

MARKET INSIGHTS

# Guide to China

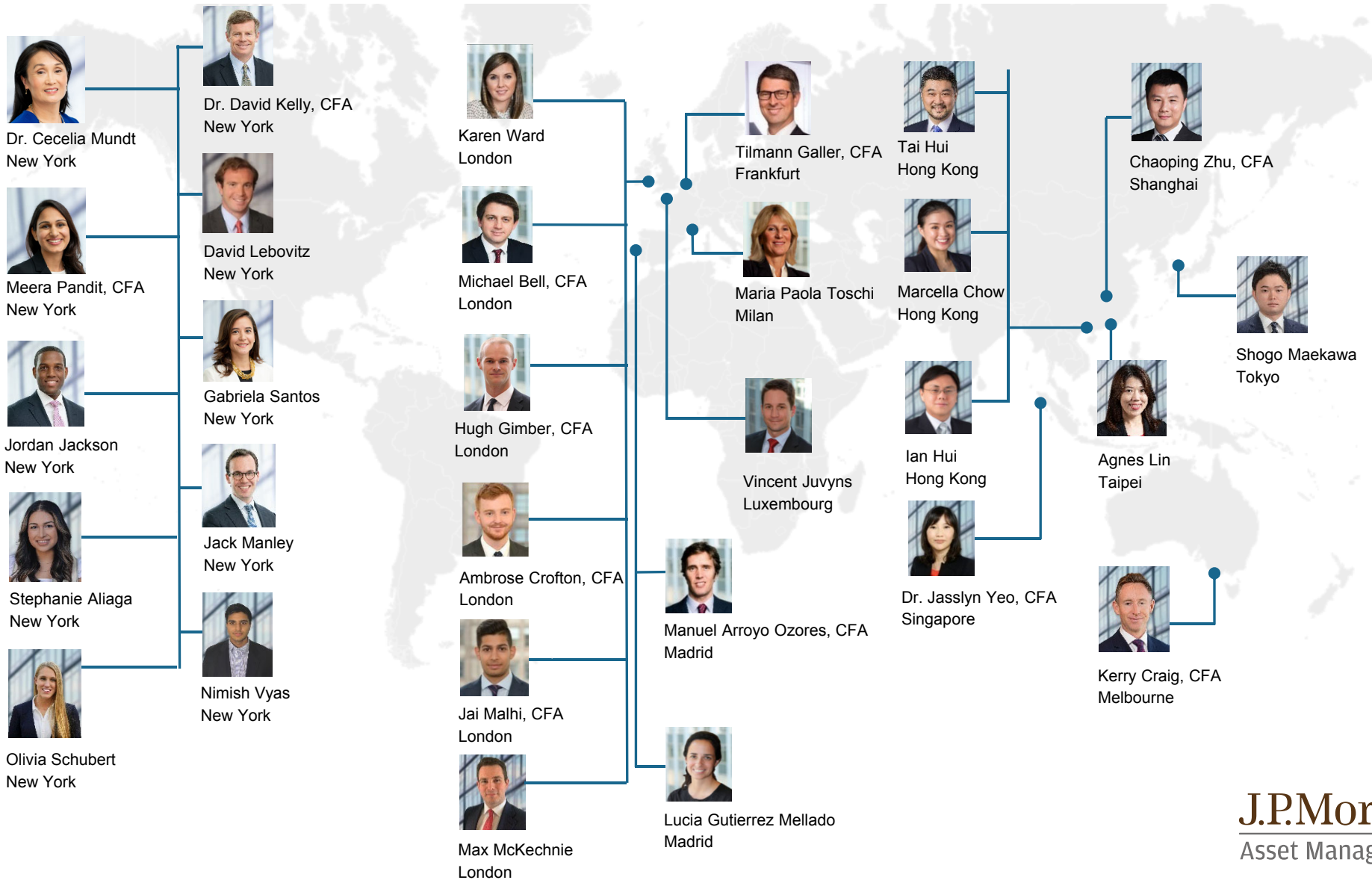
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4Q 2021 | As of October 31, 2021

*J.P. Morgan*

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**J.P.Morgan**  
Asset Management



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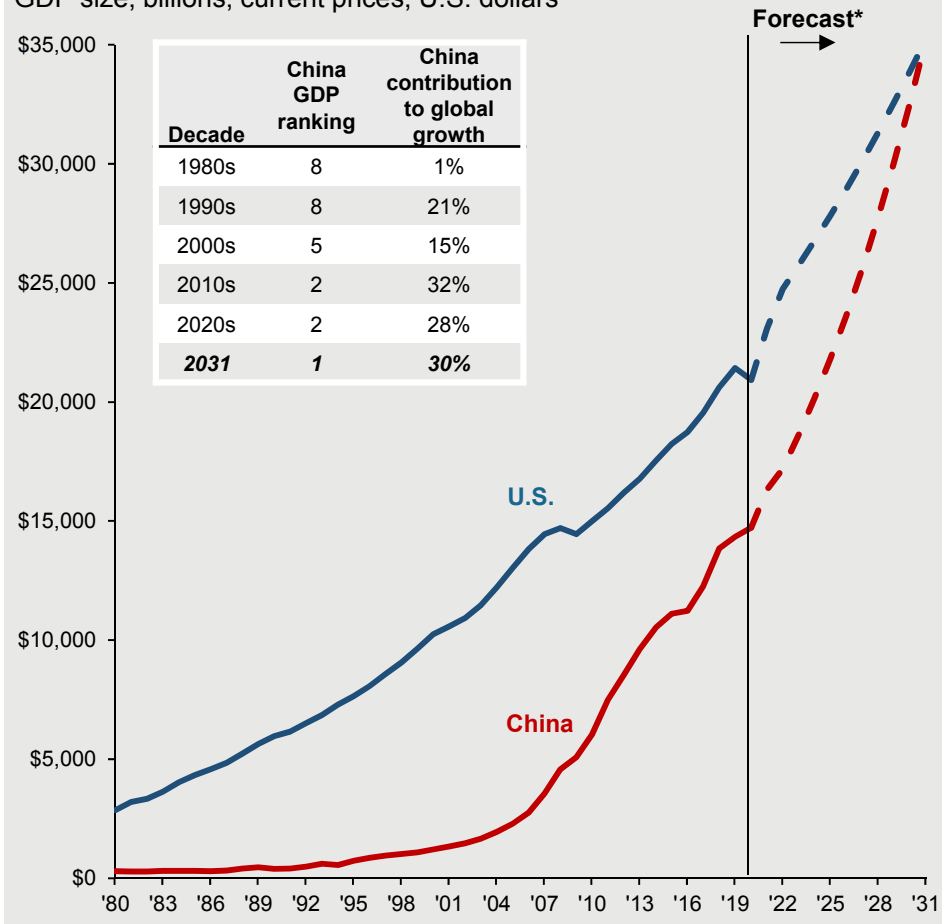
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### APPENDIX: KEY FACTS ABOUT CHINA

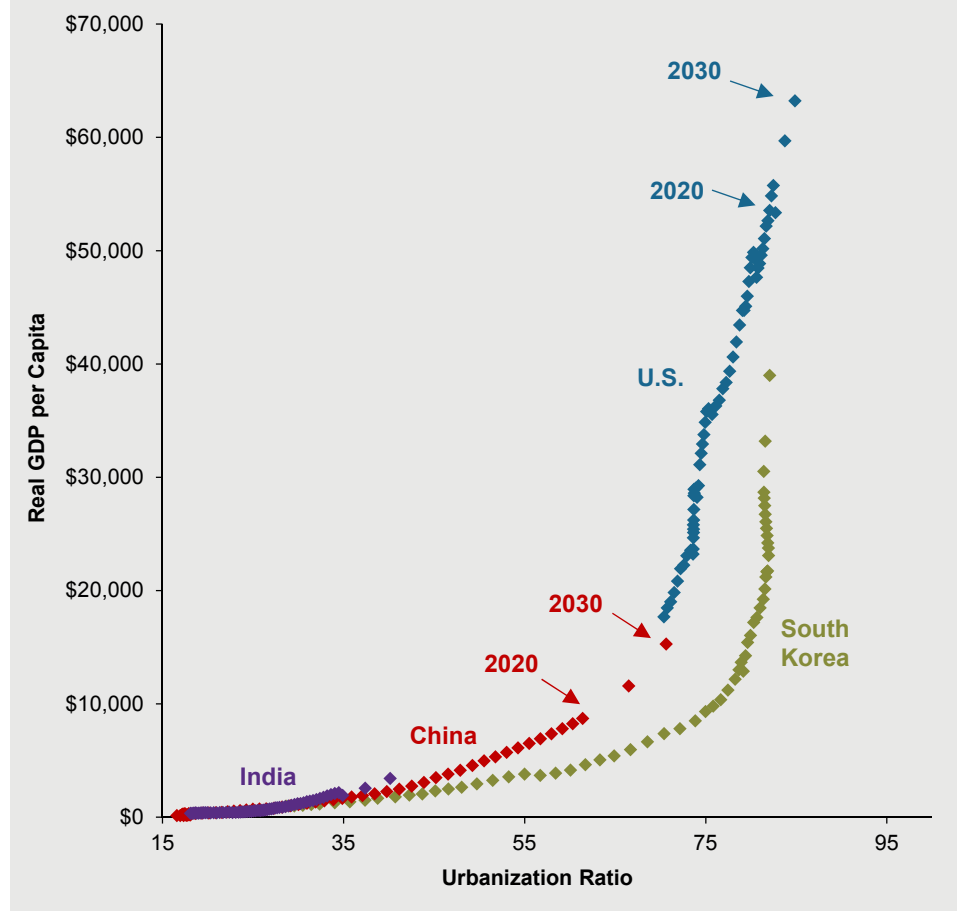
## GDP size of China and U.S.

GDP size, billions, current prices, U.S. dollars



## Real GDP per capita and urbanization ratios

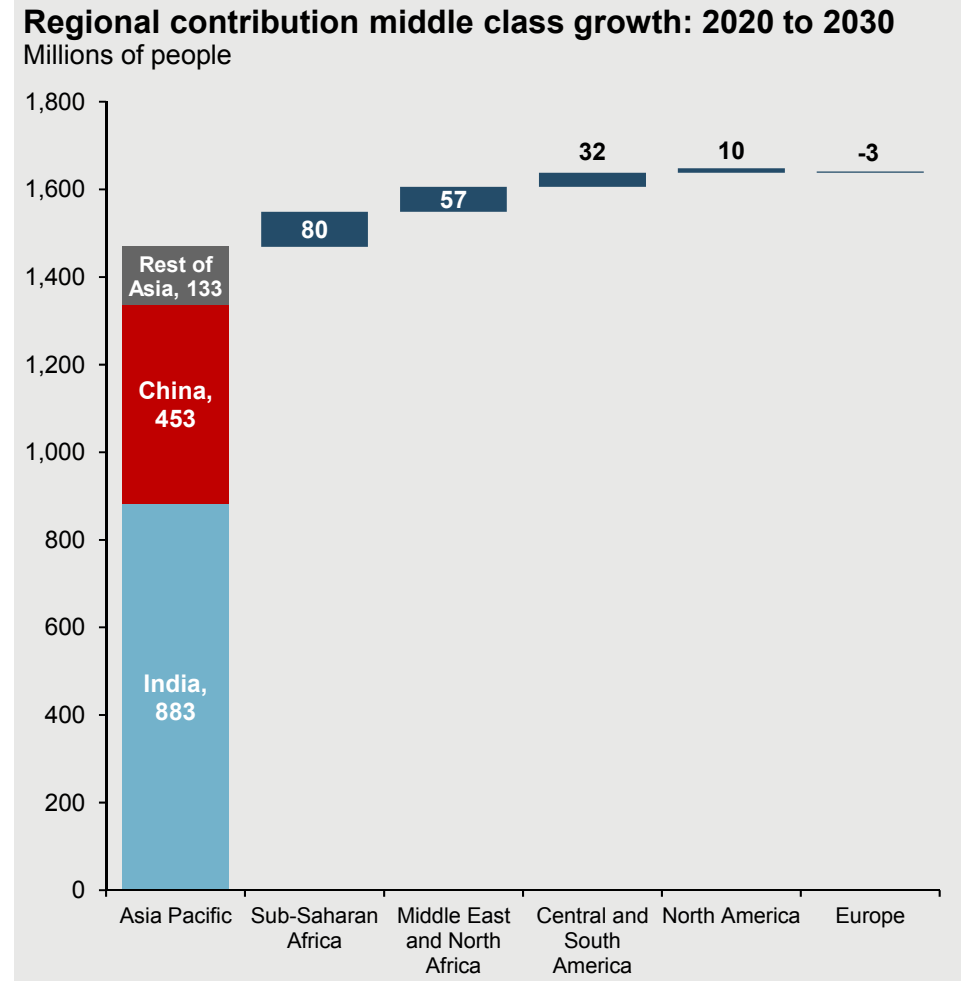
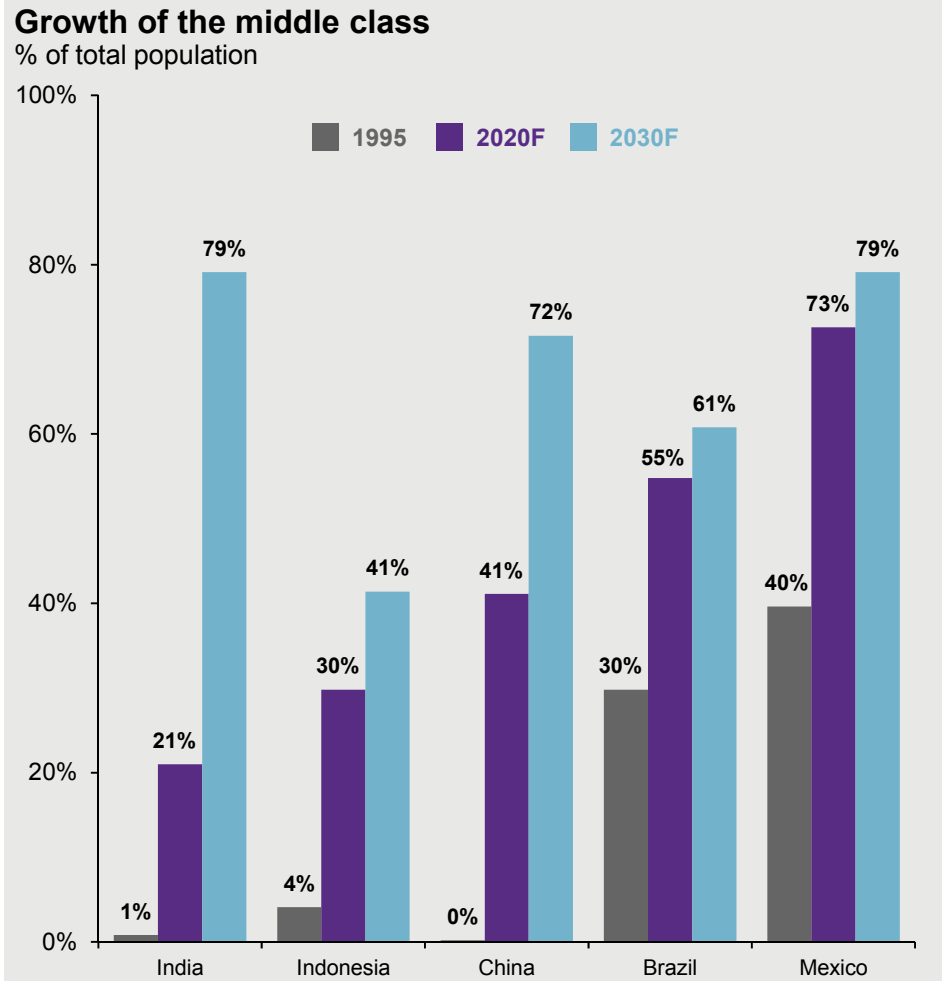
Constant prices, U.S. dollars, 1960 – 2030\*\*



Source: J.P. Morgan Asset Management; (Left) BEA, National Bureau of Statistics of China; (Right) World Bank, United Nations.

\*2021-2022 are a J.P. Morgan Asset Management estimate. 2023-2031 forecasts are based on the J.P. Morgan 2022 Long-term Capital Market Assumptions (LTCMA) estimates. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.\*\*Includes forecasts for 2025 and 2030 based on the 2022 LTCMAs, the United Nations population projections and the United Nations World Urbanization Prospects: 2018 Revision. *Guide to China*. Data are as of October 31, 2021.

Long-term growth drivers



Source: Brookings Institute, J.P. Morgan Asset Management.

Estimates for regional contribution are from Kharas, Homi. *The Unprecedented Expansion of the Global Middle Class, An Update*. Brookings Institution, 2017.

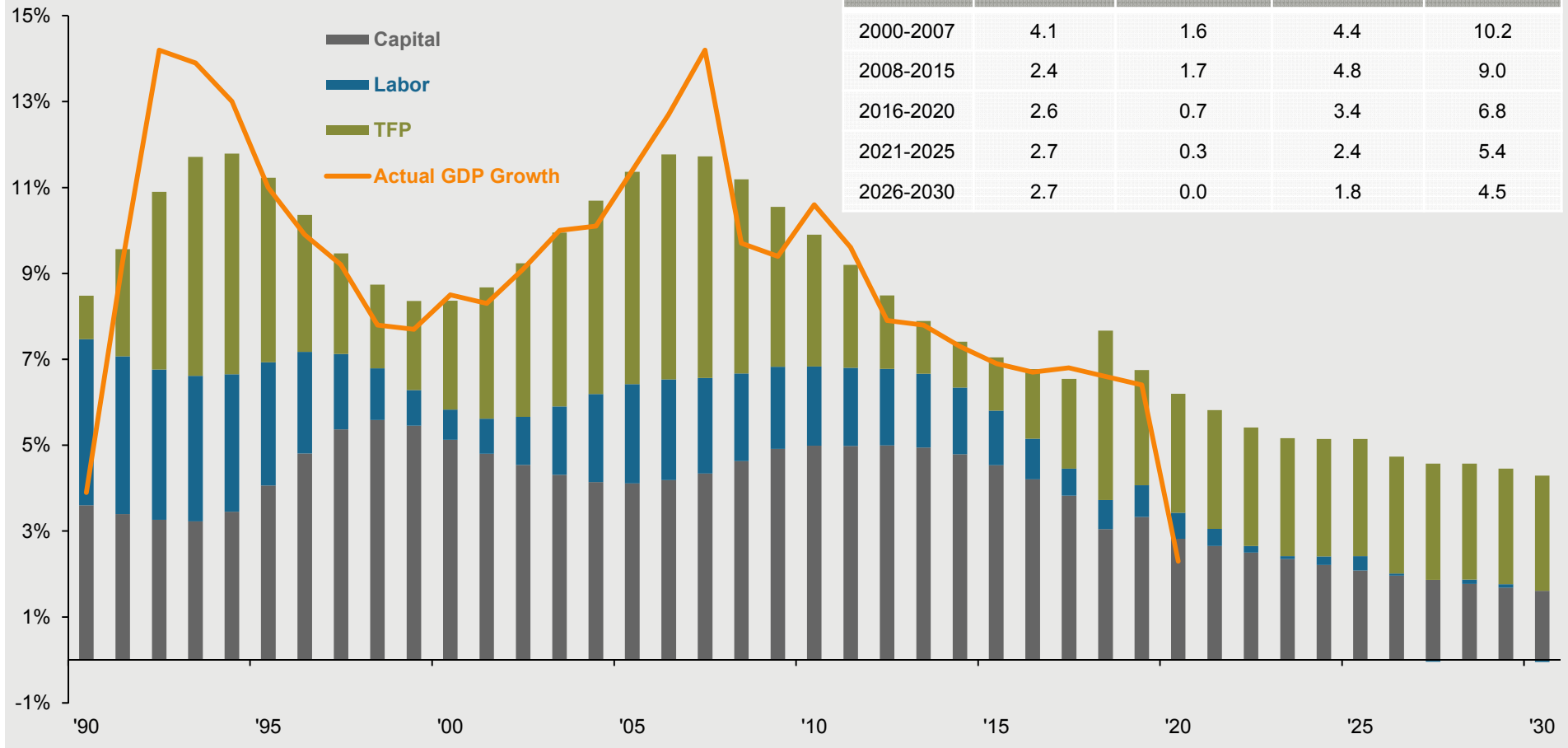
Middle class is defined as households with per capita incomes between \$11 and \$110 per person per day in 2011 PPP terms. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur.

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Guide to China. Data are as of October 31, 2021.

## Contribution to potential growth

Percentage points, real growth rate



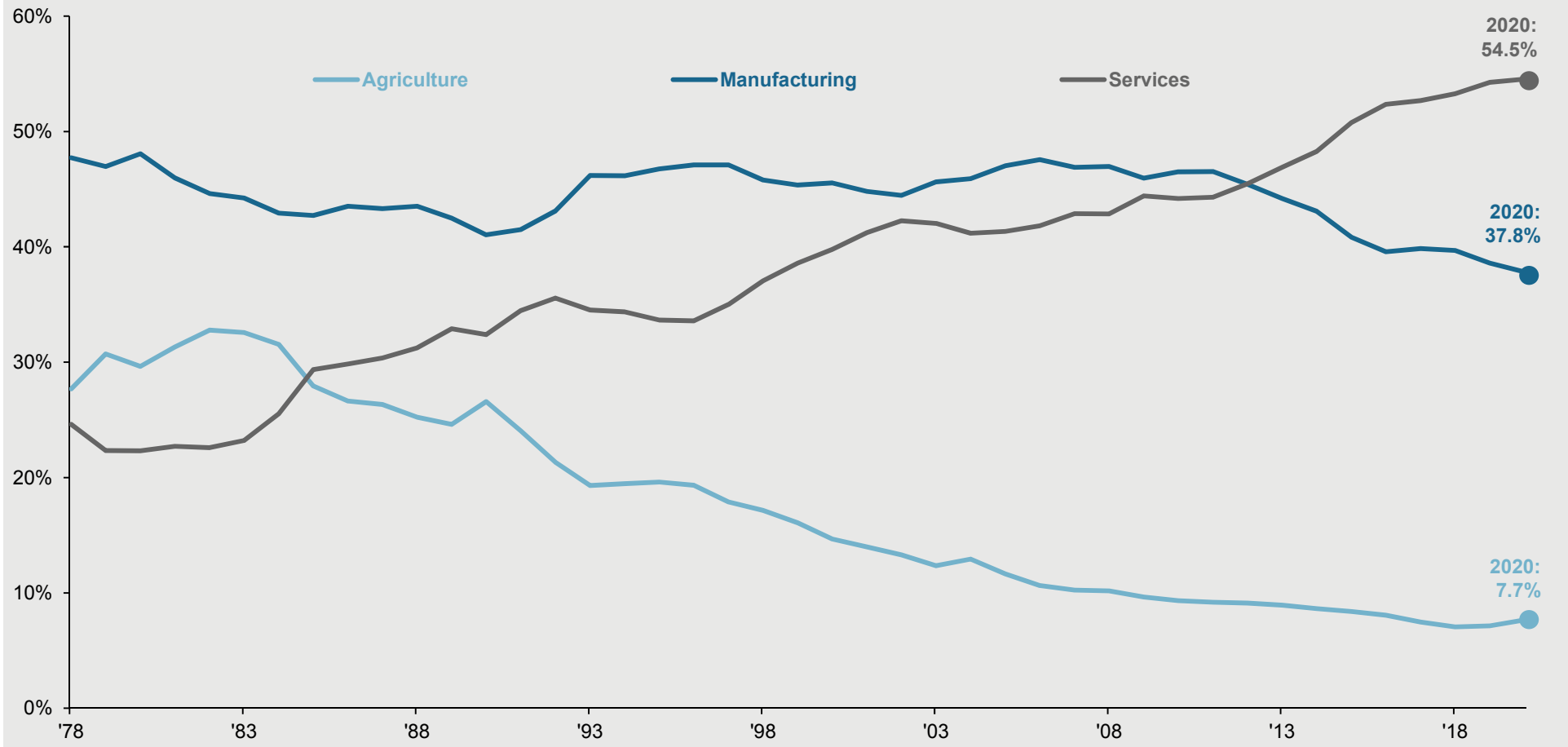
Source: CEIC, J.P. Morgan Global Economic Research, J.P. Morgan Asset Management.

TFP refers to total factor productivity and includes education. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated. *Guide to China*. Data are as of October 31, 2021.

Long-term growth drivers

Share of GDP by sector

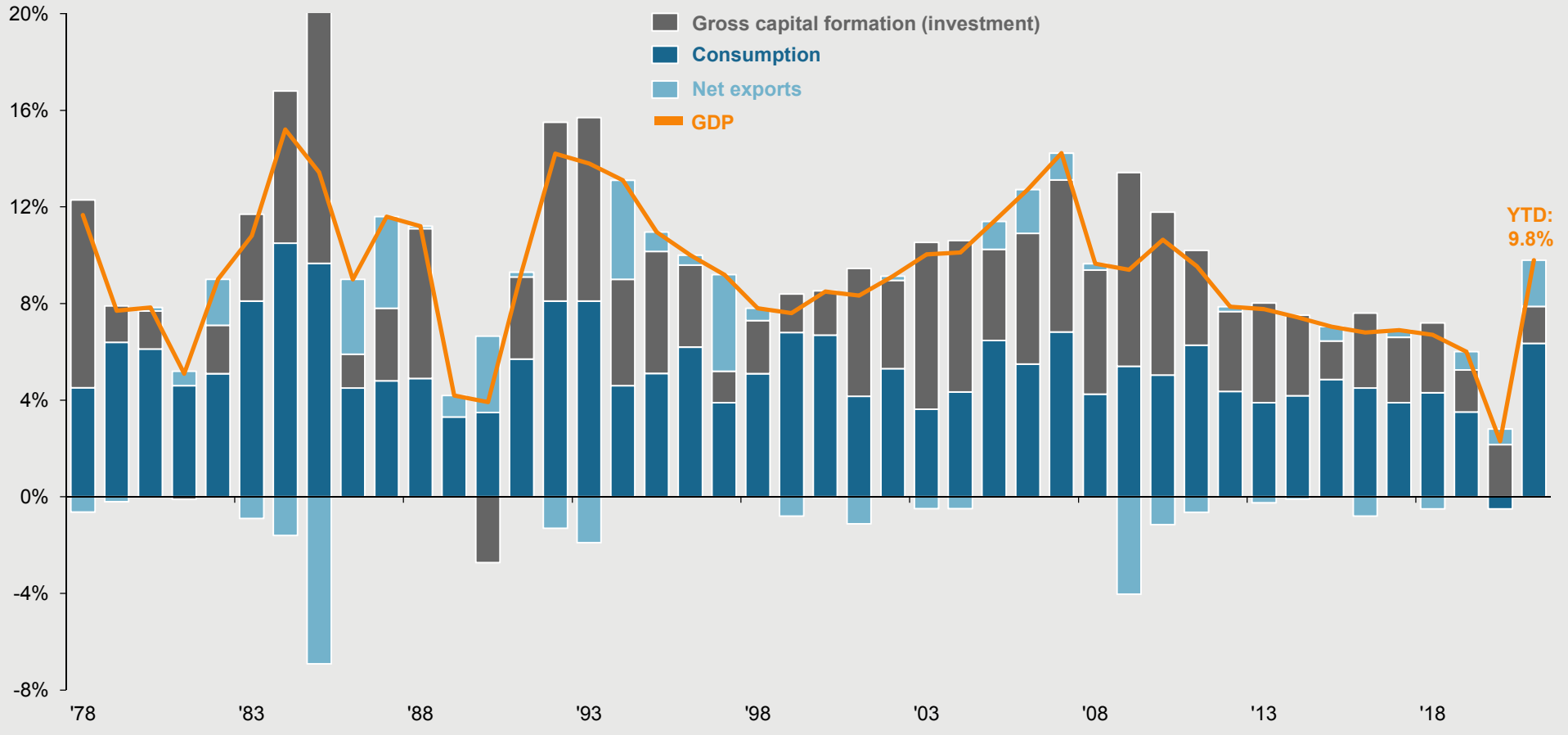
% of nominal GDP



Source: CEIC, National Bureau of Statistics, J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.

Long-term growth drivers

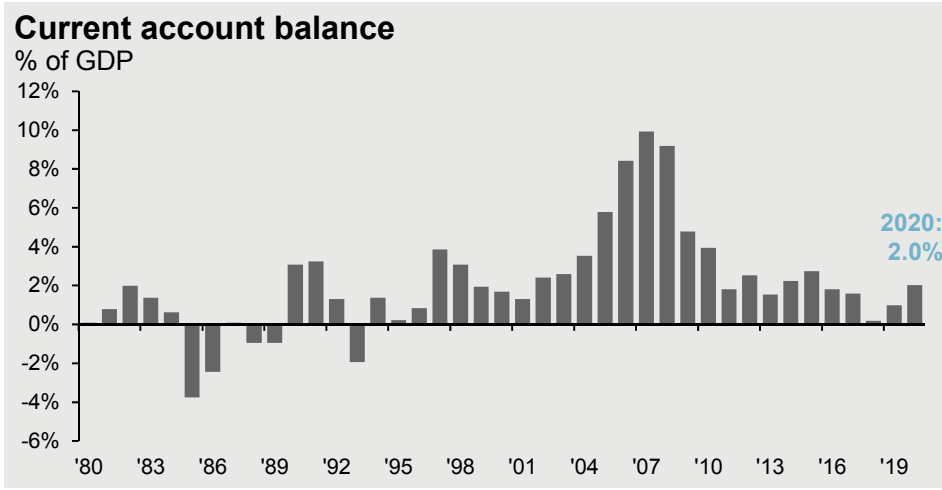
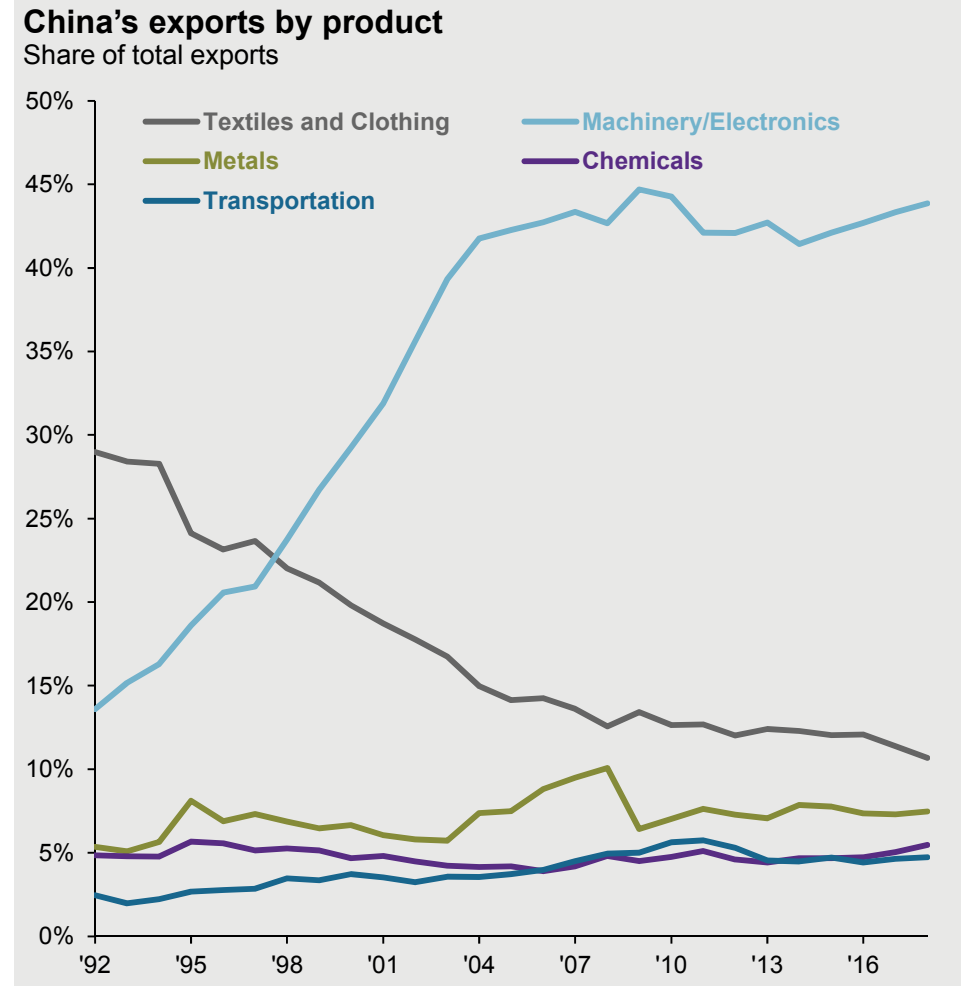
**Contribution to real GDP growth**  
Year-over-year change



Source: CEIC, National Bureau of Statistics, J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.



Long-term growth drivers

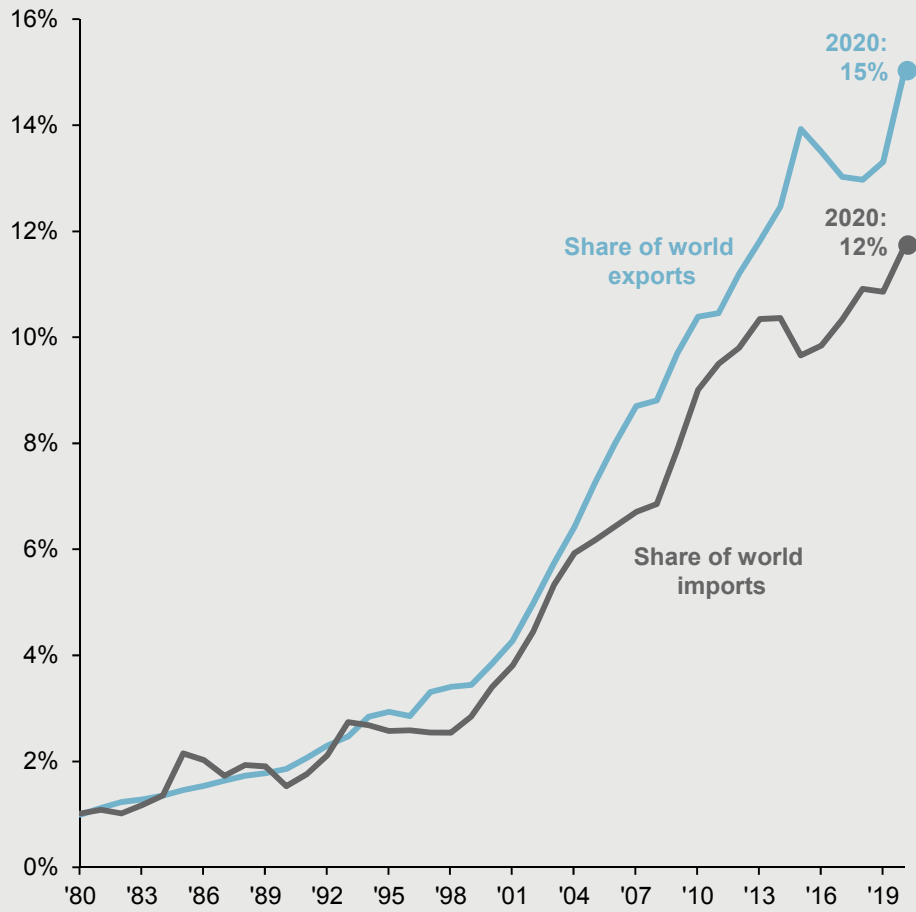


Source: (Left) IMF; (Right) World Bank; J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.

Long-term growth drivers

## China's share of global trade

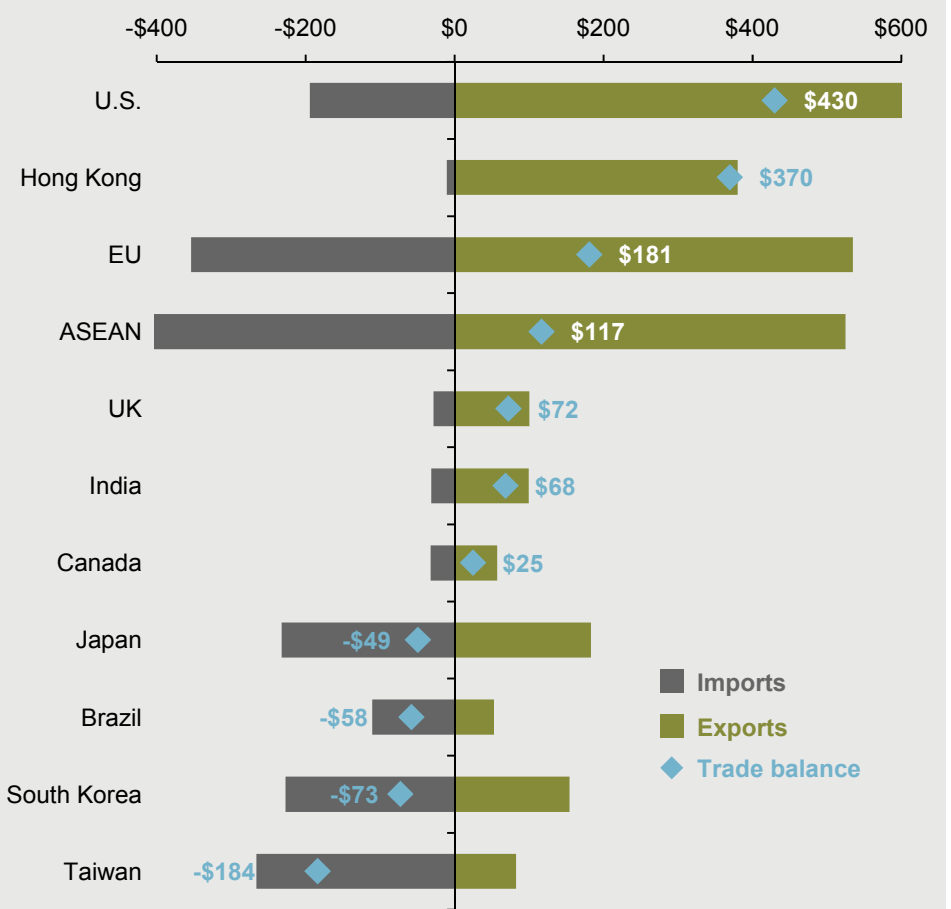
China exports and imports as % of world total, goods only



Source: (Left) IMF, (Right); China Customs; J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.

