China—Back to the Future Once More?

China's Economic Outlook Between Aspiration and Reality, and Why it Matters for Investors Around the Globe

Gerwin Bell, PhD
Principal, Lead Economist for Asia

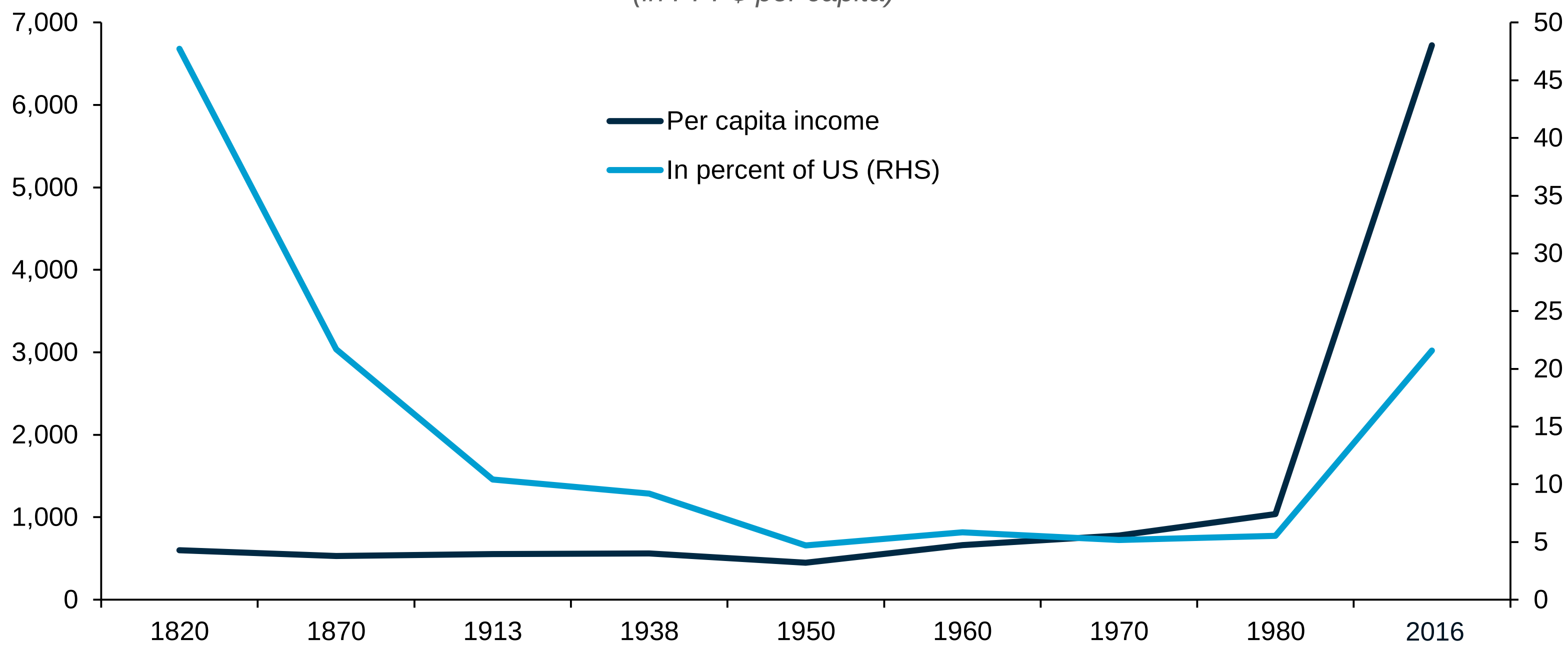
February 2019

PGIM FIXED INCOME

Still A Lot Of Room Remains For China To "Just" Catch Up

- Market reforms have begun to reverse two centuries of under-performance. This is different from the normal EM "convergence" story
- While the speed of convergence arguably needs to slow, there is still a large gap to close
- If nothing else, the post-Mao China has shown itself apt to adjust when needed
- Rule of law, quality of institutions, trial-and-error (democratic) decision making will become increasingly important and require reforms and changes

China: Measures of Convergence
(in PPP$ per capita)

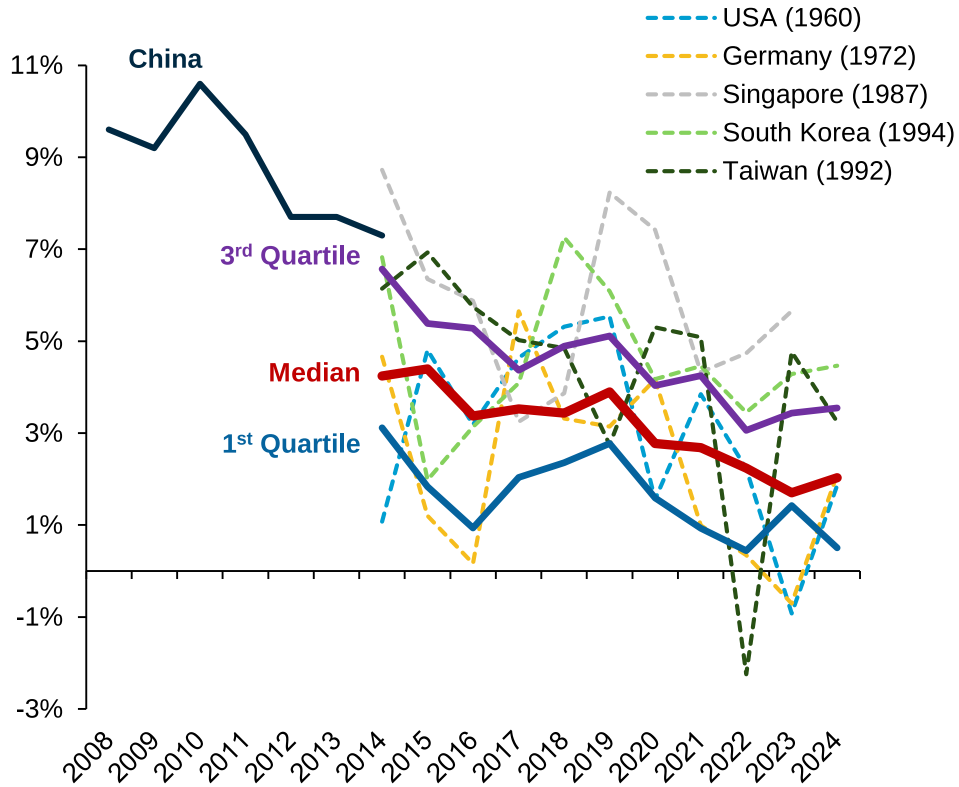


Source of chart: Angus Maddison and PGIM Fixed Income as of December 2018. Please see Notice for important disclosures regarding the information contained herein.

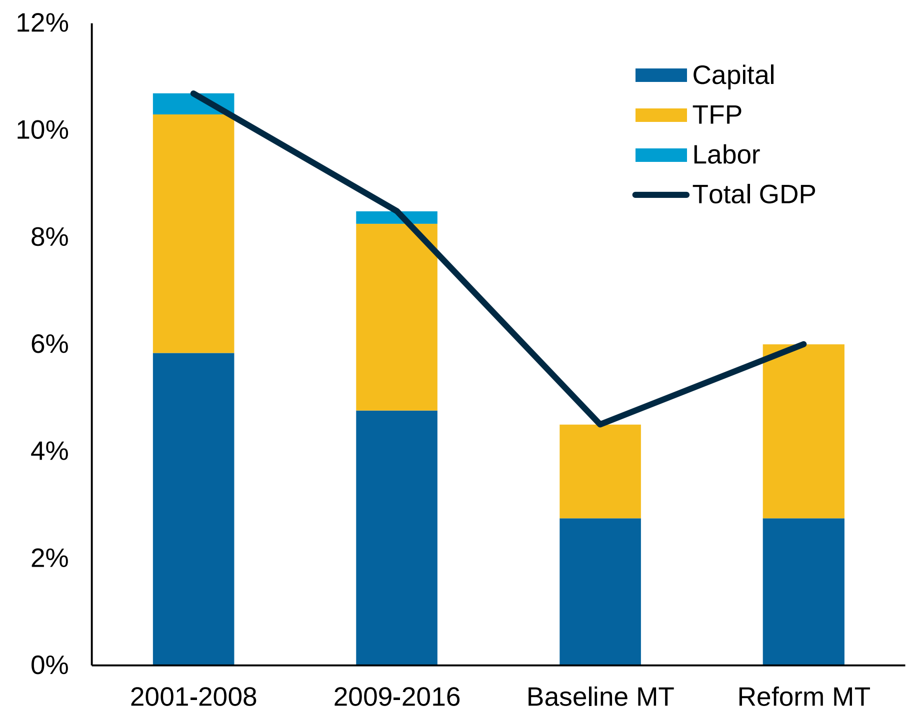
Declining Potential Growth And Need For Reform

- Supply constraints and global economic history imply lower potential growth, likely in 3-5 percent range:
  - Working-age urban population is aging quickly while pool of rural surplus labor is largely drained
  - Inherent limit to credit-fueled overinvestment
  - More limited scope for (total factor) productivity growth, following major advances in adopting blue-print, off-the-shelf technology. Further productivity growth depends on structural reform (SOEs, local government finances, factor pricing, competition)
  - In the absence of reform, credit-financed investment becomes the growth driver

