

# Capital Markets Strategy

Essential inCights for the C-Suite



## When China Slows Down

Implications for the Global Economy & Markets

SEP 2023

**"Scale does not compensate for persistent macroeconomic imbalances, nor does it insulate the Chinese economy from financial crises, debt implosions, and other shocks those imbalances might render even more destabilizing."**

Stephen Roach, Economist at Yale School of Management,  
formerly Chairman of Morgan Stanley Asia

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# When China Slows Down

## I. Key Drivers

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1. Tepid Consumer Sentiment
2. Weak External Demand
3. Policy Restraint & Caution
4. Rebalancing the Economy
5. Over Levered Property Sector
6. Rising Debt Levels
7. Declining Credit Growth
8. Demographic Headwinds
9. Declining Productivity
10. "Higher Friction" Geopolitics

## II. Implications

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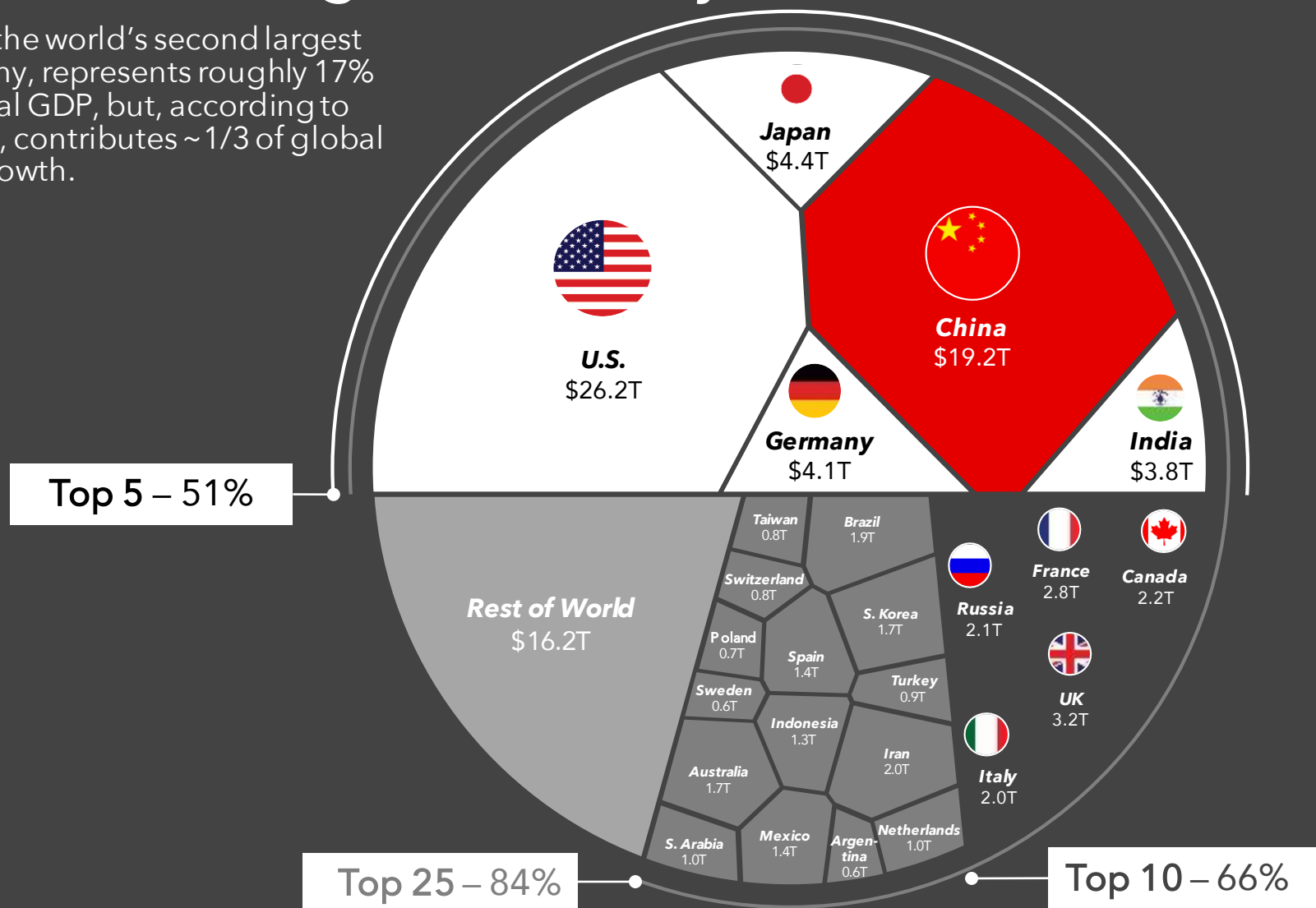
11. The Global Economy
12. Global Trade Volumes
13. FDI Investment Flows
14. Global Markets
15. Corporate Earnings
16. Overseas UST Demand
17. Global Commodities
18. RMB Weakness
19. Stockpile of FX Reserves
20. Reserve Currency Status

A wide-angle photograph of the Shanghai skyline, featuring the Shanghai Tower, Shanghai World Financial Center, Jin Mao Tower, and Oriental Pearl Tower, all rising above a thick layer of white clouds. The sky is a deep blue with some wispy clouds, and a hint of sunset or sunrise is visible on the horizon.

# Introduction

# World's 2<sup>nd</sup> Largest Economy

China, the world's second largest economy, represents roughly 17% of global GDP, but, according to the IMF, contributes ~1/3 of global GDP growth.

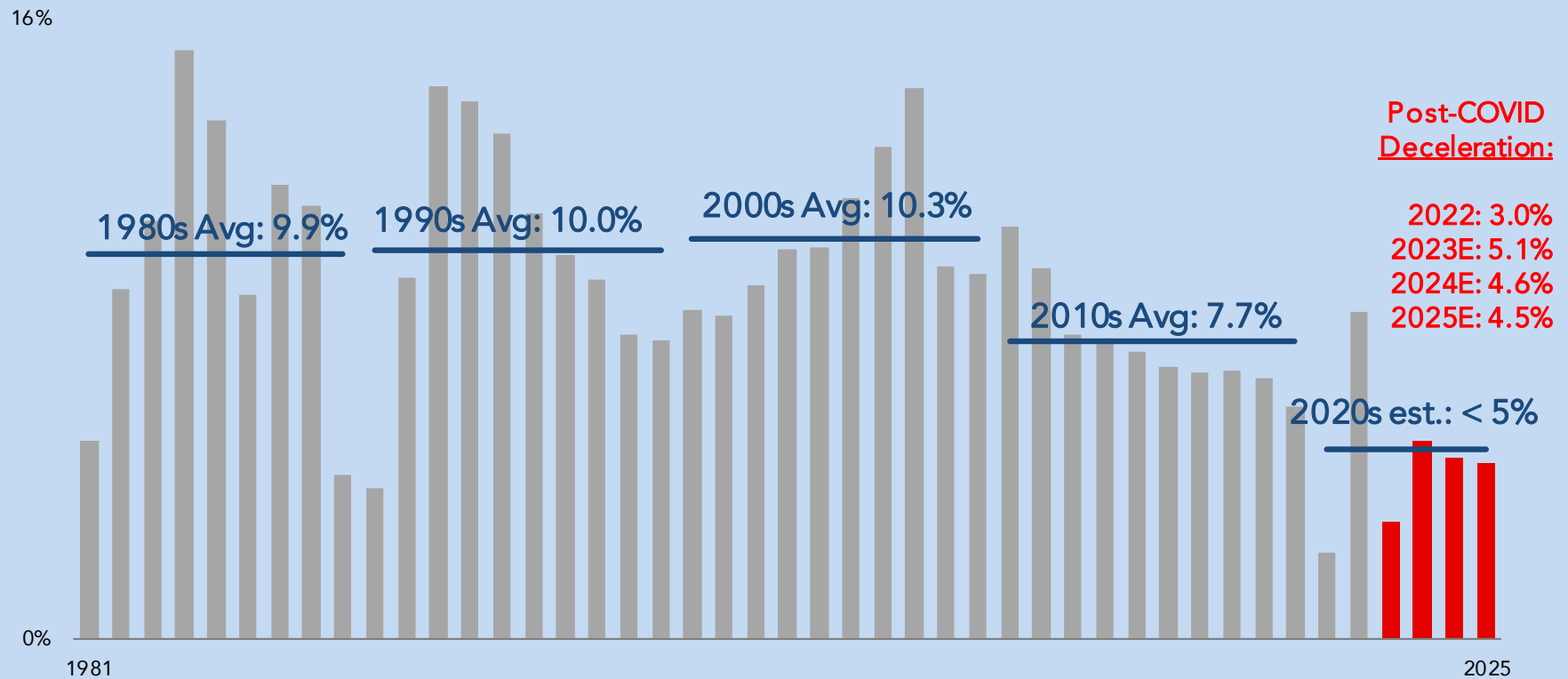


Source: International Monetary Fund. "Asia Poised to Drive Global Economic Growth, Boosted by China's Reopening". Visual Capitalist

# New Normal for China Growth < 5%

After four decades of super-charged growth well above advanced economy rates, the new normal for post-COVID China growth in the decade ahead will likely fall below 5%. In fact, the IMF is forecasting China growth < 4% in coming years, less than half the rate of recent decades. The slowdown in China's economy has been broad based and driven by a plethora of structural and cyclical factors, both internal and external.

## China Real GDP Growth

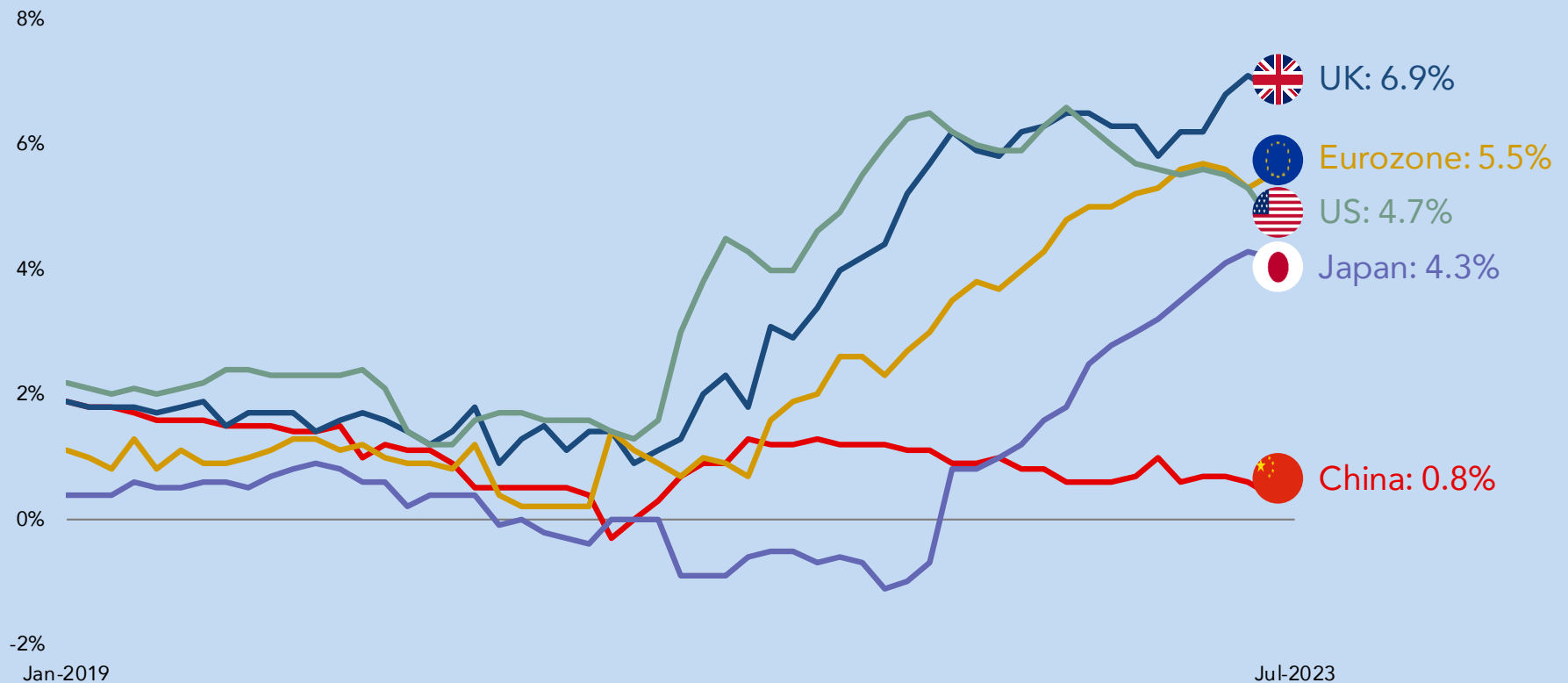


Source: (1) Oxford Economics. Data as of September 8, 2023.

# Tepid Post COVID Bounce in China

China's two year zero-COVID lockdown policy has adversely impacted consumer balance sheets, income, employment status and confidence. With concurrent stress in the property sector and a weak external environment, China's post COVID rebound has been both delayed and tepid compared to other advanced economies.



## Core CPI, y/y



Source: (1) Bloomberg. Data as of September 8, 2023.

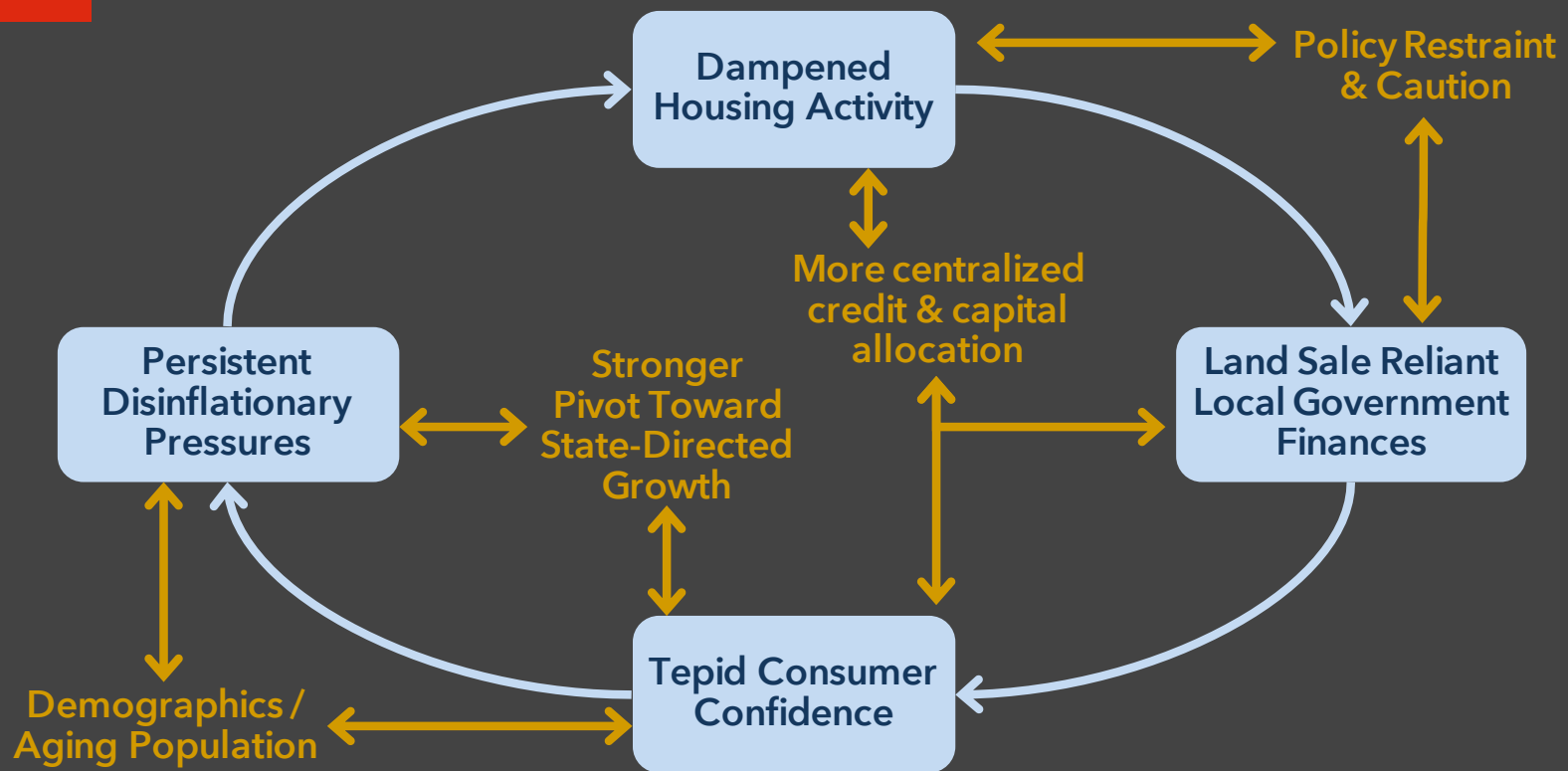


# China's Slowdown More Structural than Cyclical

Key Challenge	Primary Driver	
	 More Structural	 More Cyclical
1. Tepid Post COVID Consumer	●	●
2. Weak External Demand		●
3. Policy Restraint & Caution	●	●
4. Rebalancing the Economy	●	
5. Demographic Headwinds	●	
6. Declining Productivity	●	●
7. Rising Debt Levels	●	
8. Over Levered Property Sector	●	
9. Highly Concentrated Banking System	●	
10. "Higher Friction" Geopolitics	●	

# Negative Structural & Cyclical Feedback Loops

Complex structural headwinds have weighed heavily on China's post COVID cyclical rebound, creating a series of negative feedback loops between Government policy, the property sector and the Chinese consumer. Against this backdrop, Beijing is aiming to stabilize the economy without contributing to the hyper levered property sector imbalances of the past.



