

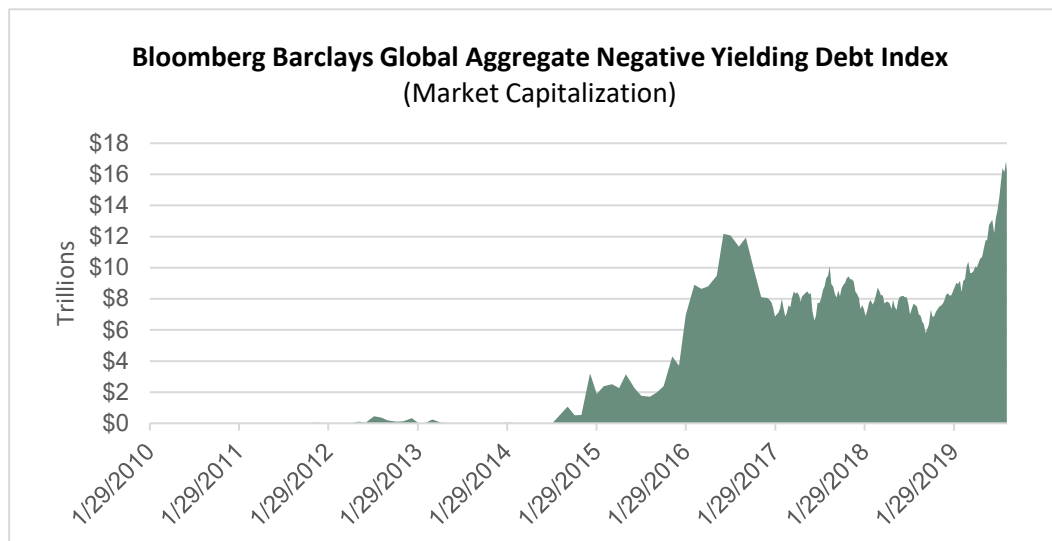
## Negative Yields

*And Why They are Unlikely to Happen in the U.S.*

Imagine a world where lenders pay you to borrow money from them; debt service on mortgages is structured so you pay back less than the amount borrowed; bank deposits *cost you* rather than earn you money. This is becoming the new normal across a number of developed economies currently implementing Negative Interest Rate Policies (NIRP) in order to spur growth and stave off possible recessionary pressures. The paradigm shift ushered in by NIRP across the globe has recently grown considerably. An unprecedented growth of negative yielding debt has left many investors wondering if negative yields are coming to the United States, one of the last developed economies continuing to eschew negative rates altogether. Although we believe negative US yields are not probable, it's certainly not an impossible scenario (the key word in the title of this article is *"Unlikely"*).

### How Widespread Are Negative Rates?

Global economic uncertainty has investors so fearful of the future that global negative interest rate debt has expanded to approximately \$17 trillion according to a recent Bloomberg report.



Source: Bloomberg

In Germany, the Eurozone's largest economy, nearly the entire yield curve is negative. As the chart below depicts, what was once viewed as an aberration, negative yields are becoming commonplace on a global scale. Focusing on the world's advanced economies of Japan, Germany and France as of August 29<sup>th</sup> these three countries alone represent 69% of global negative debt.

**Global Yields as of September 19, 2019**

Region	2 Year	3 Year	5 Year	7 Year	10 Year	15 Year	30 Year
Switzerland	-0.999	-0.994	-0.938	-0.875	-0.811	-0.590	-0.372
Denmark	-0.792		-0.702		-0.494		
Germany	-0.734	-0.780	-0.718	-0.685	-0.510	-0.375	0.007
Netherlands	-0.737	-0.758	-0.656	-0.560	-0.376	-0.259	-0.010
Finland	-0.721	-0.695	-0.620	-0.474	-0.249	-0.053	0.241
Austria	-0.681	-0.664	-0.553	-0.447	-0.266	-0.013	0.321
France	-0.686	-0.694	-0.591	-0.452	-0.222	0.089	0.624
Belgium	-0.664	-0.672	-0.498	-0.405	-0.180	0.111	0.671
Sweden	-0.614		-0.574		-0.215	-0.058	
Portugal	-0.562	-0.398	-0.226	0.032	0.258	0.652	1.189
Spain	-0.477	-0.432	-0.226	0.002	0.242	0.675	1.155
Japan	-0.306	-0.318	-0.335	-0.342	-0.226	-0.009	0.316
Italy	-0.257	-0.031	0.319	0.568	0.881	1.411	1.952
Israel	0.180	0.260	0.400		0.768		2.230
United Kingdom	0.494	0.445	0.450	0.424	0.631	0.820	1.051
Australia	0.785	0.767	0.783	0.899	1.056	1.254	1.618
New Zealand	0.821		0.911	1.048	1.164	1.345	
Norway	1.188		1.232	1.222	1.264		
Canada	1.591	1.533	1.450	1.428	1.414		1.562
United States	1.734	1.675	1.645	1.715	1.768		2.206
Hong Kong	1.604	1.440	1.297	1.201	1.216		
Singapore	1.607		1.639		1.726	1.801	2.068
Iceland	3.560				3.540		

