



Guide to Investing in Asia

3Q 2024

As of July 31, 2024



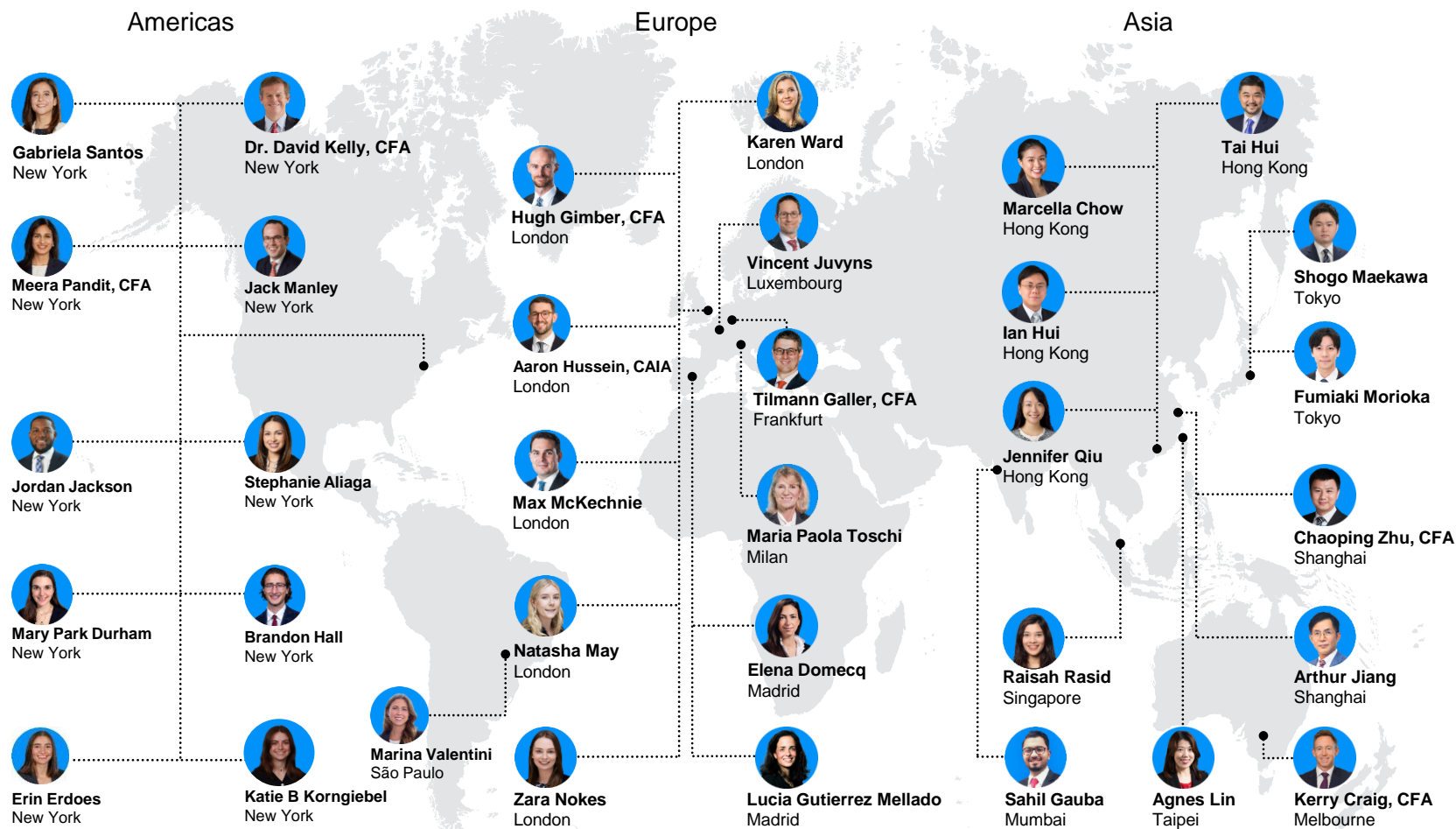


Global Market Insights Strategy team

MI

GTIA

2





Page reference

MI

GTIA

3

Asia long-term drivers

4. GDP: Size
5. GDP: Growth and global contribution
6. Demographics: Population growth
7. Demographics: Working age population and wages
8. GDP per capita and middle-class growth
9. Household wealth and savings
10. Trade: Share and balances
11. Trade: Destination and origin
12. Trade: Merchandise exports by type
13. Trade: Global relationships
14. Global technology supply chains
15. Economic competitiveness
16. Infrastructure: Investments
17. Infrastructure: Growth in China and India

China

18. China's long-term growth potential
19. China: Demographic trends
20. China's economic transition
21. China's self-sufficiency rate for key technologies
22. China: New energy vehicles
23. China's real GDP growth by contribution
24. China: Fixed asset investment
25. China: Consumption
26. China: Consumer balance sheets
27. China: Property market
28. China: Credit conditions
29. China: Foreign exchange and U.S. Treasury holdings
30. U.S.-China commercial relationships
31. China's global impact

Japan

32. Japan's real GDP growth by contribution
33. Japan: Demographics
34. Japan: Inflation, growth and rate expectations
35. Japan: Monetary policy and FX

India

36. India's real GDP growth by contribution
37. India's economic transition
38. Services exports
39. India: Key government initiatives
40. India: Digital transformation and infrastructure
41. India: Current account and FX

North & Southeast Asia

42. Taiwan: Economic snapshot
43. Korea: Economic snapshot
44. ASEAN: GDP growth

Asia equities

45. Global equity market size and index weight
46. Global index market cap and liquidity
47. Emerging market equities
48. Sector composition
49. Market concentration
50. Return-on-equity and valuations
51. Economic growth, earnings and returns
52. Emerging market equity correlations
53. Equity market returns
54. Global equity return composition
55. Global sector returns
56. Equity valuations
57. Earnings expectations and revisions

Asia equities - continued

58. Asia ex-Japan: Earnings and revenue exposure
59. Asia ex-Japan: Annual returns and intra-year declines
60. China: Onshore equities
61. China: Equity market corrections and subsequent performance
62. Japan: Corporate governance reforms
63. Japan: Performance drivers
64. Japan: Market characteristics
65. India: Equity market size and evolution
66. India: Valuations and earnings
67. India: Evolving market participation
68. Taiwan: Market snapshot
69. Korea: Market snapshot

Asia fixed income

70. Global debt and bond market size
71. Global bond index weightings
72. Fixed income returns
73. Sovereign bonds
74. Asian currencies

Asia alternatives

75. Private equity: Global fundraising
76. Private equity: Deals by market and industry
77. Venture capital by market and industry
78. Global investment in artificial intelligence
79. Real estate: Transaction volumes and performance

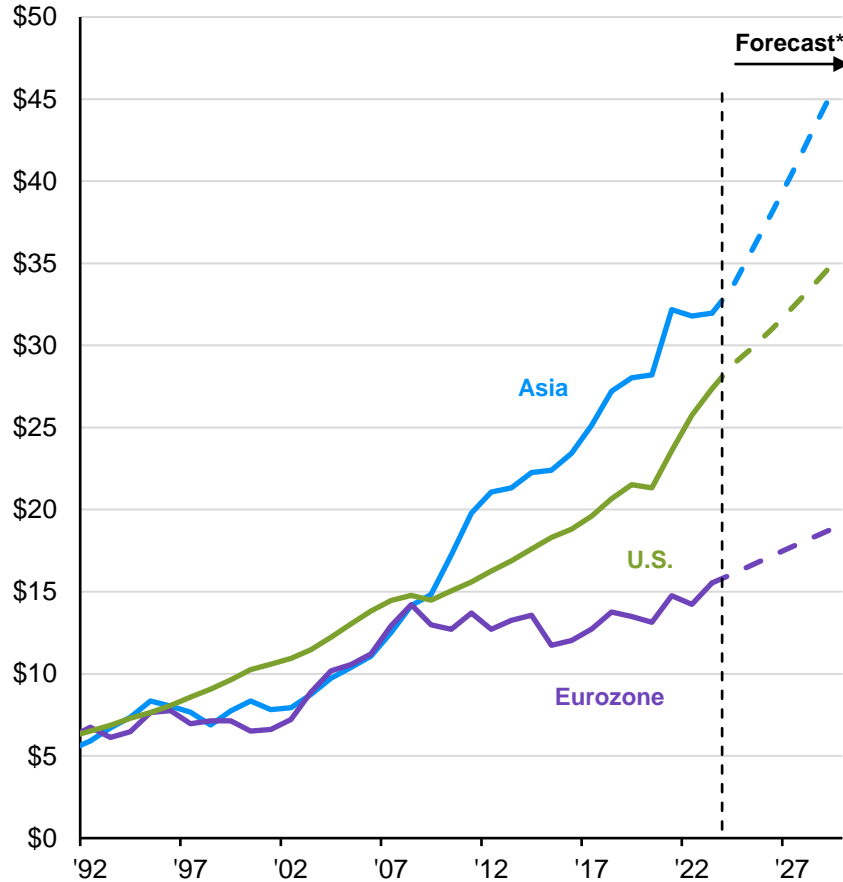
Appendix: Key information



GDP: Size

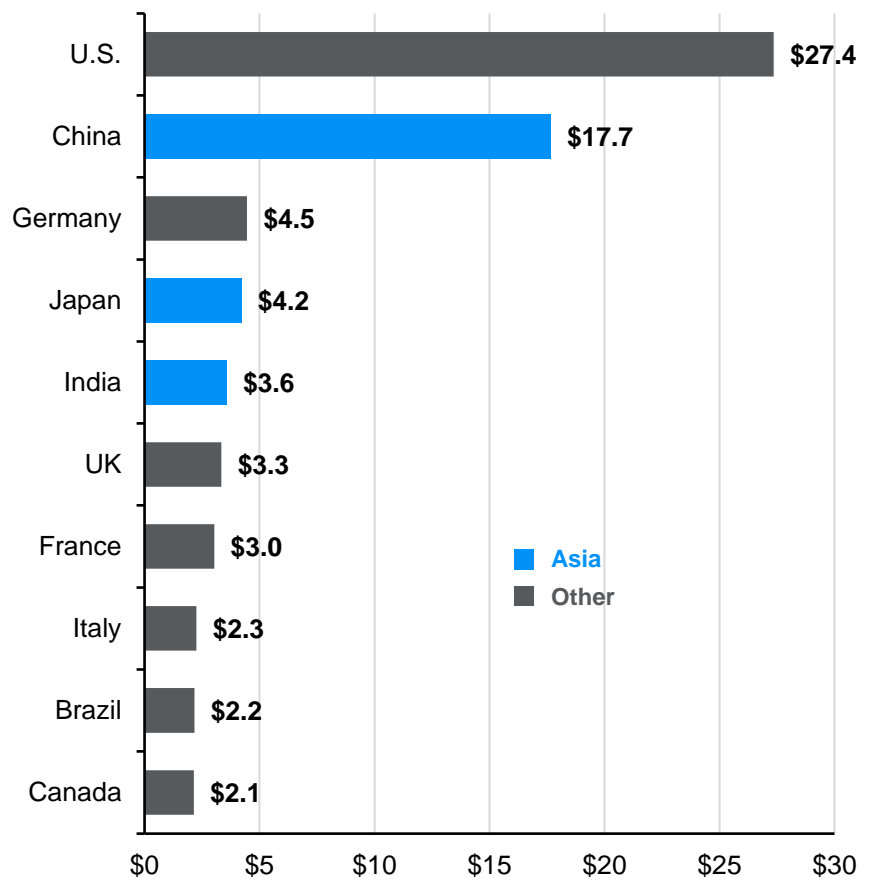
GDP size by region

USD trillions, nominal



10 biggest economies in the world

USD trillions, nominal, 2023



Source: International Monetary Fund - World Economic Outlook - April 2024, J.P. Morgan Asset Management. (Left) *Forecasts are from the IMF and go until 2028. "Asia" = China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam. Guide to Investing in Asia. Data are as of July 31, 2024.



GDP: Growth and global contribution

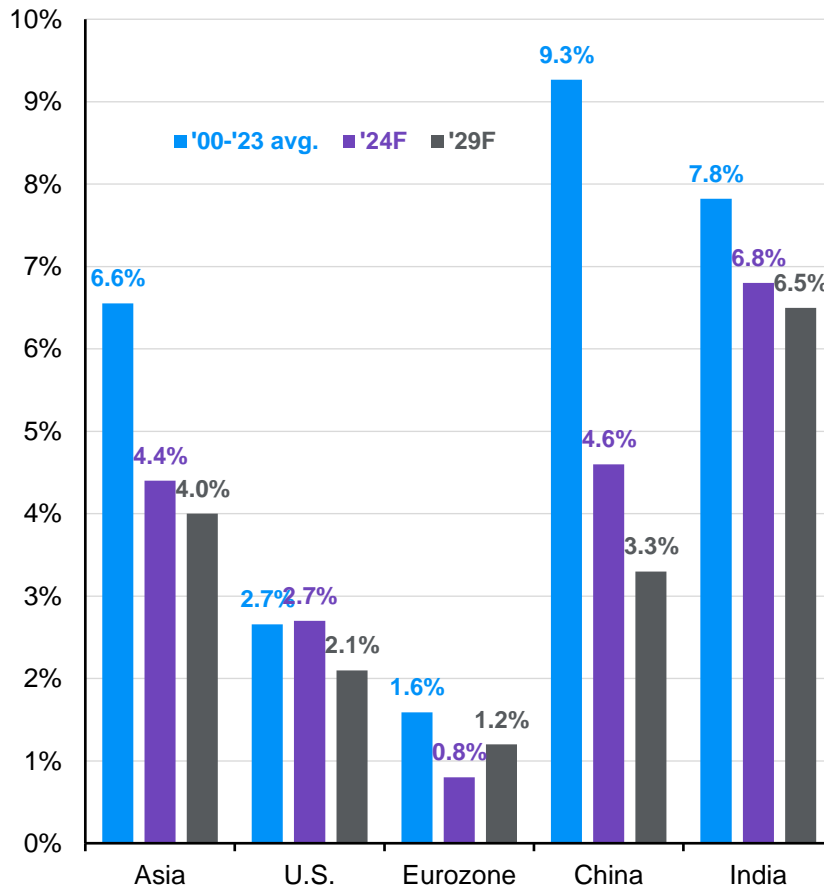
MI

GTIA

5

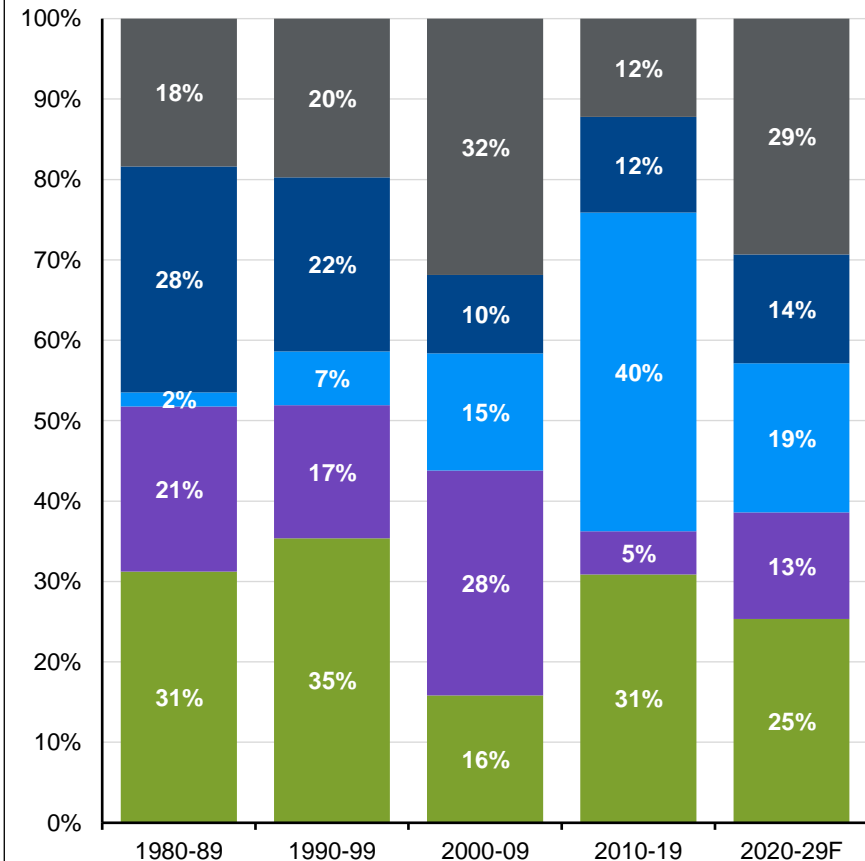
Real GDP growth

Annual % change



Contribution to global GDP growth

■ U.S. ■ Eurozone ■ China ■ Asia ex-China ■ Rest of world



Source: International Monetary Fund - World Economic Outlook – April 2024, J.P. Morgan Asset Management. (Left) The '00-'23 avg. is a compounded annual growth rate. Asia as defined by the IMF. (Right) "Asia ex-China" = Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam. *Guide to Investing in Asia*. Data are as of July 31, 2024.

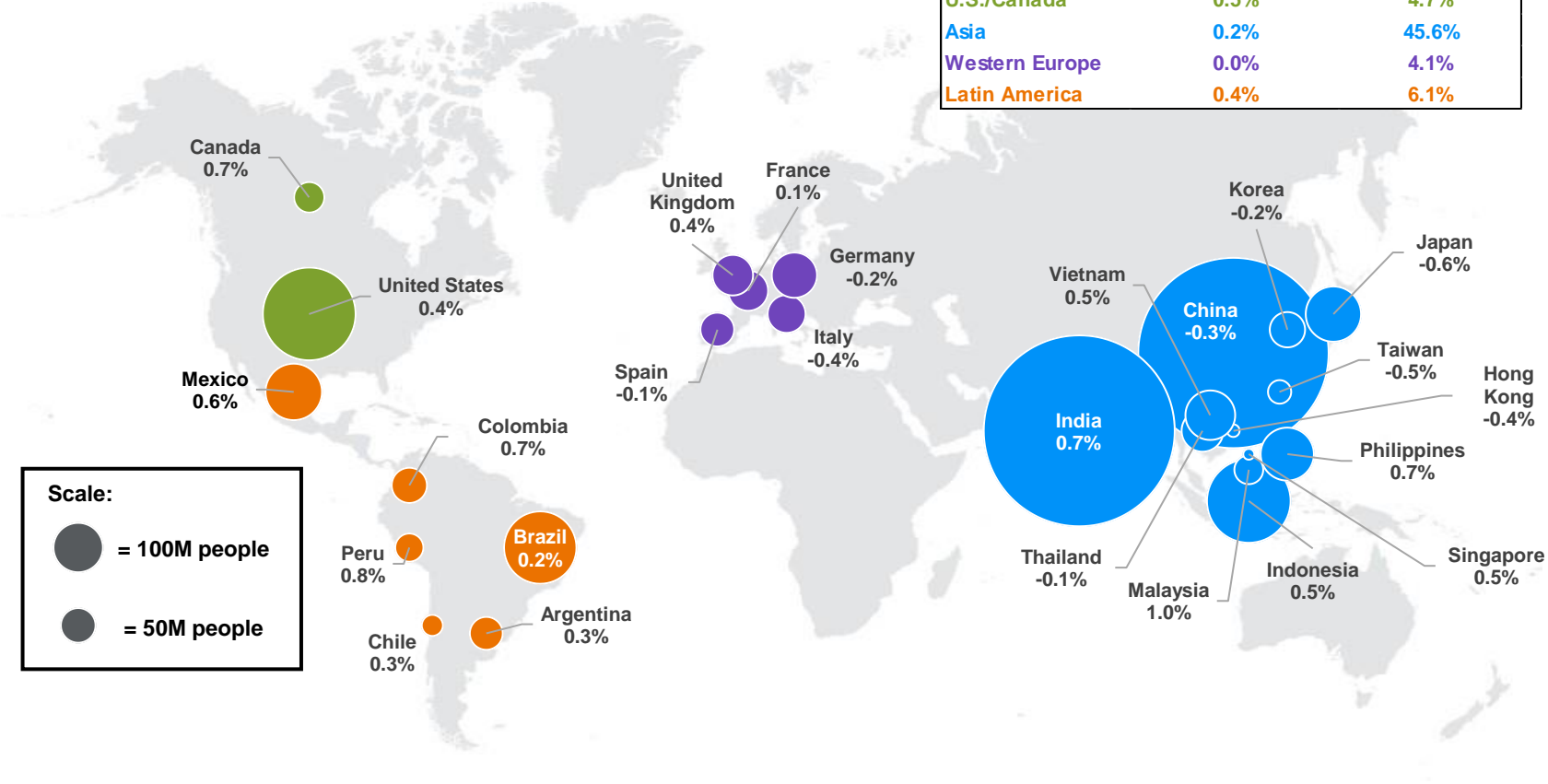


Demographics: Population growth

Population size and growth rate

Estimated % increase in population over the next 15 years, annualized, 2023

Region	Pop. growth rate over next 15 yrs (ann.)	World population share (2023)*
U.S./Canada	0.5%	4.7%
Asia	0.2%	45.6%
Western Europe	0.0%	4.1%
Latin America	0.4%	6.1%



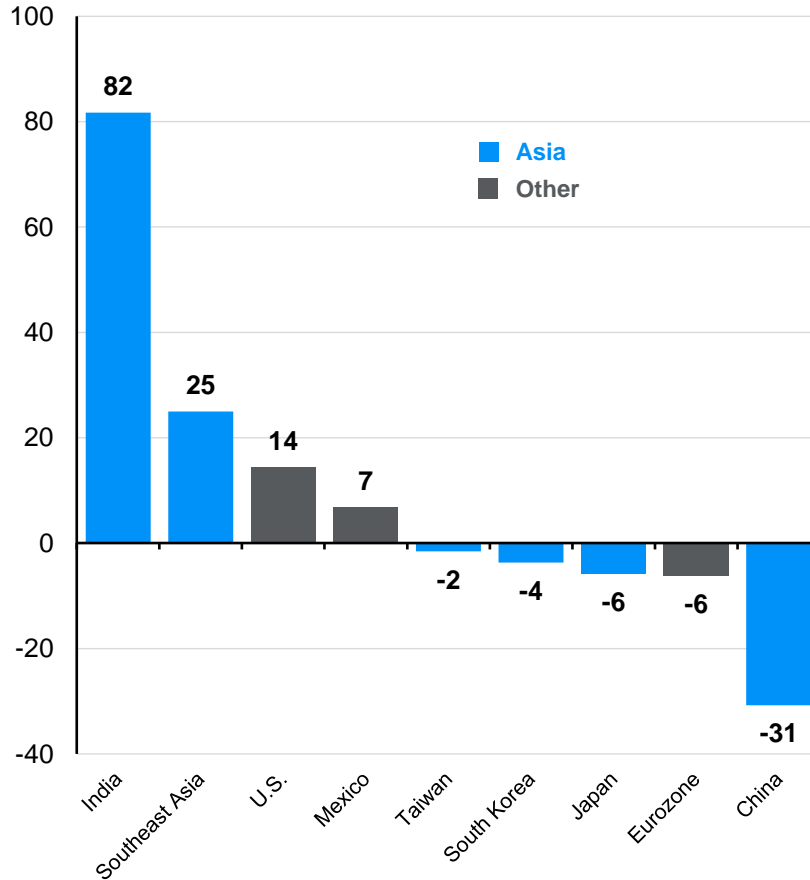
Source: IMF – World Economic Outlook – April 2024, United Nations World Population Prospects – 2024, J.P. Morgan Asset Management. “Asia” = China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam. Pop. = Population. *World population share does not sum to 100% because it only includes the countries shown in the illustration. Guide to Investing in Asia. Data are as of July 31, 2024.



Demographics: Working age population and wages

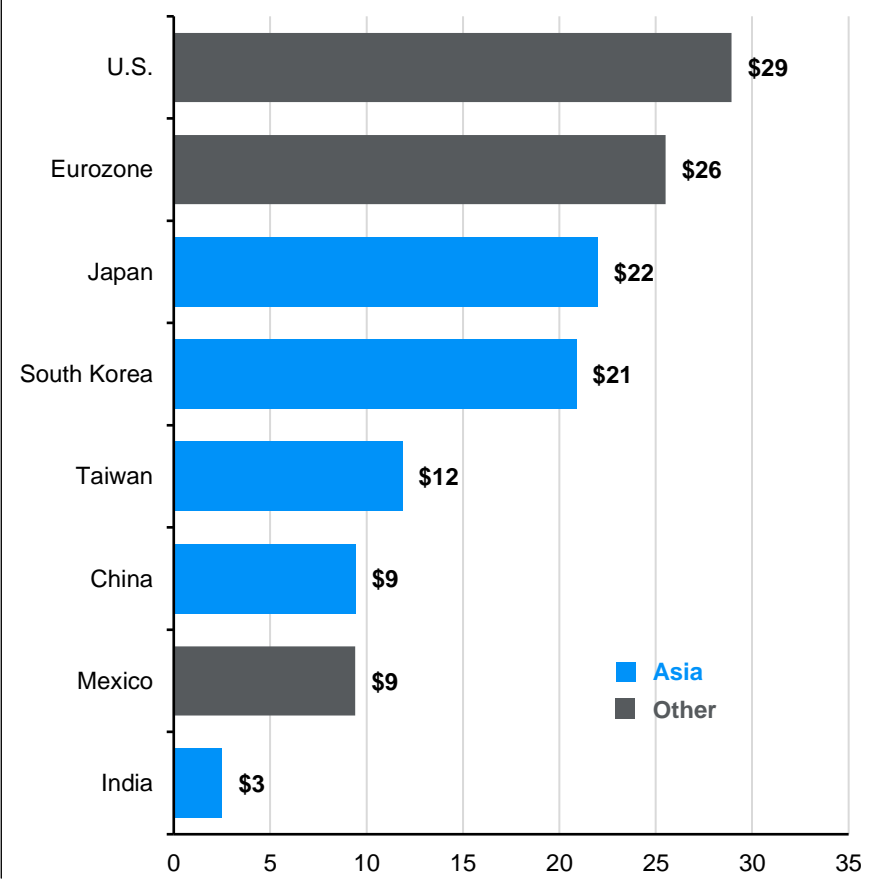
Working age population growth

Estimated change between 2024 and 2033*, millions of people



Average hourly wages by market

USD per hour, 2023 est.*



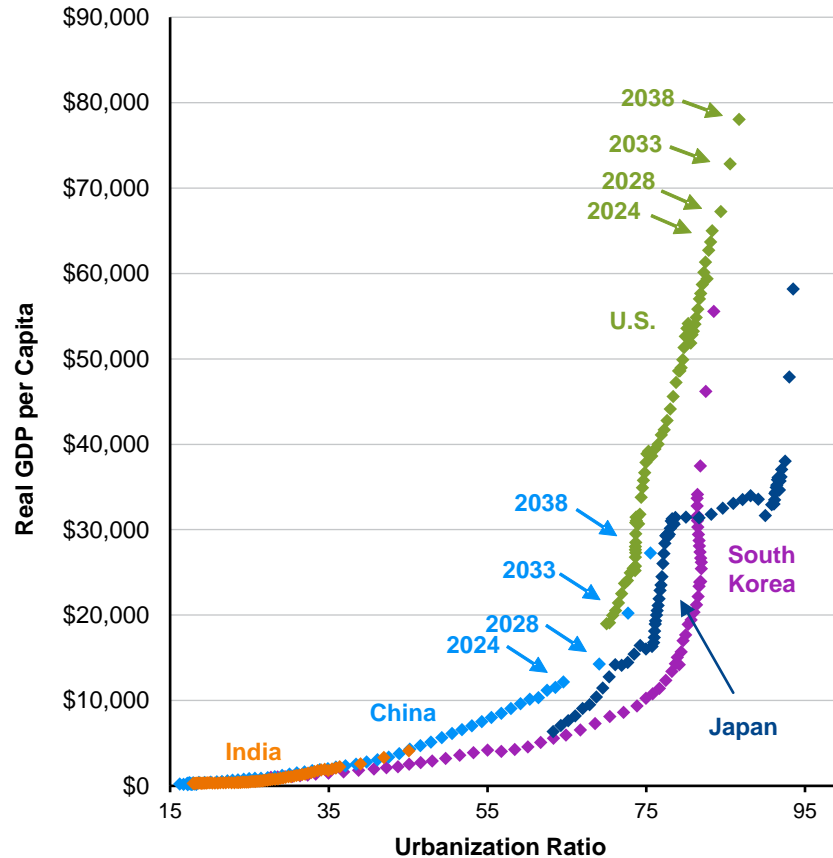
Source: FactSet, Oxford Economics, J.P. Morgan Asset Management. (Left) Southeast Asia includes Cambodia, Indonesia, Malaysia, Myanmar, Singapore, Thailand, and Vietnam. *Estimates are by Oxford Economics. *Guide to Investing in Asia*. Data are as of July 31, 2024.



GDP per capita and middle-class growth

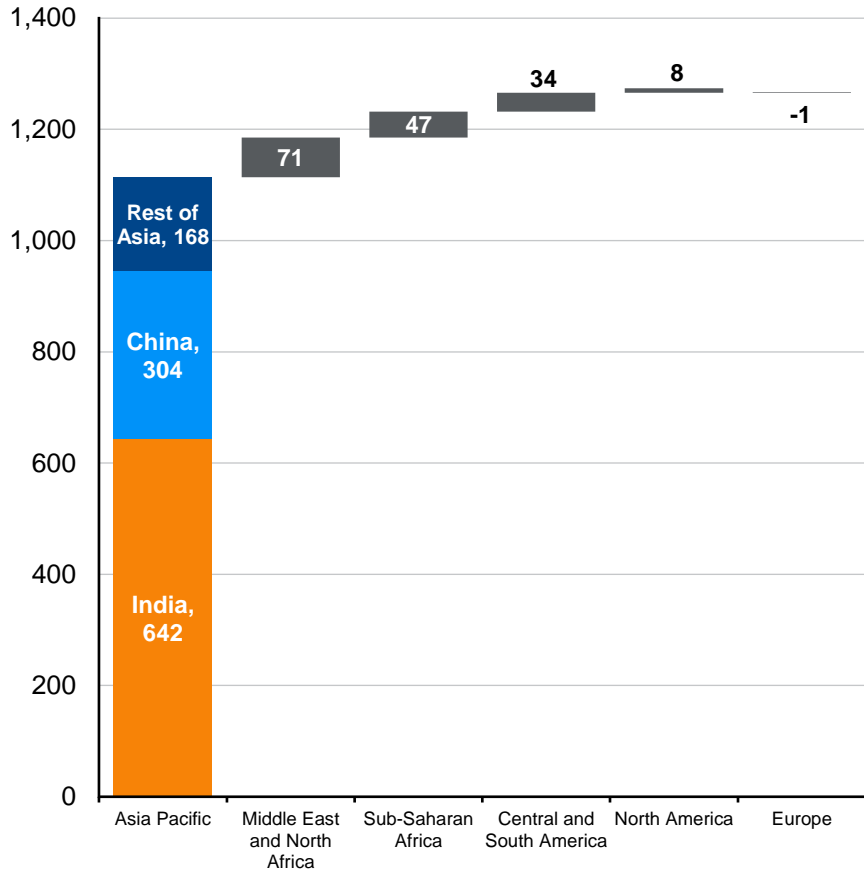
Real GDP per capita and urbanization ratios

USD, constant prices, 1960 – 2038*



Contribution to middle class growth: 2024 to 2030

Millions of people



Source: J.P. Morgan Asset Management. (Left) United Nations, World Bank. Includes long-term forecasts. 2024 and 2025 forecasts are J.P. Morgan Global Economic Research forecasts, and 2026-2038 forecasts are based on the J.P. Morgan 2024 Long-term Capital Market Assumptions (LTCMA) estimates. *Includes forecasts for 2028, 2033 and 2038 based on the 2024 LTCMAs, the United Nations population projections and the United Nations World Urbanization Prospects: 2018 Revision. (Right) Brookings Institution, 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. 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.

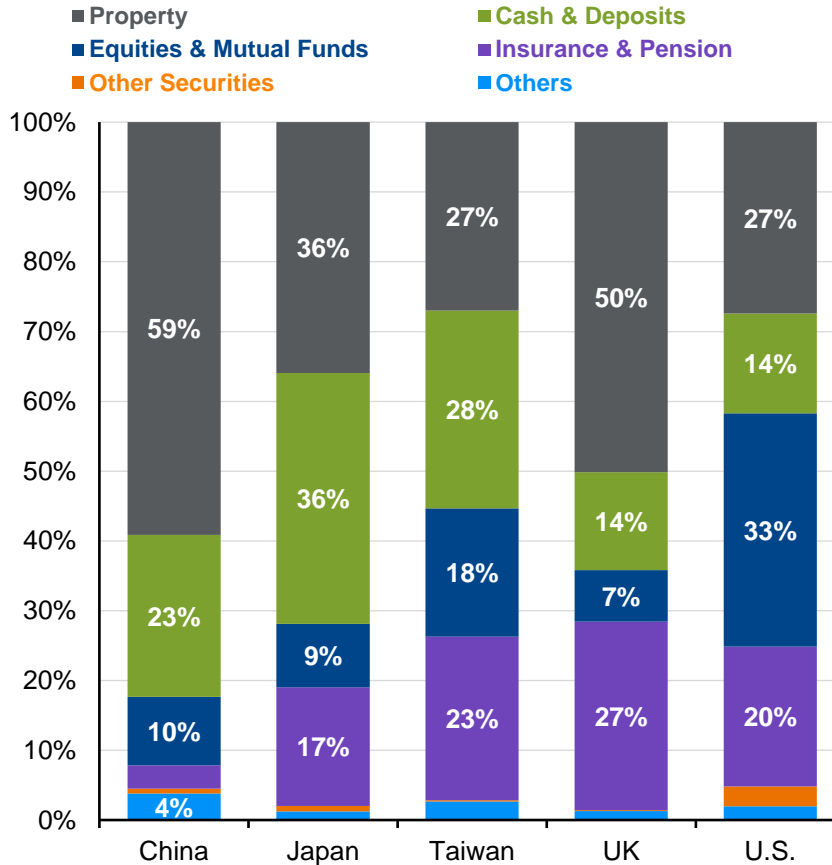
Guide to Investing in Asia. Data are as of July 31, 2024.



Household wealth and savings

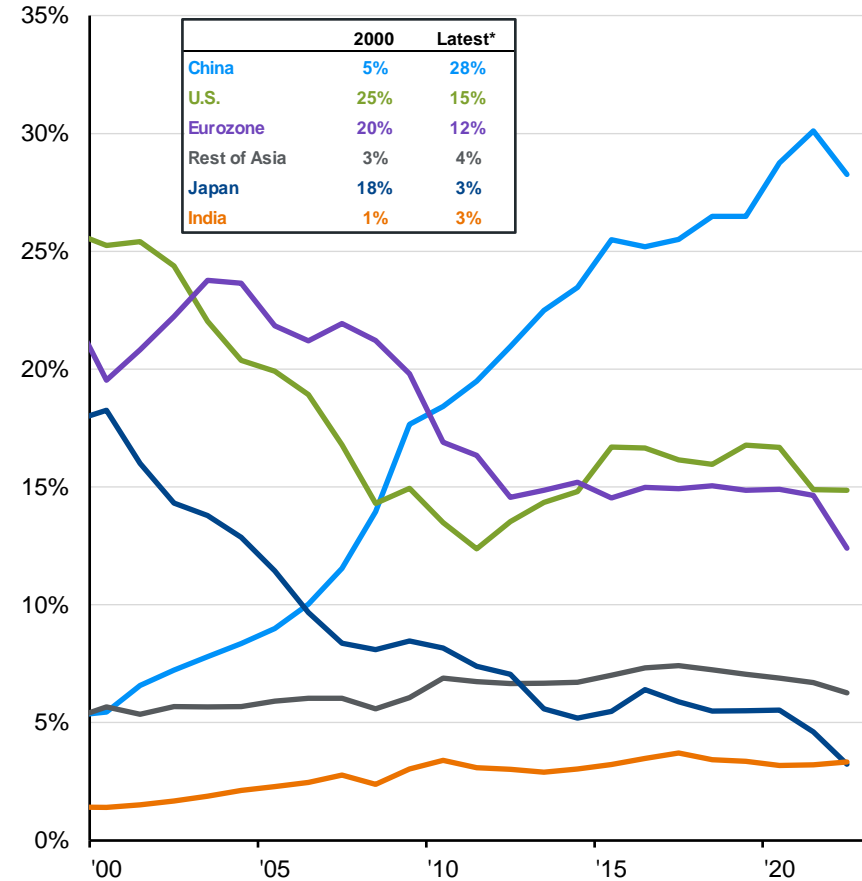
Household wealth by asset type

% of total, as of Dec. 2022



Contribution to global savings

Gross domestic savings as a % of total global savings



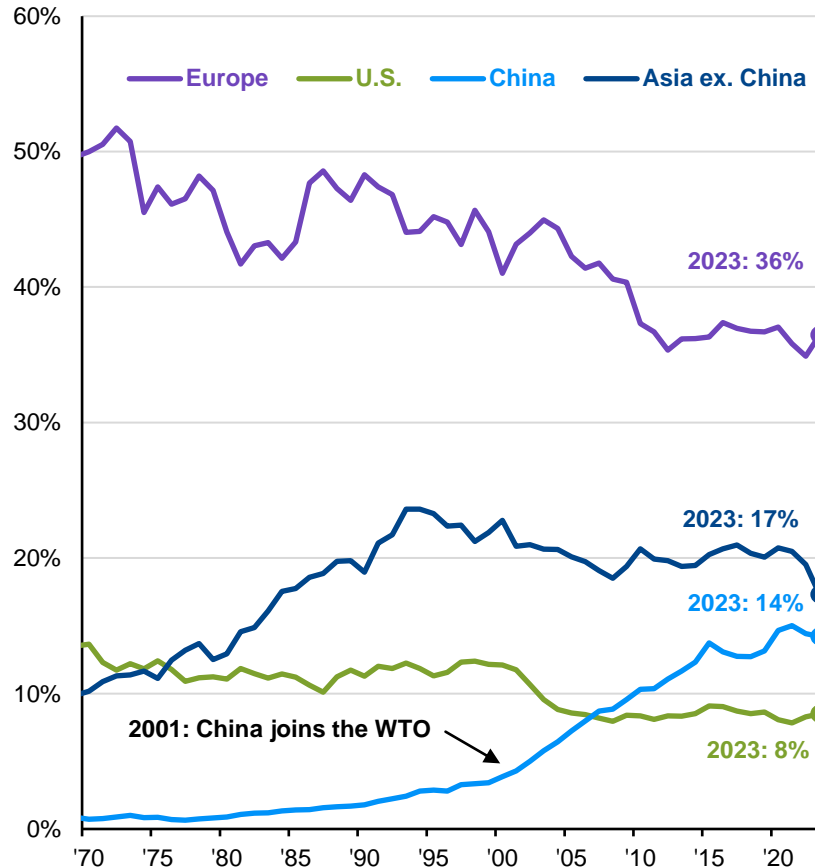
Source: J.P. Morgan Asset Management. (Left) NIFD, CEIC, Wind, China Wealth, China Trust Association, Japan Cabinet Office, Halifax, Goldman Sachs Global Investment Research. (Right) World Bank - World Development Indicators. Rest of Asia = Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Thailand and Vietnam. *Latest = 2022.
Guide to Investing in Asia. Data are as of July 31, 2024.