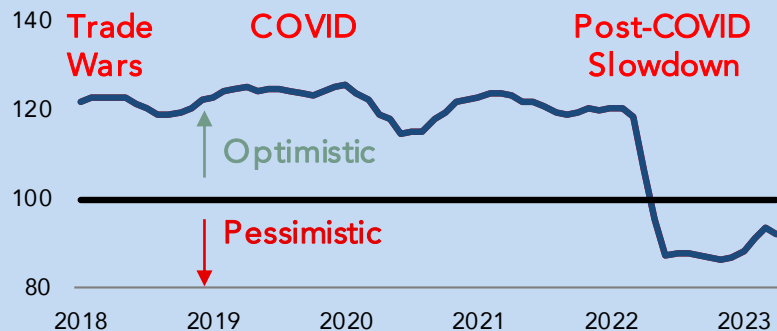
An aerial photograph of the Shanghai skyline, featuring the Shanghai Tower, Shanghai World Financial Center, Jin Mao Tower, and the Oriental Pearl Tower, all rising above a thick layer of white clouds. The sky is a mix of blue and white, with some light rays visible on the left side.

# I. Key Drivers

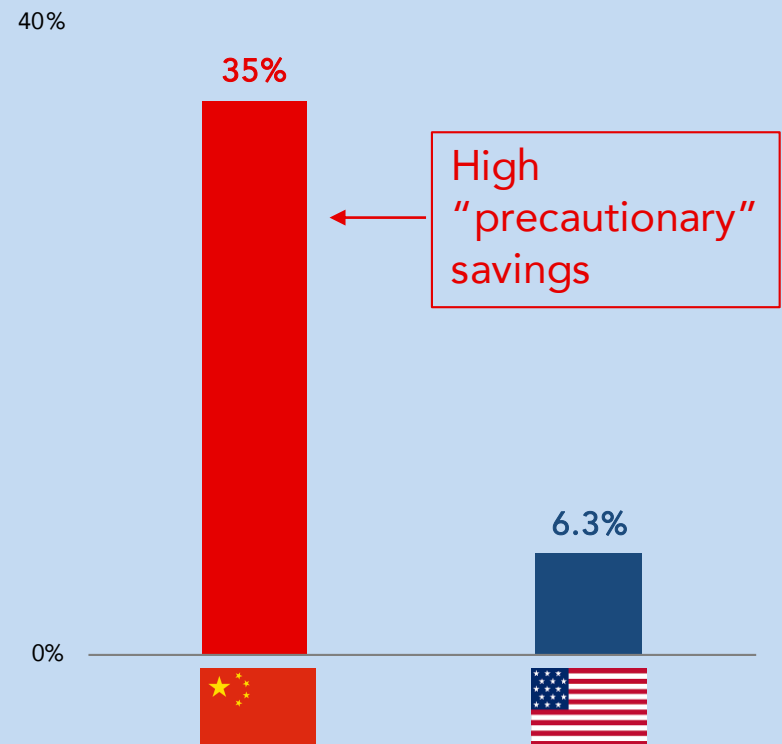
# 1. Tepid Consumer Sentiment

Counter to initial expectations following Xi's abrupt departure from his zero-COVID policy late last year, the Chinese consumer has behaved very differently from US and European counterparts in the reopening. While there have been signs of recent improvement, the Chinese consumer has been very "tepid" in 2023, due to the combined impact of a depressed housing sector, the economic impact of a 2-year lockdown, and the high level of "precautionary" savings due to a less developed social safety net, health care and retirement system.

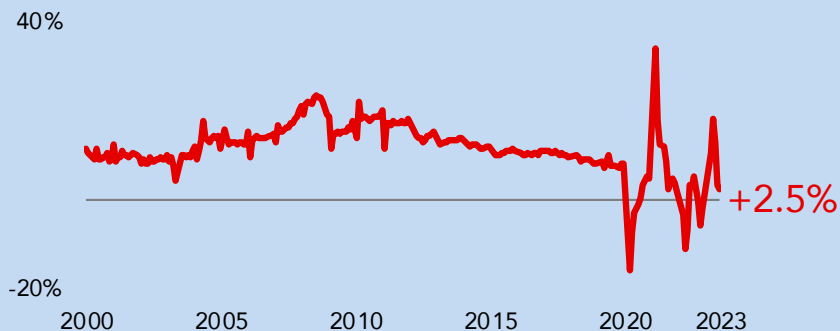
China consumer confidence



Average consumer savings rate since 1991



China retail sales, y/y

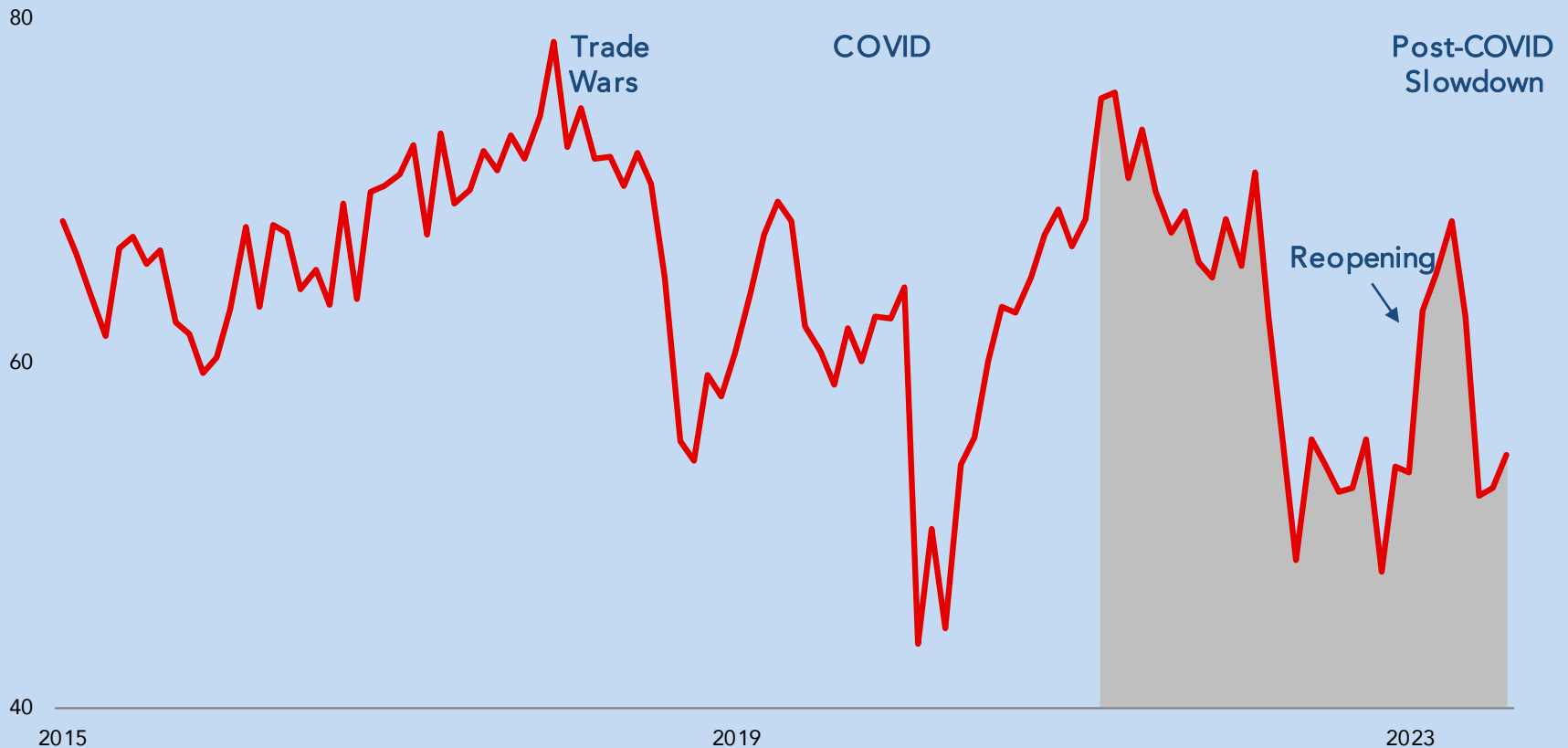


Source: (1) National Bureau of Statistics. 3-month moving average. (2) Bloomberg. Data as of September 8, 2023. PBOC.

# 1. Tepid Consumer Sentiment

Just as weakened confidence has become entrenched in the consumer sector, so too has Chinese business confidence declined. Prior government interventions in the private sector, combined with property sector stress and cautious policy stimulus, have also contributed.

## China Business Survey: Investment Intentions



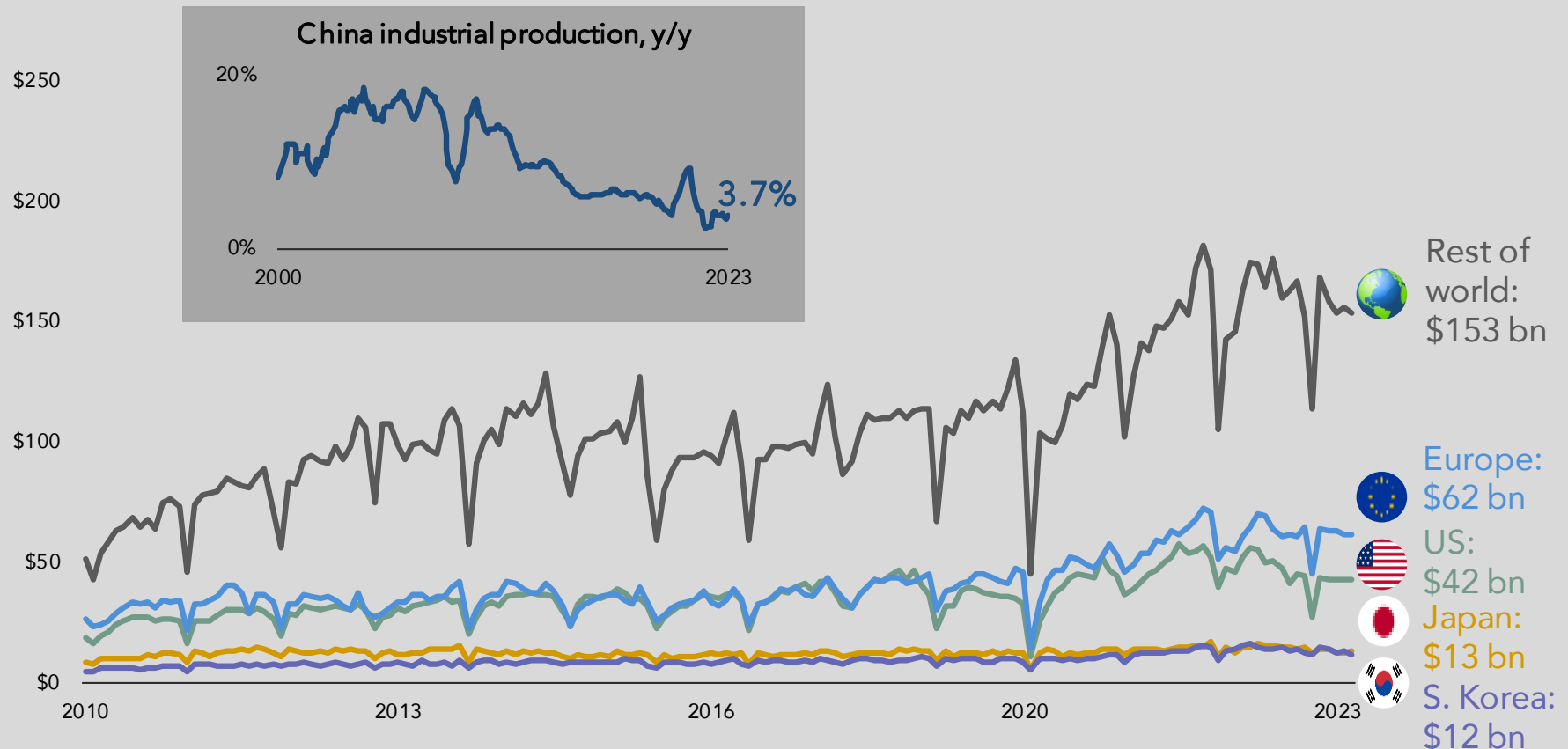
Source: (1) CKGSB Business Conditions - Investment Index. Bloomberg.



## 2. Weak External Demand

In July, China's exports fell 14.5% Y/Y. For the first 7 months of 2023 (through July), China's exports decreased 5%, which included a 13% decline in exports to the United States, China's largest trading partner. China's exports to the US-Japan-South Korea have been on a multi-year decline, while growing in other parts of the world.

China exports by country, USD bn



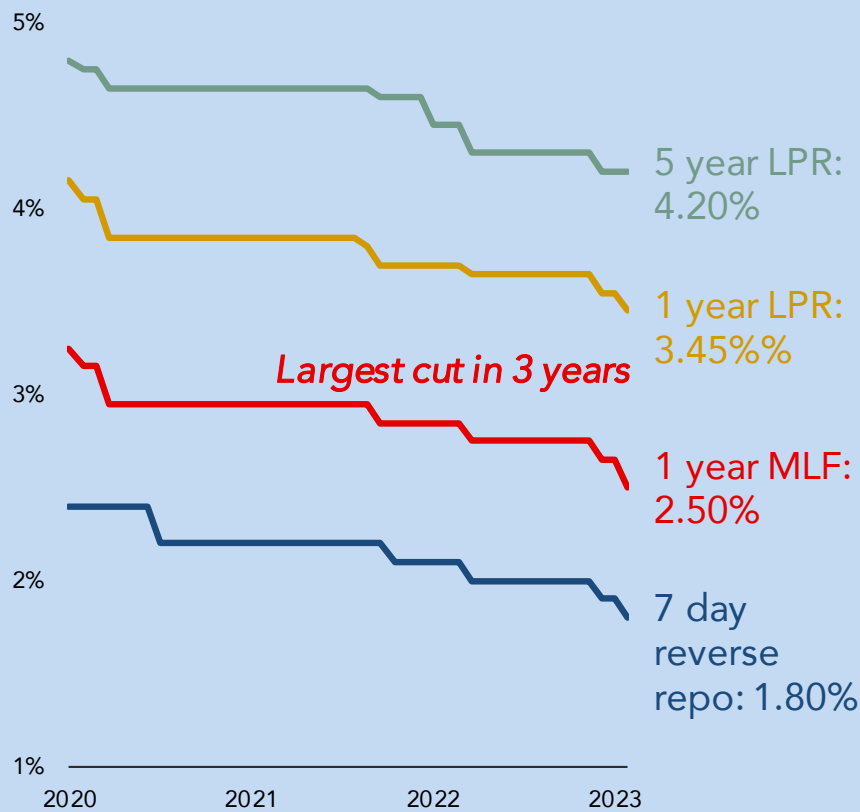
Source: (1-2) Bloomberg. Data as of September 8, 2023. Industrial production is value added of Industry, y/y, 6 month moving average



### 3. Policy Restraint & Caution

Compared to other large advanced economies, China's COVID era stimulus was more heavily weighted toward the supply-side of the economy rather than household demand. This became more problematic as the COVID lockdown extended more than two years. Concerned with adding to elevated leverage burdens, much of the stimulus has been targeted toward stabilizing the economy and avoiding mistakes of the past.