China: Projected Growth Paths Based on Global Economic History



Growth Outlook: Accounting Baseline and Reform Scenarios

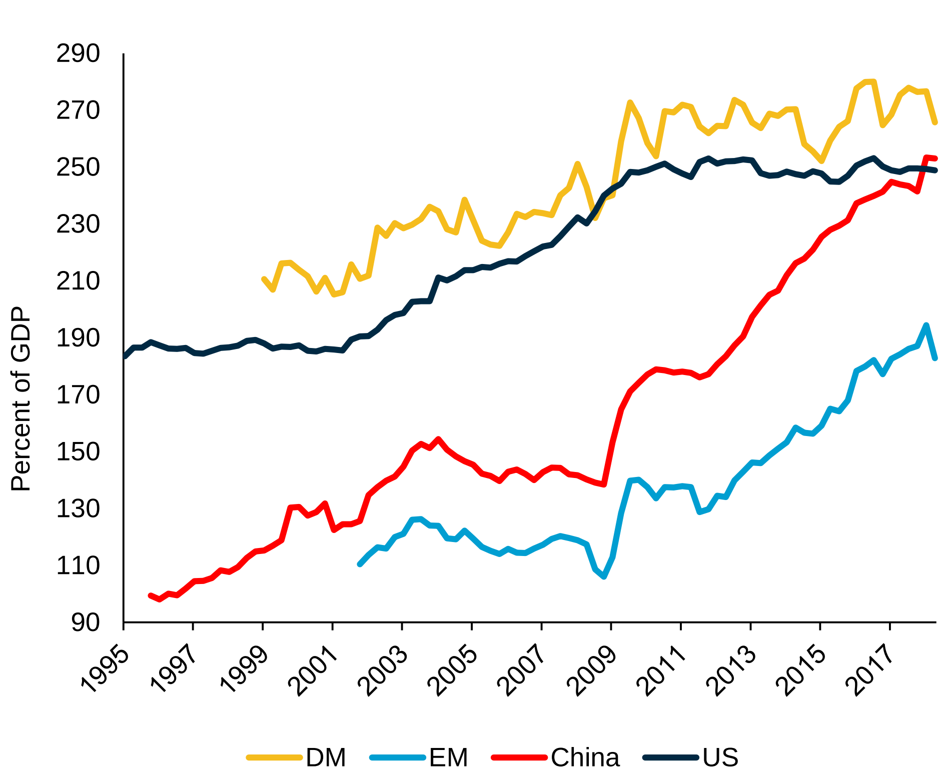


Source of charts: Haver Analytics, IMF, and PGIM Fixed Income as of December 2018. There is no guarantee that the forecast shown will be achieved. Please see Notice for important disclosures regarding the information contained herein.

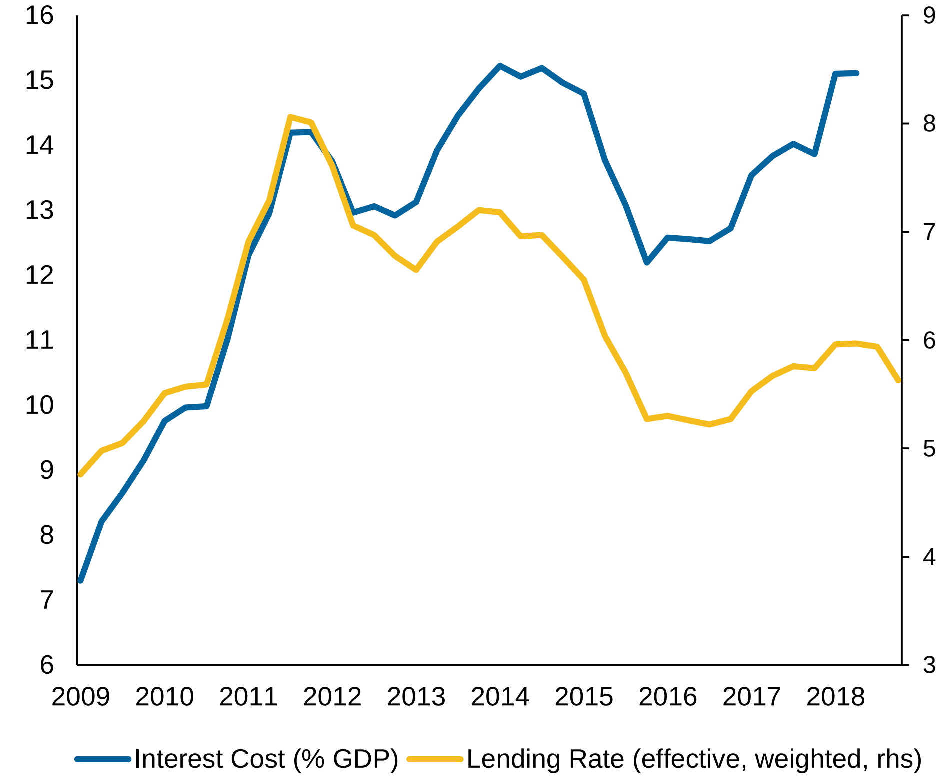
Vast Increase In Debt

- Stimulus measures triggered a surge in debt
- Despite being still an EM, China's debt is now approaching DM levels
- Interest cost now running at 15 percent of GDP p.a. and will be harder to meet with lower nominal GDP growth

China: Credit to Nonfinancial Sectors from all sectors
As of December 2018



Interest Rate and Interest Cost
As of December 2018



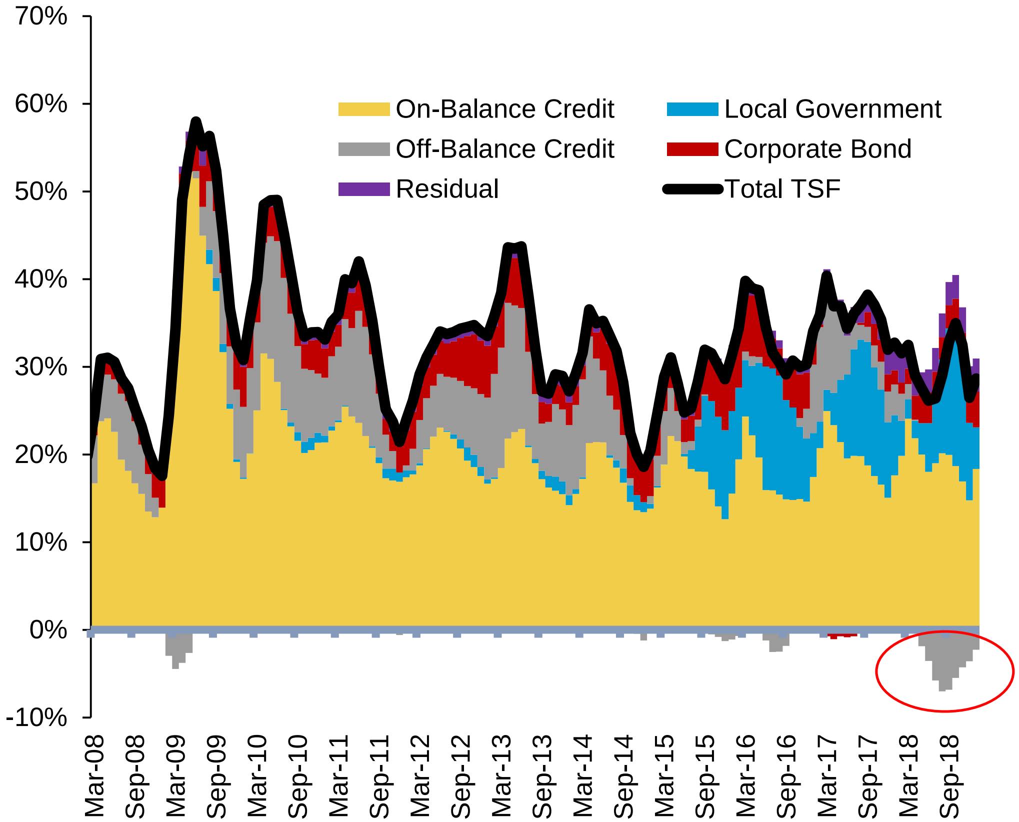
Source of charts: Haver Analytics, IMF, BIS, and PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

Not So Much Deleveraging, But Trimming Shadow Banking

- Rollback of previous financial liberalization and targeting shadow-banking and off-balance sheet lending
- Targeted housing loans ("shantytown re-development") and guaranteed bond issuance for local government supported key sectors
- Higher SOE profits (after capacity cuts) reduced loan demand
- However, credit impulse turned negative

