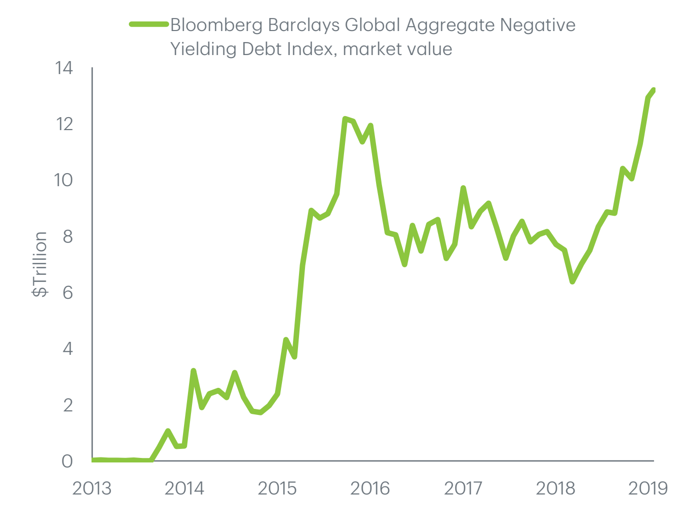
TD Greystone Asset Management

Are Negative Interest Rates Sustainable?

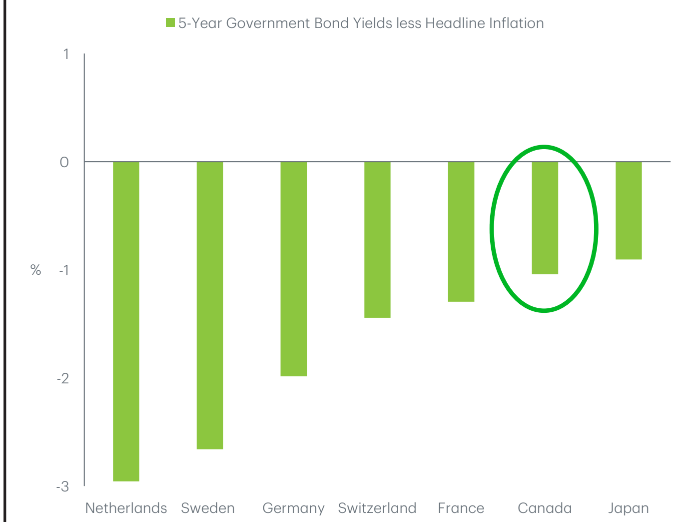
With negative yielding debt at all-time highs (Figure 1), negative interest rates have returned to focus in global fixed income markets. Japan, Germany, France, Netherlands, Switzerland, and Sweden are all posting negative nominal interest rates for maturities of at least five years. More recently in Canada, falling global yields, declining inflation expectations, and softer global economic data have also dropped 5-year Government of Canada ("GoC") rates into negative real yields territory—where interest rates are below prevailing inflation levels (Figure 2).

Figure 1:
Negative-yielding Debt at All-Time Highs



Source: Bloomberg L.P. as of Jul, 31, 2019.

Figure 2:
Negative Real Yields Across the Globe



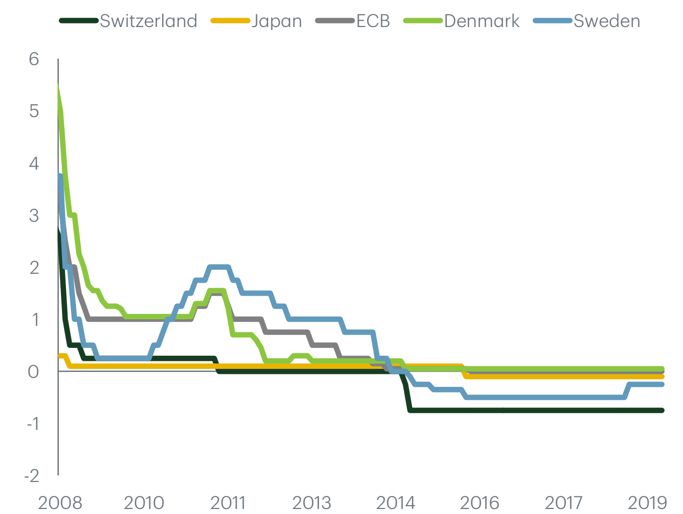
Source: Bloomberg L.P. as of May 31, 2019.

In this paper, we will investigate the impact of zero or negative interest rate policy on global economies. We will explore potential drawbacks, which may raise questions around the long-term sustainability of negative interest rate policies.