#### China policy rates



#### "Targeted" Support Measures

- Modest interest rate cuts
- Stronger daily CNY fixings to support currency / prevent capital outflows
- Property sector support
- Household support
- Private sector / SOE parity measures
- Short selling restrictions
- Accelerated local government special bond issuance

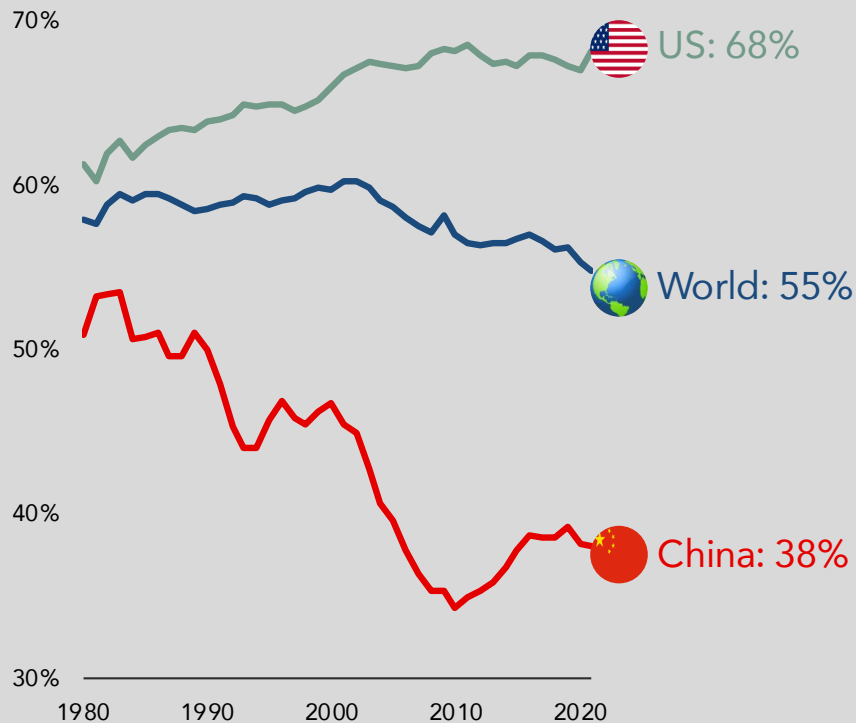
Source: (1) Bloomberg. Data as of September 8, 2023. Oxford Economics, "China: Glass Half-Empty or Half-Full."

## 4. Rebalancing the Economy

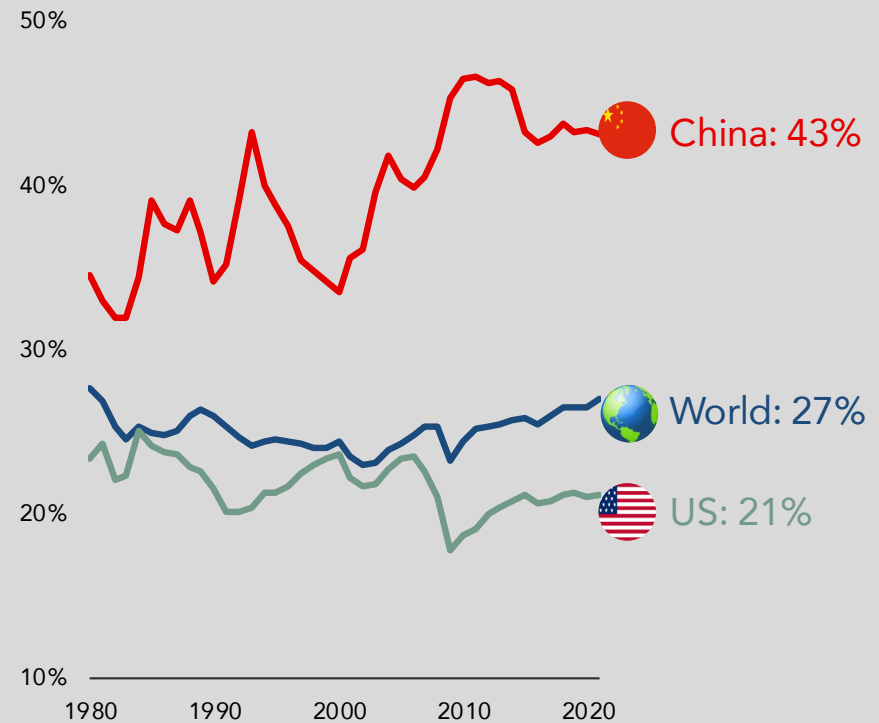
Xi Jinping and China have made very slow progress over the last decade in rebalancing the economy away from less productive (and externally vulnerable) investment led growth, toward more durable and domestic consumption driven growth. Despite a plethora of policy pronouncements and initiatives, China's investment / GDP ratio is more than double US levels, while consumption / GDP has remained relatively stagnant below 40%.

### Policy Pivot #1: Slow progress on consumer led growth over fixed investment

Household expenditure as a share of GDP



Investment as a share of GDP



Source: (1-2) WSJ, "China's 40 Year Boom is Over. What Comes Next?" World Bank. Investment is gross capital formation.



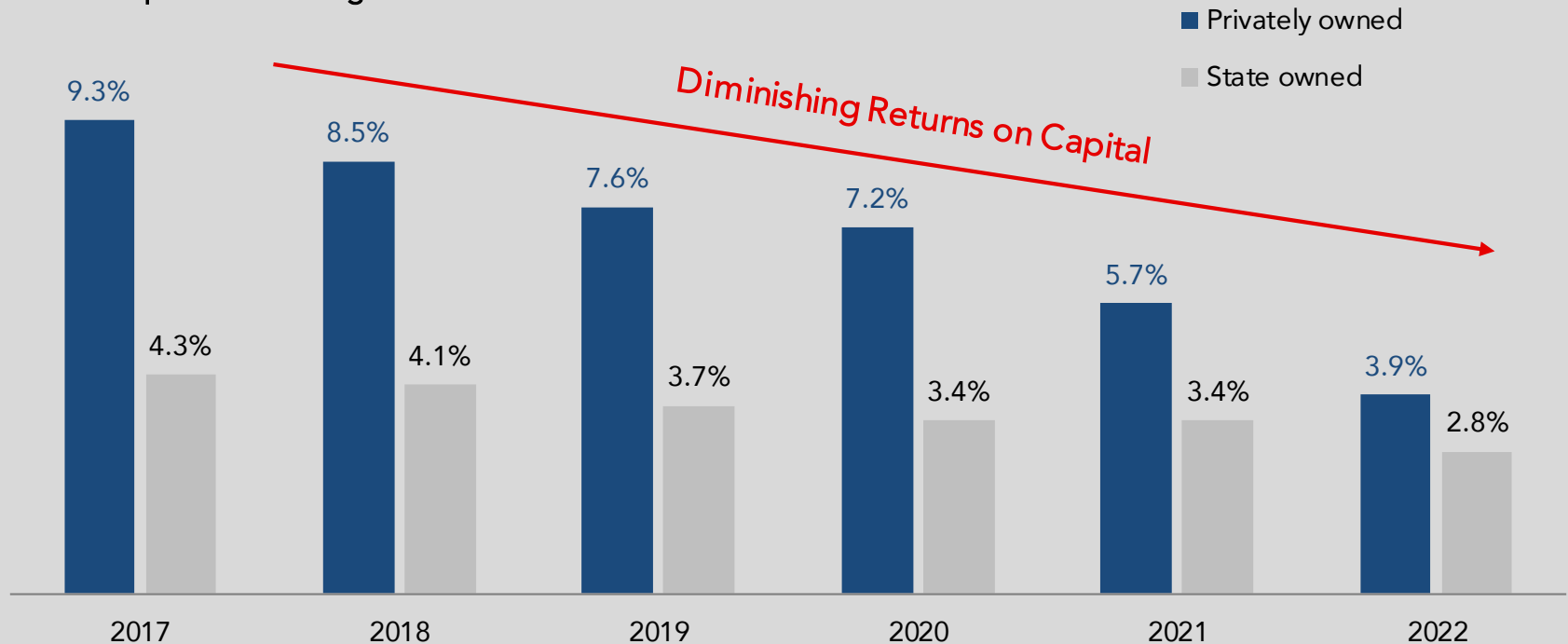


## 4. Rebalancing the Economy

Over the last decade, Xi Jinping has pivoted away from the blended private-public economic growth model engineered by Deng Xiaoping four decades ago (the incorporation of market economics, or “socialism with Chinese characteristics”). Under Xi, China has clamped down sharply on the private sector (60% of GDP, 80% of urban jobs), shifting the trajectory of economic policy toward Party-dominated, state-directed growth. Diminishing returns on capital investment have followed, led by state owned companies in particular.

### Policy Pivot #2: Shift toward State / Party directed growth

Chinese corporations average return on assets



Source: (1) WSJ, “China’s 40 Year Boom is Over. What Comes Next?” Bruegel, “Can Chinese Growth Defy Gravity?”



## 5. Over Levered Property Sector

China's real estate sector accounts for over 20% of Chinese GDP (directly and indirectly). In July, almost every major indicator of real estate performance contracted on both an annual and monthly basis. Such structural headwinds and rising property sector defaults have, in turn, sparked concerns around liquidity in China's sizable shadow banking industry.

China property investment,  
YTD year over year through July

60%



	July y/y growth	July m/m growth
Property investment	(-17.8%)	(-28.7%)
Property sales	(-24.1%)	(-44.0%)
Floor space started	(-26.5%)	(-30.2%)
Floor space under construction	(-21.7%)	(-32.5%)
Floor space sold	(-23.8%)	(-46.1%)

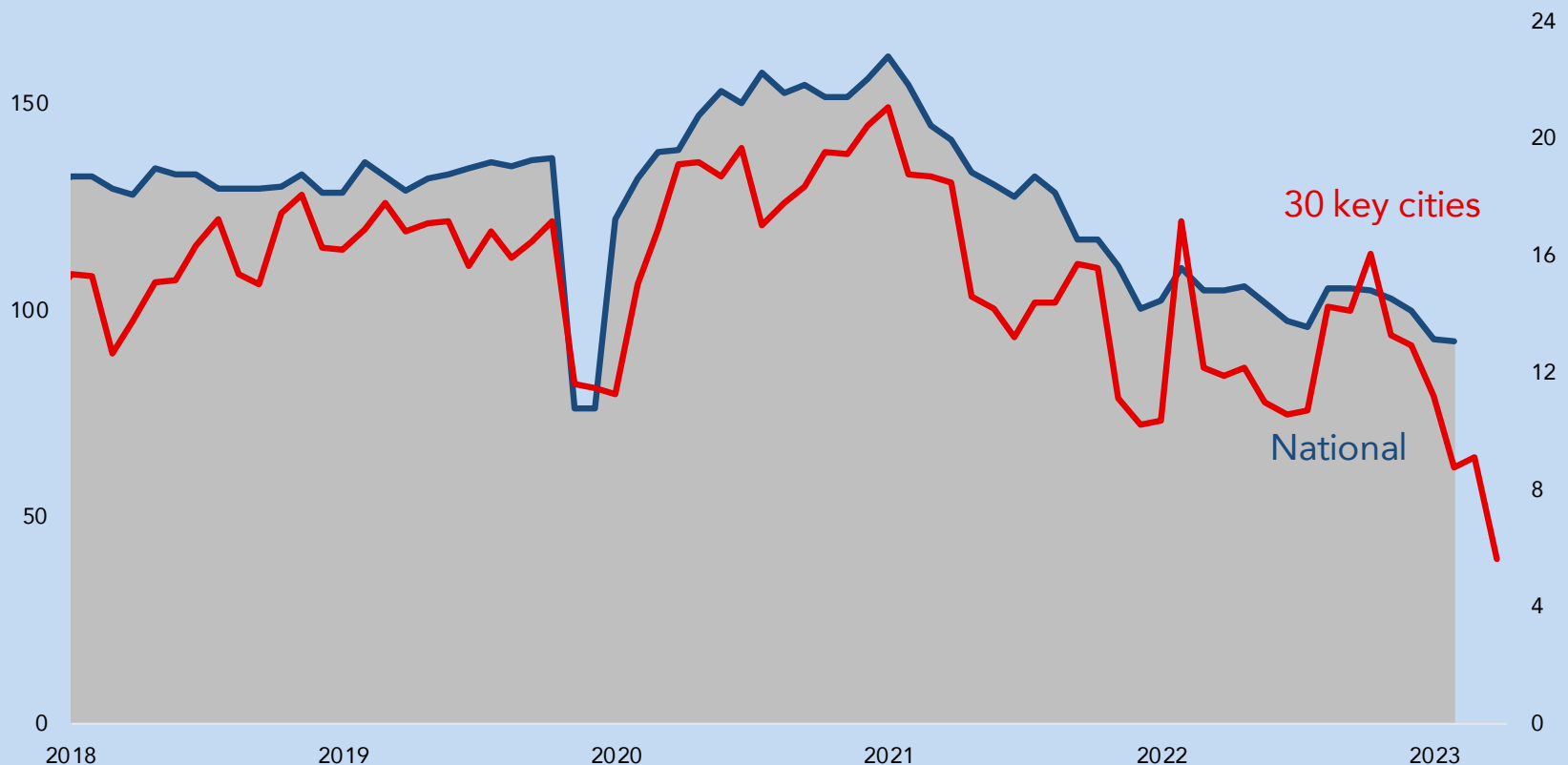
Source: (1-2) Bloomberg. Data as of August 17, 2023. Property investment is completed investment in real estate, cumulative. MUFG Asia Macro Notebook, "ChinaPulse: Downward revisions on GDP Growth and CNY for 2023 and 2024" (Lin Li).



## 5. Over Levered Property Sector

According to Gavekal Dragonomics research, Chinese residential property has become one of the world's largest asset classes, worth over \$30 trillion at the end of 2019. As one of the largest assets on the consumer balance sheet, pressure in China's over-supplied and over-leveraged housing market has adversely impacted consumer sentiment in 2023.

China new home sales, million square meters



Source: (1) Capital Economics China Chart Pack. CEIC. WIND. Data is seasonally adjusted. National new home sales is LHS and 30 key cities is RHS.

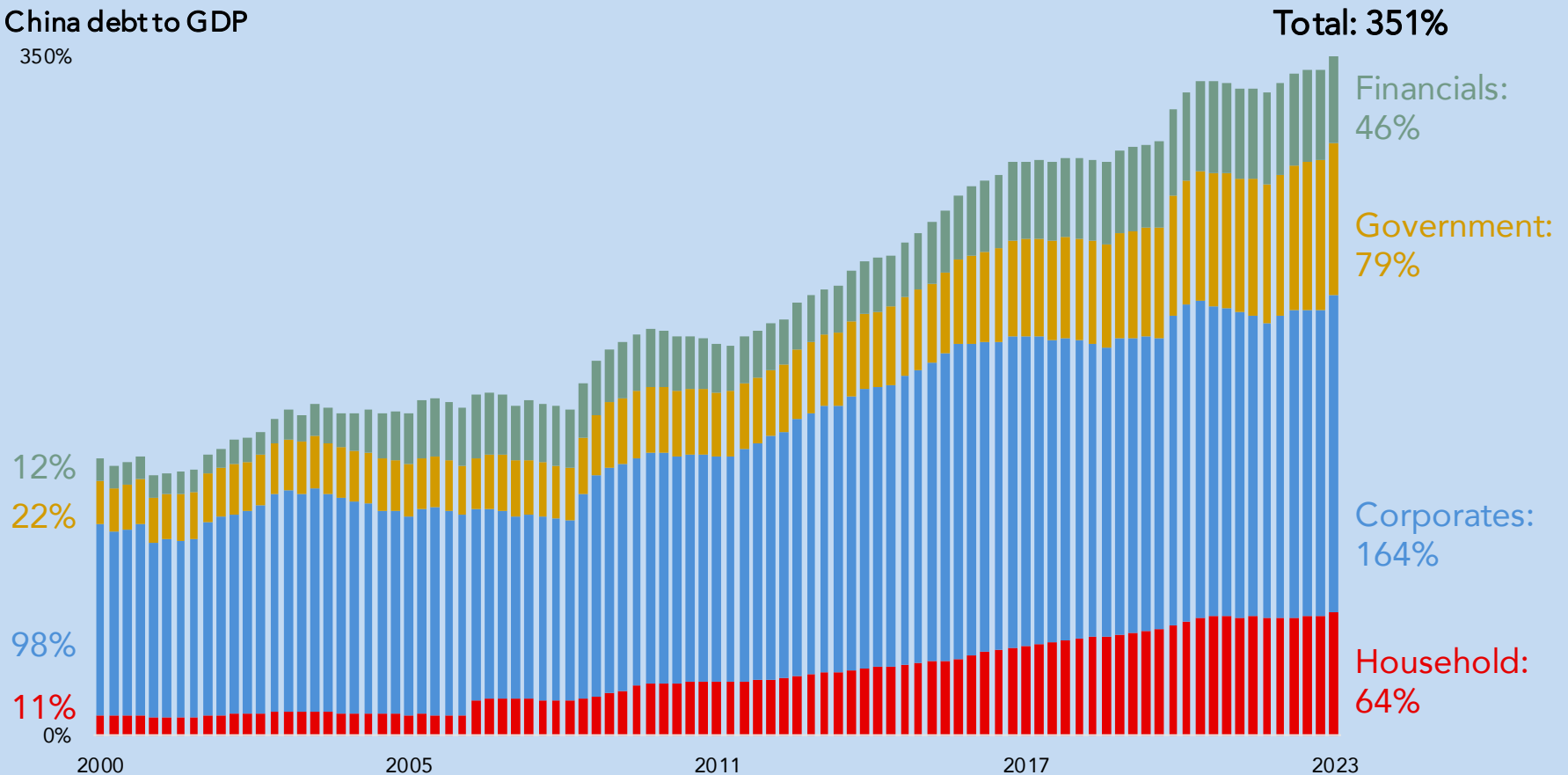


## 6. Rising Debt Levels

Chinese President Xi Jinping has emphasized the importance of “high quality” growth, indicating acceptance of a lower rate of growth going forward. However, with debt / GDP above 350% across an economy with leverage heavily concentrated in the historically high growth property and local Government sectors, growth may decline more than anticipated.