Trade: Share and balances

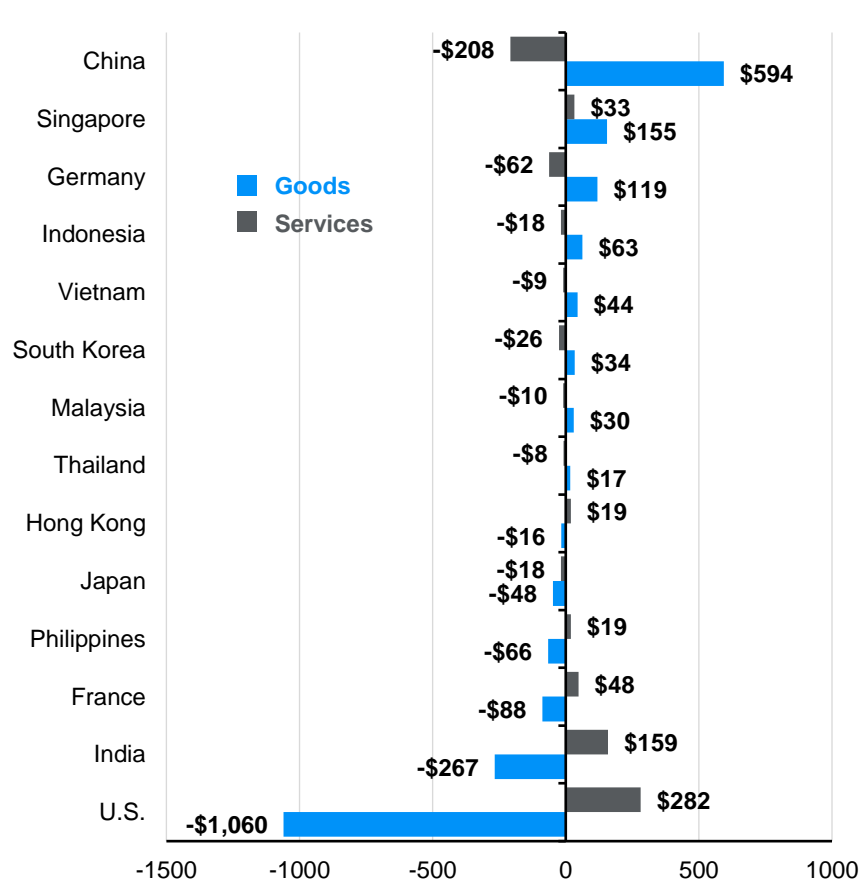
Global goods trade

% of global trade



Net trade in goods and services

Trade balance, 2023, USD billions

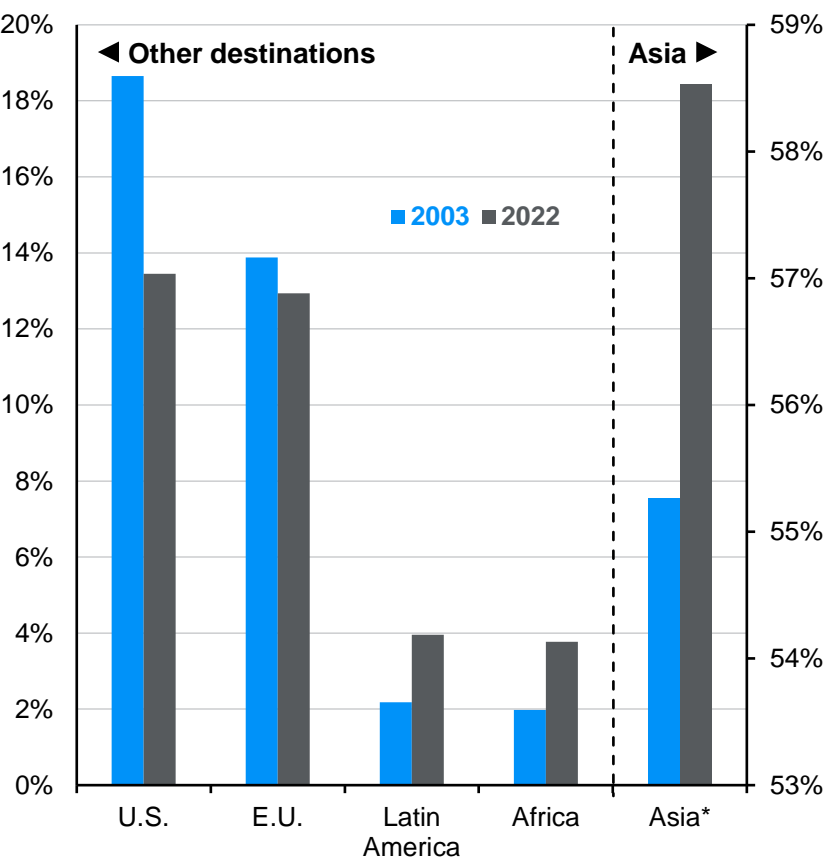


Source: J.P. Morgan Asset Management. (Left) World Trade Organization (WTO). (Right) World Bank – World Development Indicators. Oxford Economics. Net trade in services is calculated by subtracting nominal imports in USD from nominal exports in USD. 2023 data are available for every market except India, Indonesia and Germany. 2022 data are shown instead. *Guide to Investing in Asia*. Data are as of July 31, 2024.

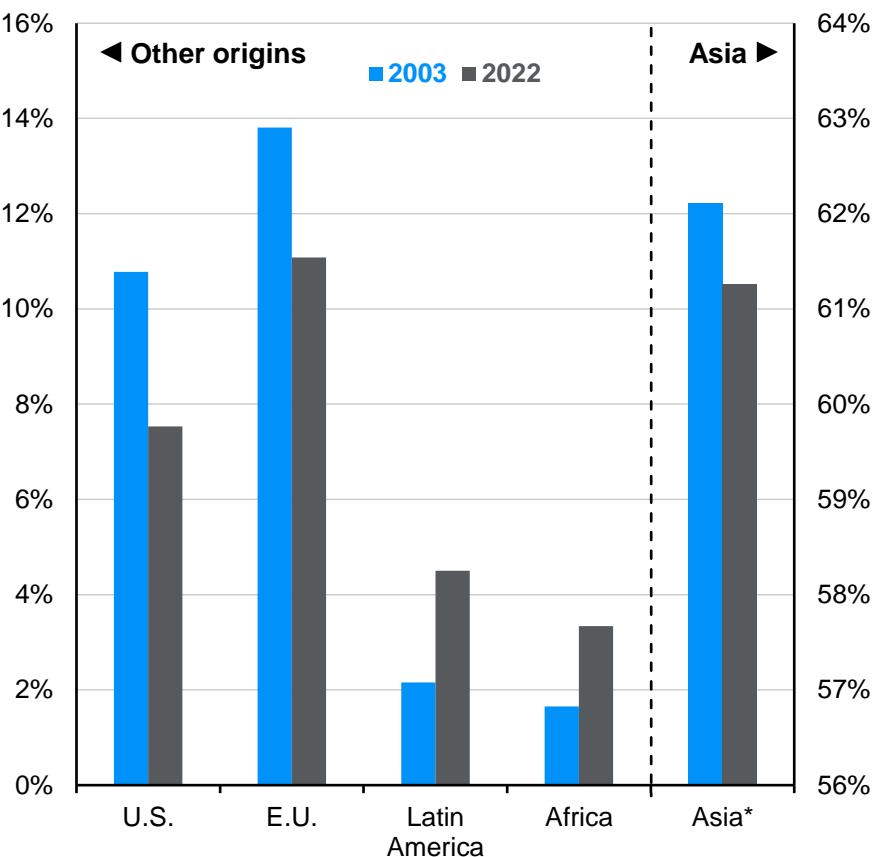


Trade: Destination and origin

Asia's exports by destination
% of total exports



Asia's imports by origin
% of total imports



Source: UNCTAD, J.P. Morgan Asset Management. *Asia represents intra-continental trade in Asia. "Asia" = China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam.
Guide to Investing in Asia. Data are as of July 31, 2024.



Trade: Merchandise exports by type

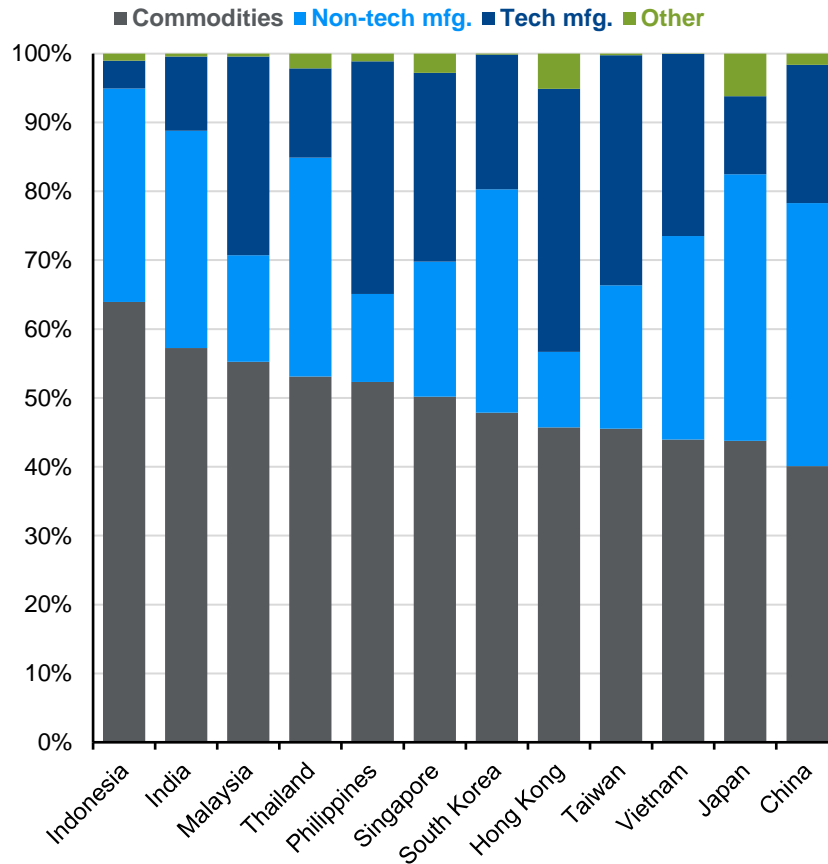
MI

GTIA

12

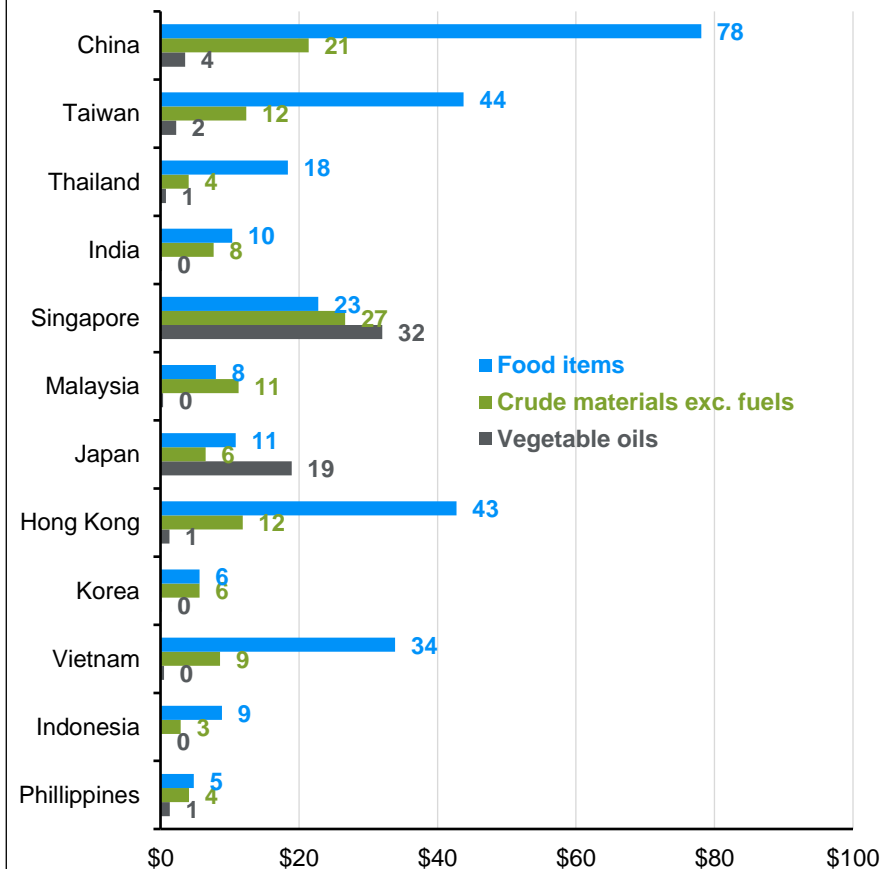
Merchandise exports

% of total merchandise exports by type, 2023



Commodity exports by type

USD billions, 2023



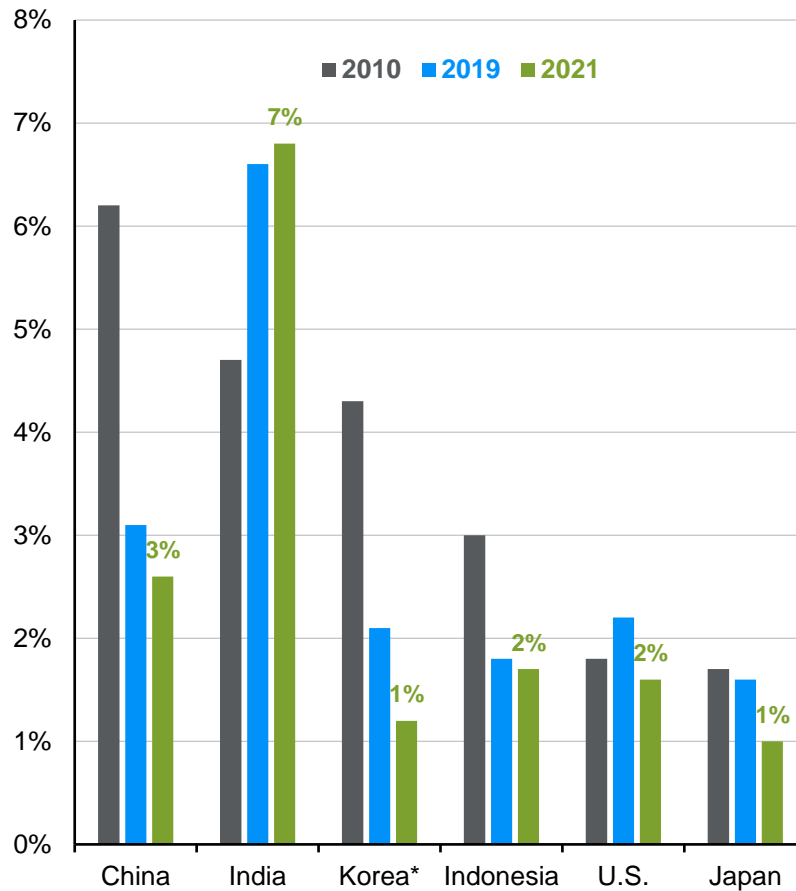
Source: UN – COMTRADE, J.P. Morgan Asset Management. (Left) Mfg. = Manufacturing. (Right) Excludes chemicals and mineral fuels. Food items include beverages. Crude materials are products that have not undergone any manufacturing, processing, or fabrication. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Trade: Global relationships

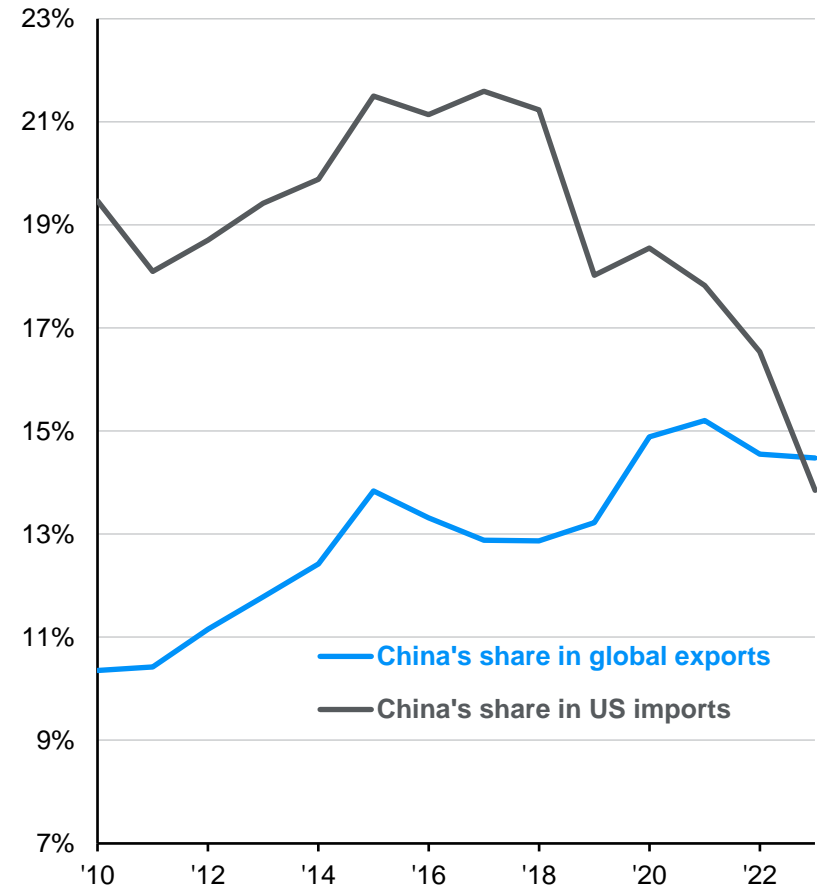
Average tariff rates

Weighted avg. tariff rates on imported mfg. products



China exports

Percent, annual

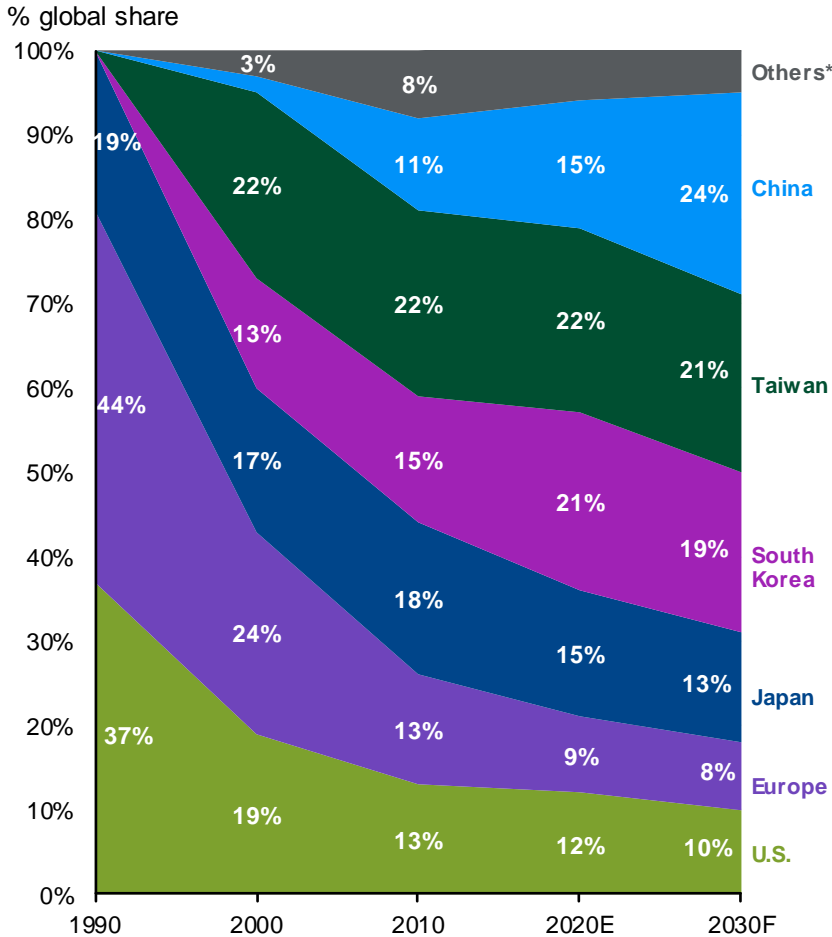


Source: DOTS, IMF, World Development Indicators, World Bank, J.P. Morgan Asset Management. (Left) *The 2019 data for Korea is an average of the rates for 2018 and 2020 due to a lack of data availability.
Guide to Investing in Asia. Data are as of July 31, 2024.

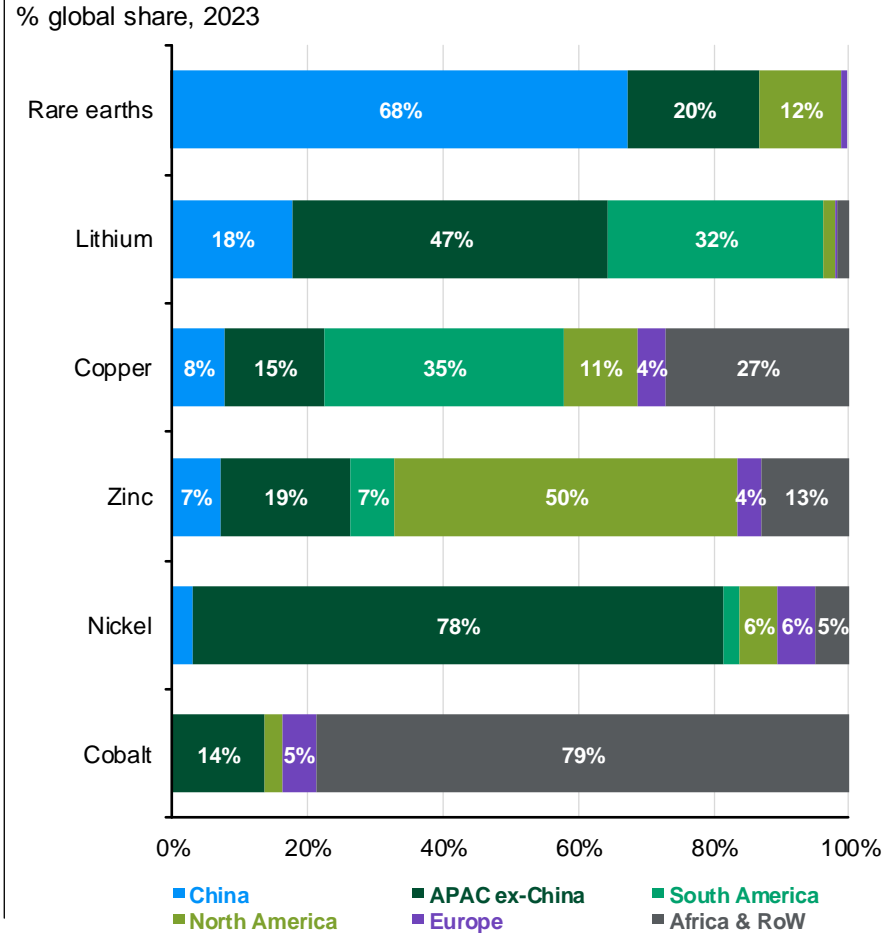


Global technology supply chains

Semiconductor production by location



Mining production by location



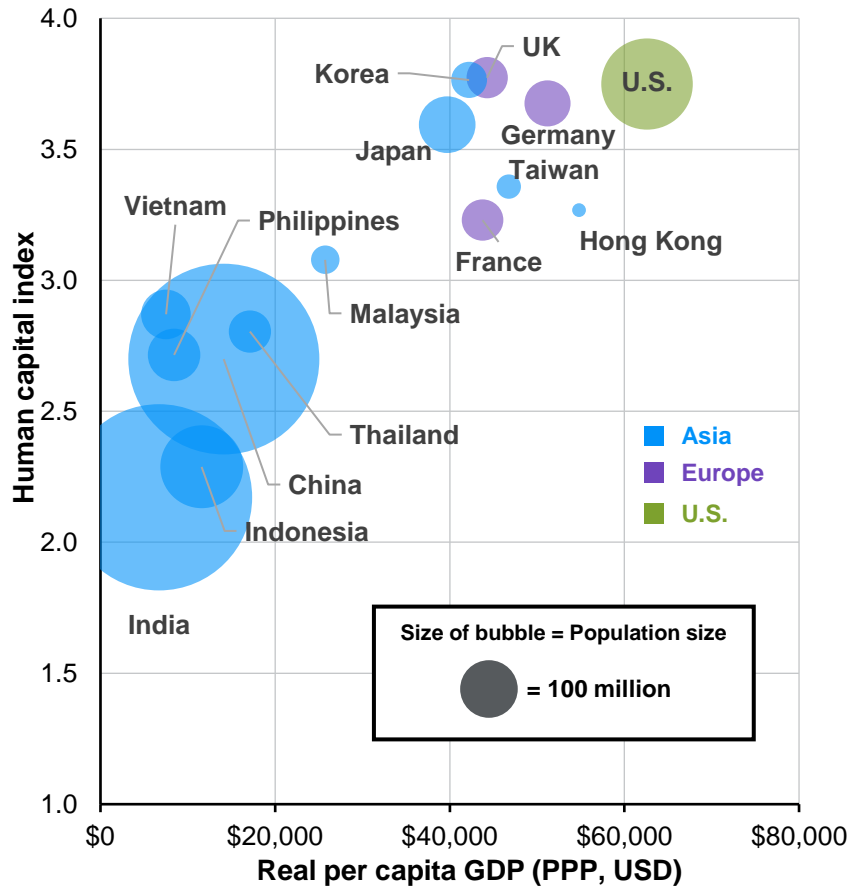
Source: J.P. Morgan Asset Management. (Left) VLSI Research Projection, SEMI second-quarter 2020 update, BCG analysis. All values shown in 8" equivalents; excludes capacity below 5 kwpm or less than 8". *Others includes Israel, Singapore and the rest of the world. Numbers may not add up to 100 due to rounding. (Right) U.S. Geological Survey, Mineral Commodity Summaries 2024. U.S. excluded from lithium mining production to protect company information. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Economic competitiveness

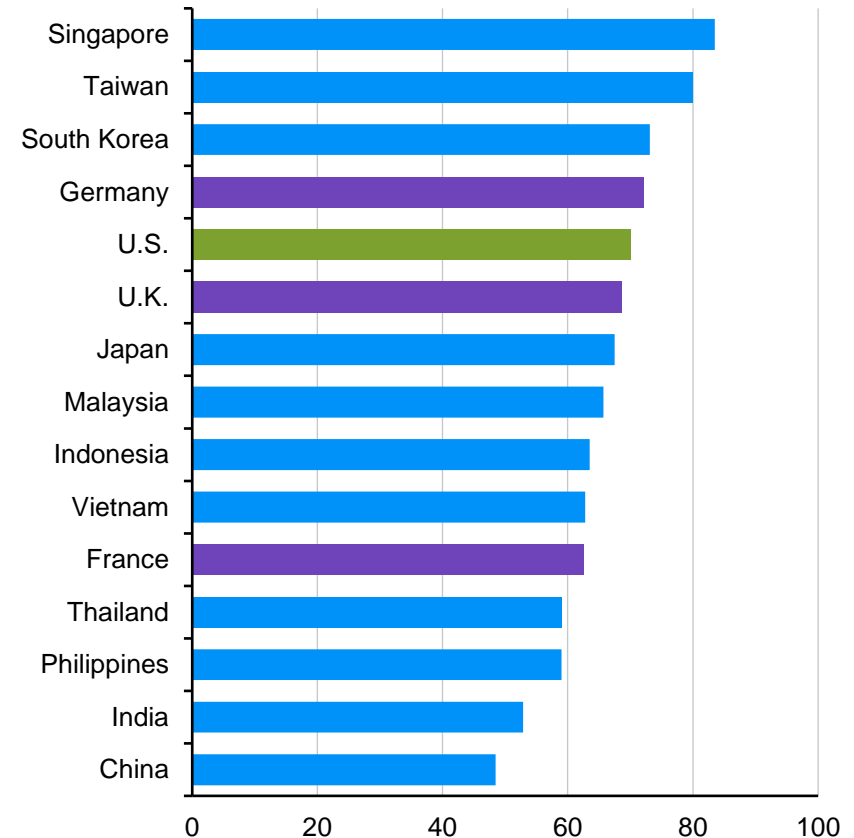
Human capital index vs. real per capita GDP (PPP)

2019, USD



Index of economic freedom

2024, overall score



Source: J.P. Morgan Asset Management. (Left) Penn World Table. PPP = Purchasing Power Parity. Human capital index quantifies the contribution of health and education to the productivity of the next generation of workers. The size of the bubbles on the left chart represents the population of each market. Real per capita GDP is in chained 2017 USD. (Right) The Heritage Foundation. Index of economic freedom is a composite measure to evaluate degree of economic freedom in various countries. It is based on 12 factors grouped into four broad categories: Rule of law, government size, regulatory efficiency and open markets. The scores are grouped as follows: 80-100 = Free, 70-79.9 = Mostly Free, 60-69.9 = Moderately Free, 50-59.9 = Mostly Unfree, 0-49.9 = Repressed.

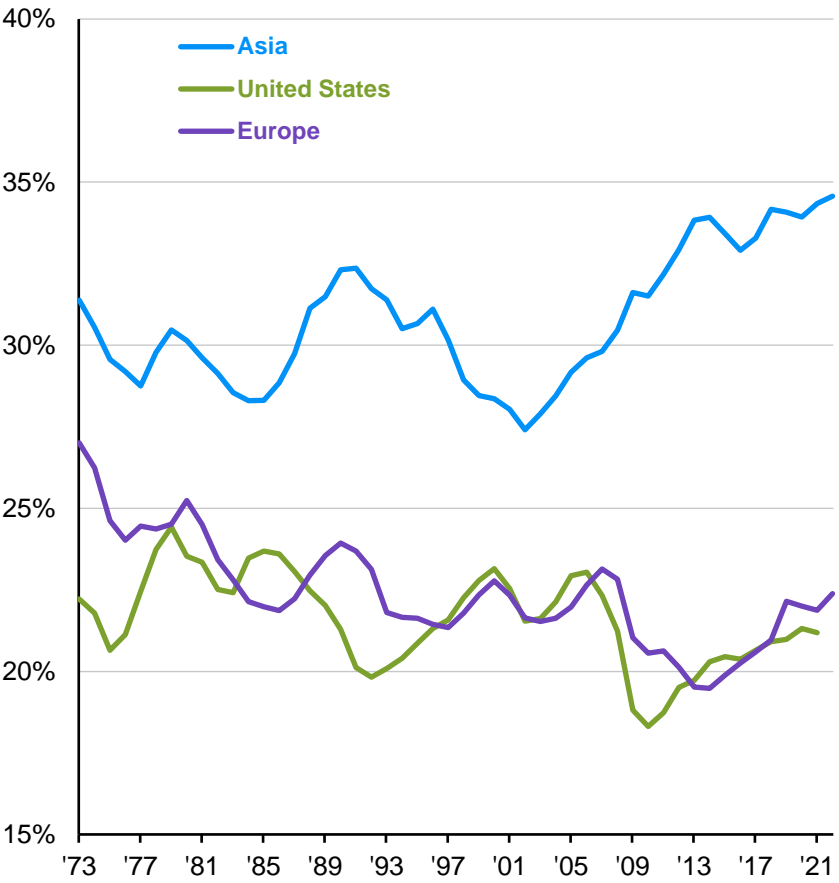
Guide to Investing in Asia. Data are as of July 31, 2024.



Infrastructure: Investments

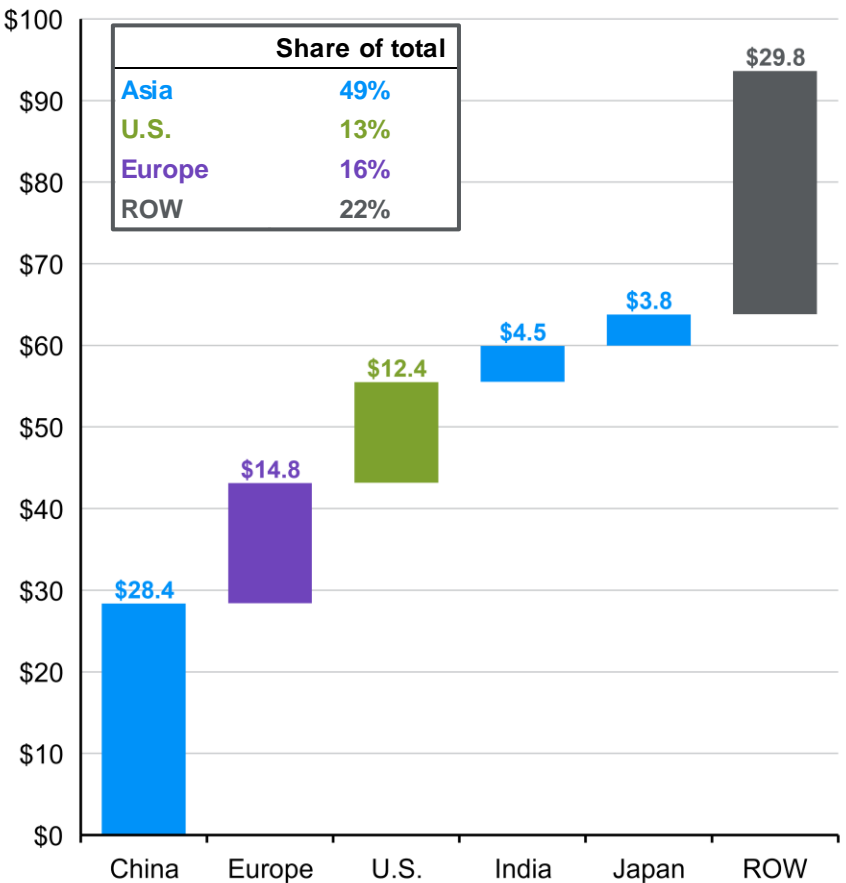
Gross fixed capital formation

Percentage of GDP, yearly



Infrastructure investment needs

USD trillions, 2016-2040



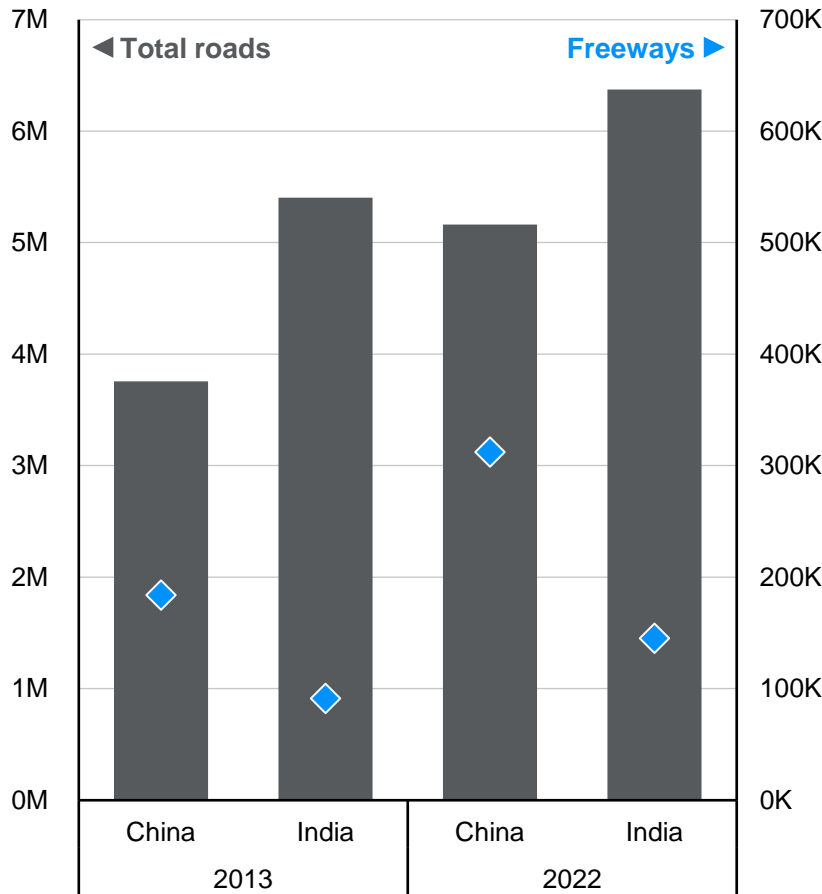
Source: J.P. Morgan Asset Management. Asia represents 37 countries within East Asia & Pacific and 8 countries within South Asia as defined by the World Bank. (Left) World Bank – World Development Indicators. (Right) Global Infrastructure Hub by G20. ROW = Rest of World. Guide to Investing in Asia. Data are as of July 31, 2024.