## China's major trading partners

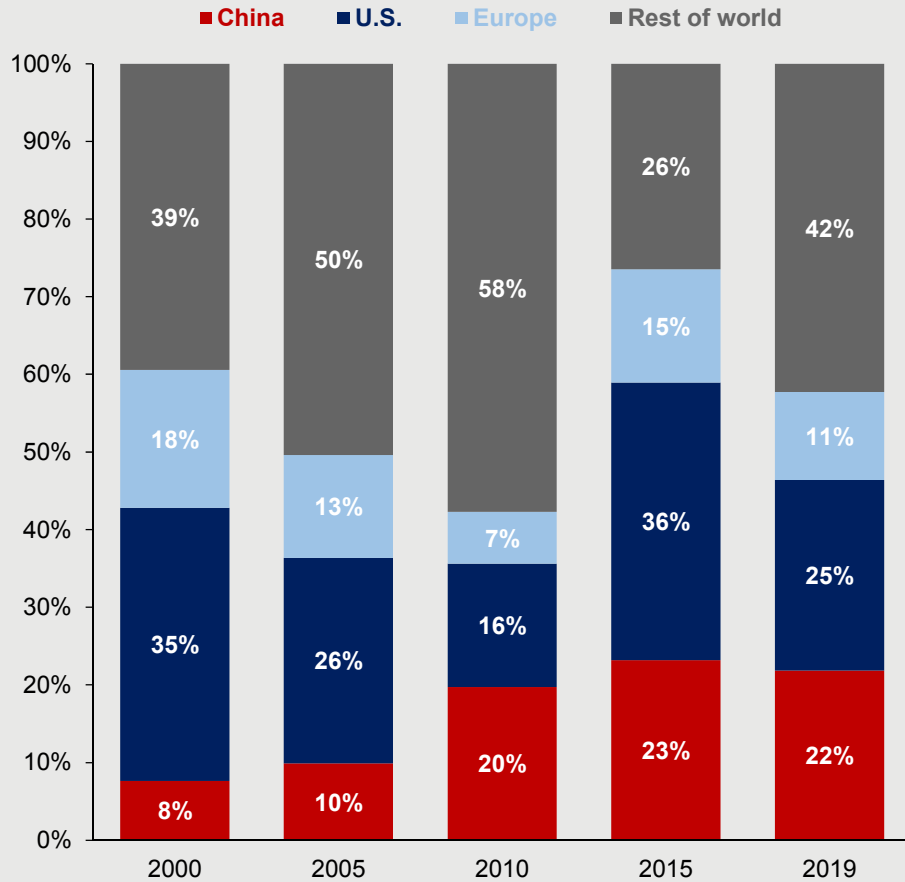
U.S. dollars, billions, rolling 12-month sum, goods only, as of Sep. 2021



Long-term growth drivers

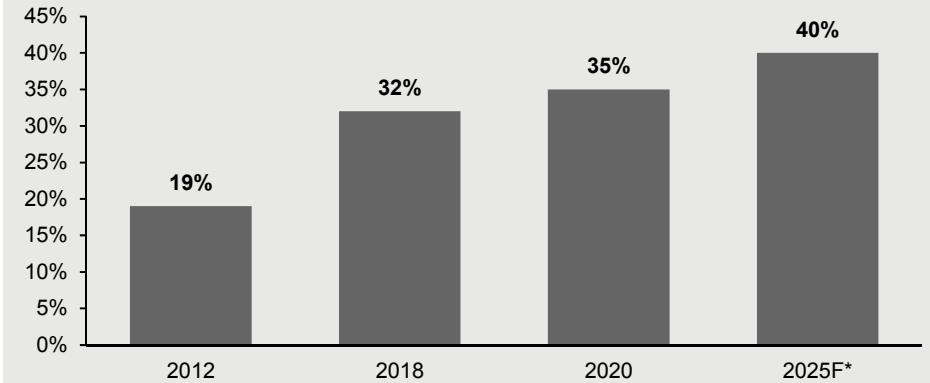
## Contribution to global consumption growth

Household consumption, constant U.S. dollars



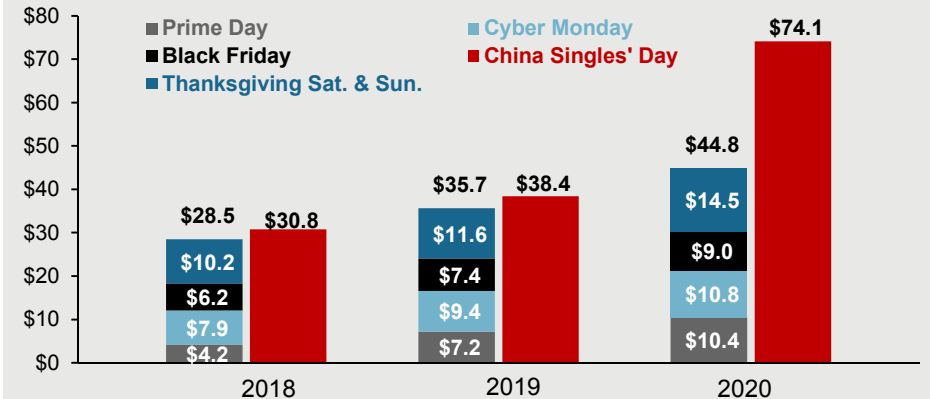
## China's contribution to global spending on luxury goods

Chinese consumers, % of total, both domestic and overseas spending



## China's Singles' Day vs. U.S. holiday sales

Gross merchandise value, U.S. dollar, billions

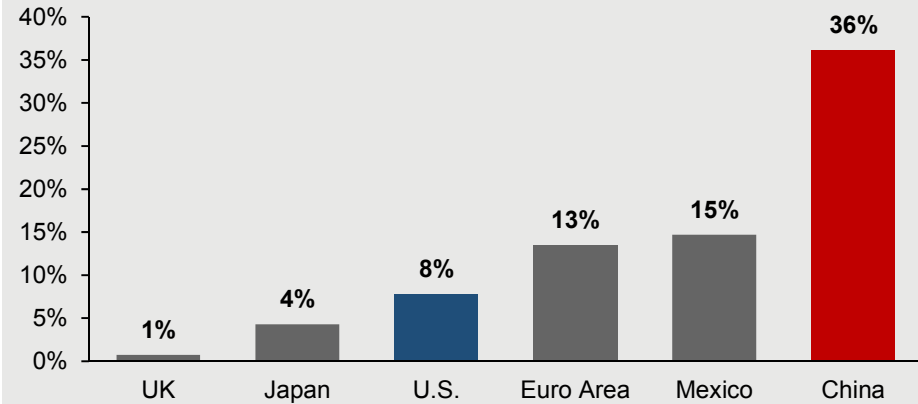


Source: (Left) World Bank; (Top right) McKinsey & Company "China Luxury Report 2019"; (Bottom right) Alibaba, Adobe Analytics, Amazon; J.P. Morgan Asset Management. Prime Day is an annual promotional event hosted by Amazon in late June (actual date varies by year). Singles' Day occurs annually on November 11. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.  
 \*Forecast based on McKinsey & Company "China Luxury Report 2019".  
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Long-term growth drivers

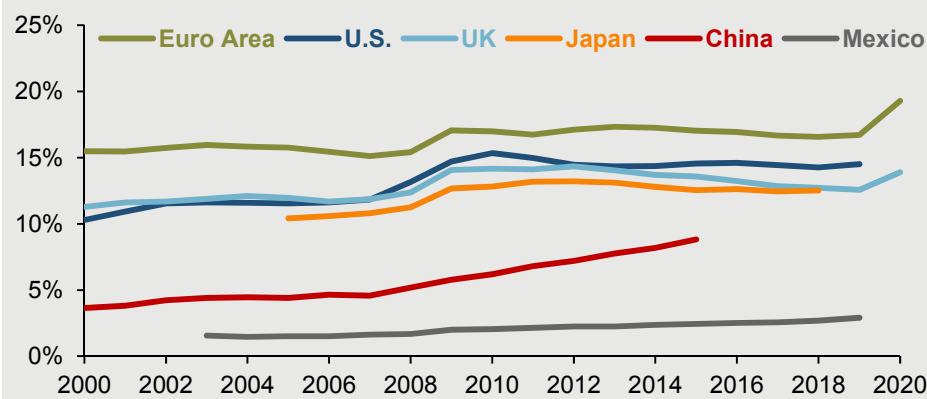
## Household savings rate

% household disposable income, latest\*



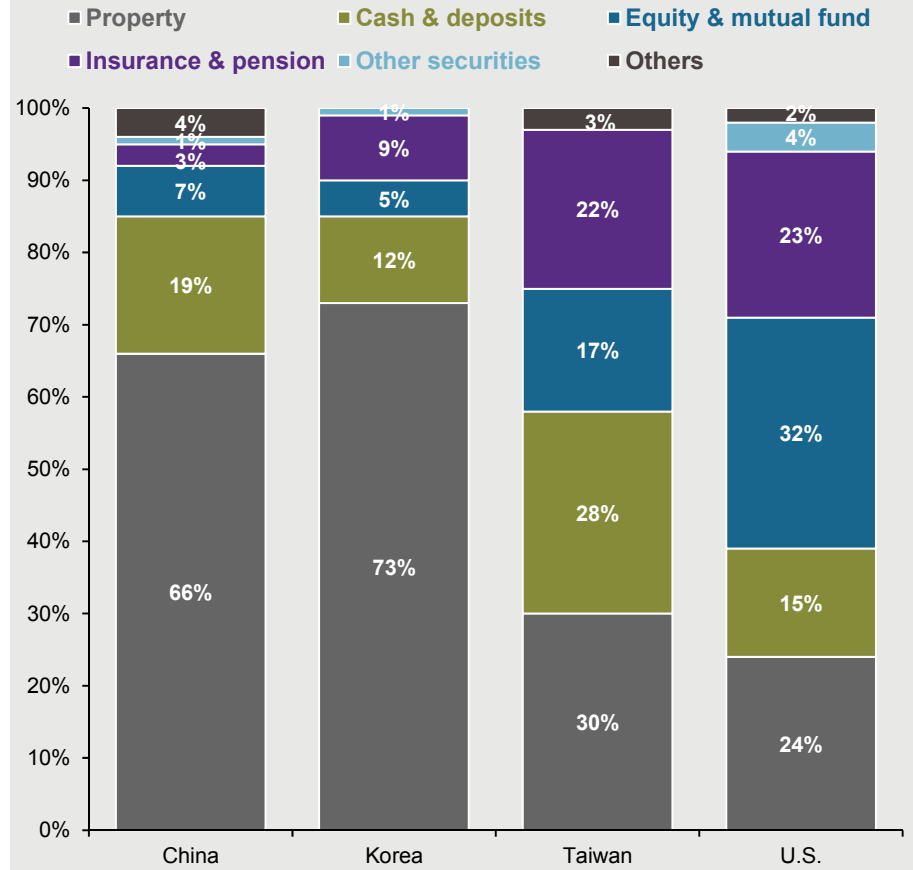
## Social benefits to households\*\*

In cash, % of GDP



## Household wealth by asset type

% of total, as of Dec. 2019



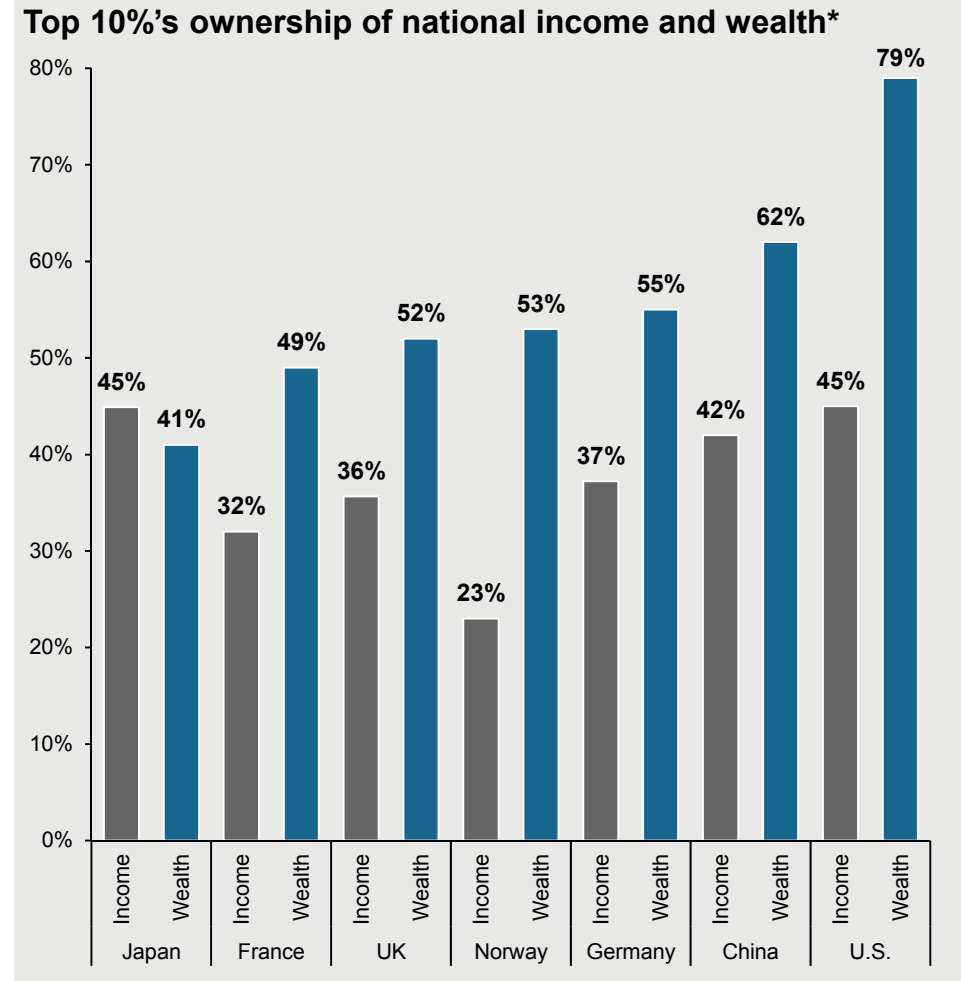
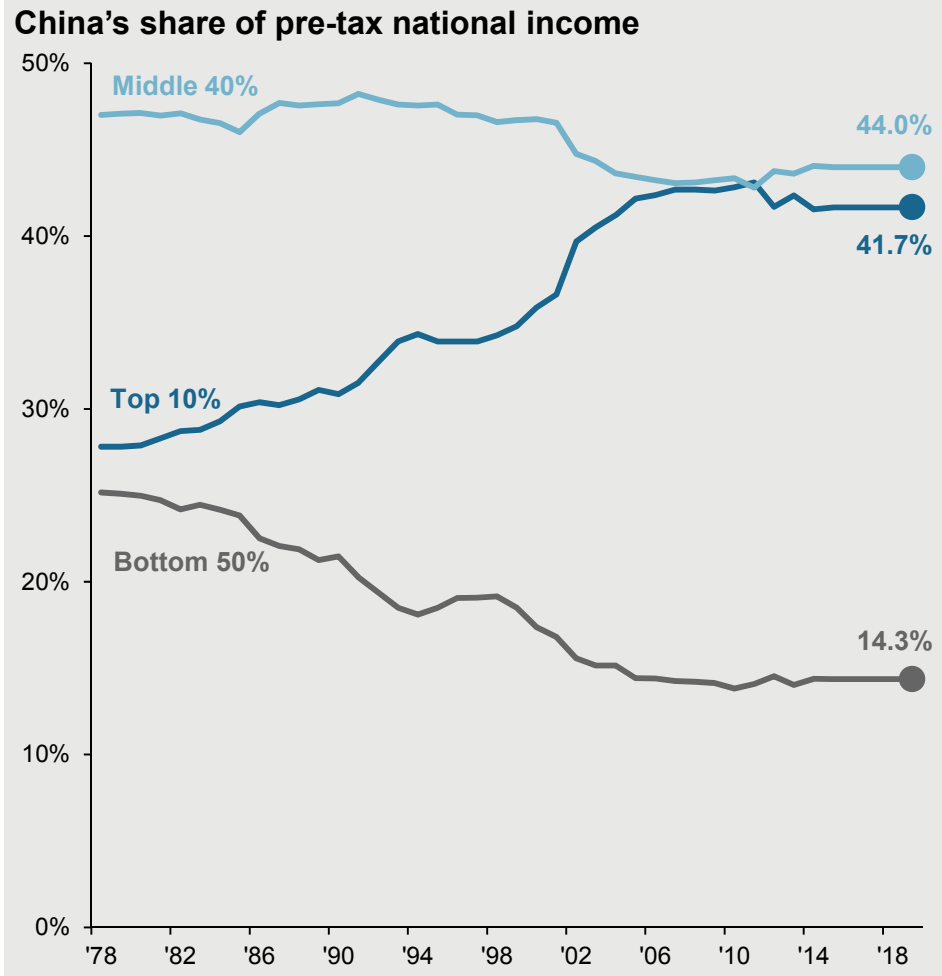
Source: (Left) OECD, (Right) Goldman Sachs; J.P. Morgan Asset Management.

\*OECD data for household savings rate is lagged with the latest figure varying by country: Euro Area (2020), UK (2019), U.S. (2019), Mexico (2019), Japan (2018), China (2016).

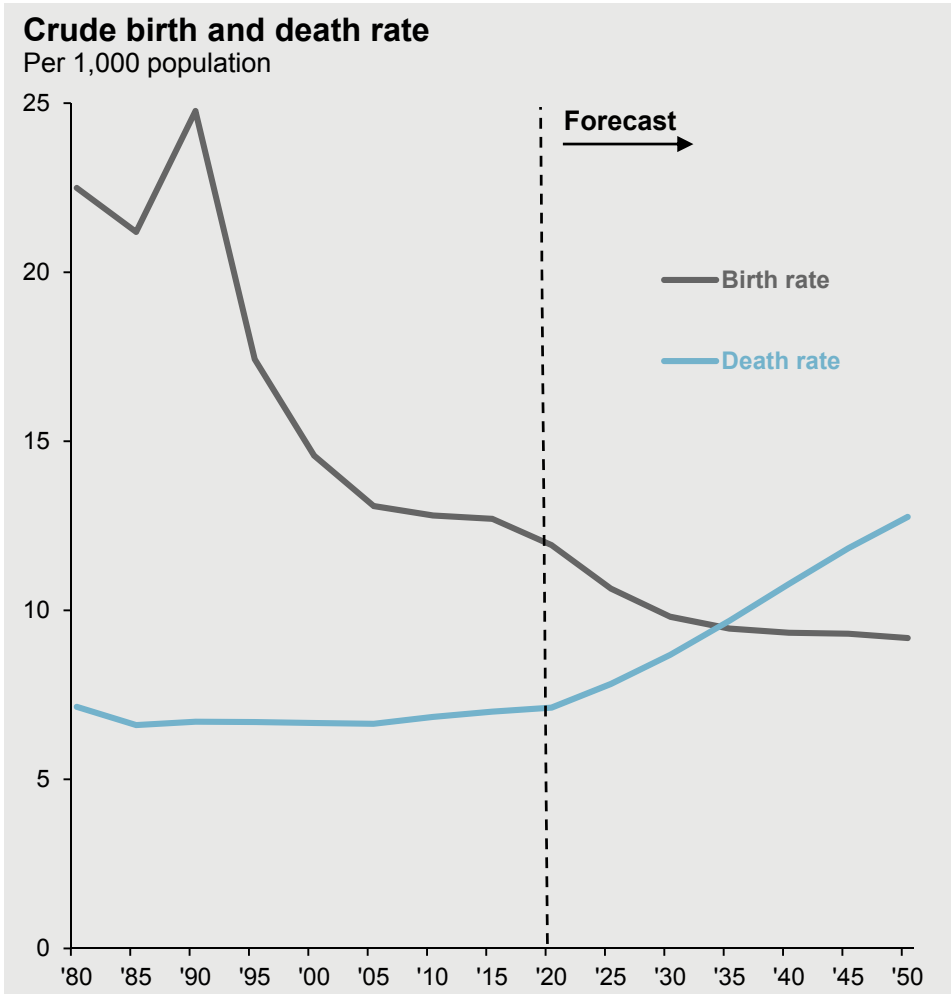
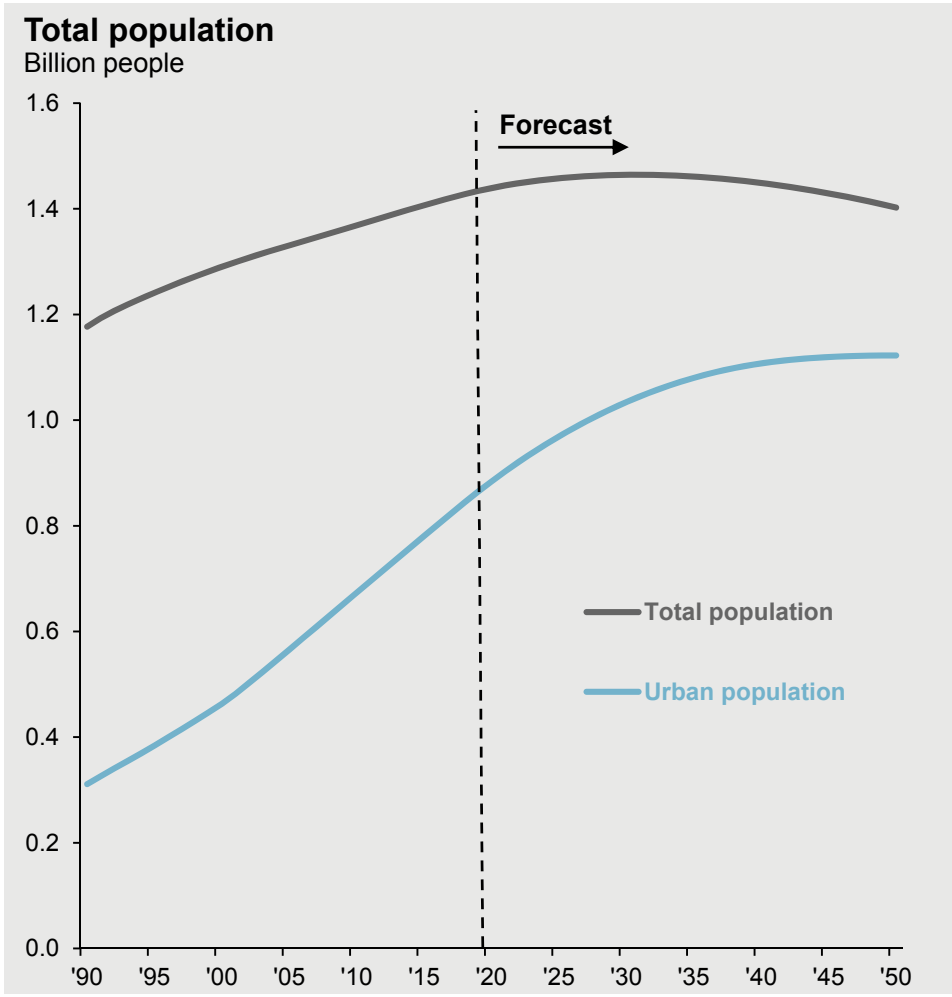
\*\*Social benefits in cash include cash transfers by the government for pension and non-pension benefits.

Guide to China. Data are as of October 31, 2021.

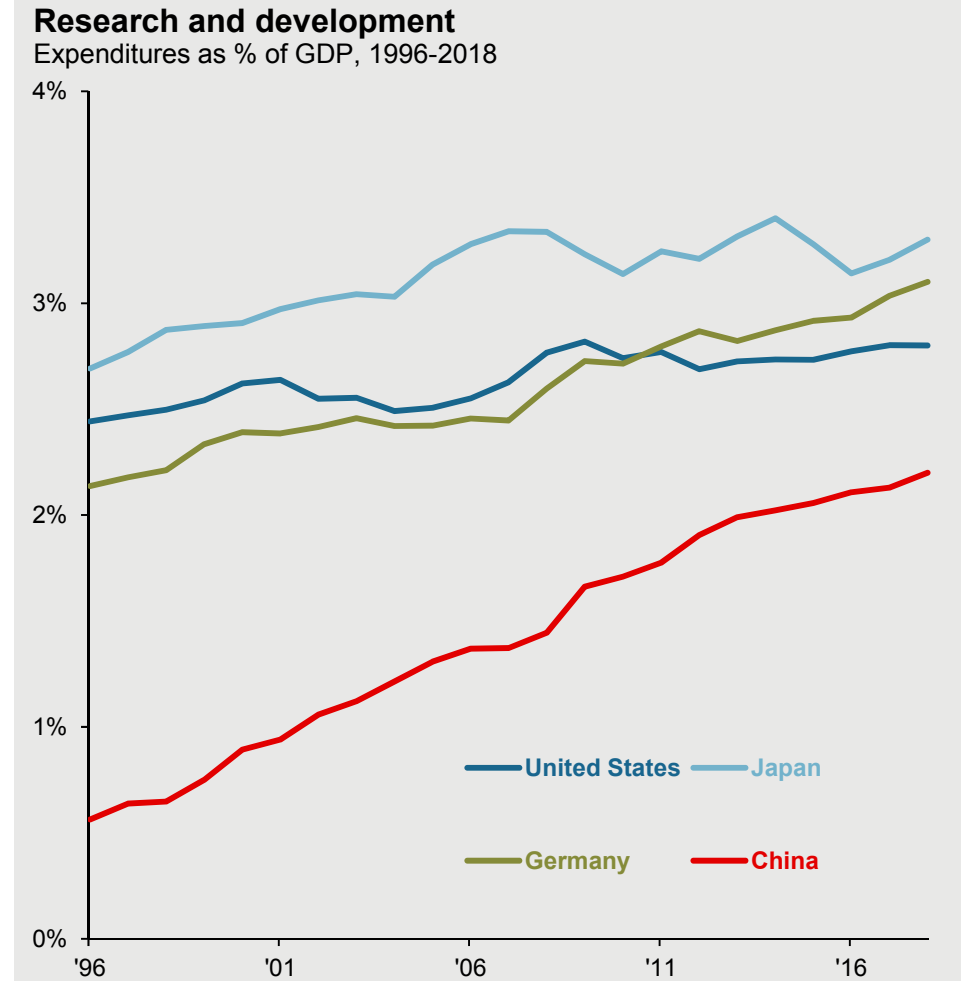
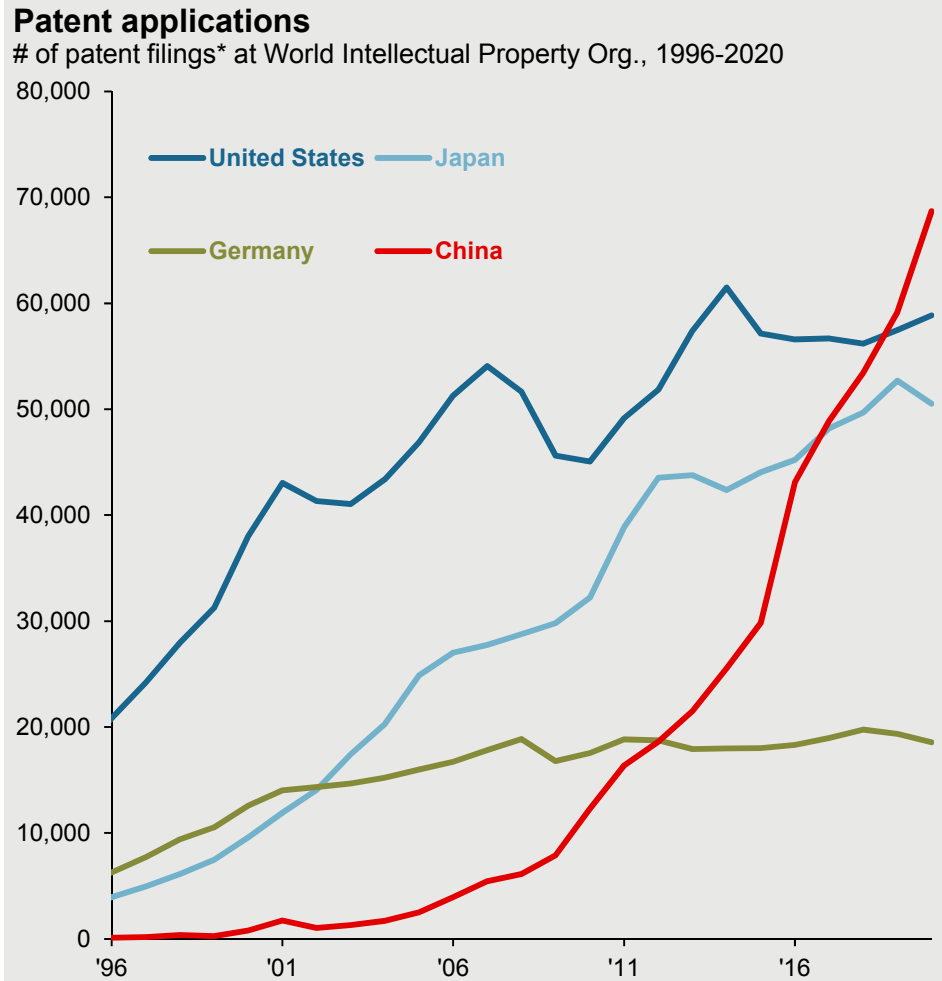
Long-term growth drivers



Source: Credit Suisse Global Wealth Databook 2021, World Inequality Database, Organization for Economic Cooperation and Development (OECD), National Bureau of Statistics, J.P. Morgan Asset Management. \*Income data for Top 10% is as of 2019 and comes from the OECD. Wealth data is sourced from Credit Suisse and availability for Top 10% varies by region: China (2012), France (2017), Germany (2017), Norway (2018), Japan (2018), UK (2019), and U.S. (2019). *Guide to China*. Data are as of October 31, 2021.



Source: CEIC, United Nations, National Bureau of Statistics of China, J.P. Morgan Asset Management.  
 Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.  
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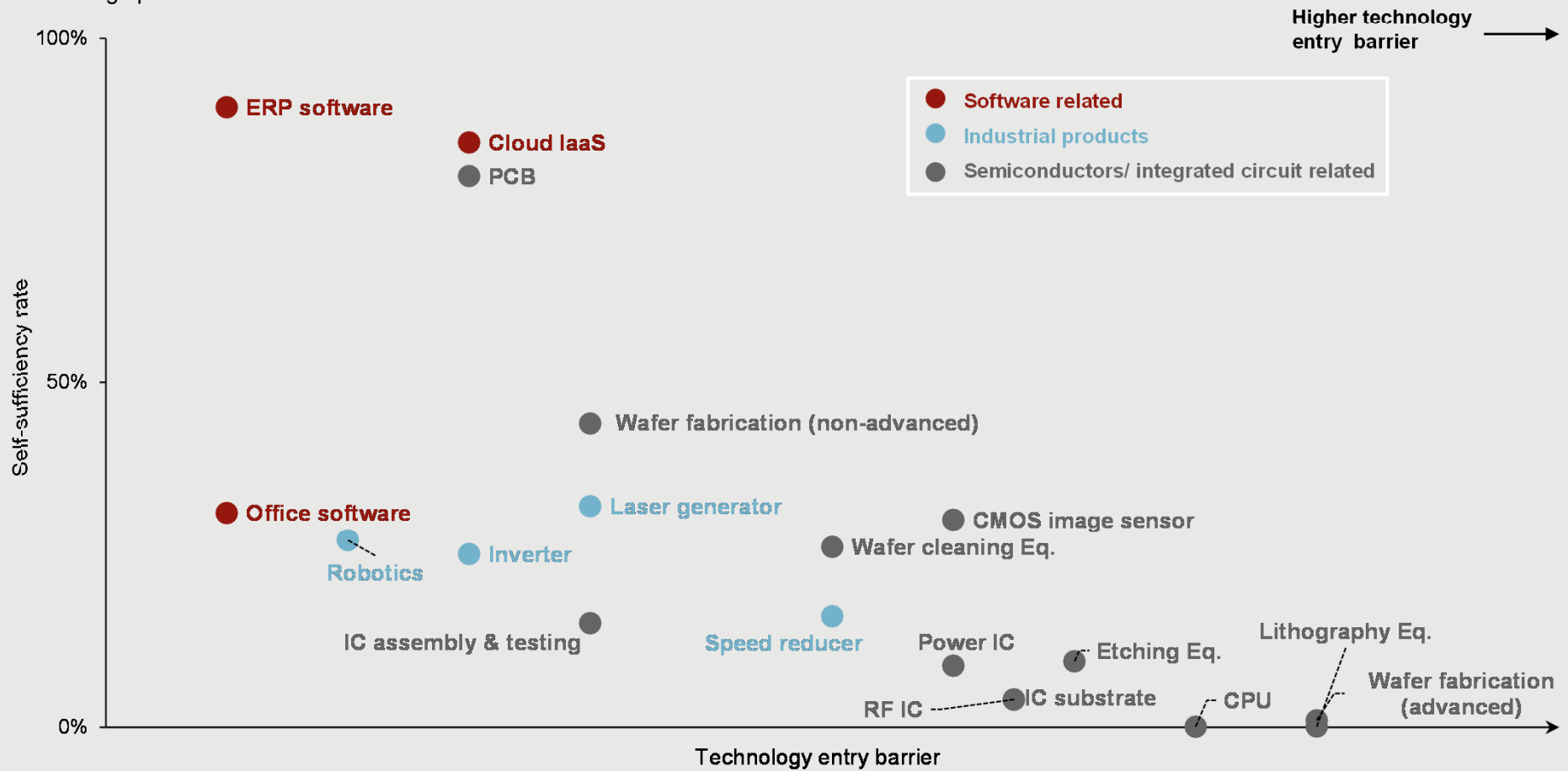


Source: J.P. Morgan Asset Management; (Left) Wind, World Intellectual Property Organization; (Right) World Bank.  
 \*Patent filings include Patent Cooperation Treaty provides international patent protection.  
 Guide to China. Data are as of October 31, 2021.

Long-term growth drivers

## Current self-sufficiency rate amongst different technology products

Percentage points



Source: J.P. Morgan Asset Management.

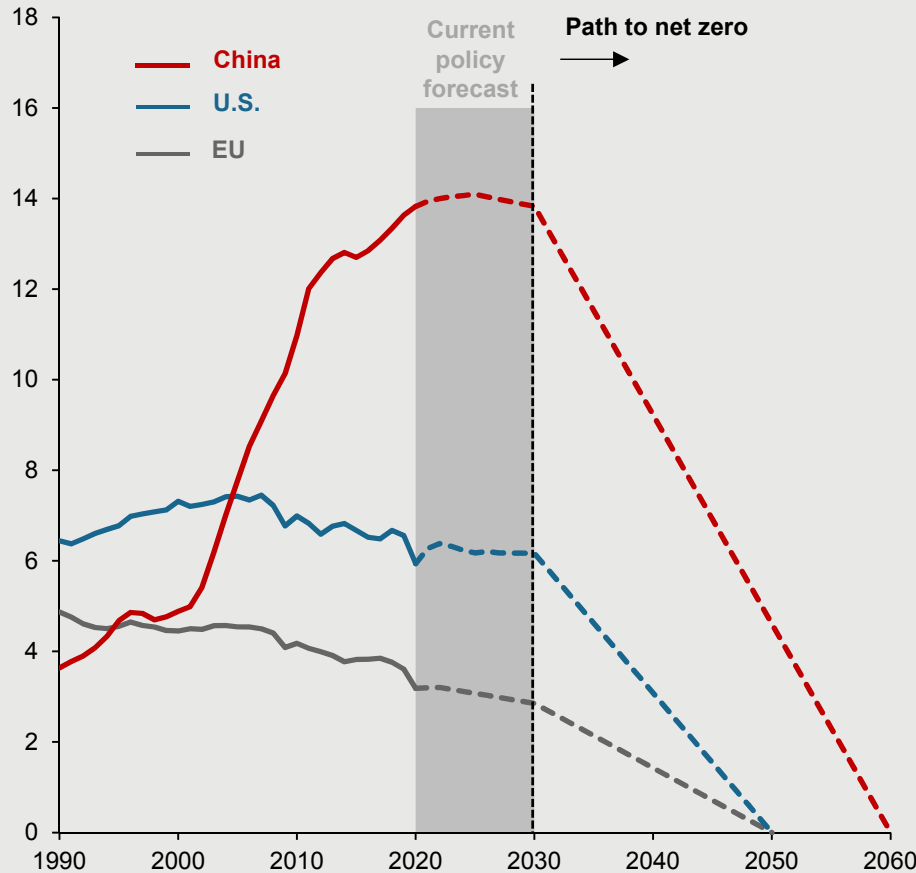
ERP= Enterprise resource planning; IaaS = Infrastructure as a Service; IC= Integrated circuit; PCB = Printed circuit board; RF IC = Radio frequency integrated circuit. Based on J.P. Morgan Asset Management's estimates as of January 31, 2021. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to China. Data are as of October 31, 2021.



Long-term growth drivers

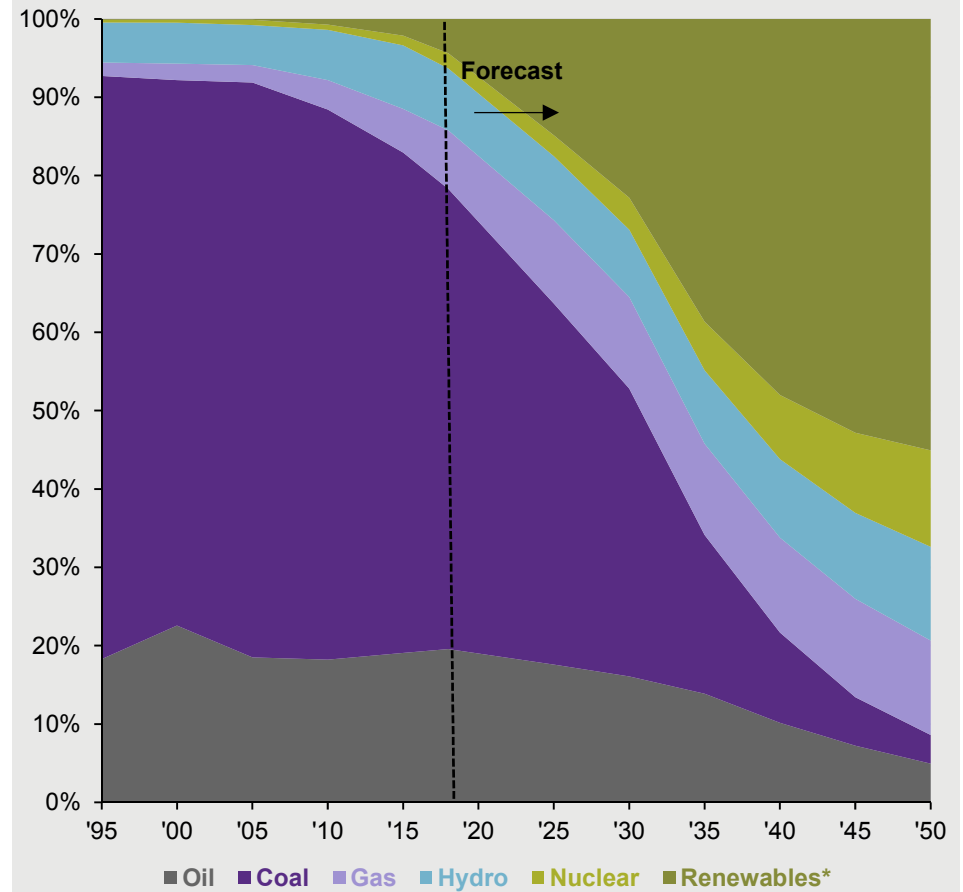
## Greenhouse gas emission targets

Billion tonnes/year, CO2 equivalent



## China's energy mix

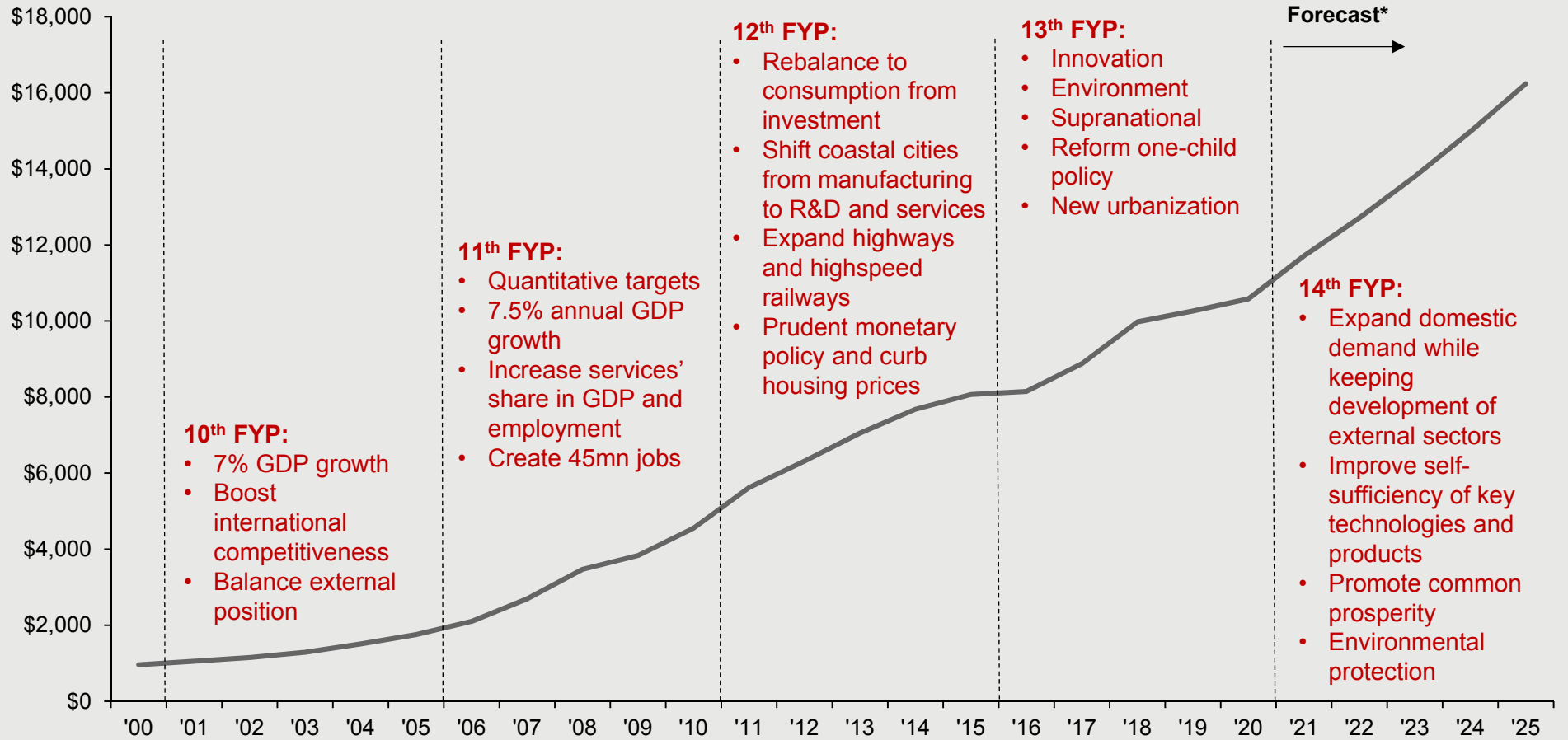
% of primary energy



Source: J.P. Morgan Asset Management.; (Left) Climate Action Tracker. Current policy forecast is the post-Covid forecast provided by Climate Action Tracker; (Right) BP Energy Outlook 2020. Forecast is based on BP's scenario for global net-zero emissions by 2050. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.\*Renewables include wind, solar, geothermal, biomass, biomethane and biofuels. Guide to China. Data are as of October 31, 2021.

**China's GDP per capita vs. Five Year Plans (FYP)**

Nominal, U.S. dollars



Source: CEIC, IMF-World Economic Outlook, J.P. Morgan Asset Management.

Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.

\*Nominal GDP per capita forecast from the IMF.  
 Guide to China. Data are as of October 31, 2021.

Long-term growth drivers

## Education

Policy aimed at reducing burdens of students and families is issued: New rules to regulate after-school tutoring industry include – 1) these companies can only be registered as non-profit organizations; 2) approvals for new companies were banned; and 3) illegal for these companies to receive foreign investment/ raise capital/ go public. For core school subjects, tutoring courses cannot be offered during weekends, public holidays as well as school breaks (July 2021)

## Property

Three red-line rules were introduced to restrict interest-bearing borrowing for developers that breached 3 debt criteria: (1) total liabilities/asset ratio >70%; (2) net gearing >100%; and (3) cash to short-term debt ratio (August 2020)

Central government issued guidance of real estate monitoring, targeting developers, housing transactions, rentals and property management; Local governments tighten purchase restrictions measures (July 2021)

National People's Congress authorized the State Council to pilot property tax in selected cities (October 2021)

## Healthcare

Government expanded the scope of centralized pharmaceutical procurement in order to cap the cost of public health care (October 2021)

## Energy

Local governments restricted production of energy intensive industries (steel, cement, glass, coal and aluminum etc) to meet the de-carbonization goals

State Council announced measures which includes ramping up coal capacity, raising tariffs so as to tackle power shortages (October 2021)

## Digital currency

State Council forbid all crypto mining and trading activities as part of efforts to fend off financial risks (May 2021)

Policymaker to 'maintain a high level of pressure' on firms speculating in digital currencies (July 2021)

PBoC says all crypto-related transactions are illegal (September 2021)

## Internet

Enhance data security: Didi was banned from app stores due to violation of personal data collection and usage (July 2021); Data Security Law came into effect on September 1, 2021; Personal Information Protection Law became effective on November 1, 2021

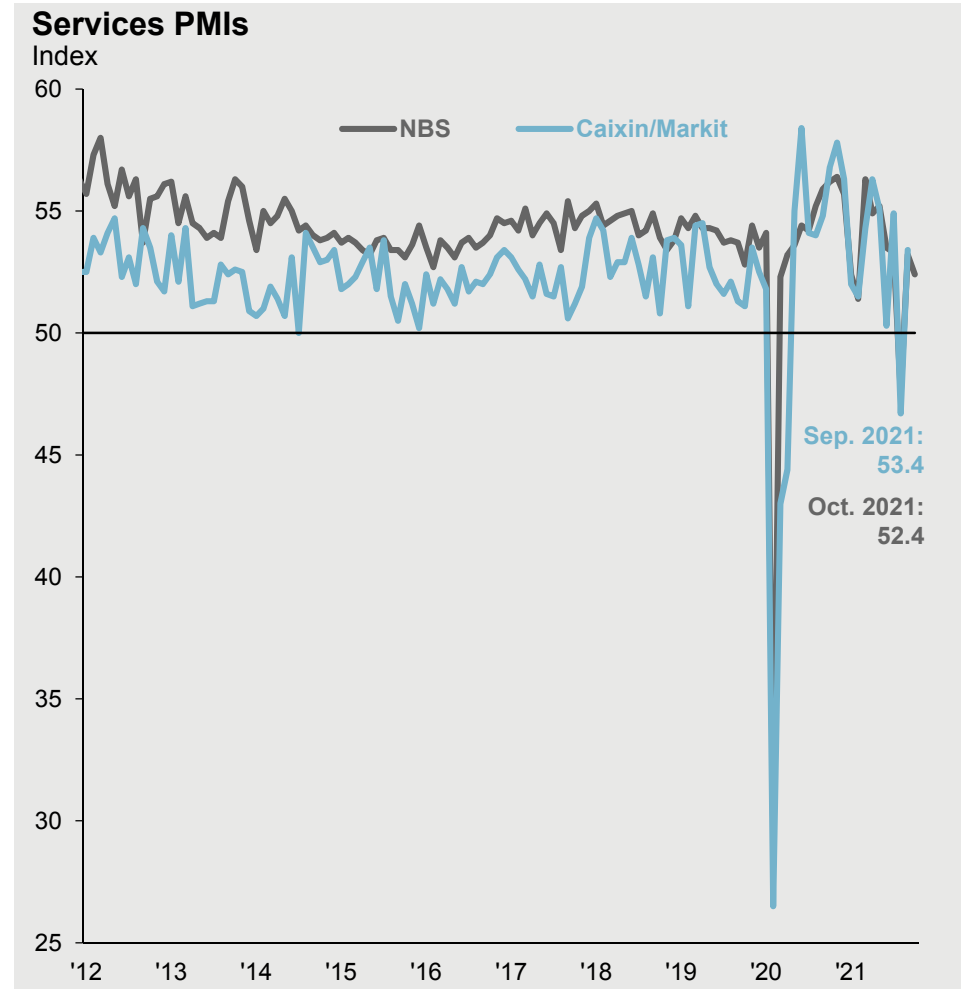
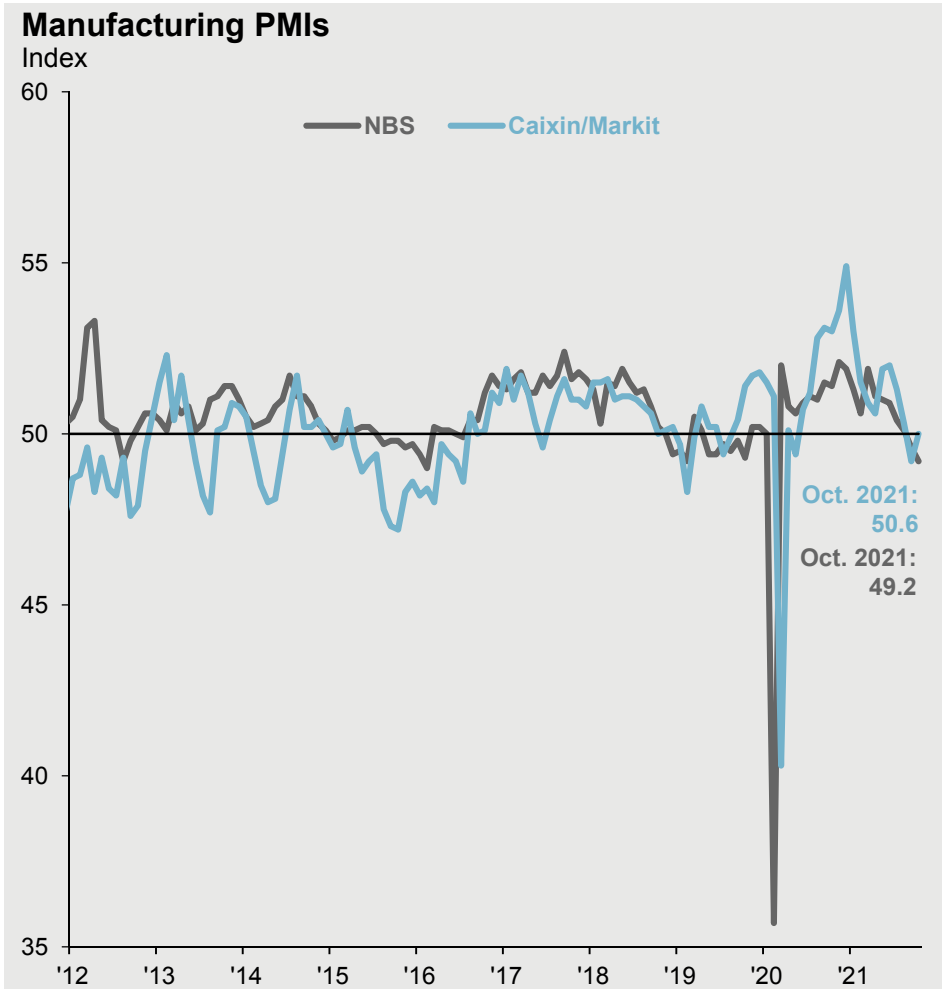
Antitrust: Alibaba received RMB 18.2billion fine on monopolistic practices (April 2021); Internet giants such as Alibaba and Tencent were fined in 22 antitrust cases (July 2021); SAMR announced fine on Meituan of RMB 3.4billion (October 2021)

Social security and labor rights matters: New instructions on food delivery platforms' responsibility to protect delivery riders' interests were released (July 2021); More than 10 tier-1 online platforms were summoned to address social security and labor rights matters (September 2021)

Gaming: Online gaming companies will be banned from offering minors (those under age 18) access to games during weekdays (August 2021)

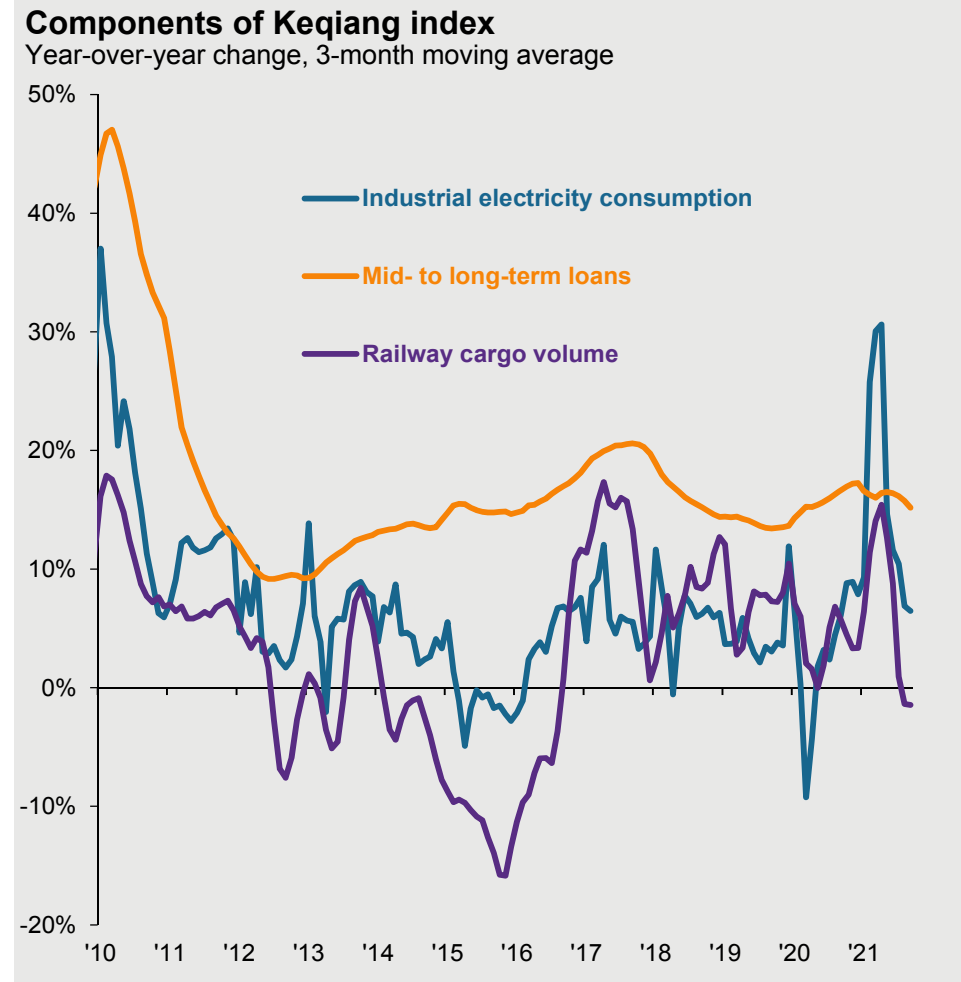
Source: Various news sources, J.P. Morgan Asset Management.  
 PBoC: People's Bank of China; SAMR: State Administration for Market Regulation oversees all manner of market controls, including regulating anti-competition behavior, intellectual property rights, drug safety supervision and issuance of business licenses etc. The companies/securities above are shown for illustrative purposes only. Their inclusion should not be interpreted as a recommendation to buy or sell.  
 Guide to China. Data are as of October 31, 2021.