### China debt to GDP

350%



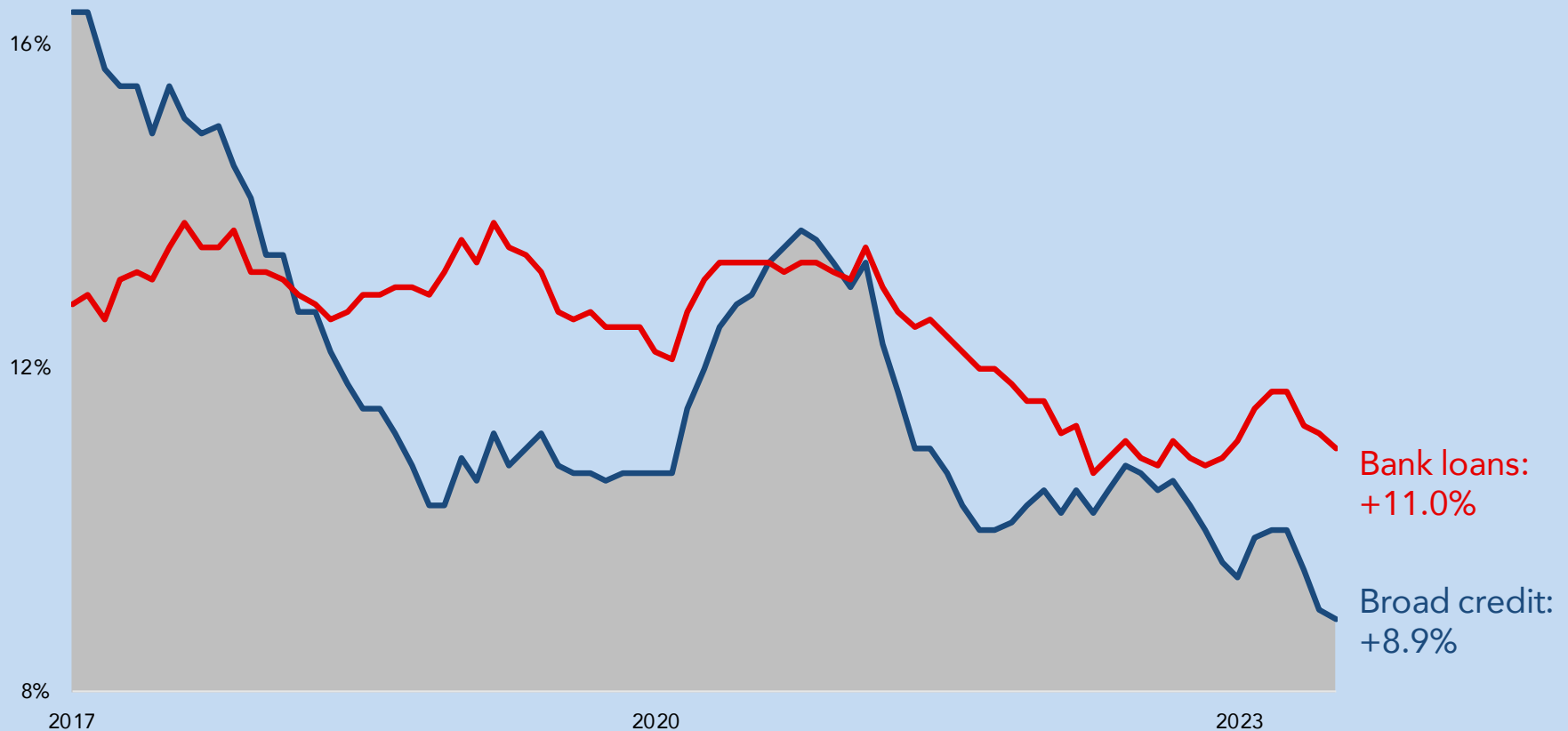
Source: (1) IIF Global Debt Monitor. 2023 is Q1 data.



# 7. Declining Credit Growth

China's less diversified, big bank-dominated sources of credit supply have been restrained by excess leverage concerns and a more cautious Government policy stance. At the same time, low post-COVID consumer confidence in China has reduced the demand for loans.

China's outstanding credit growth (y/y)














Source: (1) Bloomberg. Data as of September 7, 2023. Latest data as of July. Broad credit is all-system financing aggregate growth. Bank loans are RMB Bank Loan Growth.



# 7. Declining Credit Growth

China's financial system is both heavily bank-centric and highly concentrated. Bank lending in China accounts for approximately 65% of credit intermediation in the economy, compared to less than 30% in the United States. Further, China's highly concentrated banking system is dominated by the world's four largest banks. Debt and equity capital markets in China, by comparison, account for about 10% and 20% of funding, respectively.

## The world's 20 largest banks, by assets

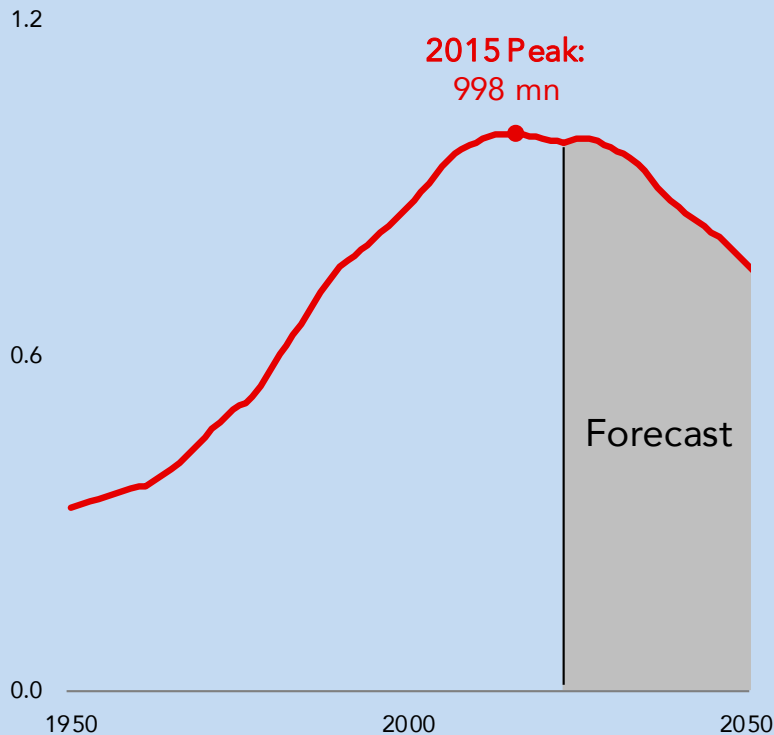
Rank	Company name	Total assets	
	1. Industrial & Commercial Bank of China	\$5.7 trillion	 China's highly concentrated banking system
	2. China Construction Bank Corp.	\$5.0 trillion	
	3. Agricultural Bank of China	\$4.9 trillion	
	4. Bank of China	\$4.2 trillion	
	5. JPMorgan Chase	\$3.7 trillion	
	6. Bank of America	\$3.1 trillion	
	7. MUFG	\$3.0 trillion	
	8. HSBC	\$2.9 trillion	
	9. BNP Paribas	\$2.8 trillion	
	10. Credit Agricole	\$2.5 trillion	

Source: (1) S&P Global Market Intelligence, "The world's 100 largest banks, 2023" (April 17, 2023). Total assets are as of December 31, 2022.

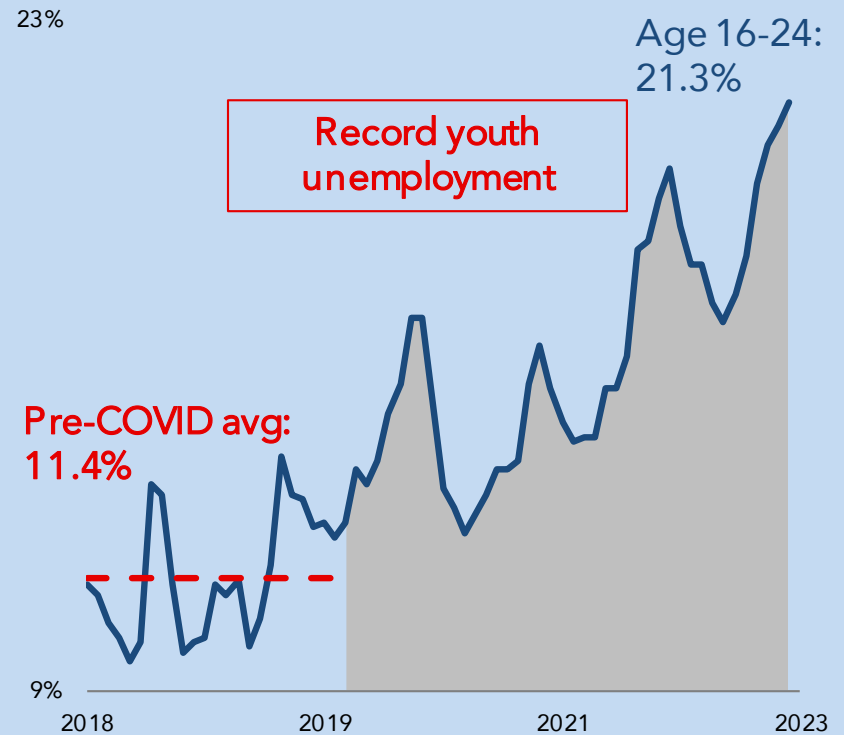
## 8. Demographic Headwinds

China's total population peaked in 2020. However, the 2015 peak in its working age population matters more for the economy. In 2016, China abandoned its one child policy, in place since 1980, though not soon enough to relieve formidable demographic headwinds. Following the damage of a 2-year COVID lockdown, China's youth unemployment rate (age 16-24) has doubled from roughly 10% to > 20%. In July, China's National Bureau of Statistics suspended disclosure of youth unemployment data, raising concerns over data transparency.

China's working age population  
(Age 15-64)



China's youth unemployment rate  
(Age 16-24)

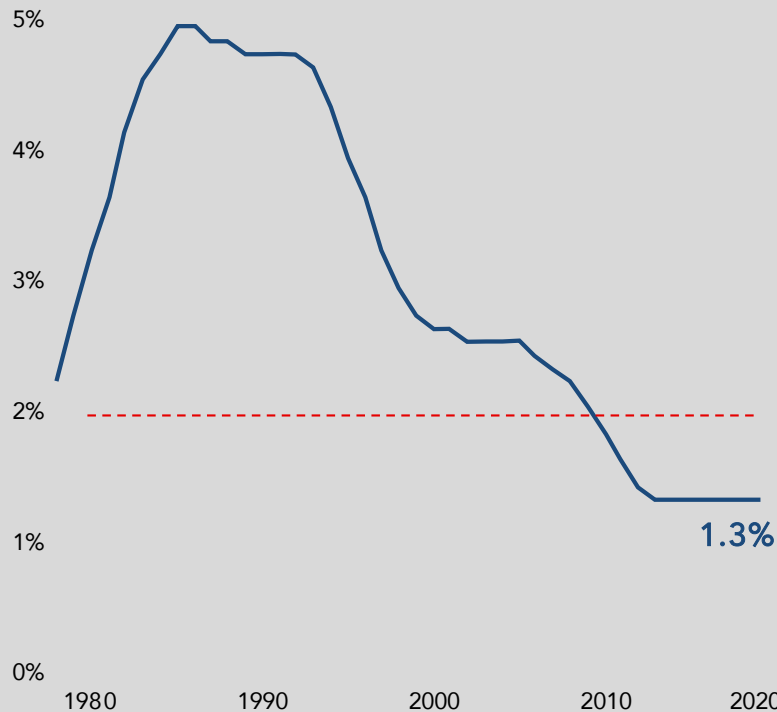


Source: (1-2) UN World Population Prospects 2022. Based on Medium variant estimates. (3) Bloomberg. Data as of September 8, 2023

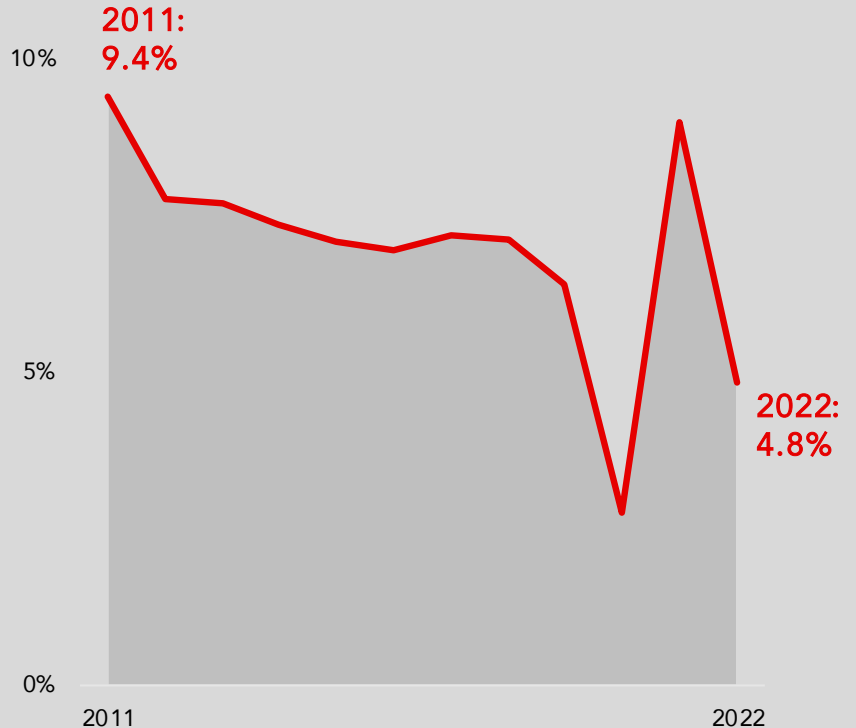
# 9. Declining Productivity

Between the 1980s and early 2000s, productivity gains contributed roughly one third of China's GDP growth. In the last decade, that contribution has fallen to less than one sixth of GDP growth. The diminishing returns of China's investment led growth has been driven by numerous factors, including: limited reform progress, excessive investment directed toward less productive SOEs, excess leverage and supply in the real estate sector, and a shrinking working age population. On the upside, China's investment in technology, innovation and R&D has been formidable, and offsets some portion of declining productivity in future years.

China total factor productivity growth, y/y



China labor productivity growth



Source: (1) WSJ, "China's 40 Year Boom is Over. What Comes Next?" The Lowy Institute. (2) CEIC.