Infrastructure: Growth in China and India

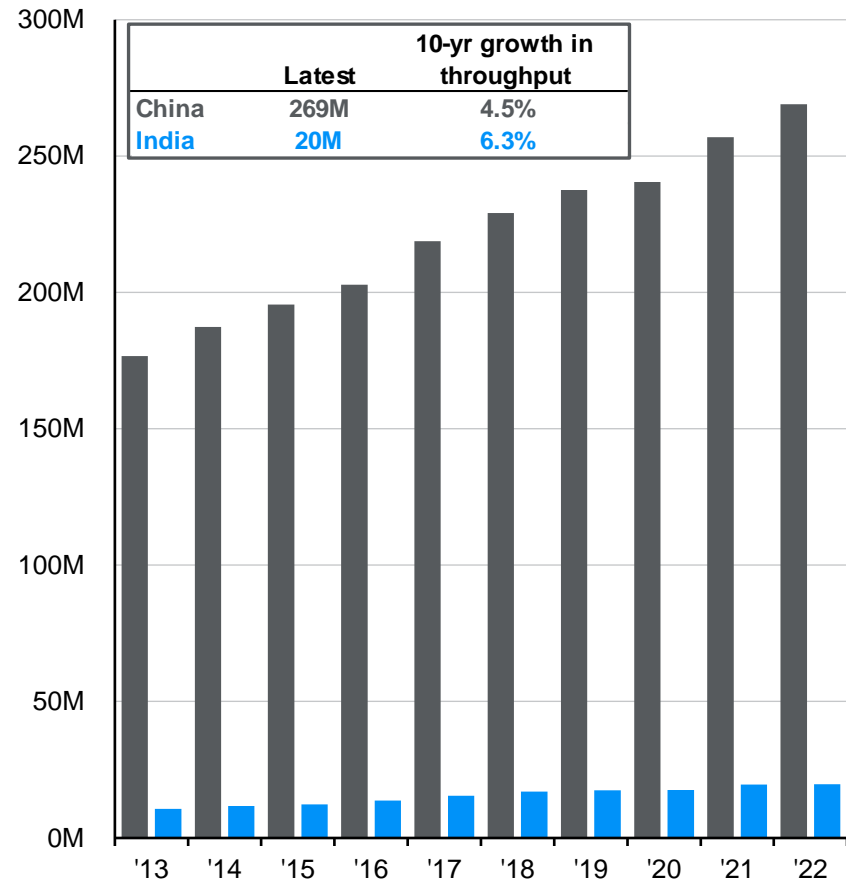
Length of road network

Kilometers



Volume of goods moved through ports

Container port throughput, TEU



Source: J.P. Morgan Asset Management. (Left) CTACLS, CEIC, Ministry of Road Transport and Highways, Government of India. Total road network and freeway network length is in kilometers (kms). 1 kilometer is equivalent to approximately 0.62 miles. For India, freeway network represents length of national highways whereas for China it represents total length of expressways and Class I highways. (Right) UNCTAD. Container port throughput is represented in twenty-foot equivalent units. TEU = Twenty-foot Equivalent Unit. *Guide to Investing in Asia*. Data are as of July 31, 2024.



China's long-term growth potential

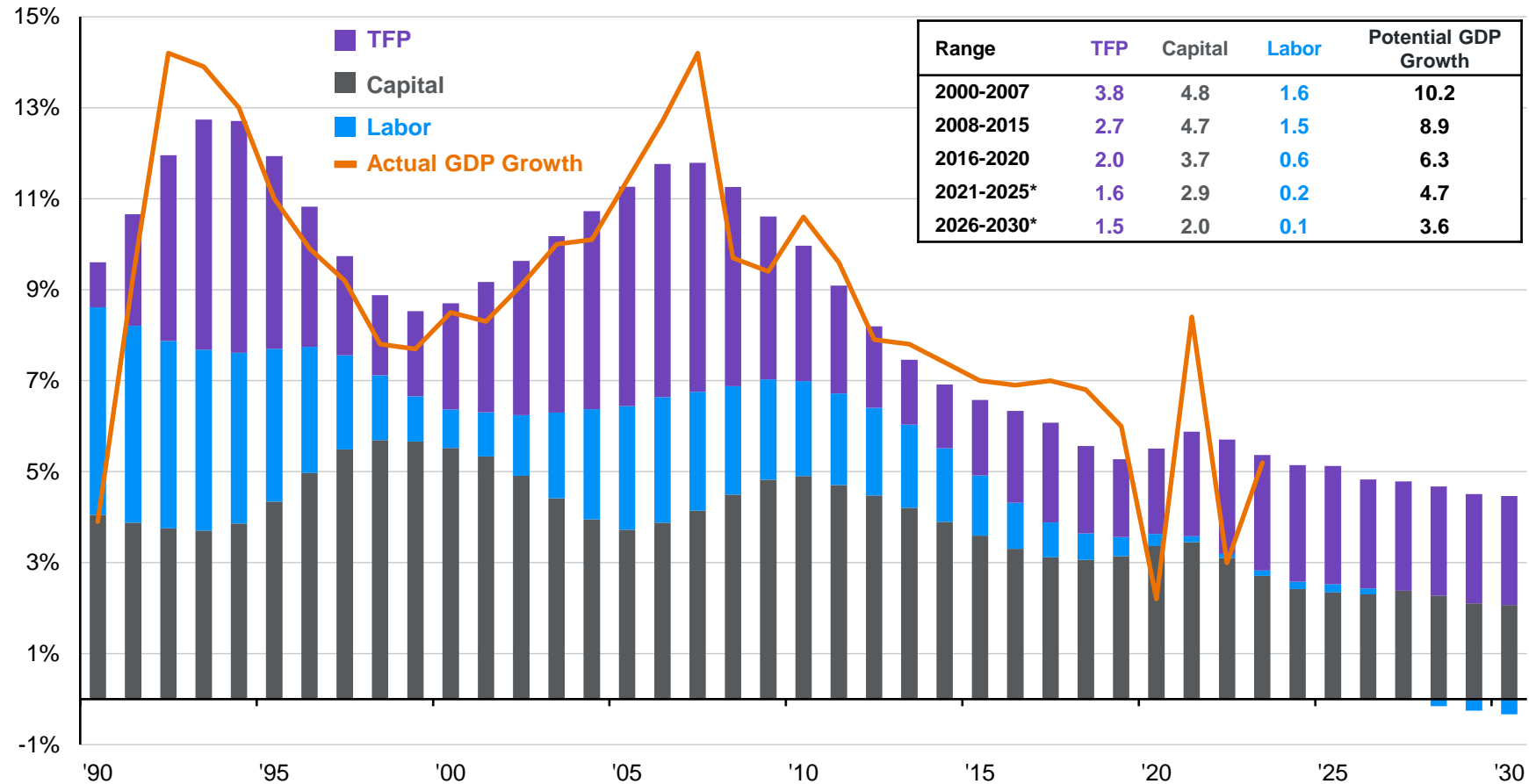
MI

GTIA

18

Contribution to potential growth

Percentage points, real growth rate



Source: 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 Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



China: Demographic trends

MI

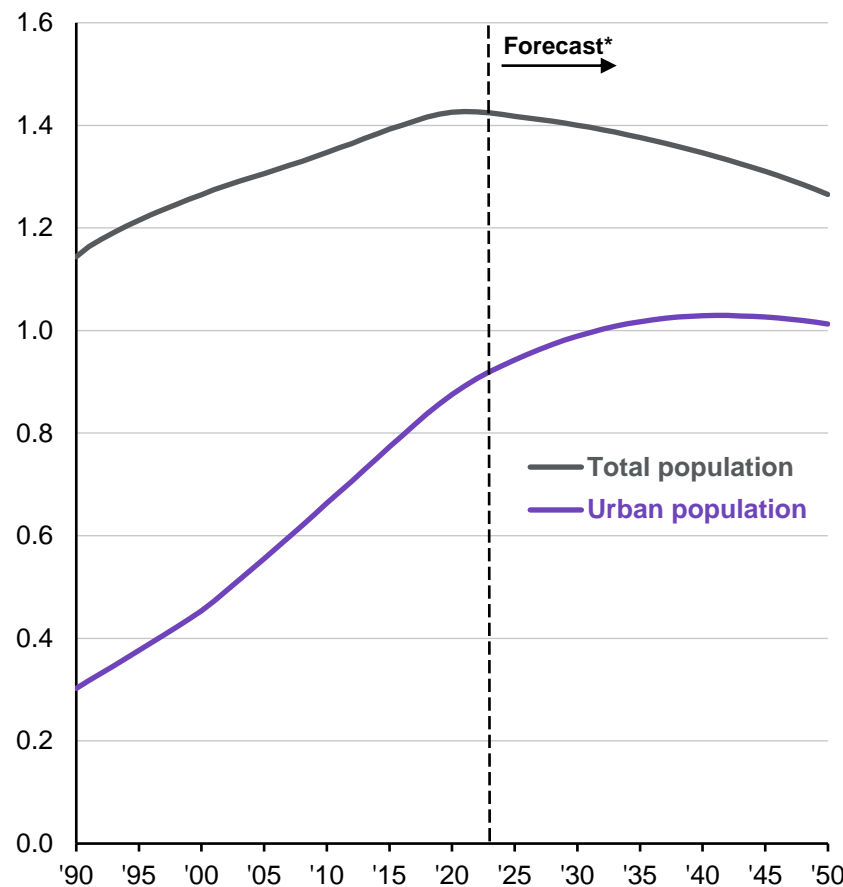
GTIA

19

China

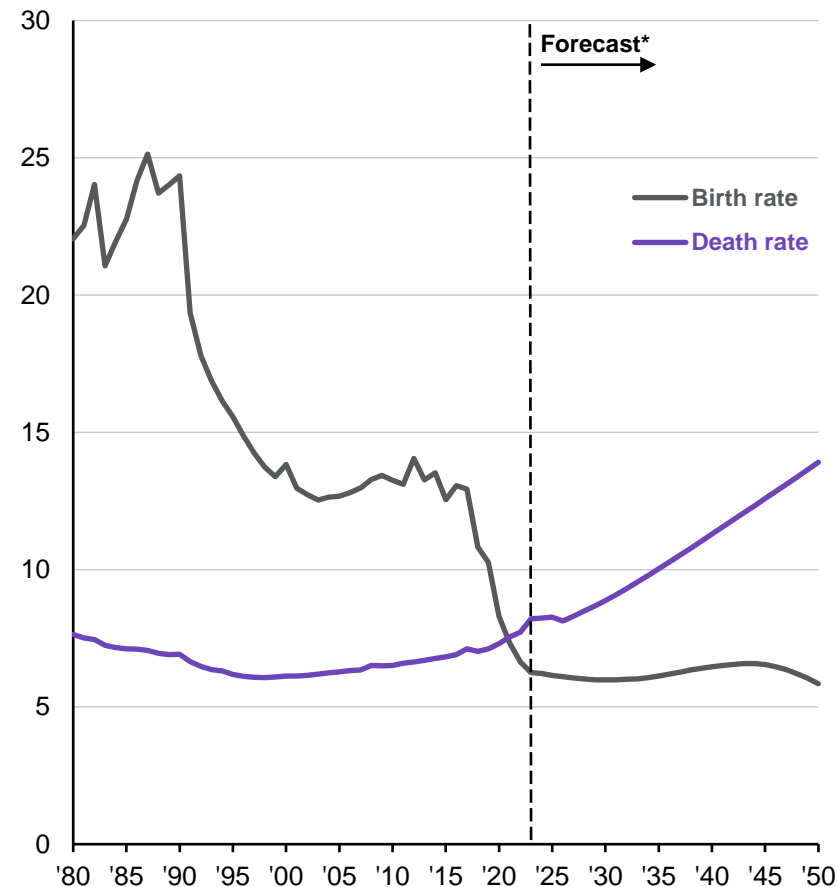
Total population

Billion people



Crude birth and death rate

Per 1,000 people



Source: United Nations-World Population Prospects 2024, United Nations-World Urbanization Prospects 2018, 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.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



China's economic transition

MI

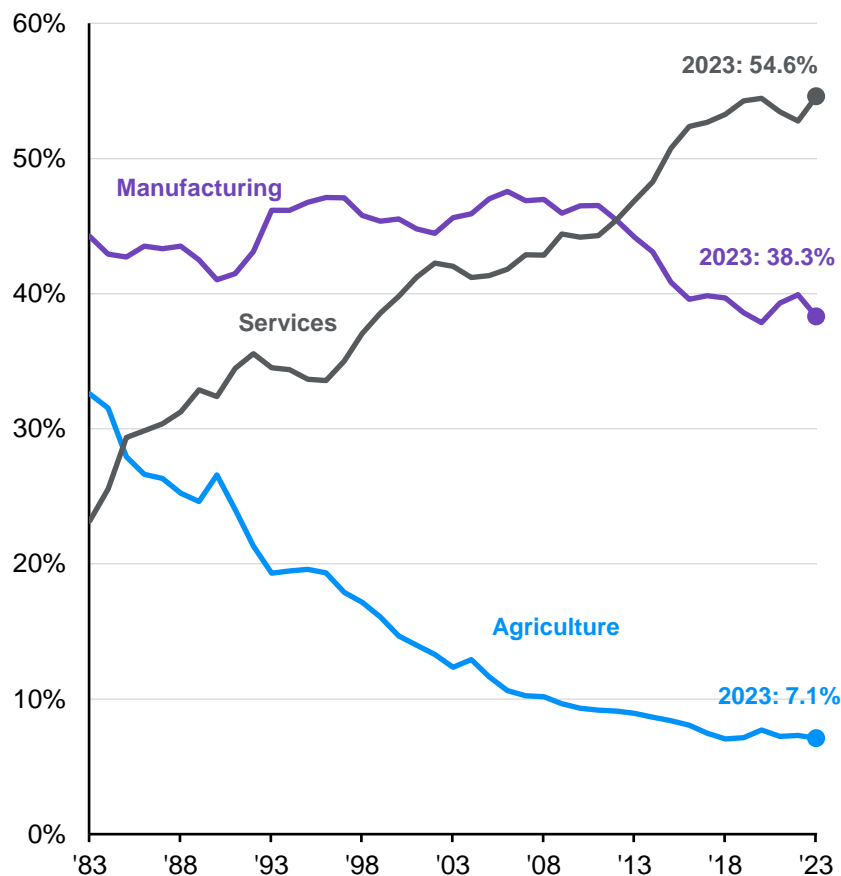
GTIA

20

China

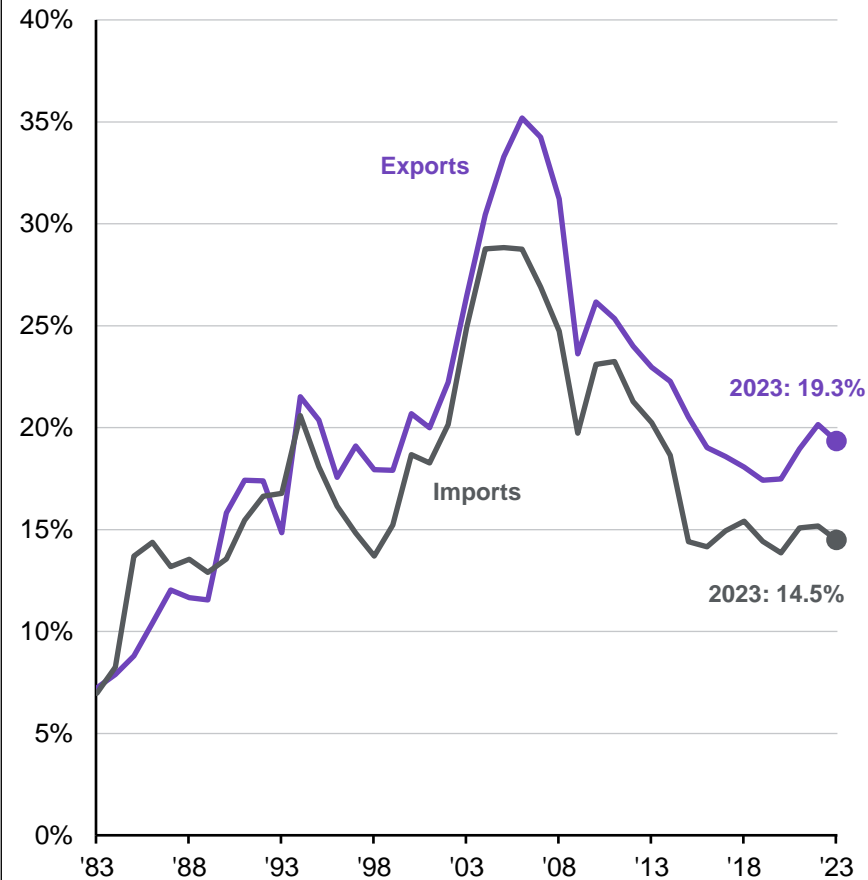
Share of GDP by sector

% of nominal GDP



Total exports and imports

% of GDP



Source: CEIC, IMF, National Bureau of Statistics, J.P. Morgan Asset Management.
Guide to Investing in Asia. Data are as of July 31, 2024.



China's self-sufficiency rate for key technologies

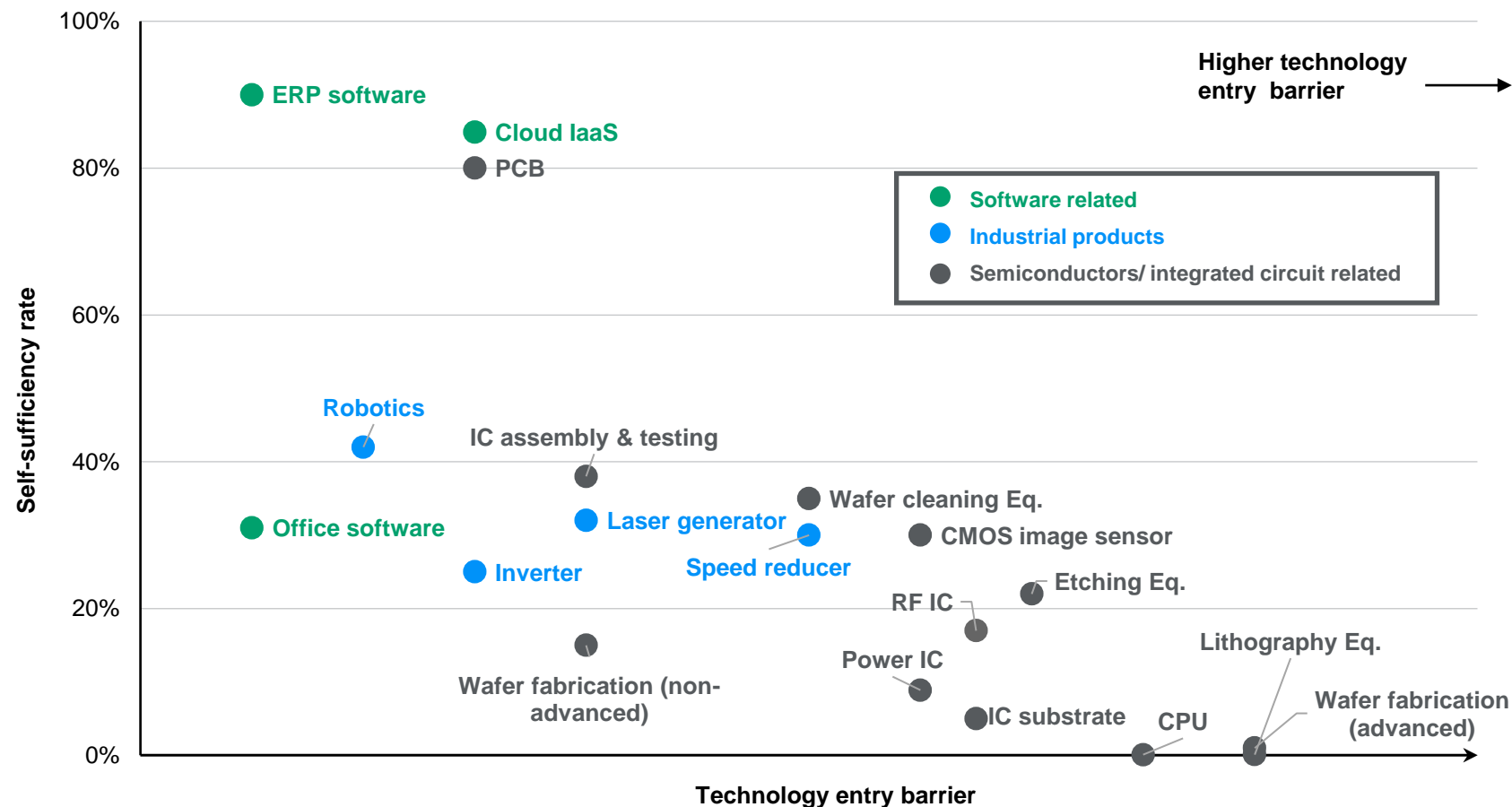
MI

GTIA

21

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. Software-related items are based on JPMAM's estimates from October 2022. The rest are estimates as of July 2024. 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 Investing in Asia. Data are as of July 31, 2024.



China: New energy vehicles

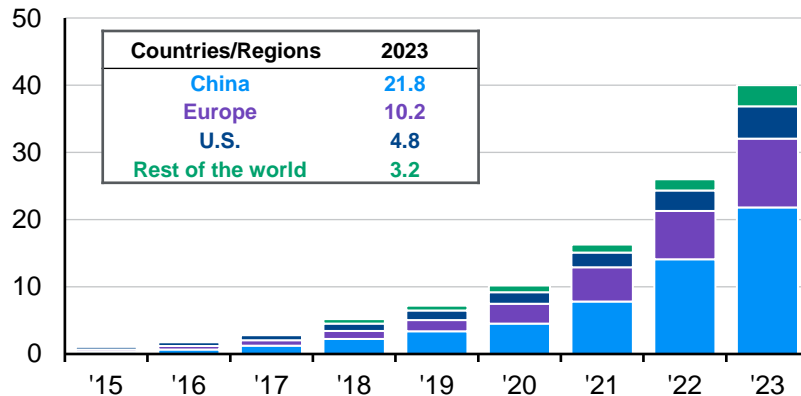
MI

GTIA

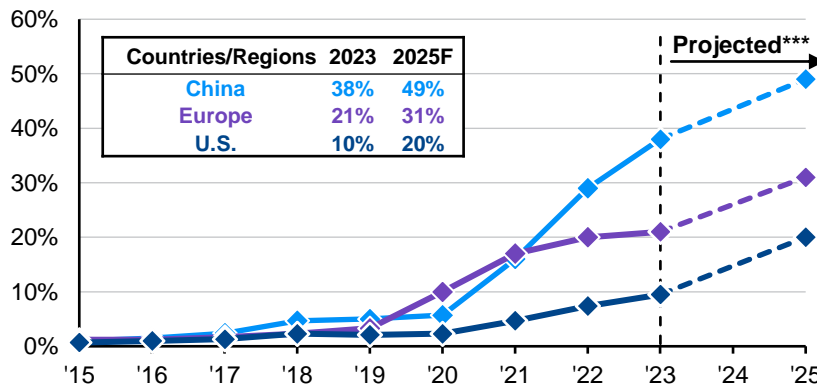
22

China

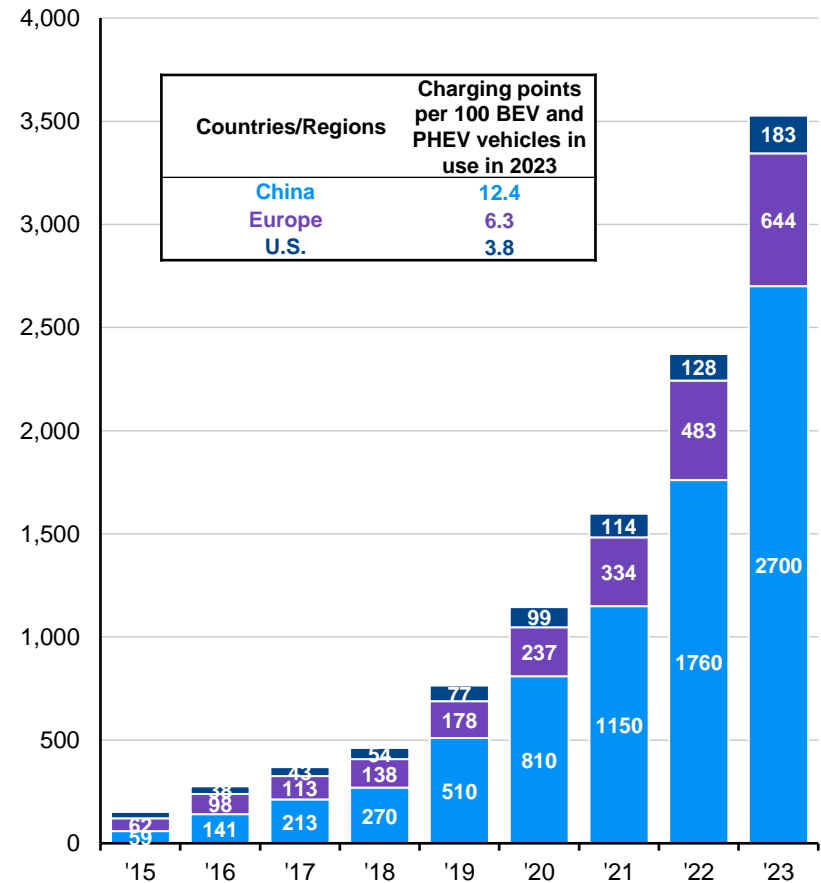
New energy vehicles (BEV* and PHEV**) in use Millions



New energy vehicles (BEV* and PHEV**) sales %, share of total car sales



Electric vehicle charging points Thousands, publicly accessible



Source: International Energy Agency (IEA) – Global EV Outlook 2024, J.P. Morgan Asset Management.

*BEV stands for battery electric vehicles. **PHEV stands for plug-in hybrid electric vehicles. ***Projected sales are based on the Stated Policies Scenario forecasted by the IEA which accounts for all existing policies, policy ambitions and targets that have been legislated for or announced by governments around the world. It includes current EV-related policies and regulations, as well as the expected effects of announced deployments and plans from industry stakeholders. 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. Light duty vehicles are vehicles primarily used to transport passengers and cargo with a gross vehicle weight less than or equal to 10,000 pounds.

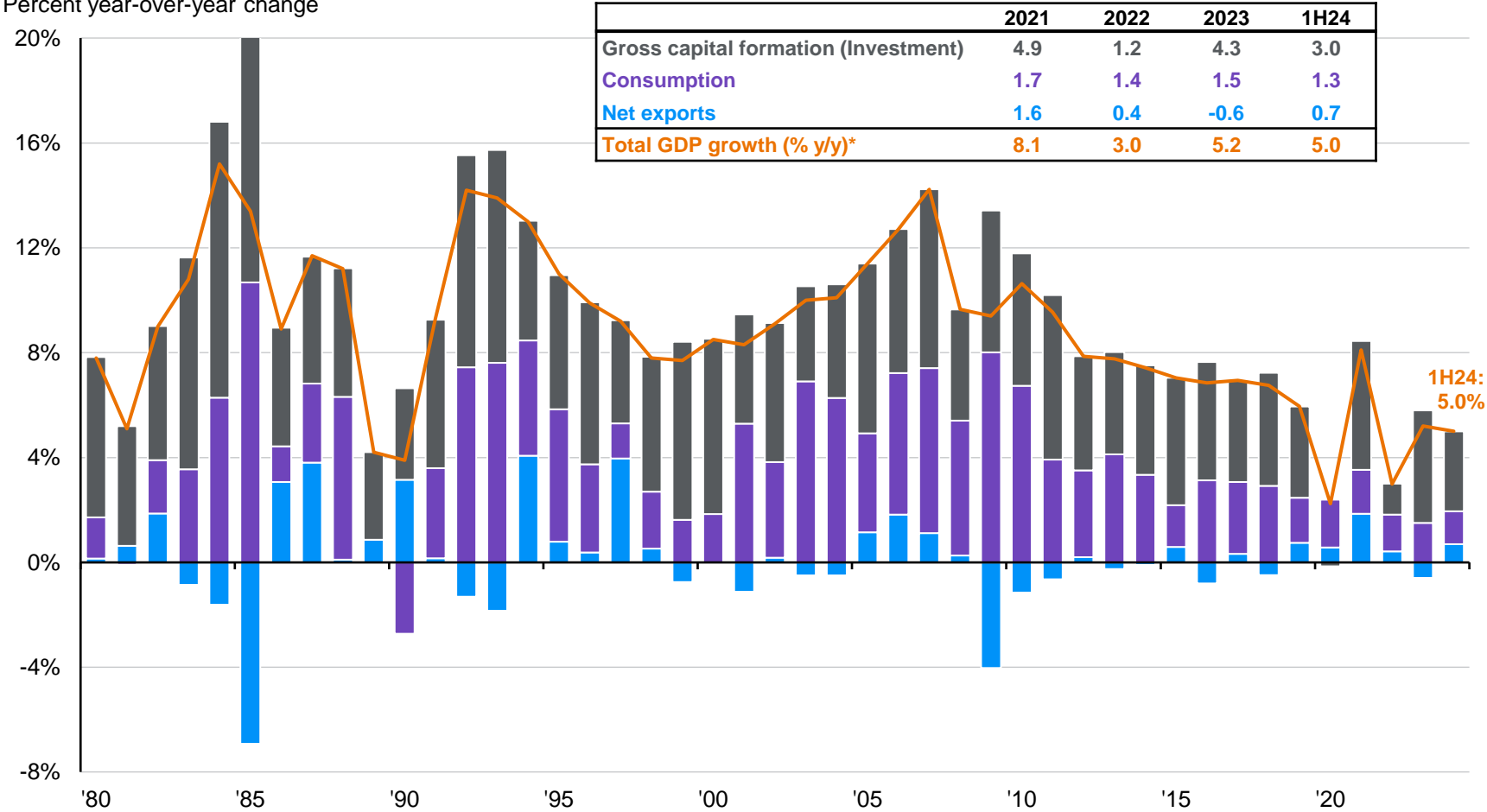
Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



China's real GDP growth by contribution

Contribution to real GDP growth
Percent year-over-year change



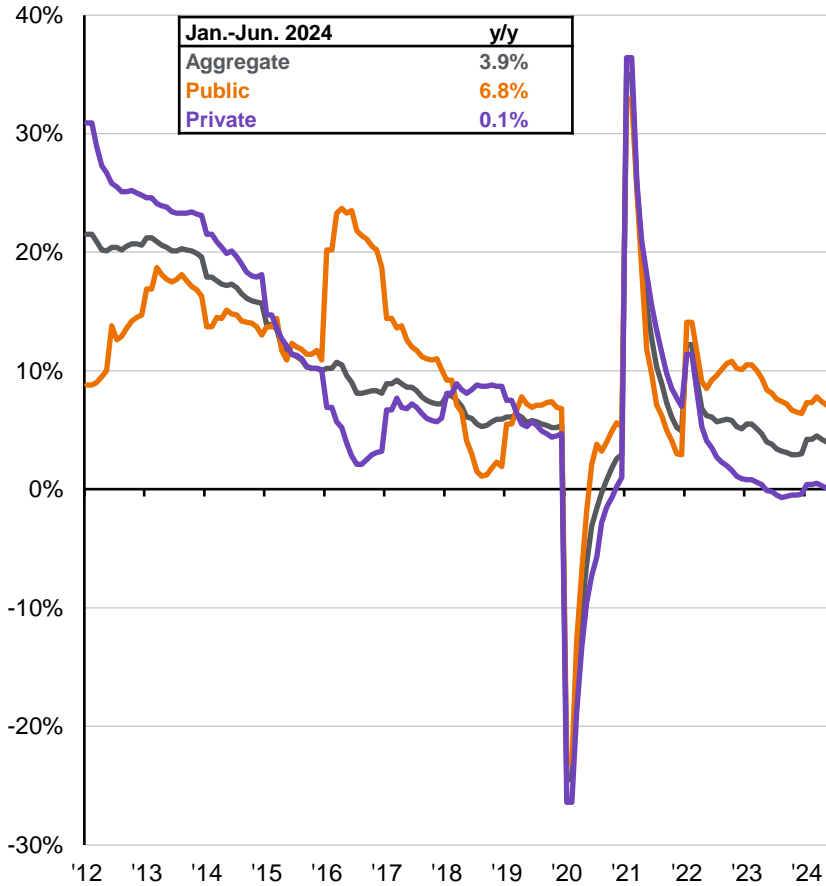
Source: CEIC, National Bureau of Statistics, J.P. Morgan Asset Management.
Aggregate GDP growth may be different from sum of sub-items due to rounding.
Guide to Investing in Asia. Data are as of July 31, 2024.



China: Fixed asset investment

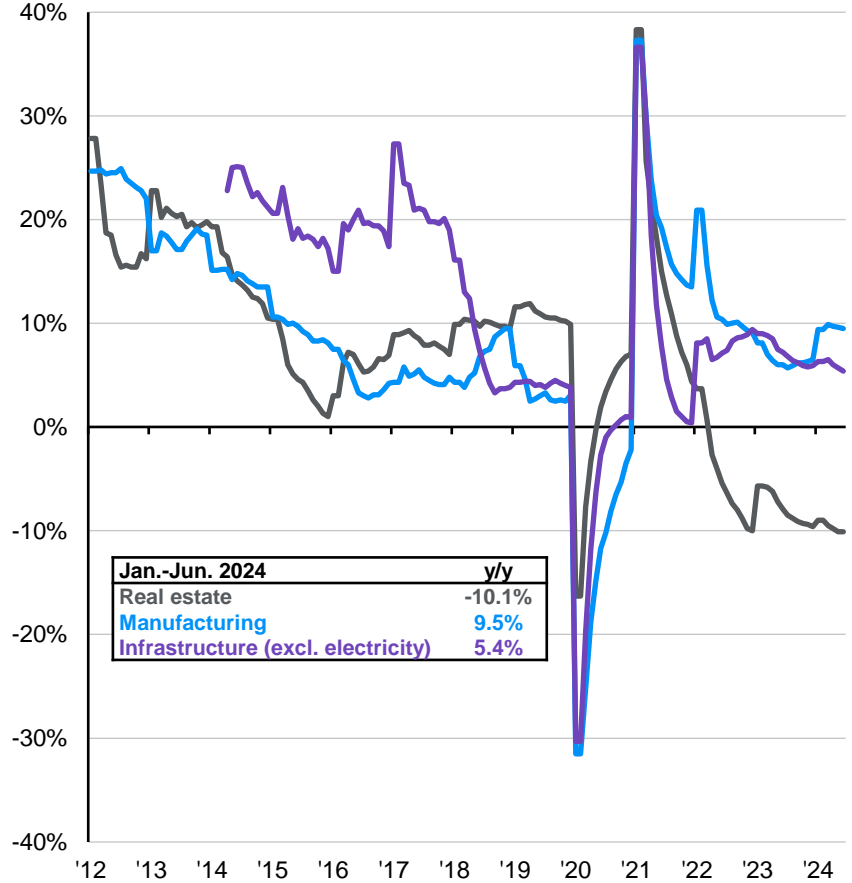
Fixed asset investment

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, J.P. Morgan Asset Management. *Guide to Investing in Asia*. Data are as of July 31, 2024.



China: Consumption

MI

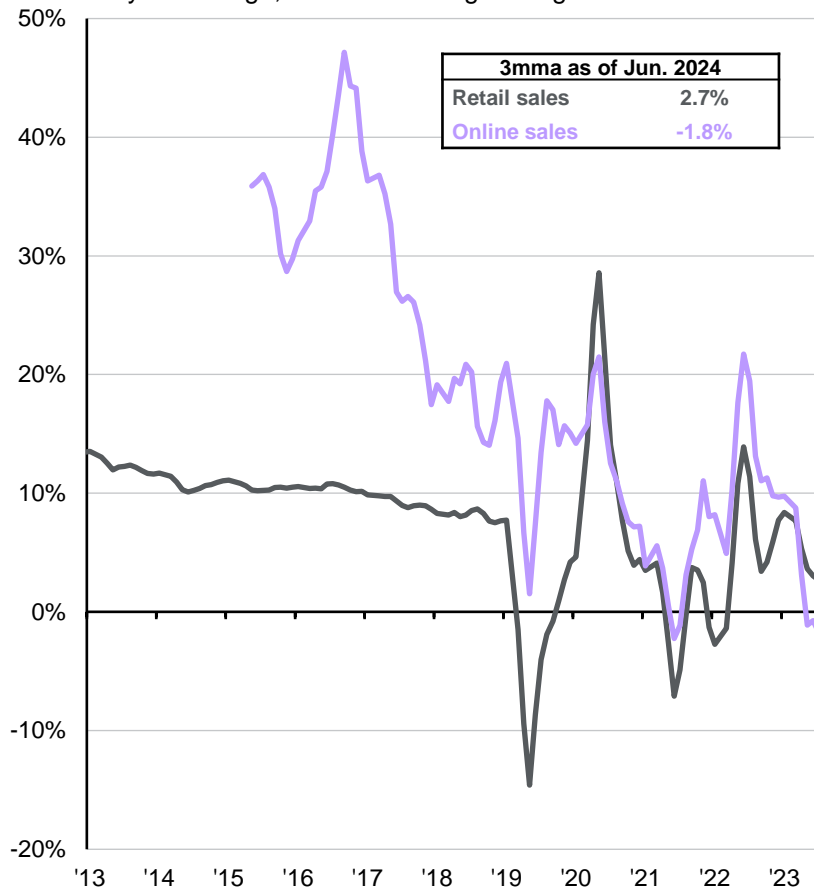
GTIA

25

China

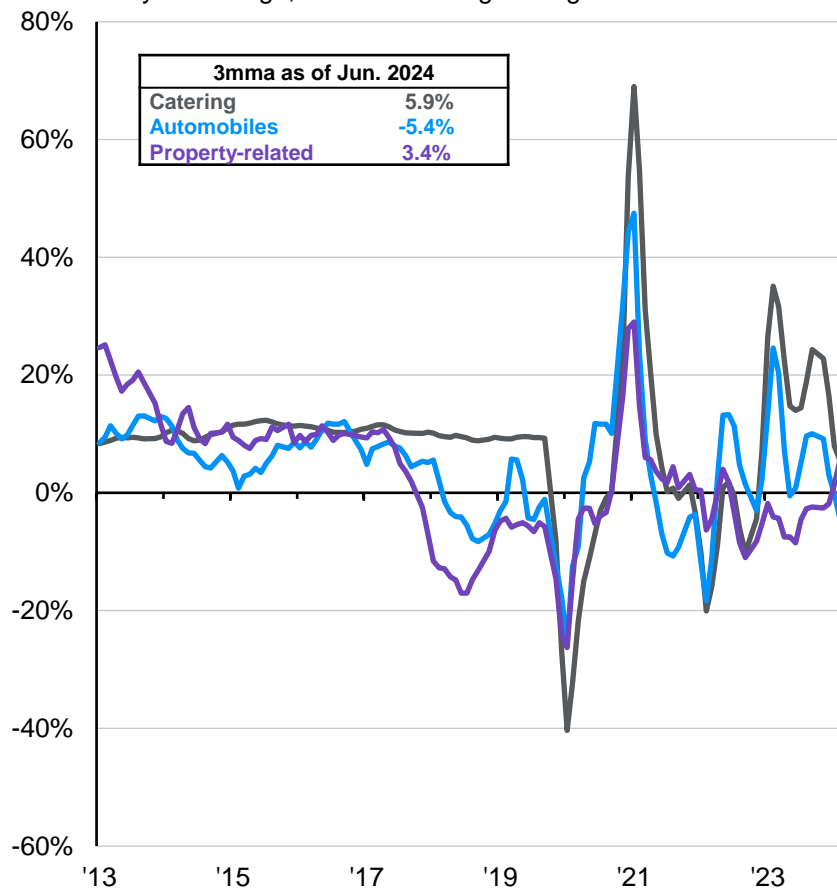
Consumption

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



Consumption in key categories*

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



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

*Catering refers to catering revenue in total retail sales of consumer goods. Data on automobiles and property-related products refer to sub-item indicators in the total retail sales of consumer goods. Property-related products include furniture, construction and decoration materials, electrical appliances and audio-visual equipment.