Cyclical indicators



Source: National Bureau of Statistics of China, Caixin/Markit, J.P. Morgan Asset Management.  
 In both PMI series, the reading above 50 represents expansion in activities compared with the previous month, while the reading below 50 means economic activities are weaker on a monthly basis. Caixin/Markit PMI surveys 500 mainly small and medium sized enterprises, while the NBS PMI surveys 3,000 companies, including state-owned enterprises, and is biased toward large-sized enterprises.  
*Guide to China*. Data are as of October 31, 2021.

Cyclical indicators

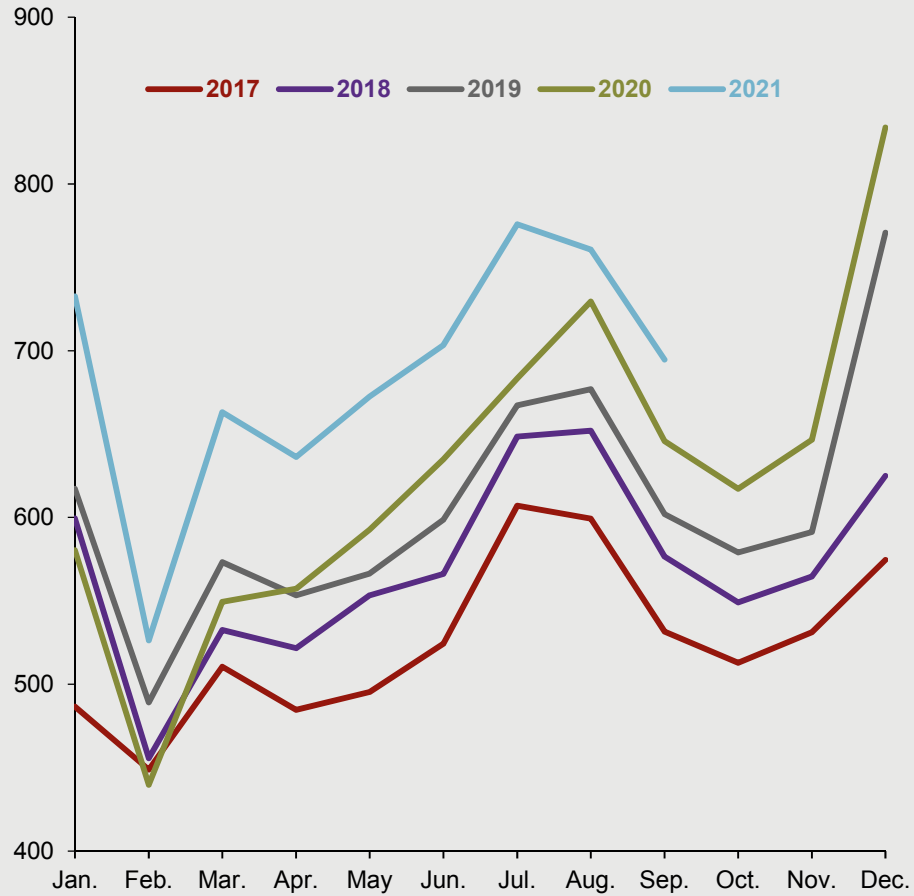


Source: Wind, National Bureau of Statistics of China, China Electricity Council, People's Bank of China, J.P. Morgan Asset Management.  
 Keqiang index = railway cargo volume \* 25% + industrial electricity consumption \* 40% + outstanding mid- to long-term loan \* 35%, all the components are based on Year-over-year change.  
 The index was created based on Premier Li Keqiang's preferred three economic indicators for China's cyclical position.  
 Guide to China. Data are as of October 31, 2021.

Cyclical indicators

**Monthly power consumption in China**

Billion kilowatt hours



**Steam coal price**

RMB/ton, Qinghuangdao\*

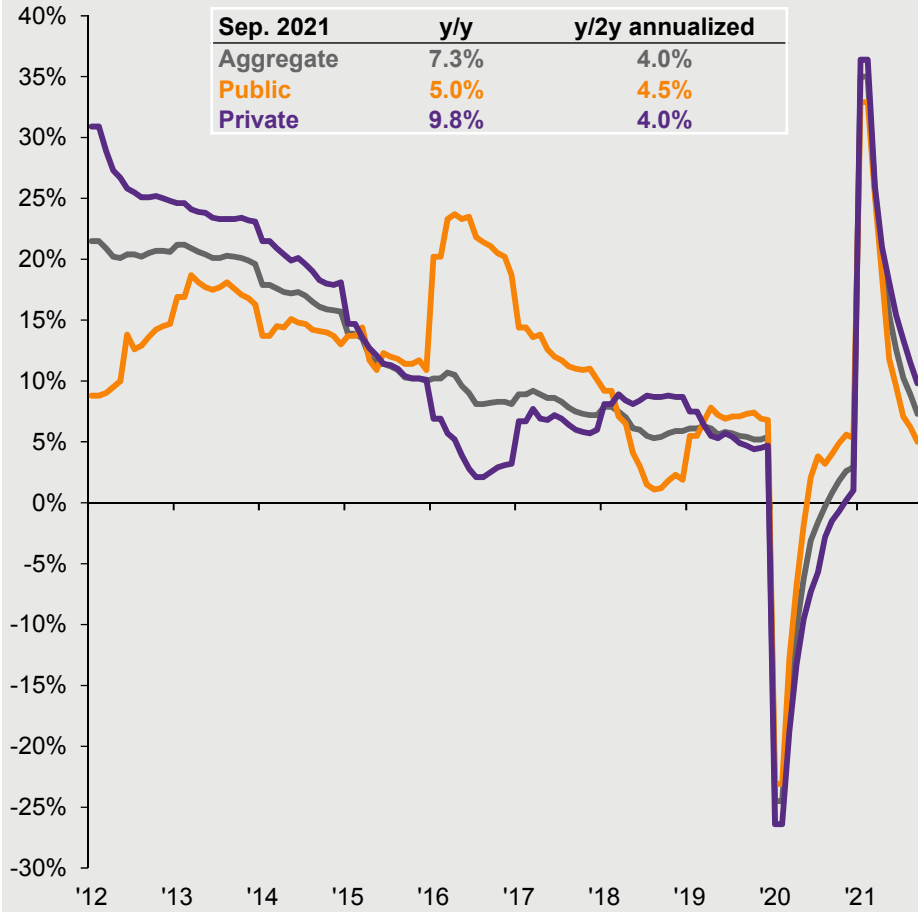


Source: China Electricity Council, Steelhome, Wind, J.P. Morgan Asset Management.

\*Qinghuangdao port is one of the largest thermal coal transfer hub in Northern China and its 5,500 kcal coal price is used as a benchmark for the Chinese coal market. *Guide to China*. Data are as of October 31, 2021.

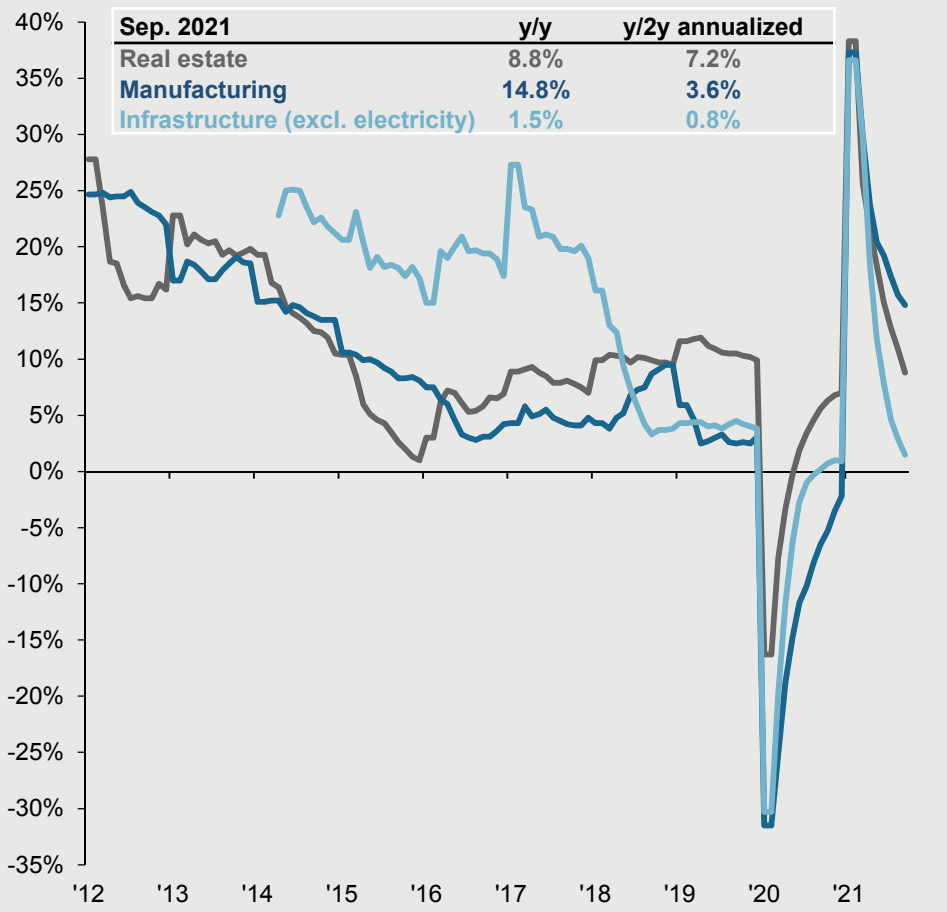
**Fixed asset investment**

Year-over-year change, year-to-date



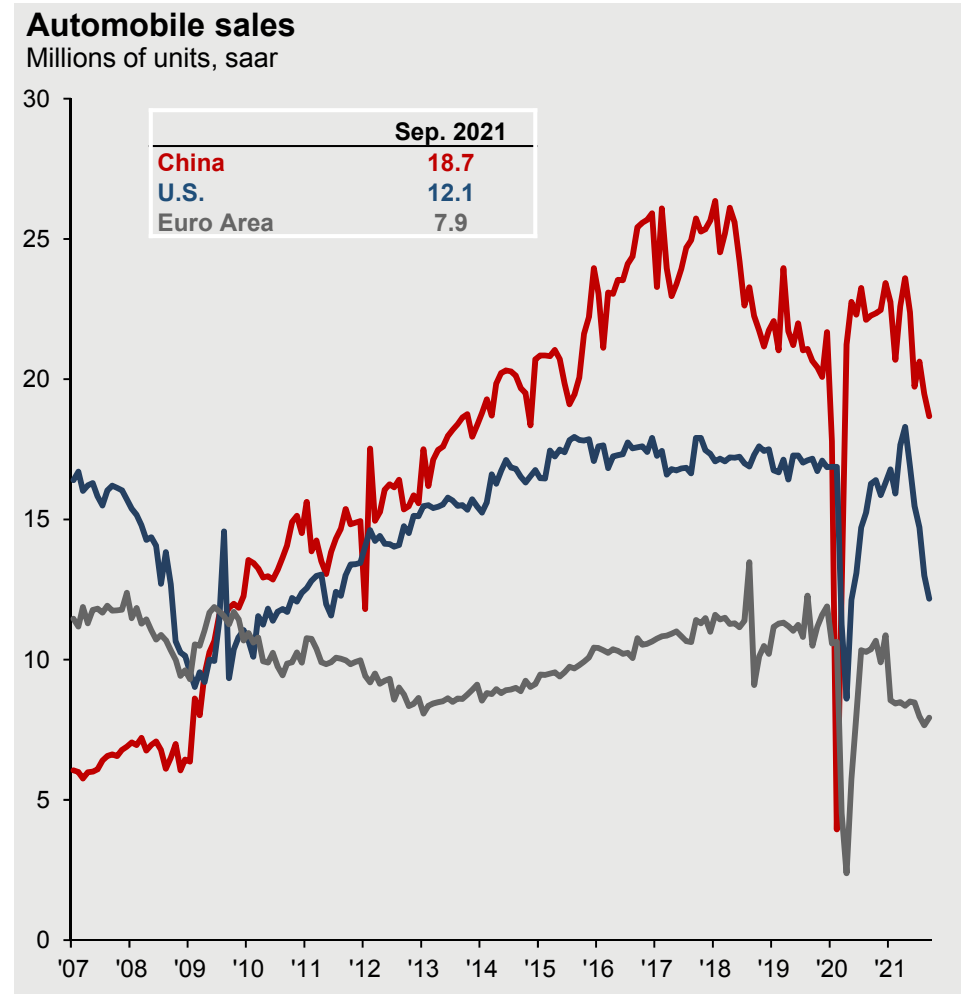
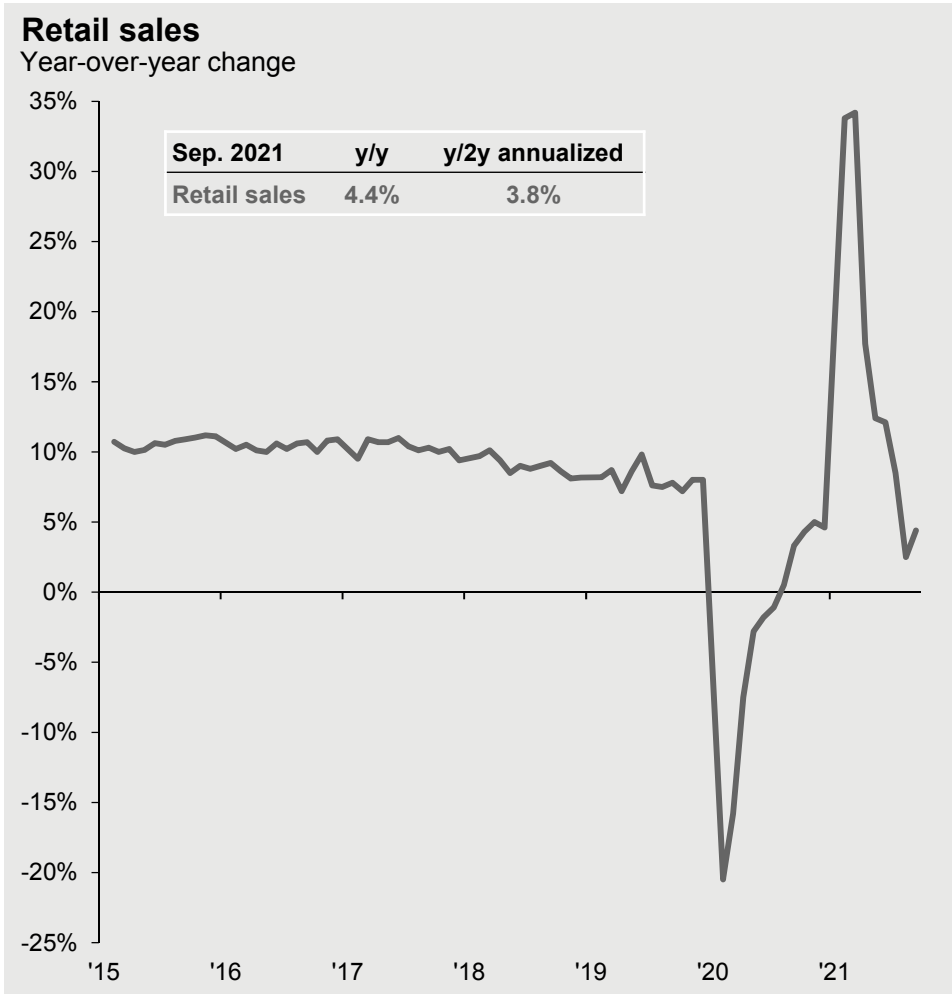
**Fixed asset investment by sector**

Year-over-year change, year-to-date



Source: CEIC, National Bureau of Statistics of China, People's Bank of China, J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.

Cyclical indicators



Source: (Left) Wind, National Bureau of Statistics of China; (Right) Association of Automobile Manufacturers, ECB, BEA, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.



Cyclical indicators



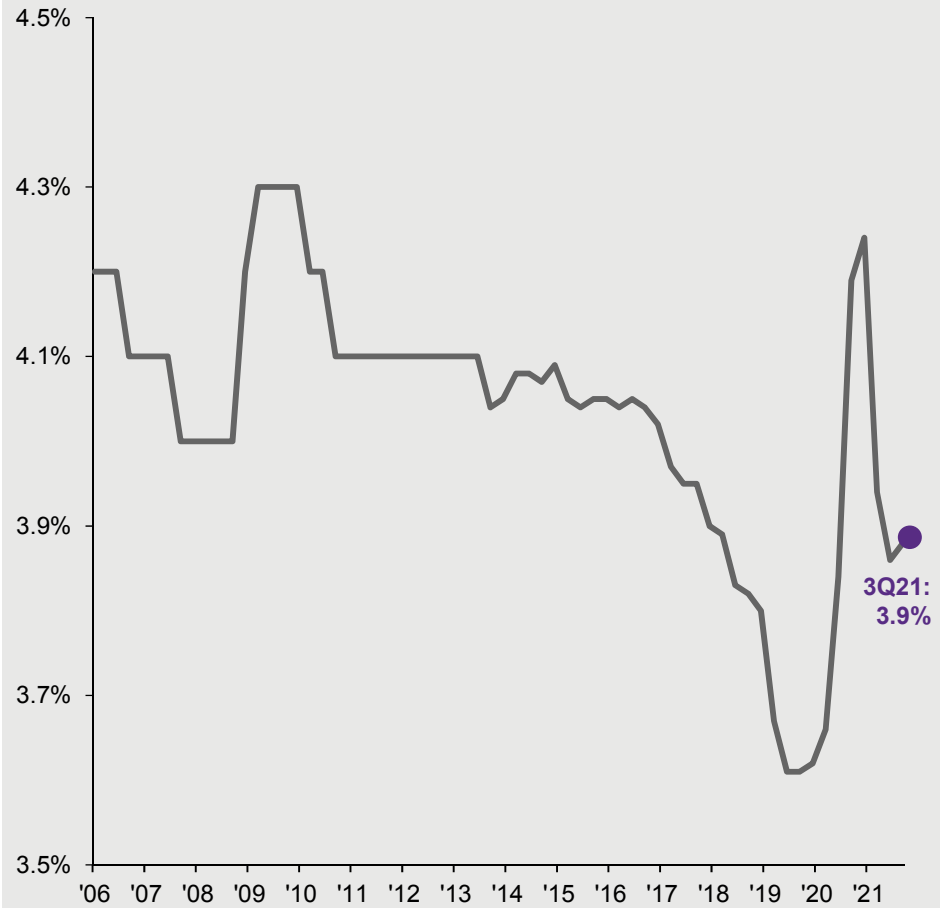
Source: People's Bank of China, J.P. Morgan Asset Management.

\*The PBOC depositor survey is conducted quarterly by China's central bank to gauge consumers' sentiment. The surveys are randomly distributed to 20,000 depositors at 400 bank branches in 50 cities and measure the participant's plans to increase spending (as opposed to saving or investing). The income sentiment index is composed with the same diffusion index methodology as the PMI, in which a reading above 50 signifies an improvement in income while a reading below 50 suggests a decline in income. *Guide to China*. Data are as of October 31, 2021.

Cyclical indicators

**Urban registered unemployment rate**

Quarterly, 2006-2021



**Urban survey unemployment rate**

Monthly, 2018-2021

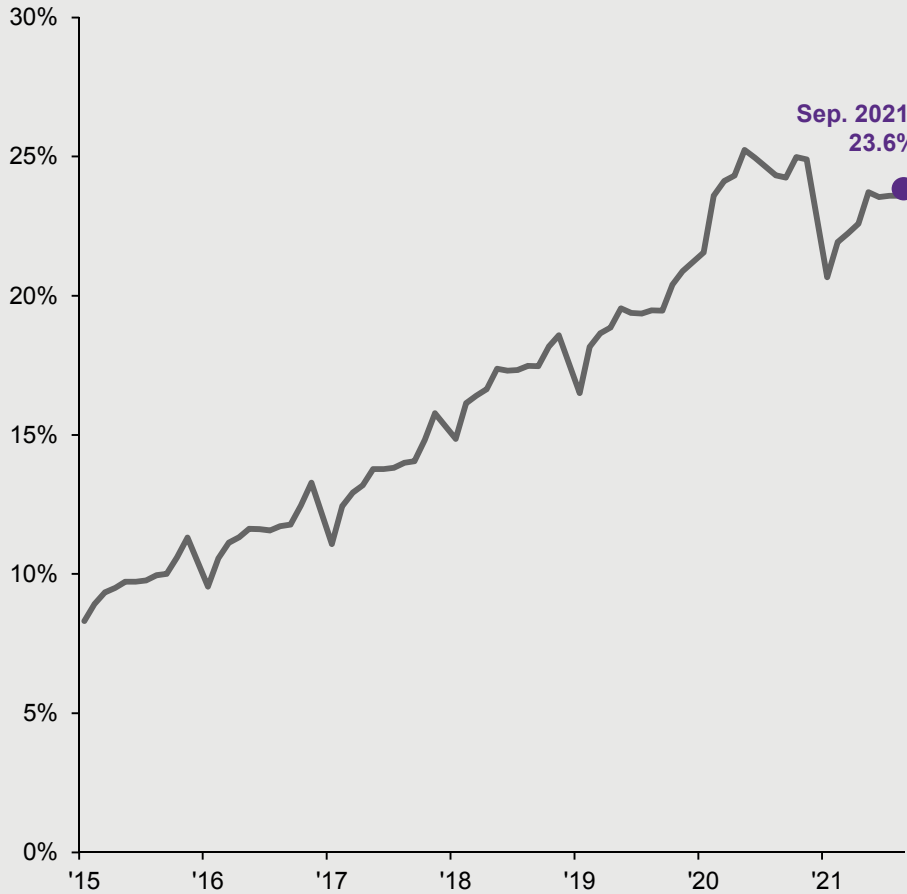


Source: National Bureau of Statistics of China, Wind, J.P. Morgan Asset Management.

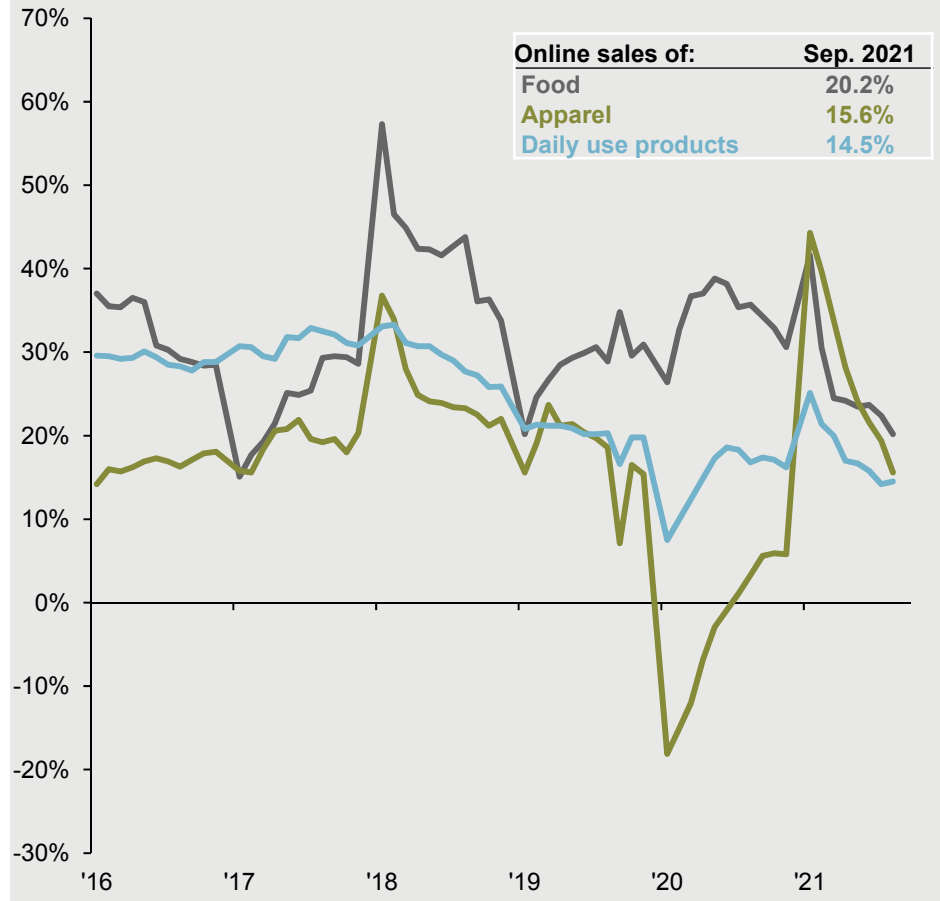
(LHS) The urban registered unemployment rate is calculated using a range of unemployed workers. It only covers job seekers who are registered with the local governments' employment service department. (RHS) The urban survey unemployment rate includes a much wider definition of unemployed workers than the registered unemployment rate. The urban survey unemployment rate began in 2018 it is now the major indicator used by policymakers for unemployment. *Guide to China*. Data are as of October 31, 2021.

Cyclical indicators

**Online share of goods sales**  
% of total goods sales, year-to-date

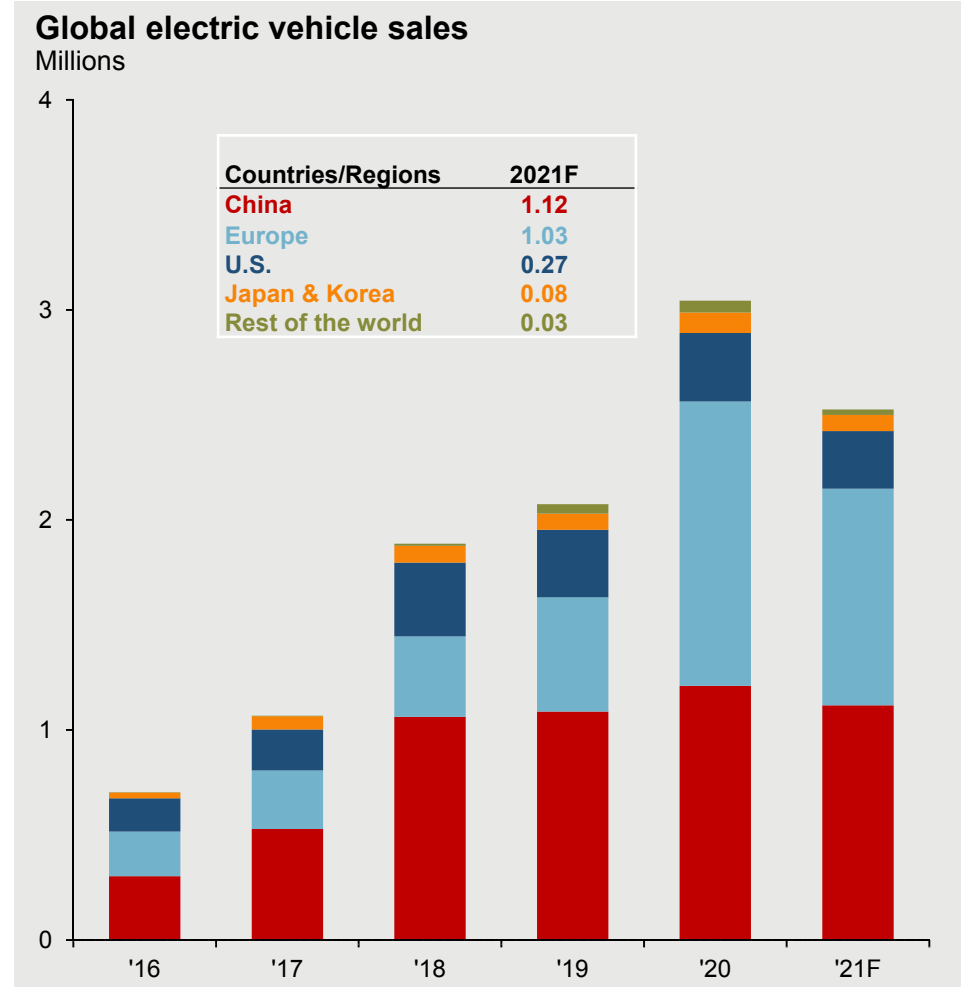
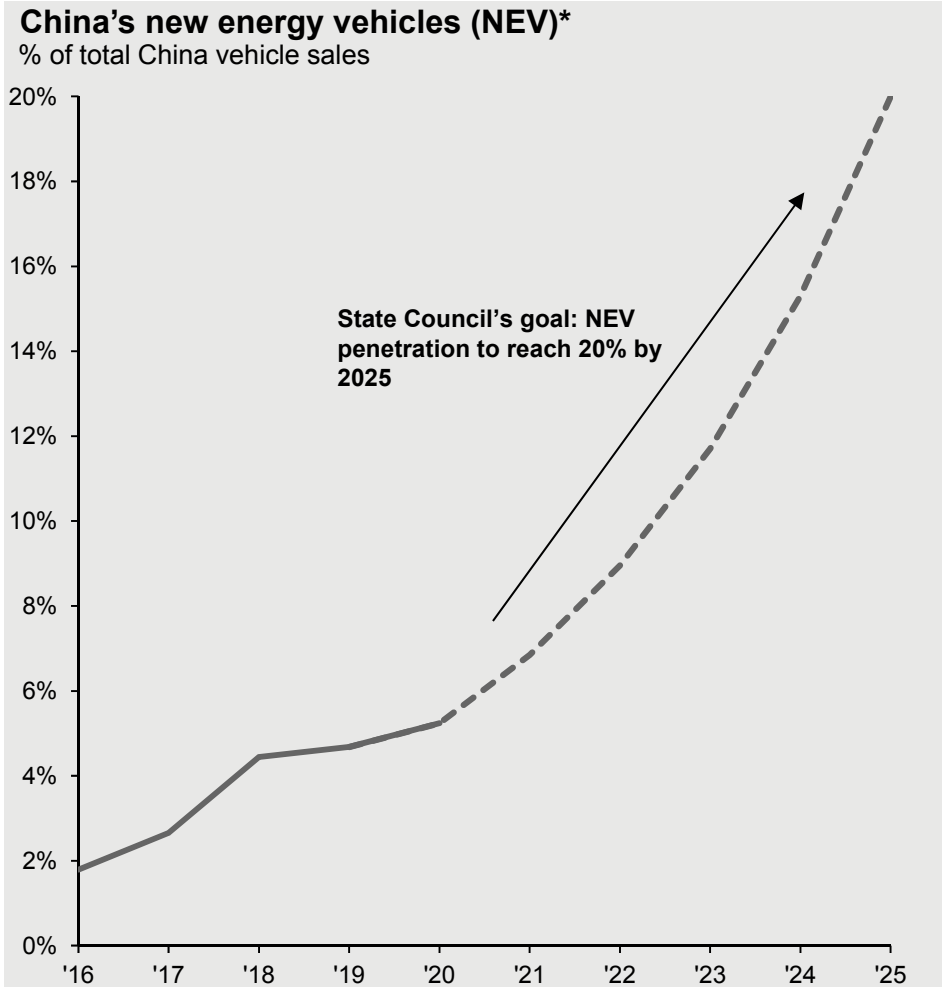


**Online goods sales breakdown**  
Year-over-year change, year-to-date



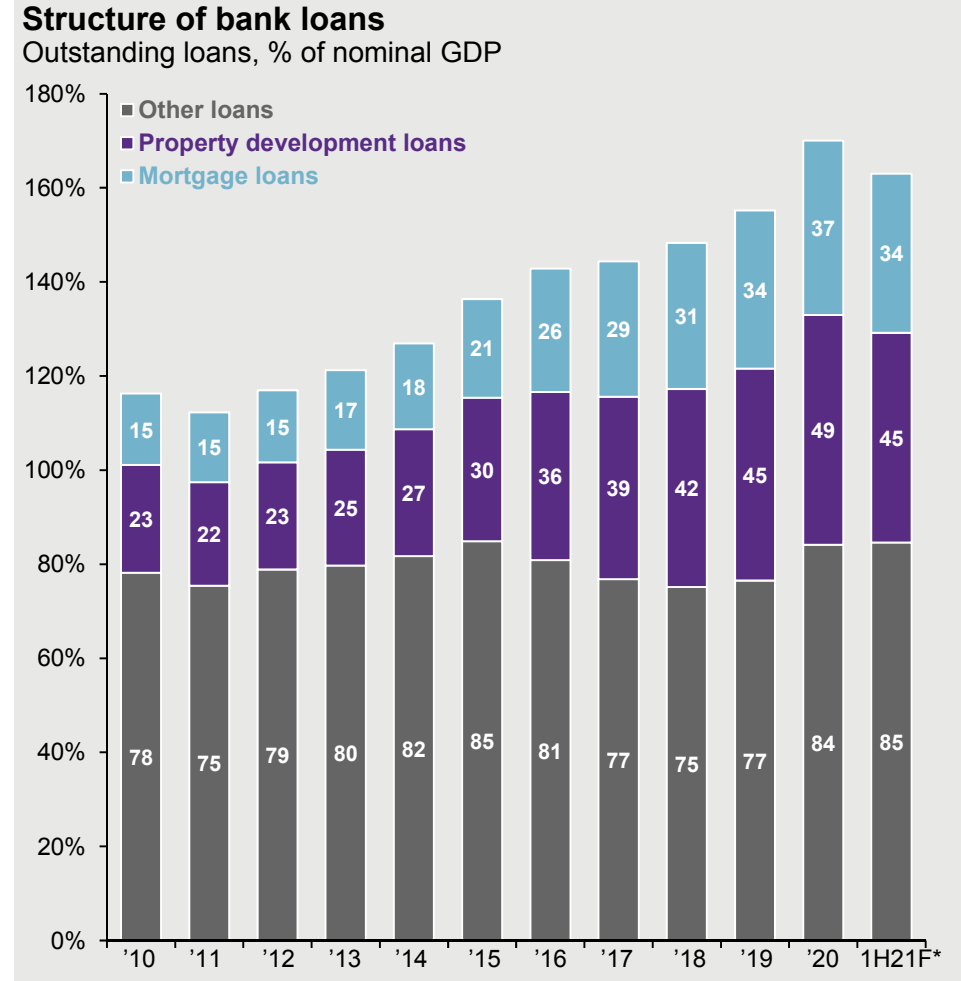
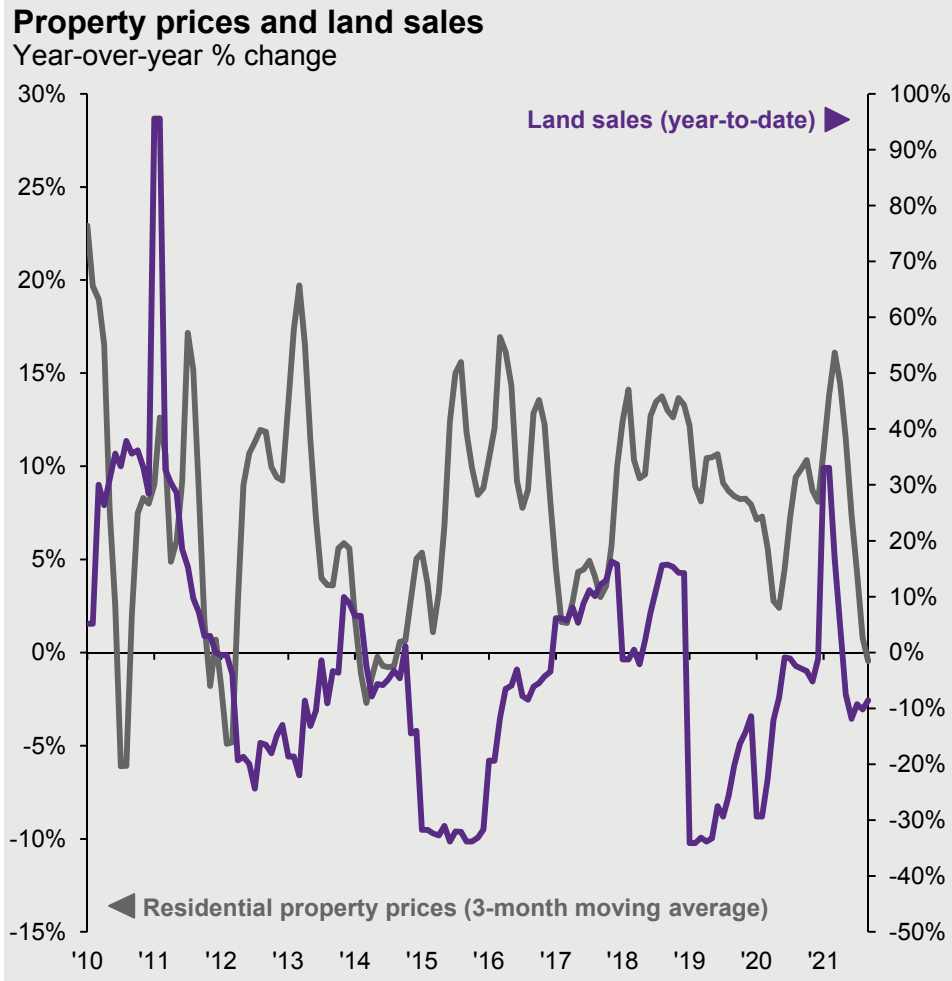
Source: National Bureau of Statistics, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

Cyclical indicators



Source: J.P. Morgan Asset Management. (Left) China Association of Automobile Manufacturers. (Right) Marklines, Bloomberg New Energy Finance (January 2021).  
 \*New energy vehicles (NEV) refers to plug-in electric vehicles that are eligible for public subsidies and includes only pure electric vehicles and plug-in hybrid electric vehicles. According to an industry development plan issued by the State Council in November 2020, the share of NEV in China will expand to 20% in 2025 from 5% in 2020. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.  
 Guide to China. Data are as of October 31, 2021.