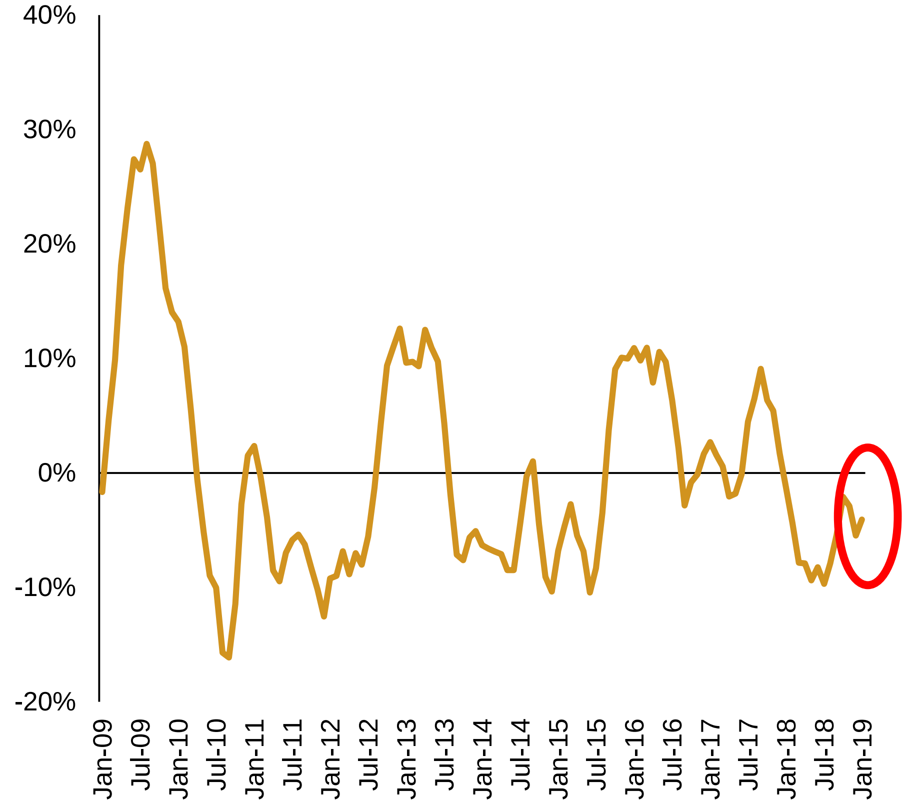
Increase in Economy-Wide Credit (In Percent of GDP)

As of January 2019



Credit Impulse (in percent of GDP, y/y)

As of January 2019

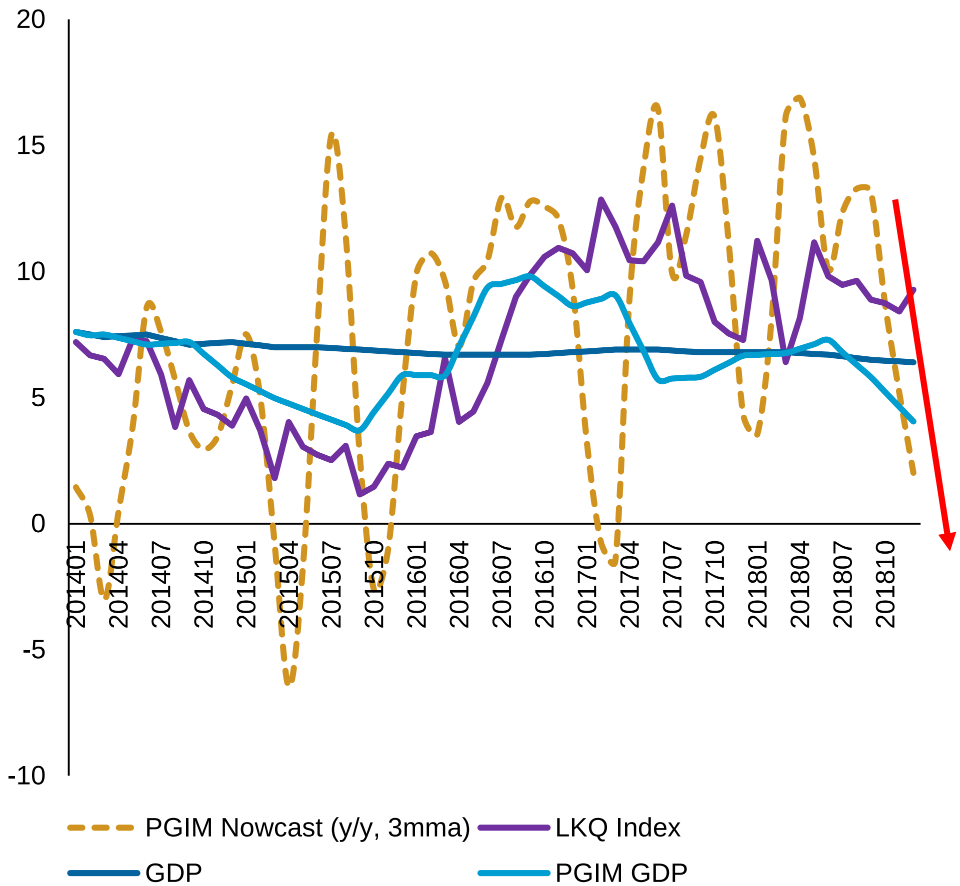


Source of charts: Haver Analytics, IMF, and PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

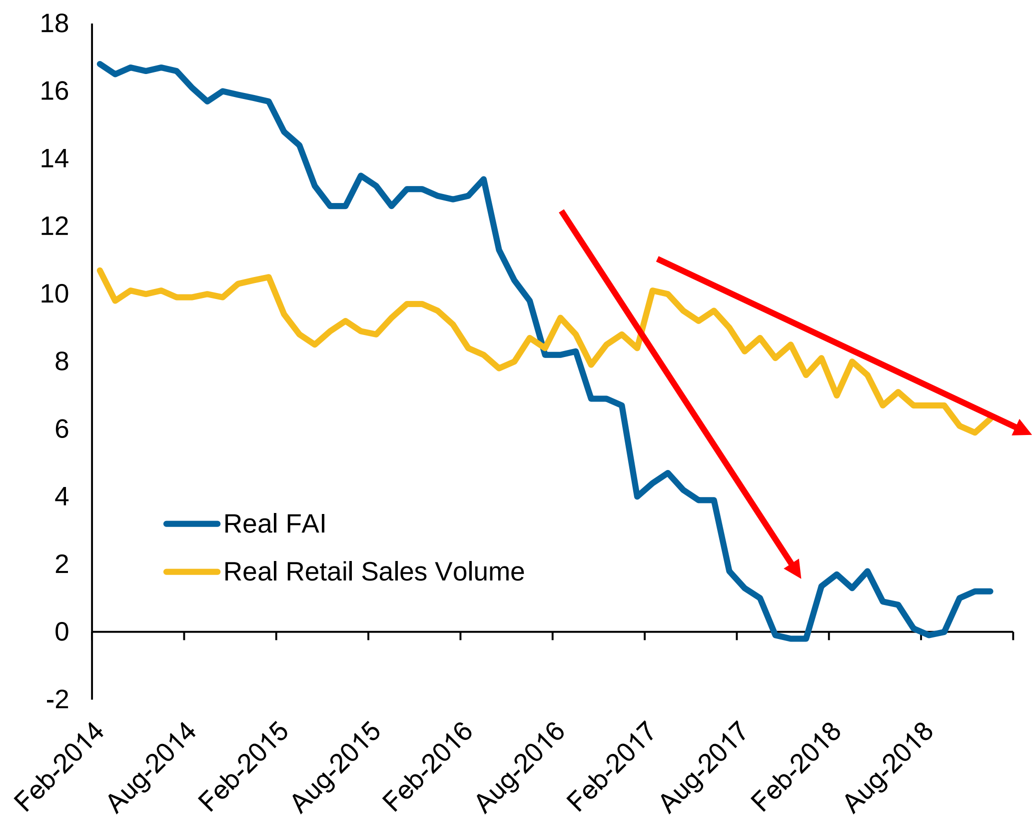
A Sharp Downturn End-2018

- Official and tracking data have significantly weakened
- Temporary support from higher profits, exports (including frontloading of tariffs) and housing support is waning

Measures of Economic Activity
As of January 2019



Real Consumption and Investment
As of December 2018

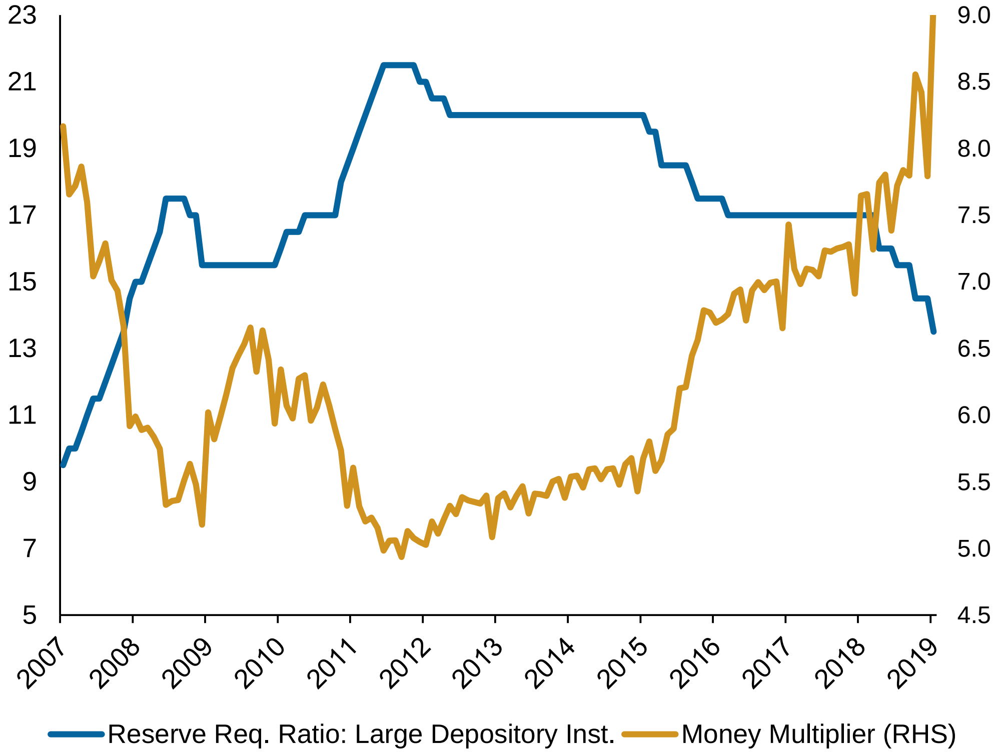


Source of charts: Haver Analytics, IMF, and PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