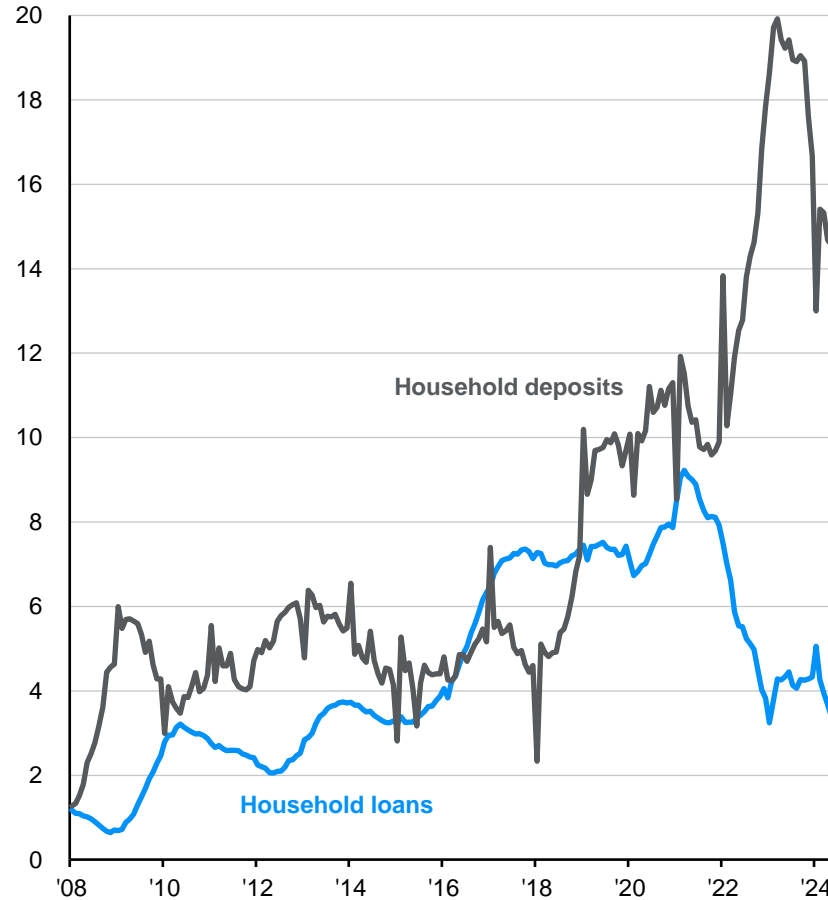
Guide to Investing in Asia. Data are as of July 31, 2024.



China: Consumer balance sheets

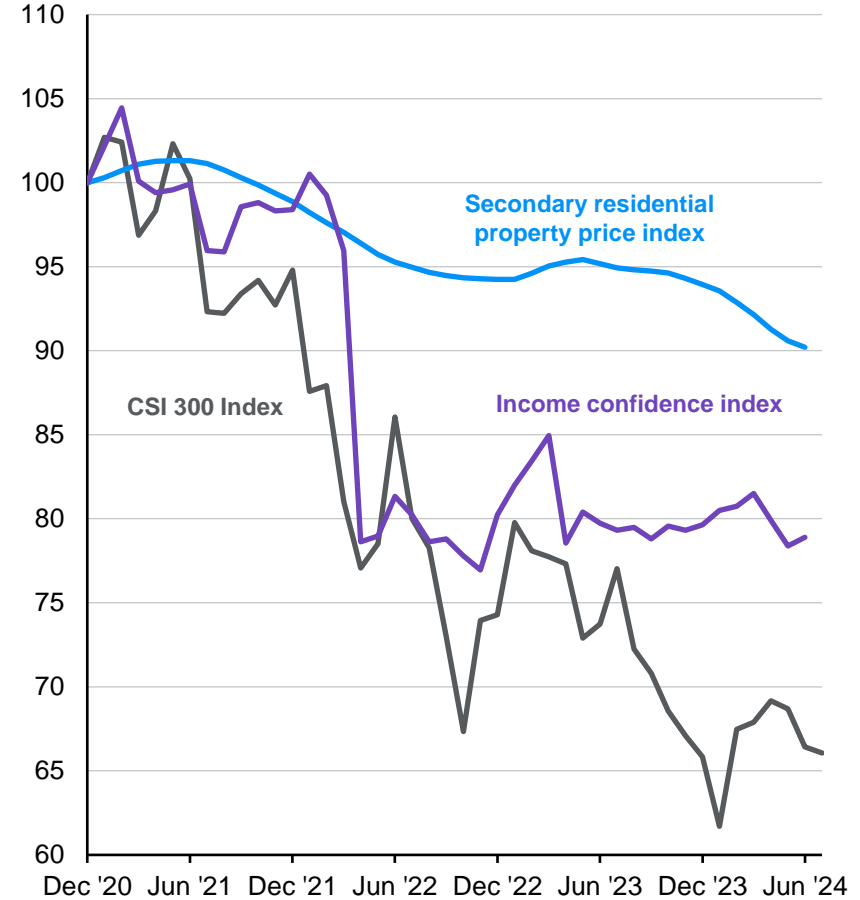
Household deposits and loans

CNY trillions, rolling 12 months



Consumer income and wealth effect

Dec. 2020 = 100



Source: J.P. Morgan Asset Management. (Left) PBoC, Wind. (Right) CEIC, FactSet, National Bureau Statistics of China. Guide to Investing in Asia. Data are as of July 31, 2024.



China: Property market

MI GTIA 27

China

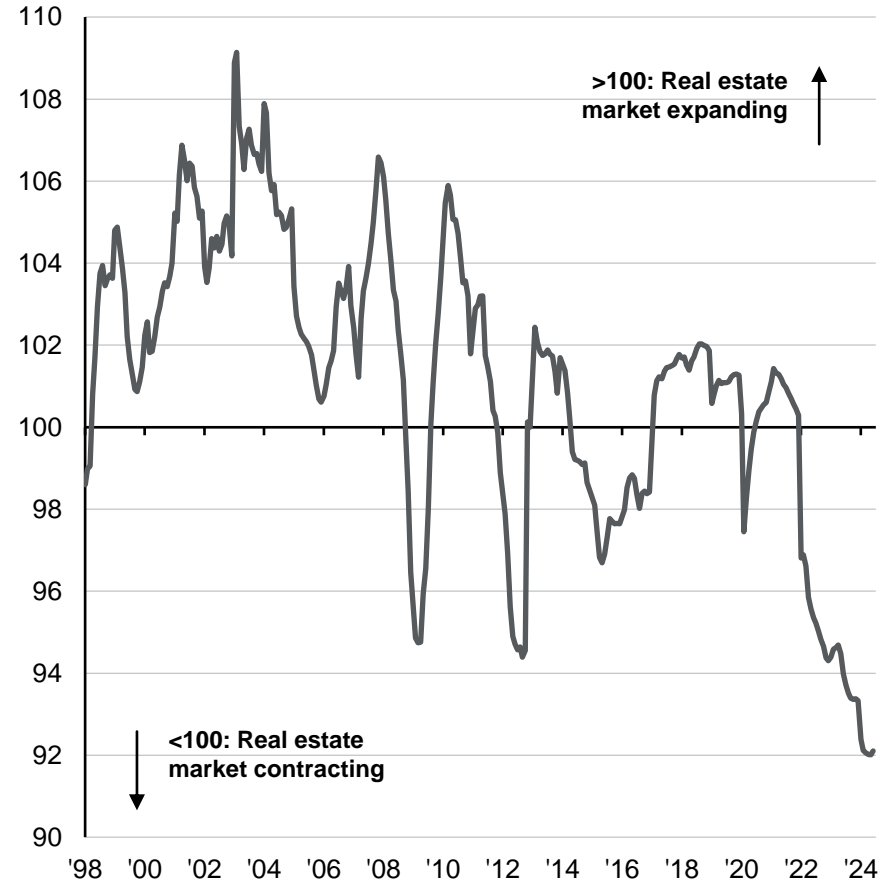
Residential property price

Year-over-year change



China Real Estate Climate Index*

Index



Source: National Bureau of Statistics of China, J.P. Morgan Asset Management. (Left) WIND. Price indices refer to residential buildings in 70 large and medium-sized cities in China. (Right) China Real Estate Association, FactSet. *The China Real Estate Climate Index is an economic indicator that reflects the overall operating conditions and climate of the real estate industry in China. It is compiled by the China Real Estate Association and the National Bureau of Statistics of China and considers various factors such as real estate development investments, land area purchased for development, floor space under construction, floor space completed, sales of commercial buildings, funding sources for property developers etc.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT

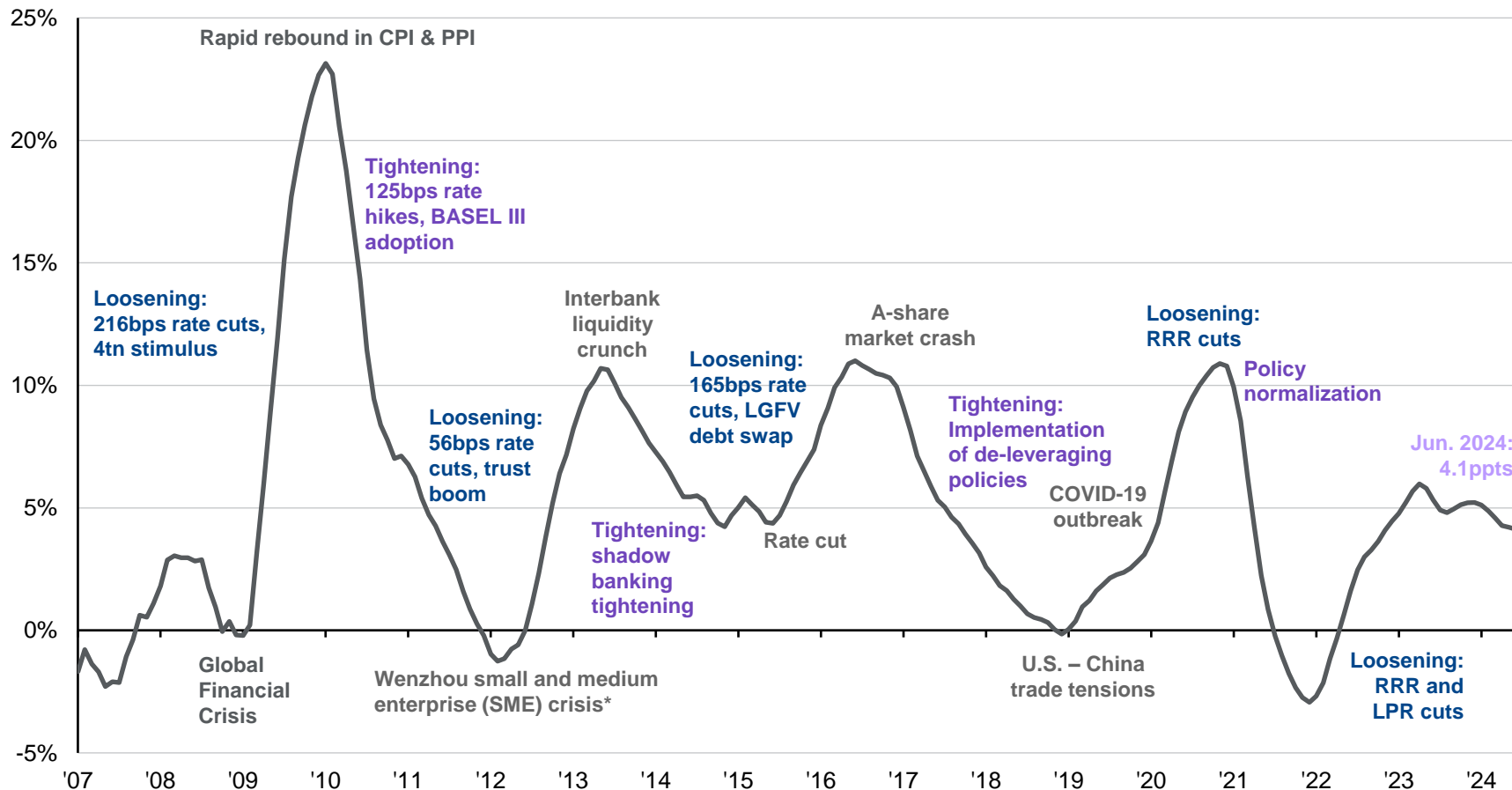


China: Credit conditions

MI GTIA 28

Credit cycles

Percentage points, credit growth – nominal GDP growth, 3-month moving average



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" = local government financing vehicle. "RRR" = Reserve requirement ratio. "LPR" = Loan Prime Rate.

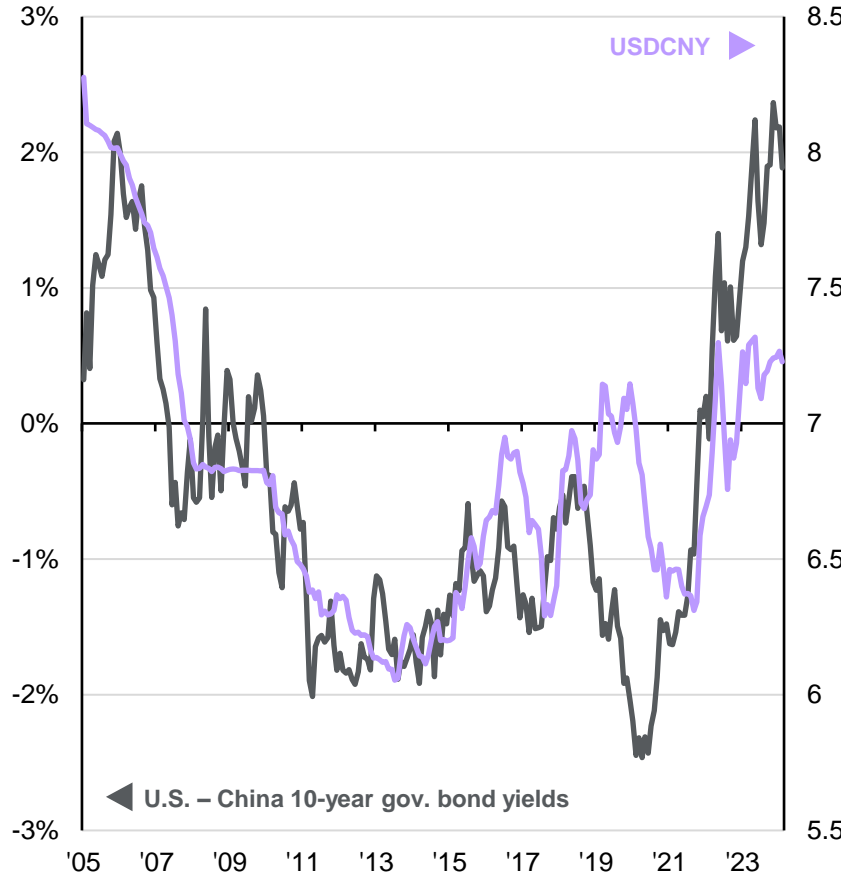
Guide to Investing in Asia. Data are as of July 31, 2024.



China: Foreign exchange and U.S. Treasury holdings

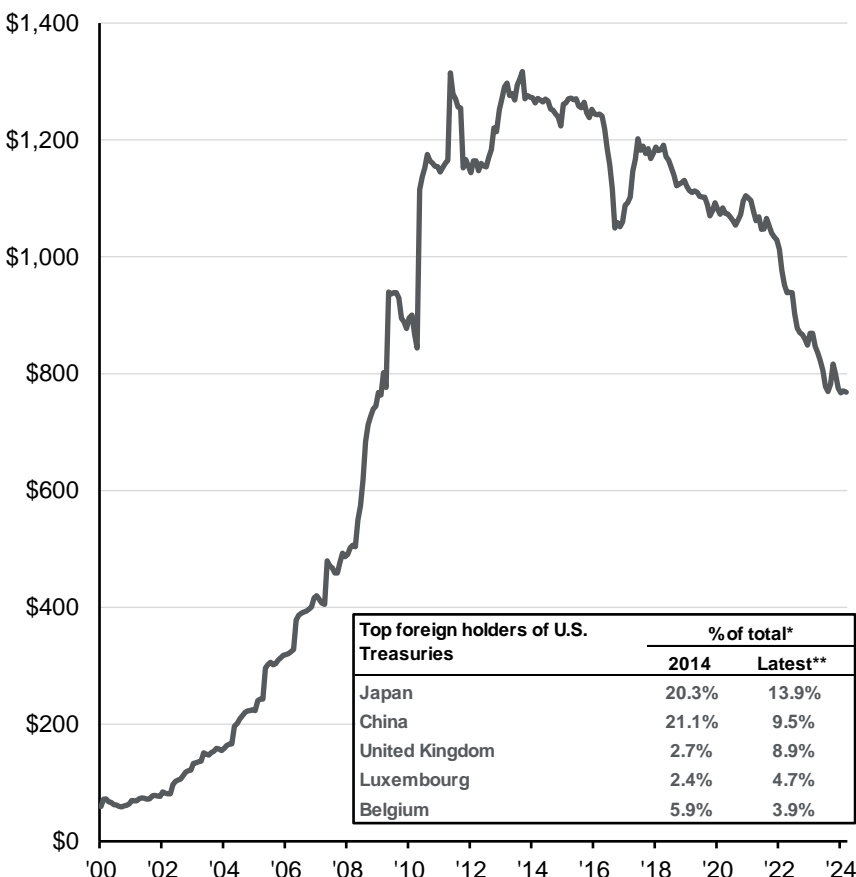
USD/CNY and interest rate differentials

U.S. – China 10-year government bond yields



China holdings of U.S. Treasuries

USD billions



Source: Bloomberg, J.P. Morgan Asset Management. (Left) Bank of China, FactSet, Federal Reserve. Past performance is not a reliable indicator of current or future performance. (Right) U.S. Department of Treasury. *Represents the % of total debt held by foreign holders. **Data are as of May 2024.

Guide to Investing in Asia. Data are as of July 31, 2024.



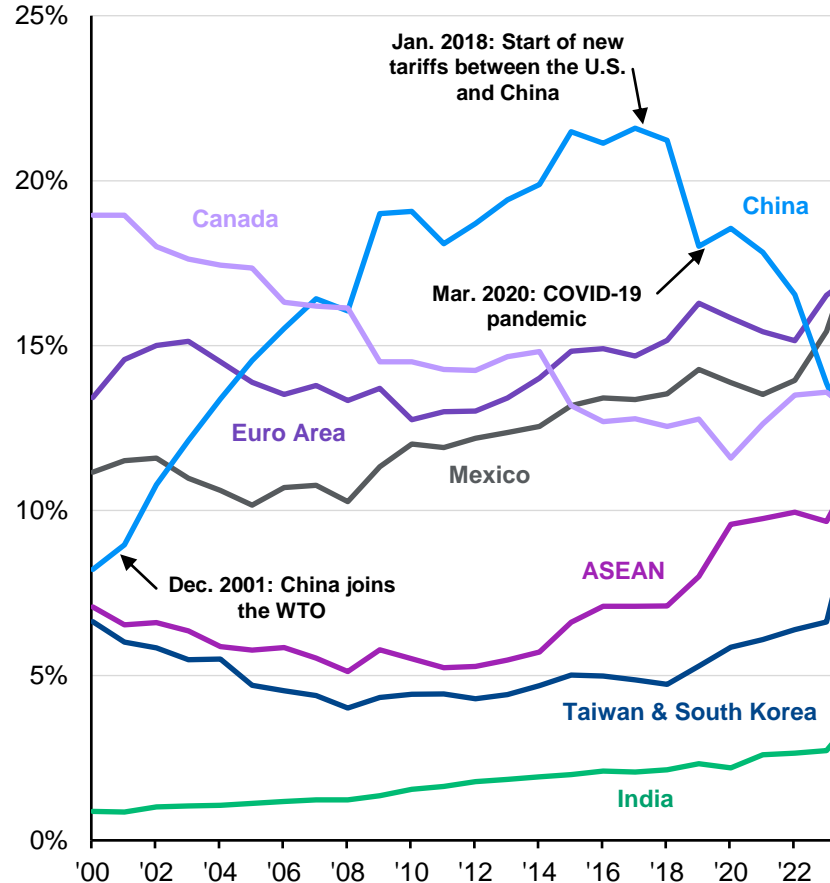
U.S.-China commercial relationships

MI GTIA 30

China

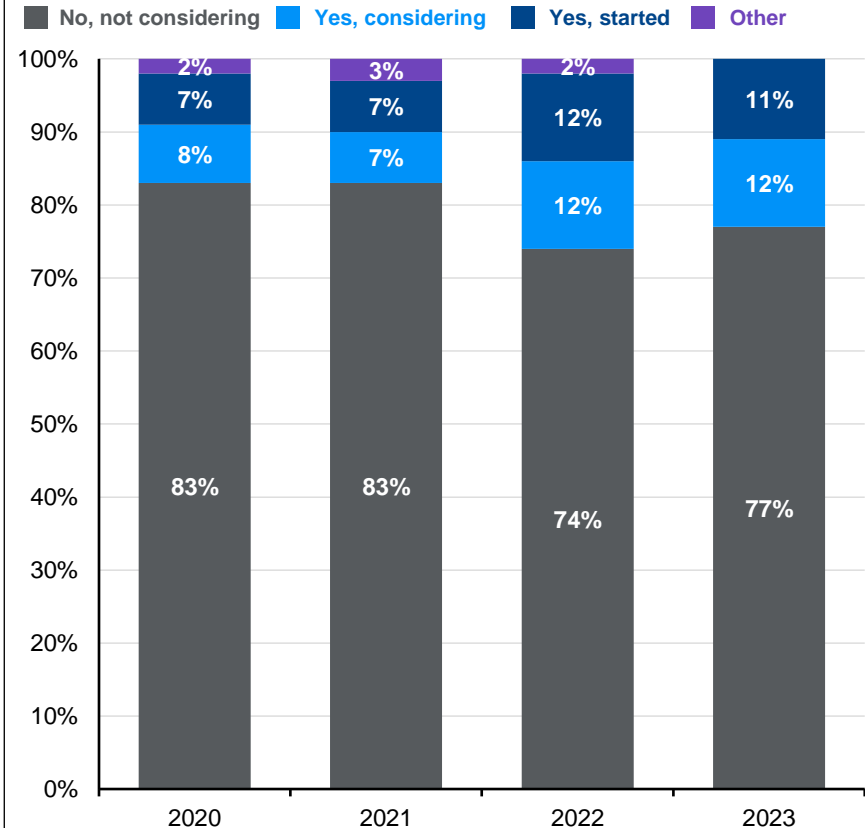
U.S. goods imports by location

% of total imports, yearly and YTD 2024



Plans to relocate out of China

Is your company considering, or has it already begun relocating manufacturing or sourcing outside of China?*



Source: J.P. Morgan Asset Management; (Left) FactSet, U.S. Census Bureau. WTO = World Trade Organization. (Right) The American Chamber of Commerce in China 2024 China Business Climate Survey Report. *Survey conducted yearly between 2020-2023. Extended answers: 1) No, we are not considering relocating manufacturing or sourcing out of China, 2) Yes, we are considering relocating but have not taken active steps to relocate manufacturing or sourcing outside China yet, 3) Yes, we have started the process of relocating manufacturing or sourcing outside of China, 4) Other.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



China's global impact

MI

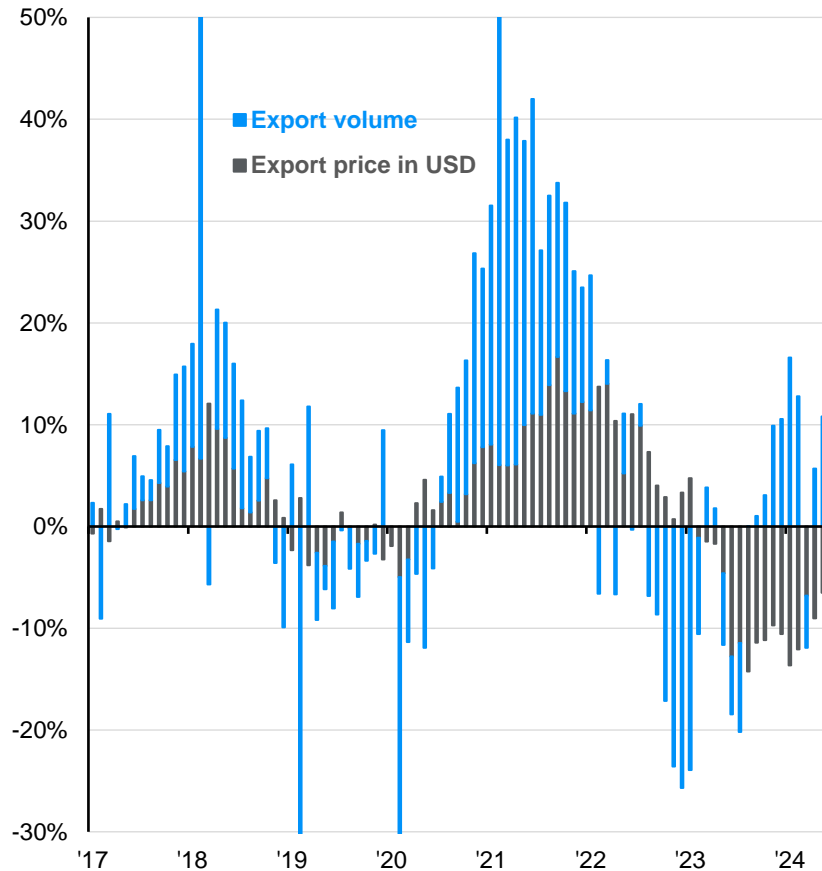
GTIA

31

China

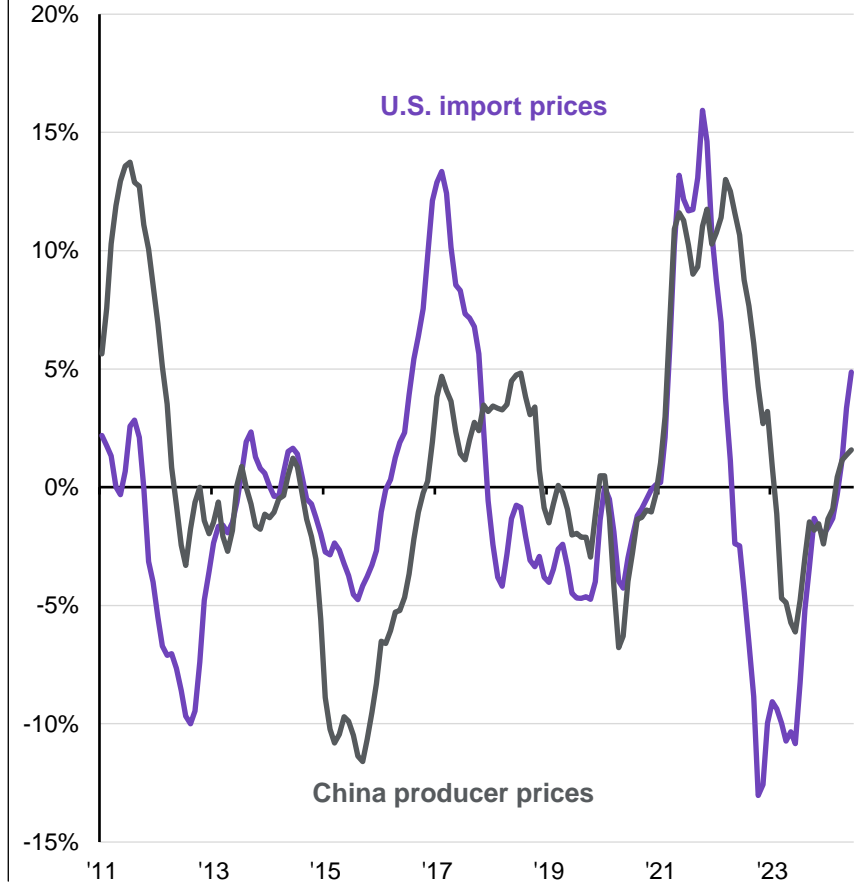
China exports decomposition

Year-over-year % change, USD, monthly



China producer and U.S. import prices

Year-over-year % change



Source: J.P. Morgan Asset Management. (Left) Wind, China Customs. Data are estimates by J.P. Morgan Asset Management. Based on China export and import value indices. (Right) National Bureau of Statistics China, U.S. Department of Labor. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Japan's real GDP growth by contribution

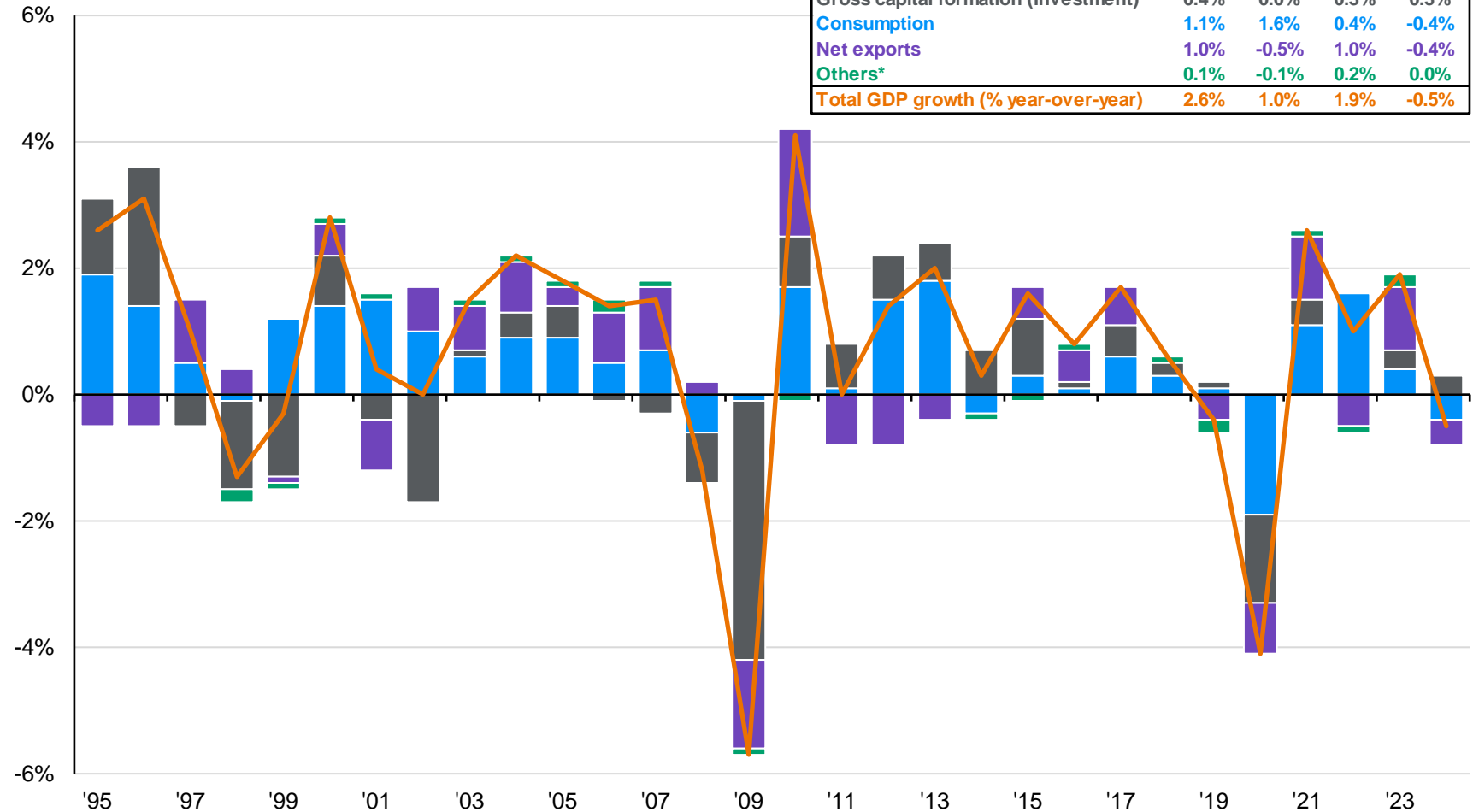
MI

GTIA

32

Contribution to real GDP growth

Percent year-over-year change



Source: Japanese Cabinet Office, J.P. Morgan Asset Management. *Others includes statistical discrepancies.
Guide to Investing in Asia. Data are as of July 31, 2024.



Japan: Demographics

MI

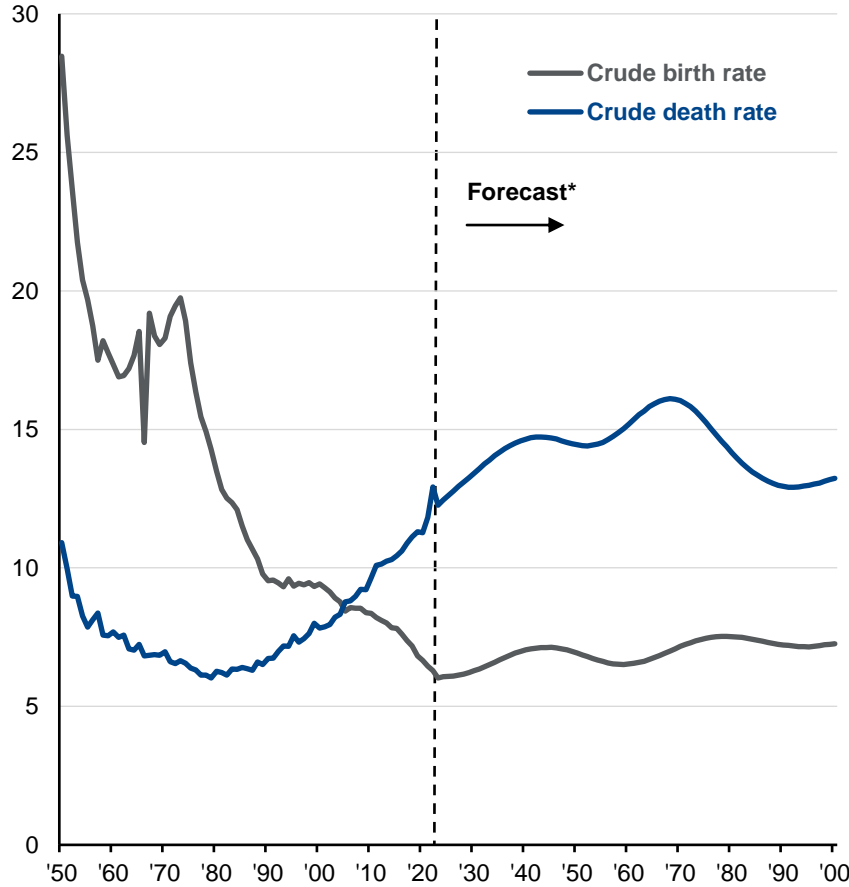
GTIA

33

Japan

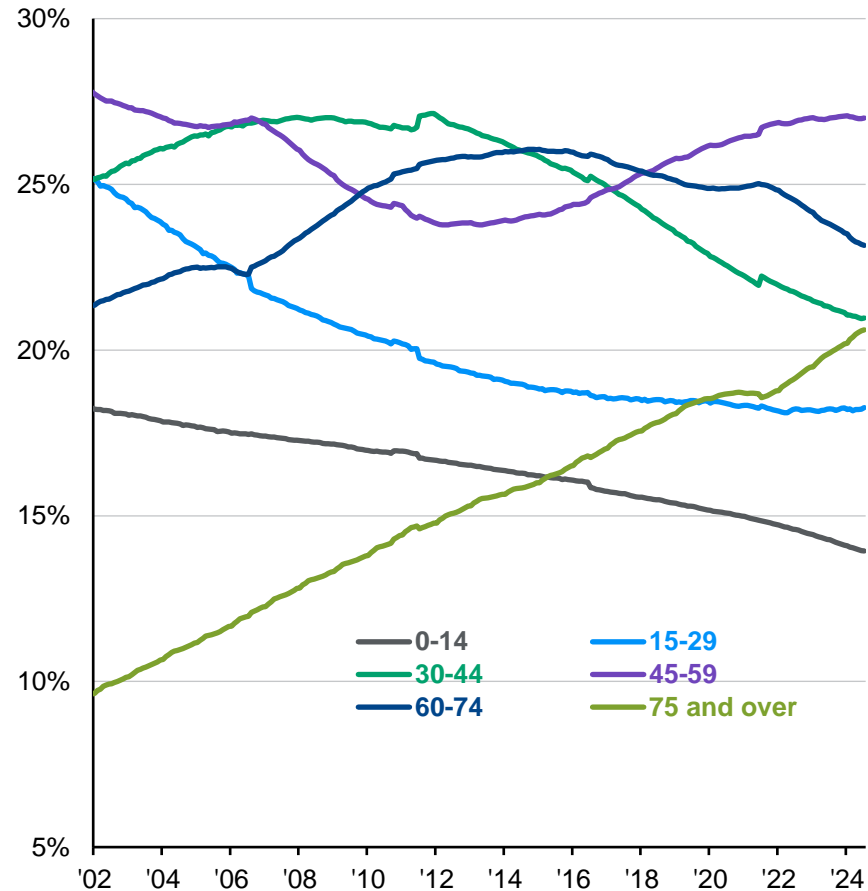
Birth and mortality rates

Per 1,000 people



Population by age group

% of total population



Source: J.P. Morgan Asset Management. (Left) United Nations – World Population Prospects 2024. *Forecast is by the United Nations. (Right) FactSet, Ministry of Internal Affairs and Communication. Guide to Investing in Asia. Data are as of July 31, 2024.