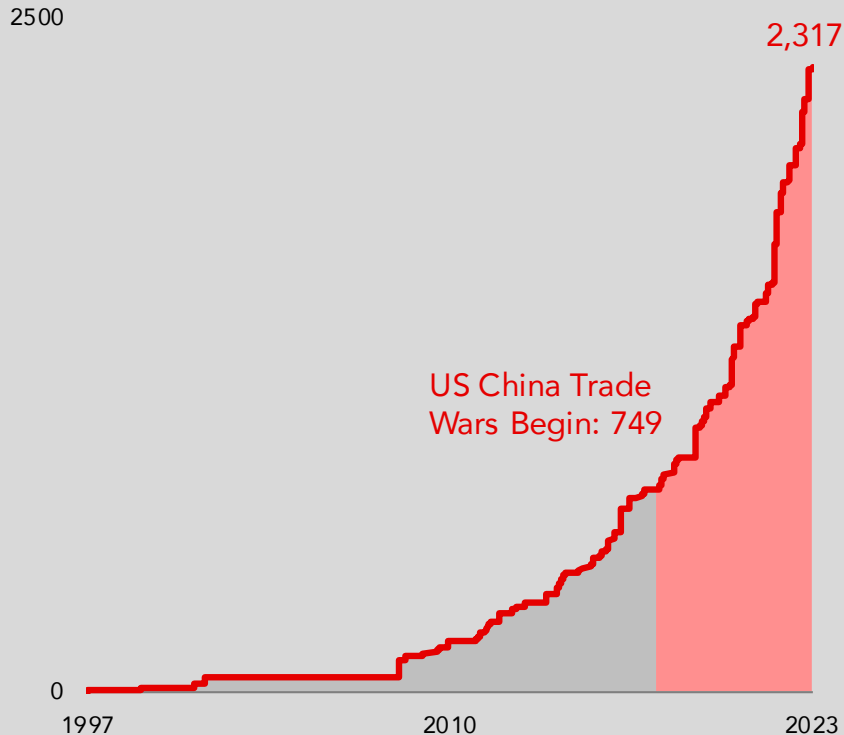




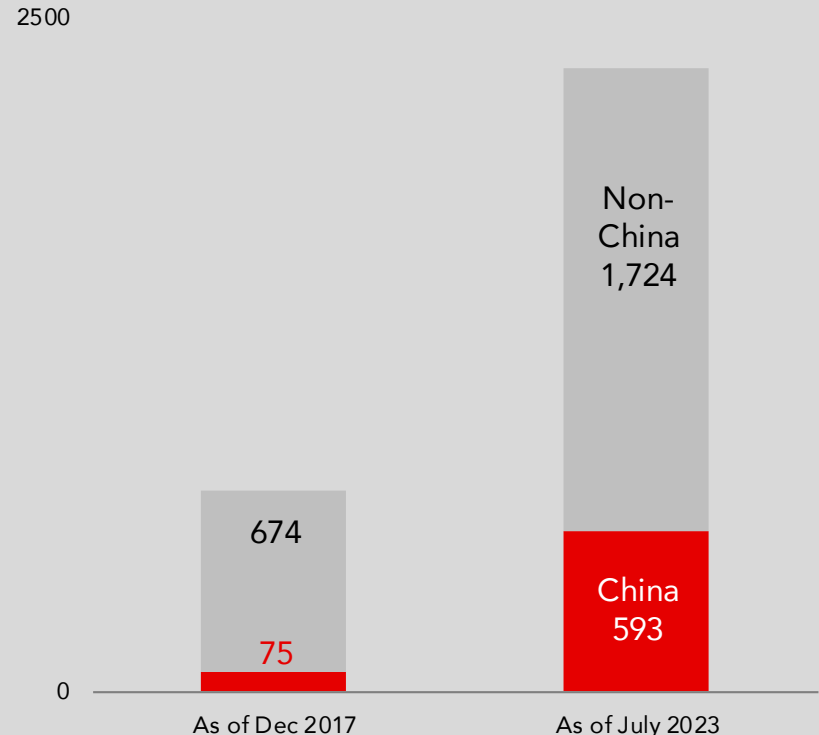
# 10. "Higher Friction" Geopolitics

Since inception in 1997, the US Commerce Department's Entity List has grown to nearly 2,500 entities and sub-entities. Members of the Entity List are subject to specific licensing requirements which may limit their ability to transact with US entities. Since the trade wars began in 2018, and Russia invaded Ukraine in 2022, China and Russia based companies have dominated new additions to the list.

Cumulative additions to the US Commerce Dep't. Entity List (1997 – 2023)



Cumulative US Commerce Dep't. Entity List entries by country of origin



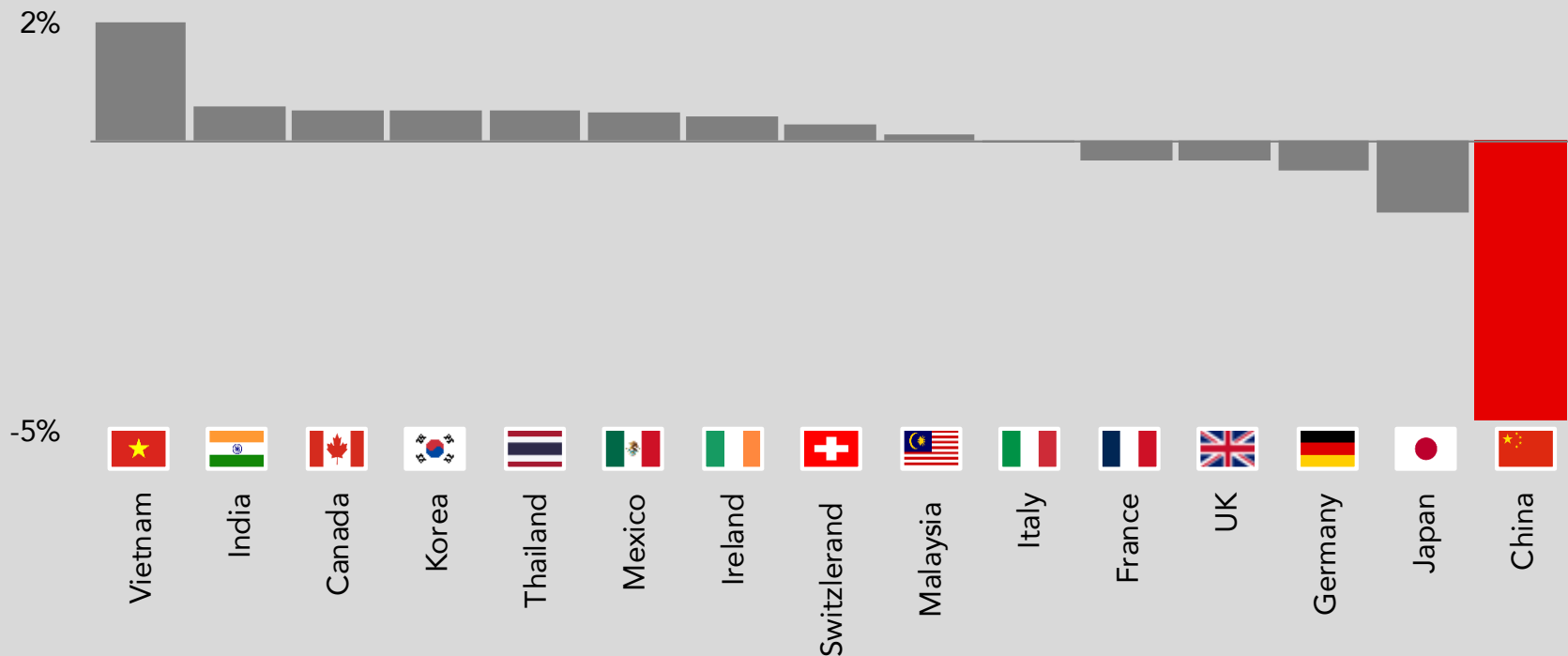
Source: (1-2) Commerce Department. Includes entities and sub-entities but removes duplicate entities. Entities added to the list multiple times are included from their first effective date. Excludes entities with no specified effective date. Data through July 2023. China figures include Hong Kong. Undated entries excluded.

# 10. "Higher Friction" Geopolitics



Following the US-China trade wars since 2017, China's share of US imports began a steady decline as US Government policy and the COVID crisis encouraged US companies to reallocate sourcing patterns across partner countries. While the total volume of Chinese imports into the US has increased over this period, China's market share has experienced a sharp 5% decline in just 5 years.

US import market share change (2017-2022)




Source: (1) "Global Supply Chains: The Looming Great Reallocation" (Alfaro, Chor). Prepared for the Jackson Hole Symposium, Aug 24-26, 2023 organized by the Federal Reserve Bank of Kansas City. UNComtrade. Data as of August 29, 2023.

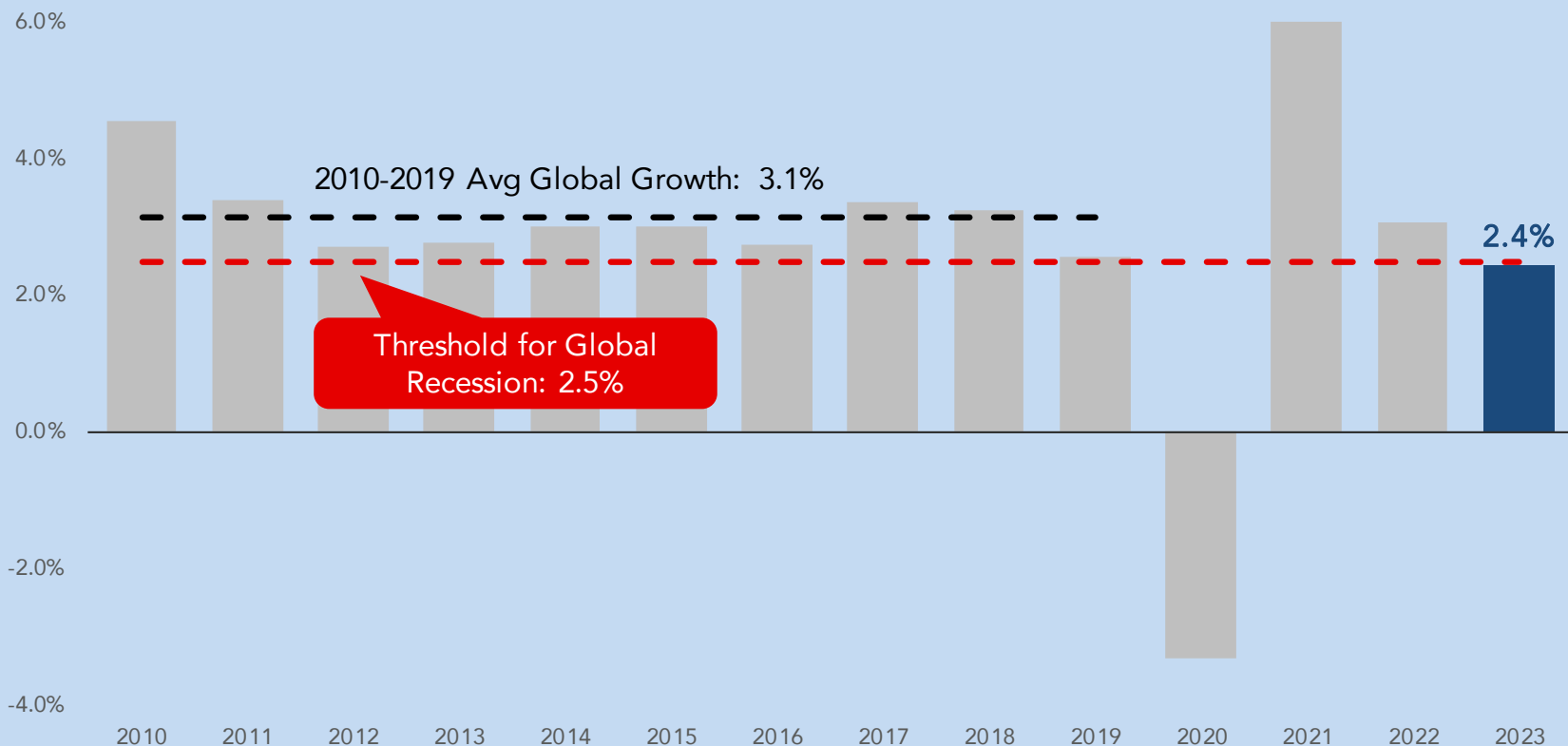
An aerial photograph of the Shanghai skyline, featuring the Shanghai Tower, Shanghai World Financial Center, Jin Mao Tower, and the Oriental Pearl Tower, all rising above a thick layer of white clouds. The sky is a deep blue with some wispy clouds, and a hint of sunset or sunrise is visible on the horizon.

## II. Implications

# 11. The Global Economy

 China represents 17% of global GDP but ~1/3 of global GDP growth. Following the synchronized global policy tightening and elevated inflation in 2022, and a tepid post COVID recovery in China's economy in 2023, the global economy is once again slowing close to recession thresholds. Ex-China, global growth is even slower, running closer to 2% in 2023.

World GDP growth, y/y

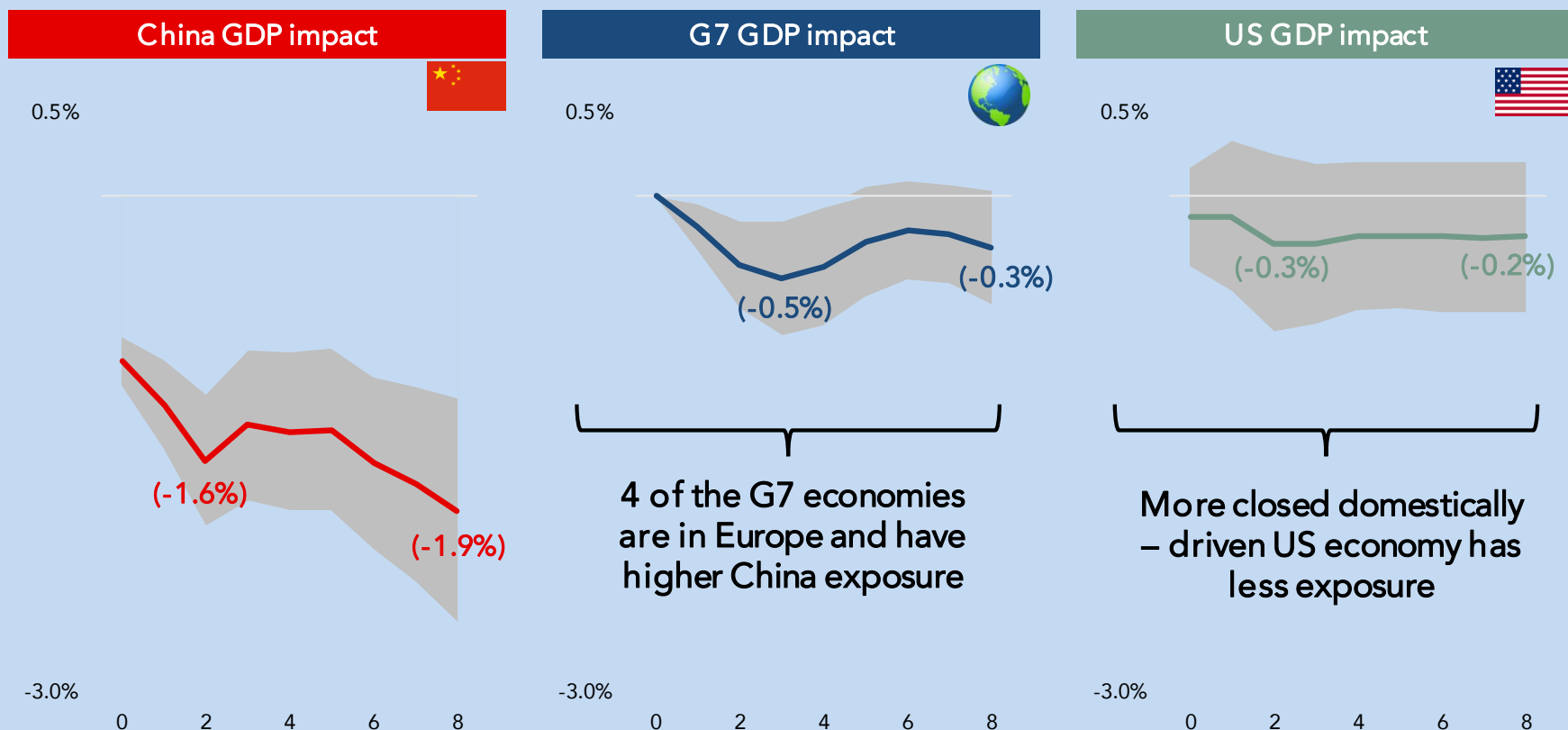


Source: (1) Oxford Economics. Data as of September 8, 2023.

# Economic Implications of a China Hard Landing

As the world's 2nd largest economy, the IMF has noted that China's slowdown would impact nearly every country globally. A 2019 Fed study emphasized that commodity-exporting economies would be hit hardest. By contrast, the domestically driven US economy would be less impacted, primarily through global risk aversion and tighter financial market conditions.

Percentage change in quarters following negative China GDP shock



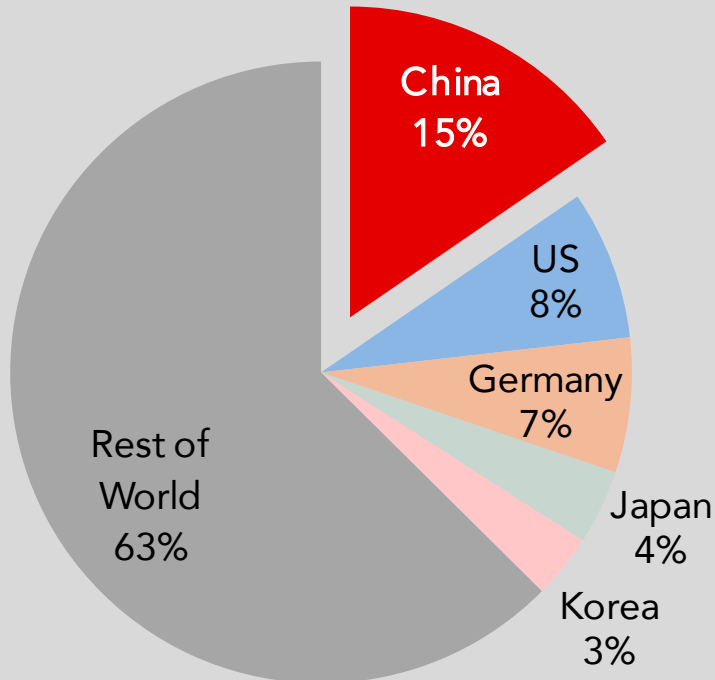
The grey shading represents the upper and lower bounds of the 90% confidence interval around the impulse response estimate.

