced by an entity that tries to achieve the same outcome by selling bonds instead.

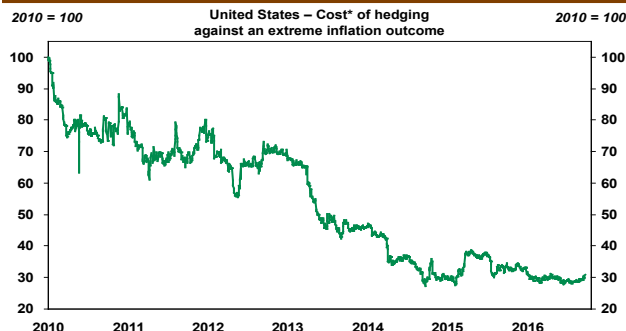
INFLATION RISK: THE OTHER NEGLECTED

It has been a long time since high inflation was a major concern. However, it does not imply that one should underestimate the risk that the weakness of investment in recent years eventually brings us to a situation where only

a moderate pace of economic growth is able to generate inflationary pressure. In other words, there is still much uncertainty about potential growth in advanced countries. This implies a risk that output gaps close quicker than expected.

Currently, some central banks are being more permissive with possible inflation overshoots. This is the case of the BoJ, which explicitly stated this kind of tolerance in September. More informally, several officials at the Fed, including Janet Yellen, admit to having more confidence in the ability of the central bank to address above-target inflation than a deflationary threat. Bear in mind that the risk of a target overshoot is much higher in the U.S. than in Japan. In a context of Fed tolerance, even informal, it would probably not be necessary to witness a very large rebound in inflation to orchestrate a market reaction. As shown in some derivatives markets (graph 10), investors do not care much about a risk of extreme inflation right now. In that vein, some studies undertaken by the Fed have linked the 10-year term premium's slide in negative territory with a decrease in the inflation risk premium. If future inflation developments were to take investors by surprise, material upward pressure on bond yields could ensue.

Graph 10 Pricing levels in some derivatives testify to the degree of market carelessness when it comes to inflation risk



* Premium required to hedge against the risk of an inflation rate outside the -0.5% to 2.5% range over 10 years, according to inflation caps and floors.
Sources: Bloomberg and Desjardins, Economic Studies

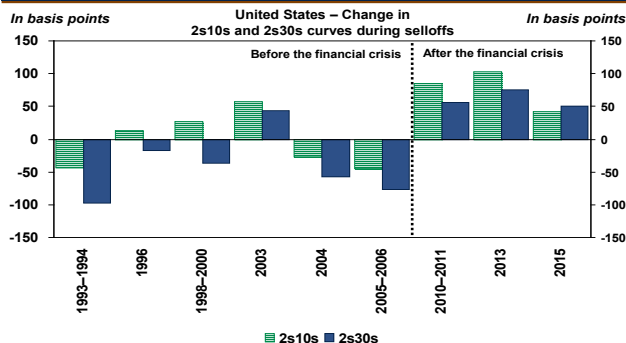
MARKET IMPLICATIONS

We first emphasize that the following discussion relates to an alternative scenario of a bond market selloff, not to the baseline scenario of Desjardins, Economic Studies, which assumes a gradual increase in yields.

That said, the current environment may offer some tactical opportunities to exploit for more active investors and/or those seeking to manage risks. With respect to the curve, the clearest fallout from a selloff scenario is a steepening of the curve. The last three selloff episodes have been accompanied by steepening, in some cases very fast. These

episodes contrast with those before the crisis, when the curve was more likely to bear-flatten (graph 11).

Graph 11 Steepening strategies have been rewarding in selloff situations ever since the crisis

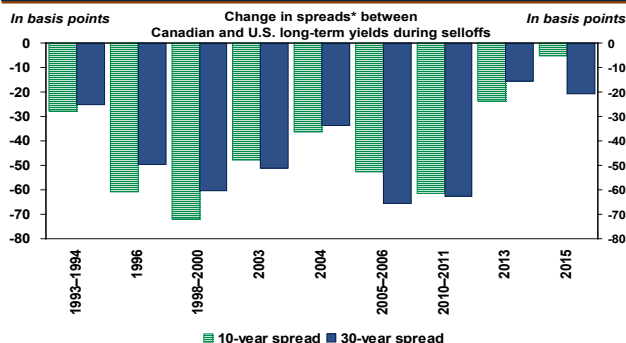


Sources: Bloomberg and Desjardins, Economic Studies

It once more evokes the catalysts governing historical selloffs. Before the crisis, monetary tightening mostly acted as the catalysts. Short-term yields thus tended to rise rapidly as well. Since the crisis, the term premium has played a greater role, resulting in steepening situations. Investors should particularly focus on 2s10s and 2s30s steepening strategies.