Japan: Inflation, growth and rate expectations

MI

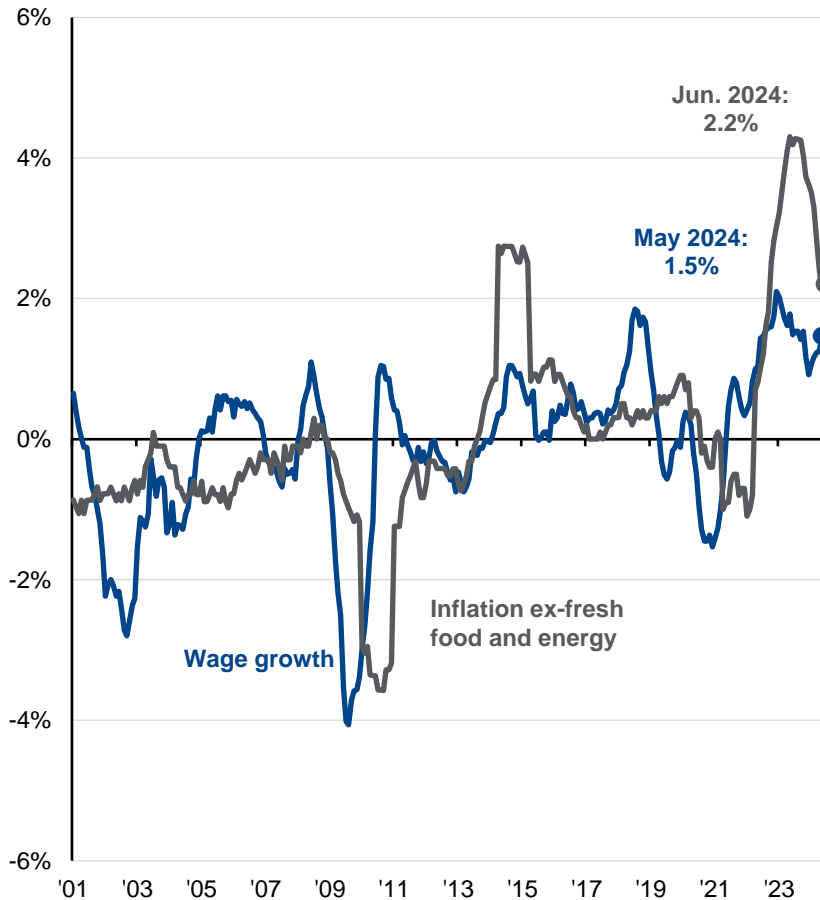
GTIA

34

Japan

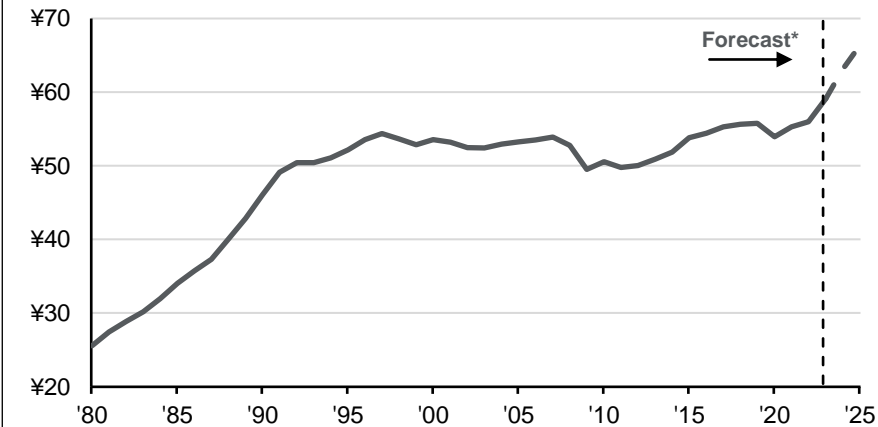
Inflation and wage growth

Year-over-year change



Nominal GDP

JPY trillions



Interest rate expectations

Based on 5y5y swaps



Source: J.P. Morgan Asset Management. (Left) Ministry of Economics. Wage growth is a 6-month rolling average. (Top right) J.P. Morgan Economic Research, Oxford Economics. *Forecasts are by J.P. Morgan Economic Research. (Bottom right) Bloomberg. Represents the expected interest rate over the five-year period that begins five years from today. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Japan: Monetary policy and FX

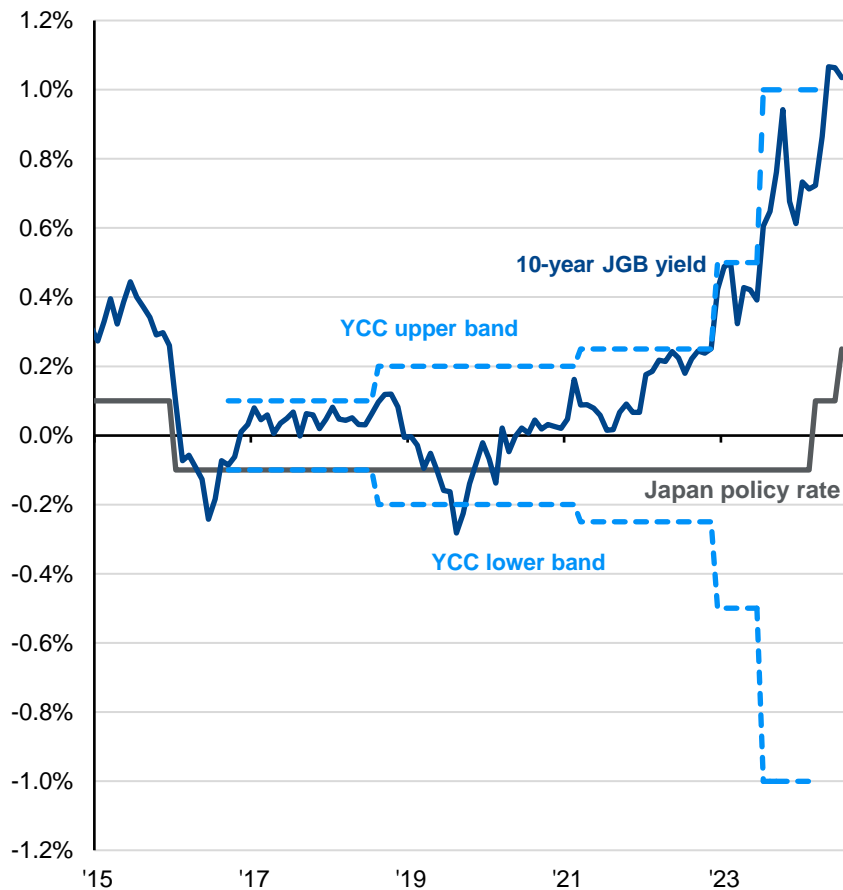
MI

GTIA

35

Japan

Key rates in Japan



U.S. – Japan interest rate differential and USDJPY

USDJPY, daily



Source: Bank of Japan, FactSet, J.P. Morgan Asset Management. (Left) YCC = yield curve control. YCC was used in Japan to control yields on government bonds, but the BoJ abolished YCC in March 2024. *Guide to Investing in Asia*. Data are as of July 31, 2024.



India's real GDP growth by contribution

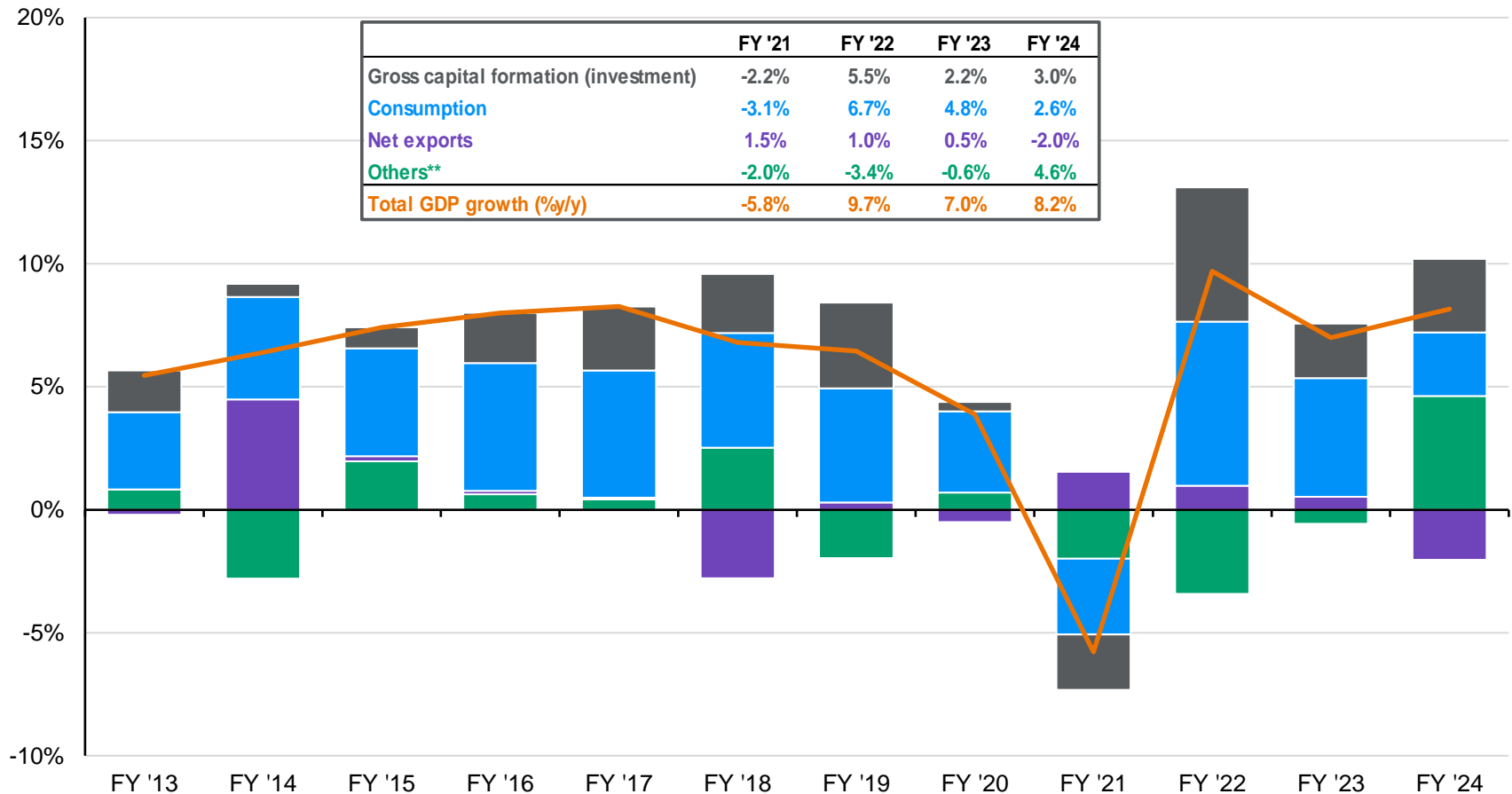
MI

GTIA

36

Contribution to real GDP growth

Year-over-year % change, fiscal years*



Source: FactSet, Ministry of Statistics and Program Implementation, J.P. Morgan Asset Management. *India follows fiscal years, which run from April to March. FY '24 represents data for April 2023 to March 2024. **Other includes change in stocks, valuables, and statistical discrepancies. Statistical discrepancy represents difference in GDP calculated through income and expenditure method and can sometimes be very volatile. A positive statistical discrepancy indicates that the GDP through income approach is greater than the GDP calculated through expenditure approach.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



India's economic transition

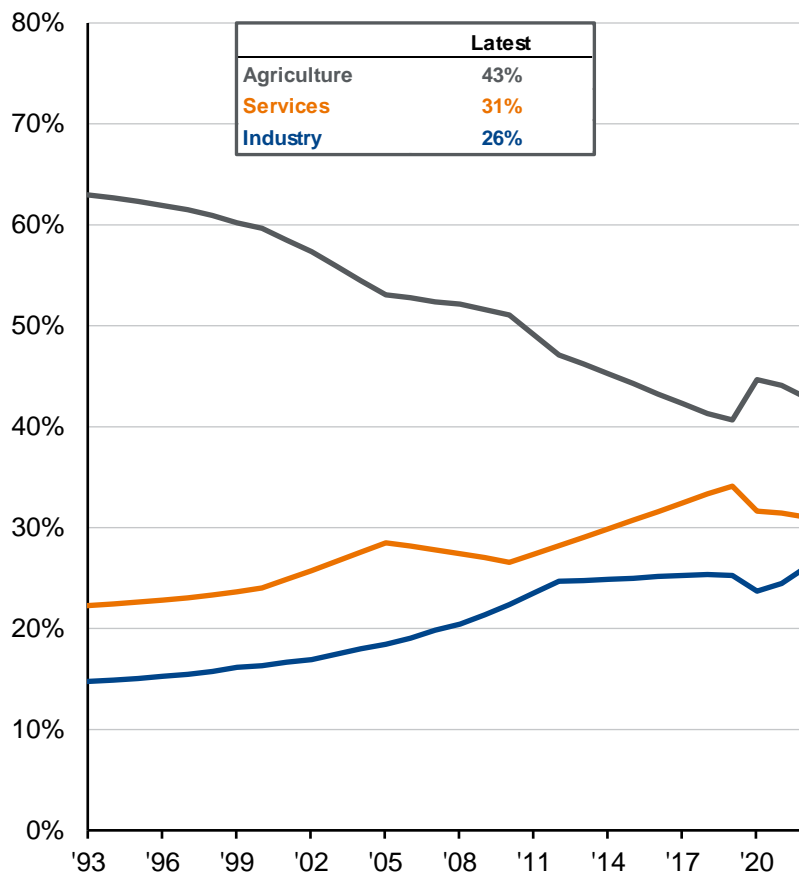
MI

GTIA

37

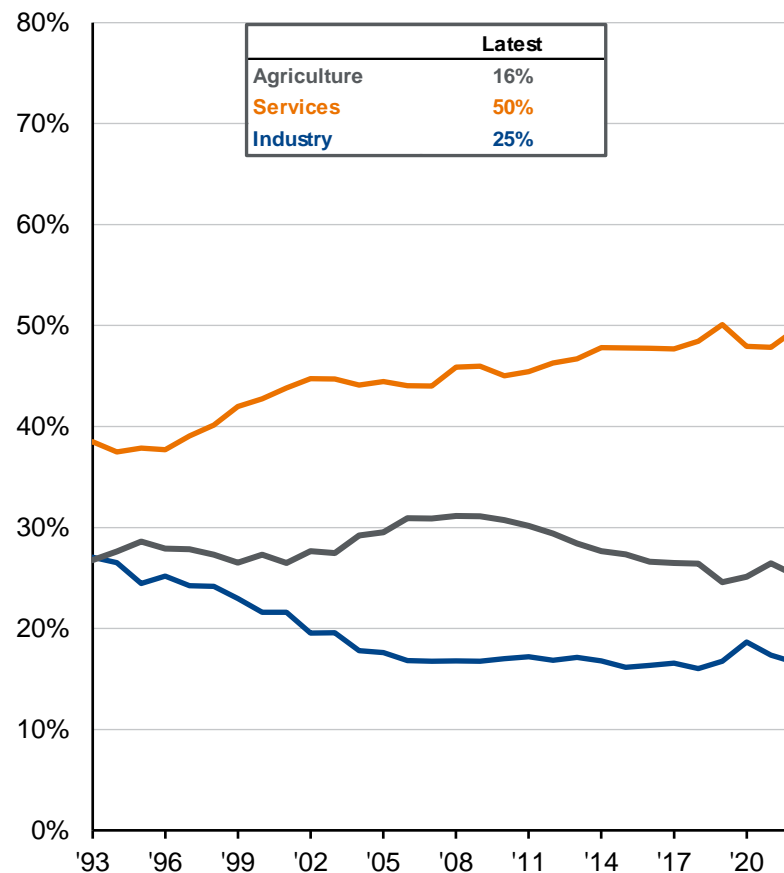
Share of employment by sector

1993-2022



Share of GDP by sector

1993-2023



Source: World Development Indicators, World Bank, FactSet, J.P. Morgan Asset Management. Shows annual data. Industry includes construction activity while agriculture includes forest and fishery. (Right) The data represents gross value added by each sector as a % of GDP. The data does not add to 100% due to exclusion of indirect taxes in GVA calculations.
Guide to Investing in Asia. Data are as of July 31, 2024.



India: Services exports

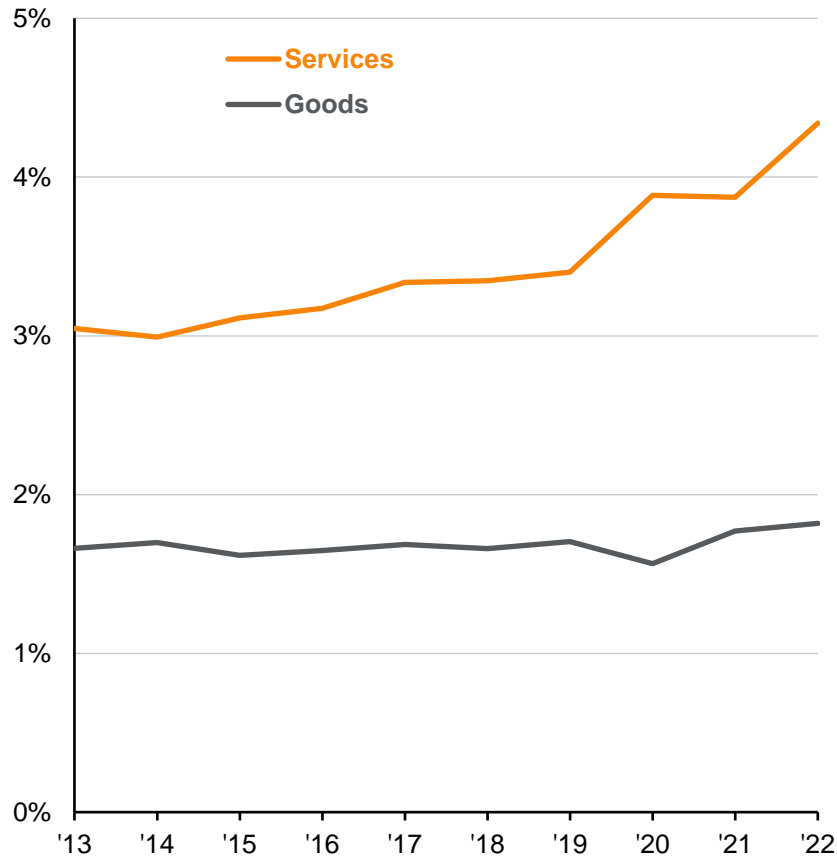
MI

GTIA

38

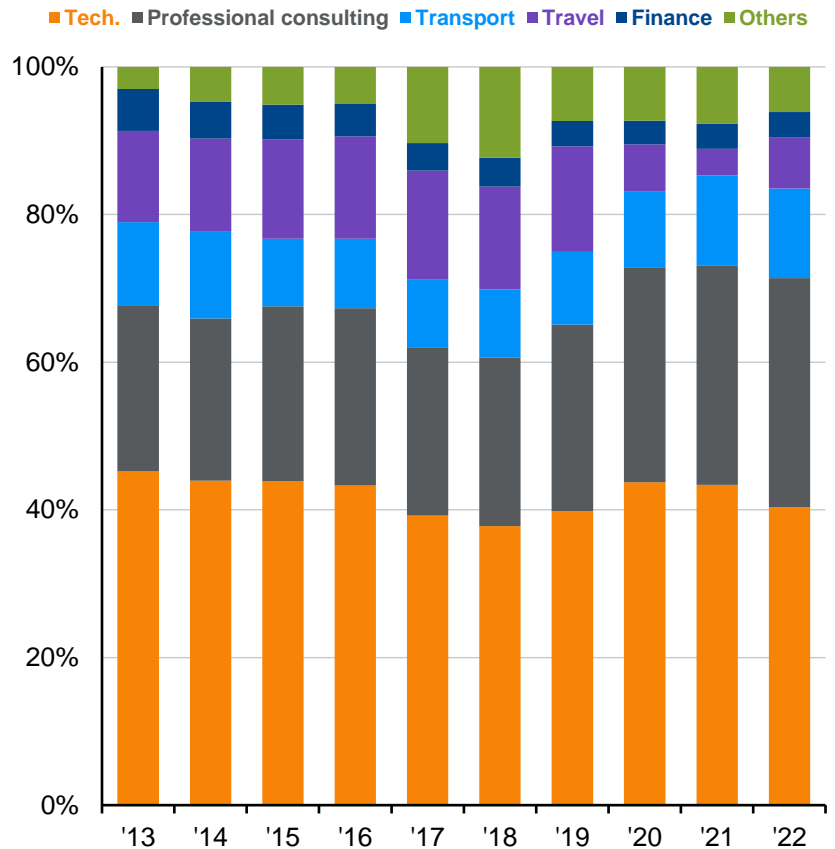
India's share in world exports

% of global services and goods exports



Services exports by category

2022



Source: UNCTAD, J.P. Morgan Asset Management. *Others include goods-related services, construction services, personal, cultural and recreational services, and other services not allocated.
Guide to Investing in Asia. Data are as of July 31, 2024.

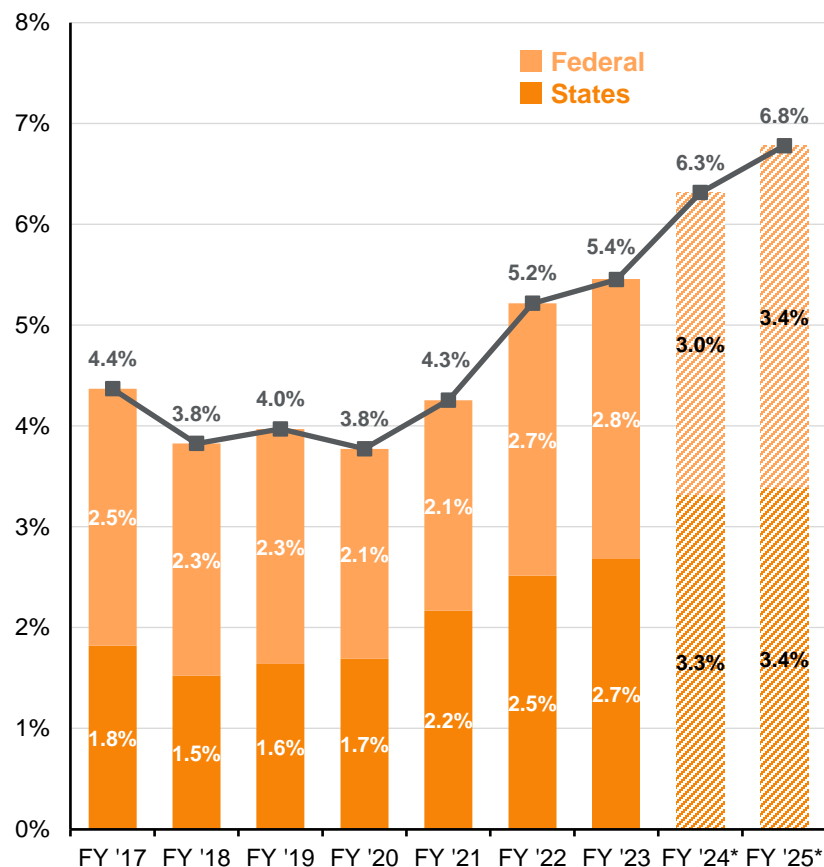


India: Key government initiatives

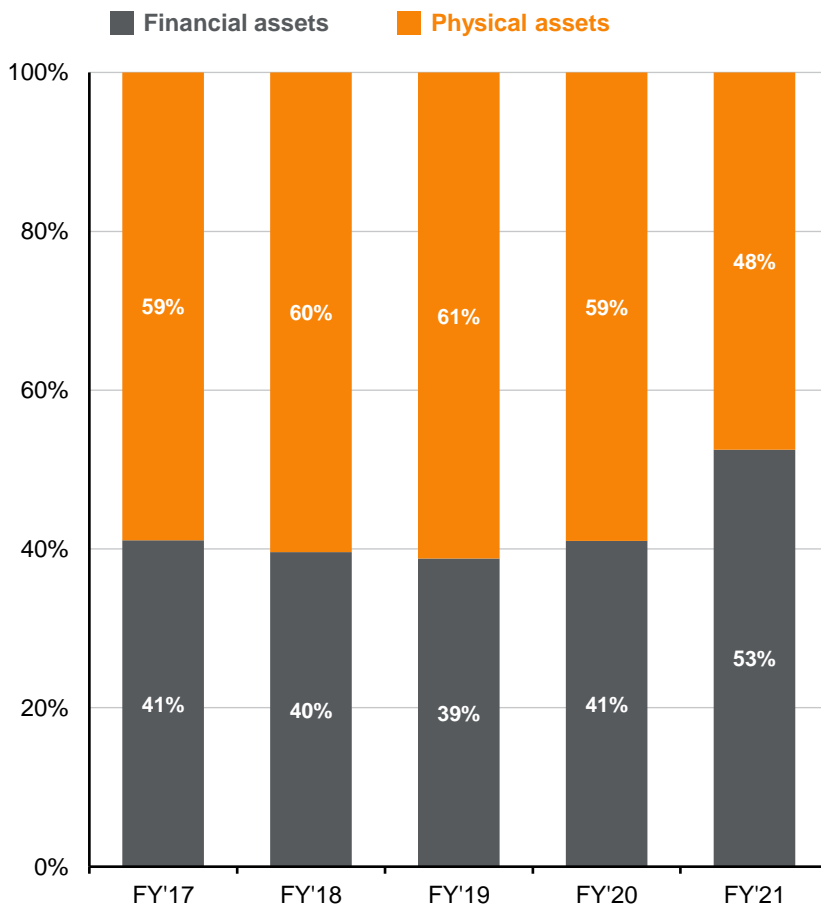
MI GTIA 39

Public capital spending

% of GDP, current prices



Net household savings by asset type



Source: J.P. Morgan Asset Management. (Left) Ministry of Finance. *Forecasts are by the Ministry of Finance for FY 2024 and FY 2025. The central government, in the budget for 2024-2025, announced a provision of 11.1 trillion rupees for capital expenditure, which would be 3.4% of the GDP. Furthermore, the press release stated that the state governments will be "encouraged to provide support of a similar scale for infrastructure." The fiscal year in India runs from April to March. (Right) CRISIL, RBI. Physical assets include gold and real estate. *Guide to Investing in Asia*. Data are as of July 31, 2024.

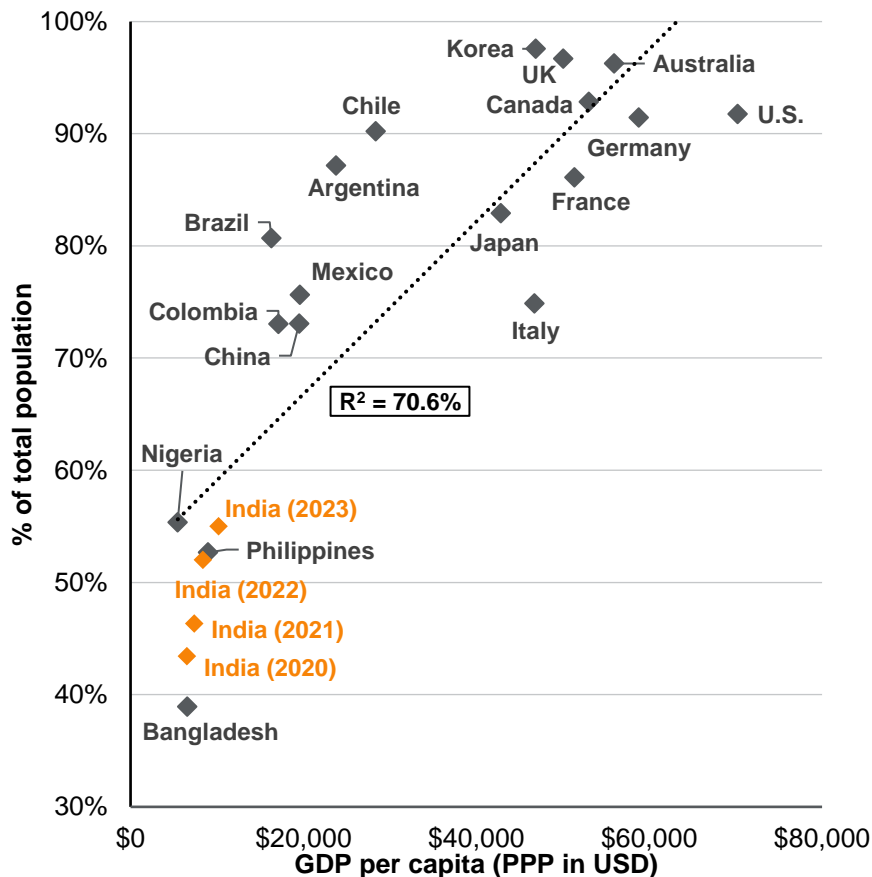


India: Digital transformation and infrastructure

MI GTIA 40

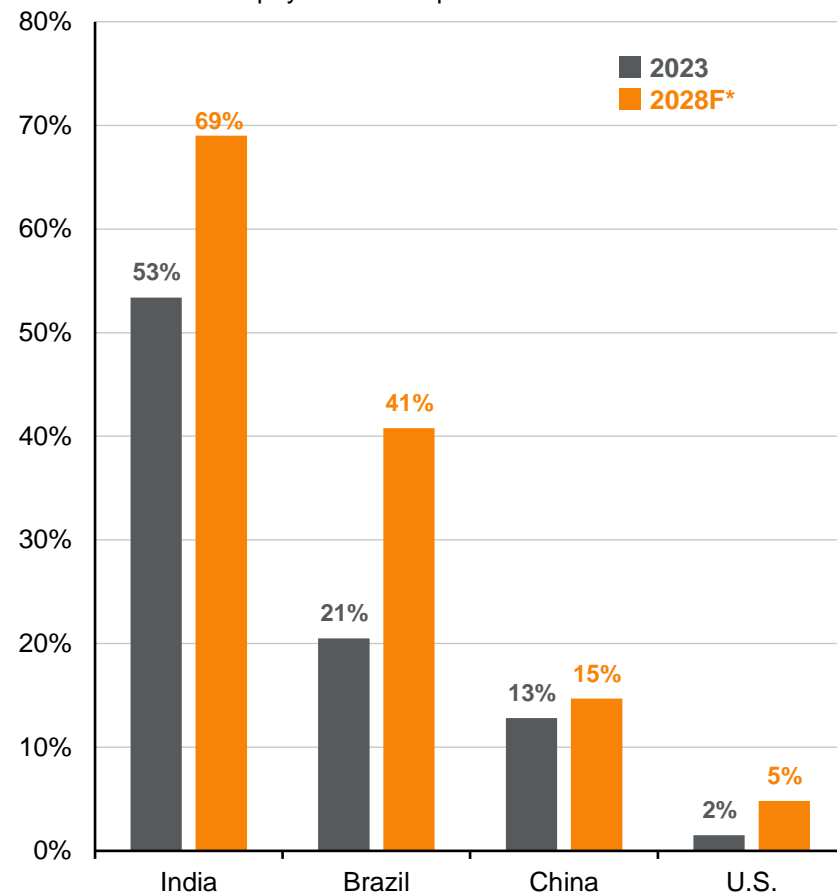
Internet penetration

% of total population, GDP per capita, PPP in USD



Digital public infrastructure (UPI*)

Number of real-time payments as a percent of total transactions



Source: J.P. Morgan Asset Management. (Left) World Bank, IAMA, Kantar. 2022 and 2023 internet penetration figures are from IAMA and Kantar whereas rest of the numbers are for 2021 and are from the World Bank. (Right) ACI Worldwide. *UPI: Unified Payments Interface is a system that powers multiple bank accounts into a single mobile application (of any participating bank) whereby banking features, fund routing and merchant payments are all merged together. *Forecasts are by ACI Worldwide. Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



India: Current account and FX

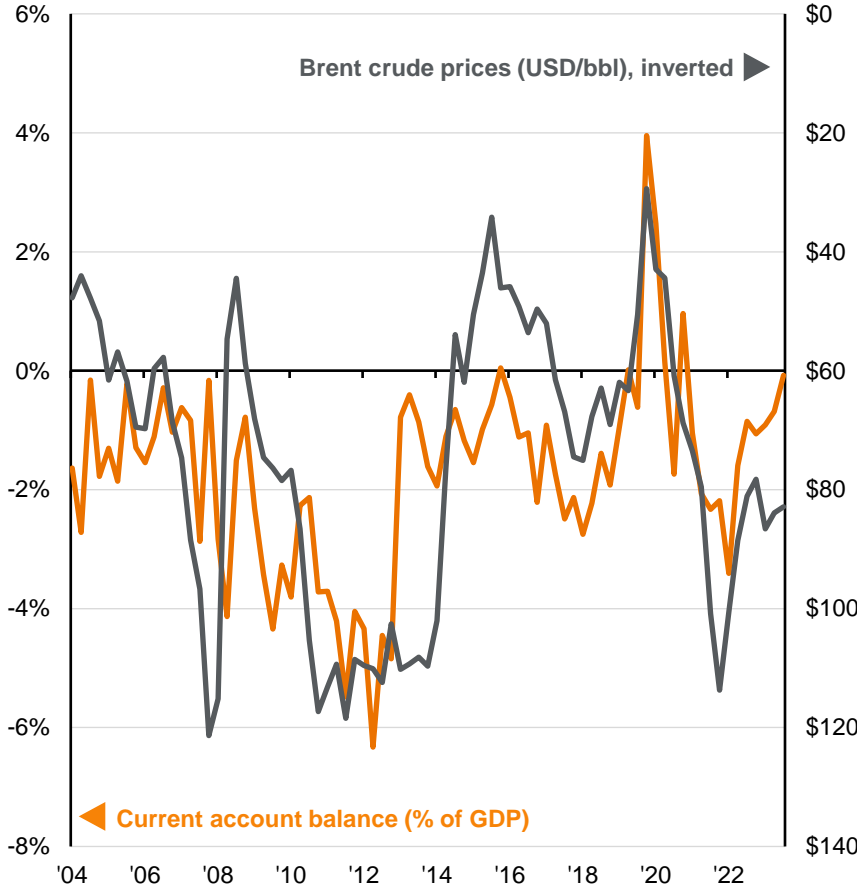
MI

GTIA

41

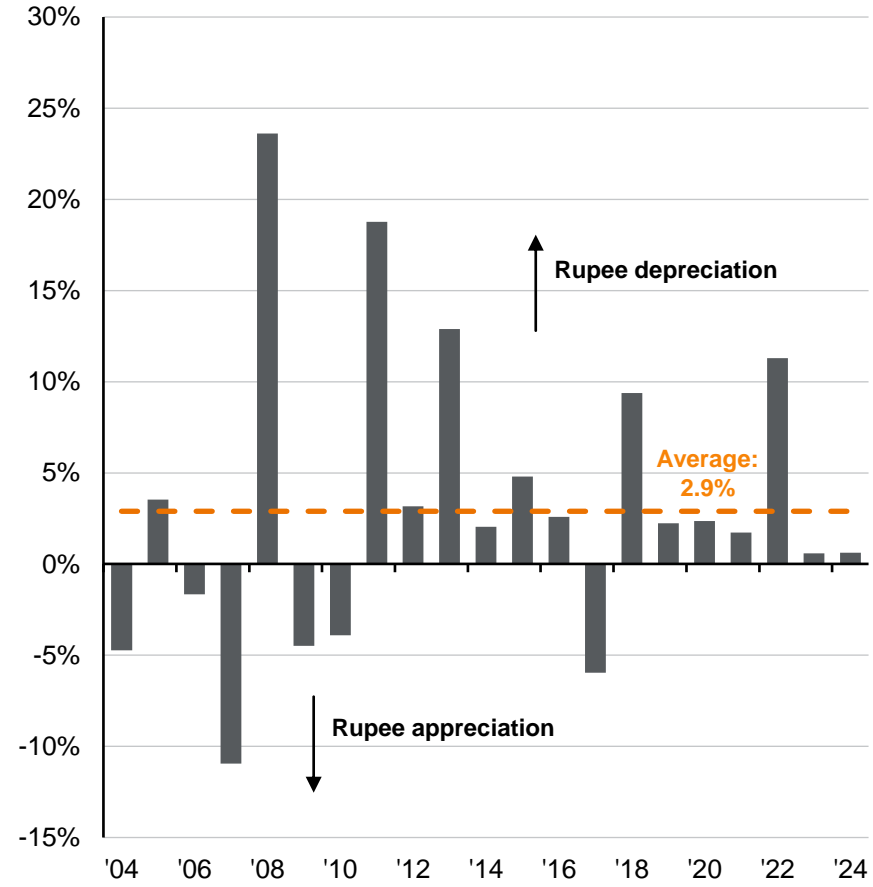
Current account balance and oil prices

Quarterly average



Change in Rupee value vs. the USD

Annual, USDINR



Source: FactSet, OECD, J.P. Morgan Asset Management. OECD. (Right) Change in Rupee value for 2024 is year-to-date. Guide to Investing in Asia. Data are as of July 31, 2024.