Source: (1) Ahmed, Shaghil, Ricardo Correa, Daniel A. Dias, Nils Gornemann, Jasper Hoek, Anil Jain, Edith Liu, and Anna Wong (2019). Global Spillovers of a China Hard Landing. International Finance Discussion Papers 1260.

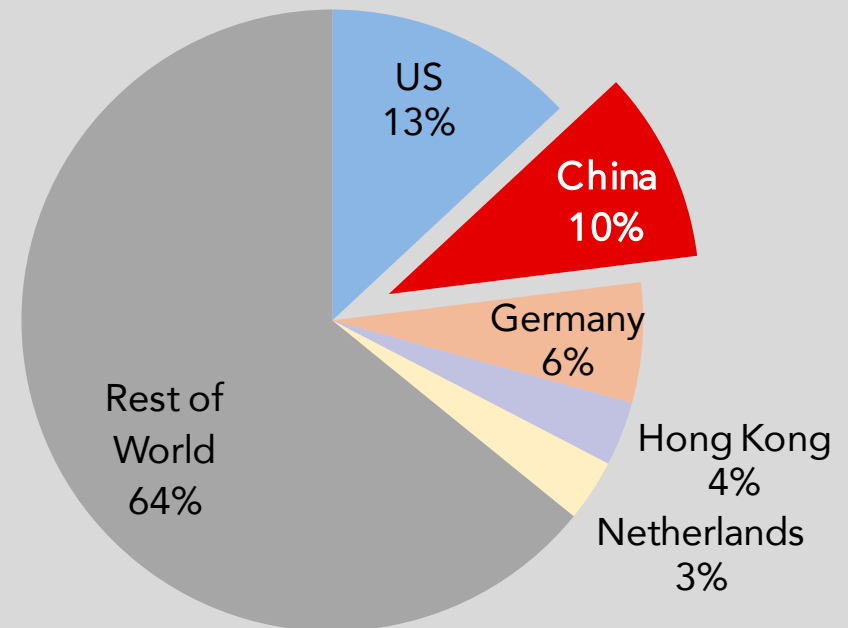
# 12. Global Trade Volumes

China is the world's largest exporter of goods and second largest importer of goods, accounting for 15% and 10% of global exports and imports, respectively. China is also the top trading partner to over 120 countries, including Japan, South Korea, Vietnam and Taiwan.

China's share of global exports



China's share of global imports



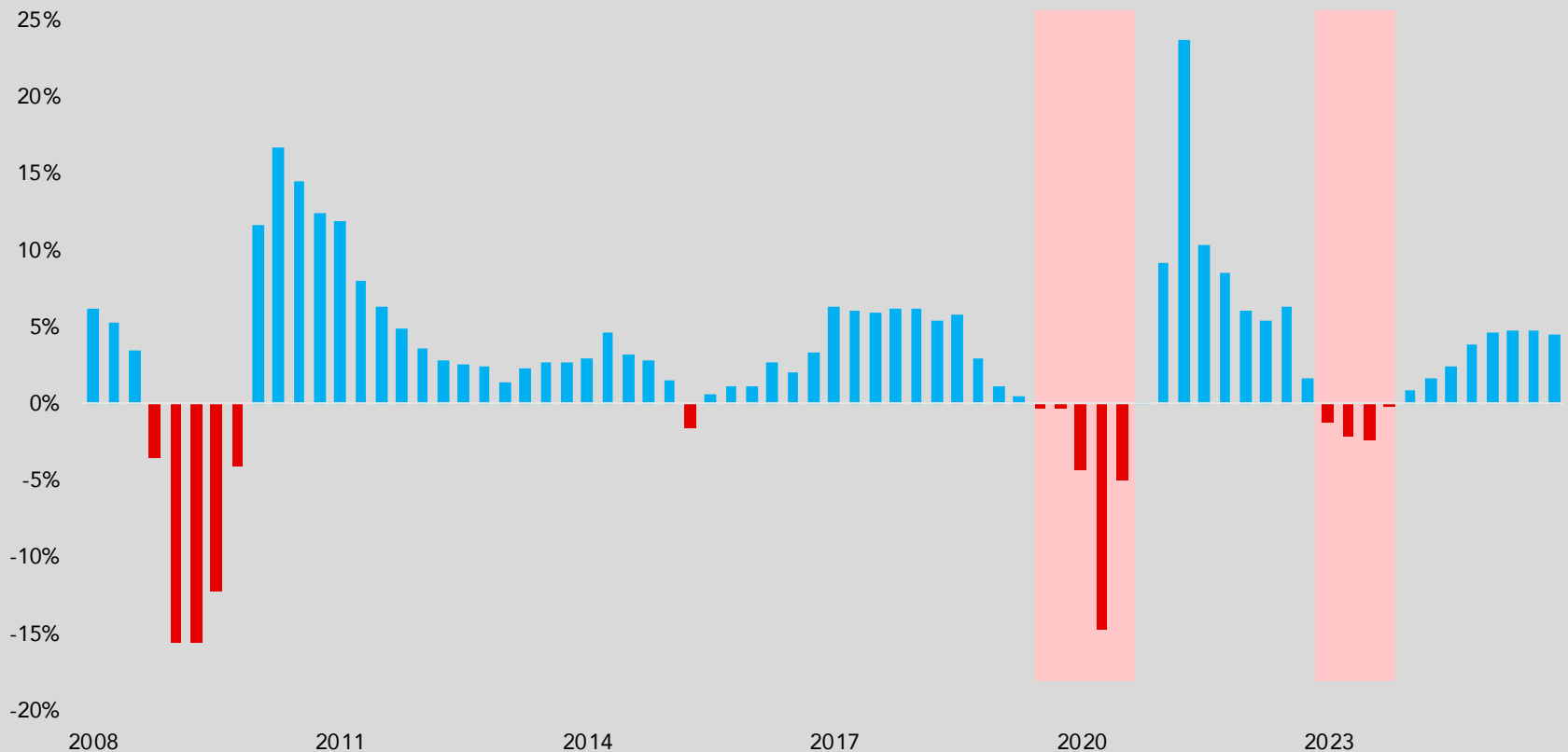
**China is the world's  
largest trading nation**

Source: (1-2) World Bank WITS (World Integrated Trade Solution). Most recent data available is 2021.

# Shallow Global Trade Recession in Late 2023

Led by weakness across Europe and parts of Asia (i.e., China), a shallow contraction in global trade of about 1.5-2% is expected in the 2H of 2023, followed by a modest recovery in 2024. Key drivers include a contraction in dollar credit globally on policy tightening, a decline in corporate investment and capital goods, deglobalization pressures and China's slowdown.

## Goods trade volume % point contribution to annual growth in world trade

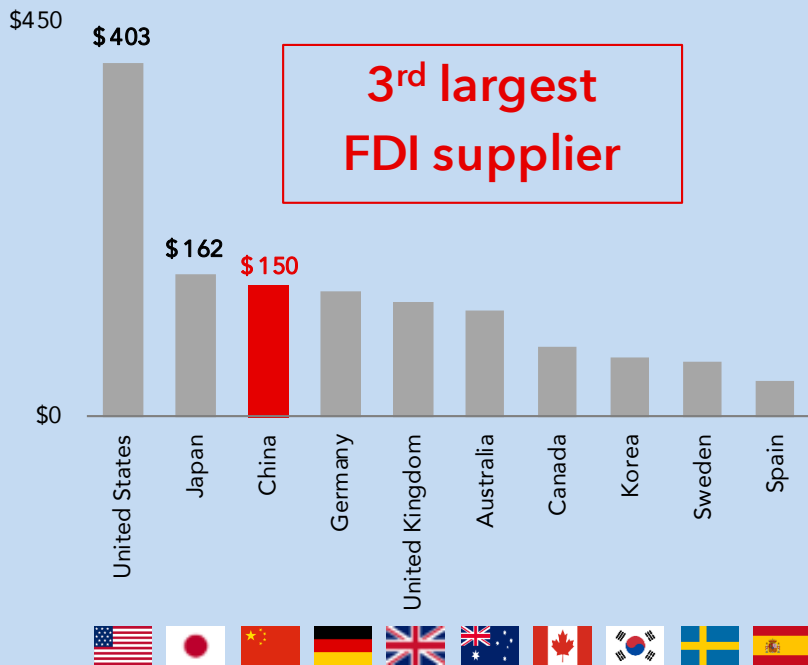


Source: (1) Oxford Economics, "Stagnant Outlook for World Goods Trade" (September 6, 2023).

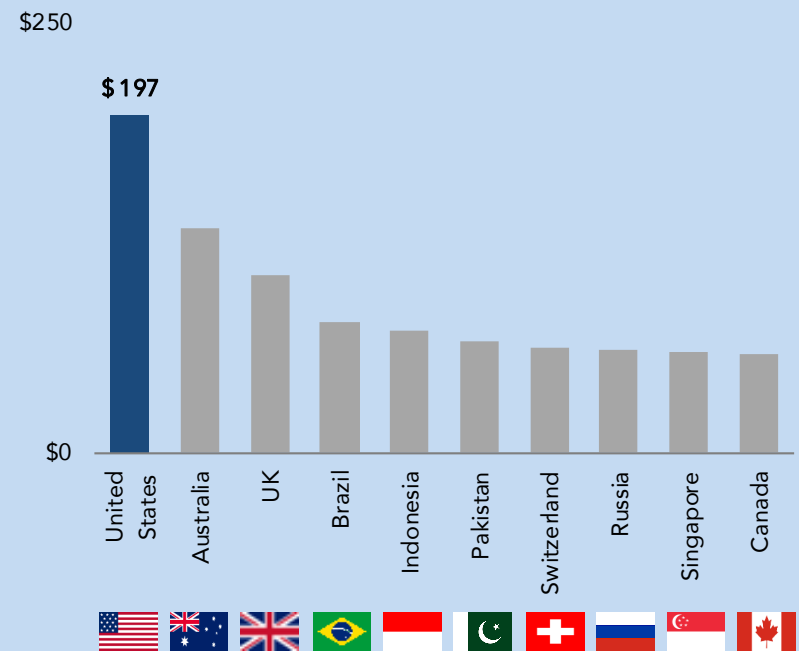
# 13. FDI Investment Flows

FDI by foreign companies into China dropped \$4.9 bn in Q2, an 87% decline, and the largest drop since 1998. Numerous US and multi-national companies (MNCs) continue to reduce their footprint in China due to: domestic prioritization of national champions over competition; MNCs choosing repatriation of profits over reinvestment; supply chain diversification; & tech-related investment restrictions. In terms of outbound FDI, China invested \$150 bn abroad in 2022, the 3rd highest outbound FDI volume globally. Including Belt & Road initiatives, China's outbound FDI volumes are significantly higher.

Outbound FDI, 2022, USD bn



Top cumulative destinations for China investment & construction, 2005 – 1H2023 cumulative, USD bn



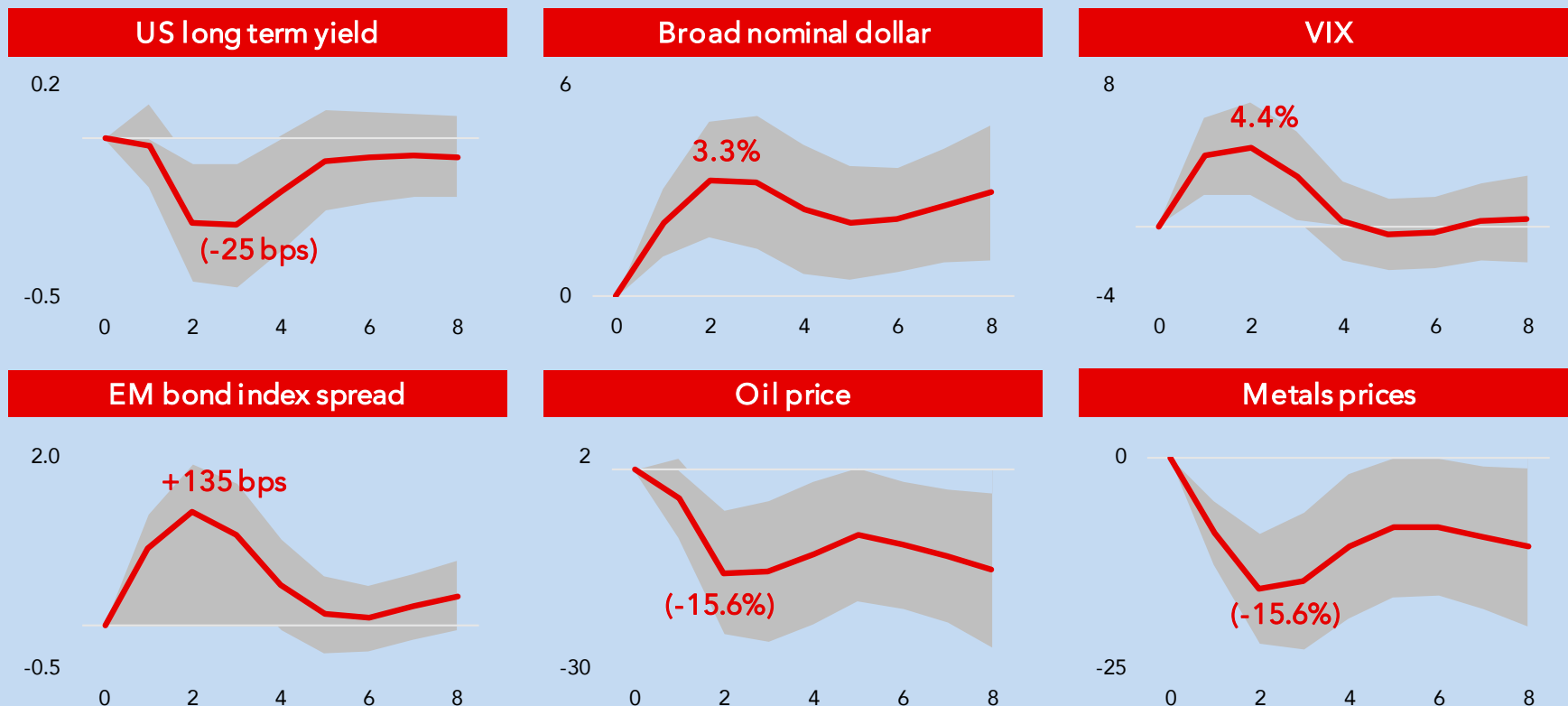
Source: (1-2) OECD. Data is preliminary for full year 2022. China, Australia and Korea data based on asset / liability basis as opposed to directional basis. AEI Heritage Foundation.



# 14. Global Markets

The Federal Reserve published a study on the potential spillovers of a China “hard landing” scenario for the global economy and markets. Based on an historical analysis of China market turbulence (2013 credit crunch, 2015 RMB deval, etc.), the study models the impact of a 1 percentage point q/q negative shock to GDP growth.