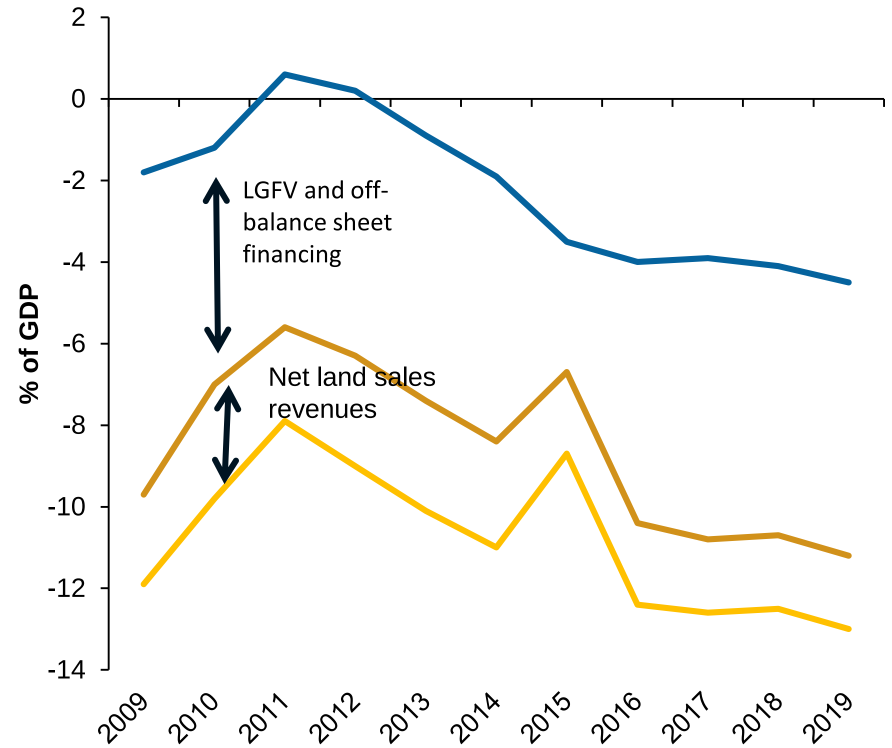
Increasing Stimulus Already In The Pipeline

- Debt-intensive investment has recently slowed, especially in real estate and infrastructure
- Production cuts have not translated into capacity cuts in the key SOE sector, and producer prices are again on their way down, implying profit squeezes ahead
- Monetary and fiscal policy have already been eased, and we expect further fiscal loosening

Indicators of Monetary Policy
As of January 2019



General Government Balance
As of October 2018



Values for 2019 are IMF forecasts.

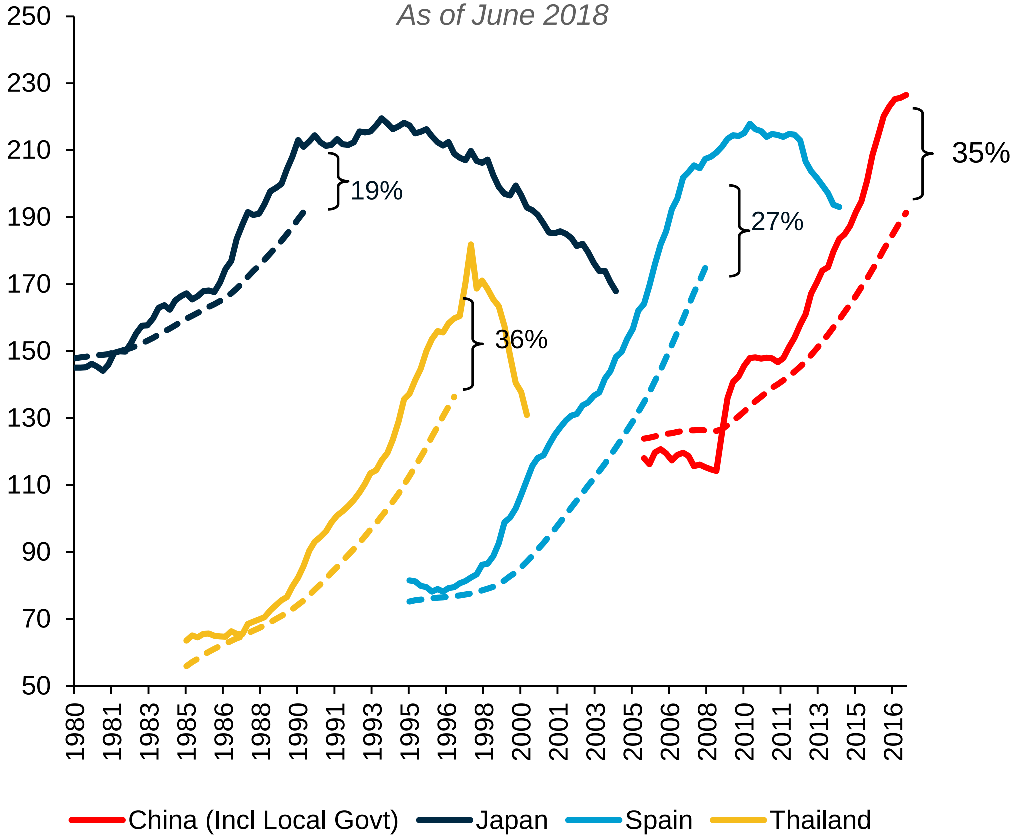
Source of charts: Haver Analytics, IMF, and PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

Stimulus Is Facing New Risks And Constraints

- Debt levels are now much higher
- With sharply weaker current account performance, greater reliance on foreign savings raises new vulnerabilities, it is no longer just capital outflows to worry about
- Falling working-age population, rising household debt and large real-estate holdings have weakened households balance sheets

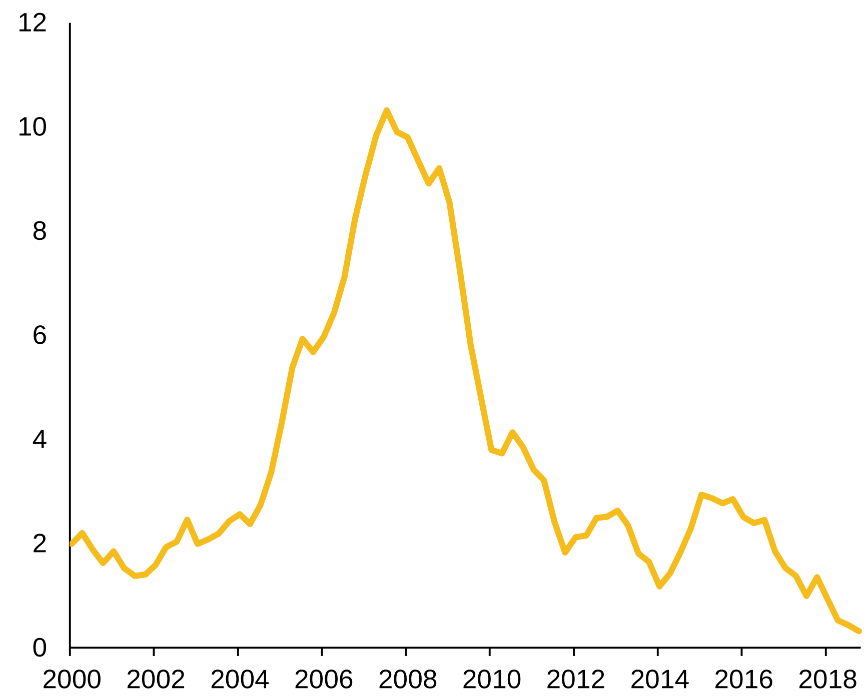
Non-Financial Credit Gap

As of June 2018



Current Account (% of GDP)