Cyclical indicators

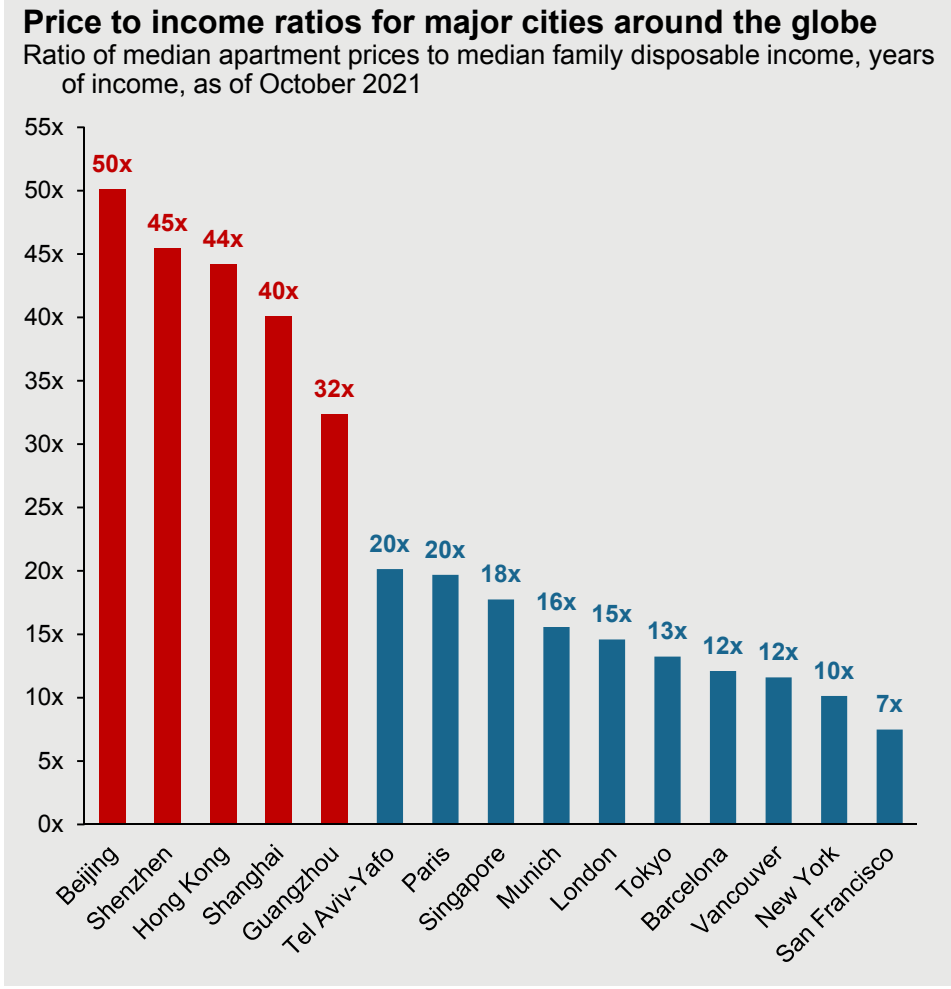
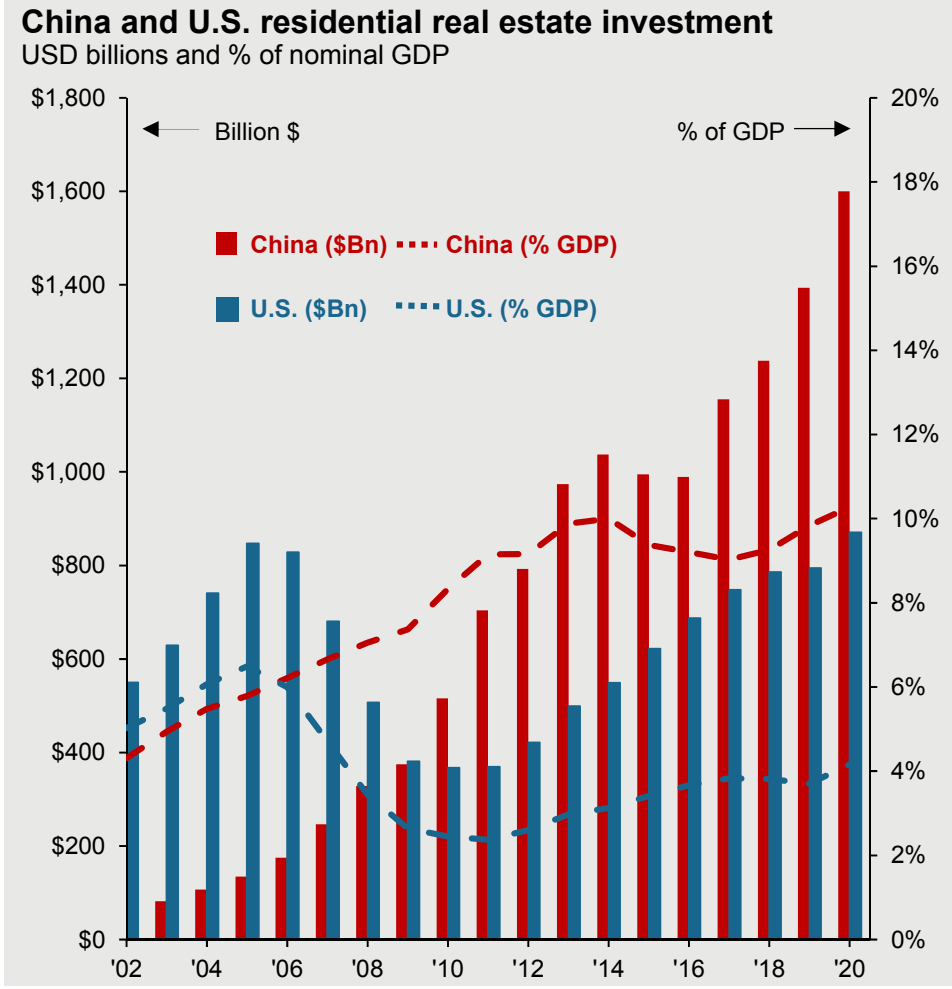


Source: CEIC, National Bureau of Statistics of China, J.P. Morgan Asset Management.

\*Assuming 12% growth of nominal GDP in 2021. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.

Guide to China. Data are as of October 31, 2021.

Cyclical indicators

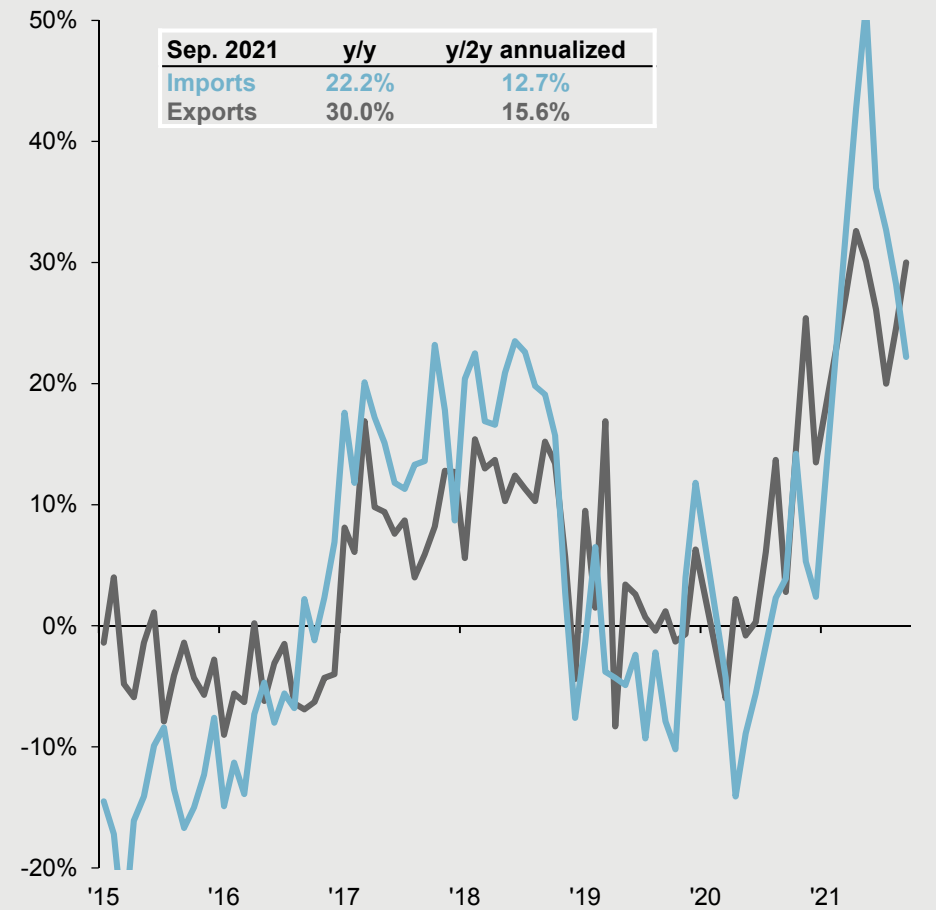


Source: J.P. Morgan Asset Management.; (Left) U.S. Bureau of Economic Analysis, National Bureau of Statistics of China, U.S. National Bureau of Economic Research, "Peak China Housing" by Kenneth Rogoff and Yuan Chen Yang, August 2020; (Right) Numbeo. Guide to China. Data are as of October 31, 2021.

Cyclical indicators

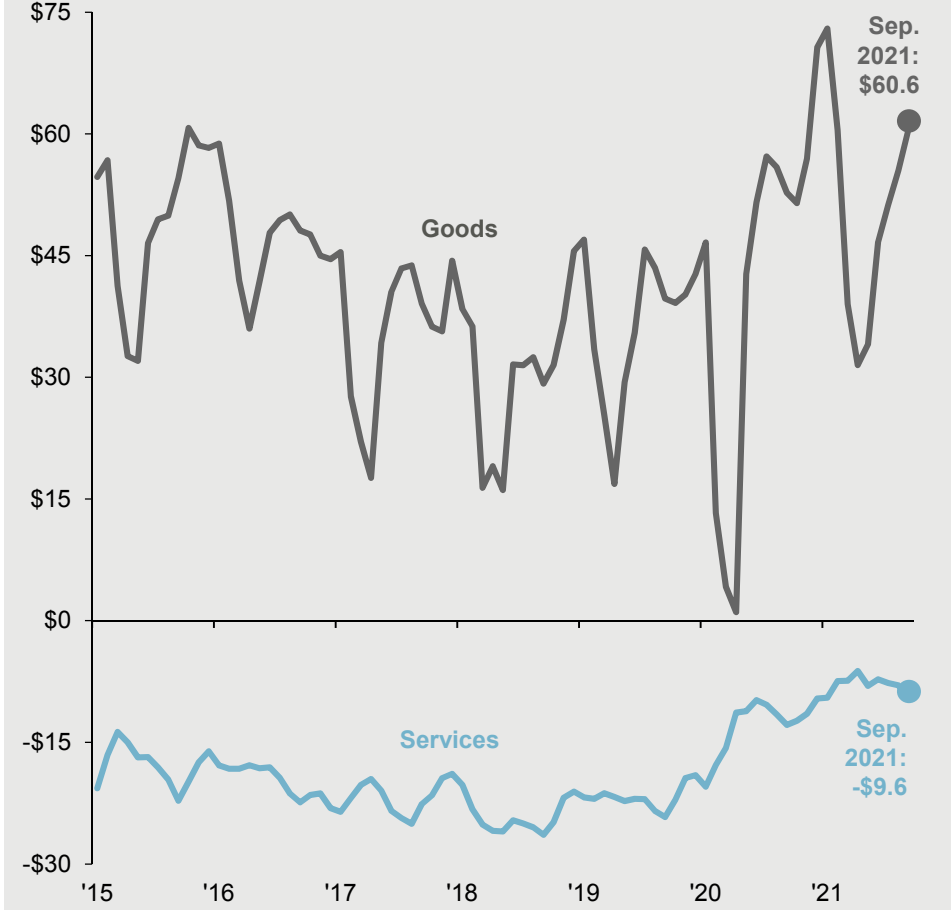
**Goods trade**

Year-over-year change, seasonally adjusted



**Balance of trade**

USD billions, 3-month moving average

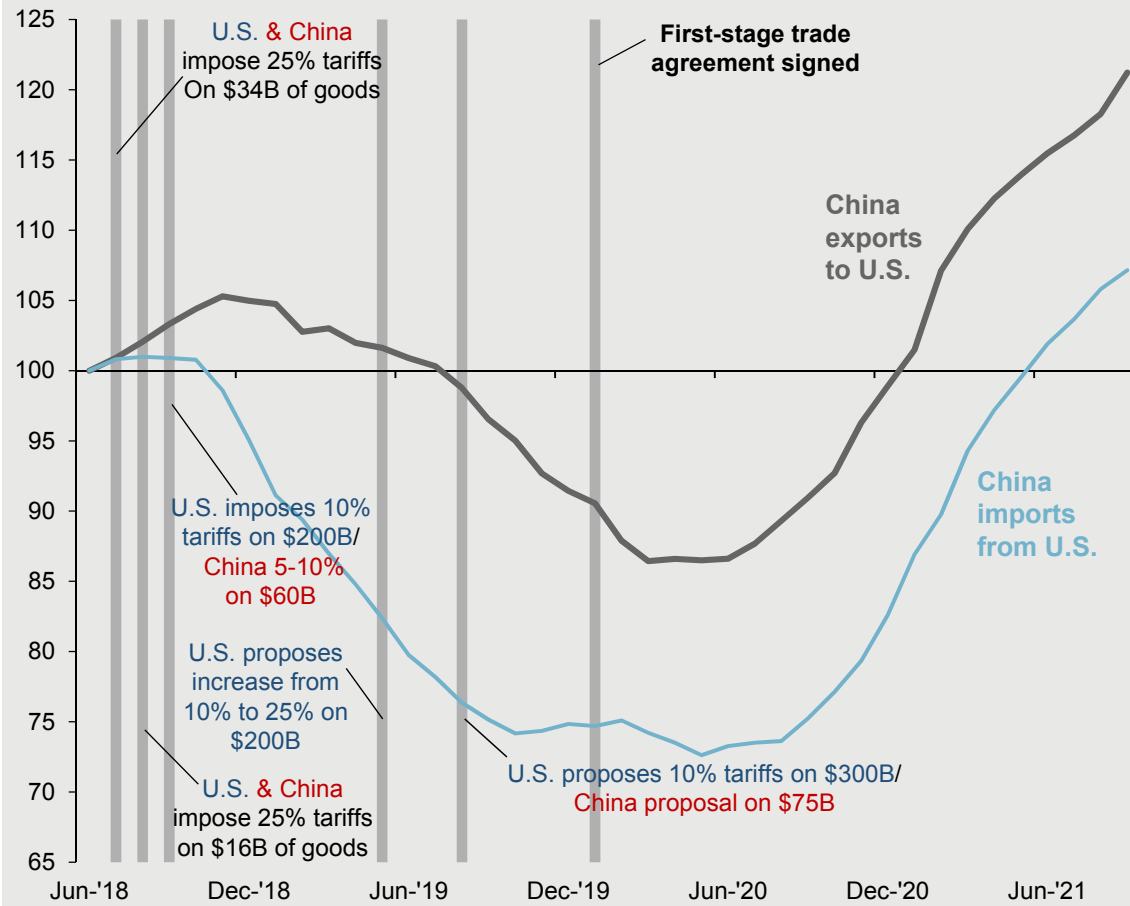


Source: CEIC, China Customs, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

Cyclical indicators

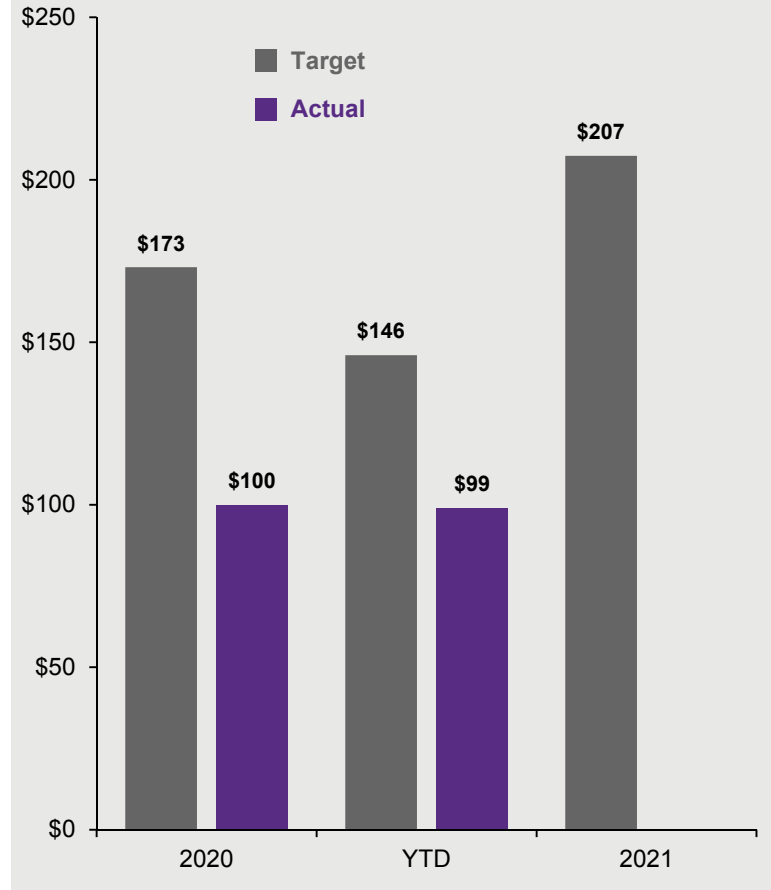
## China/U.S. trade tensions

Goods export value, U.S. dollars, rolling 12 months, June 2018=100



## Phase I trade agreement progress

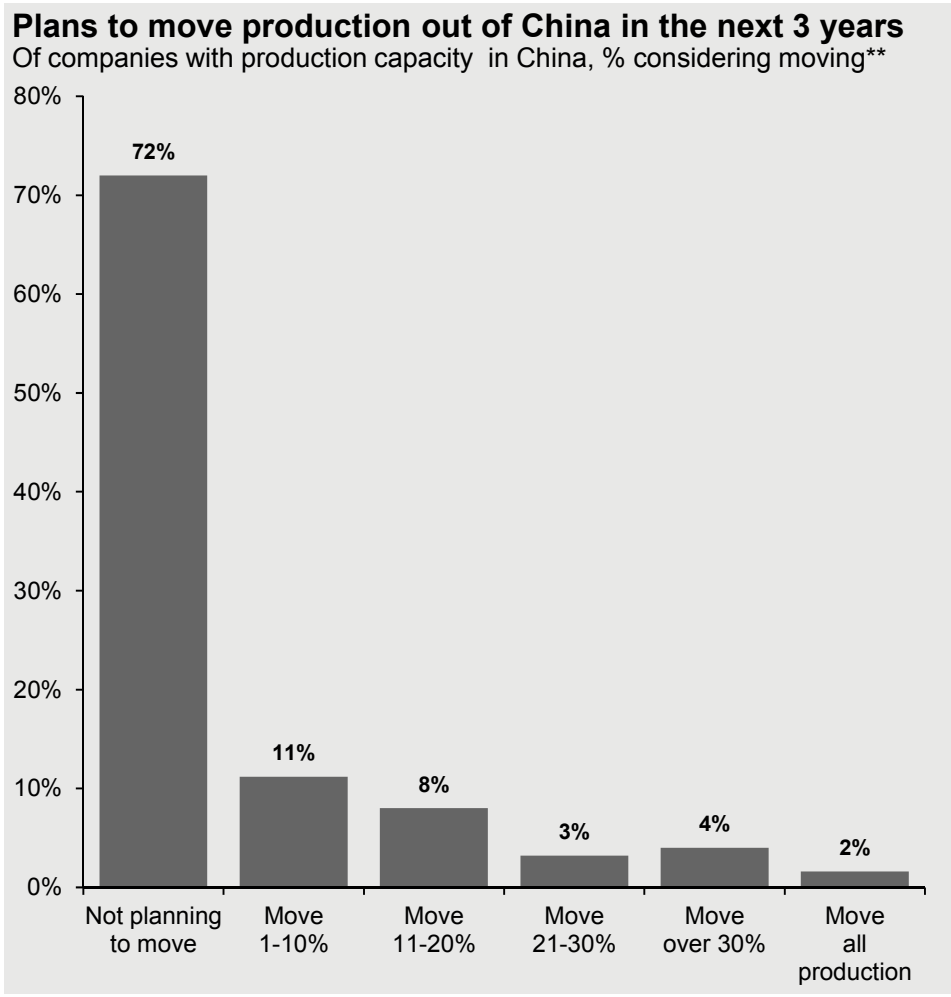
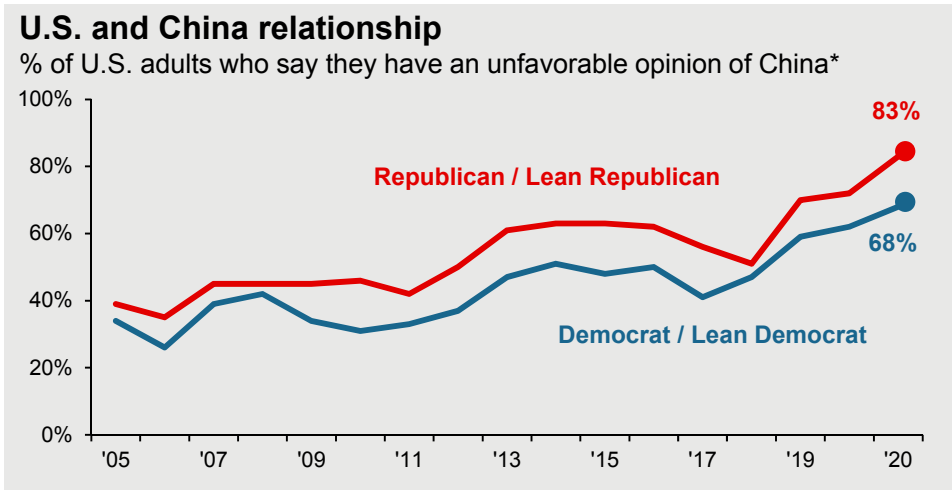
Chinese import data, U.S. dollars, billions, as of Sep. 2021



Source: China Customs, J.P. Morgan Asset Management; (Left) CEIC; (Right) Peterson Institute for International Economics. Guide to China. Data are as of October 31, 2021.

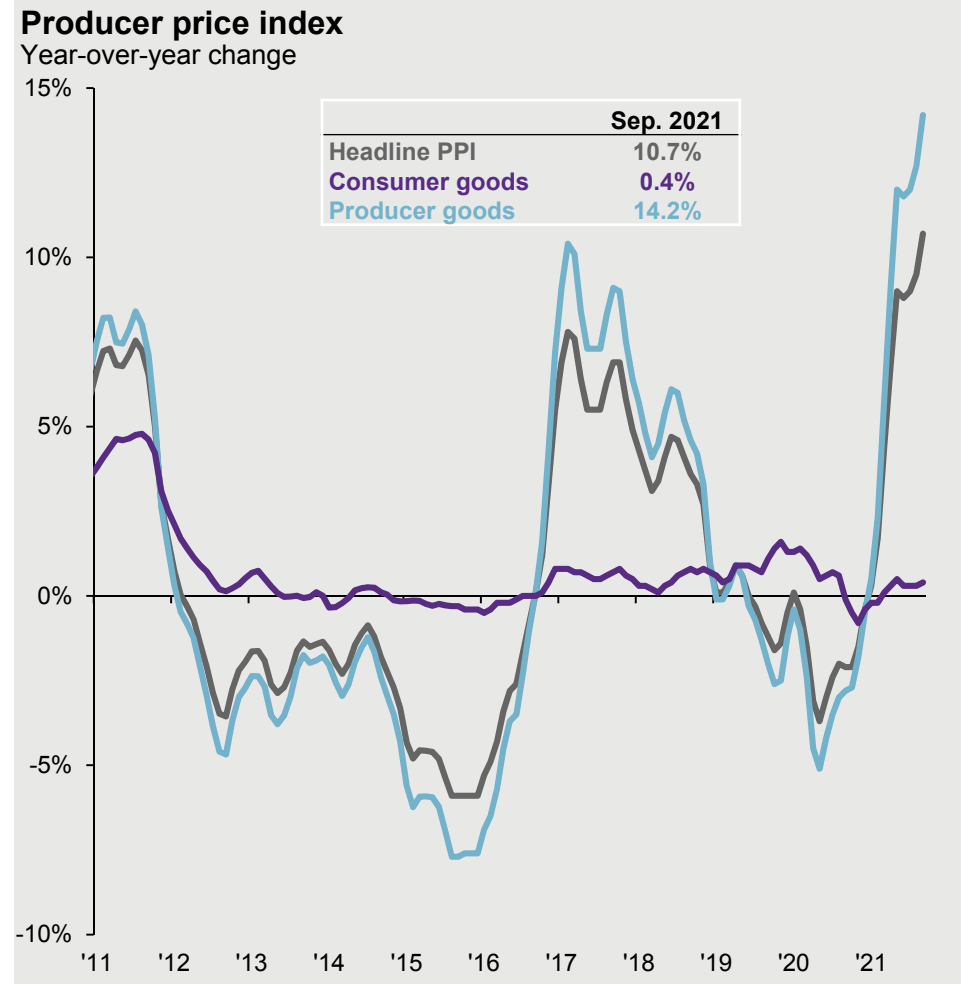
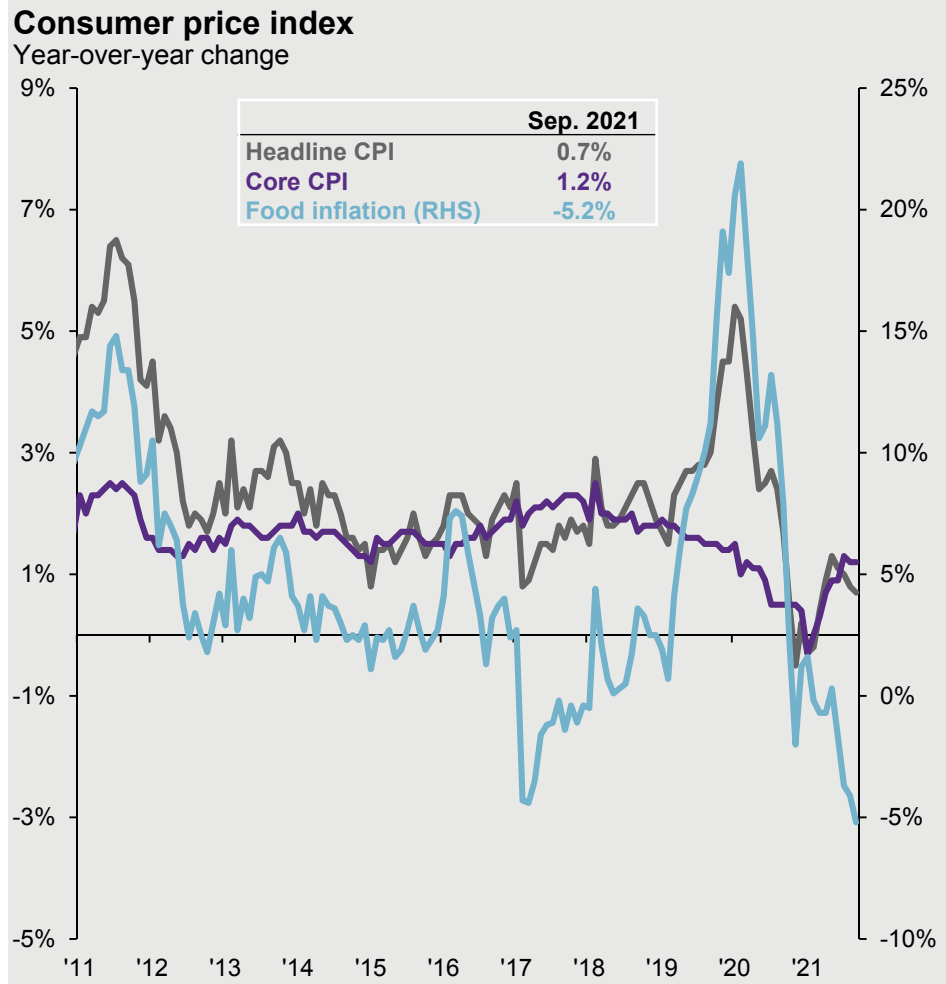


Cyclical indicators



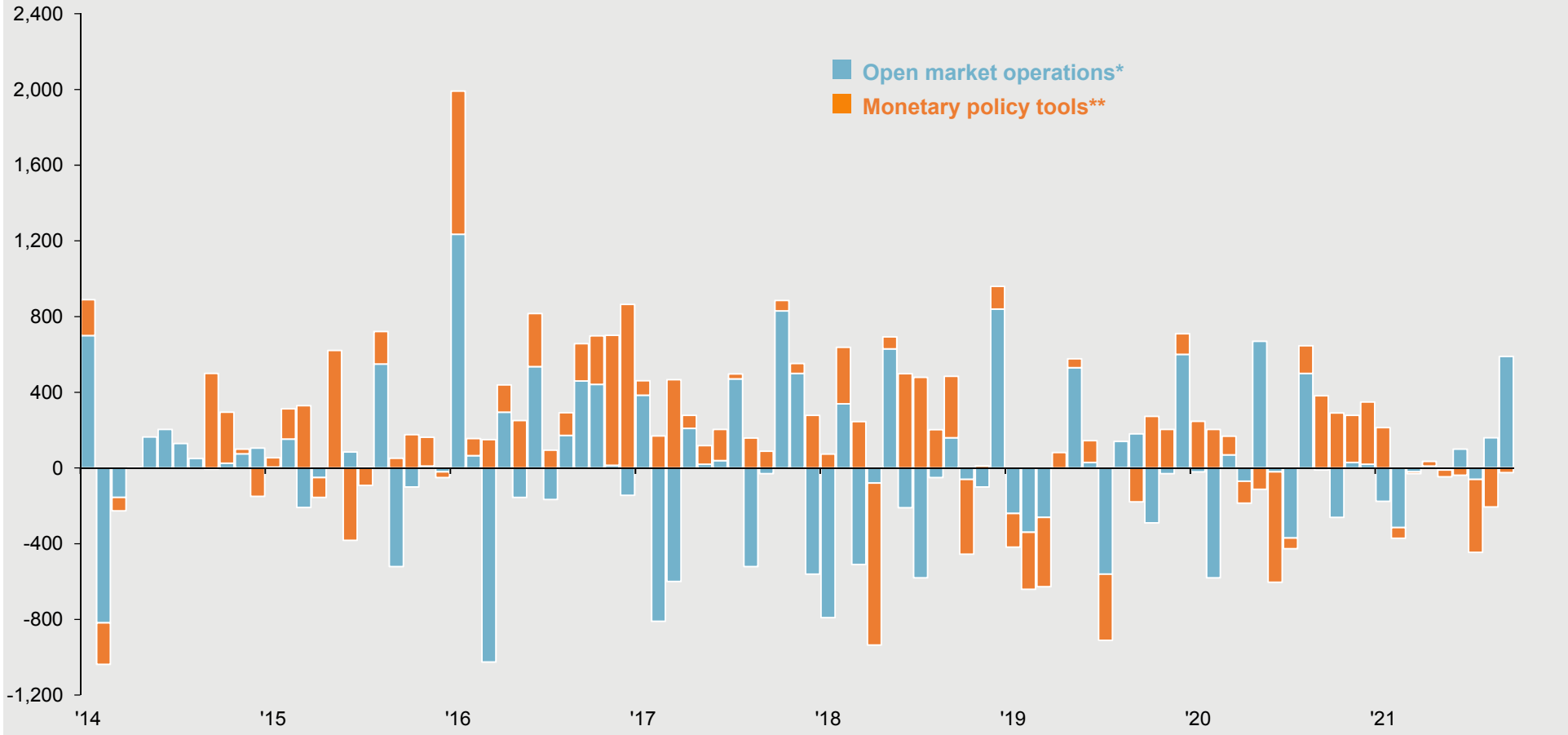
Source: FactSet, J.P. Morgan Asset Management; (Top left) Pew Research Center; (Bottom left) U.S. Census Bureau, (Right) The American Chamber of Commerce in Shanghai.  
 \*Pew Research Center survey of U.S. adults conducted June 16 - July 14, 2020. Question asked being asked by Pew Research: "Please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of China". Favorable combines "very favorable" and "somewhat favorable". Unfavorable combines "somewhat unfavorable" or "very unfavorable". Of all participants, 3% had a very favorable opinion, 19% had a somewhat favorable opinion, 31% had a somewhat unfavorable opinion, 42% had a very unfavorable opinion, and 6% did not have an opinion or refused to answer.  
 \*\*Survey was conducted between June 15 and July 15, 2021. Responses were received from 125 companies.  
 Guide to China. Data are as of October 31, 2021.

Cyclical indicators



Source: CEIC, National Bureau of Statistics of China, J.P. Morgan Asset Management; *Guide to China*. Data are as of October 31, 2021.

**Liquidity injections by the PBoC**  
RMB billions, net injection



Source: CEIC, People's Bank of China (PBoC), J.P. Morgan Asset Management.

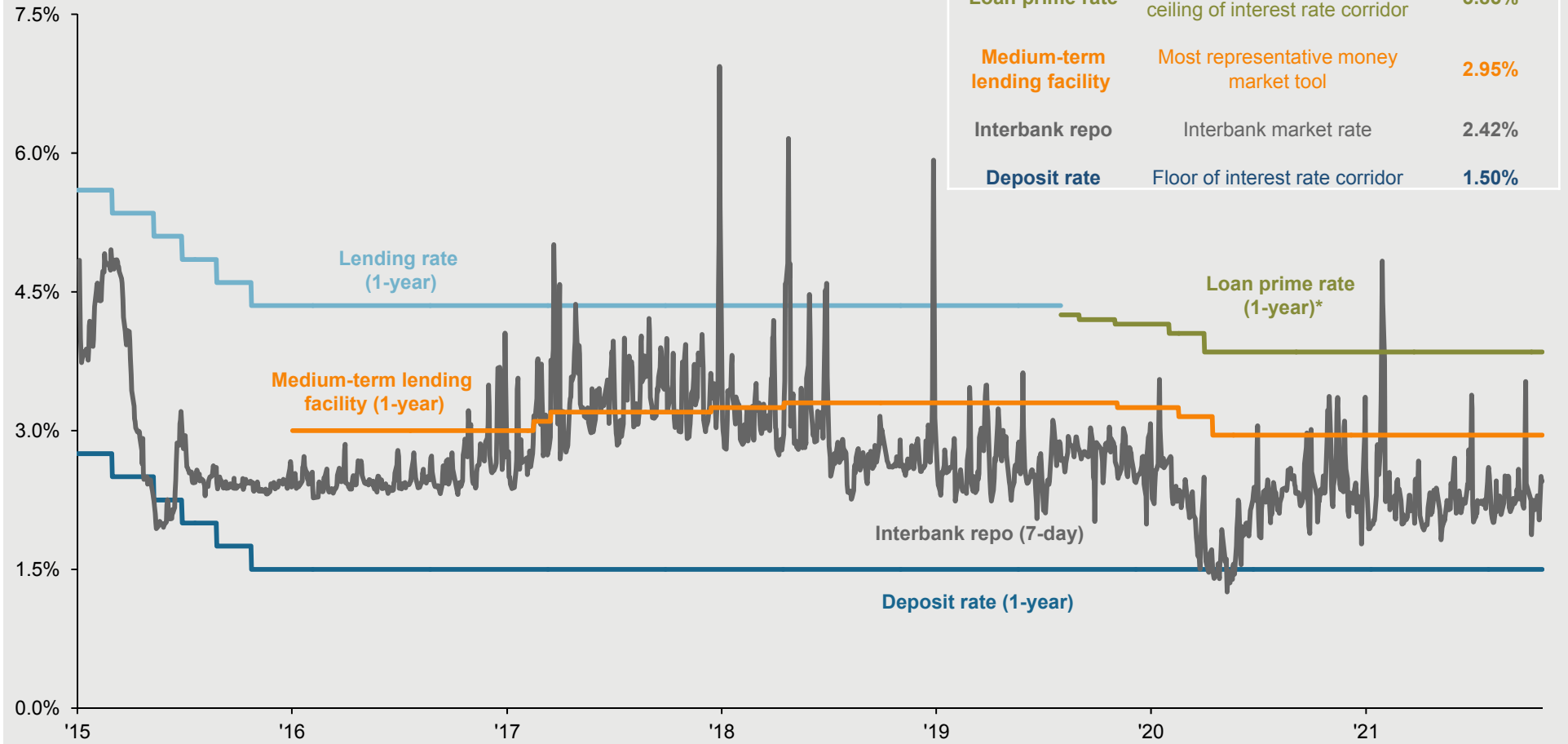
\*Open market operation (OMO) includes reverse repo, repo and central bank bill issuance by the People's Bank of China.

\*\*Monetary policy tools include short-term liquidity operations (SLO), standing liquidity facility (SLF), medium-term liquidity facility (MLF) and pledged supplementary lending (PSL).

Guide to China. Data are as of October 31, 2021.

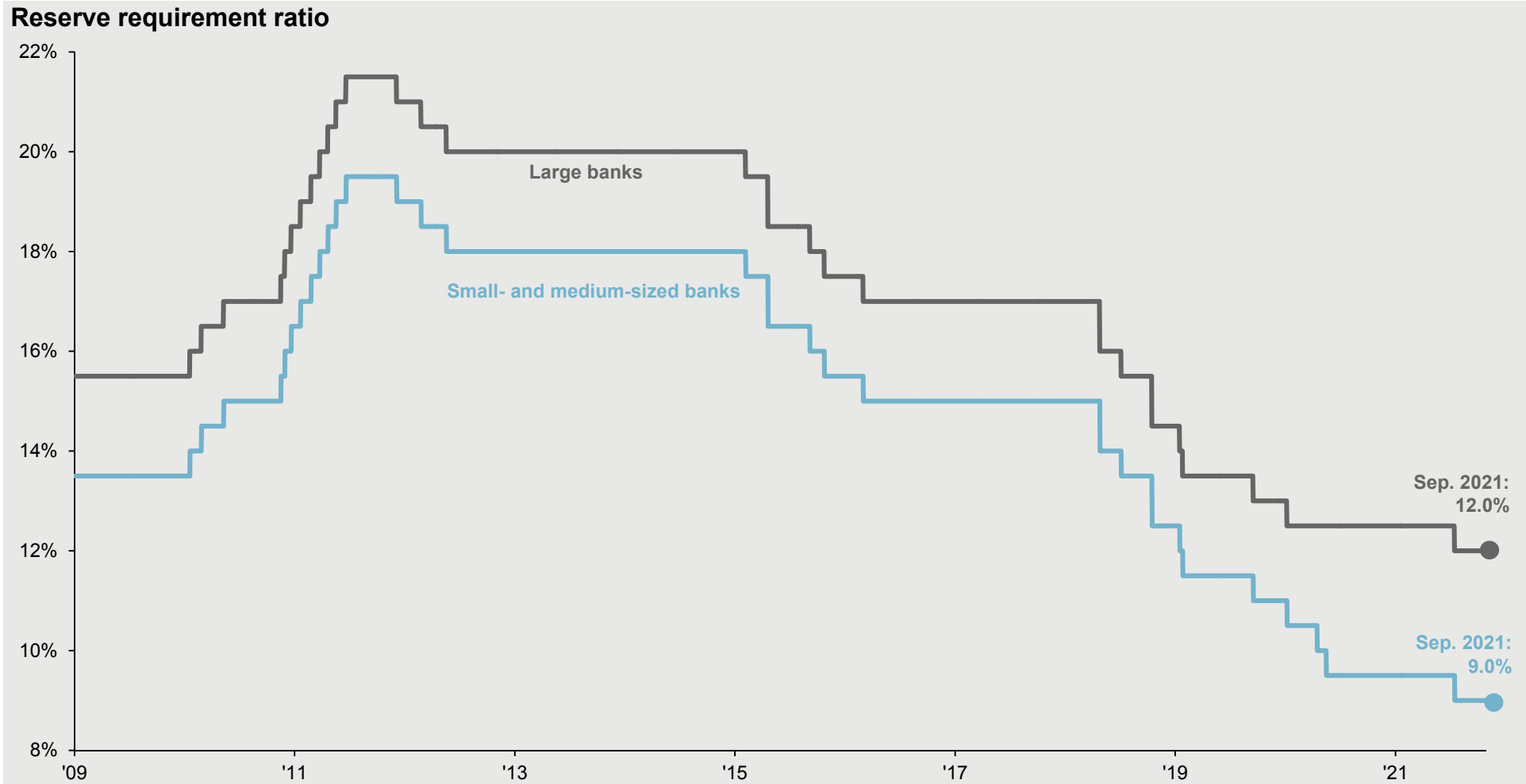
**Key policy rates**

Per annum



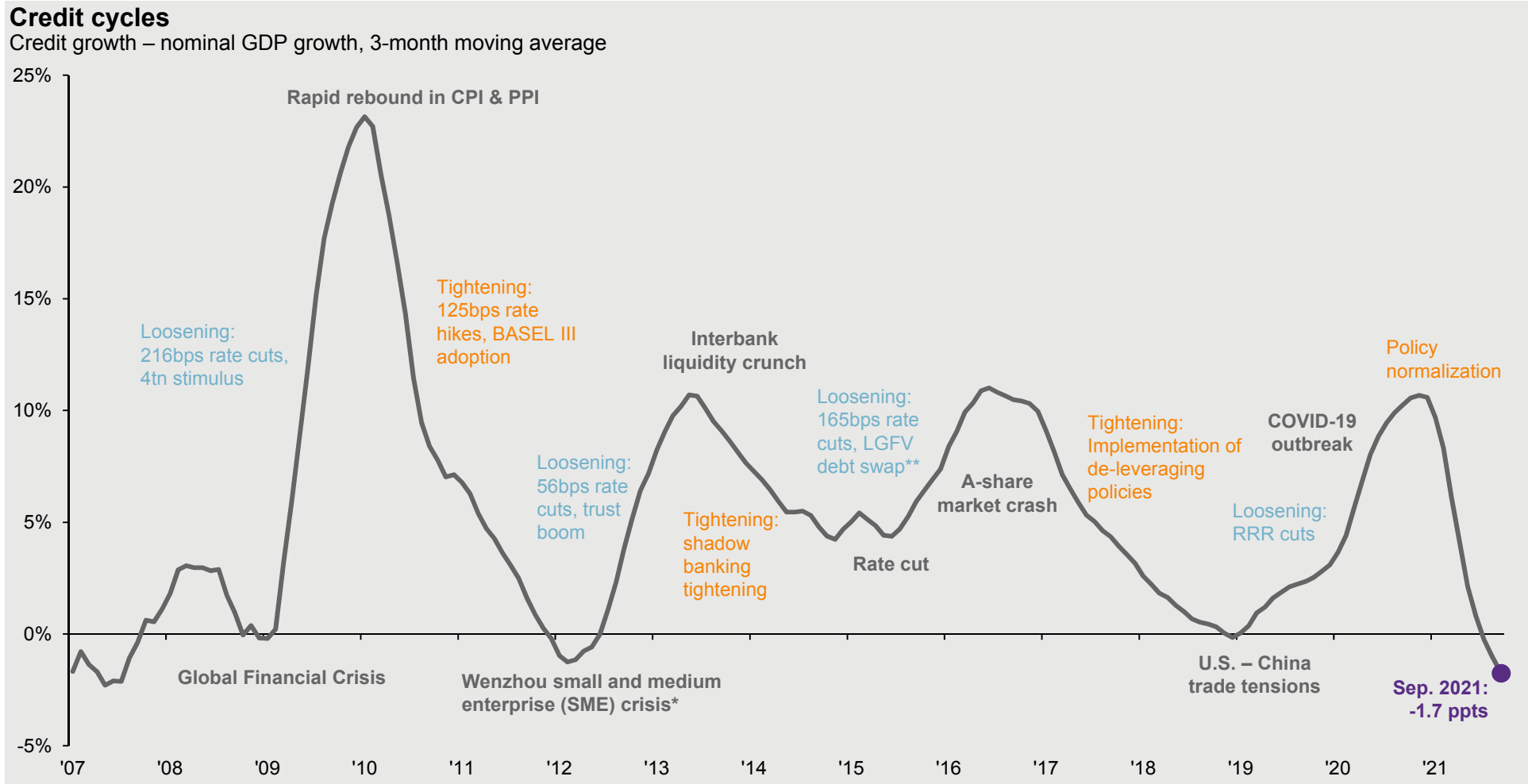
Source: CEIC, People's Bank of China (PBoC), National Interbank Funding Center, J.P. Morgan Asset Management.

\*Starting from August 20, 2019, the PBoC releases a monthly 1-year and 5-year loan prime rate (LPR) based on quotes from 18 banks. For this new monthly quote, banks are required to submit them in the form of open market operation rates (especially MLF) plus a margin to the national inter-bank lending center. The central bank requests all commercial banks to reference the finalized LPR to price their new lending and use LPR as the benchmark rate in floating rate loan contracts going forward. *Guide to China*. Data are as of October 31, 2021.



Source: CEIC, People's Bank of China (PBoC), J.P. Morgan Asset Management.