Percentage change in quarters following negative China GDP shock



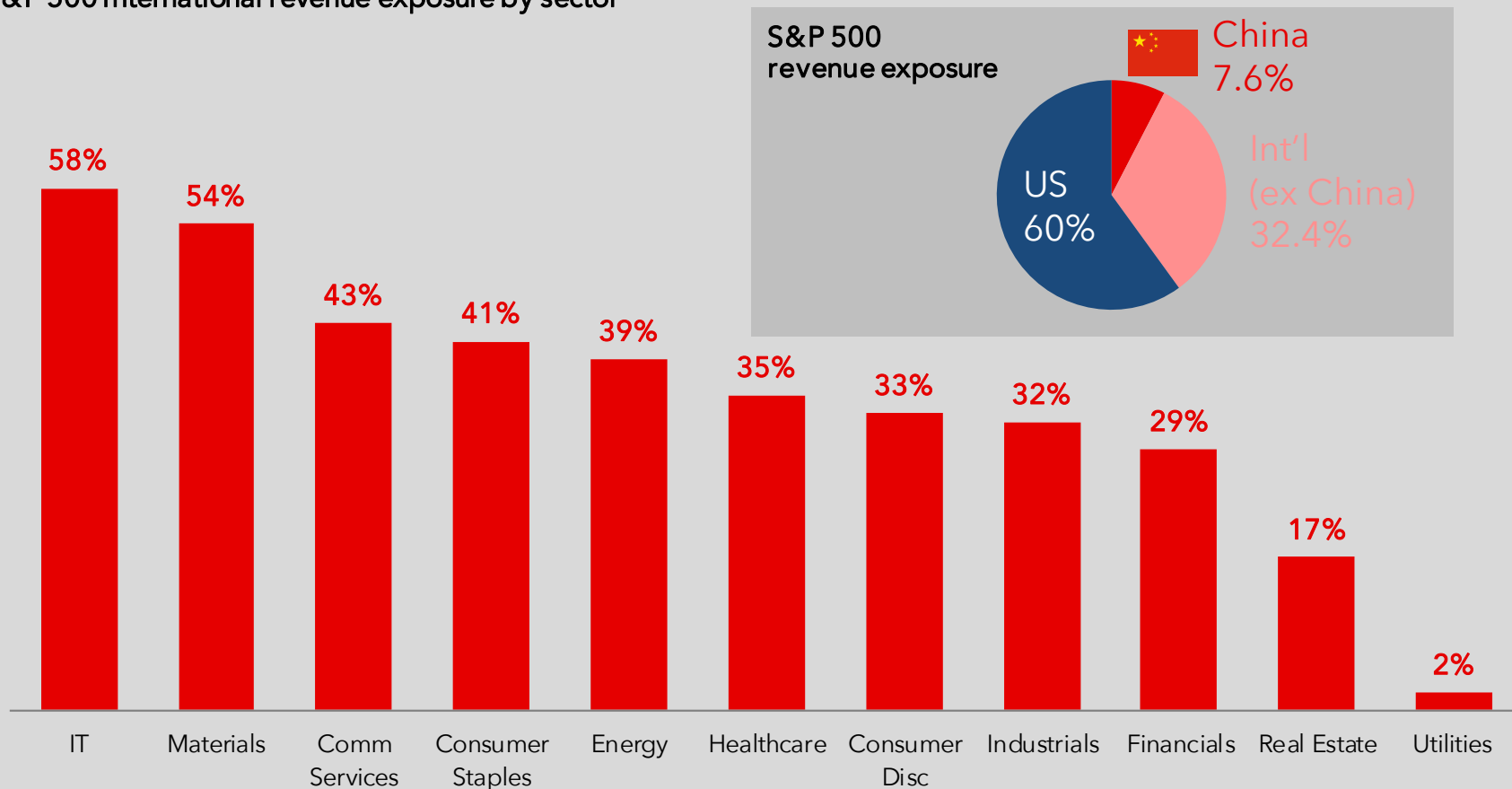
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# 15. Corporate Earnings

Roughly 40% of S&P 500 revenue is generated internationally, nearly 8% from China. However, China exposure varies sharply by sector with IT and Semiconductor companies deriving 16% and 27% of revenues from China, respectively.

S&P 500 international revenue exposure by sector

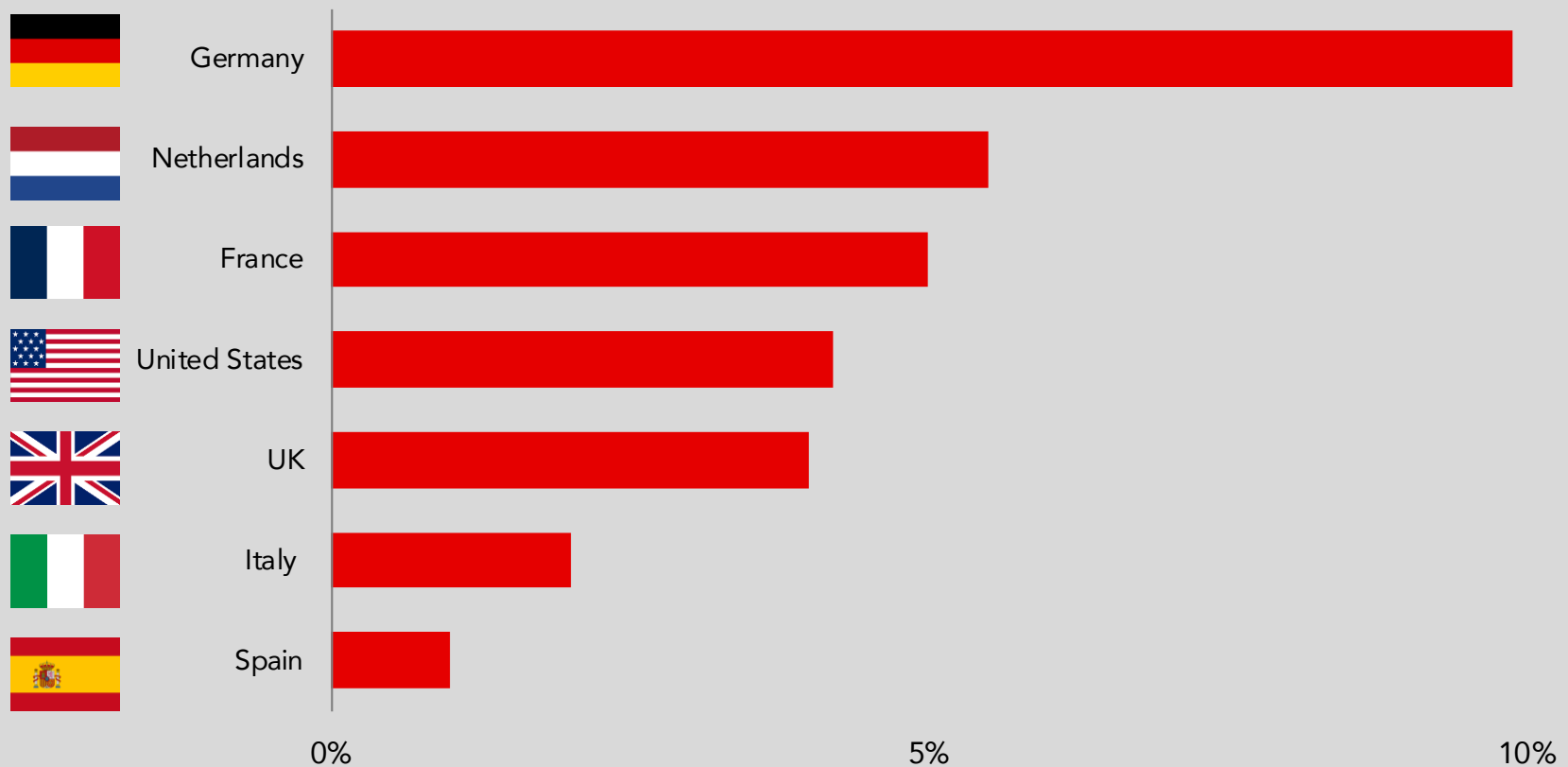


Source: (1-2) FactSet. S&P 500 Companies with More International Exposure Reporting Revenue Decline for Q1. May 2023.

# 15. Corporate Earnings

According to Bloomberg, the 200 largest MNCs in the US, Europe and Japan made 13% of their sales in China in 2021, earning \$700 bn.

Exposure to China, total exports and Western-owned subsidiaries' revenues  
(% of GDP)

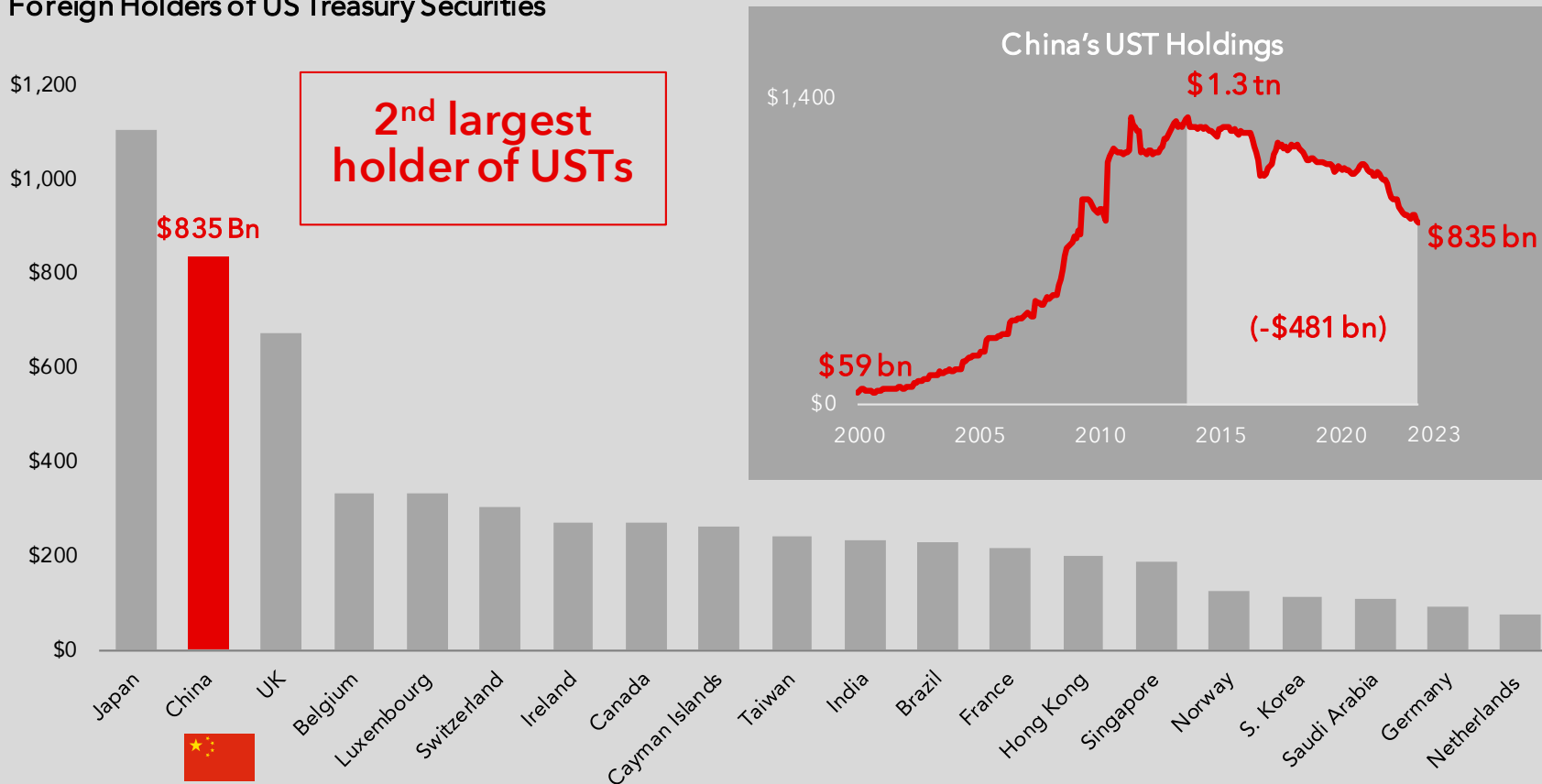


Source: (1) Bloomberg; Capital Economics; Eurostat; IMF; OECD. Goods exports are mainland China only. Services exports and affiliates' revenues include Hong Kong.

# 16. Overseas UST Demand

China's holdings of US Treasuries peaked in 2013 at \$1.3 trillion. Despite selling over \$100 bn in USTs over the past year, China is still the second largest foreign holder of US government debt. In fact, evidence suggests that UST sales have been offset by purchases of US agency debt and other USD bonds.

## Foreign Holders of US Treasury Securities

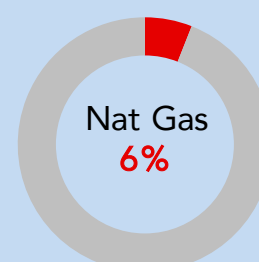
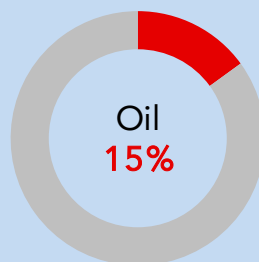
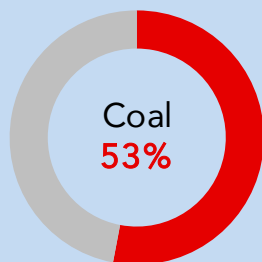
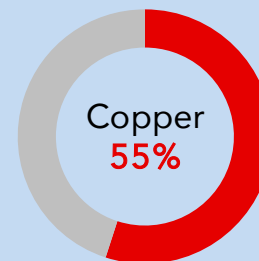
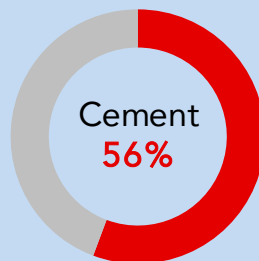
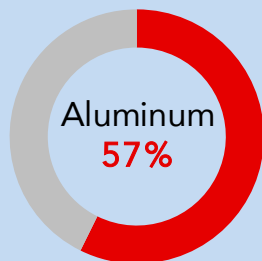
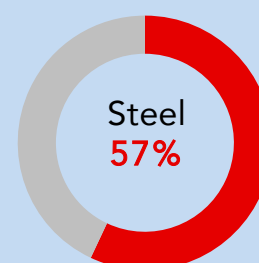
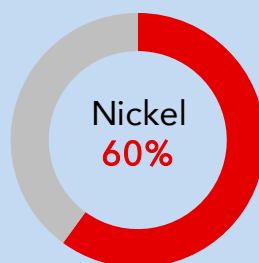
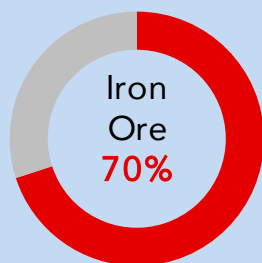


Source: (1) US Department of the Treasury. Data is latest available - June 2023. Reuters "China slips away from Treasuries but sticks with dollar bonds".

# 17. Global Commodities

China is the largest consumer of global commodities, accounting for over 50% and 15% of total global demand of industrial metals and oil, and an even larger percentage of global demand growth.

## China's share of global demand

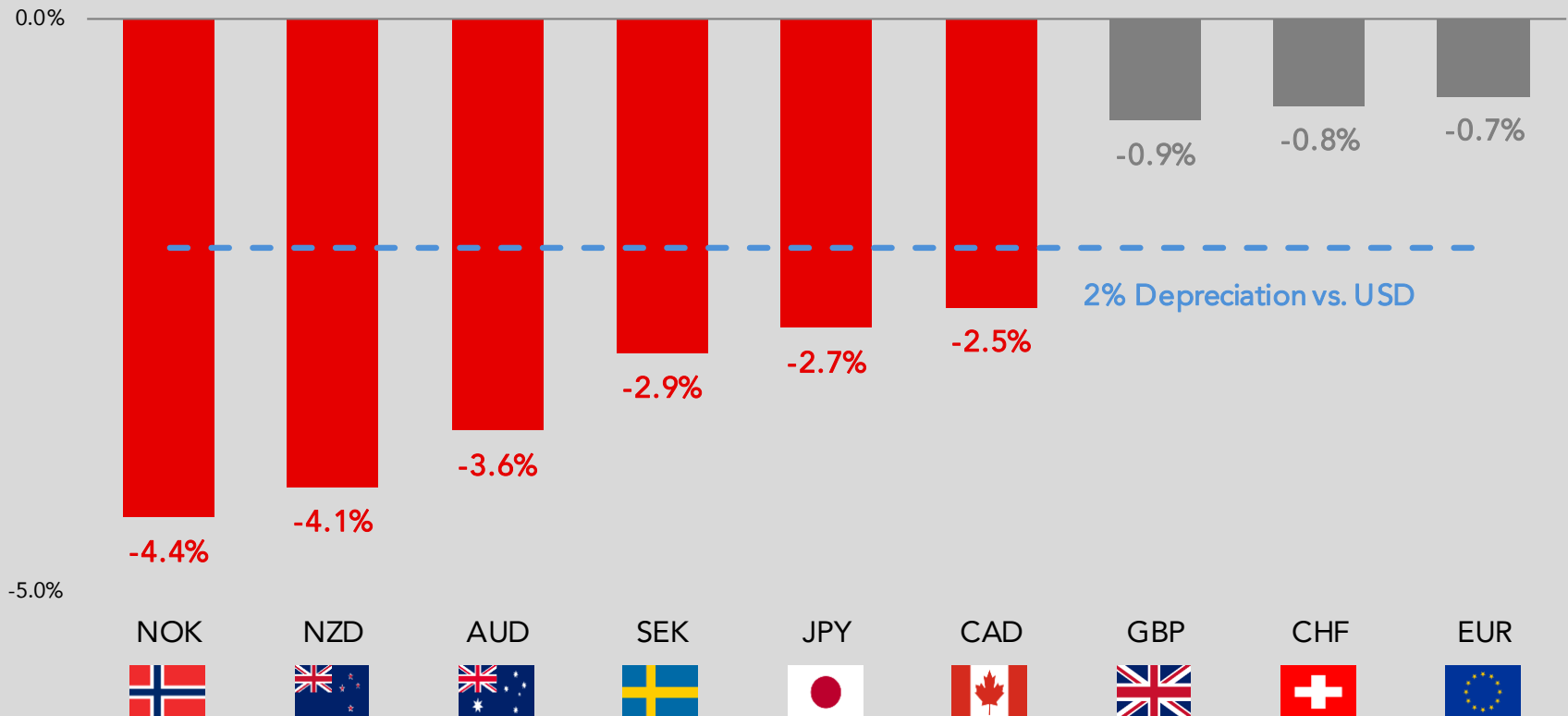


Source: (1) S&P Global Commodity Insights. Refers to Seabourn iron ore. (2,4,6) Statista. 2012 data for Copper and Nickel. 2021 for Aluminum. (3) OECD. 2020 data. (5) Cemnet. 2019 data. (7) IEA. 2022 data. (8) EIA. 2021 data. (9) Worldometer.