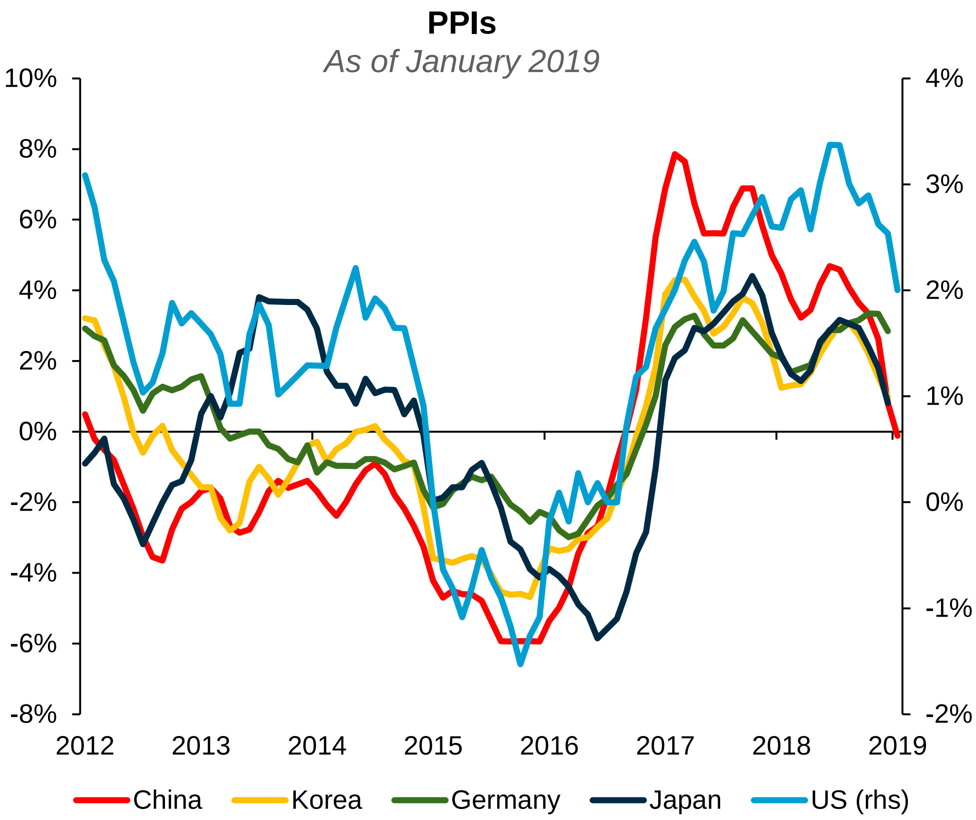
As of December 2018

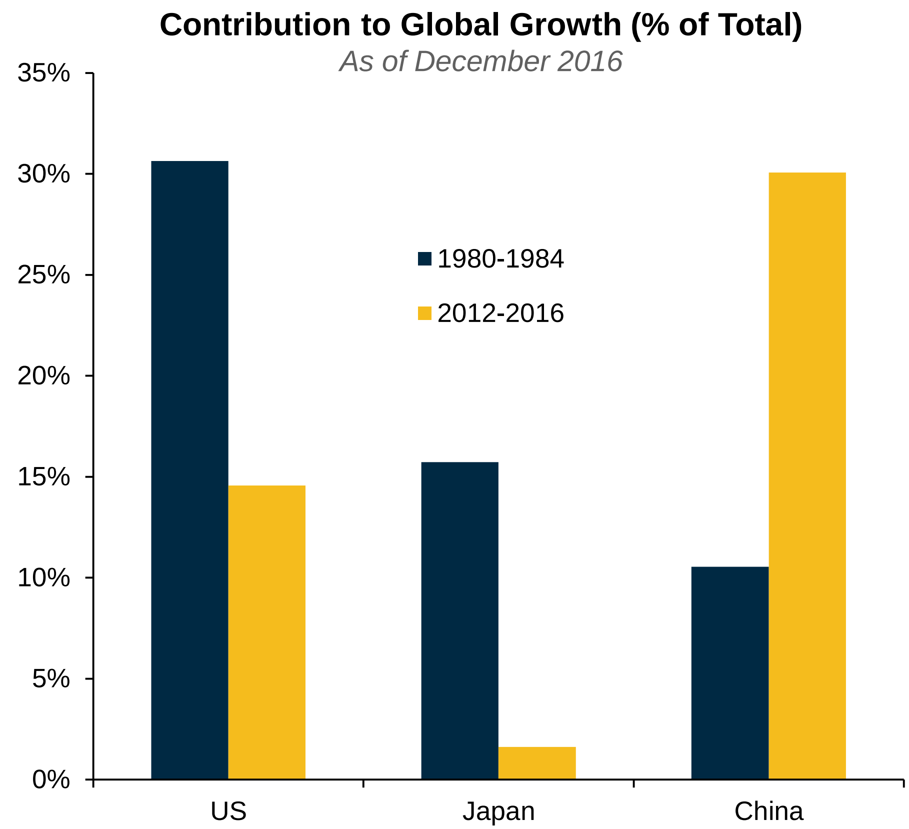


Source of charts: Haver Analytics, IMF, BIS, and PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

What Happens If China Spills Over

- China has recently led global (dis)inflation trends
- China's contribution to global growth mimics the importance of the U.S. in the 1980s



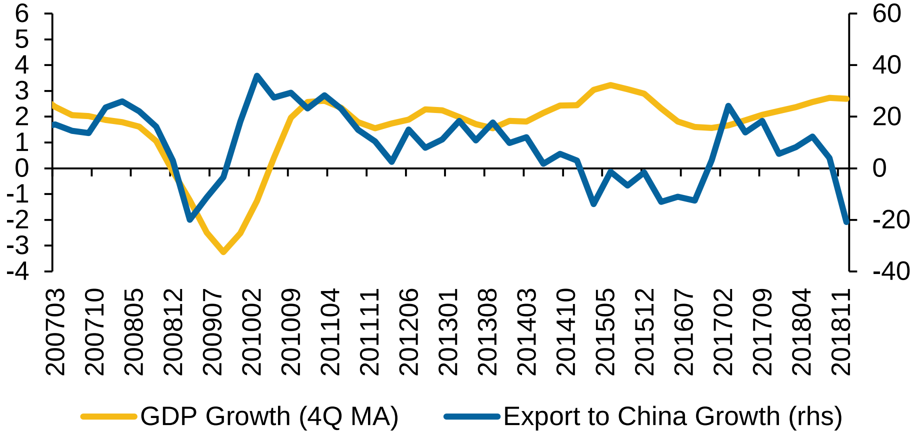


Source of charts: PGIM Fixed Income and Haver Analytics as of August 2017. The economic and market forecasts presented herein have been generated by PGIM Fixed Income for informational purposes as of the date of this presentation. They are based on proprietary models and there can be no assurance that the forecasts will be achieved. Please see Notice for important disclosures regarding the information contained herein.

