Perspectives





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U.S. Rates: Low for Long, but Likely Positive

The burgeoning stock of negative-yielding debt across the international markets has investors wondering: will it happen in the U.S. too?

Given our long-standing "low for long" thesis for the global bond markets, we expect U.S. rates to fluctuate around current levels and ultimately remain positive given some key distinctions between the U.S. and the growing list of negative-yielding countries.

But with downside risks and negative momentum stalking the global economy, at a minimum, there is scope for lower rates, especially in the U.S., and negative rates cannot be ruled out as an outlier scenario.

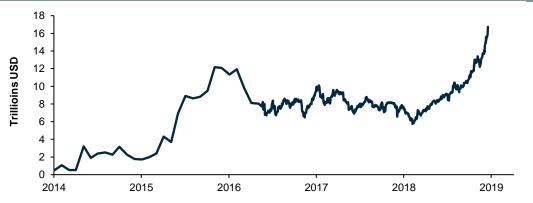
While the stock of negative-yielding securities first reached a critical mass in 2014, the aggregate total has surged since 2018 to more than \$16.5 trillion as of mid-August 2019 (see Figure 1). In considering the possibility of negative nominal rates in the U.S., we start at the front-end of the curve and assess the likelihood of the Federal Reserve resorting to a nominally negative Fed funds rate.

Negative Short-Term Rates: Mixed Results at Best

Directionally, the Fed <u>has pivoted to easing policy</u> given the general struggle to achieve and sustain its 2% inflation target as well as the economic risks from the trade war and the manufacturing recession abroad. In describing its first 25 bp rate cut as a "mid-cycle" adjustment, it hinted that more easing may be in the pipeline.

In addition, the Fed has laid out a conceptual framework emphasizing that when policy rates are relatively close to zero, policymakers should be prepared to move more quickly and more aggressively to preempt potential shocks. While the Fed has not fleshed out the range of shocks that might elicit such a response, a marked escalation of the trade war might reasonably be expected to elicit such an outcome.

Figure 1: The Surge in Negative-Yielding Rates Since 2018



Source: Bloomberg as of August 15, 2019

More generally, with the U.S. economy now moving into the 11th year of expansion, we see plausible recession risks on the horizon and, hence, some possibility that U.S. nominal short rates will be back at zero over, say, the next 18 months.

We doubt, however, that the Fed would follow the European Central Bank, the Bank of Japan, and several other central banks and push the policy rate into negative territory. The balance of the international experience with this tool is broadly mixed. Central banks utilizing negative policy rates have had to design tiering systems to avoid the potentially negative impacts from the policy (i.e. the penalizing effects on savers and investors as well as the potentially corrosive impact on bank capital).

Moreover, the Fed considered such a move during the financial crisis and chose instead to keep rates marginally positive as a support to money market functioning and with an eye on potential challenges for money market funds.

If, after cutting rates to zero in a potential recession scenario, the FOMC judged that further stimulus was needed, the Fed would likely resume asset purchases, and it would probably experiment with new forms of forward guidance.

Positive Long-Term Rates: An Increasingly Exclusive Developed Market Group

There are two underlying macro factors that have served to keep long-term U.S. rates markedly above those in many other advanced economies (see Figure 2)—first, somewhat higher inflation and, second, stronger real GDP growth. While one or both of these factors may ease in the years ahead, they are likely to continue to play a role in supporting U.S. rates relative to those abroad.

Figure 2: Global Interest Rates (%)—The DM Countries With Positive Rates Have Some Shared Characteristics

