Market Bulletin

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Entering uncharted waters: Understanding negative bond yields

In brief

- Fixed income markets have entered uncharted waters, with over $17 trillion of debt trading with a negative yield.
- The concept of negative-yielding debt goes against most financial theories: any investor who holds the bond until maturity is guaranteed a loss. Despite this, appetite for these bonds remains.
- The growing amount of negative-yielding debt overseas is weighing on U.S. yields as Treasuries become the best house in a bad neighborhood.

The Handbook of Fixed Income Securities by Frank Fabozzi, widely considered to be one of the most trusted resources for bond investing, has no mention of negative yields in its 1,803 pages. And yet today, negative yields are pervasive around the developed world. In many ways, these are uncharted waters for bond markets. For investors, the arrival of negative yields may seem paradoxical, and many have questioned how something theoretically impossible can now be so widespread. In this paper, we address five of the most pressing questions on negative-yielding bonds and discuss their investment implications.

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How do negative-yielding bonds work?

Negative-yielding bonds are theoretically nonsensical: an investor that purchased one and held it until maturity would effectively guarantee themselves a loss. But how does negative-yielding debt work in practice?

Negative-yielding bonds are not issued with a negative coupon, which would force the lender to pay a coupon to the borrower, a complex structural arrangement. Instead, negative-yielding bonds are issued with a zero or just-above-zero coupon, but their selling price is higher than face value.

To put this in more practical terms, let us consider a real-life example of a 30-year German bund. The bond was auctioned in August 2019 with a coupon of 0% and with a face value of €100. However, at the initial auction the bond sold for €103.61. As the price of the bond exceeded its face value, the bond effectively traded with a yield of -0.11%.

Who invests in negative-yielding bonds?

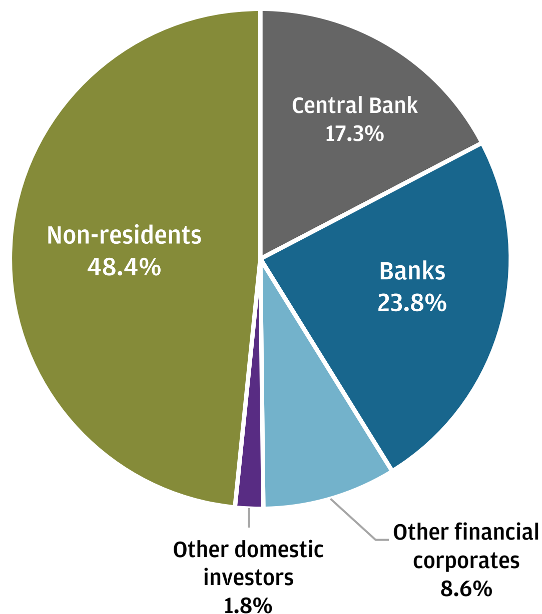
Ownership of negative-yielding debt can be broken down into two distinct groups: forced buyers and speculative investors.

Forced buyers are profit-agnostic: they are holding the bond for a reason other than making a profit. One example of a forced buyer is a central bank buying bonds in order to achieve asset purchase targets. In places like the eurozone and Japan, for instance, central banks own 21% and 48% of their own outstanding government debt, respectively.[1] Another example of a forced buyer is large financial institutions required to hold high-quality debt to meet capital requirements set by regulators.

Speculative investors, on the other hand, hold negative-yielding instruments in an attempt to profit off of price appreciation, but do not look to hold the bond to maturity. Investors like hedge funds and traders, for example, may attempt to buy a negative-yielding bond, assuming that yields may fall further, thereby making a small profit. Speculative investors can also include those holding negative-yielding debt because they are nervous and willing to pay the government for protection. In reality, this subset is likely to be quite small, as nervous but rational investors would likely prefer to hold other safe haven assets like gold rather than guarantee themselves a loss.

Unfortunately, there is no exact data series on the global ownership of negative-yielding debt. Instead, **Exhibit 1** identifies and quantifies debt ownership in one particular country: Germany. As all maturities of German government debt trade with a negative yield, we can use this as a proxy for estimating the positions of the different bond investors. In this instance, forced buyers of German debt include central banks, the domestic banking sector and other financial corporations like pension funds. By this definition, approximately 40%-50% of the holders of German government debt are forced buyers. The remaining 50% of debt holders are "non-residents," and while a detailed breakdown is not available, this group likely includes hedge funds, sovereign wealth funds, traders, investment funds and pension funds. These holders are likely motivated by the potential for profit on falling yields.