“Global Synchronized Growth” Stalled With China

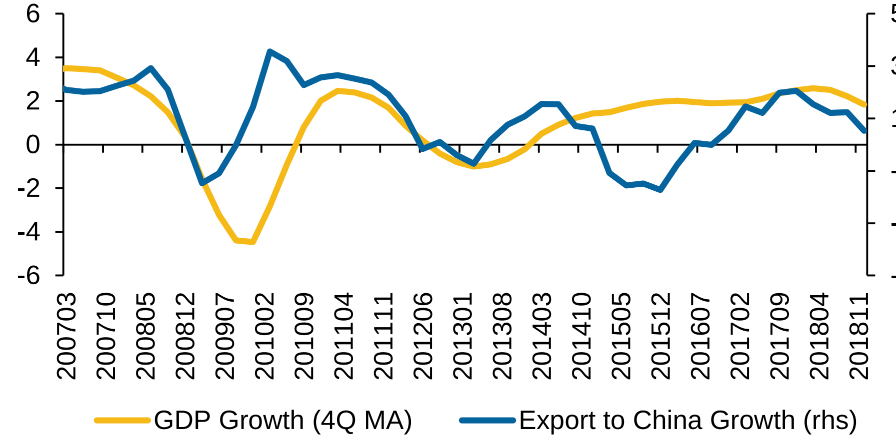
USA

As of December 31, 2018



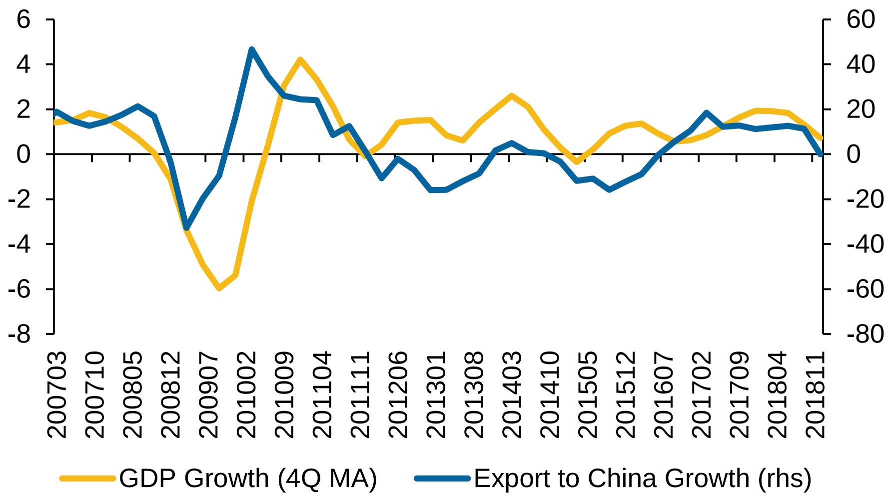
EA

As of December 31, 2018



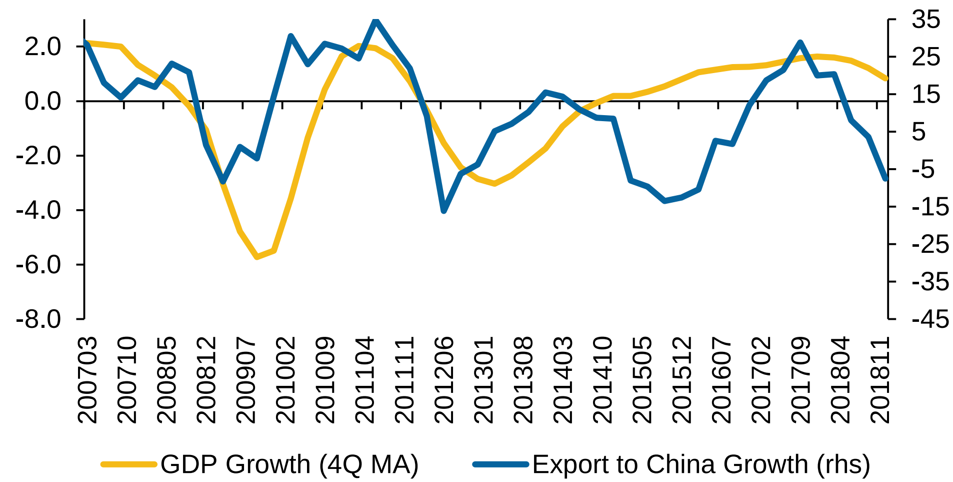
Japan

As of December 31, 2018



Italy

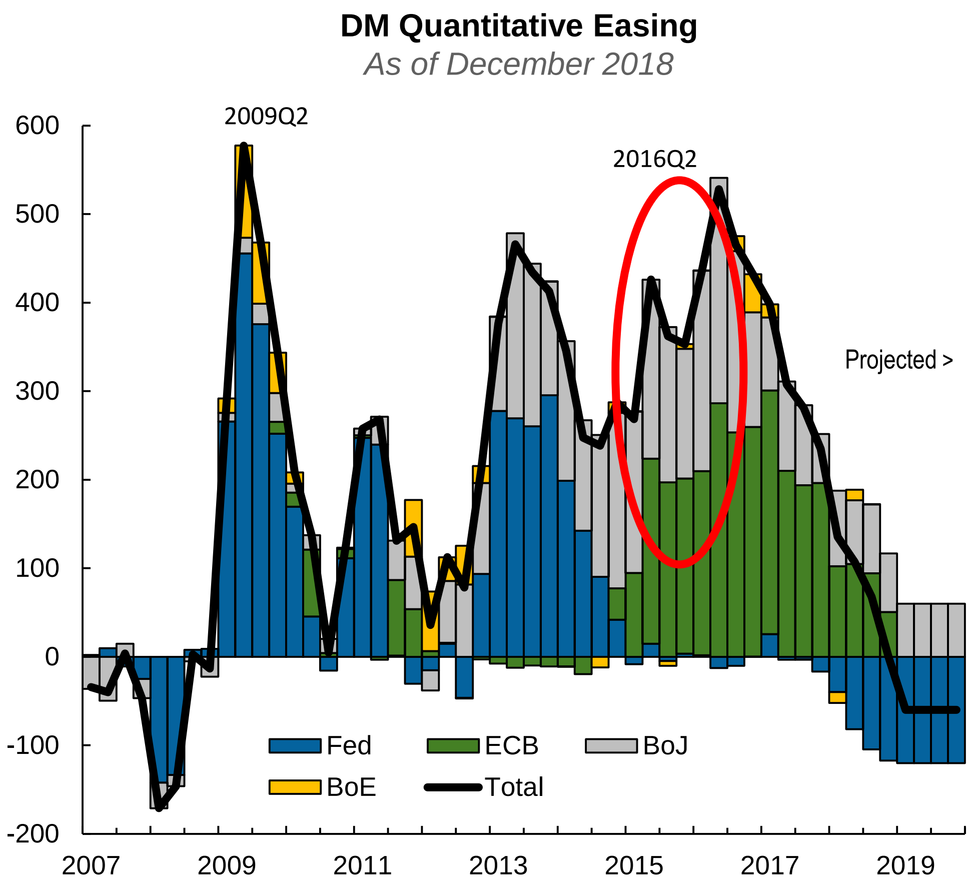
As of December 31, 2018

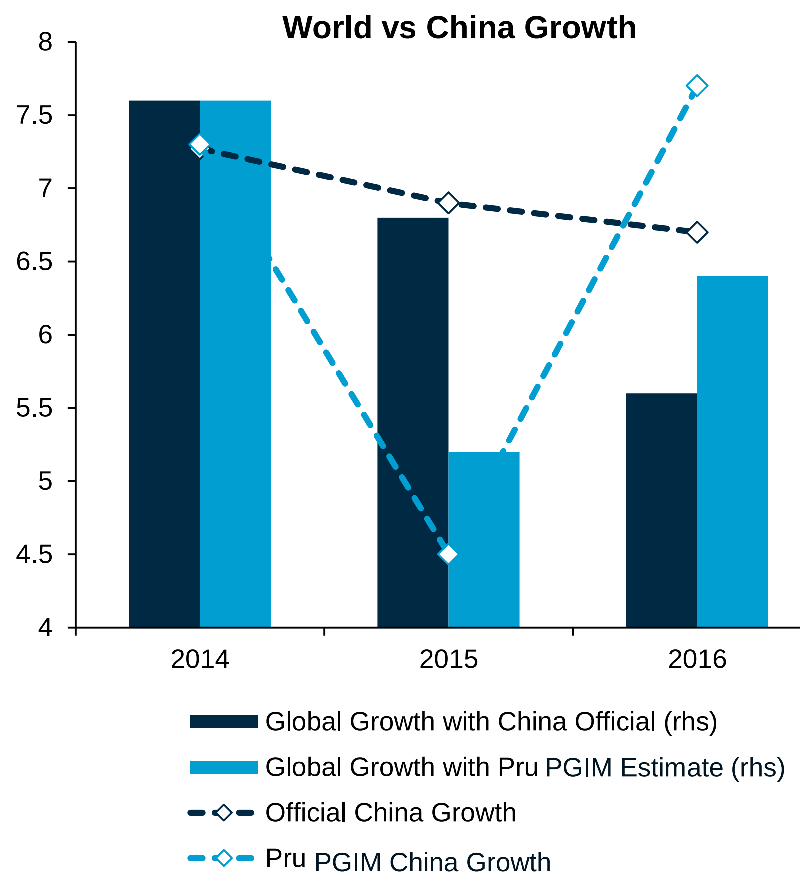


Source of charts: PGIM Fixed Income and Haver Analytics as of June 2017. The economic and market forecasts presented herein have been generated by PGIM Fixed Income for informational purposes as of the date of this presentation. They are based on proprietary models and there can be no assurance that the forecasts will be achieved.

Global Monetary Policy Spillovers As Well

- Chinese producer price inflation reflected 2016 production (not capacity) cuts, weaker RMB and aggressive policy stimulus
- Under plausible adjustments to official growth numbers, China has also led a world rebound in 2016





Source of charts: PGIM Fixed Income and Haver Analytics as of December 2018. The economic and market forecasts 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 Notice for important disclosures regarding the information contained herein.

Tariffs Are Costly

- Trade escalation could imply more sizeable negative growth effects in China and the U.S. than official estimates suggest
- With underlying U.S. growth buoyant, the impact on China is likely to be more noticeable, and would likely result in further policy adjustment, likely including FX
- Global fallout likely as China and the U.S. are the largest economies and have dominated global growth.

Estimates of Chinese Growth Decline from Trade War [1]

(In Percentage Points)

Sell-side analysis		
Low estimate	0.0	no indirect effects, no spillover
High estimate	2.0	Indirect effects included + spillover
Median	0.9	no indirect effects
Mean	1.1	Indirect effects included
PGIM	1.3	Value added based + indirect effects, no spillovers
Purported "Official" estimate	0.5	Value-added based
Memo item		
PGIM estimate of US GDP drag	0.7	Based on global model

[1] Assumes imposition of 25% tariff on all Chinese imports with retaliation by China along pre-announced lines. No global auto tariffs.

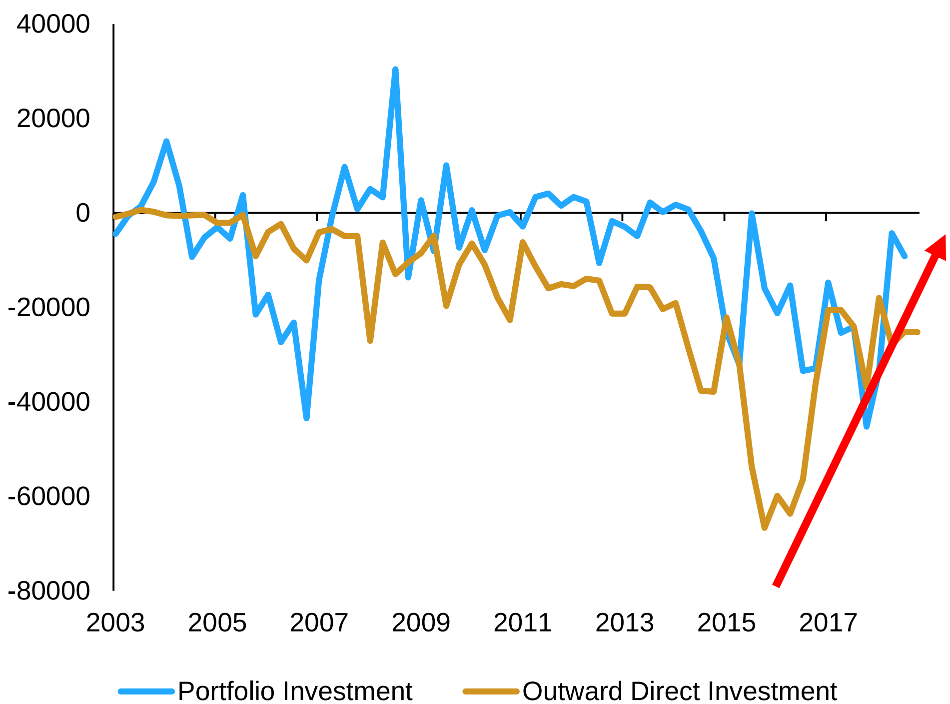
Source of charts: PGIM Fixed Income. Please see Notice for important disclosures regarding the information contained herein.