Source: Bloomberg; Global Yields data as of 9/19/19

### How Do Negative Interest Rates Work?

NIRP policies are being implemented in order to stimulate slowing economies. Here's how it works: Commercial banks earn interest on reserves kept at a central bank such as the Federal Reserve, Bank of England, European Central Bank, or Bank of Japan. A commercial bank depositing reserves at a central bank that has implemented NIRP will find itself paying a fee to maintain those deposits rather than earning interest on their deposit. This is a penalty designed to discourage cash hoarding in the face of economic uncertainty and encourage banks to lend out these funds rather than hold them in reserve.

With longer-term debt such as bonds, negative rates start with buying a bond for a greater amount than its face value because demand has fueled its fair value. If the total amount of interest the bond pays over its remaining lifetime is less than the premium the investor paid for the bond, the investor loses money and the return to the investor will be negative. Why would an investor do this?

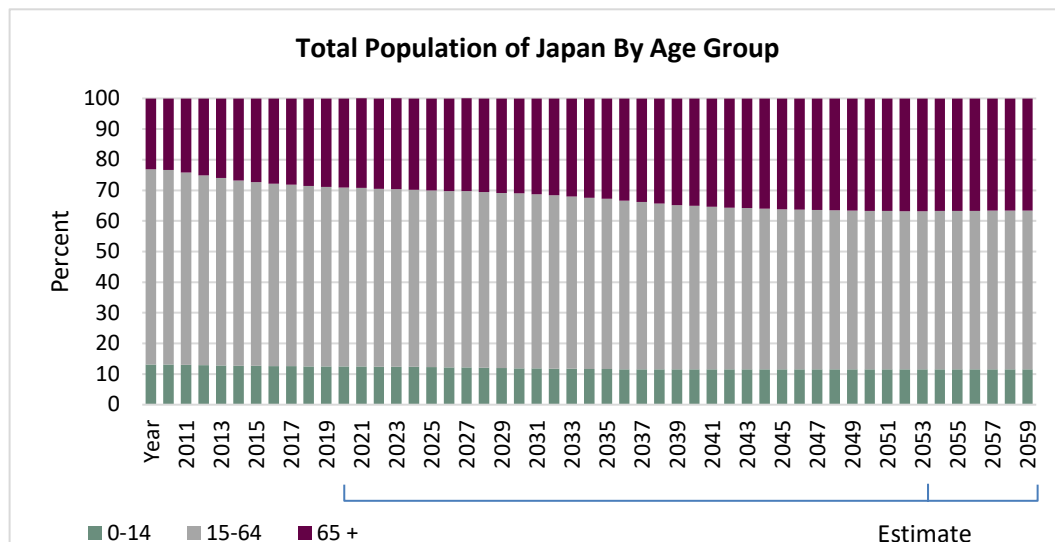
Large investors such as financial institutions, pension funds and insurers have minimal lower risk options from which to choose. A significant portion of the institutional money has guidelines to follow directing billions of dollars into bonds, whether their yield is negative or not. This "forced" allocation of investable funds is placing additional downward pressure on global yields. Money markets for example can typically invest in securities with final maturities up to 13 months. Currently, most of the euro market debt shorter than 13 months is negative yielding. Investors need returns, but many must balance this with a need, and sometimes a requirement for liquidity.

There is an additional sought-after effect: NIRP policies also tend to deflate currencies, which also stimulates the economy. For example, negative rates in Europe lowers demand for sovereign debt from European issuers. As a result, fewer investors will demand euros needed to pay for European sovereign debt. While this may decrease the amount of financial capital flowing into European shores, it also causes the value of the euro to fall, which has the effect of making European-manufactured goods more competitive on the global market.

### How and why did we get here?

Numerous factors can be attributed to the current predicament of negative rates, but we will focus on what we believe to be the primary issues: *central bank policies*, *demographic factors*, and *technological influences*.

- Central Bank Policies.** Central banks led by the European Central Bank (ECB) and the Bank of Japan have sought to stimulate economies through negative interest rate policies and bond purchases. In theory, negative interest rates should encourage lending by cutting borrowing costs and ultimately stimulating economic growth. Unfortunately, these policies have not yet achieved their objectives. In fact, it was over twenty years ago when Japan first cut interest rates to zero, followed ten years later by the U.S. and Europe during the financial crisis. Japan was the first major economic power to adopt a zero-interest rate policy, exceed 100% government debt -to-GDP, and experience an aging population and shrinking workforce. Unfortunately, these dynamics have resulted in lower inflation expectations in Japan, and slow to anemic economic growth. Now, major countries around the world seem to be following in Japan’s footsteps inclusive of zero or negative interest rates, high debt and aging demographics.
- Demographic Shift.** Japan isn’t alone – many developed countries in the world are experiencing a significant demographic transition with slower population growth and an aging of the existing population.



