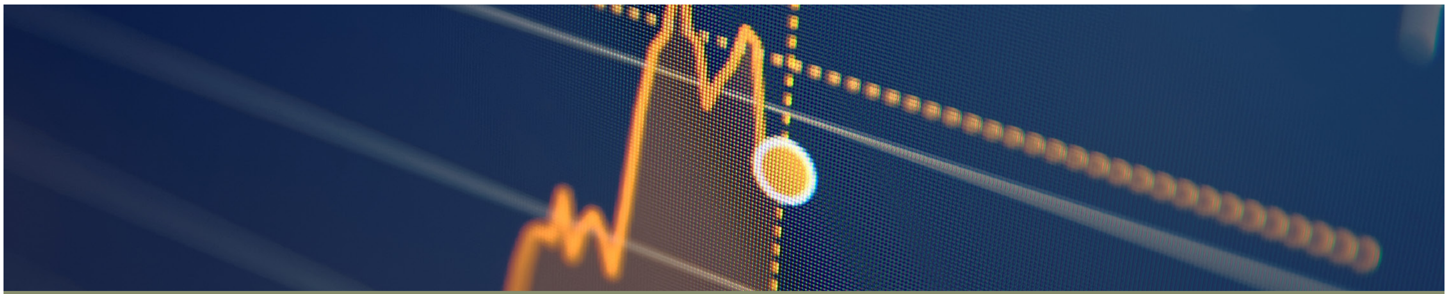


AUGUST 2019 CLIENT QUESTION

By: Andrew Murphy, CFA | Director of Portfolio Management

We've received several questions on "negative interest rates and yields" over the past few weeks as this topic has been in the news a lot recently. Before we dig into the details, we will first establish a definition of negative rates. Negative interest rates can reference two things, either the local central bank sets their target policy rate below zero and/or longer-term bonds trade with negative yields (bond prices move inversely to yields). Currently in Europe and Japan, both official central bank rates and longer-term bond yields are negative. While negative interest rates have existed for some time, the prevalence and attention have both increased recently.

Consider the following developments over the past several weeks:

- The German 10-year government bond yield fell to -0.71%, the lowest level ever.
- The Japanese 10-year government bond yield fell to -0.24%, the lowest level ever.
- The United States 30-year Treasury bond yield fell below 2.00% for the first time ever.
- Germany issued a 30-year bond with a 0% coupon payment and a negative yield. You can now buy a German bond just for the privilege of receiving no income and being paid back less than your initial investment in 30 years.
- The Switzerland 50-year government bond yield fell to -0.32%, which means the entire Swiss yield curve is now negative.
- The US Treasury is considering whether to issue 50- or 100-year bonds (30-years is currently the longest maturity).
- UBS announced it will charge its clients a yearly fee of 0.6% for bank deposits above 500,000 euros.
  In Denmark, Jyske Bank A/S announced a 10-year mortgage rate of -0.5% before fees. Yes, a Denmark bank will essentially pay you to buy a house.

The decline in interest rates in the United States and abroad has been one of the biggest surprises of 2019. Throughout the year, the 10-year Treasury declined from 2.68% to 1.50%, the 2-year Treasury also decreased from 2.49% to 1.50%, and the federal funds rate was cut by 0.25% to 2.00% to 2.25%. At the start of 2019 the consensus estimate was for the 10-year Treasury to reach 3.30% by the end of the year - this estimate has now dropped to 2.00%. Just last August Jamie Dimon, the CEO of JP Morgan, said the US 10-year Treasury could go much higher, "you better be prepared to deal with rates 5% or higher – it's a higher probability than people think." We will give Mr. Dimon a break as moves in the bond market catching investors off-guard is nothing new. The old investment adage that "the hall of fame of interest rate forecasters is an empty room" exists for a reason.

While the quick decline in interest rates has been surprising, we continue to maintain diversified fixed income allocations across duration (interest rate sensitivity) and credit quality. We remind our clients that fixed income is designed to provide stability and income to investment portfolios. Bonds often act as a portfolio ballast during periods of equity market weakness.

With that out of the way, let's get into the details on negative rates.

Why would an investor buy a bond with a negative yield?
A bond is issued by an entity (governments, corporations, municipalities, etc.) with a promise to pay periodic interest payments and to repay the face value on the maturity date. When a bond has a negative yield, the market price is greater than the remaining coupon and principal payments. In this case, an investor will lose money if they hold the bond until maturity.

An investor would only buy a bond with a negative yield for three reasons:
1. They Do NOT plan on holding to maturity. If interest rates continue to drop the current price of the bond will increase and the investor can sell at a profit. This is essentially a hedge against future economic weakness and further interest rate declines.
2. They are forced buyers (usually central banks or insurance companies).
3. They believe they would lose more money by investing in other asset classes.

What is the history of negative rates?
In February of 1999, the Bank of Japan (BOJ) became the first major central bank to cut interest rates to zero to avoid deflation and boost their economy. The central banks of the United States and Europe both followed suit and cut their key policy interest rates to near-zero during the Global Financial Crisis in 2008. The European Central Bank (ECB) adopted negative interest rates in mid-2014 when they lowered their deposit facility rate to -0.1%. After cutting again in 2015 and 2016, the ECB's official deposit rate is now at -0.4%. The ECB also implemented their quantitative easing (QE) program from 2015 to 2018. Due to a weakening economy, consensus expects the ECB to lower their deposit rate further and restart their QE program at their upcoming September 12th meeting. In early 2016, the Bank of Japan crossed the zero bound by lowering their rate on bank reserve deposits to -0.10%. The BOJ's quantitative easing program started in 2013 and remains ongoing. Negative interest rates in Europe and Japan were supposed to be a temporary measure to boost inflation and economic growth – the problem is that they haven't worked.