“RMB Internationalization” Or A Normal EM Story?

- We expect push and pull factors to trigger more portfolio flows to China:
  - Pull: Falling current account surplus, capital account pressures and renewed debt-driven domestic stimulus, will require capital imports
  - Push: Index inclusion should trigger passive reallocation
- Capital account controls can make this an attractive total-return proposition

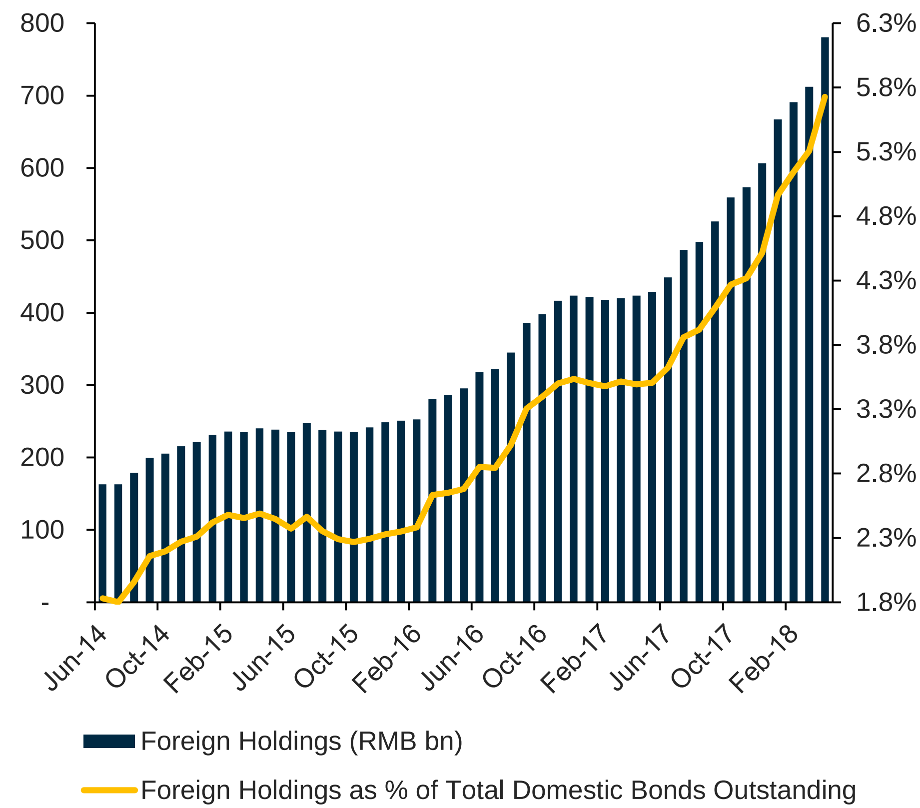
Portfolio and Outward Direct Investment (Mil.US$)

As of December 2018



China Central Government Bonds Held By Overseas Entities

As of September 30, 2018



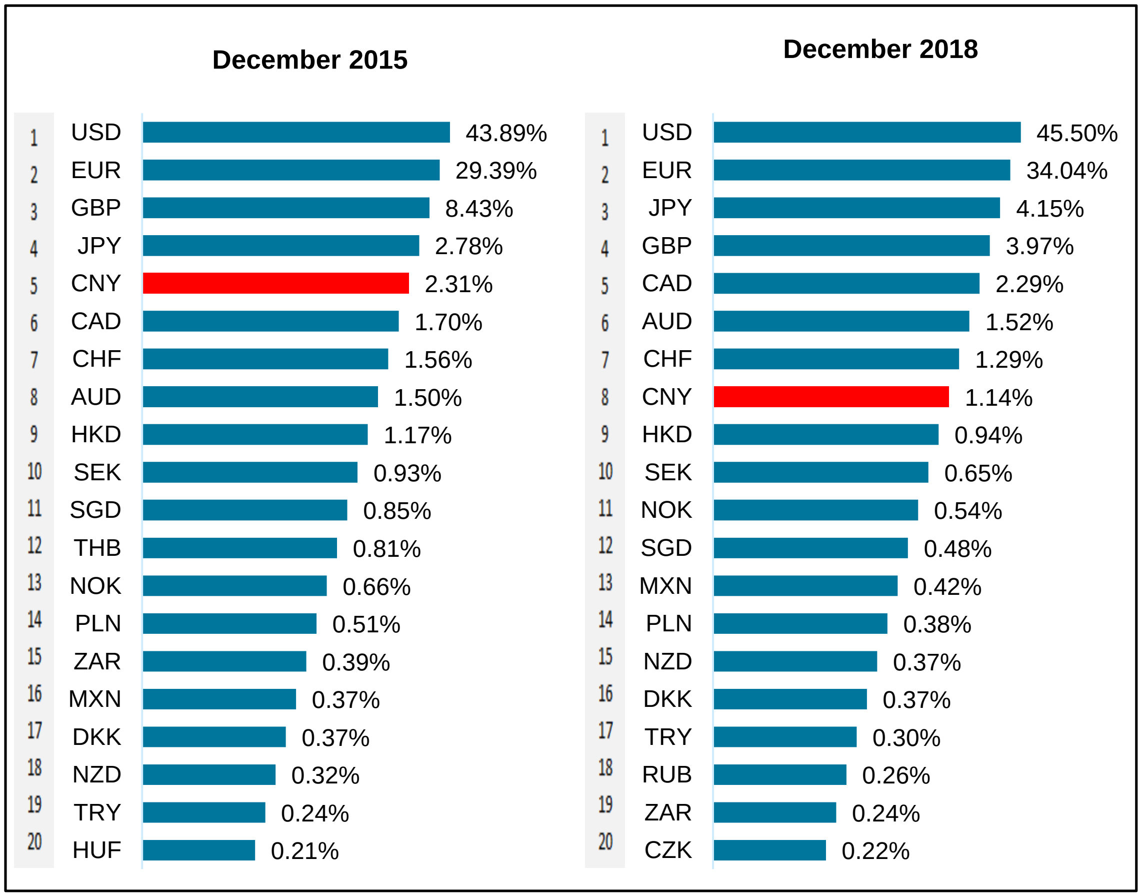
Source of charts: PGIM Fixed Income and Haver Analytics.

A Changing Narrative For China’s Bond Market

- High Hopes for the international role of the RMB have not played out, and in contrast to earlier hopes, the RMB is still a considerable way from being a true reserve currency.
- China’s already very large banking system and continued reliance on debt will further push bond market growth such that it will soon become the world’s second largest.

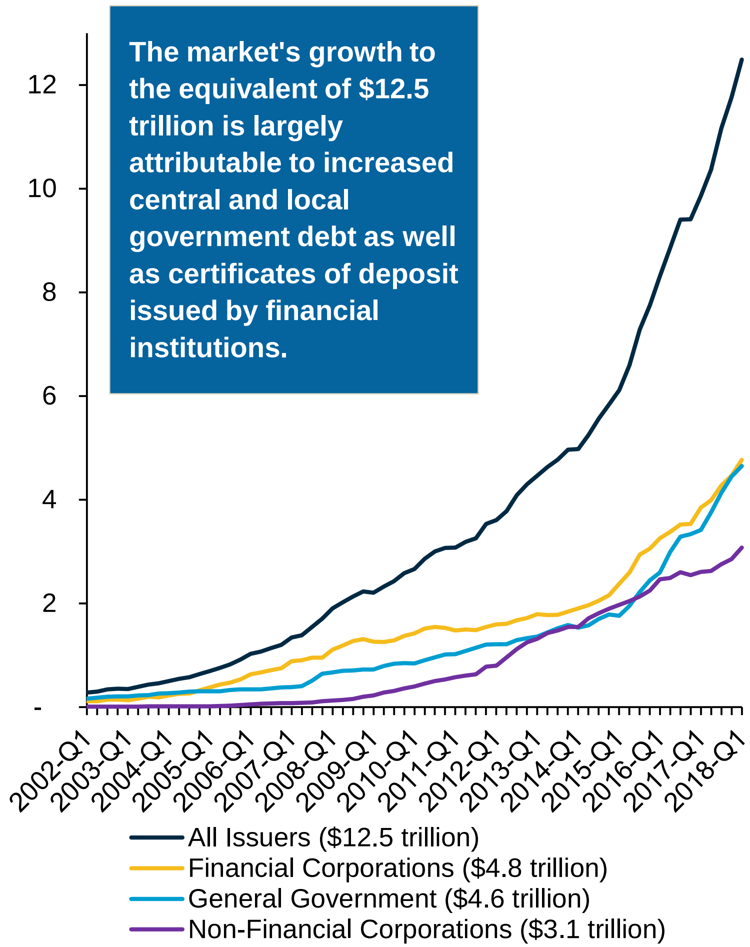
RMB’s Share as an International Payments Currency