What are negative interest rate policies?

Negative interest rate bonds came to life following the implementation of negative interest rate policies ("NIRP") by central banks in order to support the economy in the years following the 2008 financial crisis. The major objective of NIRP is to encourage spending and investments into the economy. In fact, when central banks set their policy rates to be negative, it means that they will charge commercial banks to keep money in the central bank's accounts. Therefore, this strategy should incentivize commercial banks to lend more to businesses and individuals, which in turn should stimulate the economy and increase inflation.

Figure 3: Negative or Zero Policy Rates



Source: Bloomberg L.P. As of Jun 28, 2019.

How do negative yielding bonds occur?

When issued directly by a government, a bond can have a slightly positive coupon; however, when it starts trading, the high demand by investors has the potential to drive bond prices up causing investors to pay a premium. If the total amount of interest payments received by the investor throughout the lifetime of the bond is less than the premium the investor paid for the bond, the investor will realize a negative return and the bond that the investor holds is considered a negative yielding bond.

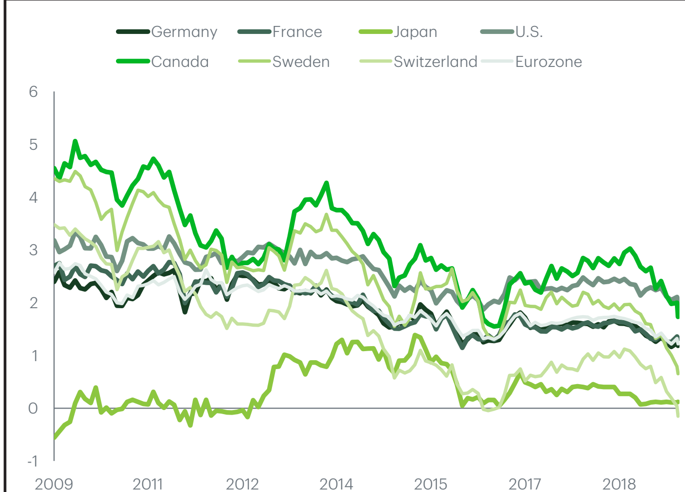
Why invest in a bond that has a negative yield?

In the investment world, developed market government bonds are considered the safest assets in the market. Consequently, during periods of market stress and economic uncertainty, large investors such as pension funds, insurers, and financial institutions continue to invest in government bonds due to the lack of safer investment assets. Moreover, government bonds are highly liquid and trustworthy as they are guaranteed by sovereign governments, which is valuable for investors. Investors are therefore willing to buy government bonds at a premium and eventually take a loss in order to hold high quality government bonds.

Where would negative interest rates make sense?

In a deflationary environment, an environment in which prices are decreasing, negative interest rate policies could make sense. Real return rates, which are nominal interest rates minus expected inflation rates, could be positive in a declining price environment. For instance, if a sovereign government bond yield is expected to be -0.1% and the inflation rate is expected to be -0.2% then the real return of the bond would be +0.1%, which is positive. In other words, negative nominal interest rates seem rational if we were to experience deflation going forward. With the current U.S.-China trade war and global economic slowdown, inflation expectations for the majority of developed countries have been trending downward as shown on Figure 4, which can partially justify negative interest rate policies.

Figure 4:
Falling Expected Inflation Across the Globe



Source: Bloomberg L.P. as of Jul 31, 2019. Inflation expectations are measured by the 5-year, 5-year inflation swap rates. The 5-year, 5-year inflation swap rate is a common measure, which is used by central banks and dealers, to look at the market's future inflation expectations.

We are not anticipating a long-term deflationary environment going forward and believe the market is being too aggressive by pricing lower inflation. Given the current economic environment, our global outlook is for a slowing expansion but not a recession, which would drive inflation in North America given economies are at full capacity. Moreover, if the U.S.-China trade tensions persist, there is a potential for higher U.S. inflation as well. This could occur because the "trade war" may result in "de-globalization", where U.S. companies won't have access to the optimal labour costs – whether it be cheaper labour or more qualified labour - which could in turn drive prices up.