Large banks are six major banks in China, including Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, Bank of Communications, Postal Savings Bank of China. The other banks are categorized as small- and medium-sized banks. PBoC sets favorable required reserve ratio for banks which have met specific criteria, such as loans to small and medium-sized enterprises and agricultural sectors. These measures have significantly brought down the actual RRR for banks. According to the PBoC, after the latest RRR cut on July 15, 2021, the realized weighted average RRR is 8.9%. *Guide to China*. Data are as of October 31, 2021.

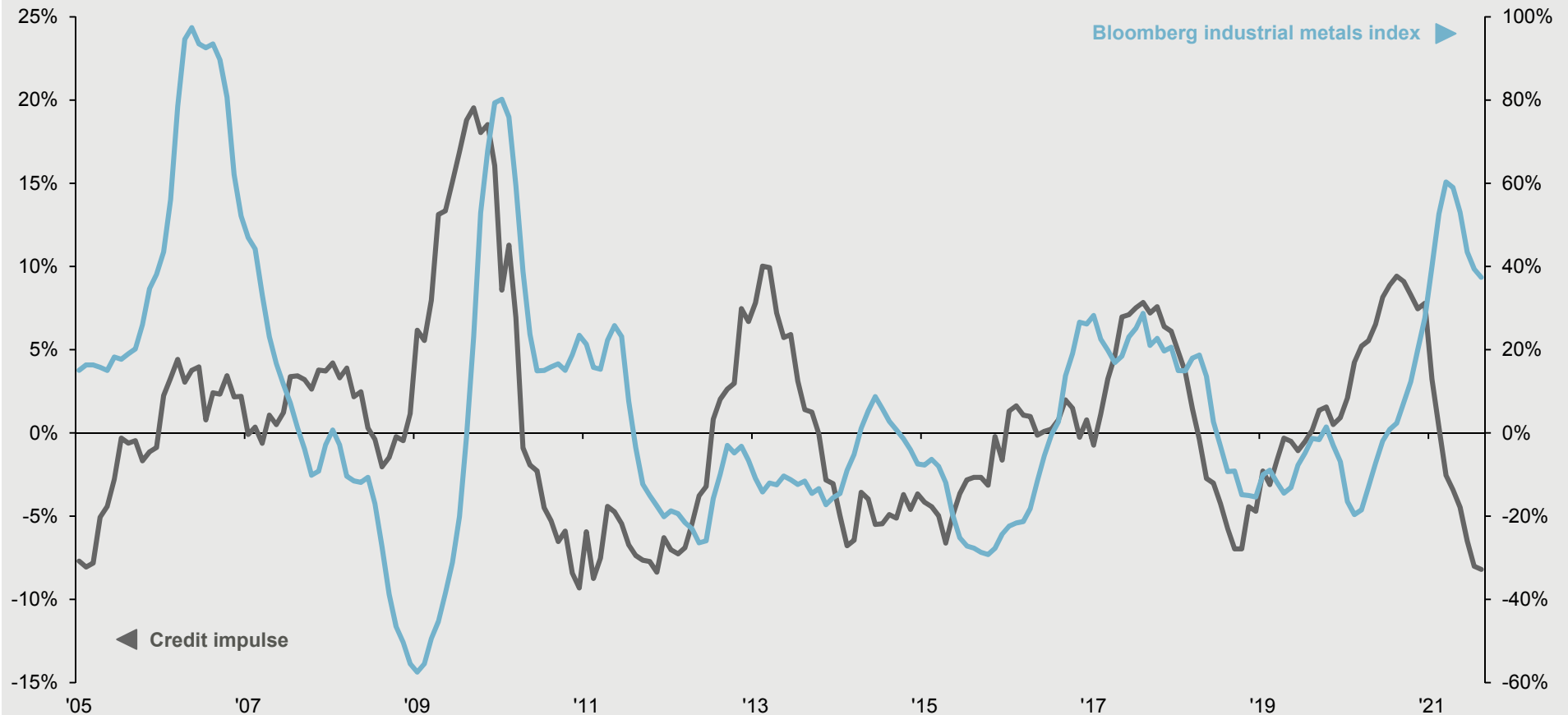


Source: CEIC, People's Bank of China, J.P. Morgan Asset Management.  
 Credit growth measures the year-over-year growth of outstanding total social financing. \*Wenzhou SME crisis refers to the wave of bankruptcies and funding problems faced by a large number of SMEs in Wenzhou in 2011. \*\*LGFV refers to local government financing vehicle.  
 Guide to China. Data are as of October 31, 2021.

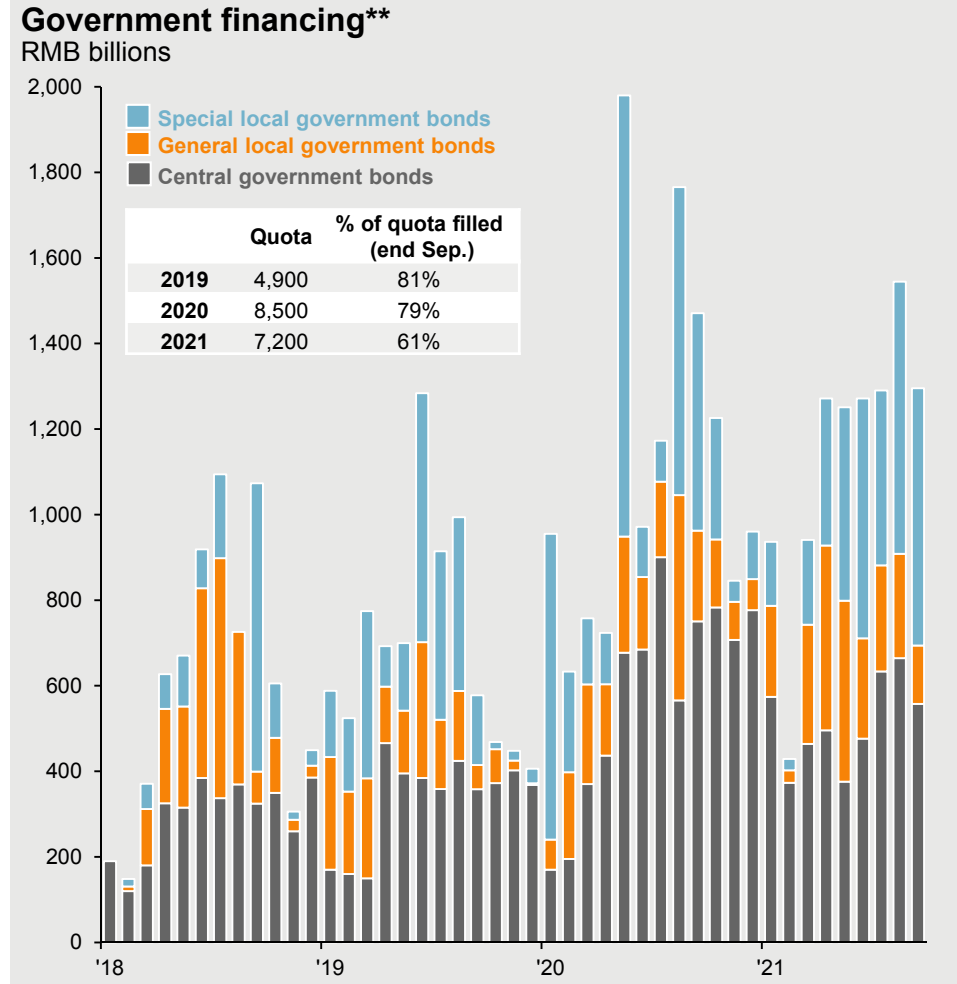
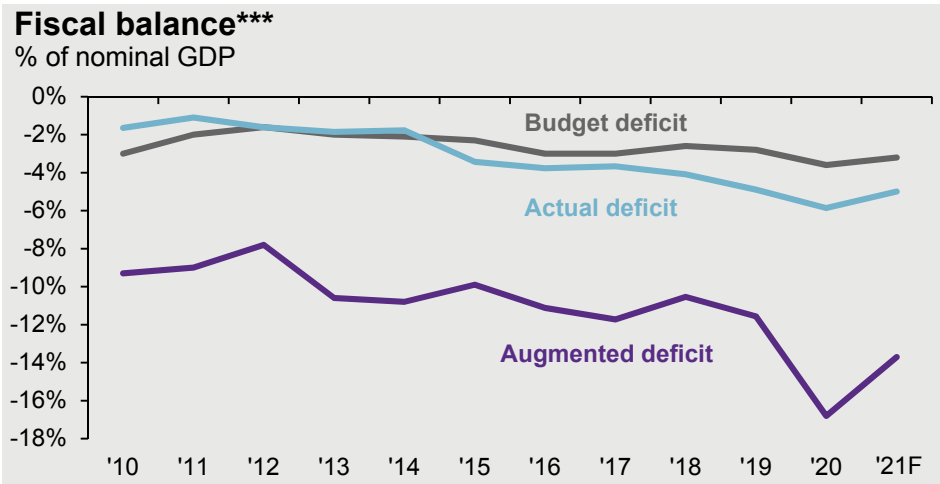
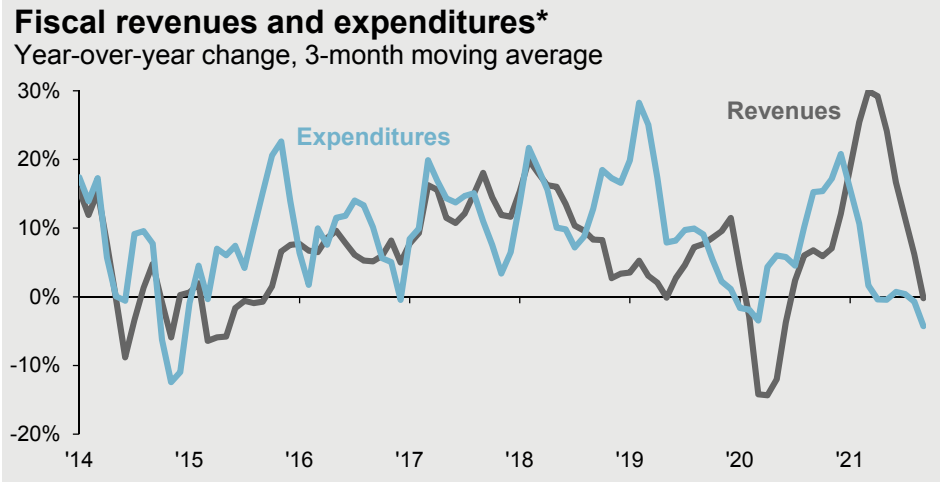
**Credit impulse and industrial metals' prices**

% of nominal GDP, year-over-year change

Year-over-year change, 3-month moving average



Source: Bloomberg, CEIC, People's Bank of China, J.P. Morgan Asset Management.  
 Credit impulse measures the year-over-year change in credit flow (net flow of total social financing) as a percentage of nominal GDP.  
 Guide to China. Data are as of October 31, 2021.

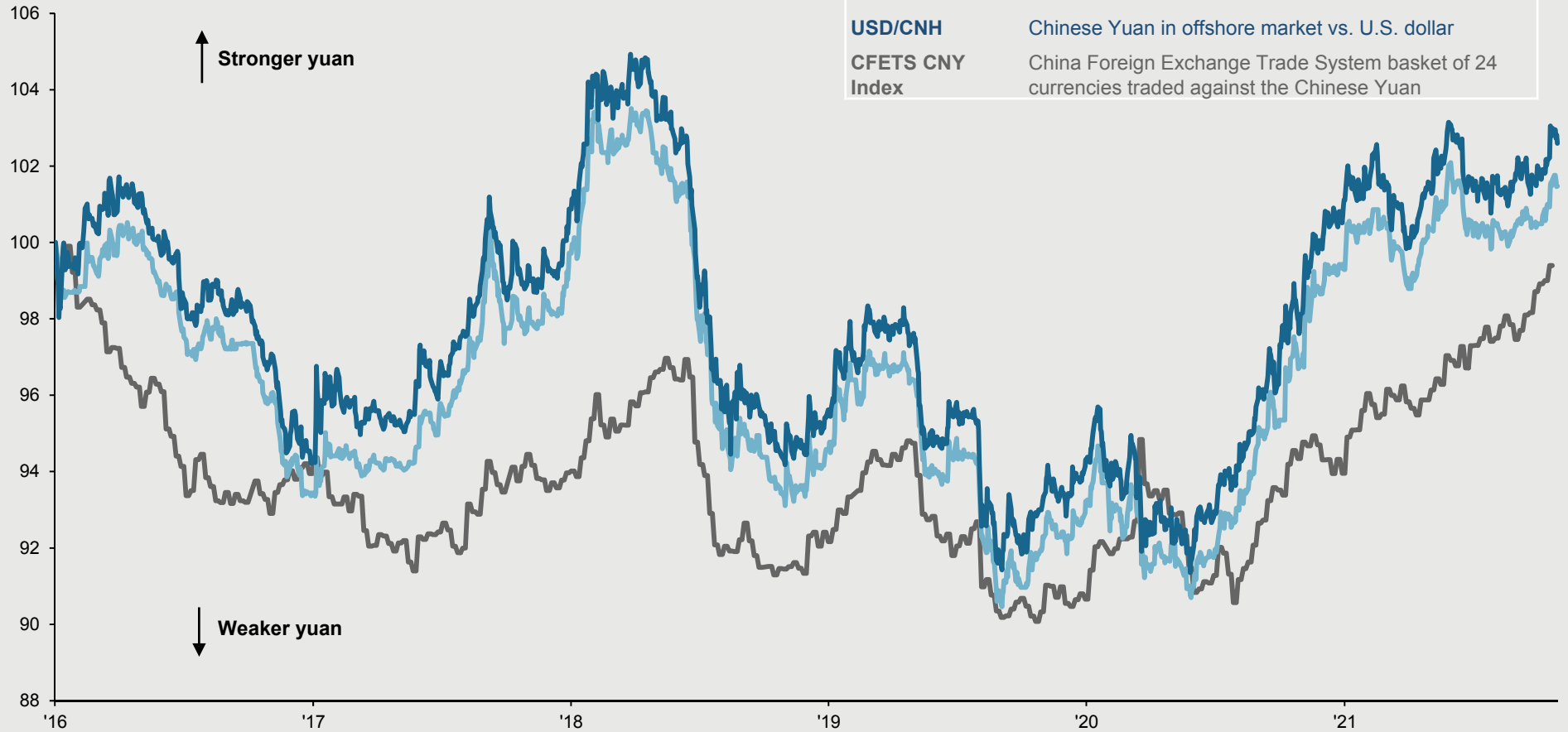


Source: CEIC, Ministry of Finance of China, J.P. Morgan Asset Management; (Bottom left) Wind, Agricultural Development Bank of China, China Development Bank, China Trustee Association, People's Bank of China. \*Fiscal revenues include taxes, government funds, which are mostly derived from local government land sales, and other government revenues. Fiscal expenditures include government spending of funds raised from taxes, government funds and general bond issuance. \*\*General local government bonds are issued to raise funds and offset fiscal deficits so as to maintain the ordinary operation of local governments. They are backed by the future fiscal revenue of the local governments. Special local government bonds are issued to support specific infrastructure and public projects. They are backed by the future revenue generated from the projects. The quota for government bond issuance is approved at the China's National People's Congress meeting each year and it refers to the planned net increase in government bonds outstanding for that particular year. \*\*\*Actual deficit = fiscal revenues - fiscal expenditures (as shown in top left chart). Budget deficit = actual deficit adjusted with the fiscal stability fund. Augmented deficit is an estimate of all the fiscal resources used by the government to support economic growth, i.e. fiscal balance plus investment via local government financing vehicles, policy banks and other channels. 2020 is a J.P. Morgan Asset Management estimate. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.  
 Guide to China. Data are as of October 31, 2021.



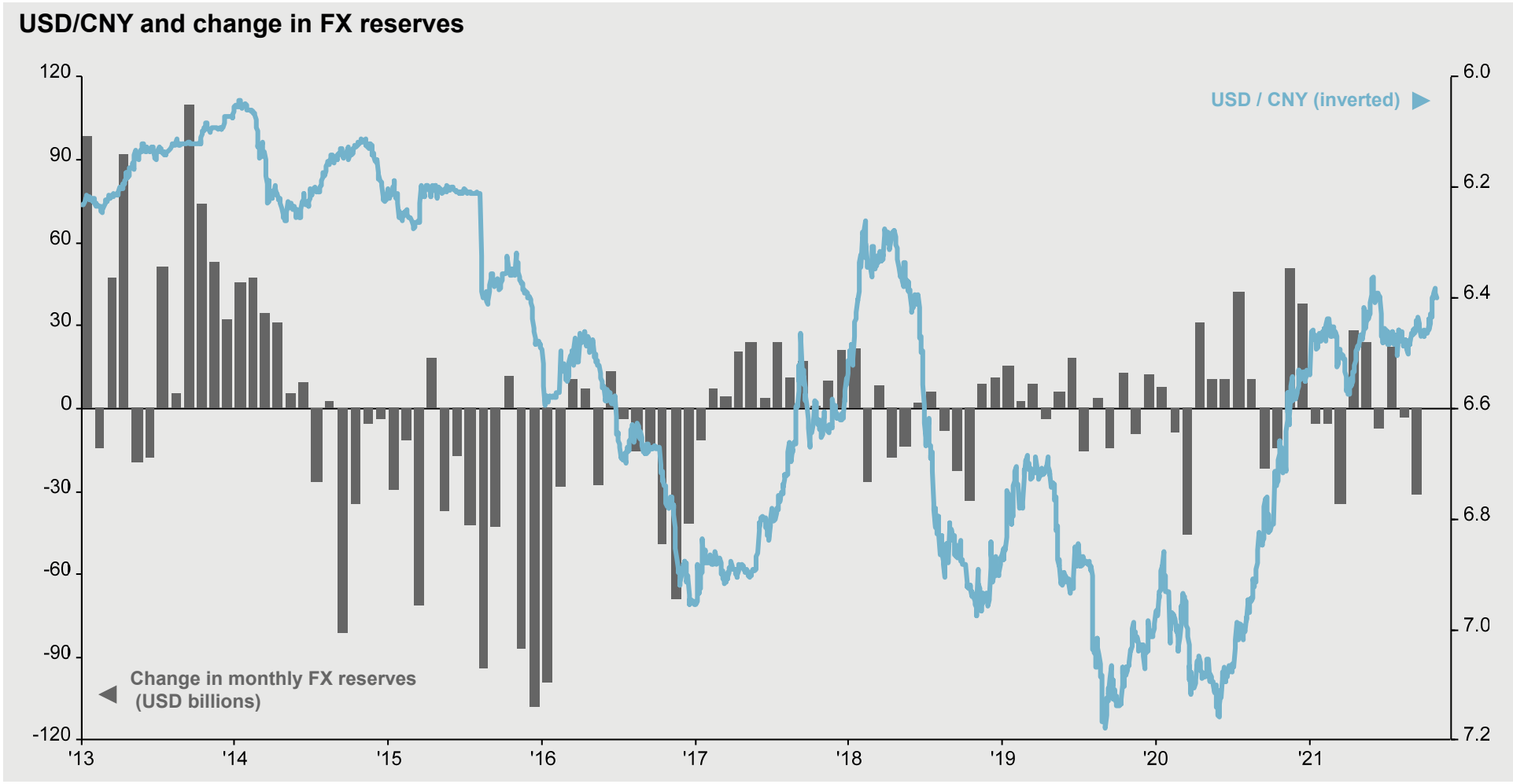
**Chinese yuan exchange rates vs. USD**

Index, Jan. 2016 = 100



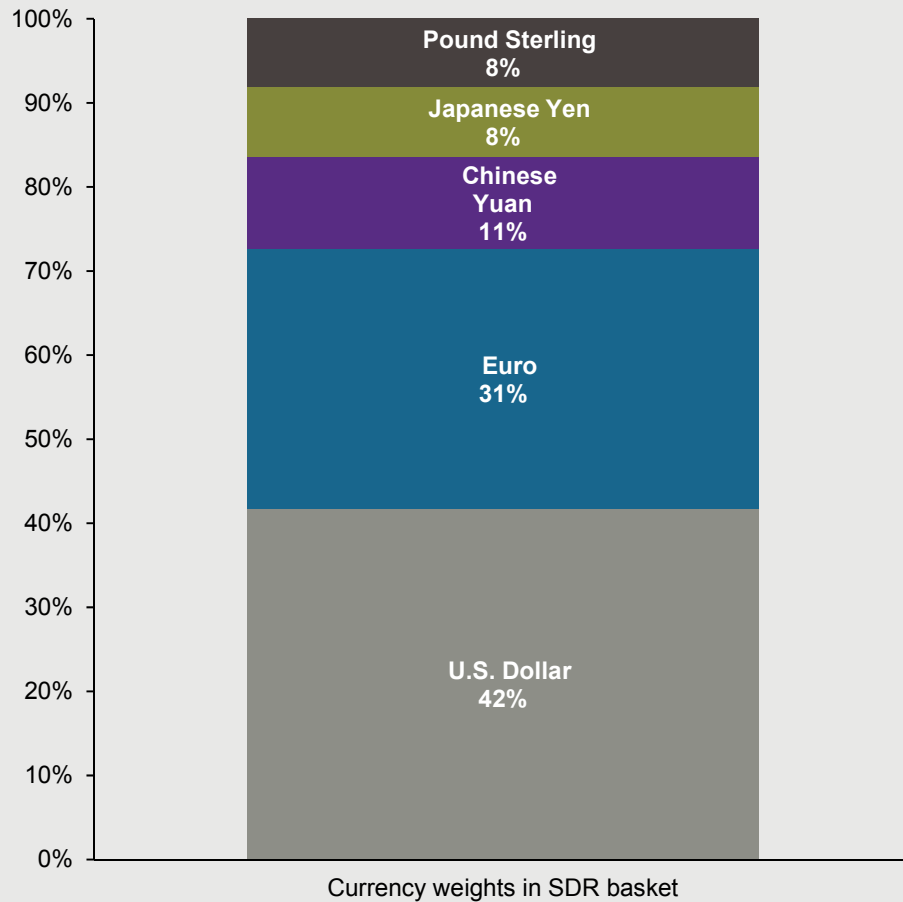
Source: FactSet, China Foreign Exchange Trade Center, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. *Guide to China*. Data are as of October 31, 2021.

Monetary, fiscal & FX policy



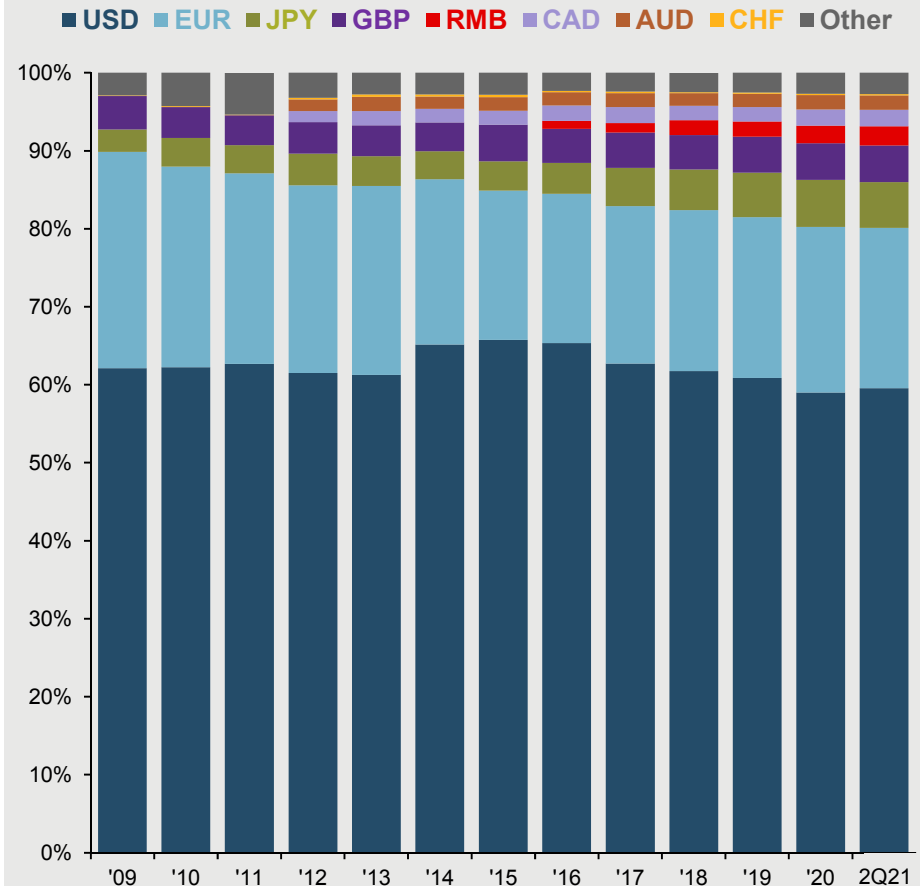
Source: FactSet, People's Bank of China, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

## Currency weights in IMF's SDR basket



## Global central bank reserve manager holdings

% of total



Source: IMF, J.P. Morgan Asset Management.  
 SDR refers to the IMF's Special Drawing Rights basket.  
 Guide to China. Data are as of October 31, 2021.

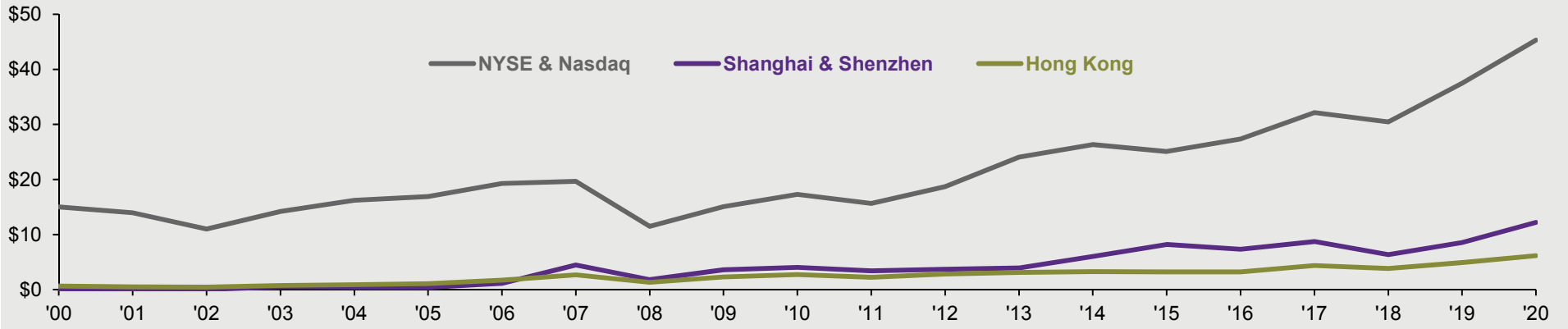
**Stock exchange market capitalizations**

Trillions of U.S. dollars, 2020



**Stock exchange market capitalizations**

Trillions of U.S. dollars

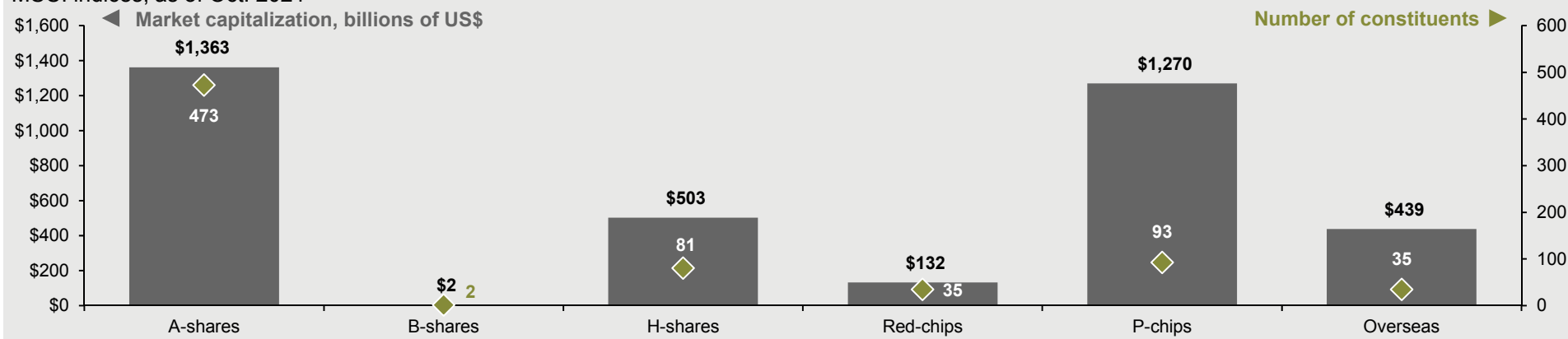


Source: World Federation of Exchanges, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

Share class	Definition	Currency	Foreign investor access	Indices	
Onshore	A-shares	Securities incorporated in Mainland China, listed on the Shanghai or Shenzhen Stock Exchange	RMB	QFII (CNY), RQFII (CNH), Northbound Stock Connect	SZSE Composite Index, Shanghai Composite Index, CSI 300, MSCI China A, MSCI China
	B-shares	Securities incorporated in Mainland China, listed on the Shanghai or Shenzhen Stock Exchange	USD (Shanghai), HKD (Shenzhen)	No restrictions	
Offshore	H-shares	Securities incorporated in Mainland China, listed on the Hong Kong Stock Exchange	HKD		
	Red-chips	Securities of state-owned companies incorporated outside Mainland China, listed on the Hong Kong Stock Exchange	HKD	No restrictions	Hang Seng Index, MSCI China
	P-chips	Securities of non-government owned companies incorporated outside Mainland China, listed on Hong Kong Stock Exchange	HKD		
	Overseas (N and S-shares)	Securities (including ADRs) listed on foreign exchanges such as the Nasdaq and NYSE (N-shares), and Singapore Exchange (S-shares)	USD, SGD		MSCI China

## Market capitalization and constituents by market

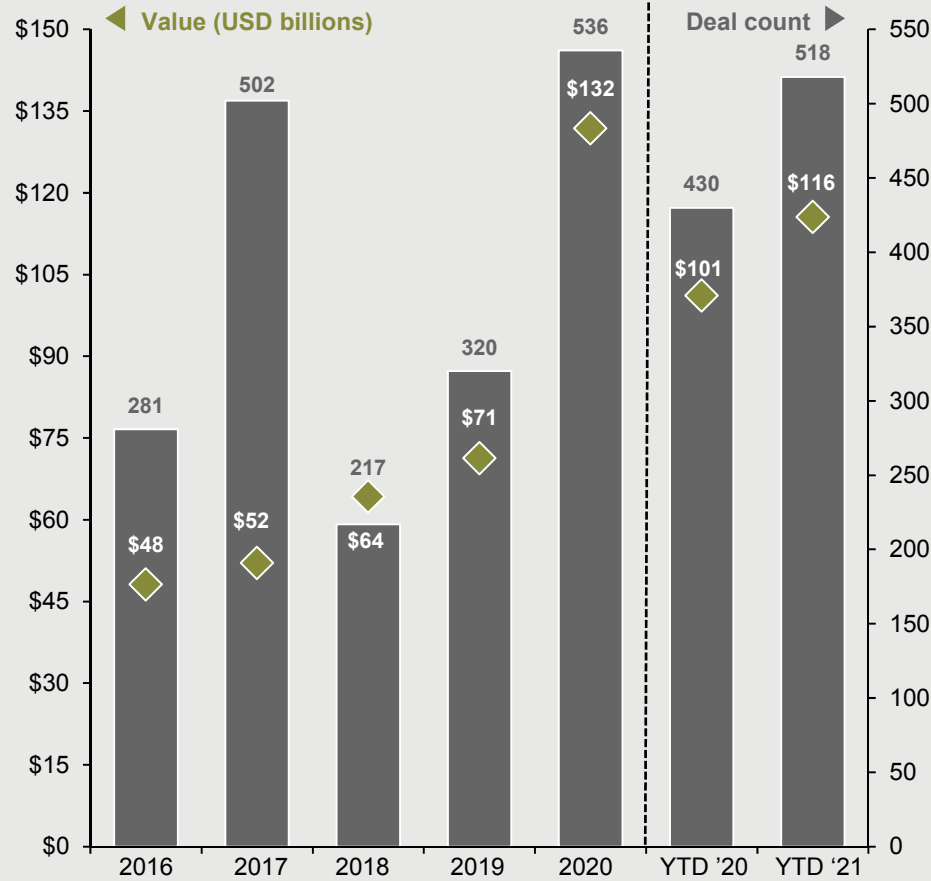
MSCI indices, as of Oct. 2021



Source: MSCI, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

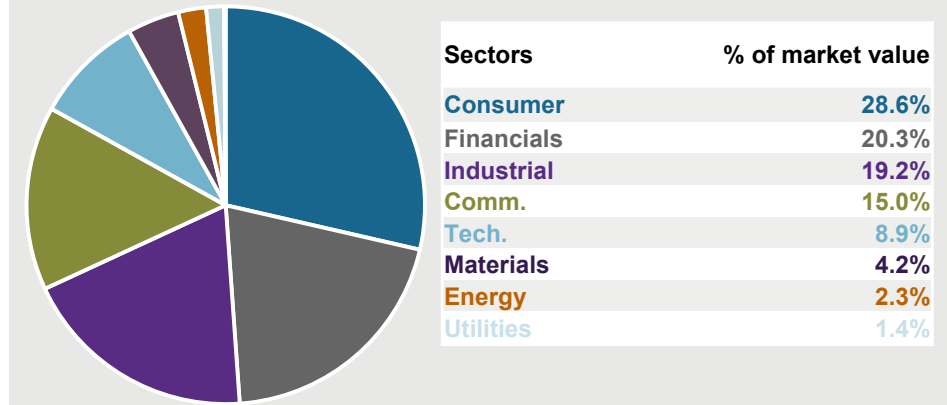
## Initial public offerings

Includes Shanghai, Shenzhen, Hong Kong, and ADRs



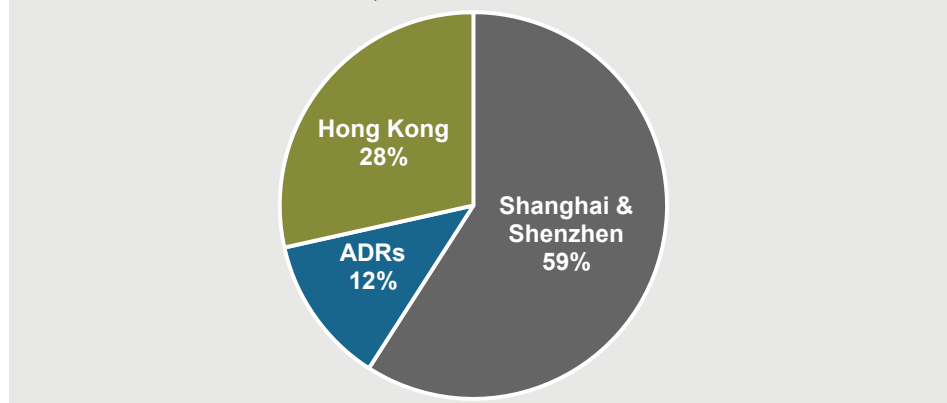
## IPO breakdown by sector

Share of current market value, 2016-2021



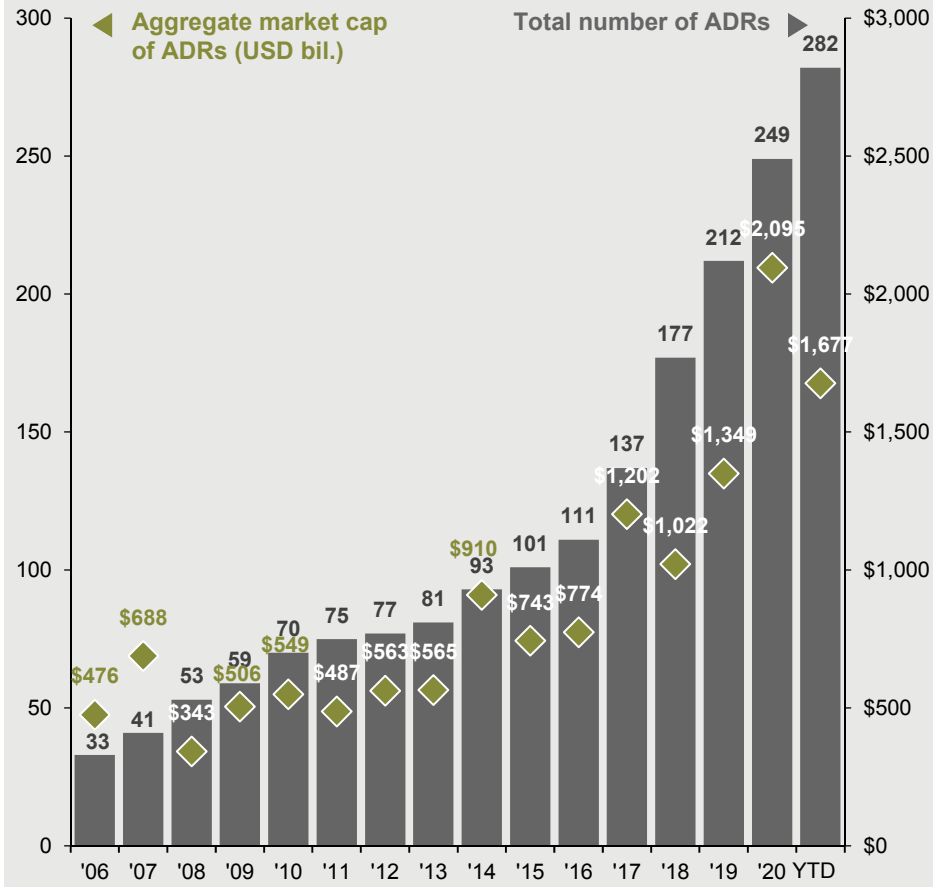
## IPO breakdown by share type

Share of current market value, 2016-2021



Source: Bloomberg, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

**Chinese stocks listed on U.S. exchanges**  
2006-2021



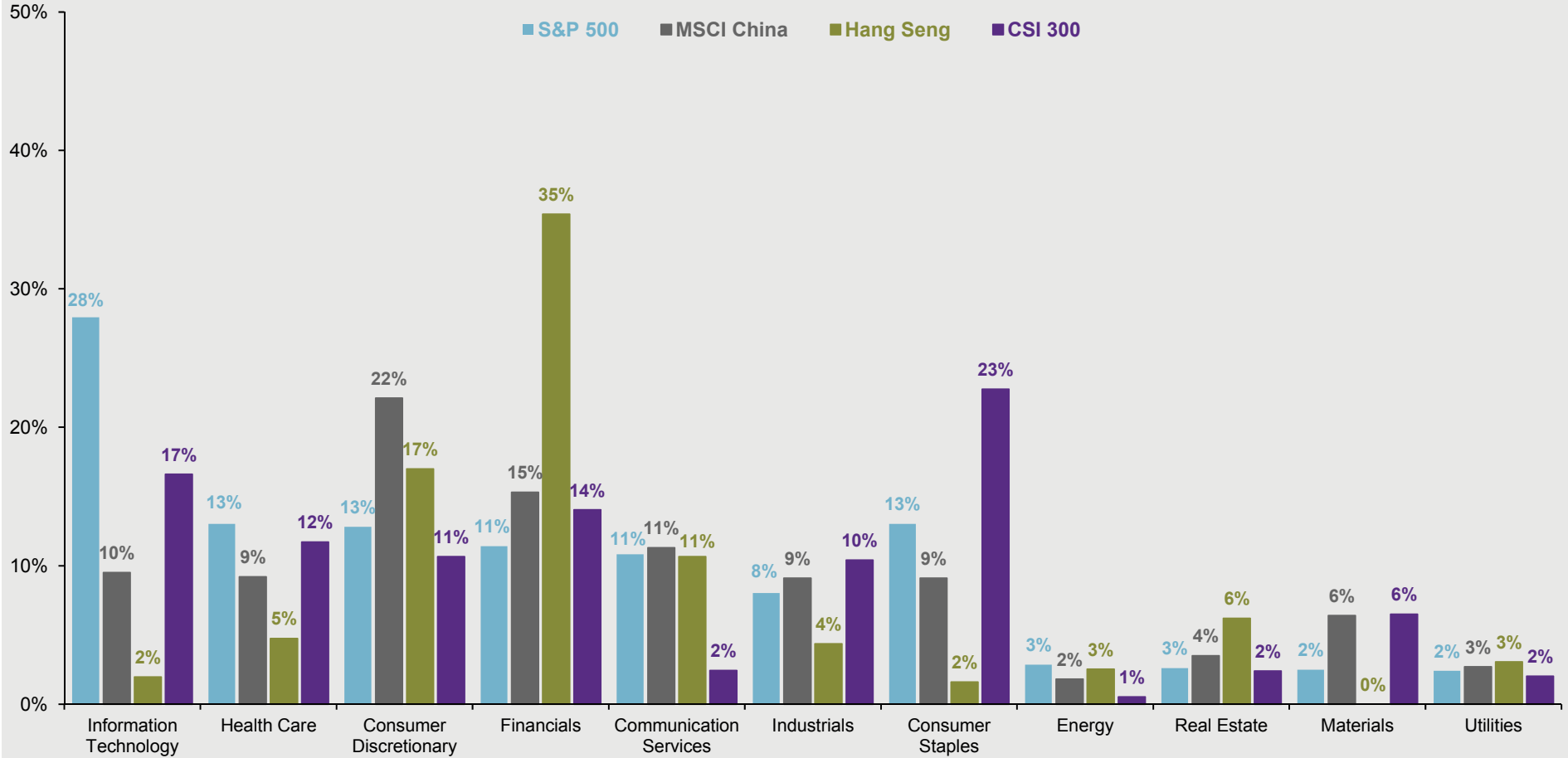
Source: Bloomberg, Wind, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

**Chinese stock performance by listing**  
Price index, 100=Jan. 2007, U.S. dollars, monthly



**Sector weights**

% of index market capitalization

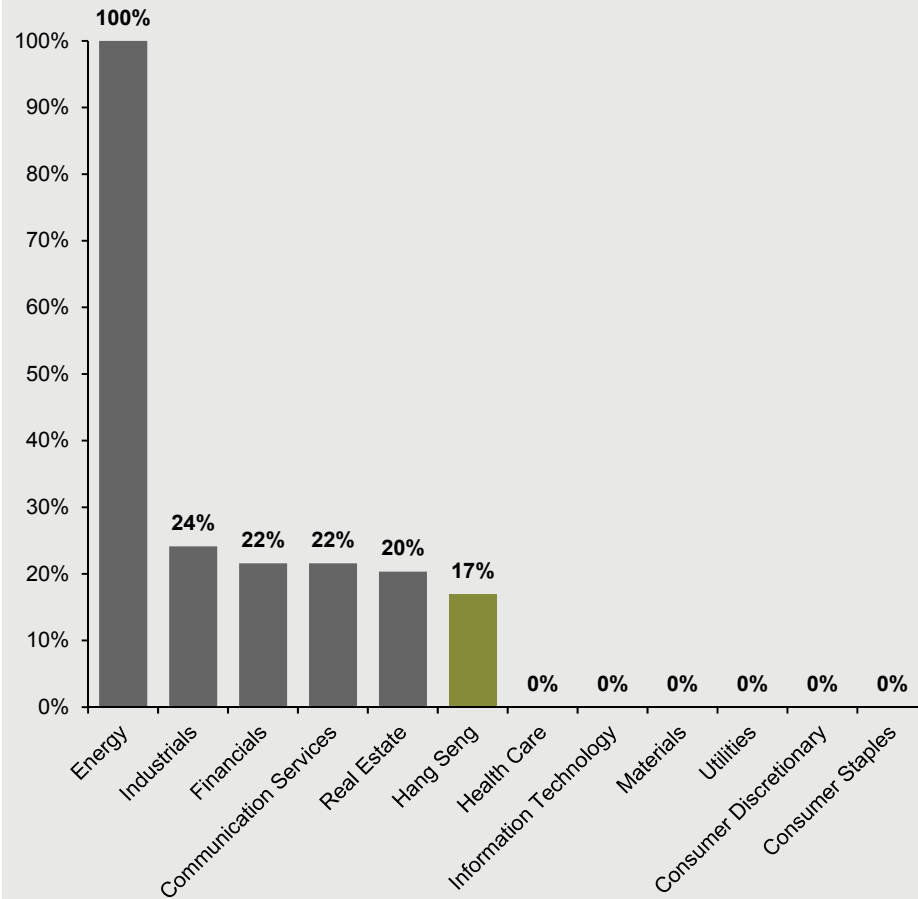


Source: China Securities Index, Hong Kong Exchange, FactSet, Standard & Poor's, MSCI, J.P. Morgan Asset Management. *Guide to China*. Data are as of October 31, 2021.