# 17. Global Commodities

Commodity and Scandi currencies have historically had a higher correlation to China's economic performance. China's slowdown has created a flight to safety that, paired with the repricing of peak Fed expectations, caused broad based USD strengthening vs. other G10 currencies. However, the weakness is more pronounced in the commodity oriented (AUD, CAD) and Scandinavian (NOK, SEK) currencies.

Currency performance vs. USD in August, 2023



Source: (1) Bloomberg. Data as of August 30, 2023. MUFGFX Research.



# 18. RMB Weakness

Year-to-date, the RMB has depreciated over 6% vs. the USD. In response, the PBoC has stepped up efforts to slow RMB weakness by increasing offshore funding costs (squeezing short positions) and setting the daily fixing rate at firmer levels. While the efforts may slow the RMB's depreciation, a steady reversal is not expected until Chinese growth figures improve and rate differentials reverse. MUFG forecasts USDCNY to strengthen modestly to 7.1 by year end on the back of more effective China stimulus and reversals in UST rates.

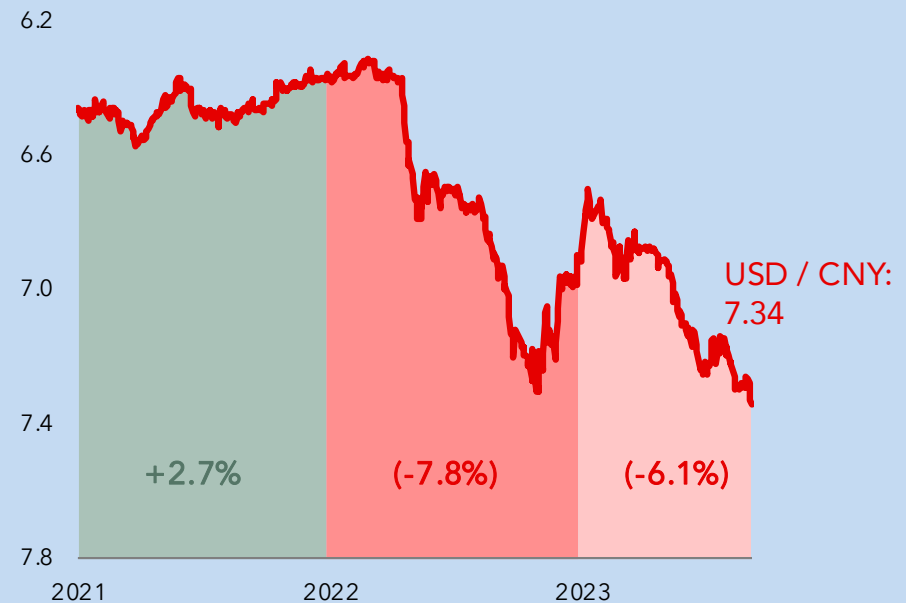
## Widening Rate Differentials

US & China 10yr government bonds



## RMB Weakness

USD / CNY (inverted axis)

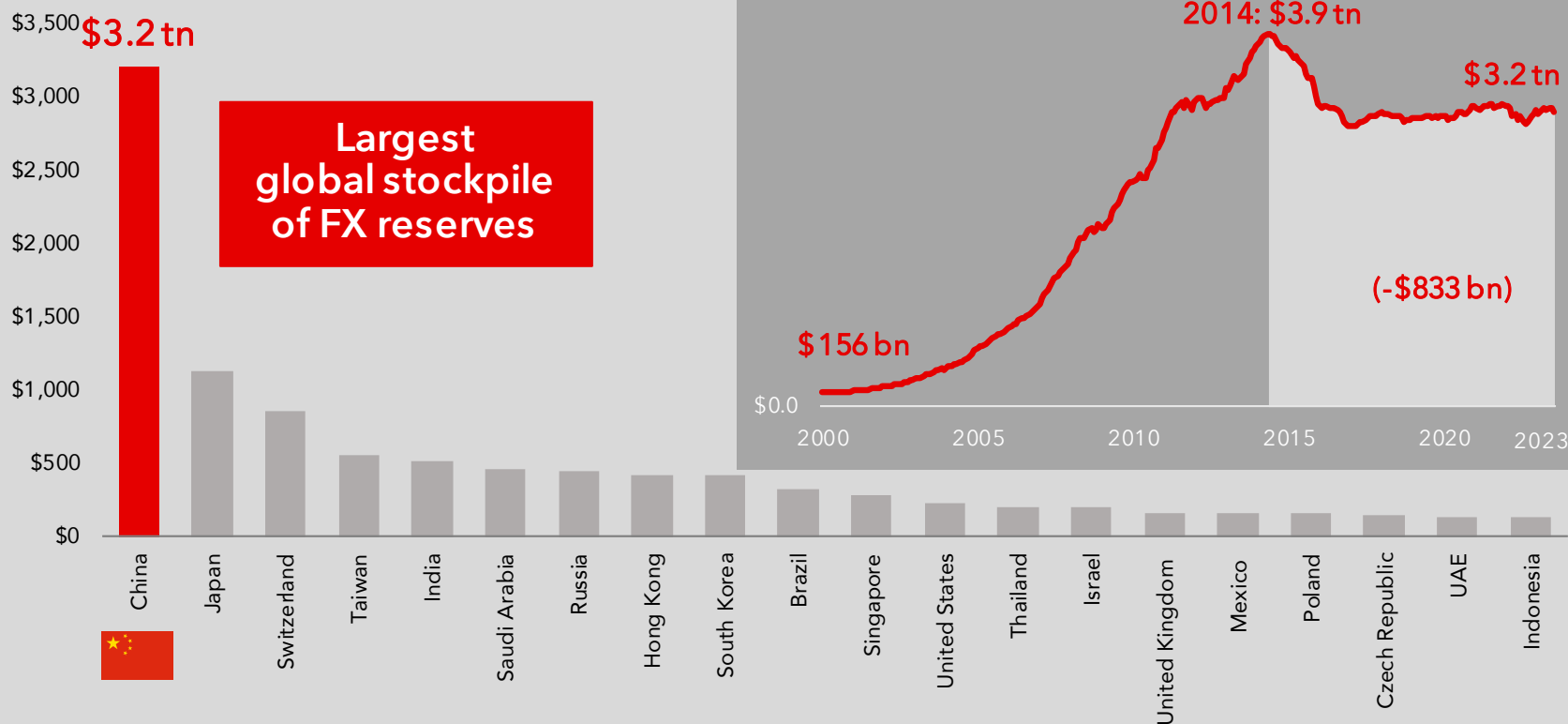


Source: (1-2) Bloomberg. Data as of September 8, 2023. Axis in reverse order. Performance is CNYUSD.

# 19. Stockpile of FX Reserves

China holds \$3.2 trillion worth of FX reserves, the largest stockpile of any country in the world and nearly 3x the second largest holder (Japan at \$1.1 trillion). While the exact composition of China's reserves is not publicly available, China has announced a declining share of US dollar assets in their reserve portfolio.

Value of non-gold reserves by territory



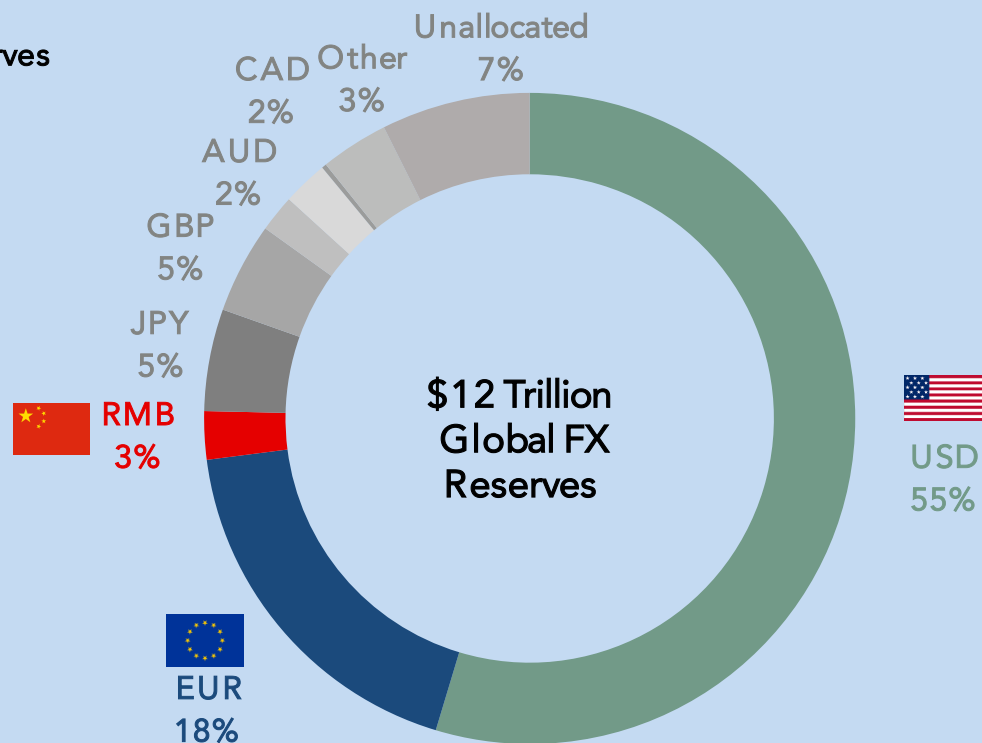
Source: (1) Council on Foreign Relations "The Dollar: The World's Reserve Currency". World Bank. Central Bank of the Republic of China (Taiwan) With the exception of Taiwan, total comprise foreign exchange reserves held by monetary authorities, reserves held by the IMF, and IMF Special Drawing Rights.



## 20. Reserve Currency Status

While the RMB has more than doubled its share of global FX reserves since 2016, it still represents less than 3% of global reserve portfolios. Despite a push to internationalize its currency, China has been cautious in allowing full financial liberalization, slowing its adoption as a reserve currency. A slowing economy and elevated capital outflow pressures run counter to the policy liberalization China would need to substantively enhance the trade settlement and global reserve currency status of the RMB.

Share of global FX reserves  
(By currency)



Source: (1) IMF World Currency Composition of Official Foreign Exchange Reserves. ECB "Internationalization of the renminbi and capital account openness".

# About the Authors



## Tom Joyce

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### Role

Tom Joyce is a Managing Director and Capital Markets Strategist within MUFG's global capital markets and investment banking business. Based in New York, Tom heads a team that creates customized analytical content for multi-national S&P 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

### Experience

Tom has over 25 years of Investment Banking experience in New York, London, Hong Kong, and San Francisco. Over the last 15 years, Tom created and built the Capital Markets Strategy role, advising corporate C-Suite executives (Boards, CEOs, CFOs, and Treasurers) on the pervasive macro forces driving markets. Tom also presents at dozens of corporate events each year including Board meetings, CEO ExCo sessions, CFO and Treasury off-sites, corporate leadership events and conferences.

### Education

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

### Personal

Tom resides in New Canaan, CT with his wife and four sons, where he serves on the Board of Trustees of the New Canaan Library as well as the Holy Cross College President's Council.

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### Role

Hailey Orr is a Managing Director in MUFG's Capital Markets Strategy group within the global capital markets and investment banking business. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

### Experience

Hailey has a decade of Wall Street experience, including three years as a Consumer Sector Specialist in Equity Sales and seven years as a Capital Markets Strategist. Hailey is also a member of MUFG's Inclusion & Diversity Council and has devoted years to participating in and developing Wall Street recruiting programs.

### Education

Hailey graduated with honors from the University of Michigan's Ross School of Business with a BBA and a minor in International Studies.

### Personal

In March 2020, Crain's New York Business Magazine named Hailey one of the "Rising Stars in Banking and Finance".



## Stephanie Kendal

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Stephanie Kendal is a Vice President in MUFG's Capital Markets Strategy group within the global capital markets and investment banking business. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

### Experience

Stephanie has spent over five years as a Capital Markets Strategist. She is an active member of the University of Michigan recruiting team and is focused on the diversity recruiting effort at MUFG. Stephanie is also a part of MUFG's DEI, Culture & Philanthropy (DCP) Council.

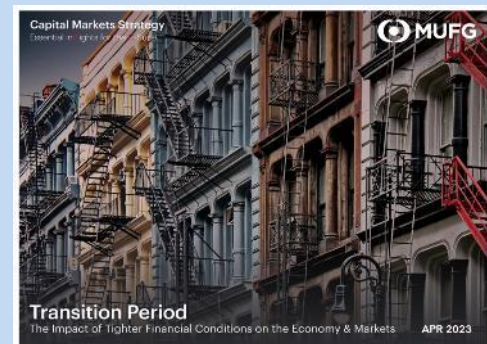
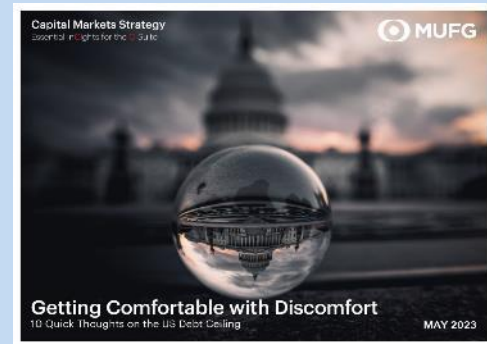
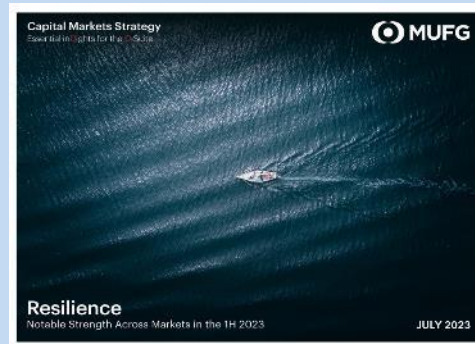
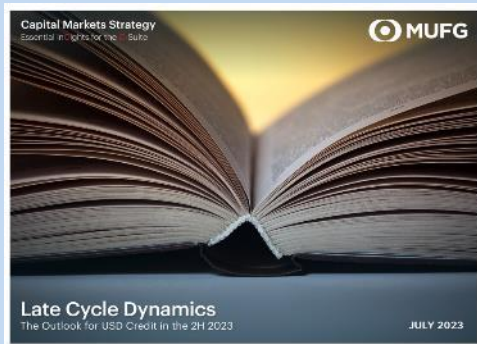
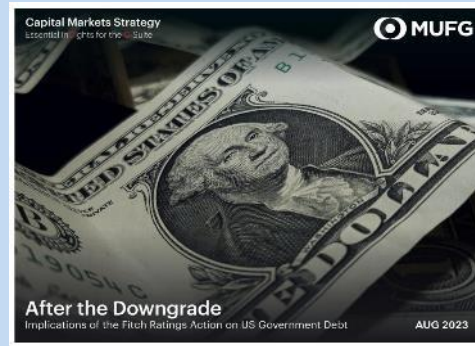
### Education

Stephanie graduated with honors from the University of Michigan's Ross School of Business with a BBA.

### Personal

Stephanie is actively involved in NYC's iMentor program, mentoring high school students with their journey to college graduation.

# MUFG's Capital Markets Strategy Team

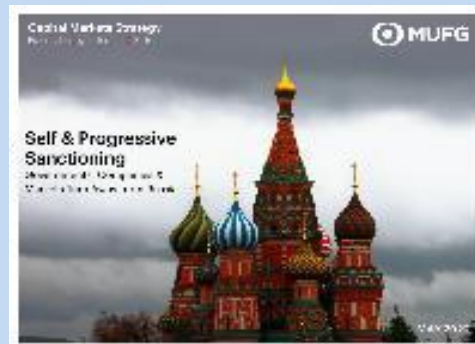




# MUFG's Capital Markets Strategy Team



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