As of February 2019



Growth in China’s Onshore Bond Market

As of September 30, 2018 ($ in Trillions)



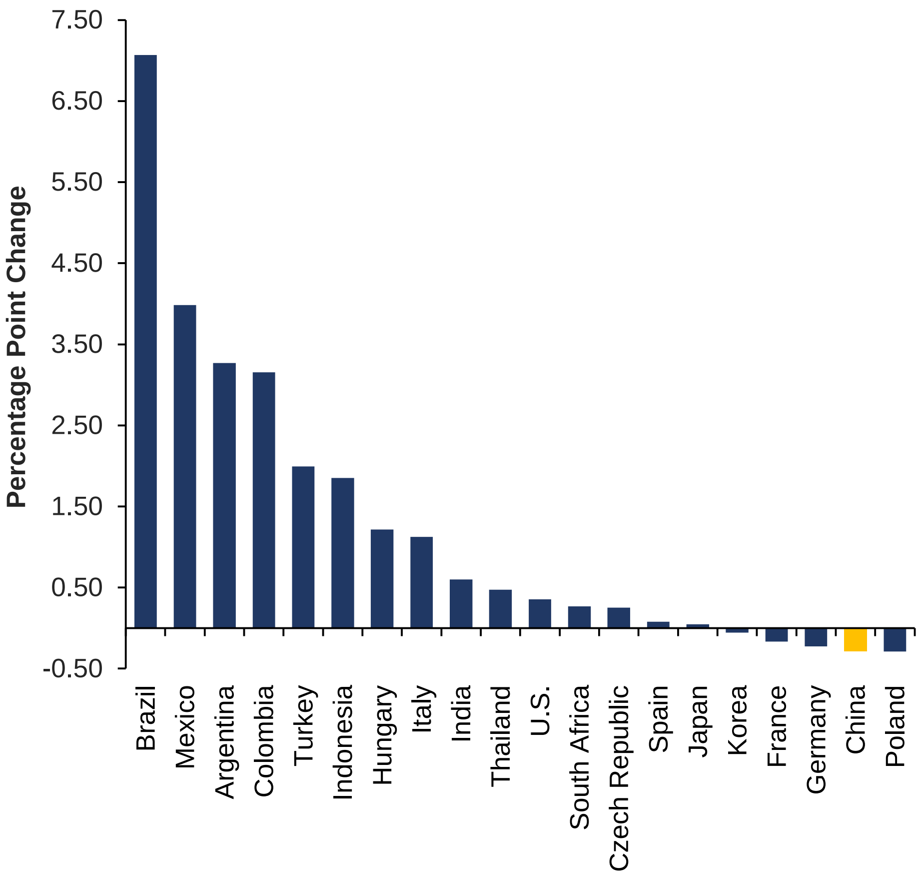
Source of charts: PGIM Fixed Income and SWIFT.

China—Effects To Be Felt In Other Markets As Well

- Index rebalancing effects can be nonlinear
- To the extent DM central banks react to China shocks, China is important beyond EM investors

China Government Debt Has Been An Outperformer Throughout Much Of 2018

Yield differential as of September 30, 2018 and January 31, 2018



Potential Composition In The JPM GBI-EM Global Diversified[1] After Inclusion

As of December 2018

Country	Current Weights %	New Weights %	Difference % (Rounded)
China	-	10.0	10.0
Brazil	10.0	10.0	0.0
Mexico	10.0	9.9	-0.1
Indonesia	9.2	9.6	0.4
Poland	8.9	9.4	0.5
South Africa	8.6	8.8	0.2
Thailand	7.8	6.5	-1.3
Colombia	7.8	6.1	-1.7
Russia	7.6	6.1	-1.5
Turkey	6.1	4.8	-1.3
Malaysia	5.4	4.3	-1.2
Hungary	4.6	3.6	-1.0
Czech Republic	4.3	3.4	-0.9
Peru	2.8	2.2	-0.6
Chile	2.6	2.0	-0.6
Romania	2.6	2.0	-0.6
Argentina	1.0	0.8	-0.2
Philippines Global	0.3	0.2	-0.1
Uruguay Global	0.2	0.2	-0.1
Dominican Republic Global	0.1	0.1	0.0

Source of charts: PGIM Fixed Income and Haver Analytics as of August 2017. The economic and market forecasts 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 Notice for important disclosures regarding the information contained herein. [1]Source of Index: JP Morgan. Information has been obtained from sources believed to be reliable but J.P. Morgan does not warrant its completeness or accuracy. The Index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval.

Up-levering Once More

Policy Outlook

- Significant monetary and fiscal policy easing and renewed increases in debt to push up growth in line with target
- Expect comprehensive relaxation of real estate policy
- After a lag, a significant turnaround of Chinese economic activity and attendant support of global growth in the coming months
- Key policy objective will be to maintain low interest rates in order to mitigate debt service burden, which could well require a weaker currency and underscores the importance of currency hedges for bong positions
- China will try to avoid a trade escalation with the U.S. but not give in on key structural concerns (e.g., state-directed technology upgrading, “China 2025”)

Key Markers and Risk to Keep in Mind

- Expect authorities to downplay the importance of further deleveraging
- Heightened risk of policy mistakes from capital account opening or trying to stem property cooling
- Hard landing risks are steadily increasing along the baseline path, and a transition to a positive reform scenario will become increasingly difficult
- Key markers for investors that would suggest a more positive reform picture:
  - 1) state enterprise reform (including closure of excess capacity)
  - 2) fiscal transfers to local governments
  - 3) permitting layoffs to cut capacity and defaults to redress widespread moral hazard
  - 4) downplaying of growth target
- Potential political pushback against President Xi’s omnipotent position

Be Prepared For Large Global Spillovers From China

- DM monetary policy
- Trade disputes
- Global growth (de)synchronization
- …

Source: PGIM Fixed Income. As of February 2019

Notice: Important Information

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 ("PGIM Singapore"). PFI 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.

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 or eligible counterparties for the purposes of the Financial Conduct Authority's Conduct of Business Sourcebook. 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. It is anticipated that certain investment management services would be delegated to PGIM, Inc. the above-listed entities' U.S. registered investment advisory affiliate. 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.

All investments involve risk, including the possible loss of capital.

These materials are for informational or educational purposes. 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.

This document may contain confidential information and the recipient hereof agrees to maintain the confidentiality of such information. 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 this document, in whole or in part, or the divulgence of any of its contents, without PGIM Fixed Income's prior written consent, is prohibited. This document contains the current opinions of the manager and such opinions are subject to change. Certain information in this document 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 such information; nor do we make any express or implied warranties or representations as to its completeness or accuracy. Any information presented regarding the affiliates of PGIM Fixed Income is presented purely to facilitate an organizational overview and is not a solicitation on behalf of any affiliate. 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. These materials do not constitute investment advice and should not be used as the basis for any investment decision.

These materials do not take into account individual client circumstances, objectives or needs. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. The information contained herein is provided on the basis and subject to the explanations, caveats and warnings set out in this notice and elsewhere herein. Any discussion of risk management is intended to describe PGIM Fixed Income's efforts to monitor and manage risk but does not imply low risk. No risk management technique can guarantee the mitigation or elimination of risk in any market environment. These materials do not purport to provide any legal, tax or accounting advice. These materials are not intended for distribution to or use by any person in any jurisdiction where such distribution would be contrary to local law or regulation.

Any references to specific securities and their issuers are for illustrative purposes only and are not intended and should not be interpreted as recommendations to purchase or sell such securities. Any securities referenced may or may not be held in portfolios managed by PGIM Fixed Income and, if such securities are held, no representation is being made that such securities will continue to be held.

Any financial indices referenced herein as benchmarks are provided for informational purposes only. The use of benchmarks has limitations because portfolio holdings and characteristics will differ from those of the benchmark(s), and such differences may be material. You cannot make a direct investment in an index. Factors affecting portfolio performance that do not affect benchmark performance may include portfolio rebalancing, the timing of cash flows, credit quality, diversification and differences in volatility. In addition, financial indices do not reflect the impact of fees, applicable taxes or trading costs which reduce returns. Unless otherwise noted, financial indices assume reinvestment of dividends.

Any projections or forecasts presented herein are as of the date of this presentation and are subject to change without notice. Actual data will vary and may not be reflected here. Projections and forecasts are subject to high levels of uncertainty. Accordingly, any projections or forecasts should be viewed as merely representative of a broad range of possible outcomes. Projections or forecasts are estimated, based on assumptions, and are subject to significant revision and may change materially as economic and market conditions change. PGIM Fixed Income has no obligation to provide updates or changes to any projections or forecasts.

Any performance targets contained herein are subject to revision by PGIM Fixed Income and are provided solely as a guide to current expectations. There can be no assurance that any product or strategy described herein will achieve any targets or that there will be any return of capital. Past performance is not a guarantee or a reliable indicator of future results and an investment could lose value.