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	15 Year	20 Year	30 Year
Switzerland	-0.97	-0.99	-1.00	-1.00	-1.00	-0.99	-0.99	-0.99	-0.97	-0.96	-0.86	-0.79	-0.69
Germany	-0.86	-0.93	-0.95	-0.94	-0.92	-0.88	-0.85	-0.80	-0.74	-0.69	-0.47	-0.33	-0.17
Denmark	-0.82	-0.92	-0.87	-0.88	-0.82	-0.83	-0.83	-0.79	-0.73	-0.68	-0.49	-0.42	-0.38
Netherlands	-0.80	-0.87	-0.88	-0.86	-0.83	-0.78	-0.73	-0.67	-0.61	-0.56	-0.37	-0.26	-0.20
Finland	-0.78	-0.83	-0.82	-0.78	-0.74	-0.68	-0.62	-0.55	-0.48	-0.41	-0.19	-0.07	0.08
Belgium	-0.76	-0.80	-0.79	-0.75	-0.70	-0.64	-0.57	-0.50	-0.42	-0.35	-0.05	0.17	0.46
France	-0.72	-0.80	-0.81	-0.79	-0.76	-0.70	-0.64	-0.56	-0.48	-0.41	-0.11	0.09	0.39
Sweden	-0.66	-0.72	-0.75	-0.74	-0.66	-0.64	-0.62	-0.55	-0.49	-0.41	-0.09	0.11	0.15
Portugal	-0.59	-0.55	-0.46	-0.37	-0.27	-0.18	-0.09	0.00	0.09	0.17	0.55	0.85	1.10
Spain	-0.53	-0.53	-0.47	-0.40	-0.33	-0.24	-0.16	-0.07	0.02	0.10	0.46	0.74	1.04
Japan	-0.25	-0.27	-0.29	-0.31	-0.33	-0.32	-0.32	-0.30	-0.27	-0.24	-0.05	0.08	0.17
Italy	0.03	0.23	0.44	0.64	0.81	0.95	1.10	1.22	1.34	1.45	1.88	2.20	2.36
Greece	0.27	0.53	0.82	1.12	1.39	1.61	1.84	2.00	2.15	2.30	2.94	3.31	2.98
United Kingdom	0.59	0.48	0.43	0.40	0.40	0.41	0.42	0.45	0.48	0.52	0.73	0.90	1.01
Australia	0.85	0.70	0.67	0.67	0.70	0.74	0.78	0.83	0.87	0.90	1.08	1.27	1.45
Norway	1.18	1.06	1.04	0.99	1.18	1.07	0.95	0.97	0.98	1.01	1.10	1.14	1.13
Czech Republic	1.19	1.11	1.11	1.13	1.14	1.16	1.17	1.19	1.19	1.20	1.18	1.13	1.13
Korea	1.23	1.02	0.88	0.82	0.80	0.82	0.85	0.87	0.90	0.91	1.06	1.15	1.65
Poland	1.25	1.44	1.51	1.54	1.57	1.60	1.63	1.66	1.69	1.72	1.95	2.13	2.31
Canada	1.50	1.31	1.23	1.19	1.14	1.12	1.10	1.09	1.09	1.09	1.23	1.33	1.29
United States	1.75	1.49	1.43	1.42	1.42	1.44	1.46	1.47	1.49	1.51	1.63	1.78	1.96
China	2.49	2.60	2.76	2.73	2.88	2.91	3.02	3.01	2.99	2.99	3.24	3.39	3.56
India	5.78	5.97	6.16	6.33	6.47	6.59	6.70	6.78	6.83	6.87	6.92	6.91	6.92
Indonesia	6.31	6.47	6.64	6.80	6.95	7.09	7.24	7.36	7.46	7.54	7.81	7.97	8.05
Russia	6.82	6.84	6.89	6.93	7.00	7.04	7.08	7.15	7.21	7.25	7.36	7.39	7.39
South Africa	6.84	6.96	7.18	7.46	7.75	8.04	8.33	8.59	8.82	9.02	9.64	9.89	9.96
Mexico	7.60	7.09	6.93	6.91	6.93	6.96	6.99	7.02	7.05	7.08	7.30	7.40	7.46
Turkey	15.60	15.14	15.25	15.32	15.12	15.13	15.15	15.07	15.05	15.03			

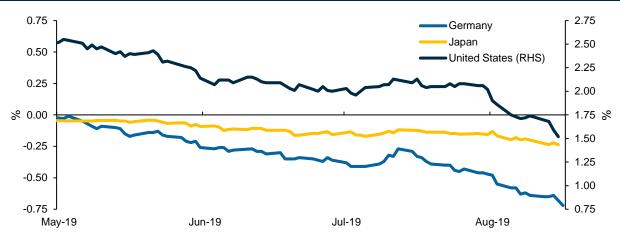
Source: Bloomberg sovereign fair value curves (China interest rates are from Bloomberg generic bonds). Note: Red shading indicates negative interest rates, yellow shading indicates positive interest rates less than 1. Interest rates are as of close of trading on 8/15/2019.

PGIM Fixed Income | Perspectives | Page | 2

On inflation, the Fed moved aggressively during the financial crisis to prevent inflation expectations from drifting down. To date, this effort has been largely successful even in context of an actual core inflation rate that has struggled to maintain or exceed 2%. Senior Fed officials have underscored their commitment to preserving this achievement and have consequently taken steps to better achieve the inflation target. Broadly speaking, these considerations are the motivation for the Fed's ongoing monetary policy "review."

Framed differently, since the financial crisis, the Fed has not allowed U.S. inflation and inflation expectations to drift down as sharply as they have in Europe and Japan. And given the Fed's commitment to preserving this achievement, the performance of inflation is likely to be a consideration keeping U.S. rates above those in Europe and Japan (see Figure 3).