Taiwan: Economic snapshot

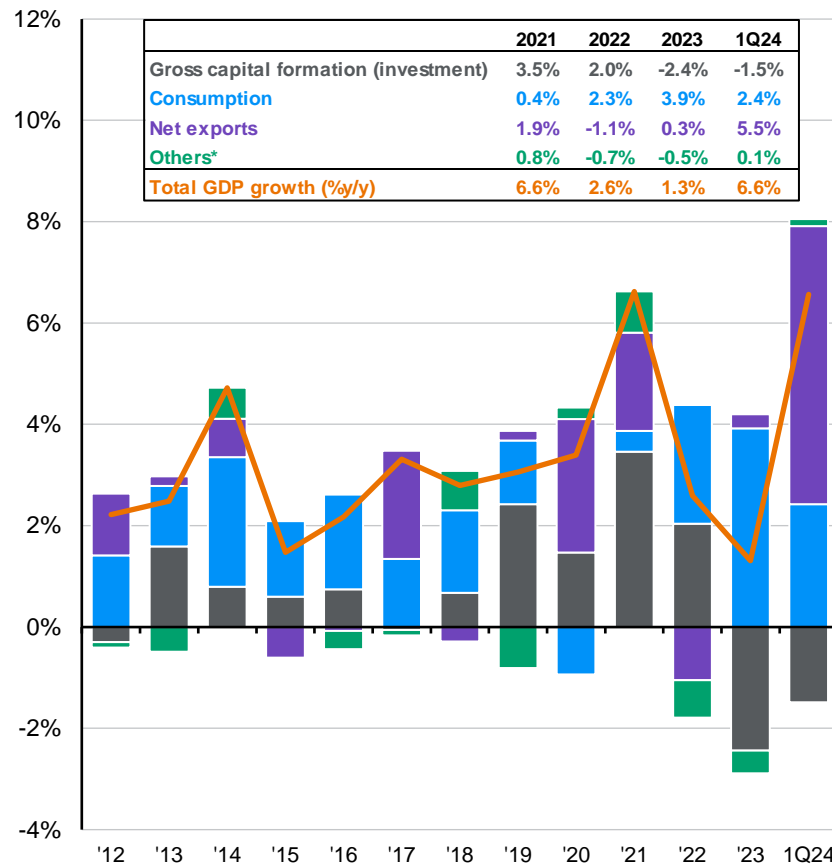
MI

GTIA

42

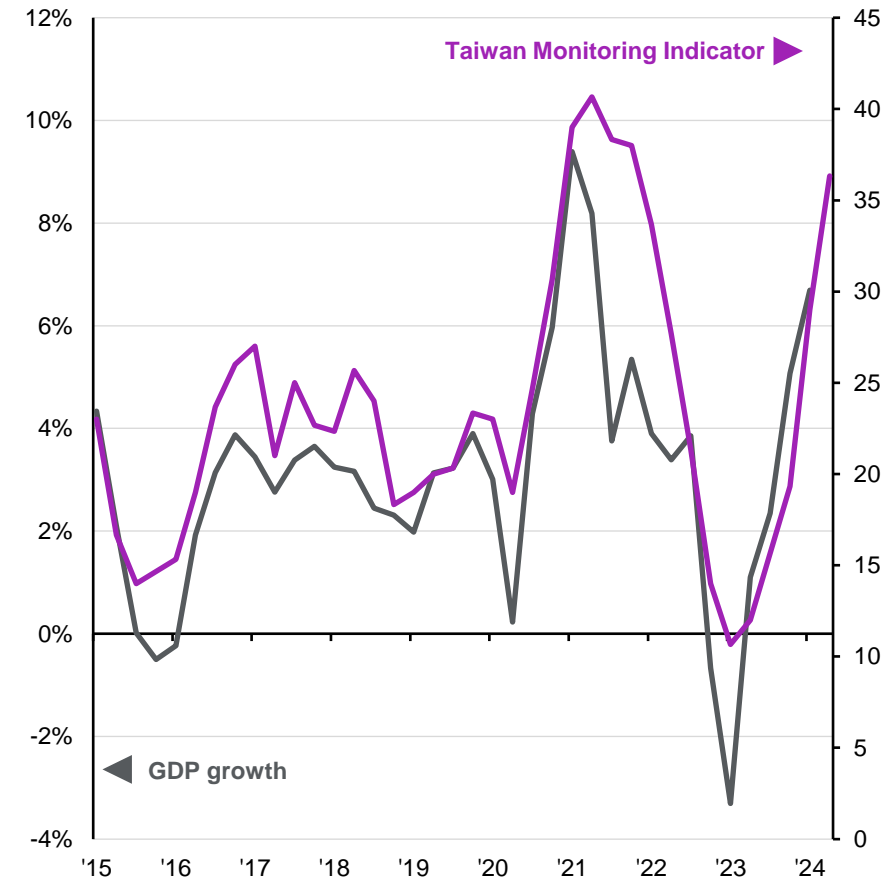
Contribution to real quarterly GDP growth

Year-over-year change, nsa



GDP growth and composite leading indicator

Year-over-year change, seasonally adjusted



Source: DGBAS Statistics Taiwan, FactSet, Markit Economics, Ministry of Economic Affairs Taiwan, J.P. Morgan Asset Management. (Left) *Others includes statistical discrepancies. (Right) The Taiwan Monitoring Indicator is made up of nine indicators – the monetary aggregate M1B, the TAIEX average closing price, industrial production, nonagricultural sector employment, customs-cleared export value, import value of machinery and electrical equipment, index of producer's shipment for manufacturing, the TIER manufacturing sector composite indicator and sales in wholesale, retail and food service industries. The Monitoring Indicator by the National Development Council (NDC) provides a metric to assess economic outlook.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Korea: Economic snapshot

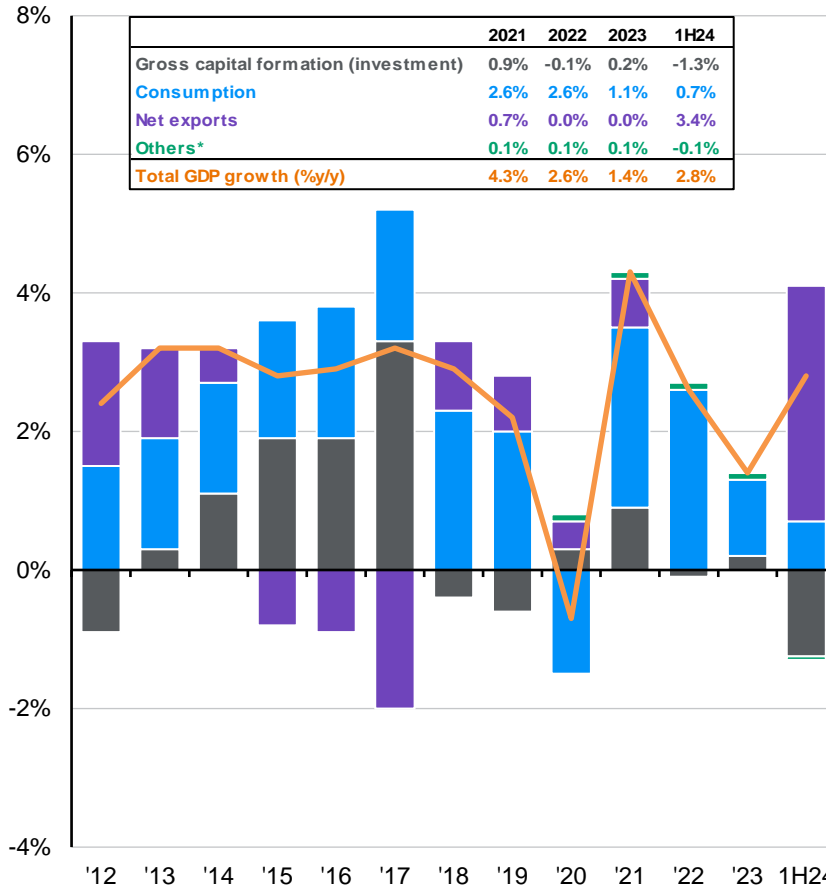
MI

GTIA

43

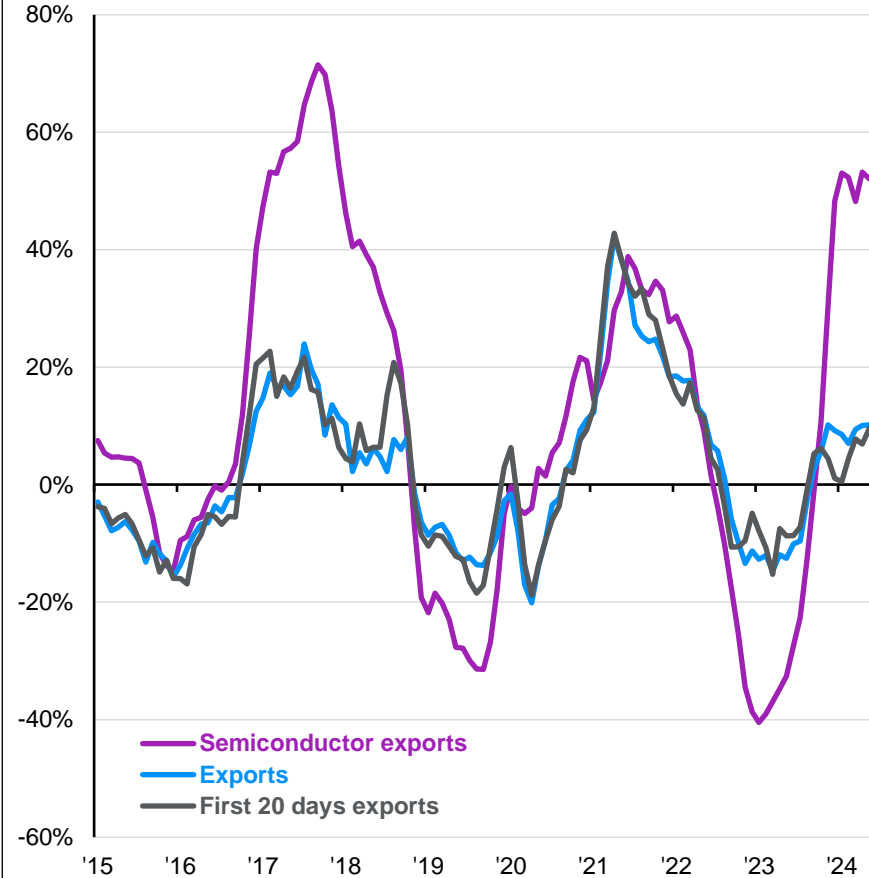
Contribution to real GDP growth

Year-over-year change, nsa



Exports

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



Source: Bank of Korea, FactSet, J.P. Morgan Asset Management. (Left) *Others include statistical discrepancies. (Right) CEIC, Customs Service Korea, Ministry of Trade, Industry and Energy – Korea. Korea publishes the total value of exports in the first 20 days of each month. *Guide to Investing in Asia*. Data are as of July 31, 2024.



ASEAN: GDP growth

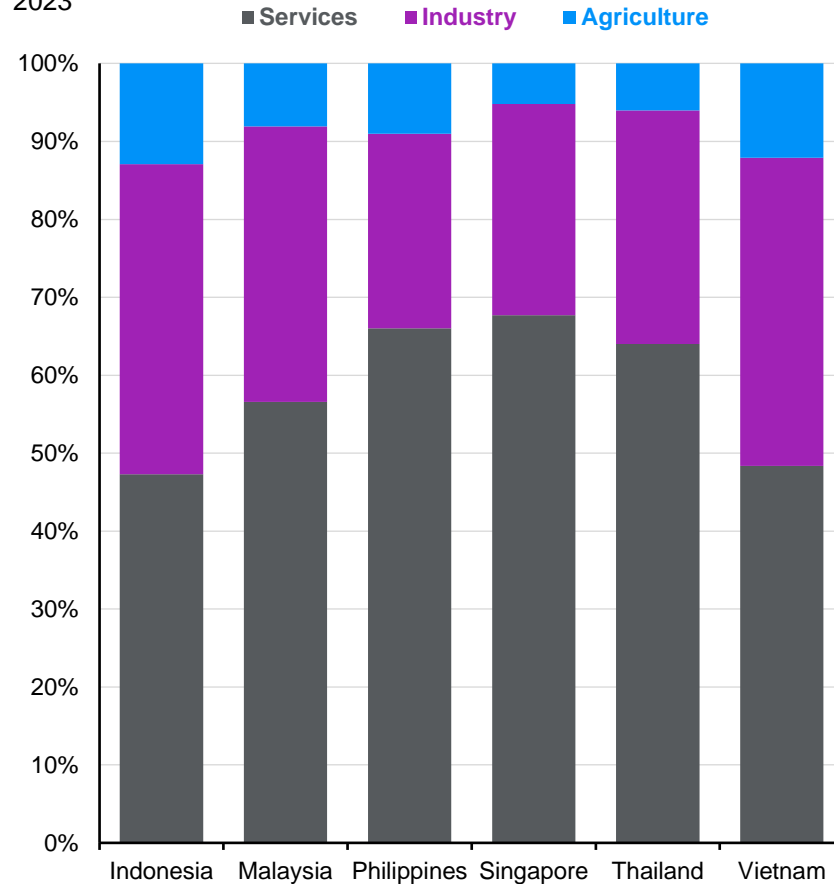
MI

GTIA

44

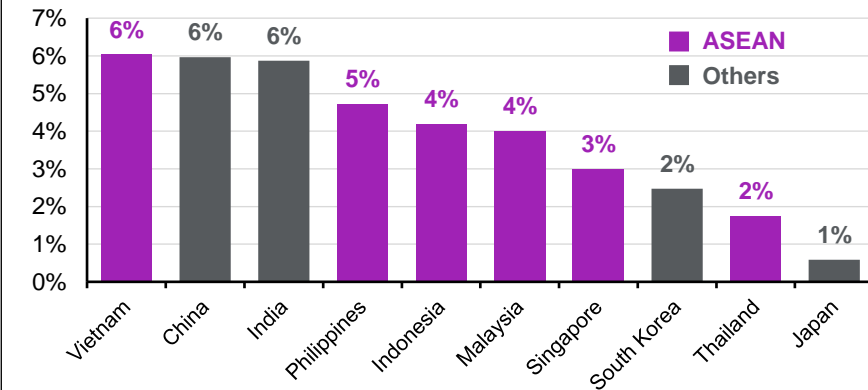
GDP breakdown by industry

2023



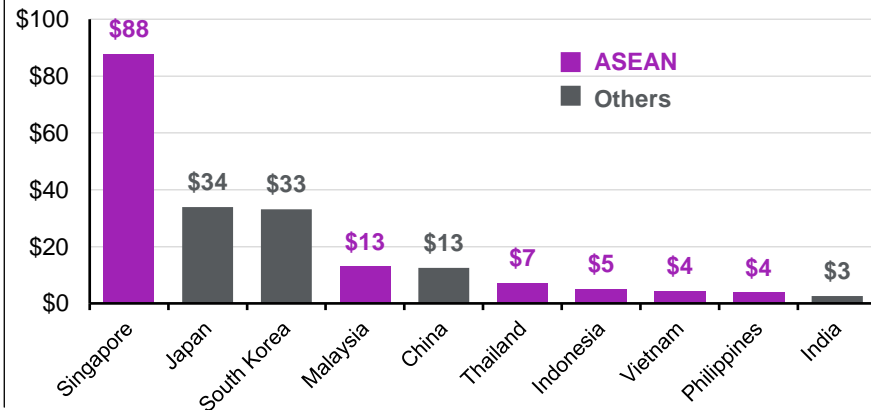
Real GDP growth

Compounded annual growth rate, 2014-2023



GDP per capita

Current prices, USD thousands



Source: FactSet, J.P. Morgan Asset Management. (Left) CEIC, World Bank, central bank websites, government websites. (Top and bottom right) International Monetary Fund – World Economic Outlook April 2024.
ASEAN = Association of Southeast Asian Nations.
Guide to Investing in Asia. Data are as of July 31, 2024.

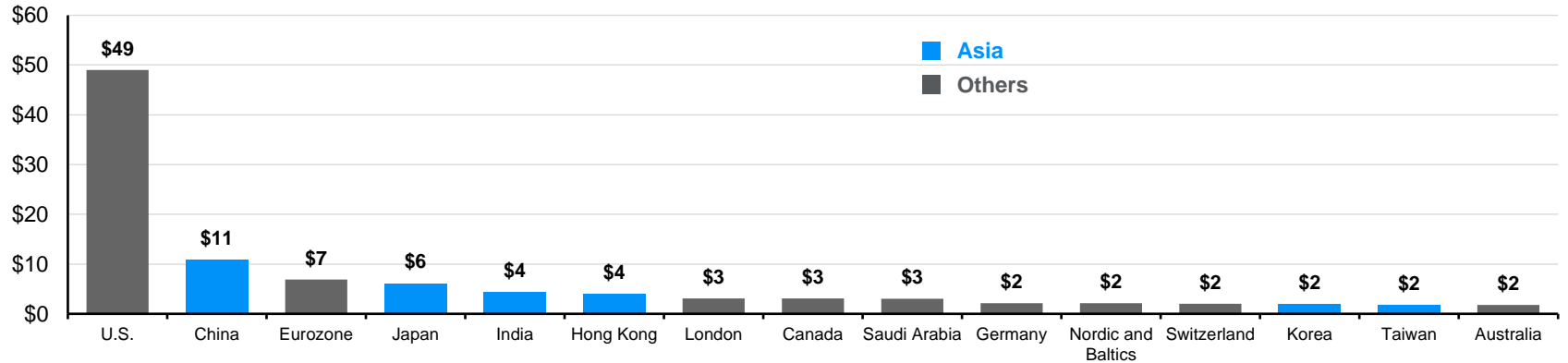


Global equity market size and index weight

MI GTIA 45

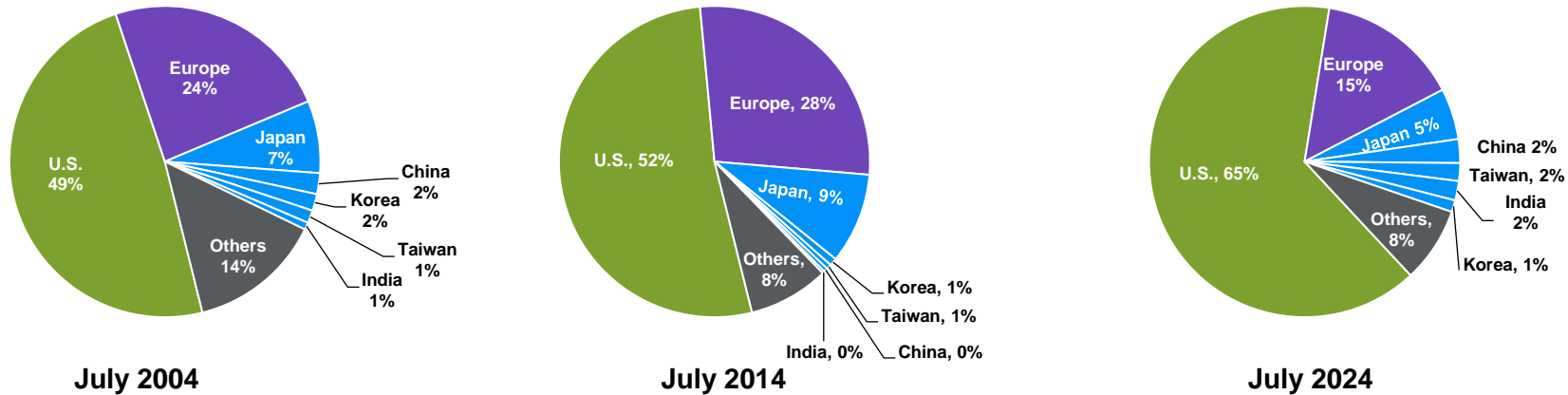
Top global equity markets by market cap

USD trillions, 2023*



MSCI All Country World Index weightings

% of total index market capitalization



Source: J.P. Morgan Asset Management. (Top) World Federal of Exchanges. *All data are as of 2023 except for London which is as of 2022. U.S.: NYSE and Nasdaq, Eurozone: Euronext, China: Shenzhen and Shanghai Stock Exchanges, Japan: Japan Exchange Group, India: National Stock Exchange of India, Hong Kong: Hong Kong Exchanges and Clearing, London: LSE Group, Canada: TMX Group, Saudi Arabia: Saudi Exchange, Germany: Deutsche Boerse AG, Nordic and Baltics: Nasdaq Nordic and Baltics, Switzerland: SIX Swiss Exchange, Korea: Korea Exchange, Taiwan: Taiwan Stock Exchange, Australia: ASX Australian Securities Exchange. (Bottom) Countries/regions are represented by their respective MSCI index. *Guide to Investing in Asia*. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



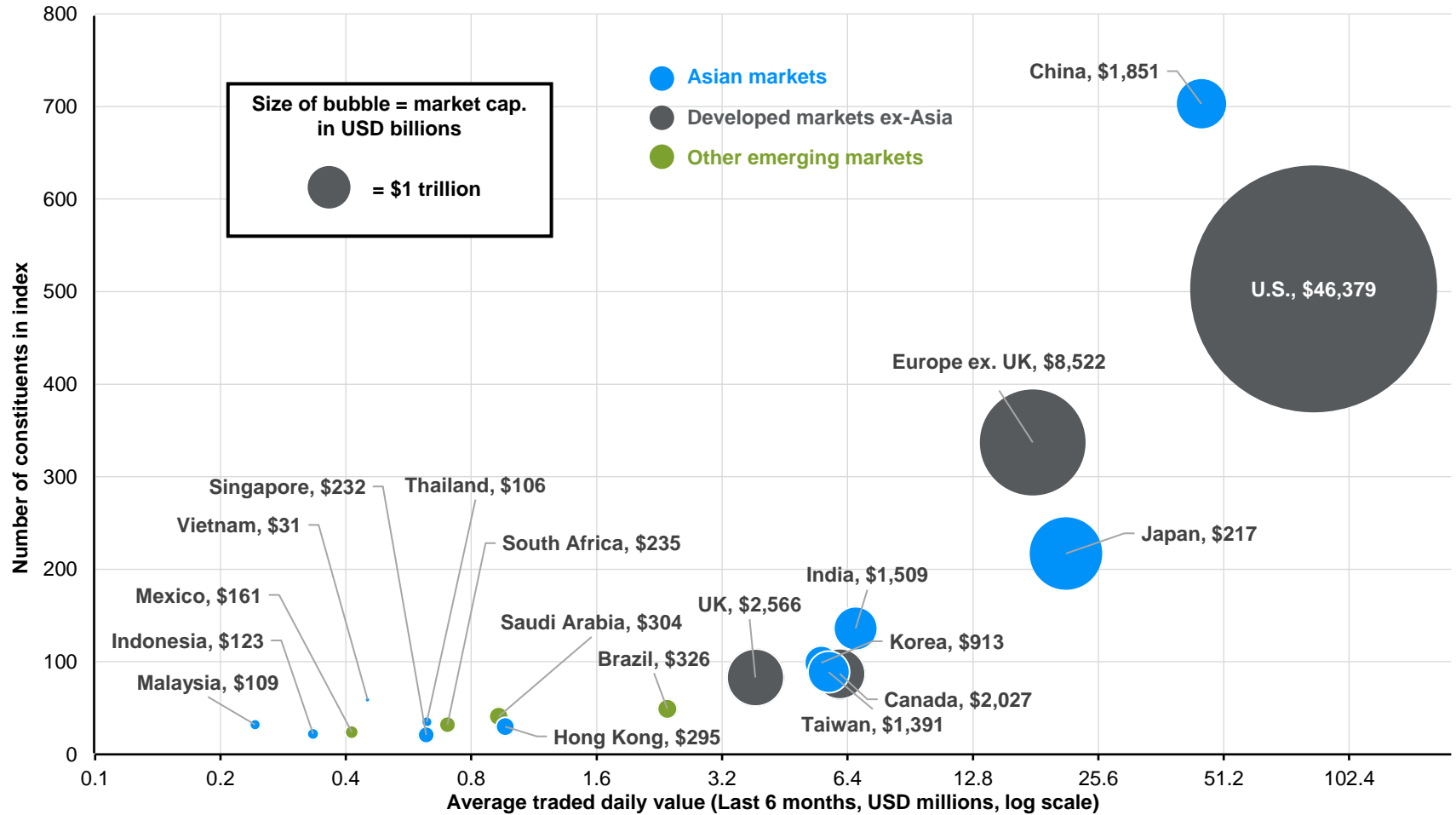
Global index market cap and liquidity

MI

GTIA

46

Size and liquidity of different indices



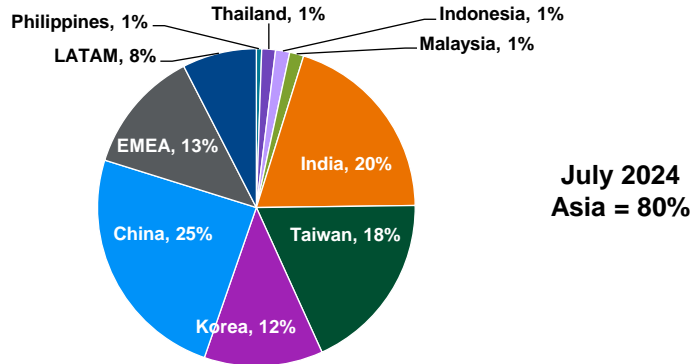
Source: Bloomberg, FactSet, MSCI, Standard & Poor's J.P. Morgan Asset Management. Each market is represented by its respective MSCI Index except for the U.S. which is represented by the S&P 500 Index. The x-axis shows the average traded daily value over the past six months. *Guide to Investing in Asia*. Data are as of July 31, 2024.



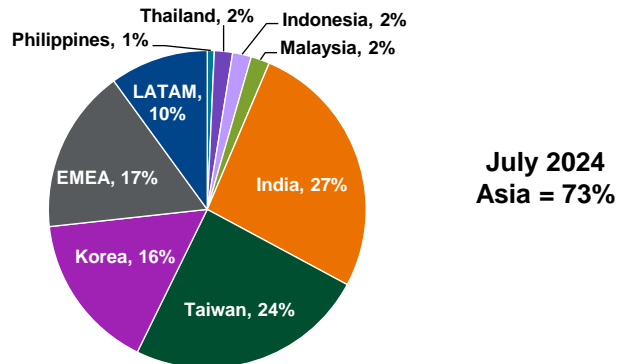
Emerging market equities

Asia equities

MSCI Emerging Markets Index

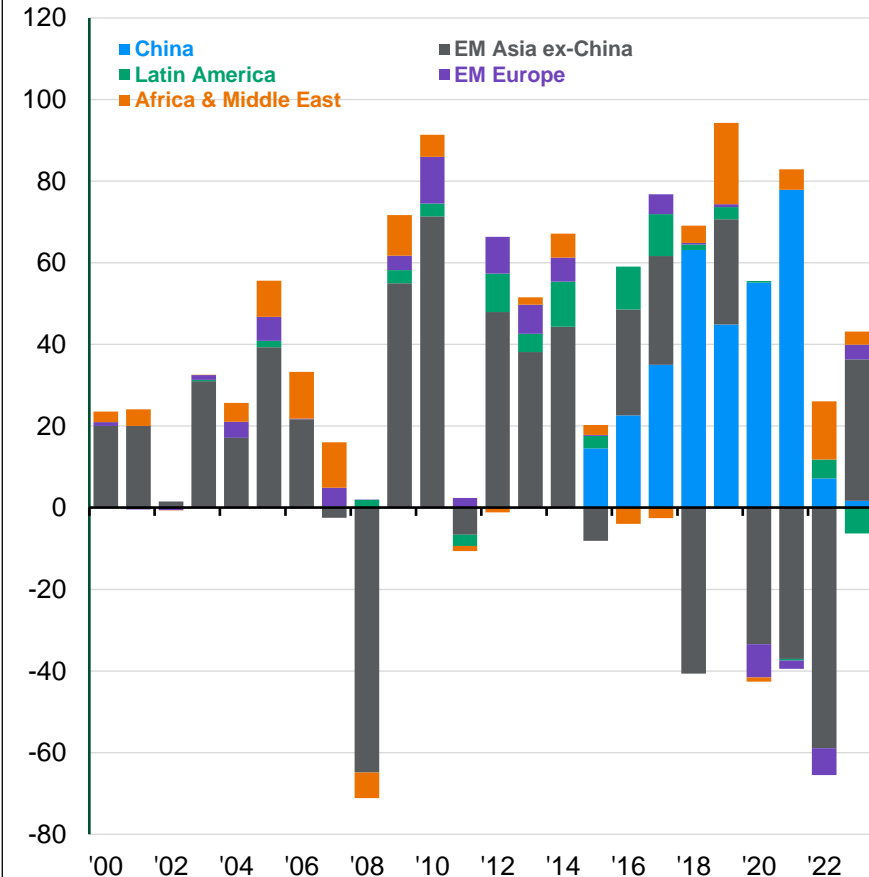


MSCI Emerging Markets ex-China Index



Net equity flows into emerging markets

USD billions, annual, domestic and foreign



Source: J.P. Morgan Asset Management. (Left) FactSet, MSCI. (Right) International Institute of Finance, J.P. Morgan Asset Management. EM Asia ex-China includes India, Indonesia, Korea, Malaysia, Philippines, Taiwan, Thailand, and Vietnam. *Guide to Investing in Asia*. Data are as of July 31, 2024.

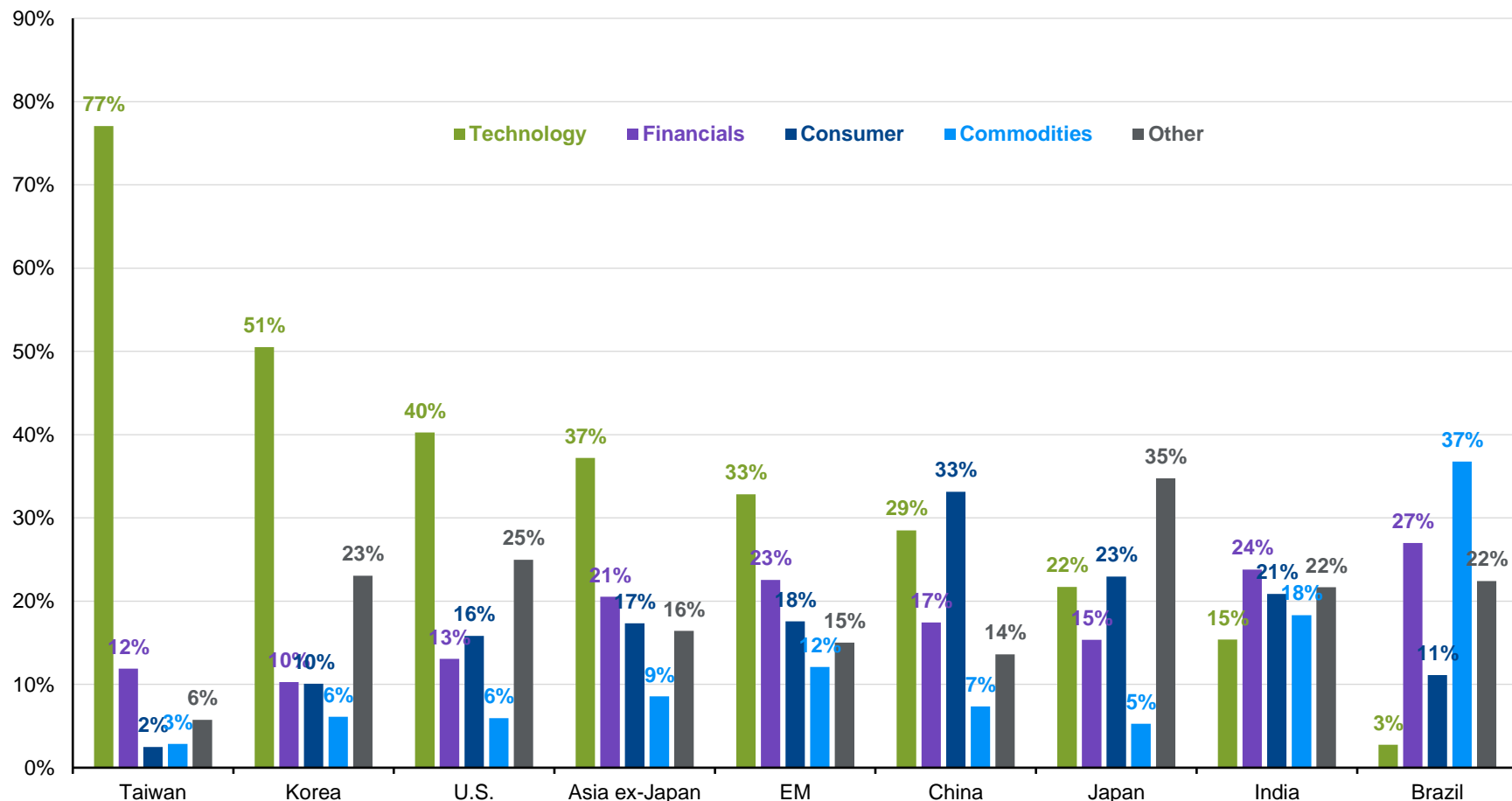


Sector composition

MI GTIA 48

Sector weights

% of index market capitalization



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Each market is represented by their respective MSCI index except the U.S. which is represented by the S&P 500 Index. Consumer = Consumer staples and consumer discretionary, Technology = Information technology and communication services, Financials = Financials, Commodities = Energy and materials. Other = Industrials, healthcare, utilities, and real estate.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Market concentration

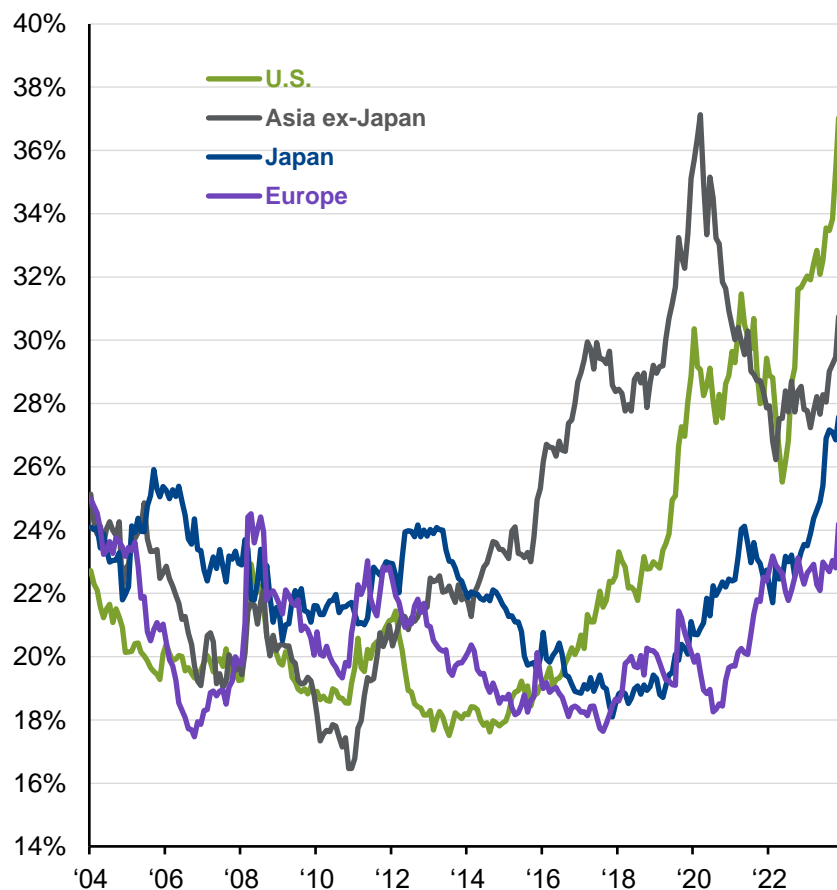
MI

GTIA

49

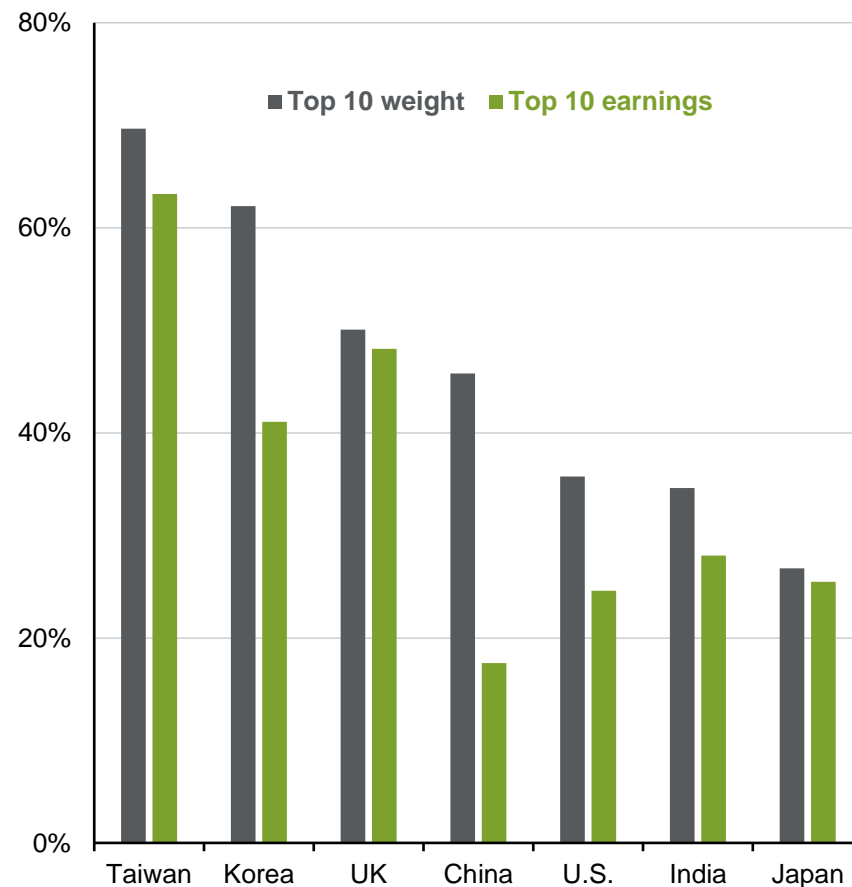
Weight of the top 10 stocks in global indices

% of market capitalization



Weight of market cap and earnings for top 10 stocks

% of market capitalization, as of latest month-end, LTM earnings



Source: MSCI, FactSet, Standard & Poor's, J.P. Morgan Asset Management. Each market is represented by its respective MSCI index except the U.S., which is represented by the S&P 500. (Right) Uses last 12-month earnings. Different share classes for the same company are grouped together. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Return-on-equity and valuations

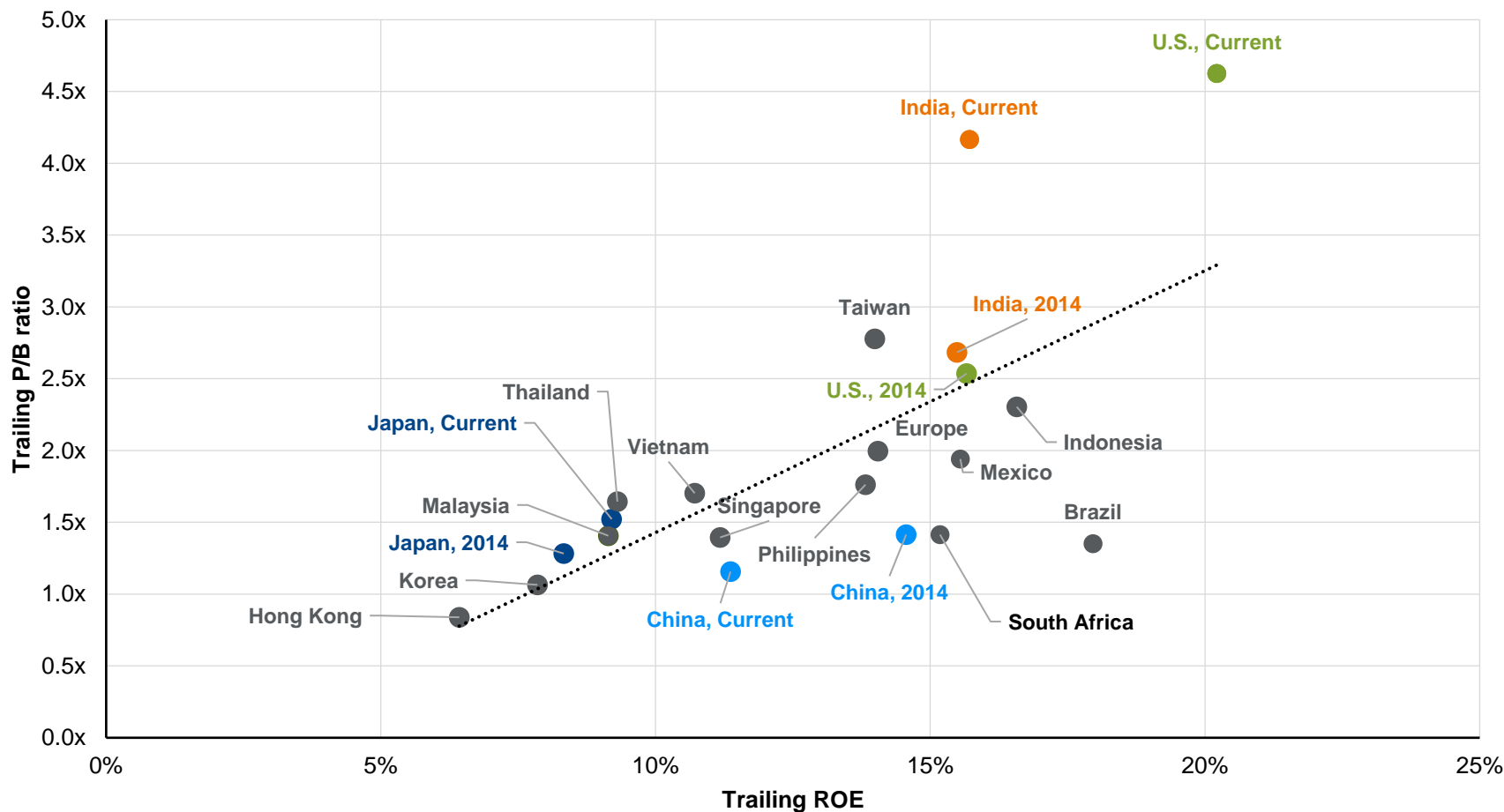
MI

GTIA

50

Return-on-equity and price-to-book ratio for different markets

Last 12 months



Source: FactSet, MSCI, J.P. Morgan Asset Management. Numbers are based on MSCI indices except for the U.S. which is based on the S&P 500 Index. ROE = return-on-equity and P/B = price-to-book.
Guide to Investing in Asia. Data are as of July 31, 2024.