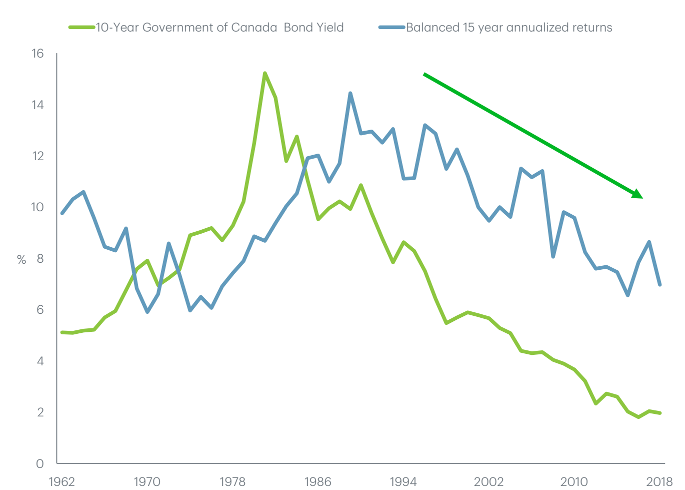
Are zero or negative interest rate policies sustainable for the economy?

There are three keys reasons we believe negative interest rate policies may be unsustainable for the economy. First, they force investors to save more as their investment returns get lowered. Second, they can result in the misallocation of capital, particularly among corporations. Lastly, they increase stress on the profitability of the banking sector, which is required for credit growth.

Required savings rates must increase to meet investment objectives

Low interest rate policies can force additional savings from investors by impairing the returns that investors can receive on their investment portfolios, as investors must save more to reach the same objective. The green line in Figure 5 shows the GoC 10-year bond yield. We can see the impact of falling yields on portfolio returns. The green arrow reveals the trend of falling annualized returns on a balanced portfolio consisting of 60% stocks and 40% bonds. If we roll this forward, today's yield can provide insights towards even lower expected returns in the future. This lower expected return could be a driver of the higher saving rates that have been witnessed in recent years as shown by the green line on Figure 6.

Figure 5: Lower Yields Reduce Returns



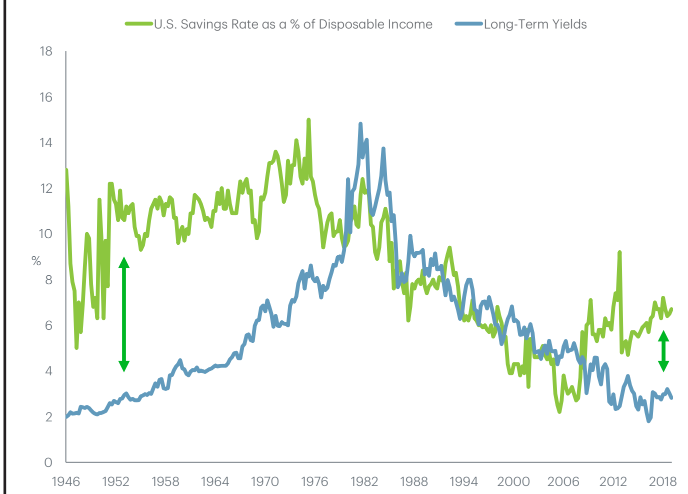
Source: Bloomberg, St. Louis Fed. Balanced portfolio composed of a 60/40 split between S&P/TSX Composite and FTSE Long Bond Index.

History supports the notion of a higher savings rate during periods of very low interest rates. As shown in Figure 6, savings rates were elevated throughout much of the prior century before falling into the 1980s and 1990s.

We can see the connection between saving rates and interest rates by looking at bond yields, as shown in blue, in Figure 6. The falling savings rate in the last 30 years has coincided with yields falling from initially high levels.

However, as yields began to reach low levels in 2008, we witnessed a divergence as savings rates began to rise while yields continued to march lower. This is consistent with the period before the 1970s, where very low interest rates coincided with higher saving rates.

Figure 6: Investors are Encouraged to Save More when Rates are Lower



Source: Bloomberg. Morningstar.

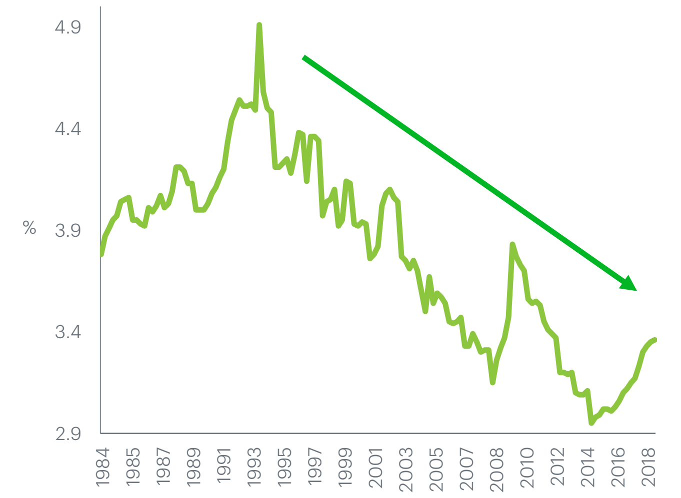
Disincentives for capital expenditures

Between 2012 and 2016, when the federal funds rate was at historical low levels, lower rates failed to generate higher capital expenditures by U.S. corporations, a traditional driver of growth in low interest rate environments. Instead of investing in long-term projects, corporations took advantage of low rates to increase leverage and participate in share repurchases, which recently reached all-time highs. This is positive for shareholders, but has less of a lasting impact on economic growth rates. If near zero or negative interest rate persist in the economy, companies could restrain investments as witnessed during 2012 and 2016.