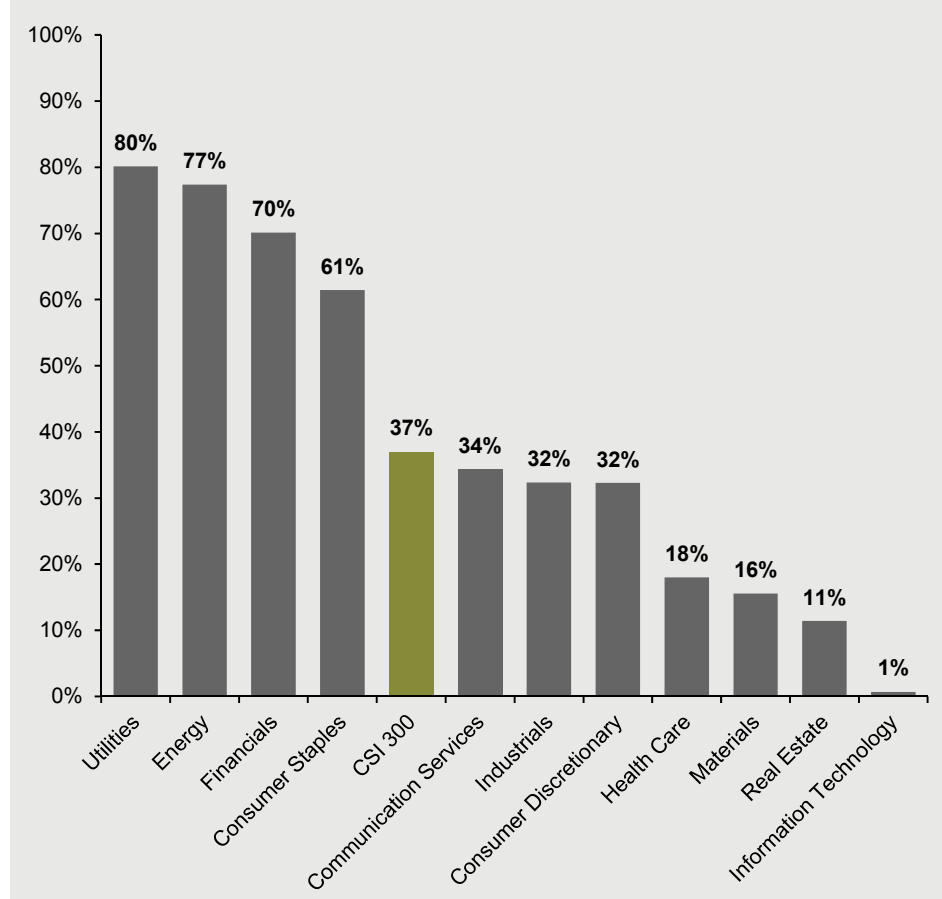
**Offshore: Hang Seng Index**

SOE % of sector and % of overall index market capitalization, latest



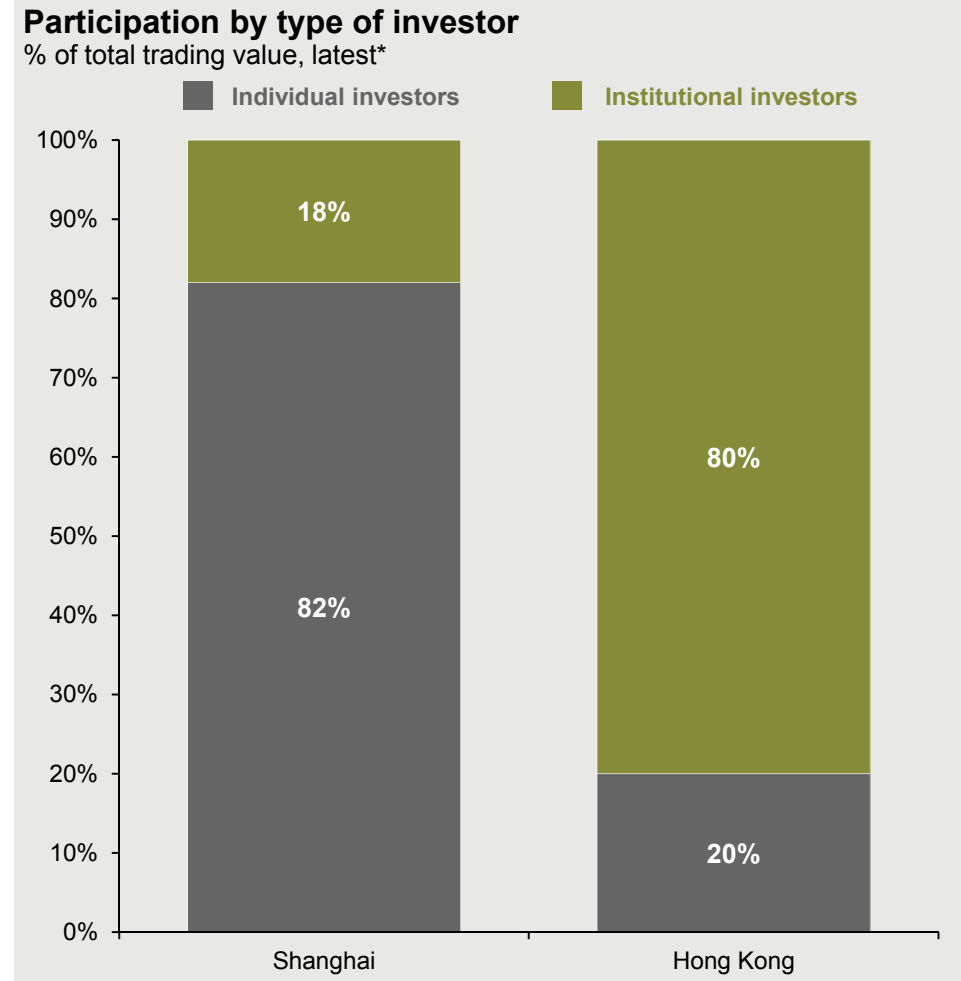
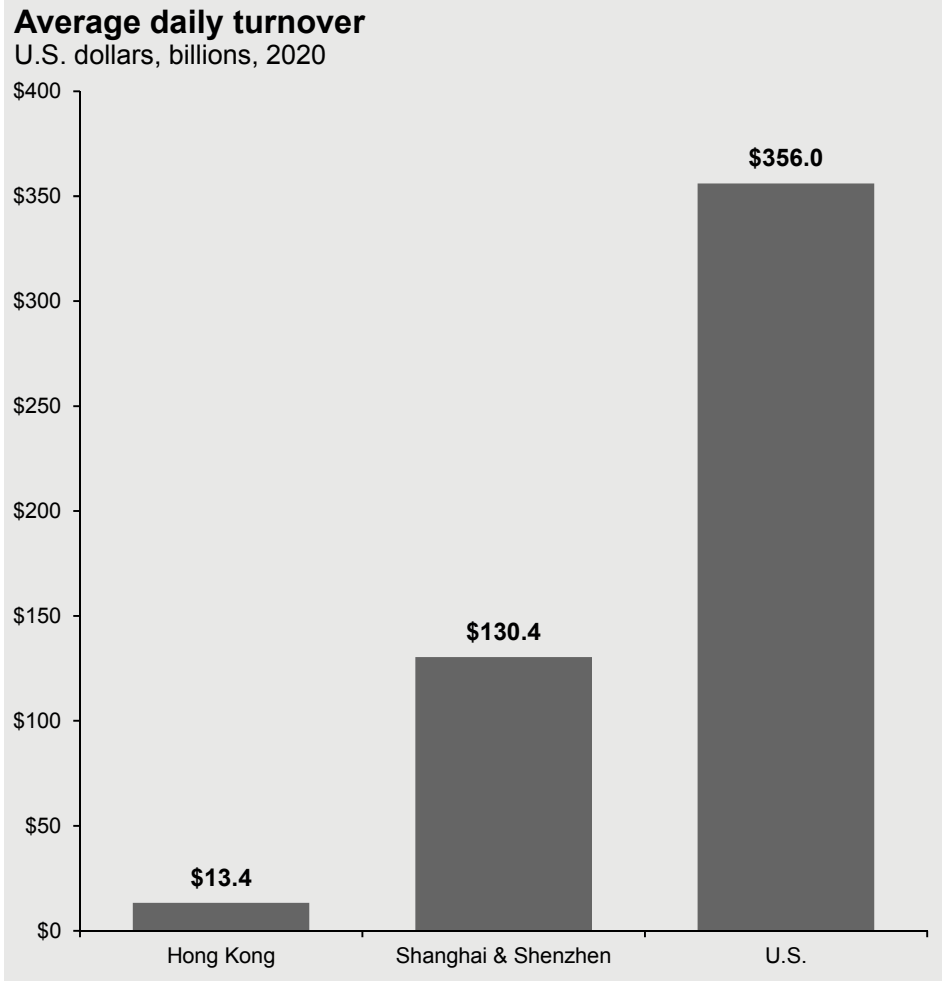
**Onshore: CSI 300 Index**

SOE % of sector and % of overall index market capitalization, latest



Source: China Securities Index, Hong Kong Exchange, FactSet. Standard & Poor's, MSCI, J.P. Morgan Asset Management. SOE refers to state-owned enterprise, as defined by FactSet based on government ownership. Latest is October 2021 for offshore and August 2021 for onshore.. A J.P. Morgan Asset Management adjustment was made for CSI 300 financials. *Guide to China*. Data are as of October 31, 2021.

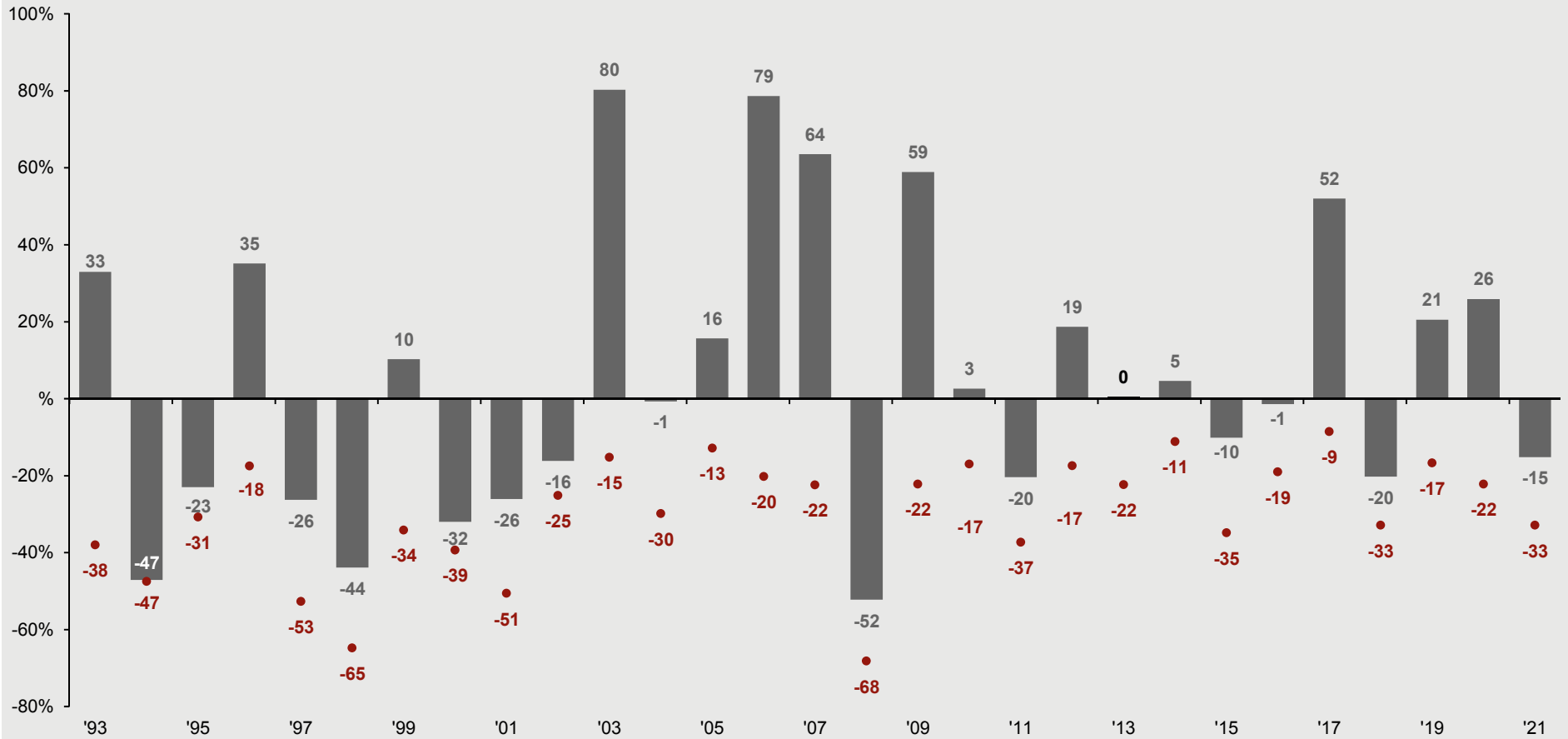
Equities



Source: J.P. Morgan Asset Management; (Left) World Federation of Exchanges; (Right) CEIC, Hong Kong Exchanges and Clearing Limited, Shanghai Stock Exchange.  
 Total value of share trading includes electronic order book, negotiated deals, and reported trades.  
 \*Latest is 2017 for Shanghai and 2019 for Hong Kong due to data availability.  
 Guide to China. Data are as of October 31, 2021.

## MSCI China intra-year declines vs. calendar year returns

Local currency, average intra-year drops of 29.7% (median -23.8%) and annual returns positive in 15 of 28 years of on average 6.5%



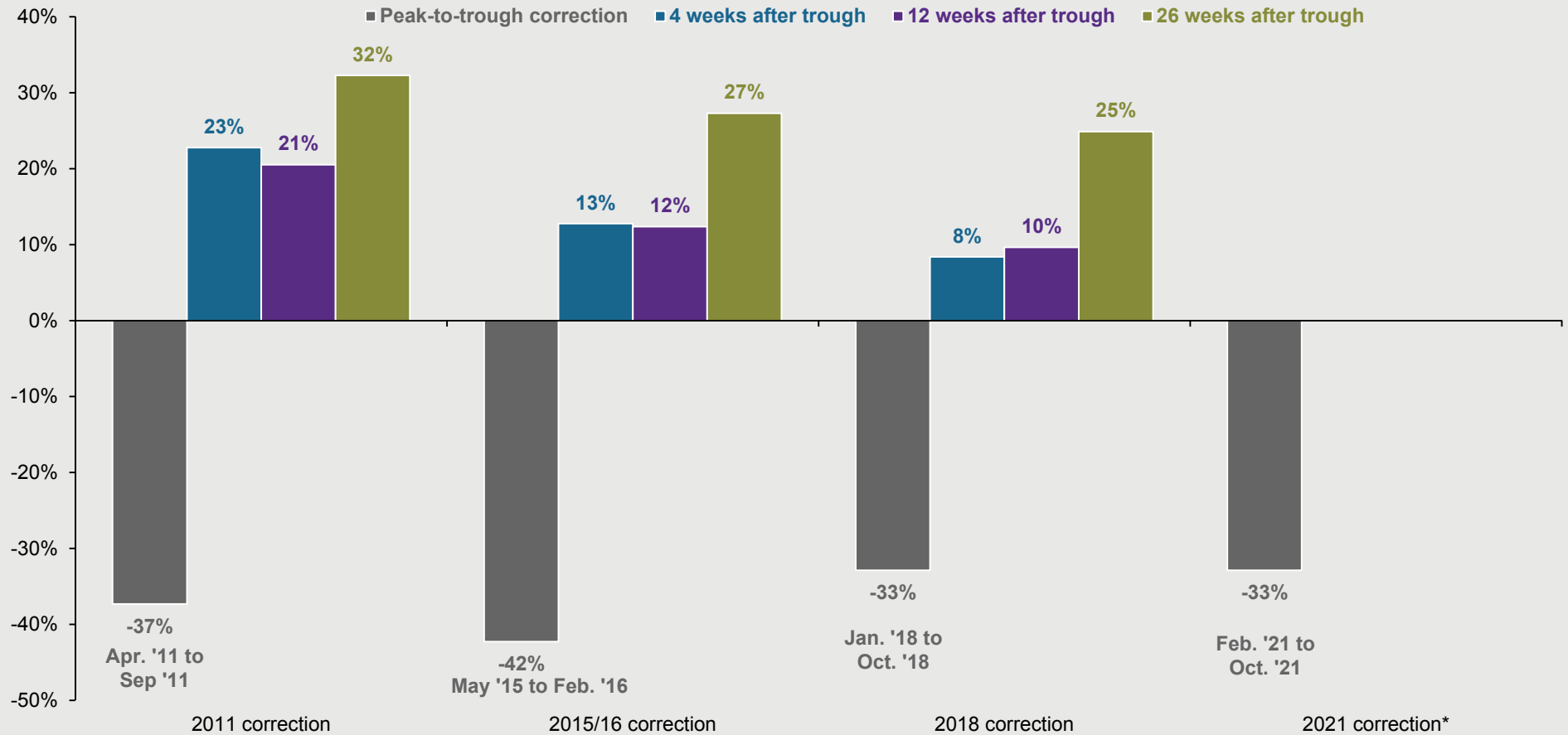
Source: FactSet, MSCI, J.P. Morgan Asset Management.

Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns are calendar year returns from 1993 to 2020 for the MSCI China.

Guide to China. Data are as of October 31, 2021.

## Previous vs. current Chinese equity market corrections

MSCI China



Source: Bloomberg, J.P. Morgan Asset Management.

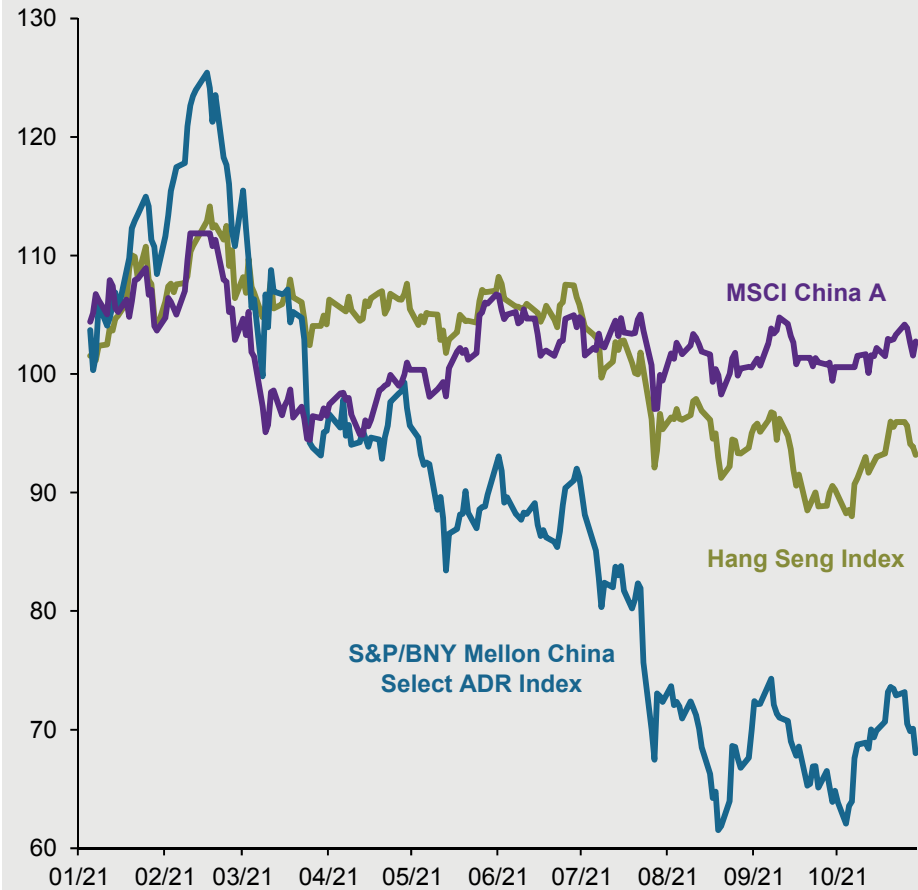
Chinese market performance is based on the MSCI China price index only and do not include dividends.

The periods above were chosen to illustrate particular market moving events in China and the recovery 4, 12, and 26 weeks after market trough. The April 2011 to September 2011 period represents a period in which global fears were heightened due to China's perceived growth slowdown. Fears culminated in a dramatic market sell-off in August 2011. The May 2015 to February 2016 period represents the currency crisis in China. The January 2018 to October 2018 represents the beginning of the default cycle. The February 2021 to October 2021 period represents the recent regulatory tightening campaign in China. \*At the time of publication, October 6, 2021 was the most recent trough date.

Guide to China. Data are as of October 31, 2021.

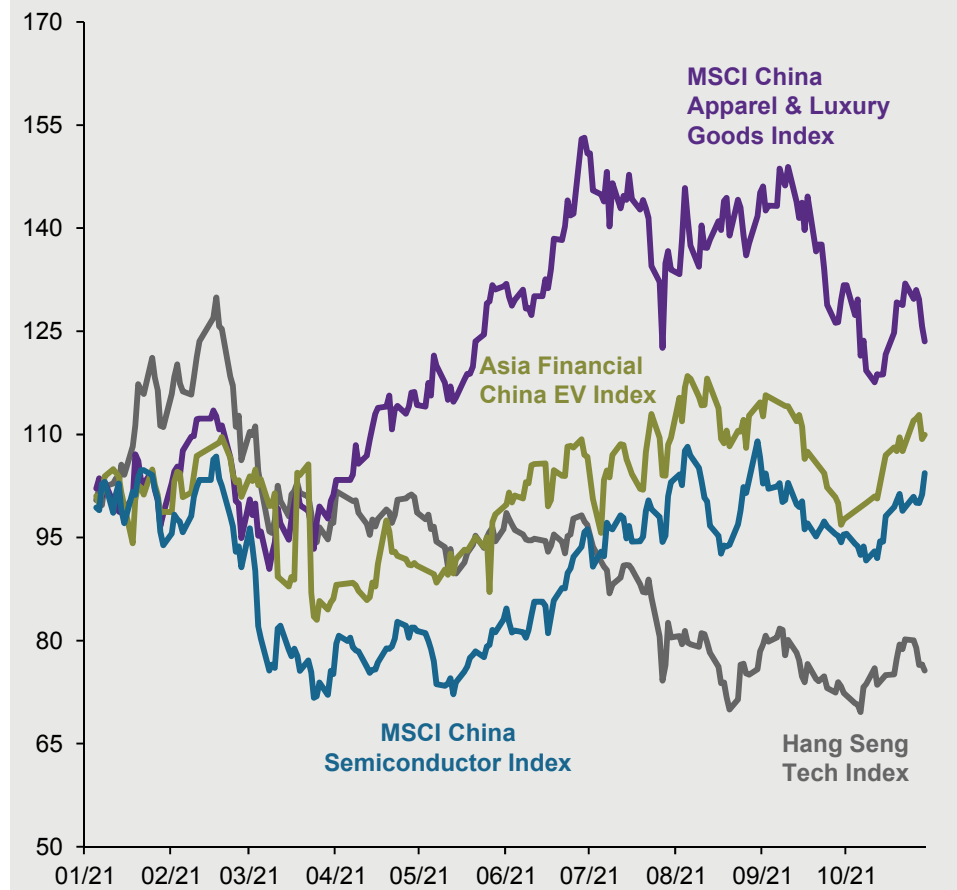
## Share type dispersion

Price index, 100 = Jan. 2021



## Sector dispersion

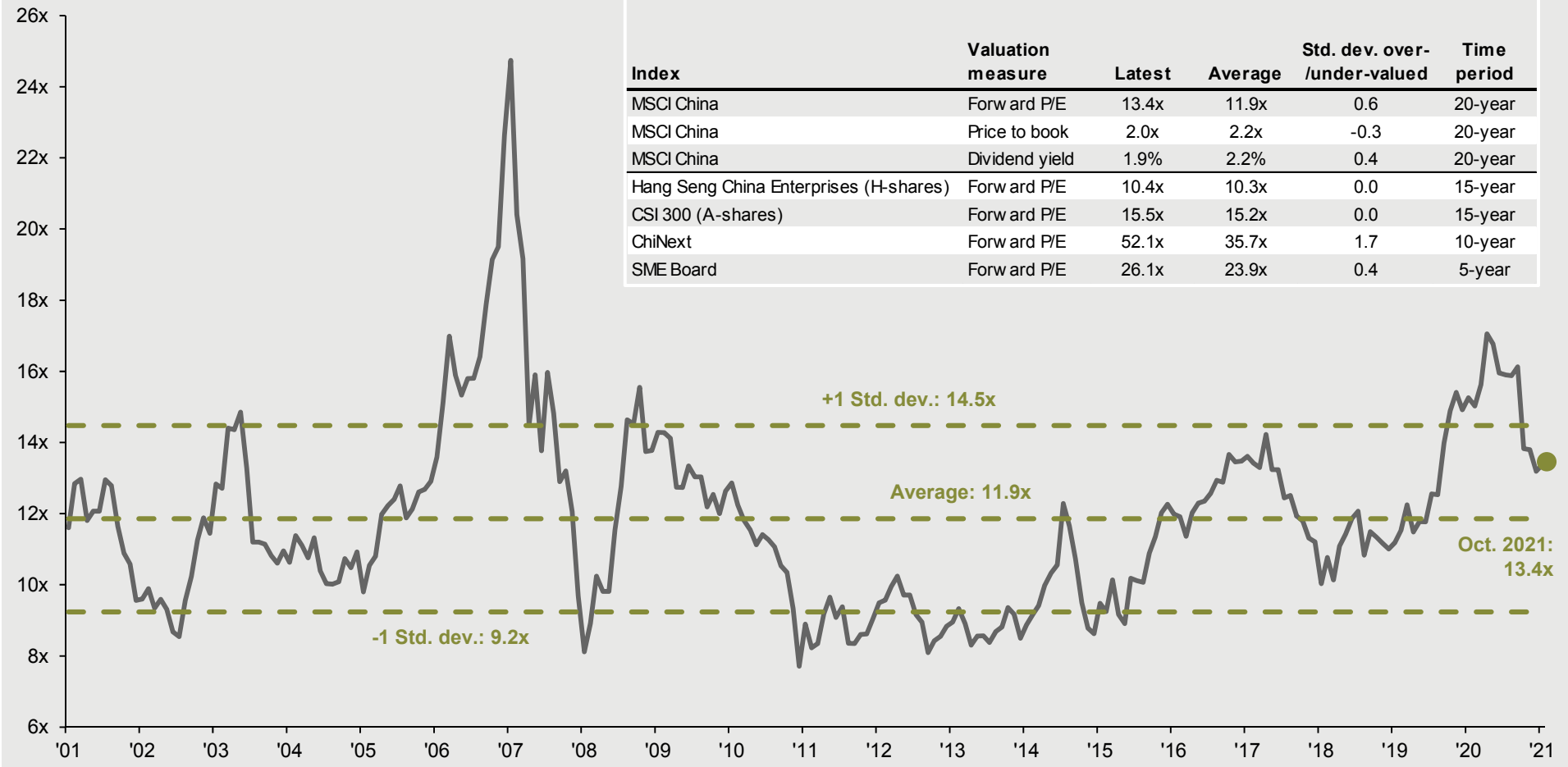
Price index, 100 = Jan. 2021



Source: Asia Financial, Bloomberg, BlueStar, MSCI, J.P. Morgan Asset Management.

The Hang Seng Tech Index represents the 30 largest technology companies listed in Hong Kong that have high business exposure to innovative technology themes. The MSCI China Semiconductors Index is composed of large and mid-cap stocks across China. All securities in the index are classified in the Semiconductors and Semiconductor Equipment Industry Group (within the Information Technology sector) according to the Global Industry Classification Standard. The MSCI China Apparel and Luxury Goods Index is composed of large and mid-cap stocks across China. All securities in the index are classified as Apparel and Luxury Goods as according to the Global Industry Classification Standard. The Asia Financial China Electric Vehicle (EV) Index is composed of companies involved in all stages of the EV ecosystem. It contains companies building EVs as well as supply chain companies manufacturing parts and batteries for EVs.  
 Guide to China. Data are as of October 31, 2021.

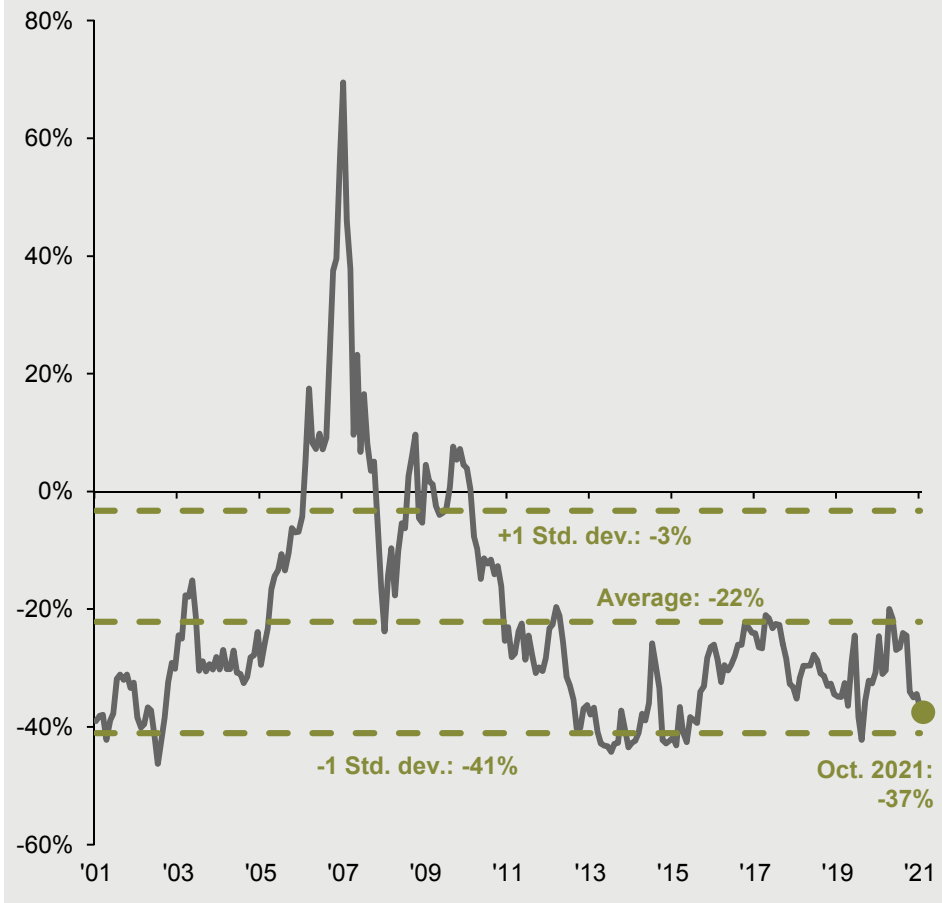
MSCI China: Forward P/E ratio



Source: Bloomberg, MSCI, J.P. Morgan Asset Management.  
 Price-to-earnings ratio based on next twelve months earnings estimates. Dividend yield based on next twelve months dividend estimates. Price-to-book based on trailing 12 months book value.  
 Guide to China. Data are as of October 31, 2021.

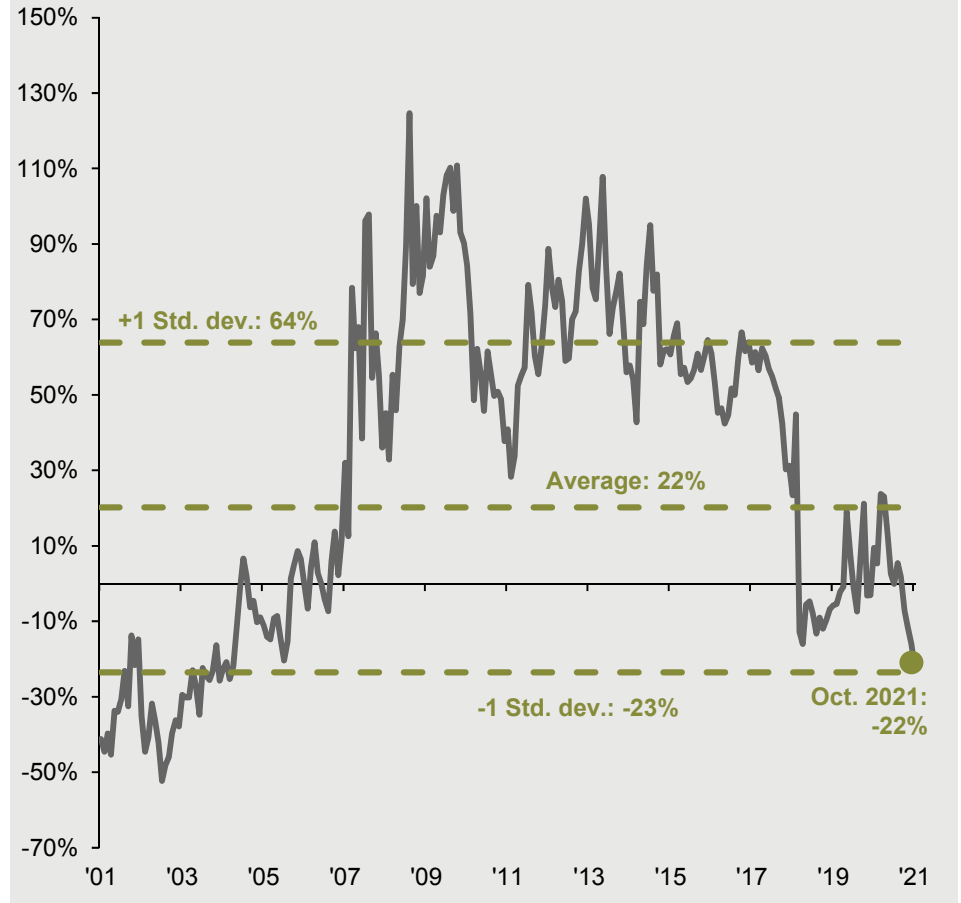
**MSCI China: Price-to-earnings discount vs. U.S.**

MSCI China vs. S&P 500 Indices, next 12 months



**MSCI China Technology: Price-to-earnings premium to U.S.**

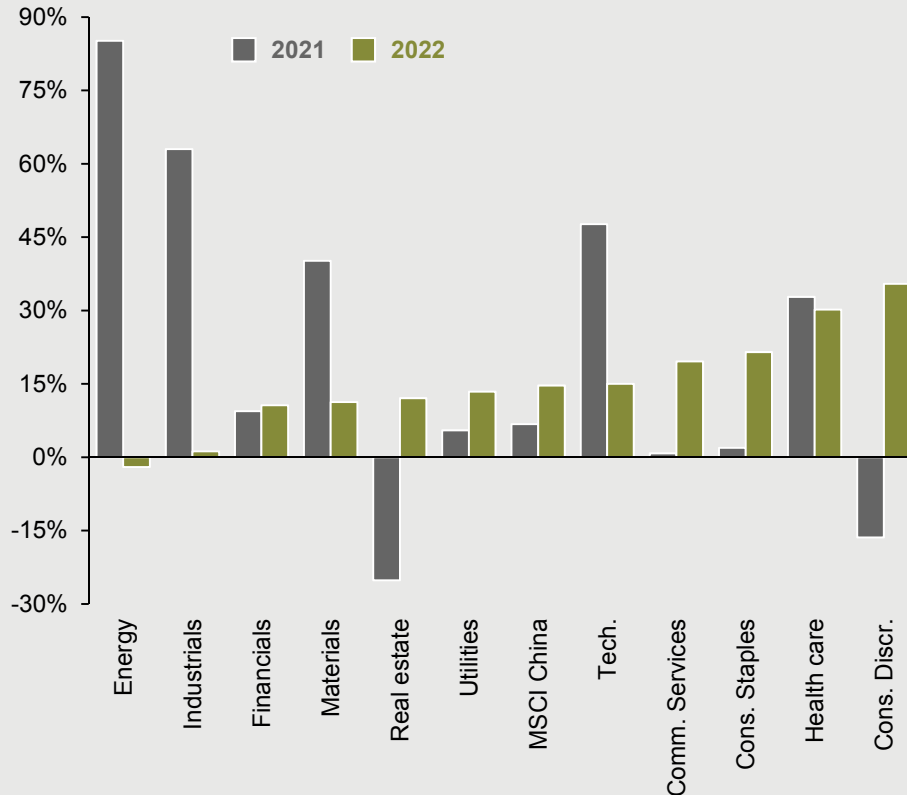
MSCI China Technology vs. S&P 500 Technology subsectors, next 12 months



Source: MSCI, Standard & Poor's, FactSet, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.

## Earnings growth of MSCI China\*

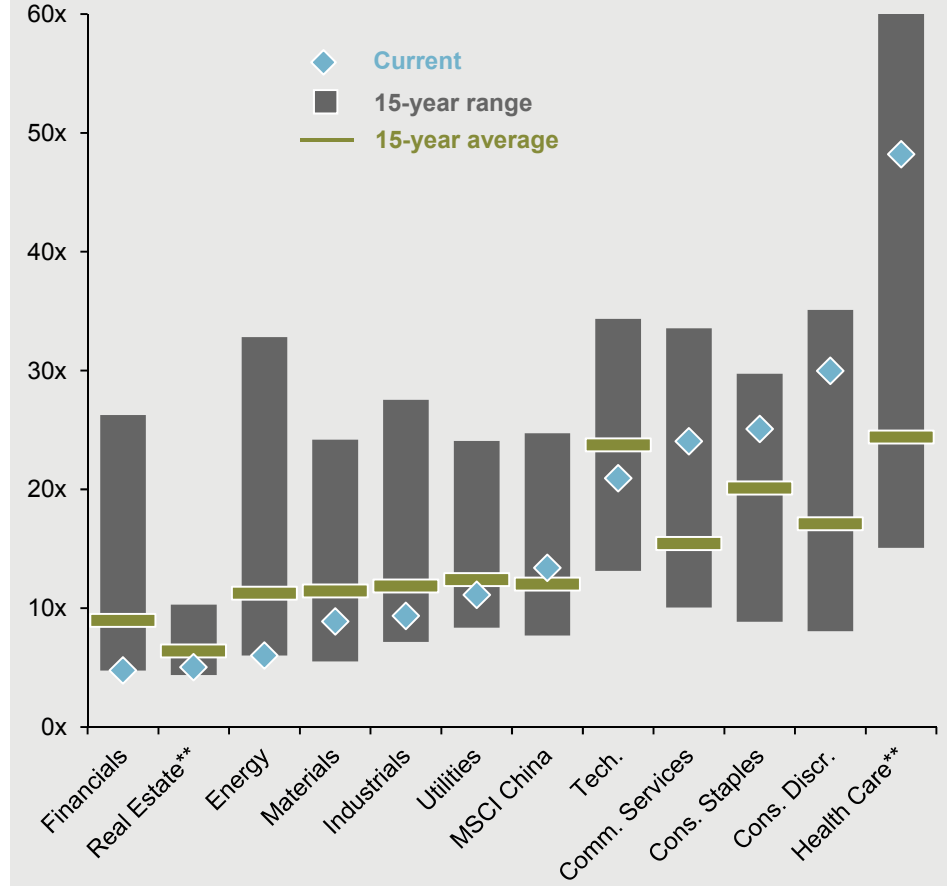
Earnings per share, year-over-year change, consensus estimates



Sector Weight (%)	1.2	4.4	14.2	2.3	3.7	1.8	100.0	5.7	21.7	4.2	6.1	34.8
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## MSCI China price-to-earnings

Forward P/E ratios



Source: FactSet, MSCI, J.P. Morgan Asset Management.

\*Sector indices used are from the MSCI China Index. Consensus estimates used are calendar year estimates from FactSet. Past performance is not a reliable indicator of current and future results. \*\*Data for the forward price-to-earnings ratio in the real estate and health care sectors begin from 9/30/2016 and 6/30/2009, respectively. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated. *Guide to China*. Data are as of October 31, 2021.



# Onshore equities: Sector performance

Return (%)						9-yr. ('12-'20) annualized		Forward P/E		
2016	2017	2018	2019	2020	YTD 2021	Return (%)	Volatility (%)	2019	2020	Oct. 2021
Con. staples -0.4	Con. staples 31.2	Utilities -15.6	Con. staples 61.8	Con. staples 70.4	Energy 37.3	Con. staples 18.8	IT 31.8	IT 51.3	IT 49.9	Con. staples 43.1
Energy -2.1	Financials 17.1	Financials -19.3	IT 57.6	Healthcare 51.3	Materials 29.8	Healthcare 15.2	Telecom 31.0	Telecom 36.7	Healthcare 44.5	IT 39.9
Financials -8.9	Telecom 8.0	Con. staples -20.6	Healthcare 35.7	Industrials 38.8	Utilities 29.7	IT 14.1	Materials 26.5	Healthcare 34.1	Con. staples 36.9	Healthcare 33.8
Materials -9.2	Materials 6.9	Healthcare -25.8	Financials 34.8	Con. disc. 34.2	Industrials 23.6	Financials 11.5	Energy 26.1	Con. staples 27.7	Con. disc. 33.8	Telecom 27.4
Telecom -13.1	Healthcare 5.9	Energy -27.0	Telecom 34.6	Materials 30.2	All A-share 3.5	All A-Share 10.5	Industrials 25.9	Con. disc. 24.5	Telecom 30.3	Con. disc. 26.9
All A-share -13.3	Energy 3.7	All A-share -28.8	All A-share 33.4	All A-share 26.9	IT -1.2	Con. disc. 9.9	Healthcare 25.8	Industrials 18.6	Industrials 28.9	Industrials 24.0
Healthcare -13.7	All A-share 3.7	Industrials -33.0	Con. disc. 26.4	IT 18.6	Con. disc. -5.0	Telecom 9.8	Con. disc. 24.8	Materials 17.9	Materials 22.7	Utilities 20.2
Industrials -16.5	Con. disc. 2.1	Telecom -33.7	Materials 25.6	Utilities 3.7	Telecom -7.4	Industrials 7.5	Financials 24.8	Utilities 16.4	Energy 20.1	All A-share 16.1
Con. disc. -17.1	IT -1.5	Con. disc. -34.0	Industrials 18.8	Financials 3.2	Financials -9.1	Materials 5.8	Con. staples 24.6	All A-share 15.5	All A-share 19.7	Materials 14.9
Utilities -17.2	Utilities -6.2	Materials -34.6	Energy 11.6	Energy -5.6	Healthcare -9.4	Utilities 5.4	All A-share 23.6	Energy 12.7	Utilities 14.6	Energy 9.2
IT -25.5	Industrials -6.8	IT -34.8	Utilities 6.9	Telecom -6.5	Con. staples -11.1	Energy -5.1	Utilities 22.6	Financials 8.7	Financials 8.9	Financials 7.0

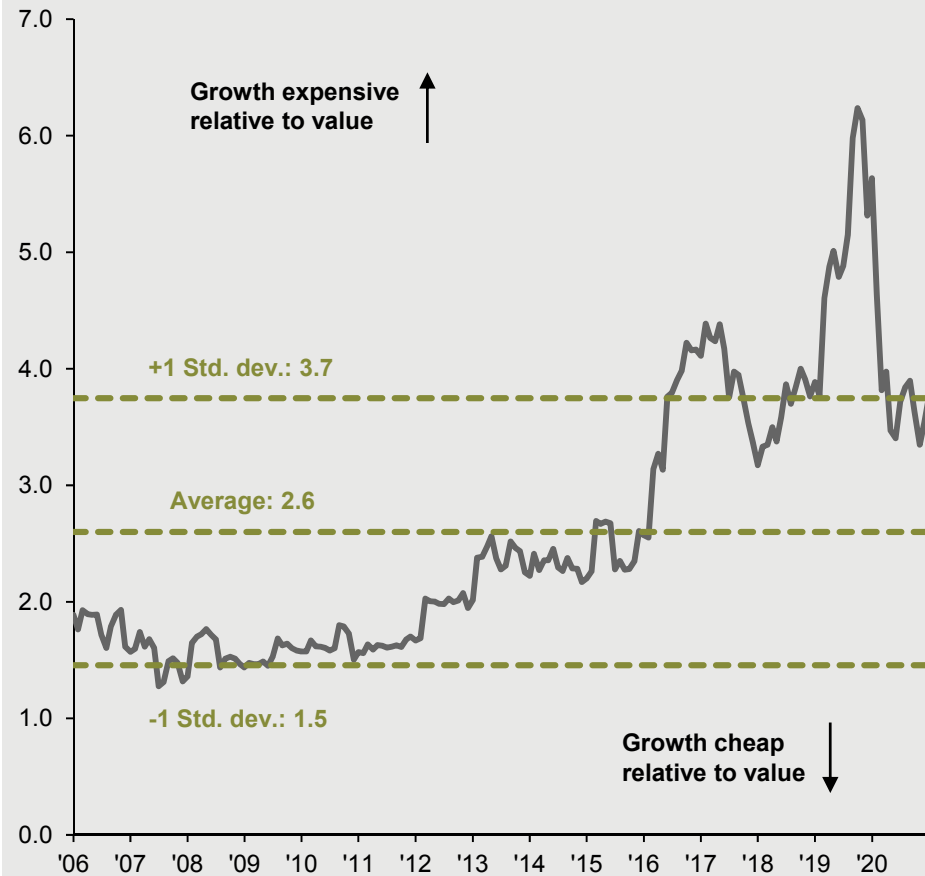
Source: Wind, China Stock Index, Shanghai Stock Exchange, Shenzhen Stock Exchange, J.P. Morgan Asset Management.