Source: National Institute of Population and Social Security Research

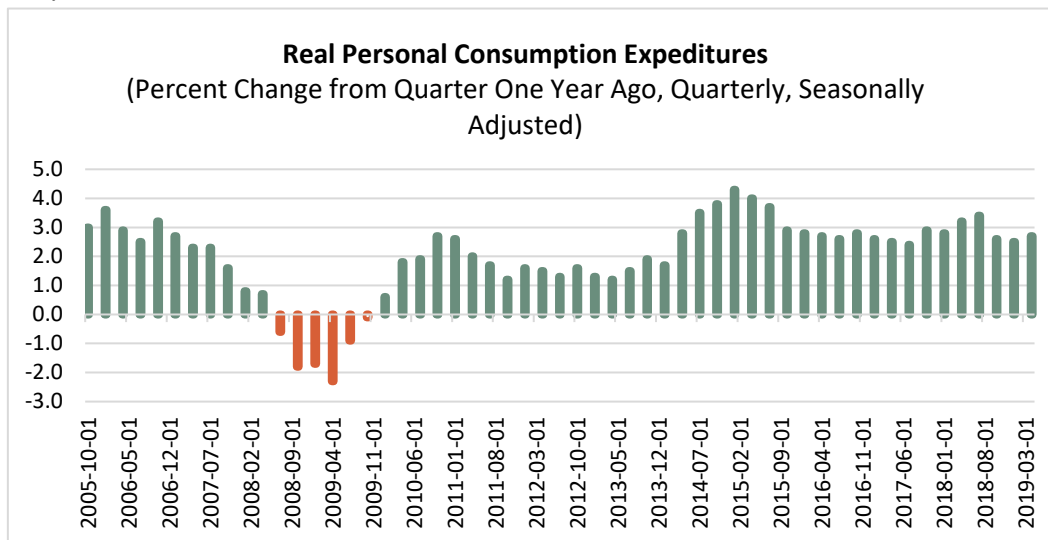
An aging population can have a significant impact on growth because aging populations tend to expand the “savers” vis-à-vis “spenders” who drive consumption. As a result, we are living in a world of weakening global aggregate demand and aging populations. Fewer “spenders” should assist in keeping inflation in check as the pressures on the supply-side are diminished.

Demographic movements tend to be long-term, ultra-low and negative yields could be a challenge for economies world-wide for a long period of time.

- **Technological Influences.** Technology might also be a factor in keeping inflation in check. We live in a world of increased production automation, growth of artificial intelligence (AI), and advancing automation delivery. Technological advances tend to increase competition and suppress wages, both of which lower costs. It typically takes less than a minute to check the lowest available price on an item that can be delivered the next day. In fact, Federal Reserve Chairman Jay Powell recently noted “technology may be playing a role” in keeping inflation subdued.

### Are Negative Rates Coming to the U.S.?

The short answer is: *not likely*. Although former Federal Reserve Chairman Alan Greenspan recently stated, “There is no barrier to U.S. Treasury yields going below zero”, we think there are a number of factors that make negative yields in the U.S. less probable. To begin with, one can quickly point to the consumer sector in the United States and its robust performance which has been bolstered by phenomenal job growth and recently, increased wage growth. Consumption comprises approximately 67% of gross domestic product in the United States, and its relative strength continues to drive growth domestically.



Source: Federal Reserve Economic Data

Demographically-speaking, the growth of the United States population is very different from Europe and Japan, where shrinking populations have resulted in diminishing labor force numbers. This has made strong economic growth elusive—the United States has avoided this problem thus far.

Another reason it would be unlikely that U.S. investors would have to contend with negative rates relates to Federal Reserve Open Market Committee (FOMC) preferences. In the past, rather than utilizing negative rates, the FOMC has implemented bond buying regimes alongside low interest rates to stimulate the economy, as they did during the great recession with quantitative easing. The Federal Reserve Bank of San Francisco has also publicly gone on record about their aversion to negative rates in an FRBSF Economic Letter released in August of this year. Lastly, per Bloomberg News, Fed Governor Lael Brainard recently stated that NIRP “would not be a useful part of our arsenal,” and Vice Chairman Richard Clarida let it be known at a Bank of France March event that the Fed studied the possibility of lowering rates below zero in the 2008-2009 financial crisis, and found it “wanting.”

It is very likely the FOMC wishes to avoid some of the pitfalls associated with NIRP. Among these are the propensity of bank profit margins to be squeezed by negative rate mortgages. Non-bank financial institutions like insurance companies and pension funds, which are mandated to maintain asset allocations that include fixed-income components, may struggle to meet their obligations. Lastly, there is very little NIRP can do to stop savers and investors from withdrawing reserves and keeping their cash in mattresses.

Negative interest rate policies in other developed countries have failed to achieve their desired goals of economic growth. In the U.S. however, we have the benefit of learning from the ineffective policies of others. If we are perceptive students of history, we can avoid the same pitfalls.



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## Questions?

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