



Nathan Sheets, PhD

Managing Director,
Chief Economist,
Head of Macroeconomic Research



Robert Tipp, CFA

Managing Director,
Chief Investment Strategist,
Head of Global Bonds



Richard Piccirillo

Managing Director,
Senior Portfolio Manager,
Multi-Sector Strategies

August 2019

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 [has pivoted to easing policy](#) 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

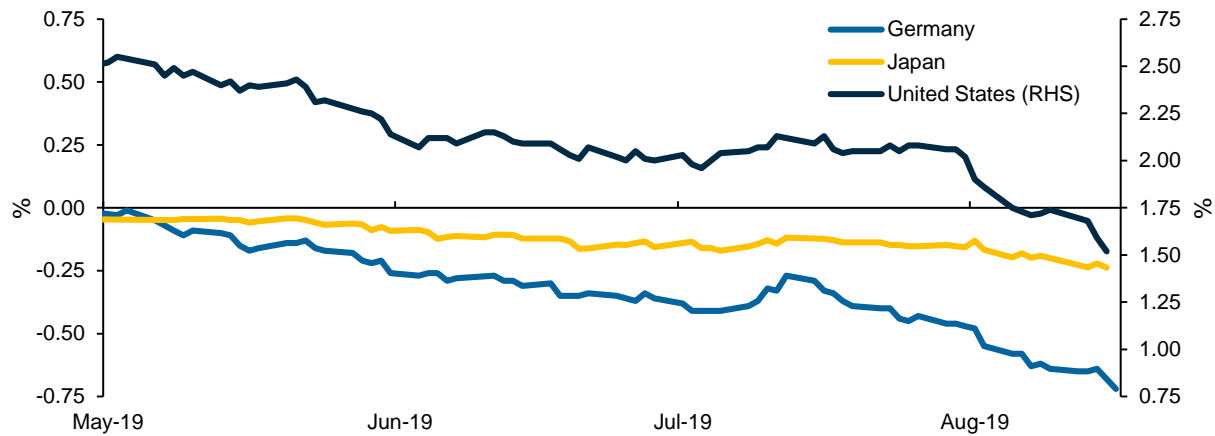
	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	15 Year	20 Year	30 Year
Switzerland	-0.97	-0.99	-1.00	-1.00	-1.00	-0.99	-0.99	-0.99	-0.97	-0.96	-0.86	-0.79	-0.69
Germany	-0.86	-0.93	-0.95	-0.94	-0.92	-0.88	-0.85	-0.80	-0.74	-0.69	-0.47	-0.33	-0.17
Denmark	-0.82	-0.92	-0.87	-0.88	-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
Brazil	2.06	2.05	2.48	2.59	2.82	2.88	1.94	3.01	3.12	3.22	3.26	3.46	3.63
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 and Brazil 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.

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

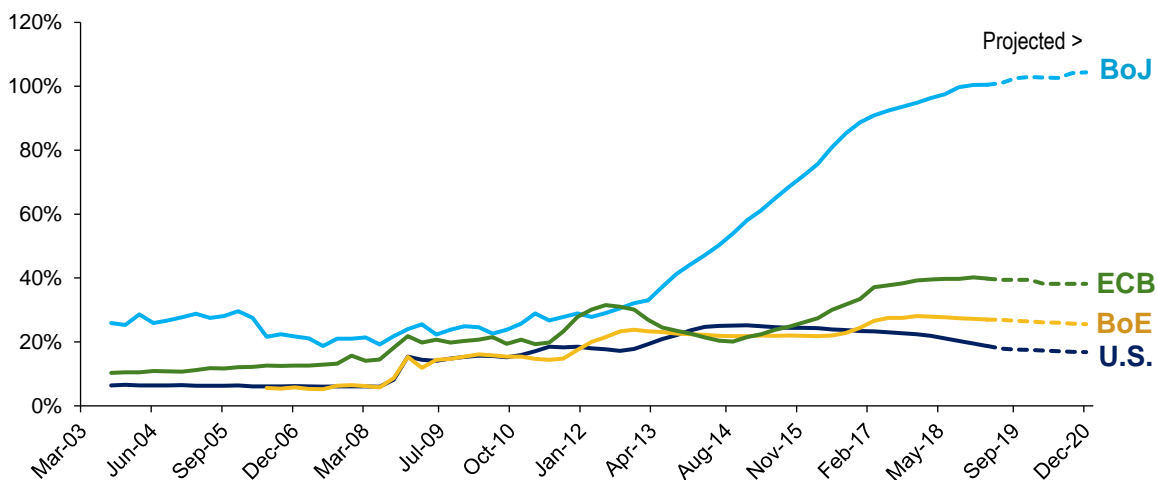


Source: Bloomberg as of August 15, 2019

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.

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			
<i>United States</i>	1.1	0.5	0.3
<i>Euro Area</i>	0.3	-0.2	-0.6
<i>Japan</i>	-0.5	-1.0	-0.9
<i>United Kingdom</i>	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.¹ 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.