EXHIBIT 1: Breakdown of German government debt by ownership



Source: Bruegel, J.P. Morgan Asset Management. Data are as of September 9, 2019.

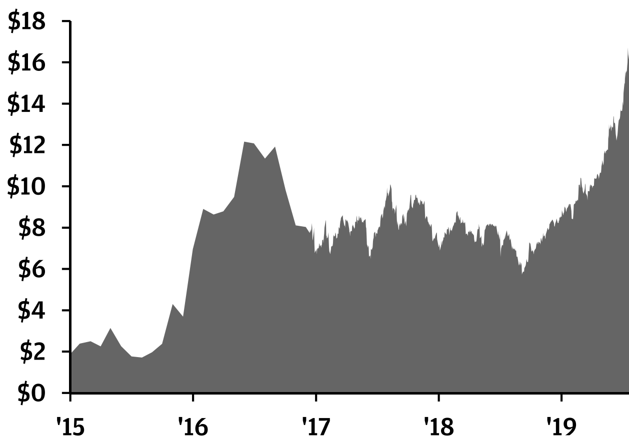
[1] For comparison, the U.S. Federal Reserve owns 14% of the U.S. Treasury market.

How much negative debt is there, and where is it?

As of September 2019, there was approximately $16.8 trillion of global debt trading with a negative yield. As highlighted in **Exhibit 2,** this has risen by $7.2 trillion so far this year. Negative-yielding debt is present in 19 different countries, including numerous European countries and Japan.[2] Over 90% of this $16.8 trillion is government debt, meaning that nearly 40% of the developed market government bond market has a negative yield.

The corporate bond market has followed suit, though to a lesser degree, with over $1 trillion of corporate debt trading with a sub-zero yield. Fascinatingly, 3.5% of the European high-yield index trades with a sub-zero yield.

EXHIBIT 2: Amount of negative-yielding debt
$ trillions



Source: Bloomberg, J.P. Morgan Asset Management. Data are as of September 9, 2019.

How did negative yields happen, and do they even work?

Unorthodox monetary policy in Europe and Japan, including the cutting of interest rates into negative territory and aggressive asset purchase schemes, resulted in negative-yielding debt across the yield curve. The European Central Bank (ECB) was the first central bank to explore negative interest rates in June 2014; other regional central banks followed suit thereafter.

It remains to be seen if negative interest rate policies (NIRP) succeed in stimulating economic activity. Traditionally, lower interest rates stimulate growth by encouraging borrowing. However, banks are unwilling to pass on negative interest rates to customers as it would be a cost to the bank; the extension of loans becomes a costly exercise for banks and pushes away depositors. Furthermore, negative interest rates act as a tax on banks that are forced to hold capital at the central bank to meet regulatory requirements. This may mean that in practice NIRP has done more harm than good.

Would U.S. bond yields ever go negative?

Now that the Fed has begun to cut interest rates, investors are concerned that yields in the U.S. Treasury market may fall below 0% in the near future. As the jury remains out on the effectiveness of NIRP, it seems unlikely that Fed officials will follow their European and Japanese peers in the near future. Instead, should the Fed reduce interest rates back to their record lows of 0.25% and the economy requires further stimulus, the Fed will likely lean on the balance sheet to provide additional stimulus.

Nonetheless, even without the adoption of NIRP, it is not impossible for U.S. Treasury yields to fall below 0%. If the Fed were to cut interest rates to 0.25% and restart its bond purchase program, U.S. yields across the curve would likely move lower. If this were combined with weak outlooks for the economy and inflation, the resulting forces may be enough to drive Treasury yields into negative territory.

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[2] Countries include Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.

Even if bond yields in the U.S. don't turn negative, investors are likely to contend with lower U.S. bond yields for the foreseeable future. A growing amount of negative-yielding bonds overseas incentivize both international and U.S. investors to hold U.S. Treasuries as it essentially becomes the best house in a bad neighborhood.

Investment implications

- Unorthodox monetary policy in Europe and Japan has led to $16.8 trillion of global debt trading with a negative yield. Negative yields exist in both the government and corporate bond space.
- Negative-yielding debt is theoretically impractical. Nonetheless, forced buyers (like central banks and financial institutions) and speculators will help maintain demand.
- Negative-yielding bonds overseas are weighing down yields in the U.S. However, without the adoption of NIRP by the Fed it is difficult, but not impossible, for bond yields in the U.S. to go into negative territory.

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