Negative impact on bank profitability

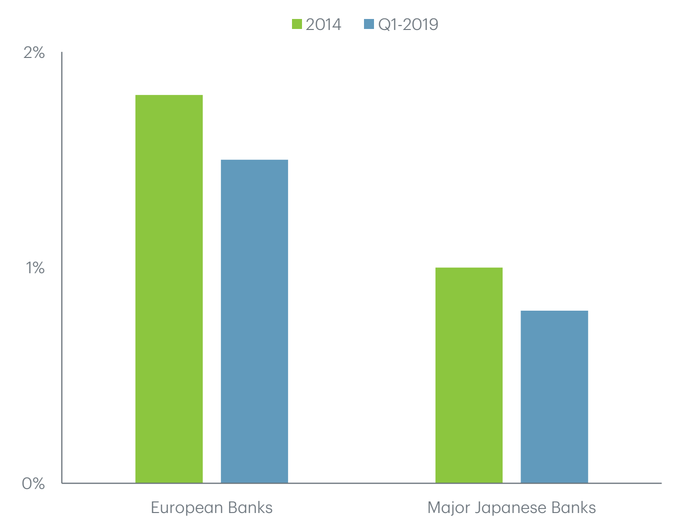
Finally, negative or zero interest rate policies have proven to have an adverse impact on the banking sector. Bank profits are based on the difference between the interest rates the banks charge on loans and the interest rates they pay to obtain financing—often referred to as net interest rate margins. As a result of falling long-term interest rates, U.S. banks have experienced shrinking net interest rate margins over the years, which has reduced their ability to assist economic growth through credit creation (Figure 7). The same trend has been experienced in Europe and Japan as shown by the declining bars in Figure 8.

Figure 7:
Adverse Impact to U.S. Bank Profitability



Source: Federal Reserve Bank of St. Louis.

Figure 8: Bank Interest Margins by Region



Source: European Central Bank, Bloomberg L.P. Spread between lending and borrowing rates in Europe weighted by banks' share in total lending. Blended domestic and overseas loan spread as reported by the biggest four Japanese banks, weighted by their share in total lending.

ECB policies to support banks in a negative interest rate environment

The European Central Bank (ECB) is aware of this challenging environment for European banks and designed new monetary policies to support them. In 2014, the ECB launched a new non-standard monetary policy tool intended to help European banks, called Targeted Longer-Term Refinancing Operations (TLTROs). TLTROs have two main goals: 1) to incentivize European banks to increase lending to households and businesses in the Eurozone, and 2) to increase European banks net profit margins. TLTROs allow banks to borrow 30% of their outstanding loans to businesses and consumers, meaning that the more a bank lends to the real economy, the more that bank will be able to borrow from the ECB. Moreover, these loans from the ECB have a longer maturity than the ECB's traditional loans and will help European banks' profitability as the interest rates on these loans will be lower than the ECB's normal rates. After launching a second round of TLTROs in 2016, the ECB announced a third round of TLTROs called TLTROs-III during their March 2019 press conference. Having postponed interest rate hikes until 2020 due to economic uncertainties, the goal of TLTROs-III is to further help European banks' profitability and maintain favourable credit conditions to support the economy.*

* European Central Bank, Targeted Longer-Term Refinancing Operations.

Conclusion

Since the financial crisis in 2008, central banks across the globe have been using aggressive monetary policies to stimulate the economy. In the U.S., the Federal Reserve launched the Quantitative Easing (QE) program, which sent interest rates to low levels. Central banks in Europe took a step further and installed negative interest policies during the 2011 sovereign bond crisis. Due to the recent economic slowdown, negative bond yields have returned to focus in global markets, raising the question of the sustainability of negative or zero interest rate policies. Past experience has shown that negative interest rate policies have not delivered the higher levels of economic growth that central bank policy makers hoped for. The persistence of such policies despite their low efficacy on the economy reveals that central banks are running out of options.

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