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?"](#)

Notice: Important Information

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

PGIM Fixed Income operates primarily through PGIM, Inc., a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended, and a Prudential Financial, Inc. ("PFI") company. PGIM Fixed Income is headquartered in Newark, New Jersey and also includes the following businesses globally: (i) the public fixed income unit within PGIM Limited, located in London; (ii) PGIM Japan Co., Ltd. ("PGIM Japan"), located in Tokyo; and (iii) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore. Prudential Financial, Inc. of the United States is not affiliated with Prudential plc, which is headquartered in the United Kingdom. Prudential, PGIM, their respective logos, and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, PGIM is not acting as your fiduciary. These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Fixed Income is prohibited. Certain information contained herein has been obtained from sources that PGIM Fixed Income believes to be reliable as of the date presented; however, PGIM Fixed Income cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Fixed Income has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. **All investments involve risk, including the possible loss of capital. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. No risk management technique can guarantee the mitigation or elimination of risk in any market environment. Past performance is not a guarantee or a reliable indicator of future results and an investment could lose value. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Fixed Income and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Fixed Income or its affiliates.**

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Conflicts of Interest: PGIM Fixed Income and its affiliates may have investment advisory or other business relationships with the issuers of securities referenced herein. PGIM Fixed Income and its affiliates, officers, directors and employees may from time to time have long or short positions in and buy or sell securities or financial instruments referenced herein. PGIM Fixed Income and its affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Fixed Income's personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Fixed Income's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2A of PGIM Fixed Income's Form ADV.

In the United Kingdom and various European Economic Area ("EEA") jurisdictions, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorised and regulated by the Financial Conduct Authority of the United Kingdom (Firm Reference Number 193418) and duly passported in various jurisdictions in the EEA. These materials are issued by PGIM Limited to persons who are professional clients as defined in Directive 2014/65/EU (MiFID II). In certain countries in Asia, information is presented by PGIM (Singapore) Pte. Ltd., a Singapore investment manager registered with and licensed by the Monetary Authority of Singapore. In Japan, information is presented by PGIM Japan Co., Ltd., registered investment adviser with the Japanese Financial Services Agency. In South Korea, information is presented by PGIM, Inc., which is licensed to provide discretionary investment management services directly to South Korean investors. In Hong Kong, information is presented by representatives of PGIM (Hong Kong) Limited, a regulated entity with the Securities and Futures Commission in Hong Kong to professional investors as defined in Part 1 of Schedule 1 of the Securities and Futures Ordinance. In Australia, this information is presented by PGIM (Australia) Pty Ltd ("PGIM Australia") for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). PGIM Australia is a representative of PGIM Limited, which is exempt from the requirement to hold an Australian Financial Services License under the Australian Corporations Act 2001 in respect of financial services. PGIM Limited is exempt by virtue of its regulation by the Financial Conduct Authority (Reg: 193418) under the laws of the United Kingdom and the application of ASIC Class Order 03/1099. The laws of the United Kingdom differ from Australian laws. In South Africa, PGIM, Inc. is an authorised financial services provider – FSP number 49012.

© 2019 PFI and its related entities.

2019-4005



留意事項

- ※ 本資料は PGIM フィクスト・インカムが作成したものです。PGIM フィクスト・インカムは、米国 SEC の登録投資顧問会社である PGIM インクの債券運用部門です。
- ※ 本資料は情報提供を目的としたものであり、特定の金融商品の勧誘又は販売を目的としたものではありません。また、本資料に記載された内容等については今後変更されることもあります。
- ※ 記載されている市場動向等は現時点での見解であり、これらは今後変更することもあります。また、その結果の確実性を表明するものではなく、将来の市場環境の変動等を保証するものでもありません。
- ※ 本資料に記載されている市場関連データ及び情報等は信頼できると判断した各種情報源から入手したものです。その情報の正確性、確実性について当社が保証するものではありません。
- ※ 過去の運用実績は必ずしも将来の運用成果等を保証するものではありません。
- ※ 本資料は法務、会計、税務上のアドバイスあるいは投資推奨等を行うために作成されたものではありません。
- ※ 当社による事前承諾なしに、本資料の一部または全部を複製することは堅くお断り致します。
- ※ “Prudential”、“PGIM ”、それぞれのロゴおよびロック・シンボルは、プルデンシャル・ファイナンシャル・インクおよびその関連会社のサービスマークであり、多数の国・地域で登録されています。
- ※ PGIM ジャパン株式会社は、世界最大級の金融サービス機関プルデンシャル・ファイナンシャルの一員であり、英国プルデンシャル社とはなんら関係がありません。

PGIM ジャパン株式会社
金融商品取引業者 関東財務局長（金商）第 392 号
加入協会 一般社団法人 投資信託協会、一般社団法人 日本投資顧問業協会
PGIMJ201908200906