Steepening has also been observed in the Canadian bond market during U.S. selloffs. However, for Canadian investors, this scenario would also be an opportune time to go long on Canada-U.S. spreads. Looking at the last 26 years, there is not a single selloff episode where Canadian 10-year or 30-year bonds have not outperformed their Treasury counterparts in this kind of environment (graph 12).

Graph 12 Canadian bonds have always outperformed during selloffs



* Canada yield minus United States.
Sources: Bloomberg and Desjardins, Economic Studies

Turning to equities, caution is warranted in reading the previous episodes. Historically, rising bond yield phases have almost always been accompanied by stock market

rallies. This pattern has been particularly observed in cases where optimism on the economic outlook was on the rise. One of the most notorious examples recently occurred at the end of 2010. The Fed had announced its second quantitative easing program and the Obama administration had deployed new economic stimulus measures. Forecasters heavily upgraded their U.S. growth projections for 2011. The increase of 135 basis points in the 10-year yield was accompanied by a solid 14.4% gain in the S&P 500, between October 7, 2010 and February 8, 2011. In Canada, the S&P/TSX Composite Index reacted similarly, with an increase of 11.6%.

But in a situation where a surge in yields reflects mainly a term premium repricing and not necessarily a surge of optimism, the risk-asset response can be expected to be a bit less dramatic. This situation was observed during the taper tantrum of 2013. The S&P 500 and the S&P/TSX had then gained 3.8% and 3.6%, respectively, over a period of four months.

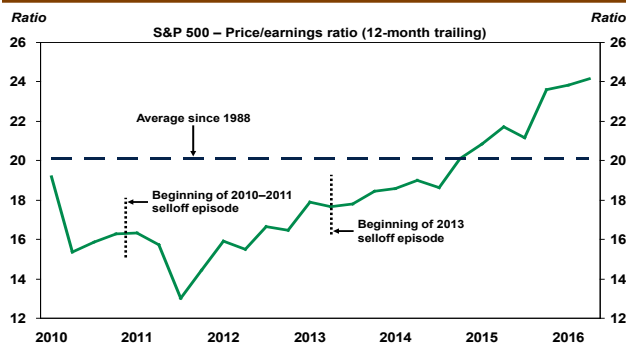
Truth be told, there are few guarantees that equities would even make gains in a selloff in the current context. Both during the 2010-2011 episode and the 2013 tantrum, equity valuations were below their longer-term average, in contrast to the current situation (graph 13). Naturally, valuations have been inflated by the very low interest rates of recent years. This suggests that a bond selloff shock would rather tend to be accompanied by an equity selloff, as opposed to the familiar opposite.

bonds could evolve in a direction opposite to that of recent years. Moreover, inflation could still surprise to the upside, given the chronic lack of investment and low productivity. Obviously, the hope is that inflation does not resurface for gloomier reasons, such as an intensifying protectionist thrust or irresponsible fiscal policies.

The fact remains that monetary and fiscal policies have come close to a turning point, and that the markets still seem to be positioned for a continuation of the approaches applied in recent years, those that have disproportionately relied on monetary stimulus and yet have come short of restoring an acceptable level of growth and inflation. Admittedly, fixed income investors that have speculated on higher interest rates in recent years were humbled. This does not imply that the risk of such a scenario should be overlooked. Should it materialize, moves of significant magnitude should be expected in the bond market.

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Senior Economist

Graph 13 In the 2010 2011 and 2013 selloffs, equities did not start from the levels of richness seen today



Sources: S&P Dow Jones Indices, Datastream and Desjardins, Economic Studies

CONCLUSION

Serial economic disappointments and aggressive monetary stimulus that have accompanied them, have gradually led investors to expect a prolonged period of very low rates. However, complacency seems to have settled in. The current rethinking of the roles of monetary and fiscal authorities, indicates that the dynamics of supply and demand for