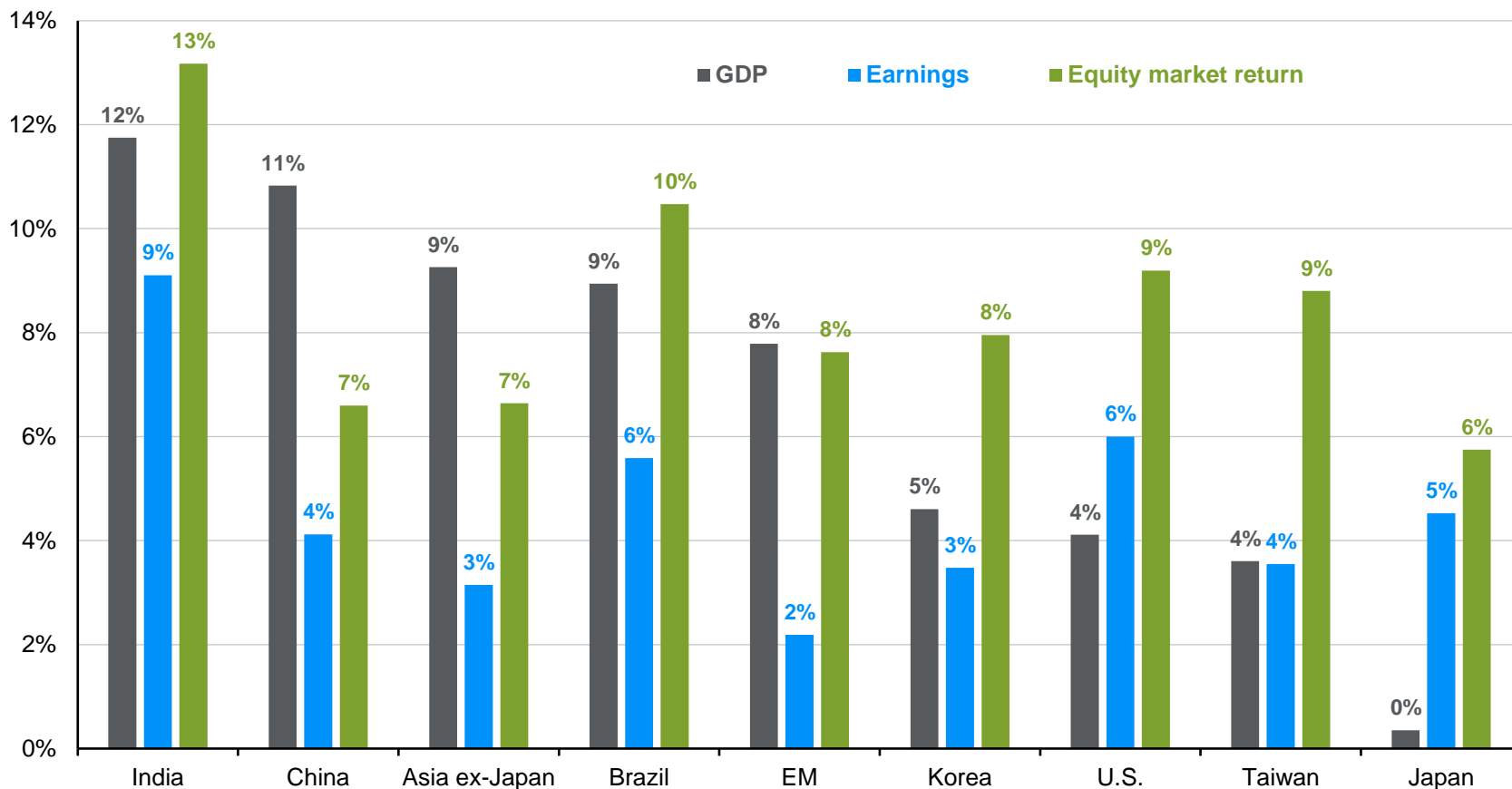


Economic growth, earnings and returns

MI GTIA 51

Nominal GDP growth, earnings and equity market returns

2004-2023, annualized



Source: FactSet, MSCI, World Bank, J.P. Morgan Asset Management. Earnings and equity market returns are represented by each market's respective MSCI index. Nominal GDP growth, equity returns and earnings growth are calculated in local currency except for Asia ex-Japan and emerging markets, which is in U.S. dollars. GDP for Asia ex-Japan is calculated by adding up nominal GDP in USD for all the 10 countries which are tracked by MSCI Asia ex-Japan. GDP for EM is calculated by adding up nominal GDP in USD for all the 24 countries which are tracked by MSCI EM. Past performance is not indicative of current or future results. Guide to Investing in Asia. Data as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Emerging market equity correlations

Correlation between Asian and global equities
USD, monthly price returns

	S&P 500	MSCI ACWI	MSCI EM	MSCI EAFE	MSCI Asia ex-JP	MSCI EM ex-China	MSCI China	MSCI Japan	MSCI India
S&P 500	1.00								
MSCI ACWI	0.96	1.00							
MSCI EM	0.74	0.87	1.00						
MSCI EAFE	0.87	0.96	0.86	1.00					
MSCI Asia ex-JP	0.71	0.83	0.97	0.82	1.00				
MSCI EM ex-China	0.77	0.89	0.97	0.87	0.92	1.00			
MSCI China	0.51	0.64	0.84	0.65	0.89	0.71	1.00		
MSCI Japan	0.72	0.80	0.69	0.84	0.66	0.70	0.51	1.00	
MSCI India	0.62	0.71	0.79	0.69	0.77	0.81	0.57	0.56	1.00

Correlation between EM ex-China and global equities
Rolling 3-year correlation, USD, monthly price returns



Source: MSCI, FactSet, Standard & Poor's, J.P. Morgan Asset Management. (Left) Correlations are based on monthly price return data in USD for the period 7/31/2004-7/31/2024. (Right) All countries are represented by their respective MSCI index except for the U.S., which is the S&P 500. Past performance is not indicative of current or future results. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Equity market returns

MI GTIA 53

Asia equities

											2014-2023	
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD '24	Ann.	Vol.
China A 52.1%	Japan 9.9%	Taiwan 19.6%	China 54.3%	U.S. - 4.4%	Taiwan 37.7%	Korea 45.2%	U.S. 28.7%	ASEAN - 4.1%	Taiwan 31.3%	Taiwan 24.3%	Taiwan 12.3%	China A 23.9%
India 23.9%	China A 2.4%	U.S. 12.0%	Korea 47.8%	India - 7.3%	China A 37.2%	Taiwan 42.0%	Taiwan 26.8%	India - 7.5%	U.S. 26.3%	India 21.8%	U.S. 12.0%	China 23.5%
U.S. 13.7%	U.S. 1.4%	EM 11.6%	Asia ex- JP 42.1%	Taiwan - 8.2%	U.S. 31.5%	China A 38.4%	India 26.7%	Europe - 14.5%	Korea 23.6%	U.S. 16.7%	India 10.1%	Korea 22.5%
Taiwan 10.1%	Europe - 2.3%	Korea 9.2%	India 38.8%	ASEAN - 8.4%	Europe 24.6%	China 29.7%	Europe 17.0%	Japan - 16.3%	India 21.3%	Japan 12.6%	Japan 5.3%	Taiwan 20.0%
China 8.3%	India - 6.1%	ASEAN 6.2%	EM 37.8%	Japan - 12.6%	China 23.7%	Asia ex- JP 25.4%	Japan 2.0%	U.S. - 18.1%	Japan 20.8%	Asia ex- JP 9.9%	Europe 4.7%	India 19.2%
ASEAN 6.4%	Korea - 6.3%	Asia ex- JP 5.8%	China A 32.6%	Asia ex- JP - 14.1%	Japan 20.1%	EM 18.7%	ASEAN 0.2%	Asia ex- JP - 19.4%	Europe 20.7%	Europe 8.7%	China A 4.5%	EM 17.2%
Asia ex- JP 5.1%	China - 7.6%	Japan 2.7%	ASEAN 30.1%	EM - 14.2%	EM 18.9%	U.S. 18.4%	China A - 1.0%	EM - 19.7%	EM 10.3%	EM 8.1%	Asia ex- JP 4.2%	Asia ex- JP 17.1%
EM - 1.8%	Asia ex- JP - 8.9%	China 1.1%	Taiwan 28.5%	Europe - 14.3%	Asia ex- JP 18.5%	India 15.9%	EM - 2.2%	China - 21.8%	Asia ex- JP 6.3%	ASEAN 3.7%	Korea 3.6%	Europe 16.5%
Japan - 3.7%	Taiwan - 11.0%	Europe 0.2%	Europe 26.2%	China - 18.7%	Korea 13.1%	Japan 14.9%	Asia ex- JP - 4.5%	China A - 26.5%	ASEAN 0.8%	China 3.5%	EM 3.0%	ASEAN 15.6%
Europe - 5.7%	EM - 14.6%	India - 1.4%	Japan 24.4%	Korea - 20.5%	ASEAN 8.8%	Europe 5.9%	Korea - 7.9%	Korea - 28.9%	China A - 10.9%	China A 0.8%	China 1.0%	U.S. 15.2%
Korea - 10.7%	ASEAN - 18.4%	China A - 15.2%	U.S. 21.8%	China A - 27.6%	India 7.6%	ASEAN - 6.2%	China - 21.6%	Taiwan - 29.1%	China - 11.0%	Korea 0.2%	ASEAN 0.8%	Japan 14.0%

Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Returns are total returns in U.S. dollars based on MSCI indices, except the U.S., which is the S&P 500, and China A, which is the CSI 300 index in U.S. dollar terms. China return is based on the MSCI China index. 10-yr total (gross) return data is used to calculate annualized returns (Ann.) and annualized volatility (Vol.) and reflect the period 12/31/13 – 12/31/23. Past performance is not a reliable indicator of current and future results.
Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Global equity return composition

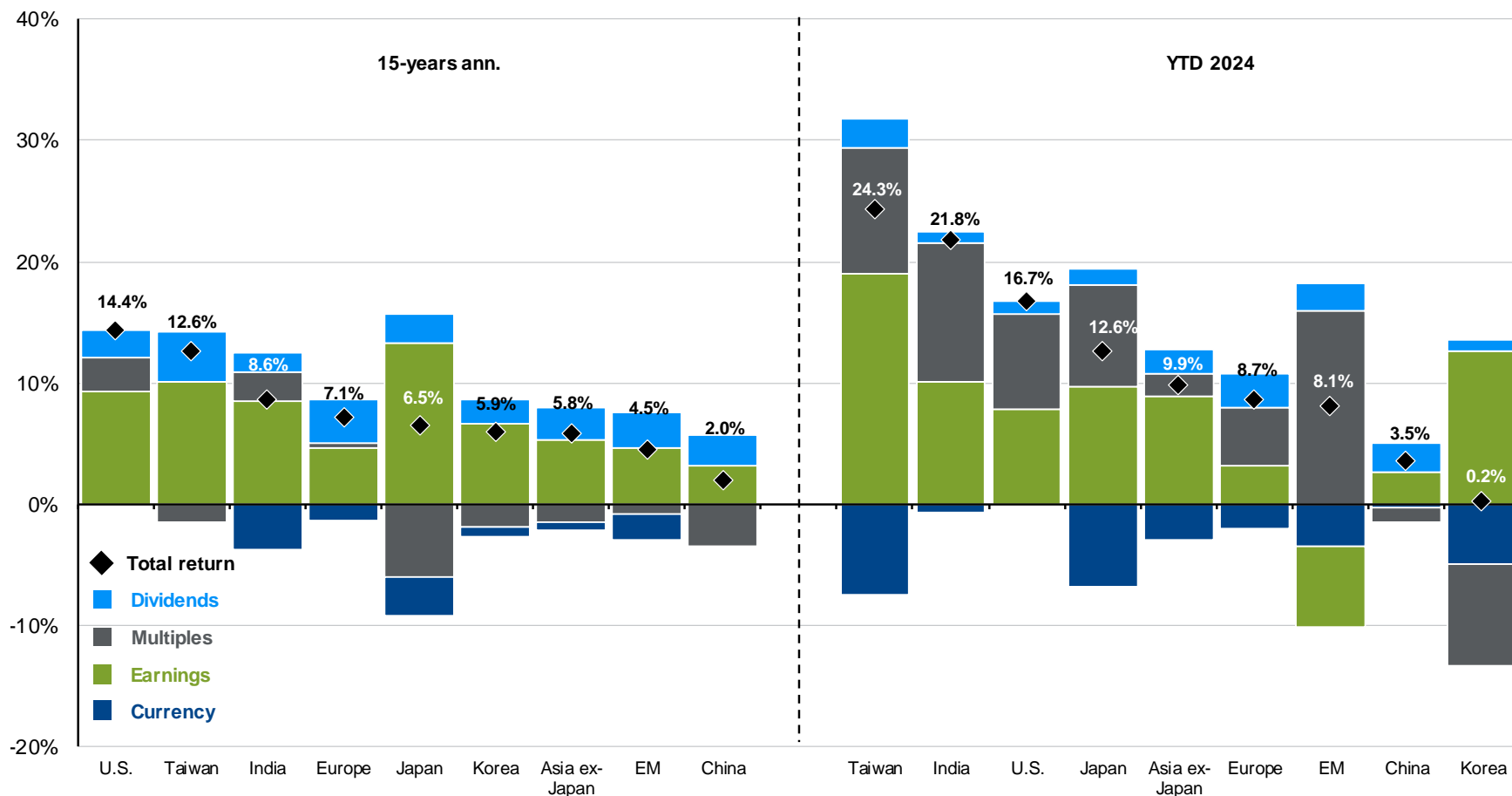
MI

GTIA

54

Sources of global equity returns*

Total return, USD



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.

15-years ann. is a rolling 15-year period ending with the previous month-end. All return values are MSCI Gross Index data, except the U.S., which is the S&P 500. *Multiple expansion is based on the forward P/E ratio and EPS growth outlook is based on NTMA earnings estimates. Chart is for illustrative purposes only. Past performance is not indicative of future results.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Global sector returns

MI

GTIA

55

Year-to-date returns by sector in USD

Taiwan	India	U.S.	Japan	Asia ex-JP	Europe	EM	China	ASEAN	Korea
Health Care 77.0%	Comm. Services 41.7%	Info. Tech. 25.6%	Financials 40.6%	Utilities 21.0%	Health Care 16.4%	Info. Tech. 19.0%	Energy 24.8%	Comm. Services 17.5%	Financials 35.3%
Info. Tech. 32.0%	Industrials 39.6%	Comm. Services 21.6%	Energy 24.7%	Info. Tech. 19.2%	Financials 16.0%	Utilities 13.6%	Utilities 18.3%	Info. Tech. 14.3%	Health Care 9.1%
Real Estate 30.7%	Cons. Disc. 39.1%	Financials 17.3%	Industrials 16.5%	Energy 18.5%	Info. Tech. 14.4%	Energy 9.2%	Financials 17.1%	Financials 9.6%	Cons. Disc. 7.9%
Index 24.3%	Utilities 37.4%	Utilities 16.9%	Index 12.6%	Comm. Services 12.7%	Industrials 10.6%	Financials 9.2%	Comm. Services 14.9%	Utilities 4.6%	Info. Tech. 2.3%
Financials 11.7%	Health Care 27.6%	Index 16.7%	Health Care 11.3%	Financials 10.4%	Index 8.7%	Comm. Services 8.3%	Materials 8.1%	Index 3.3%	Cons. Staples 1.3%
Industrials 3.0%	Energy 24.1%	Energy 13.3%	Info. Tech. 8.2%	Index 9.9%	Comm. Services 7.7%	Index 8.1%	Industrials 7.5%	Industrials -0.3%	Index 0.2%
Cons. Staples 2.4%	Index 21.8%	Industrials 13.0%	Comm. Services 8.1%	Industrials 8.3%	Energy 4.6%	Industrials 6.5%	Index 3.5%	Cons. Staples -1.7%	Utilities -2.2%
Comm. Services 0.8%	Info. Tech. 17.2%	Cons. Staples 11.1%	Utilities 6.6%	Cons. Disc. 4.3%	Materials 1.7%	Cons. Disc. 5.1%	Cons. Disc. -2.6%	Health Care -2.2%	Industrials -8.7%
Cons. Disc. -6.7%	Materials 11.5%	Health Care 10.7%	Real Estate 6.2%	Health Care -0.9%	Utilities 1.2%	Health Care -0.9%	Info. Tech. -5.1%	Energy -2.7%	Energy -15.5%
Materials -20.6%	Cons. Staples 11.0%	Materials 8.6%	Materials 3.3%	Cons. Staples -2.5%	Real Estate 0.2%	Real Estate -2.5%	Real Estate -17.1%	Materials -10.5%	Comm. Services -20.6%
Energy -23.2%	Financials 10.6%	Cons. Disc. 7.4%	Cons. Disc. 2.9%	Materials -6.2%	Cons. Disc. -0.4%	Cons. Staples -4.6%	Cons. Staples -18.7%	Real Estate -12.0%	Materials -34.5%
Utilities -	Real Estate -	Real Estate 4.6%	Cons. Staples 1.8%	Real Estate -11.5%	Cons. Staples -0.9%	Materials -6.5%	Health Care -24.8%	Cons. Disc. -14.9%	Real Estate -

Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Each market is represented by their respective MSCI index except the U.S. which is represented by the S&P 500 Index. Boxes with “-” mean that indices do not exist or were discontinued for that sector. Past performance is not indicative of current or future results.
Guide to Investing in Asia. Data are as of July 31, 2024.

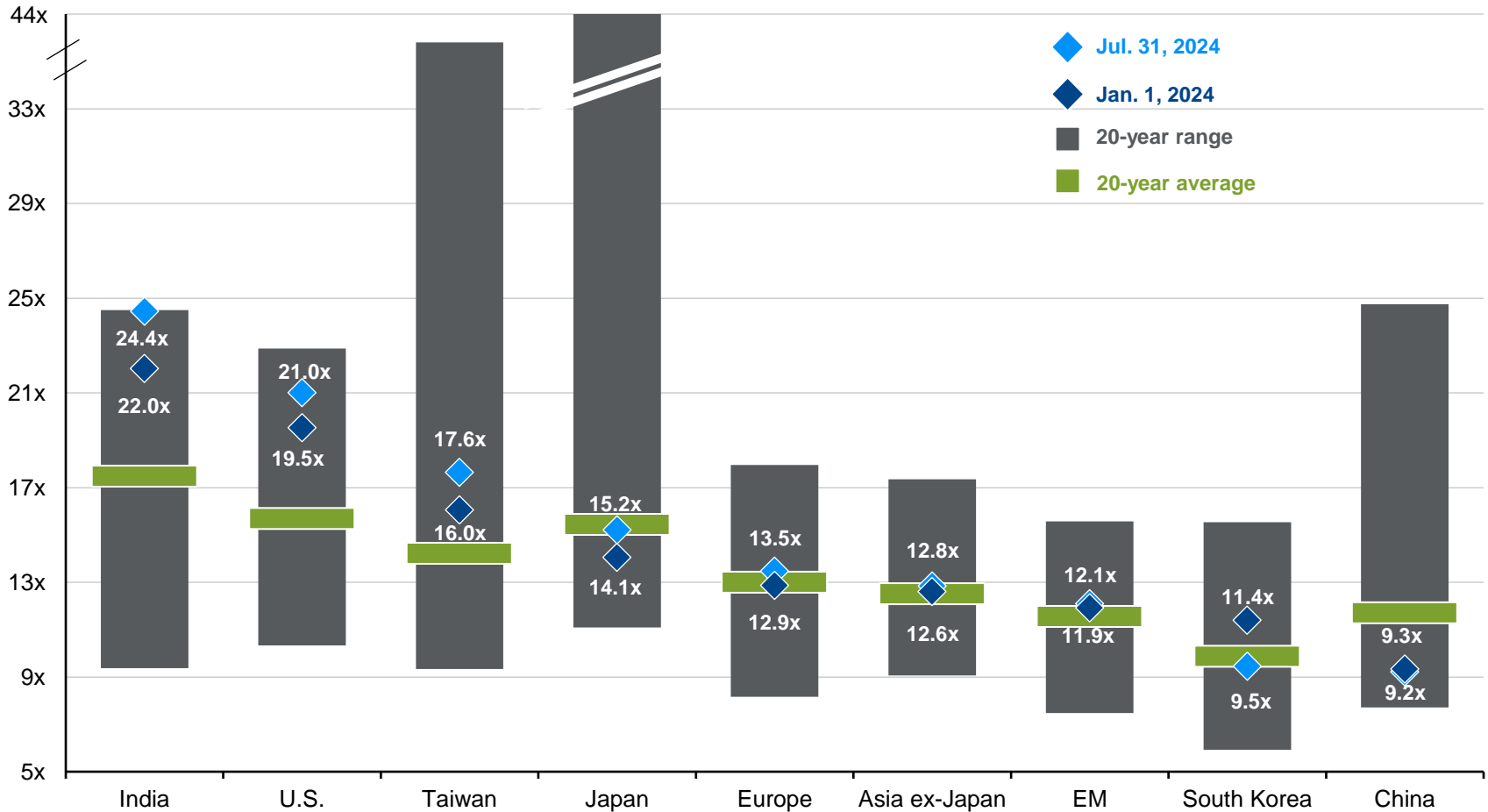
J.P.Morgan
 ASSET MANAGEMENT



Equity valuations

Global valuations

Current and 20-year price-to-earnings ratios, next 12 months



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Valuation measures are based on MSCI indices except for the U.S. which is based on the S&P 500 Index. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Earnings expectations and revisions

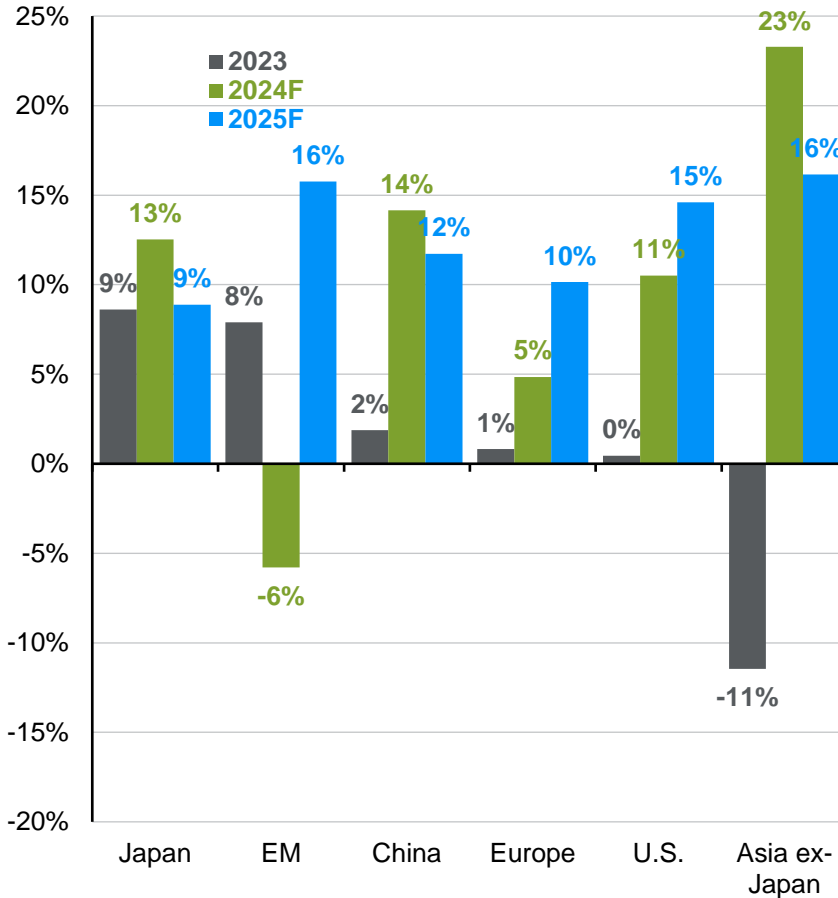
MI

GTIA

57

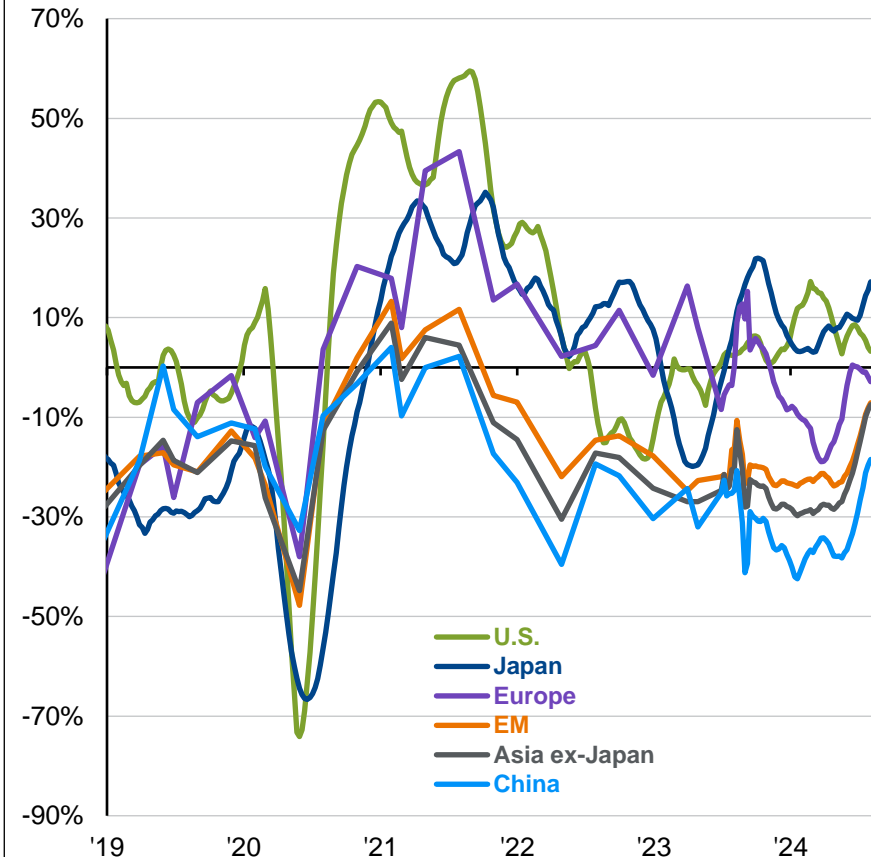
Earnings growth

Year-over-year EPS growth, consensus



Earnings revisions ratios

Net earnings revisions to consensus estimates, 12-week moving avg.



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Right) Earnings revisions ratio is calculated by dividing total revisions by net revisions. All countries are represented by their respective MSCI indices except the U.S. which is represented by the S&P 500 Index. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Asia ex-Japan: Earnings and revenue exposure

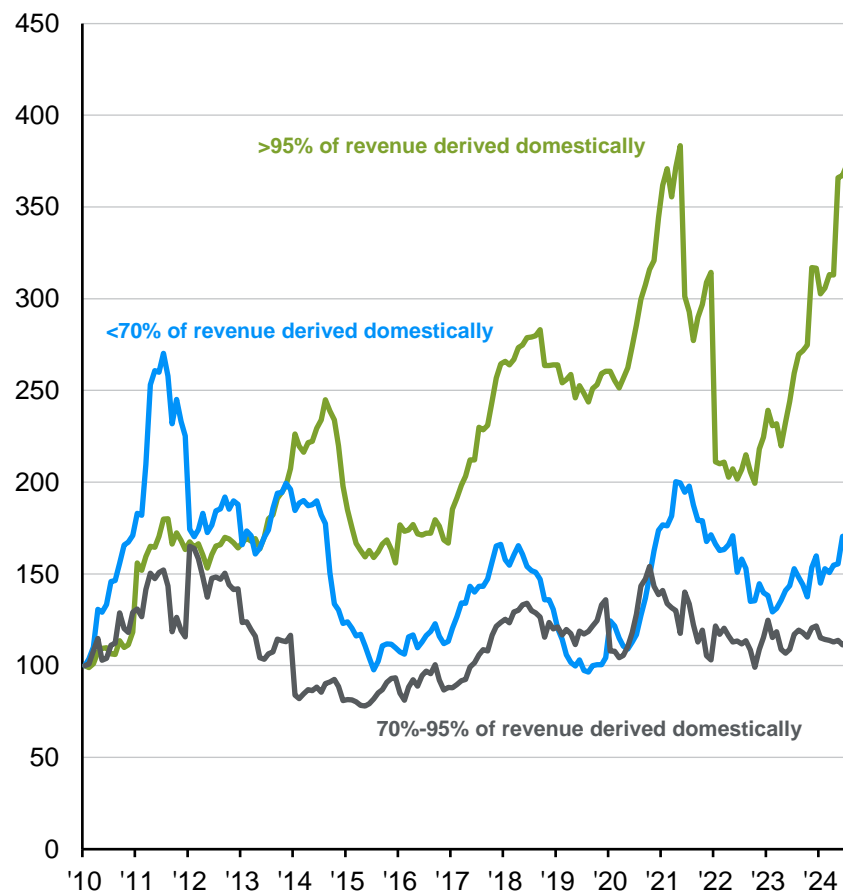
MI

GTIA

58

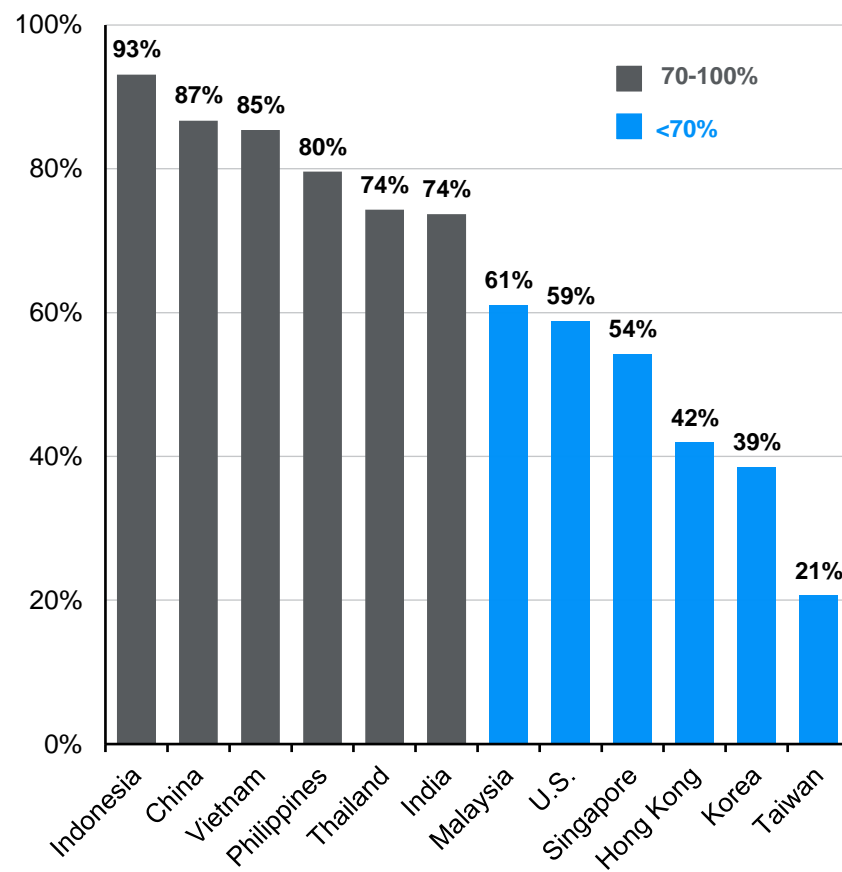
Domestic vs. export-oriented Asian companies*

MSCI Asia ex-Japan, earnings per share, Jan. 2010 = 100



Share of revenue derived domestically

Last 12 months



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Left) Past performance is not a reliable indicator of current and future results. *Universe of stocks within the MSCI AC Asia ex-Japan index are split into three buckets depending on their revenue exposure to their domestic market. Over the time period examined (01/31/2010 – 07/31/2024), monthly adjustments are made to the buckets to reflect changes in a company's operations over time. Subsequently, EPS for each bucket is calculated by summing the market value-weighted EPS for each company monthly over the examined period. (Right) FactSet Georev. Countries are represented by their respective MSCI index. *Guide to Investing in Asia*. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Asia ex-Japan: Annual returns and intra-year declines

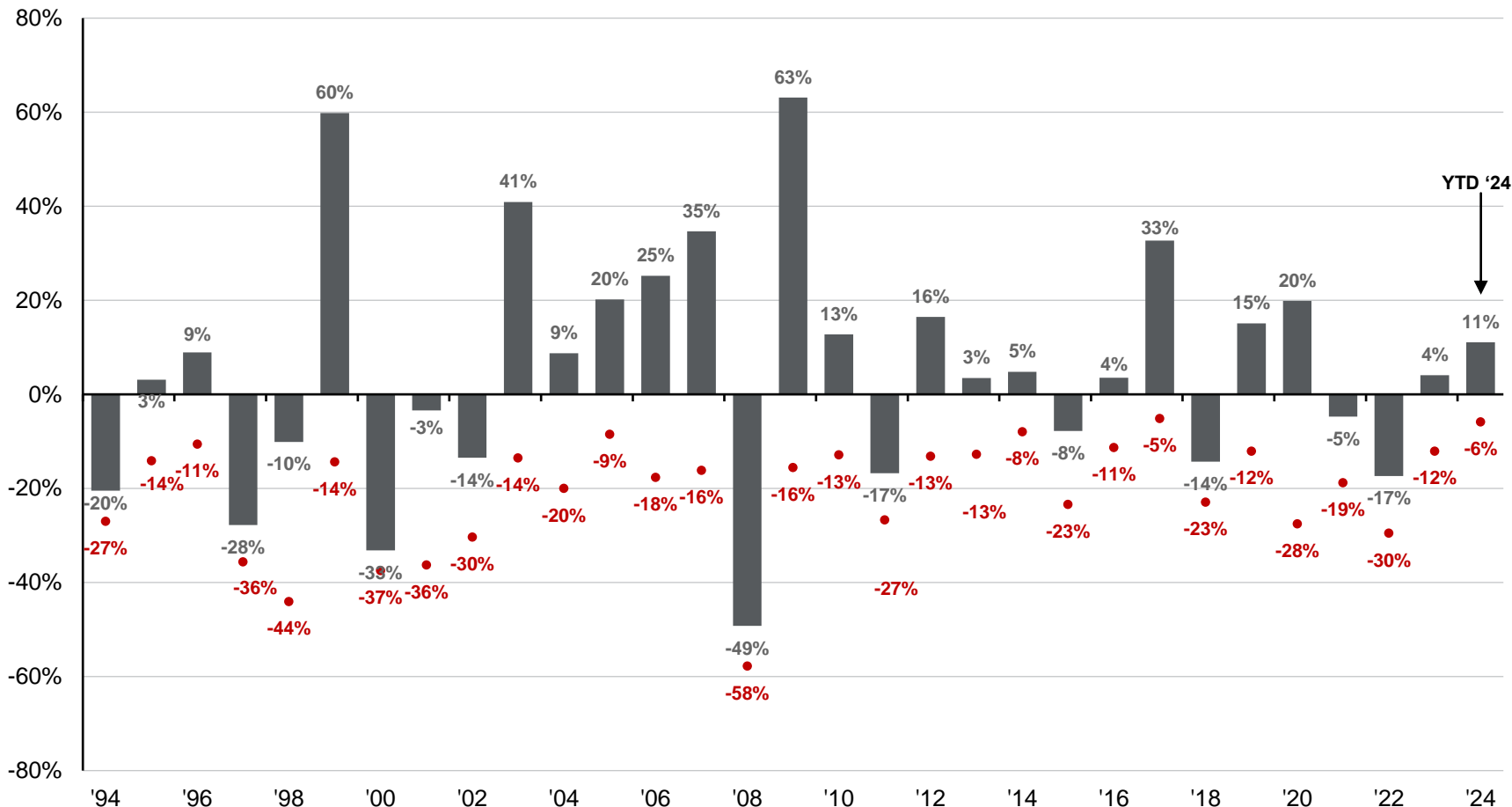
MI

GTIA

59

MSCI AC Asia ex. Japan intra-year declines vs. calendar year returns

Local currency, average intra-year drops of -21.2% (median: -16.9%) and annual returns positive in 18 of 30 years of an average of 5.3%