Figure 3: The Divide Between 10-Year Yields in the U.S., Germany, and Japan

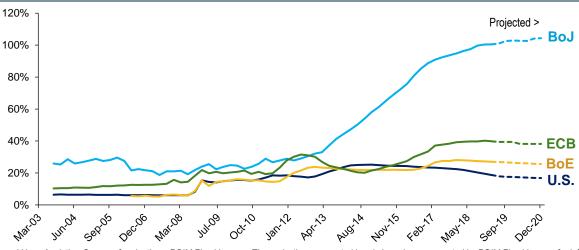


Source: Bloomberg as of August 15, 2019

On growth, the U.S. economy has recorded somewhat stronger real GDP growth than several of its international counterparts due in part to two factors: first, the U.S. economy has benefitted from significant fiscal stimulus as a result of prior corporate tax cuts and recently passed federal budgets. In contrast, Germany has remained very hesitant to deploy fiscal stimulus.

While the increase in the fiscal deficit in the coming years will require significant Treasury issuance, it may be partially offset by the Fed's renewed Treasury reinvestments (advanced to August 2019 during the July FOMC meeting), which we estimate could reach \$256 billion for the remainder of 2019, about \$525 billion in 2020, and \$468 billion in 2021. As a corollary, the ECB's higher asset holdings as a percent of GDP (see Figure 4) consist of a significant portion of the German bund market, underscoring the scarcity of "risk-free" assets in Europe.

Figure 4: Central Bank Assets (as a % of GDP; as of August 2019)



Source: Bloomberg and Have Analytics. Source of projections: PGIM Fixed Income. The projections presented herein have been generated by PGIM Fixed Income for informational purposes as of the date of this presentation. They are based on proprietary models and there can be no assurance that the forecasts will be achieved. Please see the Notice for important disclosure regarding the information contained herein.

PGIM Fixed Income | Perspectives | Page | 3

A second factor is better demographics. Over the past approximate decade, the growth of the U.S. working-age population has exceeded those of the euro area and Japan by 0.75 percentage points and 1.5 percentage points, respectively (see The Economics of Global Aging: Gray Skies, Rays of Policy Hope?). Over the next couple of decades, the UN projects that U.S. demographics will slow notably, but will continue to substantially outpace those of the other two economies.

Figure 5: Working-Age Population (Average Growth, %)*

	2000-2009	2010-2017	2018-2040 (Proj.)	
Advanced Economies				
United States	1.1	0.5	0.3	
Euro Area	0.3	-0.2	-0.6	
Japan	-0.5	-1.0	-0.9	
United Kingdom	0.8	0.2	0.1	

Source: United Nations, Haver Analytics, and PGIM Fixed Income as of December 2018.*15-64 year olds.

Other economies with higher population growth rates and higher nominal growth rates—e.g., Australia, New Zealand, and Canada—have managed to remain above zero, although by decreasing margins (again, see Figure 2). With higher growth rates, these countries as a group may generate sufficient stimulus to maintain rates in positive territory.

All this said, powerful factors will likely continue to exert downward pressure on longer-term U.S. rates. First, as discussed above, demographics are expected to be less supportive than in the past. Second, high government debt levels might weigh on economic sentiment and demand as households worry about the possibility of tax increases. Such tax hikes are unlikely to be levied on low to middle-income earners. But the top 20% of households, which could plausibly face additional taxes, account for roughly two-thirds of income and nearly 40% of consumption. Third, financial regulatory reforms and changes in balance sheet management strategies have increased the demand from large financial institutions for safe and liquid instruments, particularly Treasuries. This augmentation of demand has been another factor holding down rates. Fourth, the Fed's balance sheet, although much smaller relative to GDP than that for the BoJ or the ECB, is still markedly larger than at the onset of the financial crisis. Finally, if an increasing number of economies end up with their rate structures permanently or generally below zero (e.g., Japan, Eurozone, etc.), the U.S. may ultimately be forced to use negative rates to keep the currency from becoming inflated and threatening economic imbalances.

Conclusion

In summary, our sense is that the factors that have kept U.S. rates higher than those abroad are likely to remain largely intact in the years ahead, although the gap in rates appears biased narrow somewhat further over the intermediate to long term. Overall, we continue to expect global developed market rates, including those in the U.S., to remain low by any historical standard.

PGIM Fixed Income | Perspectives | Page | 4

¹ For more on the divide between U.S. household income and consumption, see "The Surprisingly Restrained U.S. Consumer: A Source of Stability for the Global Economy?"

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Source(s) of data (unless otherwise noted): PGIM Fixed Income as of August 2019.

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