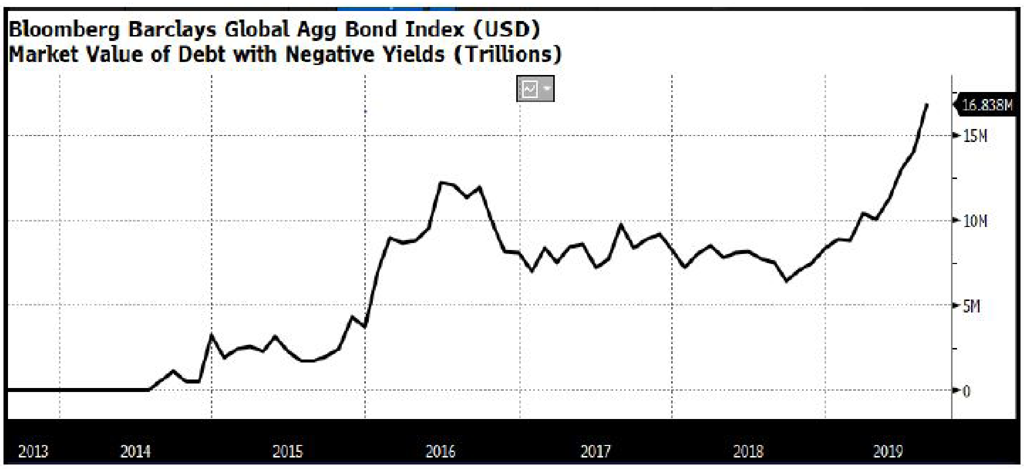
Who benefits from negative interest rates?
Borrowers. The incentive to borrow money is high when interest rates are low/negative. In low interest rate environments, borrowers can feel compelled to finance purchases they may not have otherwise made.

Who gets hurt by negative interest rates?
Savers. At low or negative interest rates savers can lose money, especially on an inflation-adjusted basis, by holding their money in traditional savings accounts.

Do negative interest rates encourage speculation?
Yes. Borrowers may take on more debt than they otherwise would because interest rates are low. In the United States, government and corporate debt have substantially increased over the last decade. Savers are forced to invest in riskier assets to earn a positive inflation-adjusted return on their money. The investment phrase "there is no alternative" or "TINA" describes the low-interest rate environment where risky asset prices go up because investors do not have alternative places to put capital and generate a positive return.

How much debt exists with negative yields?
According to the latest data from Bloomberg, there is currently over $16.4 trillion in debt outstanding with negative yields – the amount has nearly doubled since the start of the year. Most of the negative yielding bonds are government and agency debt but the amount also includes some corporate bonds.

The Wall Street Journal estimates that about 20% of the total bonds were sold with a negative yield at issue, while the rest declined in the secondary market.



CE: Bloomberg

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Has the United States ever had negative interest rates?
The US has never had a negative official central bank rate (federal funds rate) or longer-term Treasury yields. The FOMC did keep the federal funds rate close to zero for seven years from 2008 to 2015. In 2008, the Fed cut the federal funds rate to a range of 0% to 0.25% to boost growth and combat the effects of the Global Financial Crisis. In the aftermath of the financial crisis, the Fed's internal econometric model called for a federal funds rate of -0.75%. Rather than go to negative rates, former Fed Chairman Ben Bernanke decided to implement a quantitative easing program instead. After leaving office, Bernanke wrote in a paper for the Brookings Institute that "overall, as a tool of monetary policy, negative interest rates appear to have both modest benefits and manageable costs; and I assess the probability that this tool will be used in the U.S. as quite low for the foreseeable future."

US Treasury notes (2-year to 10-year maturities) or bonds (30-year) have never been issued or traded with negative yields. In 2011, the 2-year note hit an all-time low yield of +0.14%. The low for the 10-year note occurred in 2016 at a yield of +1.32%. We will point out, however, that the 3-month T-bill yield did trade below zero at various times from 2008 to 2015.

Will the US ever have negative rates?
Negative interest rates, either the federal funds rate or longer-term bond yields, in the United States are not probable under normal circumstances and only possible in a severe economic recession. Given that negative interest rate policies have not boosted growth or inflation in Europe or Japan, the Fed would probably be hesitant to lower the federal funds rate past zero. The most likely scenario where negative rates are possible would be a severe recession. In a severe recession, the Fed could lower the federal funds rate to negative while simultaneously implementing another QE program. Given that the QE program would push down longer-term rates, it's also possible that longer term bond yields could go negative as well. Again, this is possible and not probable. When posed the question about negative rates, Kansas City Fed President Esther George said, "I would never say never, but I don't see it for the United States."

We implement a proactive approach to both comprehensive financial planning and investment management. Financial planning drives the investment strategy and provides a roadmap to each client's unique goals and objectives. The comprehensive financial plan defines cash flow needs, optimizes account structures, considers tax minimization strategies, and continuously evaluates financial risks as circumstances and/or goals change. The investment management process is designed to provide well-diversified portfolios constructed with a methodology based on prudent risk management, asset allocation, and security selection. As always, please contact us if you have any updates to your personal or financial circumstances.

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