\*Annual returns are total returns based on CSI all share index and CSI all share sector indices. Past performance is not a reliable indicator of current and future results.

Guide to China. Data are as of October 31, 2021.

**Growth vs. value valuations\***

MSCI China growth/value fwd. P/E ratio



**Growth vs. value relative performance**

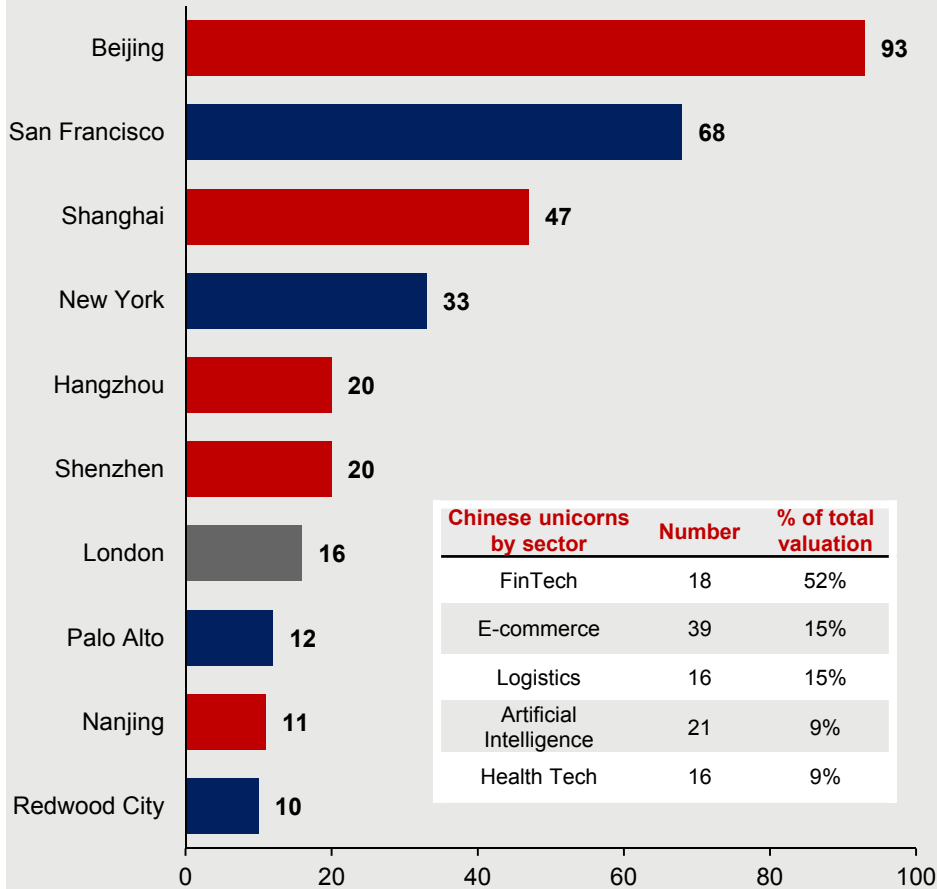
MSCI China growth/value performance, Jan. 2006 = 100



Source: FactSet, MSCI, J.P. Morgan Asset Management.  
 \*Growth is the MSCI China Growth index and value is the MSCI China Value index.  
 Past performance is not a reliable indicator of current and future results.  
 Guide to China. Data are as of October 31, 2021.

## Number of unicorns by city\*

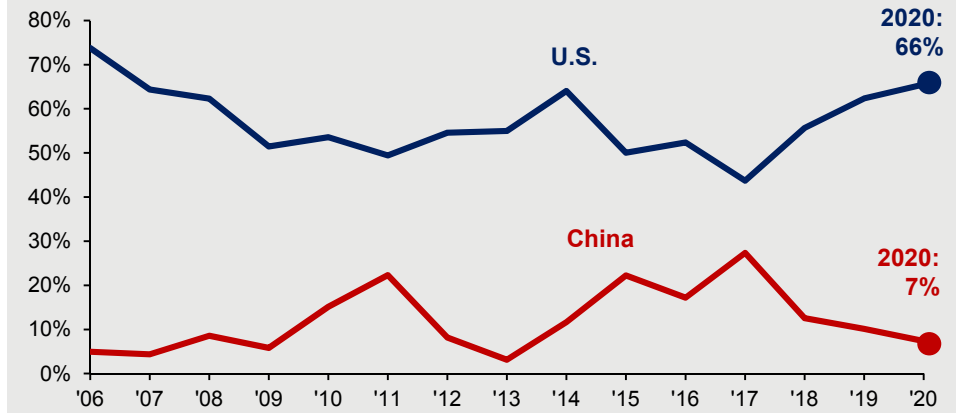
Hurun Global Unicorn Index 2020, top 10 cities



Chinese unicorns by sector	Number	% of total valuation
FinTech	18	52%
E-commerce	39	15%
Logistics	16	15%
Artificial Intelligence	21	9%
Health Tech	16	9%

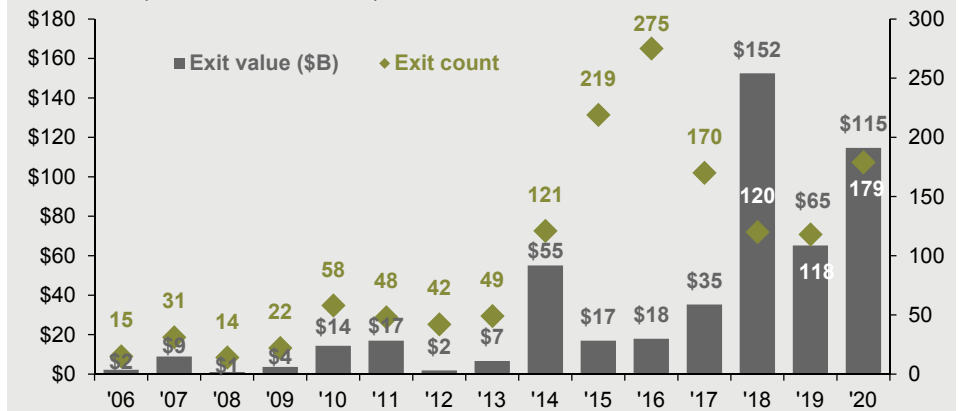
## Venture capital fundraising

Capital raised, % of global total



## China venture capital exits

Exit value (U.S. dollar, billions) and count



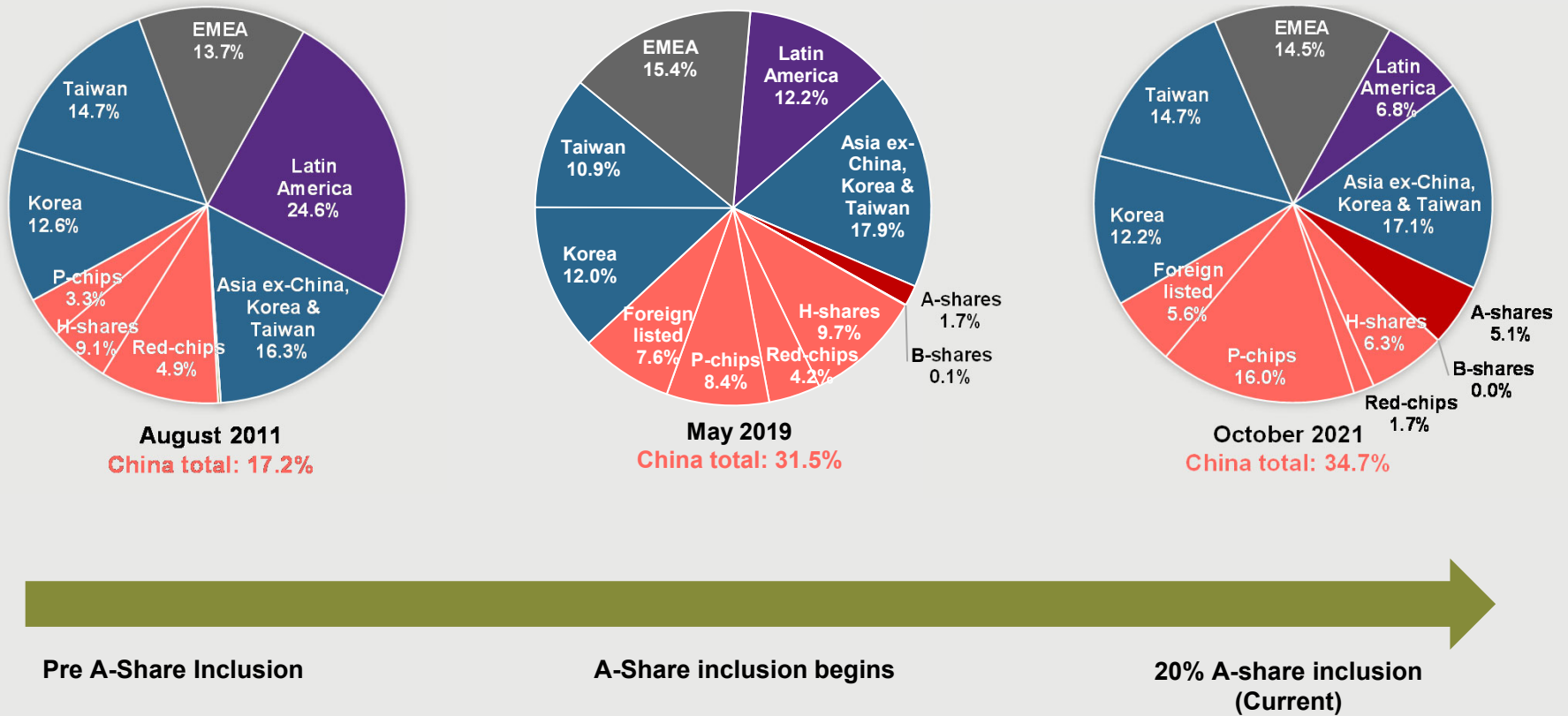
Source: (Left) Hurun Research Institute; (Right) KPMG, PitchBook, J.P. Morgan Asset Management.

\*Unicorns defined as companies worth at least a billion dollars and not yet listed on a public exchange. Unicorn valuations are a snapshot of March 31, 2020.

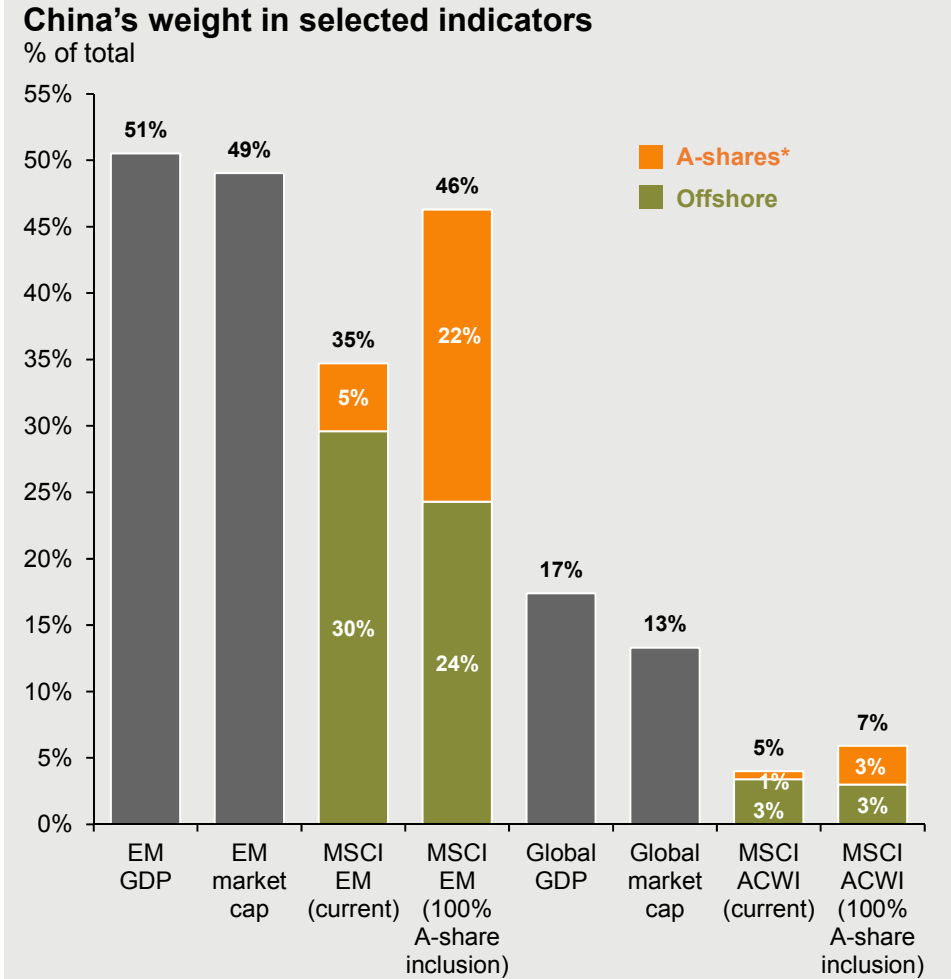
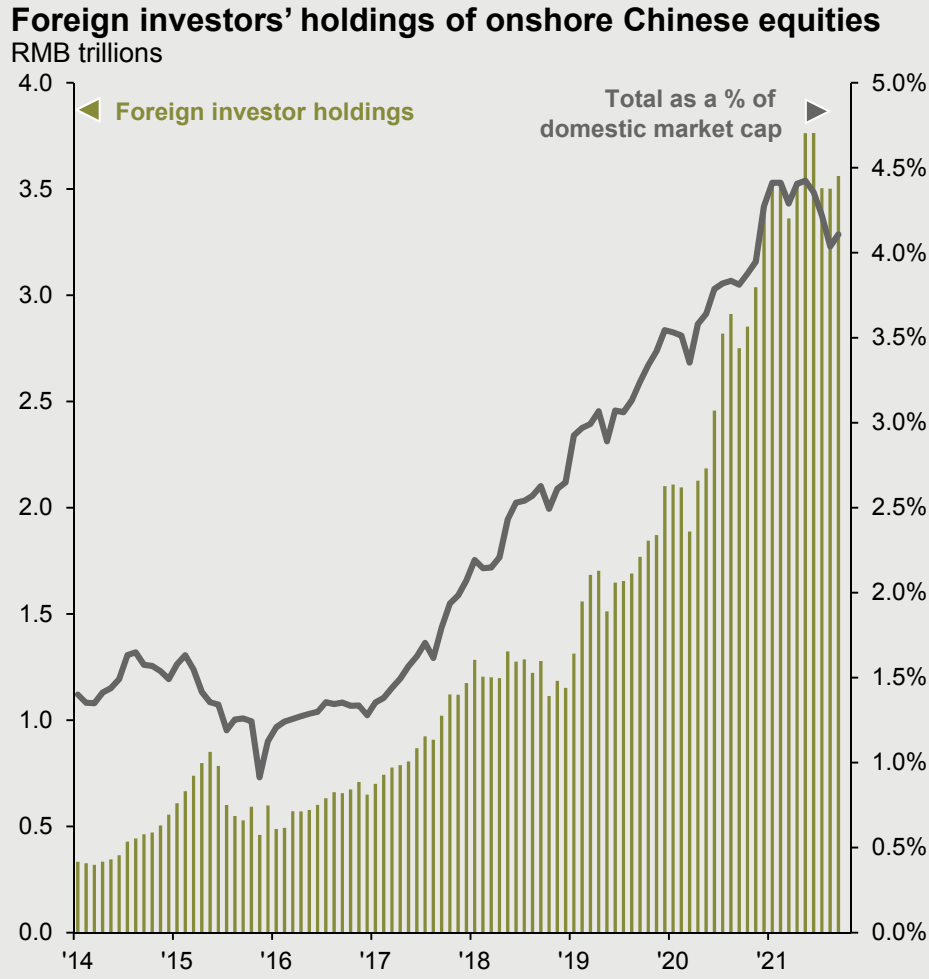
Venture capital fundraising and exits based on KPMG's 4Q20 *Venture Pulse Report – Asia*.

*Guide to China*. Data are as of October 31, 2021.

MSCI Emerging Markets Index: Inclusion of China A-Shares



Source: FactSet, MSCI, J.P. Morgan Asset Management. Guide to China. Data are as of October 31, 2021.



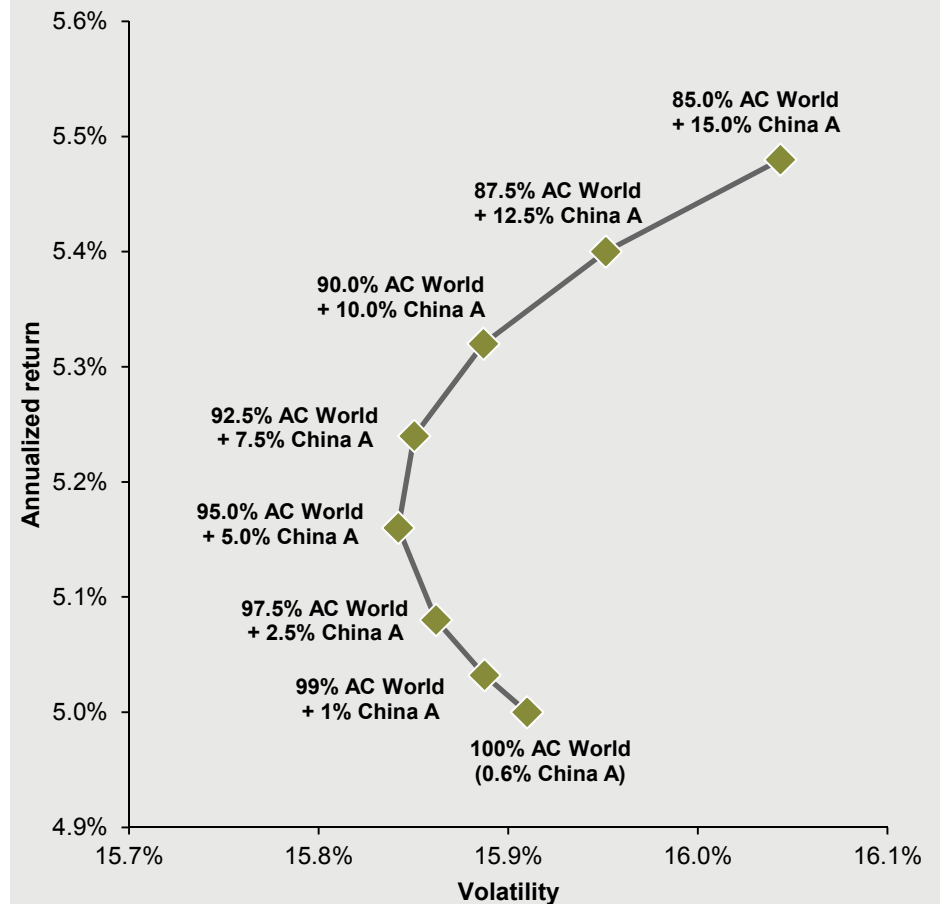
Source: J.P. Morgan Asset Management; (Left) CEIC, People's Bank of China, Shanghai Stock Exchange, Shenzhen Stock Exchange; (Right) Bloomberg, MSCI, World Bank. Share of EM GDP is for 2020 and is calculated as Chinese nominal GDP in U.S. dollars as a percentage of all emerging markets within the MSCI EM index and as a percentage of the global GDP. Share of EM market cap is for 2020 and is calculated as China's market capitalization of listed domestic companies as a percentage of all emerging markets' capitalization of listed domestic companies within the MSCI EM index and as a percentage of global market capitalization. \*Currently, an index inclusion factor (IIF) of 20% is applied to China A Large Cap, ChiNext Large Cap and China A Mid Cap (including eligible ChiNext shares) within MSCI ACWI and MSCI EM Index. 100% A-share inclusion is shown for illustrative purposes only. *Guide to China*. Data are as of October 31, 2021.

### Correlations between A-shares and global equities

	S&P 500	MSCI ACWI	MSCI EM	MSCI EAFE	MSCI China	CSI 300
S&P 500	1.00					
MSCI ACWI	0.97	1.00				
MSCI EM	0.77	0.83	1.00			
MSCI EAFE	0.89	0.94	0.87	1.00		
MSCI China	0.59	0.67	0.87	0.69	1.00	
CSI 300	0.40	0.45	0.55	0.42	0.67	1.00

### Efficient frontier

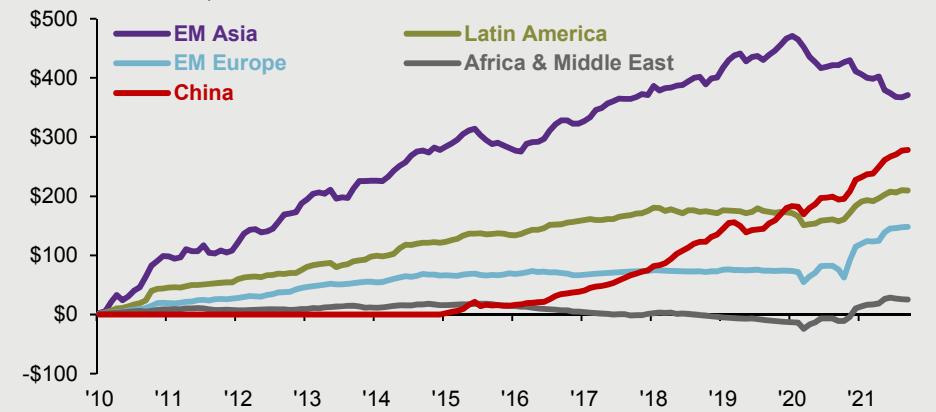
MSCI All Country World and China A-shares



Source: MSCI, J.P. Morgan Asset Management; (Left) FactSet, China Securities Index, Standard & Poor's. Correlations are based on monthly price return data in U.S. dollar terms for the period 11/30/2006–10/31/2021. The efficient frontier returns and volatility are based on the J.P. Morgan 2022 Long-term Capital Market Assumptions (LTCMA) estimates. *Guide to China*. Data are as of October 31, 2021.

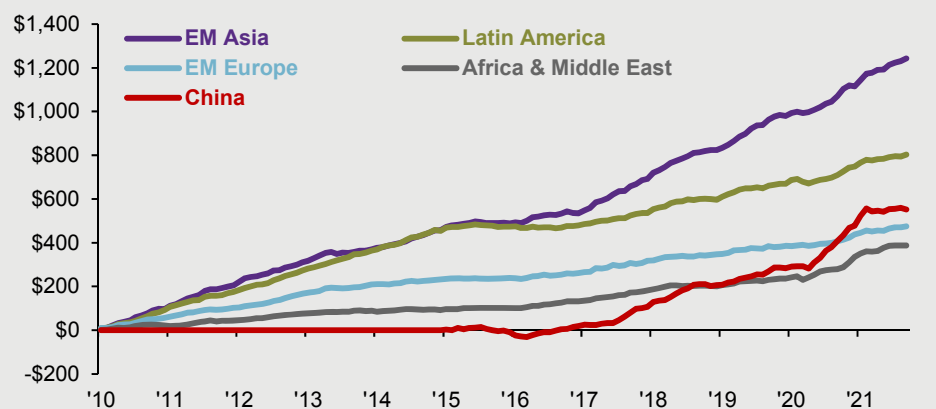
**Equities: Net non-resident purchases**

Cumulative total, billions of USD

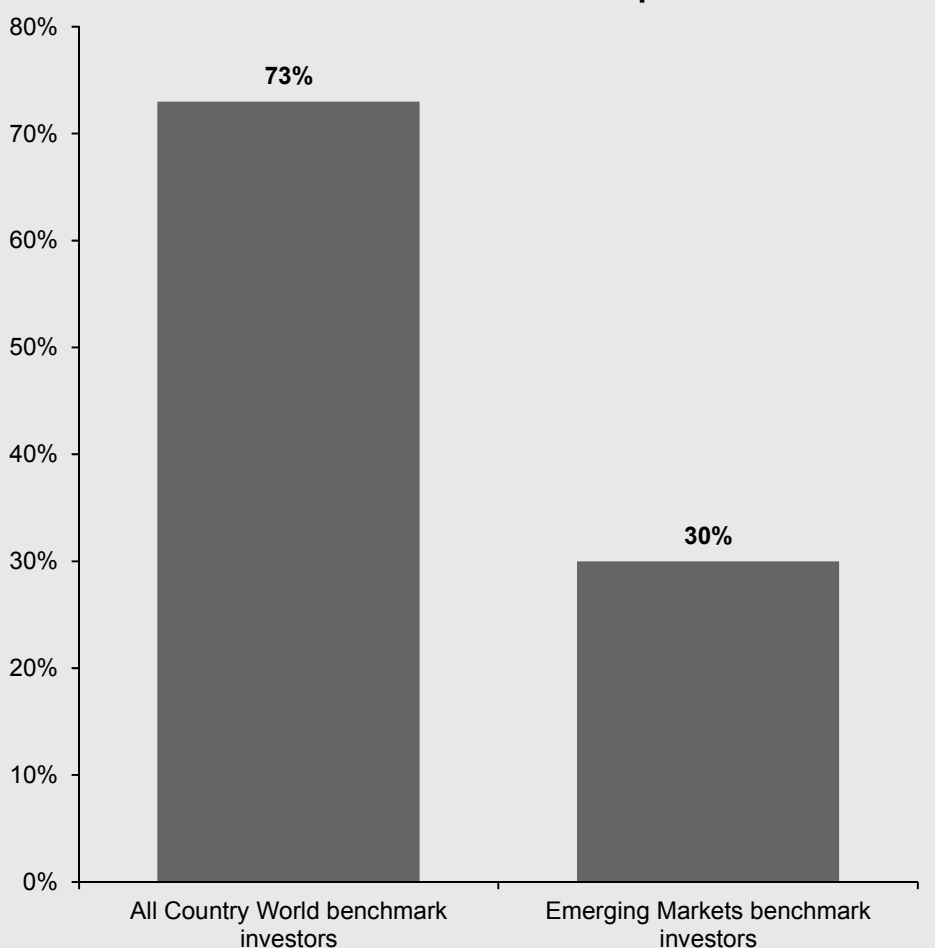


**Bonds: Net non-resident purchases**

Cumulative total, billions of USD

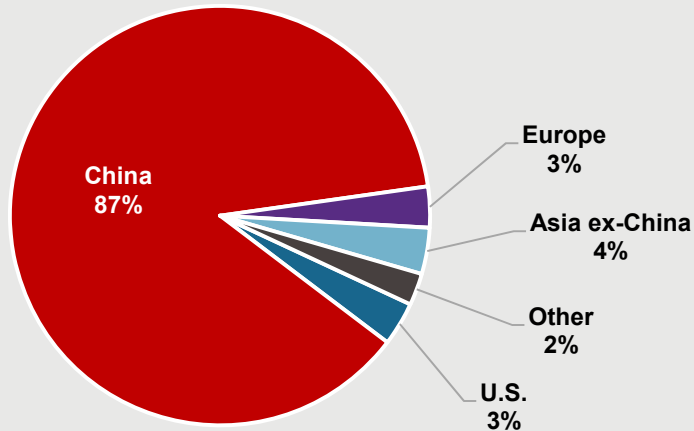


**% of investors with no China A-share exposure**

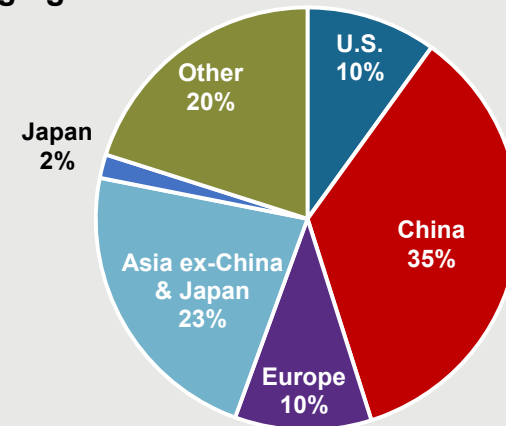


Source: J.P. Morgan Asset Management; (Left) IIF; (Right) "Crafting the Optimal China Allocation Strategy: The Asset Owner's Perspective," Greenwich Associates, Q2 2020. Guide to China. Data are as of October 31, 2021.

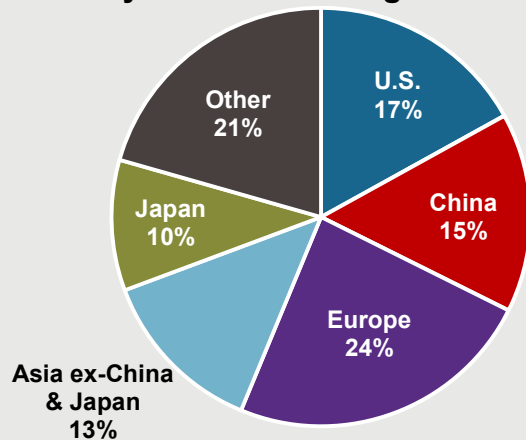
MSCI China



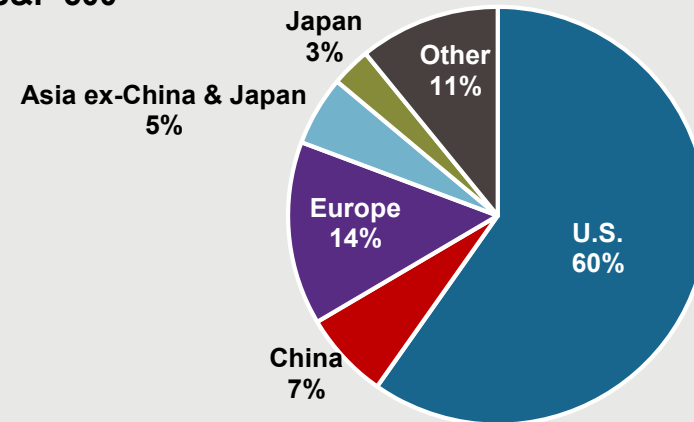
MSCI Emerging Markets



MSCI All Country World excluding U.S.



S&P 500

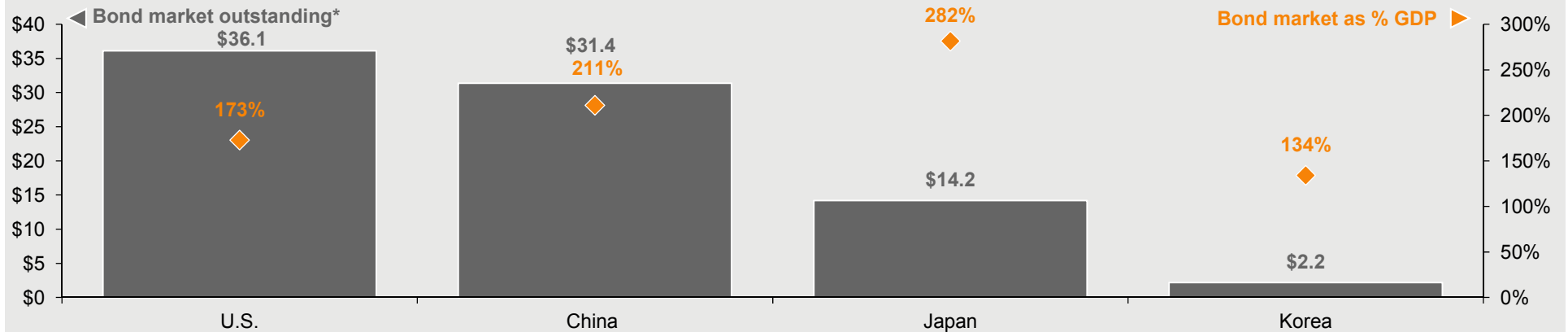


Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.  
 Revenue exposure uses MSCI indices for all regions/countries, except for the U.S., which is the S&P 500.  
*Guide to China*. Data are as of October 31, 2021.



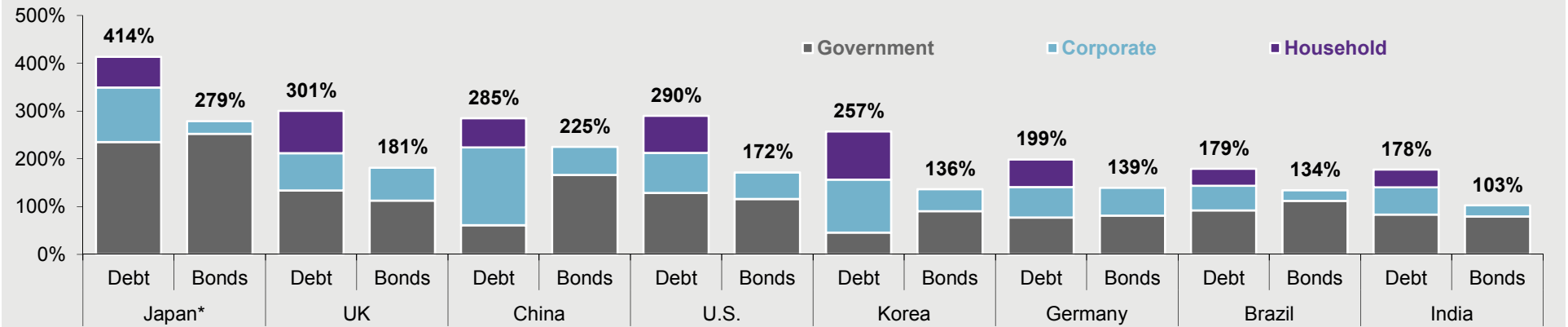
## Bond market size in value and as a % of GDP

USD trillions, % of nominal 2020 GDP, as of 2Q21



## Debt and bonds as a % of GDP

Total market value of total debt and bonds\*\*, % of nominal 2020 GDP



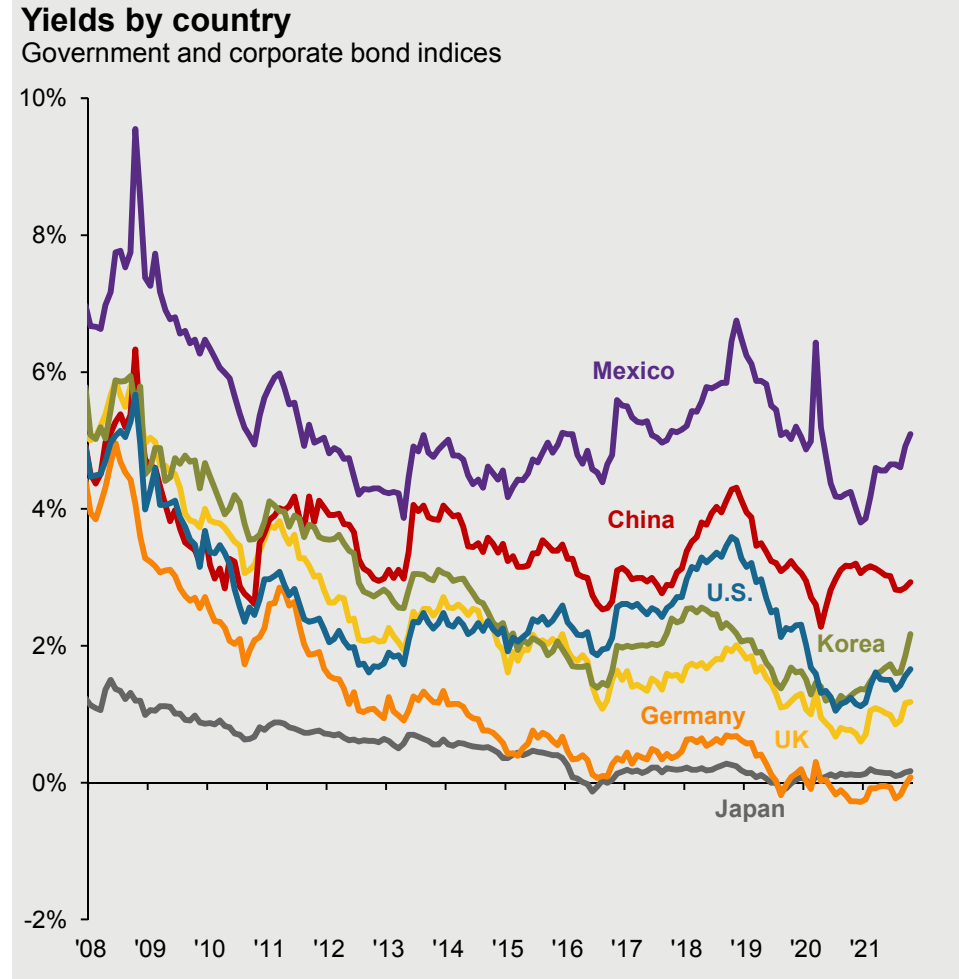
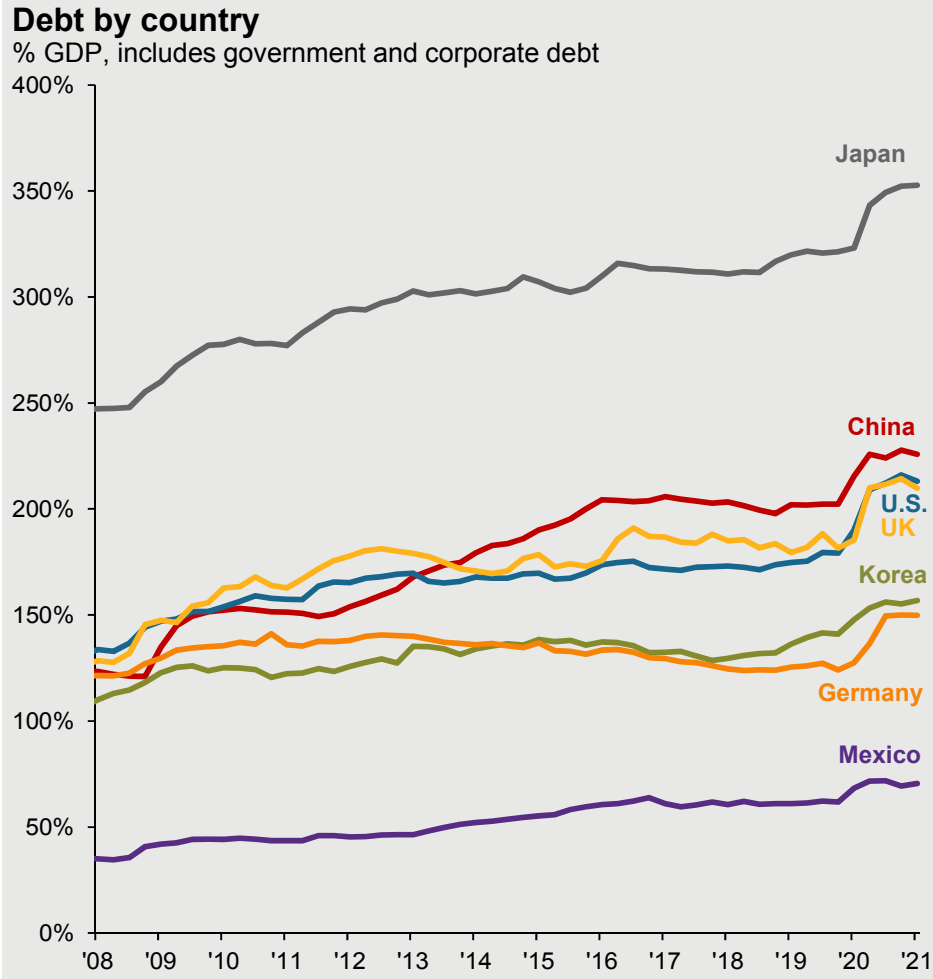
Source: BIS, Bloomberg Finance L.P., IMF, J.P. Morgan Asset Management. Debt valuation is as of 2Q21, bond valuation is as of October 31, 2021.

\*Bond market outstanding refers to the total U.S. dollar value of bonds (corporate and government) in the market and does not reflect mandatory prepayment.

\*\*The difference in Japan's government borrowing in debt and in bonds is due to the differing valuation dates. \*\*Government bonds include onshore listed central and local government bonds for all countries. Corporate debt is borrowing by non-financial corporations; Corporate bonds are all onshore listed corporate bonds.

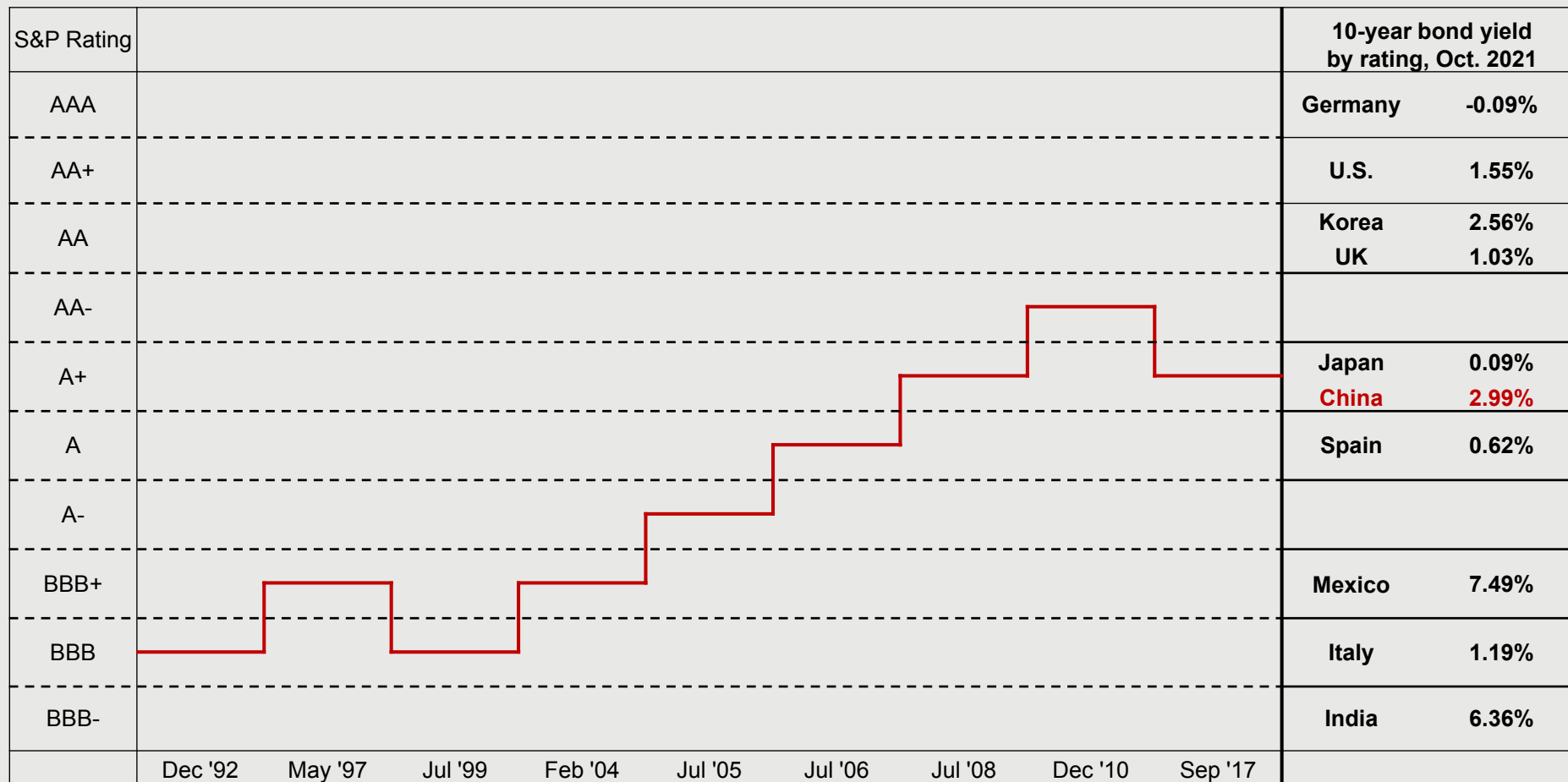
Household borrowing is only accounted for in total debt as individuals do not issue bonds.

Guide to China. Data are as of October 31, 2021.



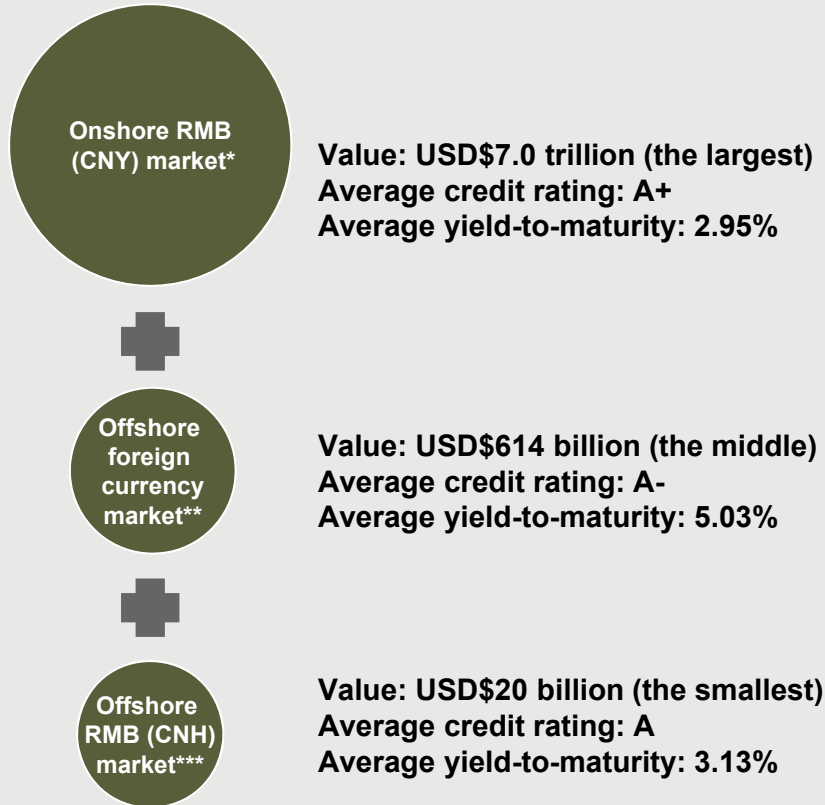
Source: BIS, Bloomberg, FactSet, J.P. Morgan Asset Management.  
 Country yields are provided by Bloomberg and are represented by the global aggregate for each country, except for U.S. which is based on Bloomberg U.S. Aggregate. Yield is not guaranteed. Positive yield does not imply positive return.  
 Guide to China. Data are as of October 31, 2021.

Evolution of China's sovereign rating and selected 10-year government bond yields, local currency

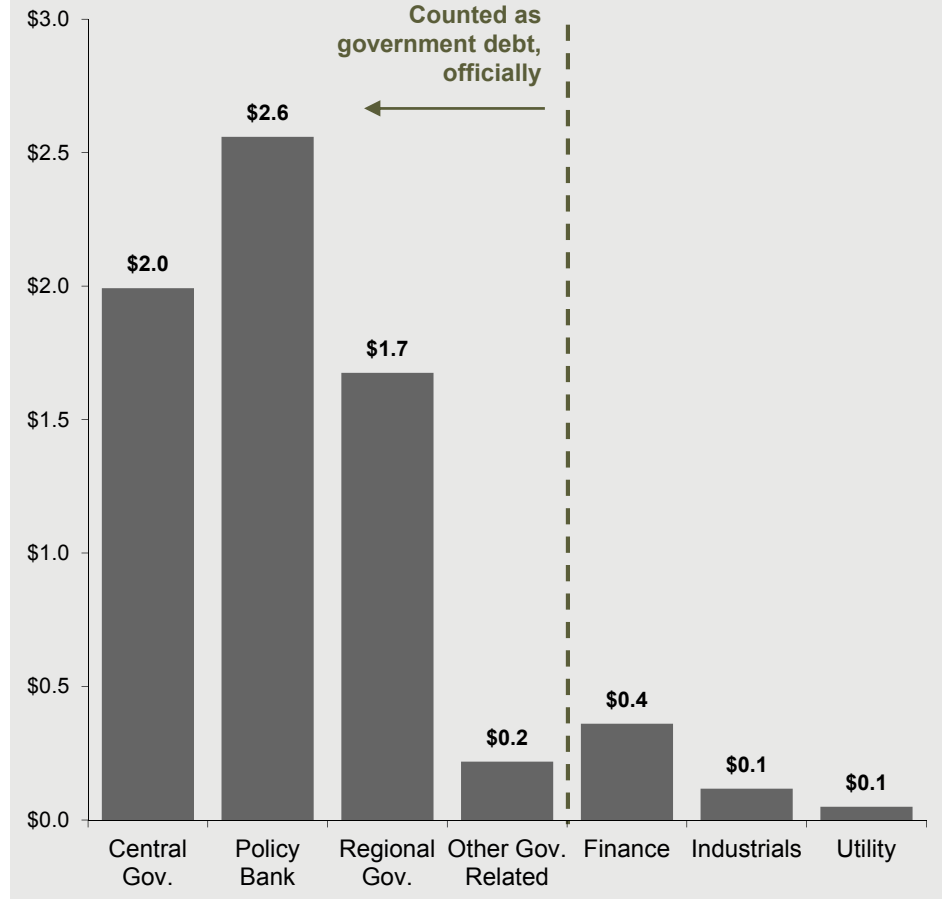


Source: FactSet, Standard & Poor's, J.P.Morgan Asset Management.  
 Bond yields are for local currency 10-year government bonds. Ratings reflect long-term local currency sovereign credit rating. Yield is not guaranteed. Positive yield does not imply positive return.  
*Guide to China*. Data are as of October 31, 2021.

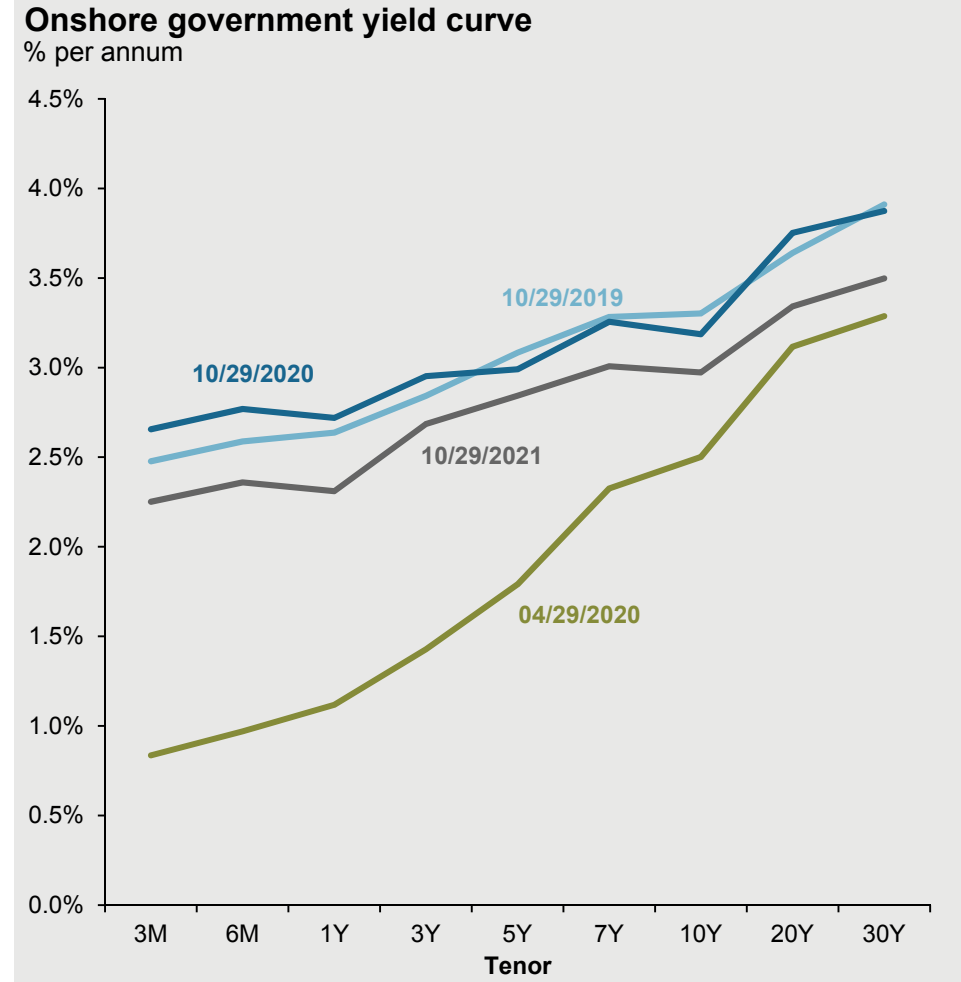
**China's three different bond markets**  
As of Sep. 30, 2021



**China's onshore bond market by type of issuer**  
USD trillions, as of Sep. 30, 2021



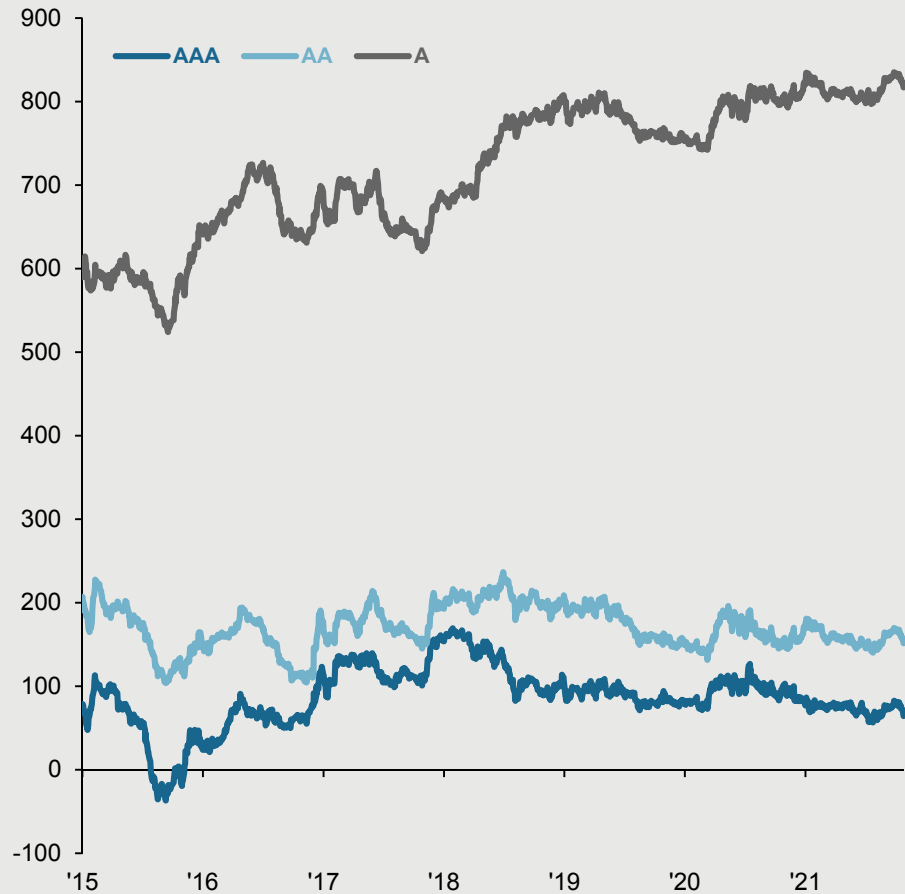
Source: Bloomberg Finance L.P., FTSE Russell, WIND, J.P. Morgan Global Economic Research, J.P. Morgan Asset Management.  
\*FTSE Chinese (Onshore CNY) Broad Bond Index is used as a proxy for China onshore universe statistics. Average credit rating is as of Feb. 2021. \*\*J.P. Morgan Asia Credit Index (JACI) China is used as a proxy for Chinese foreign currency-issued bond universe statistics. \*\*\*FTSE Dim Sum (Offshore CNY) Bond Index is used as a proxy for China offshore universe statistics.  
*Guide to China*. Data are as of October 31, 2021.



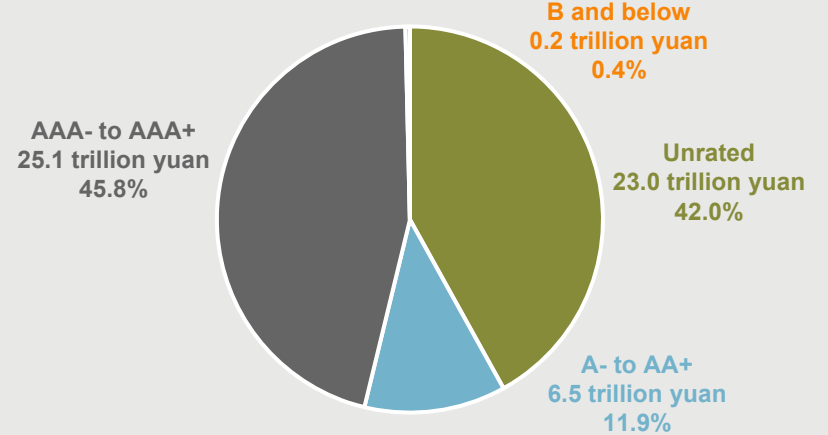
Source: J.P. Morgan Asset Management; (Left) Bloomberg Finance L.P.; (Right) ChinaBond. Yield curves shown display mid yield-to-maturity across different tenors. Yield is not guaranteed. Positive yield does not imply positive return. *Guide to China*. Data are as of October 31, 2021.

**Credit spread of onshore corporate bonds**

Basis points

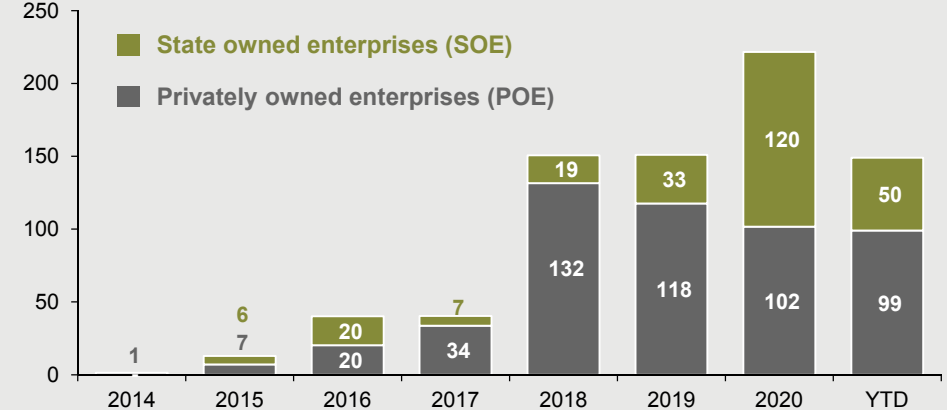


**Market structure of outstanding credit\***

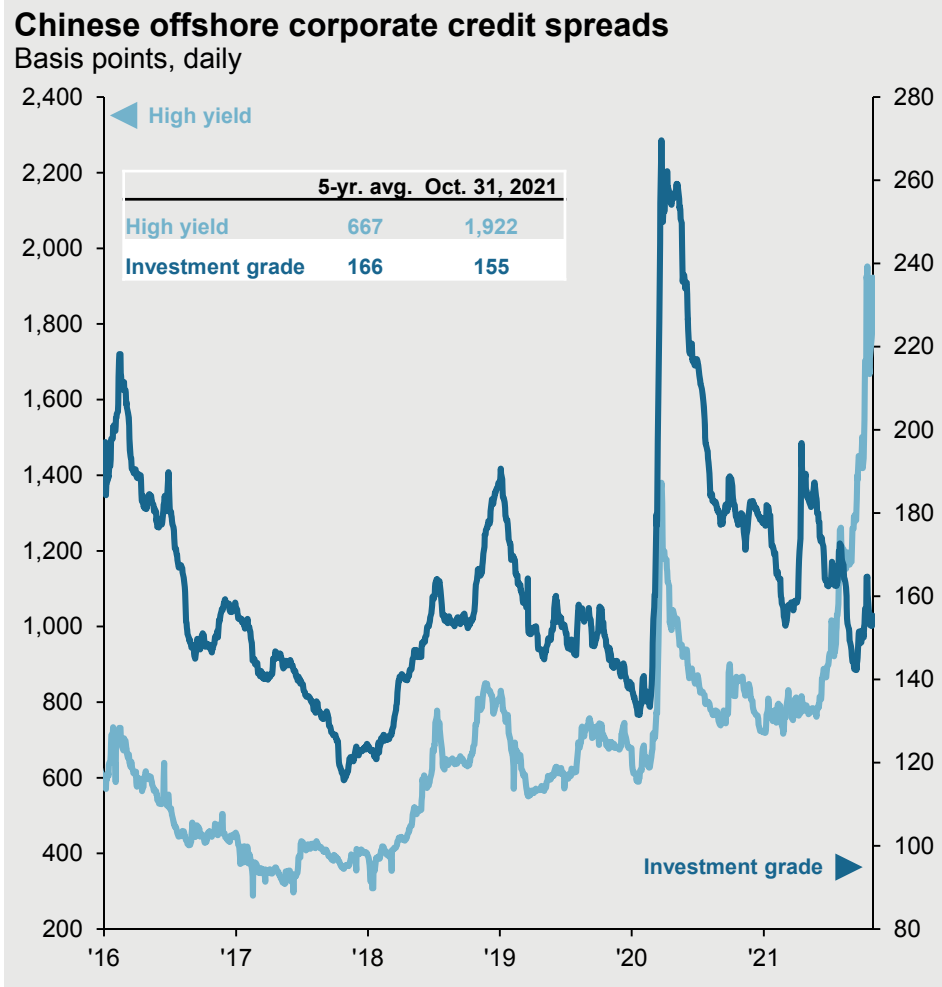


**Value of defaults in onshore market**

RMB billion



Source: Wind, J.P. Morgan Asset Management; (Right) China Securities Index Co., Ltd.  
 \*Credit rating in Chinese onshore bond market may be inflated, given the absence of international rating agencies.  
 Guide to China. Data are as of October 31, 2021.

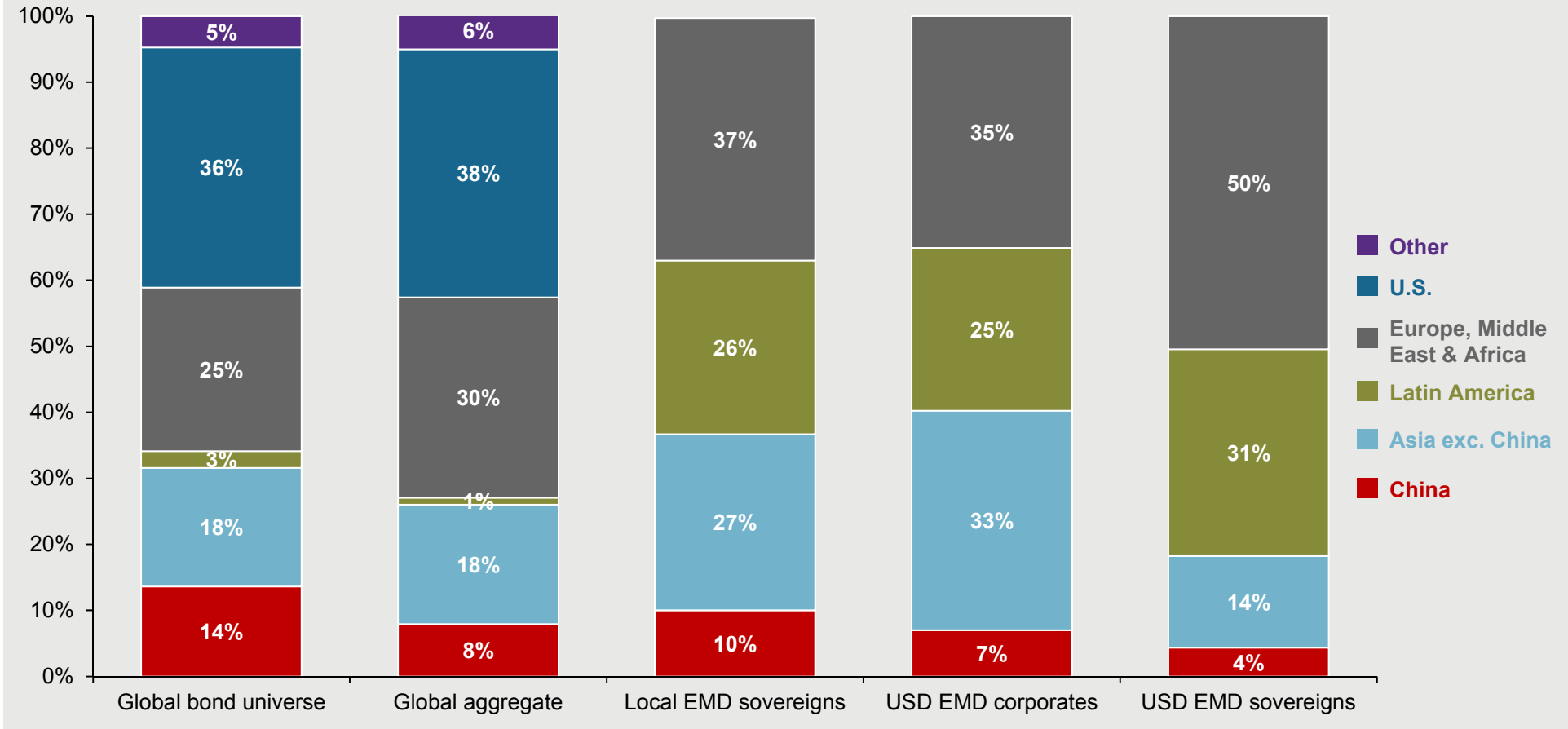


	2017	2018	2019	2020	2021 YTD	5 Yr. Ann.
Global Bonds	7.4%	China Agg 3.5%	China Real Estate HY 14.9%	China Agg 9.8%	China Govt. 6.6%	China Real Estate HY 7.2%
China Real Estate HY	7.1%	China Govt. 3.0%	China HY 12.7%	China Govt. 9.3%	China Agg 6.4%	China HY 6.4%
China HY	6.6%	China IG 0.3%	Asian Bonds 11.3%	Global Bonds 9.2%	China IG -0.2%	Asian Bonds 5.7%
China Agg	6.2%	Asian Bonds -0.8%	China IG 10.2%	China Real Estate HY 8.7%	Asian Bonds -2.4%	China IG 5.1%
Asian Bonds	5.8%	Global Bonds -1.2%	Global Bonds 6.8%	China HY 7.5%	Global Bonds -4.3%	Global Bonds 4.8%
China Govt.	5.1%	China Real Estate HY -3.1%	China Agg 3.4%	China IG 6.6%	China HY -22.7%	China Agg 3.4%
China IG	4.4%	China HY -4.2%	China Govt. 2.8%	Asian Bonds 6.3%	China Real Estate HY -33.9%	China Govt. 3.0%

Source: Bloomberg Finance L.P., FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Left graph indices used are: Bloomberg Asia ex-Japan USD Credit China High Yield (China HY) and Bloomberg Asia ex-Japan USD Credit China IG (China IG). Right graph based on Bloomberg China Aggregate Index (China Agg), Chinese Central Government Bonds Index (China Gov't), Bloomberg Asia ex-Japan China High Yield Credit (China HY), Bloomberg Asia ex-Japan China Investment Grade Credit Index (China IG), Markit Asia ex-Japan China High Yield Real Estate Credit (China Real Estate HY), J.P. Morgan Asia Credit Index (JACI) (USD Asian Bonds), Bloomberg Global Aggregate (USD Global Bonds). Returns are in U.S. dollars. 5 year annualized returns are from December 31, 2015 to December 31, 2020. Past performance is not a reliable indicator of current and future results. *Guide to China*. Data are as of October 31, 2021.

## Weight of China in bond universe and bond indices

As of Oct. 2021

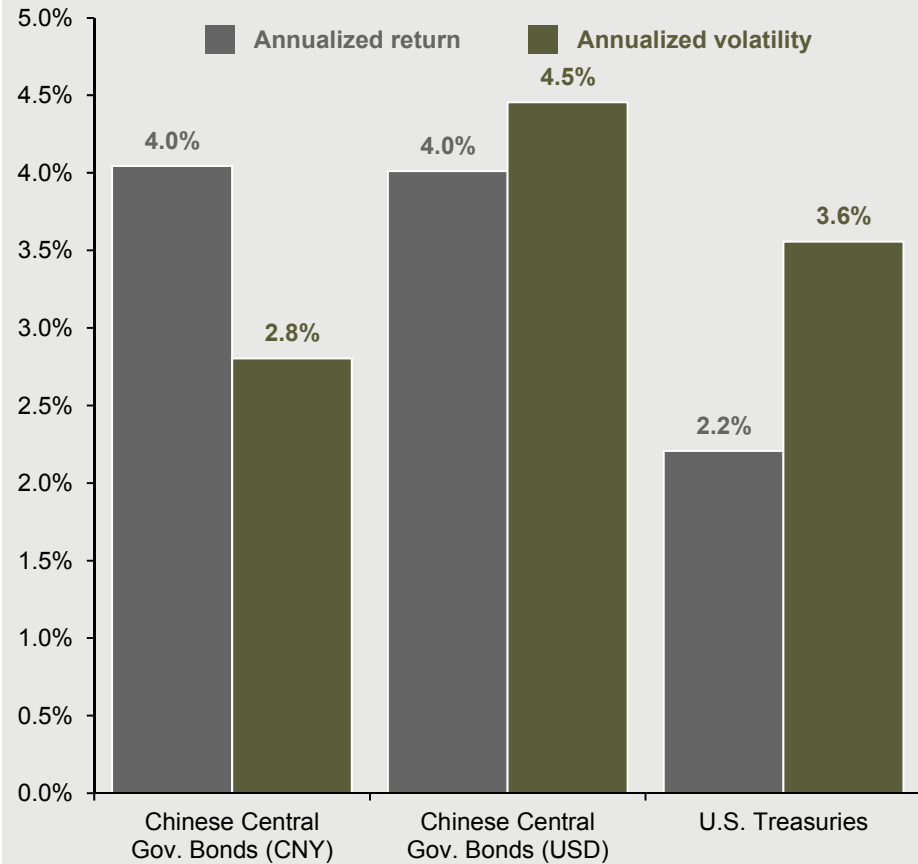


Source: Bloomberg, FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Based on J.P. Morgan CEMBI Broad Index (USD EMD corporates), J.P. Morgan EMBIG Broad Diversified Index (USD EMD sovereigns), J.P. Morgan GBI-EM Global Diversified Index (Local EMD sovereigns), Bloomberg Global Aggregate (Global Aggregate). *Guide to China*. Data are as of October 31, 2021.



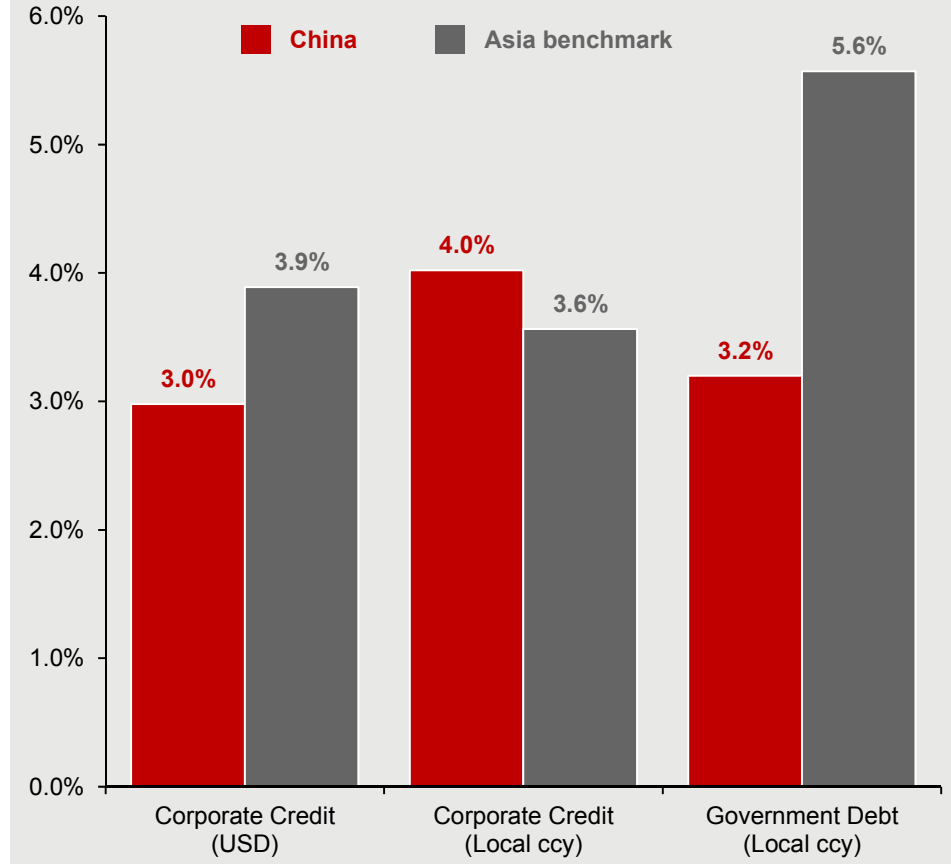
## Return and volatility of government bonds

Annualized total return and volatility, Nov. 2011-Oct. 2021



## Return of Chinese bonds versus Asia benchmarks

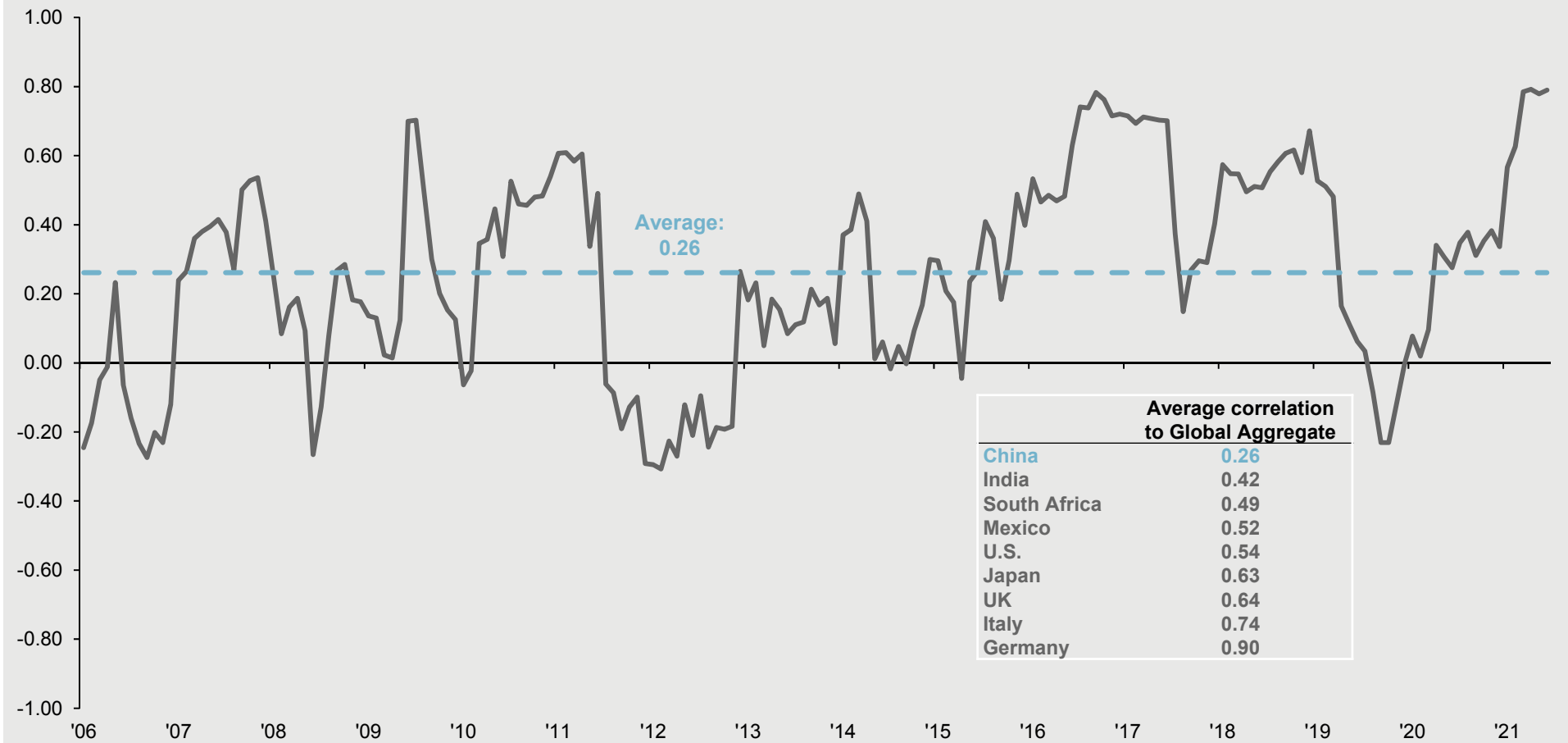
Annualized total return, Nov. 2016-Oct. 2021



Source: Bloomberg Finance L.P., J.P. Morgan Asset Management; (Right) CSI, J.P. Morgan Economics Research, WIND. Central government bonds and U.S. Treasury bonds returns are unhedged and calculated for the period between 11/30/2011 and 10/31/2021. Volatility calculated based on monthly price changes. Chinese and benchmark bond returns shown are calculated for the time period between 11/30/2011 and 10/31/2021. Indices used are: JACI (Asia USD corporate credit), CSI 3-5 year Corporate Bond Index & Bloomberg Aggregate Corporate 3-5 Year (Asia local ccy corporate credit), and JADE (Asia local ccy gov. debt).  
 Guide to China. Data are as of October 31, 2021.

**Correlation between Chinese and global government bonds**

Total return index in U.S. dollars\*, 12-month rolling correlations of monthly return



Source: Bloomberg Finance L.P., J.P. Morgan Global Economic Research, J.P. Morgan Asset Management. \*Indices are Bloomberg Global Government Bond Index and Bloomberg China Onshore Government Bond Index. Average country correlations use monthly total returns in U.S. dollar terms from 11/30/2006– 10/31/2021. Past performance is not a reliable indicator of current and future results. Diversification does not guarantee investment returns and does not eliminate the risk of loss. *Guide to China*. Data are as of October 31, 2021.

*Basics*

**Official name:** People's Republic of China (PRC)  
**Formation:** c. 2070 B.C. (first pre-imperial dynasty)  
**Founding of the State:** 1949

*Demographics*

**Population:** 1.4 billion (2019)  
 56 ethnic groups, with the majority of the population (92%) being Han  
**Official language:** Mandarin  
**Median age:** 38.4 (2020)

*Geography*

**Capital:** Beijing  
**Largest cities by population:** Shanghai, Beijing, Tianjin, Guangzhou, Shenzhen, Wuhan  
**Land area:** 9.7 million sq. km or 3.7 million sq. mi

*Economy*

**Type:** Socialist market economy  
**Nominal GDP:** US\$14.3 trillion (2019)  
**Nominal GDP per capita:** \$10,262 (2019)  
**Gini coefficient:** 0.47 (2019)

*Government*

**Ruling party:** Chinese Communist Party (CCP)  
**General Secretary of CCP, President of PRC:** Xi Jinping  
**Premier of PRC:** Li Keqiang  
**Legislative body:** National People's Congress (NPC)

The General Secretary of the CCP is elected by the Party Congress every 5 years. The President of PRC and the Premier of PRC are elected by the NPC every 5 years. The Premier has a two term limit while the President of the PRC and the General Secretary of the CCP have no term limit.

*Central Bank*

The central bank is the **People's Bank of China (PBOC)**  
**Target/goal:** Maintain stability of the value of the currency and promote economic growth through tools such as open market operations, reserve requirement ratios, interest rates and lending facilities to banks  
**Policy:** Mix of quantity and price control

*Currency*

**Renminbi (RMB) or Chinese Yuan (¥)** is the official currency

In foreign exchange markets:

**CNY** is the onshore RMB traded within China, managed by the PBOC

**CNH** is the offshore currency traded outside of China at a free-floating rate

*Equity markets*

**Size:** \$13.4 trillion (2019)

The **onshore market** is comprised of Chinese companies listed in Shanghai and Shenzhen stock exchanges

The **offshore market** is comprised of Chinese companies listed in the Hong Kong Stock Exchange and overseas

*Fixed income markets*

**Size:** \$13.6 trillion (2019)

**Onshore bonds** are listed in Mainland Chinese exchanges and denominated in CNY

**Offshore bonds** or “**dim sum bonds**” are primarily traded in Hong Kong and denominated in CNH

**Offshore foreign currency bonds** are traded in Hong Kong dollars, U.S. dollars or euros.

**All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.**

*Equities:*

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

The **MSCI® EAFE (Europe, Australia, Far East) Net Index** is recognized as the pre-eminent benchmark in the United States to measure international equity performance. It comprises 21 MSCI country indexes, representing the developed markets outside of North America.

The **MSCI Europe Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe. As of June 2007, the MSCI Europe Index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The **MSCI ACWI (All Country World Index) Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of June 2009 the **MSCI ACWI** consisted of 45 country indices comprising 23 developed and 22 emerging market country indices.

The **MSCI ACWI ex USA Index** captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 27 Emerging Markets (EM) countries\*. With 2,357 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.

The **MSCI Emerging Markets Index<sup>SM</sup>** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of June 2007, the MSCI Emerging Markets Index consisted of the following 25 emerging market indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

The **MSCI China Index<sup>SM</sup>** captures large and mid cap representation across China H shares, B shares, Red chips and P chips. With 148 constituents, the index covers about 84% of this China equity universe. The MSCI China Index was launched on December 31, 1992.

The **MSCI China A Index** captures large and mid-cap representation across China securities listed on the Shanghai and Shenzhen exchanges. The index covers only those securities that are accessible through "Stock Connect". The index is designed for international investors and is calculated using China A Stock Connect listings based on the offshore RMB exchange rate (CNH).

The **MSCI China Growth Index** captures large and mid cap securities exhibiting overall growth style characteristics across the Chinese equity markets. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

The **MSCI China Value Index** captures large and mid-cap Chinese securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

The **Shanghai Stock Exchange Composite Index** is a capitalization-weighted index. The index tracks the daily price performance of all A-shares and B-shares listed on the Shanghai Stock Exchange. The index was developed on December 19, 1990 with a base value of 100.

The **China Shenzhen Composite Index** is an actual market-cap weighted index that tracks the stock performance of all the A-share and B-share lists on Shenzhen Stock Exchange. The index was developed on April 3, 1991 with a base price of 100.

The **Hang Seng Index ("HSI")** is the most widely quoted gauge of the Hong Kong stock market. It includes the largest and most liquid stocks listed on the Main Board of the Stock Exchange of Hong Kong. Stocks are free-float-adjusted for investability representation, and a 10% capping is applied to avoid single stock domination. The index was developed on November 24, 1969 with a base price of 100.

The **Shanghai Shenzhen CSI 300 Index ("CSI Index")** is a free-float weighted index that consists of 300 A-share stocks listed on the Shanghai or Shenzhen Stock Exchanges. The Index has been calculated since April 8, 2005, with a base level of 1000 on 12/31/2004.

The **SZSE Composite Index** is a stock market index of Shenzhen Stock Exchange. It includes all companies listed on the exchange.

The **Hang Seng China Enterprises Index ("HSCEI")** serves as a benchmark that reflects the overall performance of Mainland securities listed in Hong Kong. The index comprises the largest and most liquid Mainland securities listed in Hong Kong. Stocks are free float-adjusted for investability representation, with a 10% capping to avoid single stock domination. The index was launched on August 8, 1994.

The **SME Index** comprises the 100 largest and most liquid A-share stocks listed and trading on the SME Board Market. The index aims to reflect the performance of the Small and Medium Enterprise (SME) Board level. The index is free-floating, with a base date of May 31, 2010.

The **ChiNext Index** comprises the 100 largest and most liquid A-share stocks listed and trading on the ChiNext Market of the Shenzhen Stock Exchange. The index aims to reflect the performance of ChiNext Market level. The index free-float capitalization-weighted. The index has a base value of 1000 on May 31, 2010.

*Fixed income:*

The **Bloomberg Global Aggregate Index** is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

The **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**: The CEMBI tracks total returns of US dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries, and consists of an investable universe of corporate bonds.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **FTSE Chinese (Onshore CNY) Broad Bond Index** measures the performance of a subset of bonds from the FTSE Chinese (Onshore CNY) Broad Bond Index (CNYBBI) which tracks onshore Chinese yuan-denominated fixed-rate governments, agencies, and corporations debt issued in mainland China. The index includes bonds that are traded on the China Interbank Bond Market (CIBM).

The **J.P. Morgan Asia Credit Index Core (JACI Core)** consists of liquid US-dollar denominated debt instruments issued out of Asia ex-Japan. The JACI Core is based on the composition and established methodology of the J.P. Morgan Asia Credit Index (JACI), which is market capitalization weighted. JACI Core includes the most liquid bonds from the JACI by requiring a minimum \$350 million in notional outstanding and a minimum remaining maturity of 2 years. JACI Core also implements a country diversification methodology. Historical returns and statistics for the JACI Core are available from December 30, 2005.

*Fixed income cont.:*

The **J.P. Morgan Asia Diversified (JADE) Indices** track local currency government bonds issued by countries within the Asia region (excluding Japan). The two main composite series are the JADE Broad and the JADE Global which provide Diversified exposure to the countries within the region. The JADE Global excludes countries with capital controls and those not accessible by foreign investors. Launched in March 2016, the JADE Broad/Global indices have daily historical index levels and statistics starting from Dec 31, 2004.

The **Bloomberg Global Aggregate - Corporate Index** is a flagship measure of global investment grade, fixed-rate corporate debt. This multi-currency benchmark includes bonds from developed and emerging markets issuers within the industrial, utility and financial sectors.

The **Bloomberg Global Treasury Index** tracks fixed-rate, local currency government debt of investment grade countries, including both developed and emerging markets. The index represents the treasury sector of the Global Aggregate Index and contains issues from 37 countries denominated in 24 currencies.

The **CSI Corporate Bond Index** selects eligible corporate bonds listed at Shanghai Stock Exchange and Shenzhen Stock Exchange, with remaining term to final maturity over 1 year. The index was launched on June 9, 2003 and is based at 100 to Dec 31, 2002.

*Other asset classes:*

The Bloomberg Industrial Metals Subindex is composed of futures contracts on aluminum, copper, nickel and zinc. It reflects the return of underlying commodity futures price movements only. It is quoted in USD.

*Definitions:*

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies can raise or lower returns. Also, some markets may not be as politically and economically stable as other nations. Investments in **emerging markets** can be more volatile. The normal risks of international investing are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

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Unless otherwise stated, all data are as of October 31, 2021 or most recently available.

**Guide to China**

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