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 (represented by the red dots). For illustrative purposes only. Past performance is not indicative of current or future results.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT

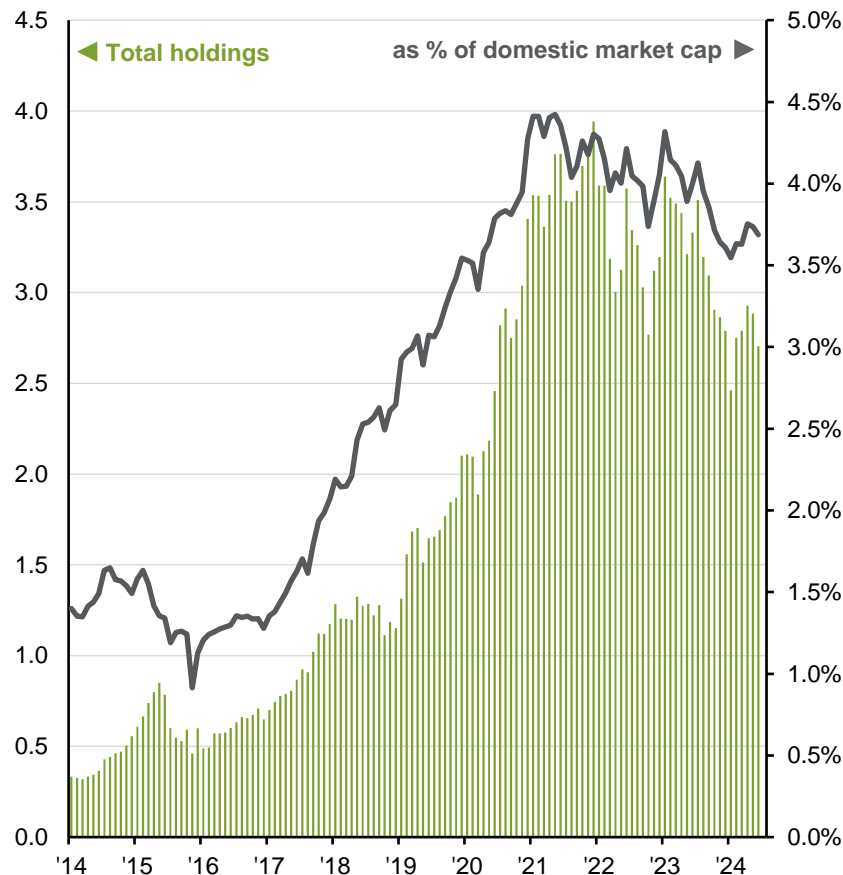


China: Onshore equities

MI GTIA 60

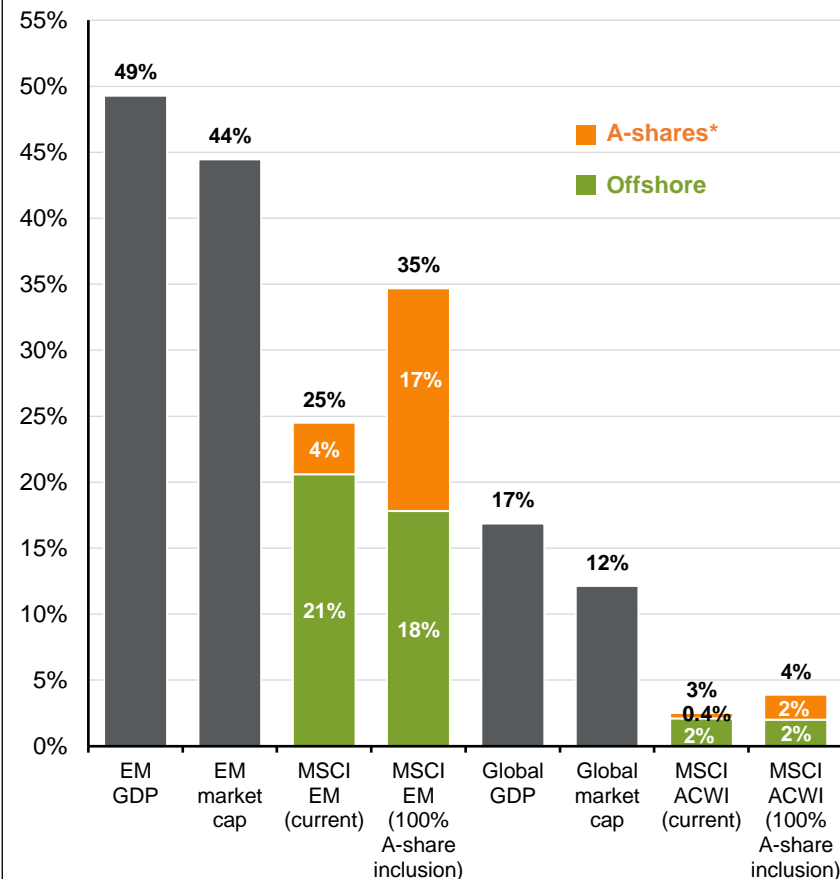
Foreign investors' holdings of onshore Chinese equities

CNY trillions



China's weight in selected indicators

% of total



Source: J.P. Morgan Asset Management; (Left) CEIC, People's Bank of China, Shanghai Stock Exchange, Shenzhen Stock Exchange. (Right) Bloomberg L.P., MSCI, World Bank. Share of EM GDP is for 2023 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 2022 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. *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 Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



China: Equity market corrections and subsequent performance

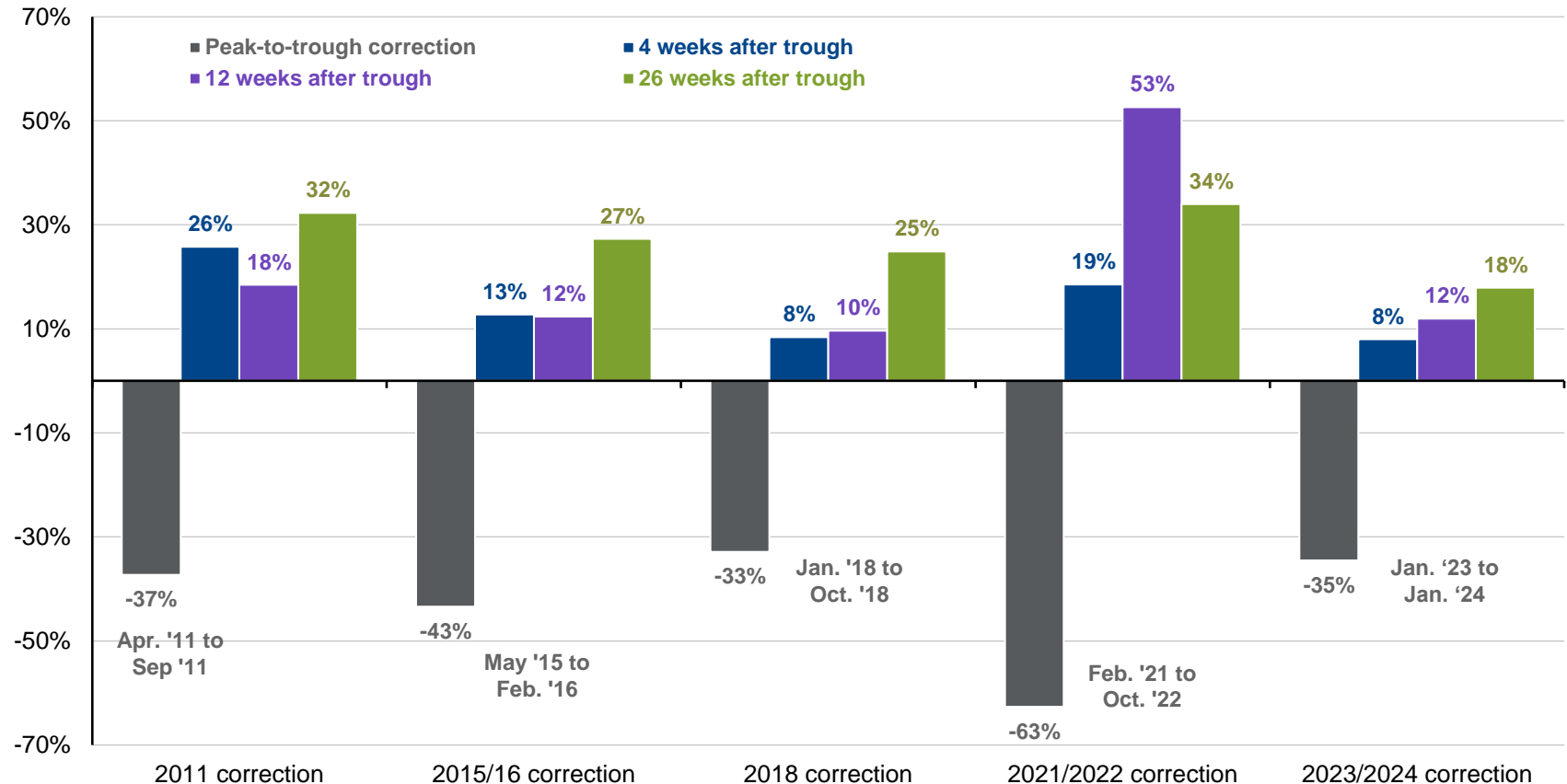
MI

GTIA

61

Chinese equity market corrections and subsequent performance

MSCI China Index, USD, price returns



Source: FactSet, MSCI, 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 market moving events in China and the recovery 4, 12, and 26 weeks after market trough. Past performance is not indicative of current or future results.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



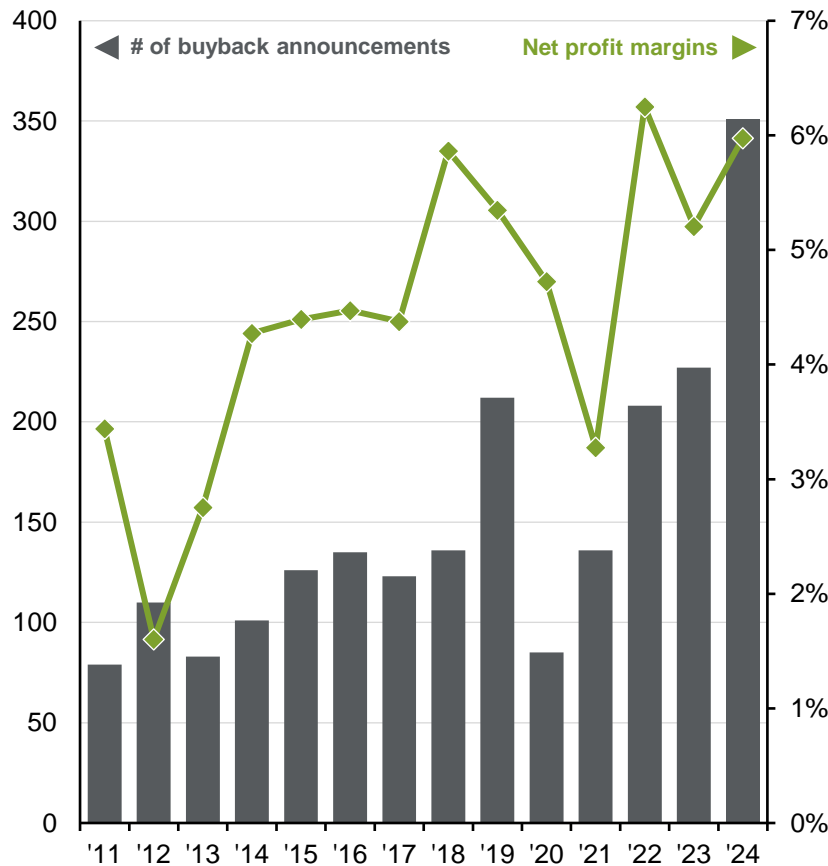
Japan: Corporate governance reforms

MI

GTIA

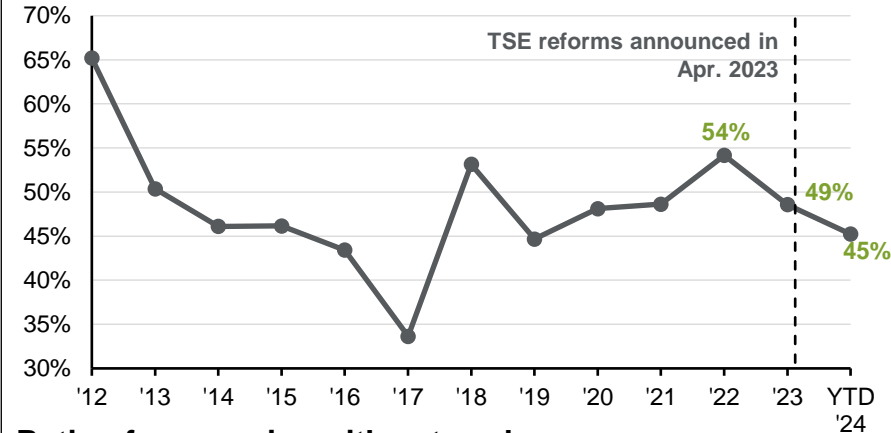
62

TOPIX share buyback announcements and net profit margins



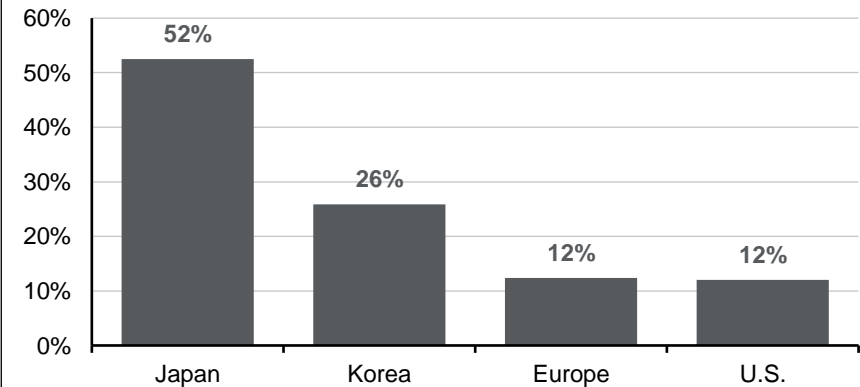
Price-to-book ratio

Percent of companies with P/B ratios less than 1x, TOPIX Index



Ratio of companies with net cash

Share of index constituents



Source: J.P. Morgan Asset Management. (Left) Bank of America Global Research – Japan Equity Strategy, Bloomberg, QUICK. Based on TOPIX constituents. Shows fiscal year data going from Apr.-Mar. for each year. Shows trailing 12-month profit margins. (Top right) Bloomberg, TOPIX. TSE stands for Tokyo Stock Exchange. The Tokyo Stock Exchange announced in April 2023 that listed companies that trade below bookvalue must outline a plan to maximize shareholder value and comply with shareholder, liquidity and outside director reforms or face delisting. (Bottom right) FactSet, MSCI, Korea Exchange, Tokyo Exchange, Standard & Poor's. Net cash is calculated by subtracting total liabilities from total cash holdings of a company. Europe, Japan, Korea, and U.S. equity indices used are the MSCI Europe, TOPIX, KOSPI and S&P 500, respectively. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Japan: Performance drivers

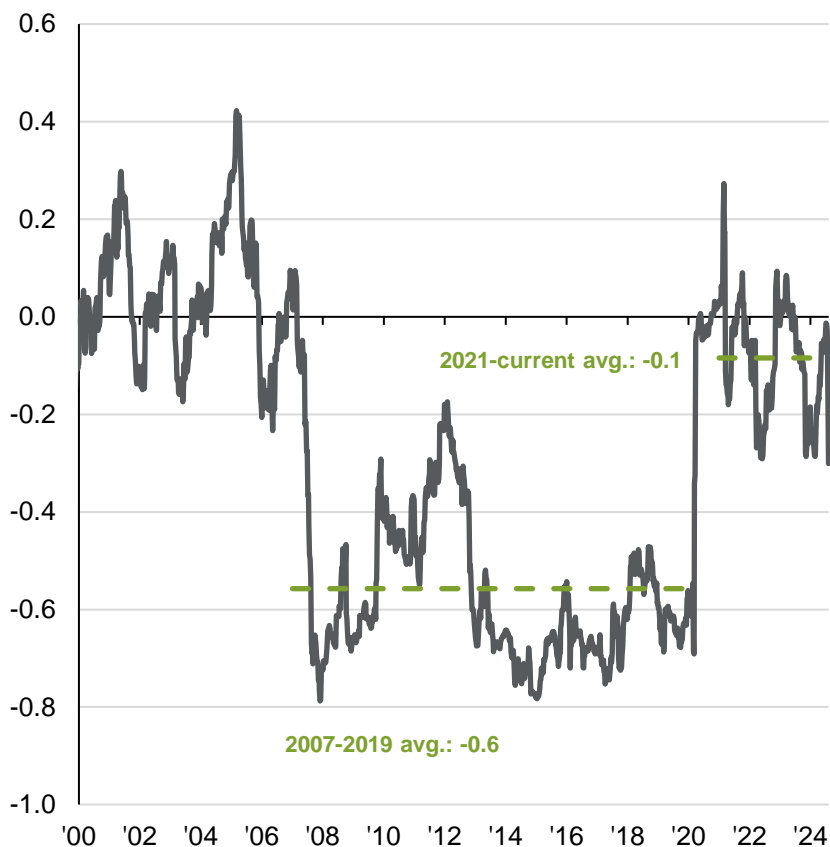
MI

GTIA

63

Correlation between the yen and Japanese equities

Rolling 1yr. correlation between weekly movement in JPY per USD spot rate and MSCI Japan



Growth in nominal exports and earnings per share

Year-over-year change, seasonally-adjusted



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Left) Reuters. MSCI Japan performance calculated using local currency index. (Right) Ministry of Finance – Japan, MSCI. Past performance is not indicative of current or future results. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Japan: Market characteristics

MI

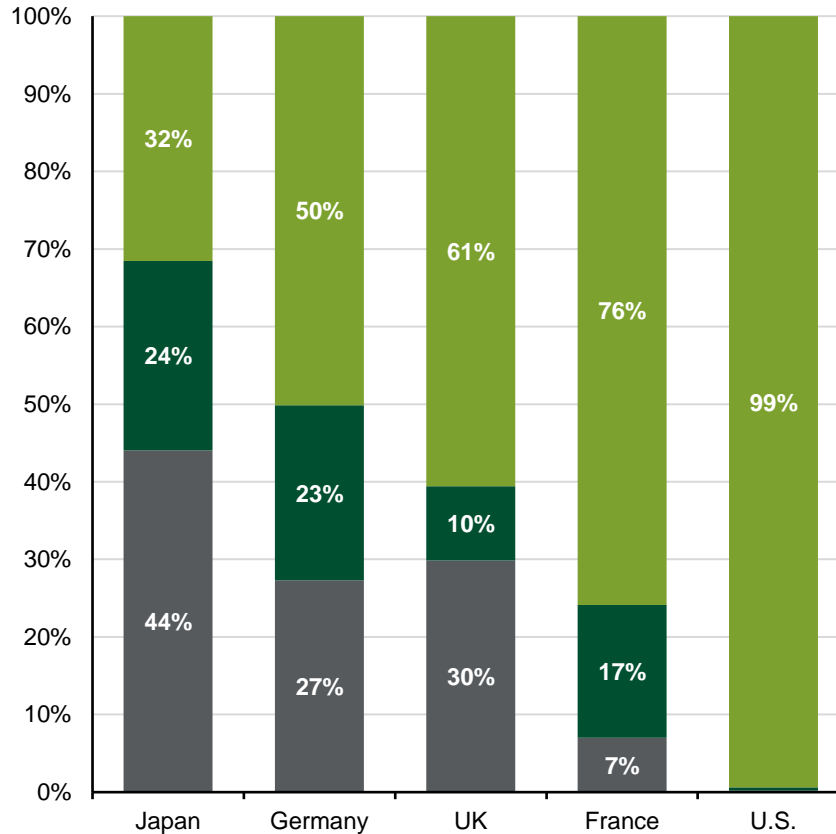
GTIA

64

Research analyst coverage by market

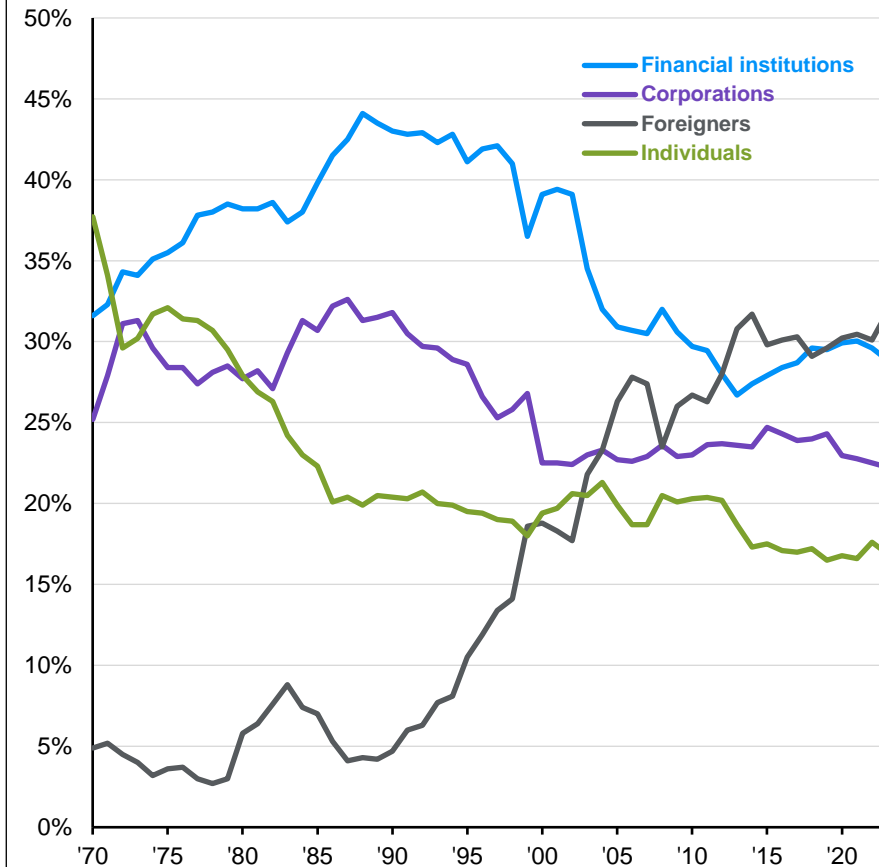
% of analyst coverage

■ 0 analysts ■ 1-2 analysts ■ 3+ analysts



Ownership of Japanese stocks

By investor category, annual



Source: J.P. Morgan Asset Management. (Left) FactSet, Jefferies. Japan: TOPIX, Germany: CDAX, UK: FTSE All-Share, France: SBF 250, U.S.: S&P 500. (Right) Japan Exchange Group – Annual Ownership Survey 2023. Financial institutions include city and regional banks, trust banks, investment trusts, annuity trusts, life insurance companies, non-life insurance companies, and other financial institutions. Corporations include securities companies and business corporations. Foreigners include foreign institutions and individuals.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



India: Equity market size and evolution

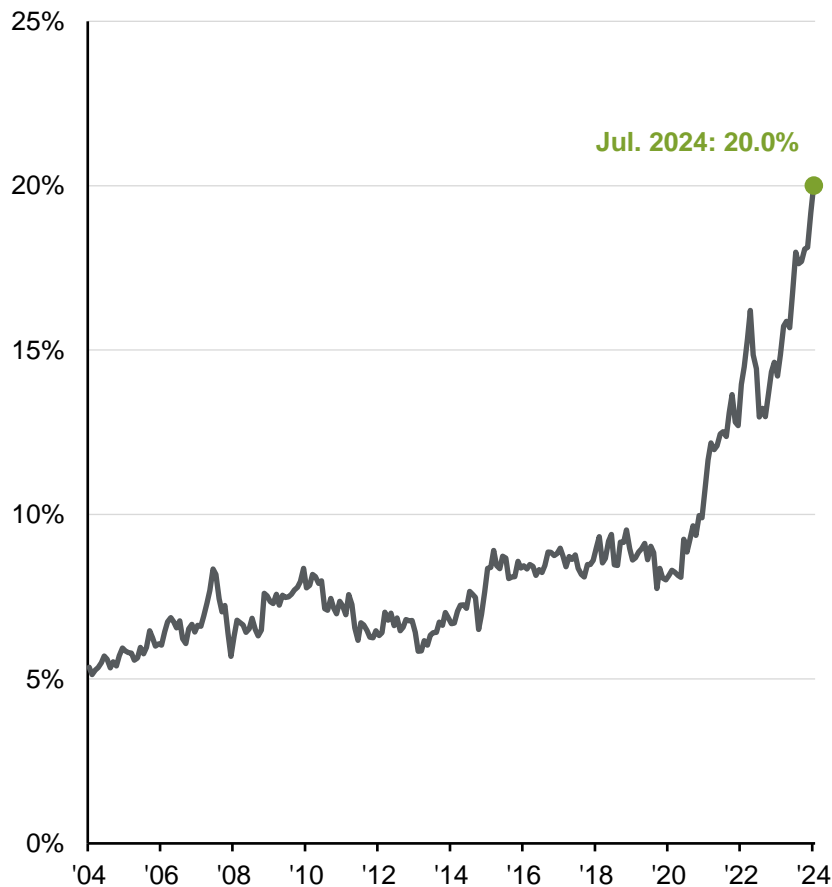
MI

GTIA

65

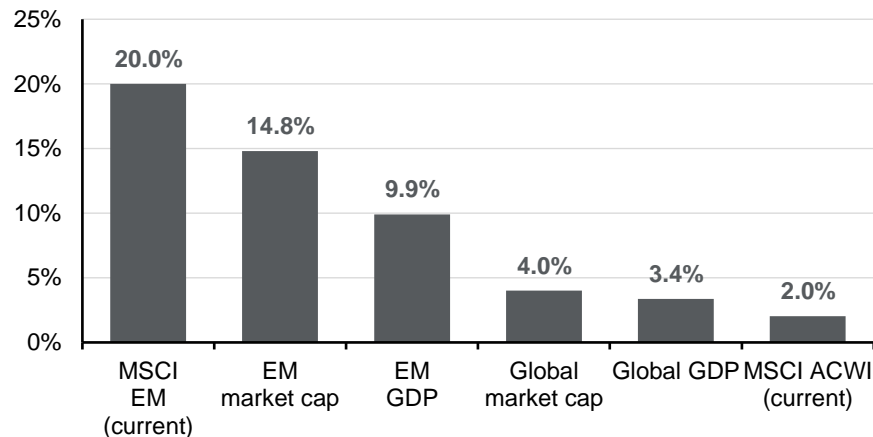
Weighting of India in the MSCI EM Index

Monthly



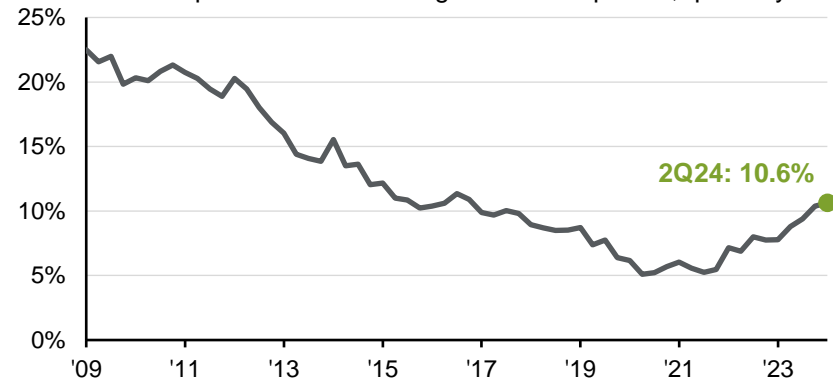
India's weight in selected indicators

% of total



State-owned enterprises

% of market cap of all stock exchange-listed companies, quarterly



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Top right) World Bank – World Development Indicators. EM = Emerging Markets. Global GDP figures are as of 2023. (Bottom right) National Stock Exchange of India Limited. Primeinfobase.com. *Guide to Investing in Asia*. Data are as of July 31, 2024.



India: Valuations and earnings

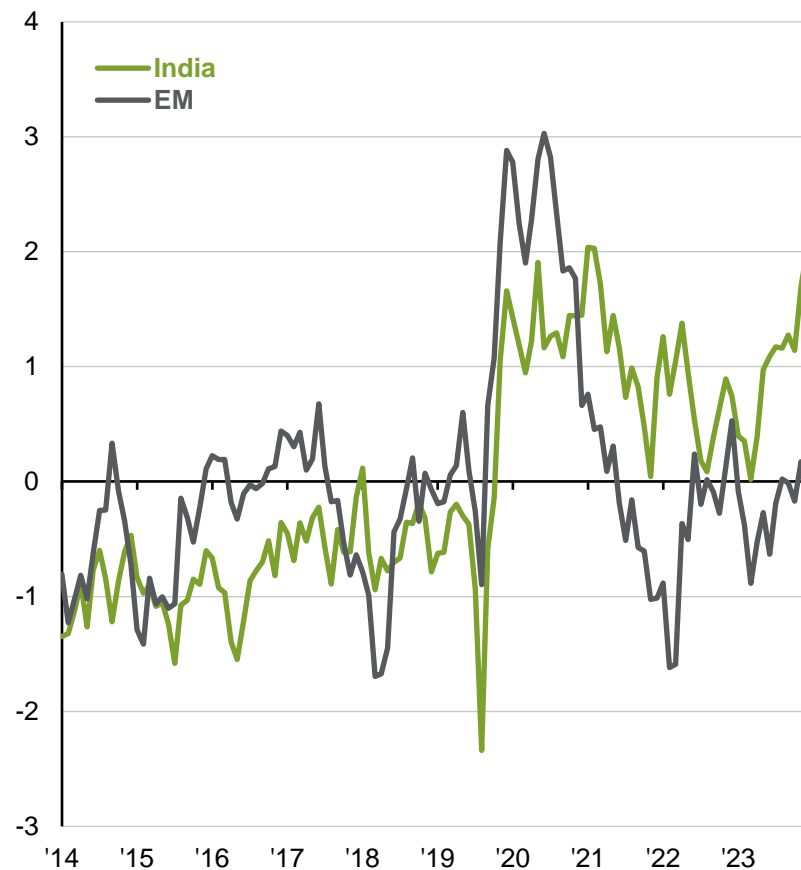
MI

GTIA

66

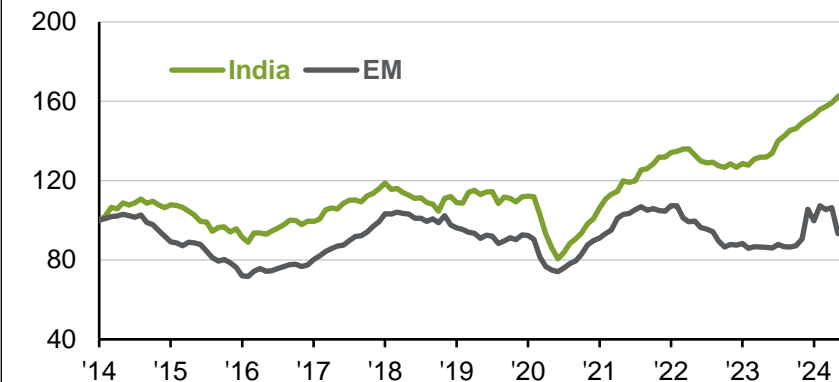
Valuations relative to history

Number of standard deviations above/below 10-year avg.



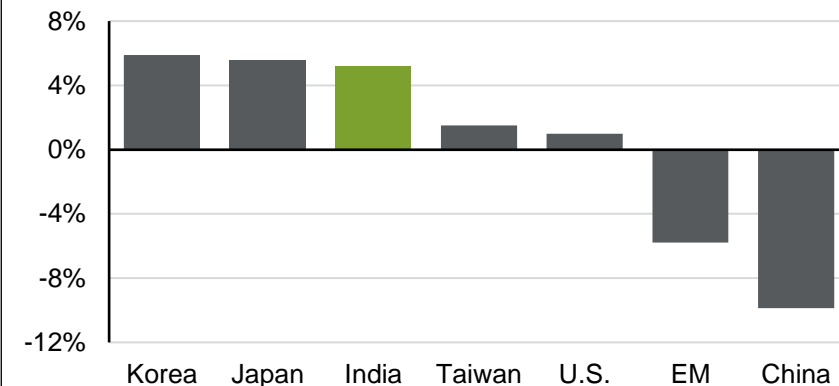
Earnings growth

Next 12 months EPS growth, Jan. 2014 =100, USD



Earnings revisions

2025 EPS revision from 12 months ago, USD



Source: FactSet, MSCI, J.P. Morgan Asset Management. All markets are represented by their respective MSCI index except for the U.S. which is represented by the S&P 500. (Left) Standard deviation is a measure of dispersion relative to the mean. *Guide to Investing in Asia*. Data are as of July 31, 2024.

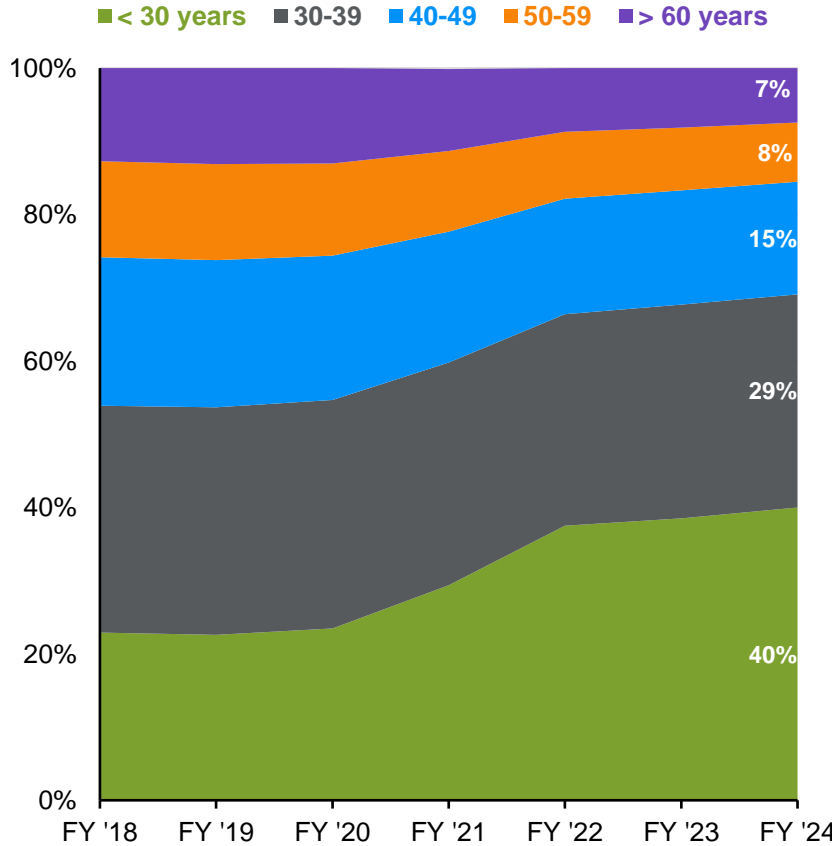


India: Evolving market participation

MI GTIA 67

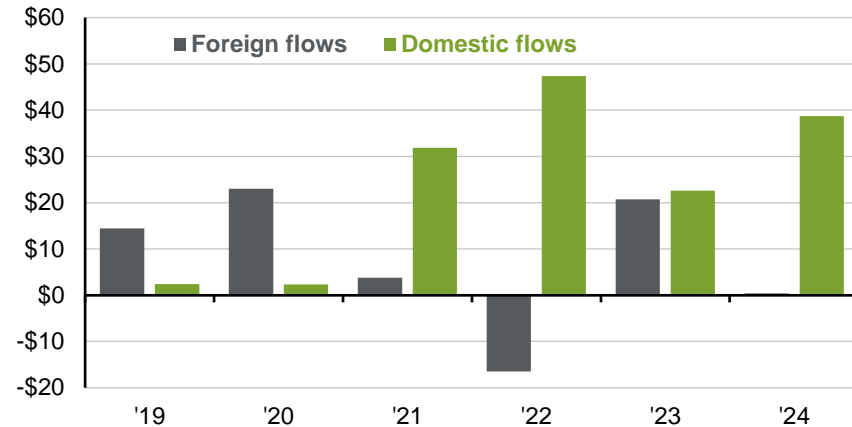
Domestic investors by age

Proportion of individual investors by age



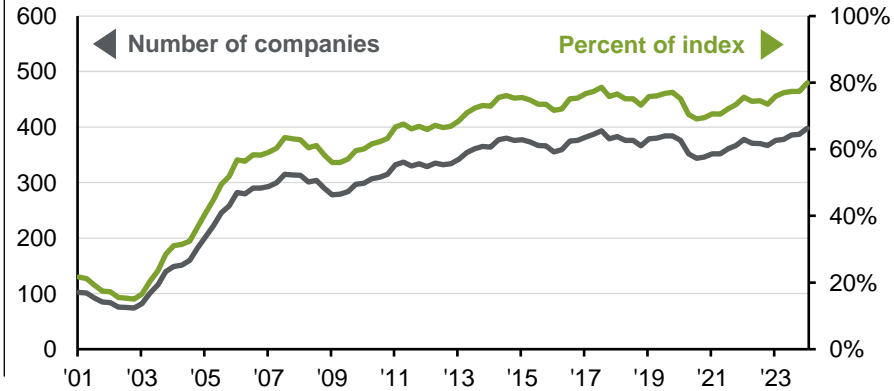
Domestic vs. foreign flows into Indian equities

USD billions



Foreign market participation

Nifty 500 companies with foreign institutional investors holdings >5%



Source: J.P. Morgan Asset Management. (Left) NSE, EPR. FY represents fiscal year, which runs from April to March in India. (Top right) NSE Market Pulse. Data for 2024 is available on a one-month lag. (Bottom right) National Stock Exchange of India Limited (NSE). FII stands for Foreign Institutional Investor, which is an investor or investment fund investing in a market outside of the one in which it is registered or headquartered. The Nifty 500 is a stock market index comprised of the top 500 listed companies on the National Stock Exchange of India. Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Taiwan: Market snapshot

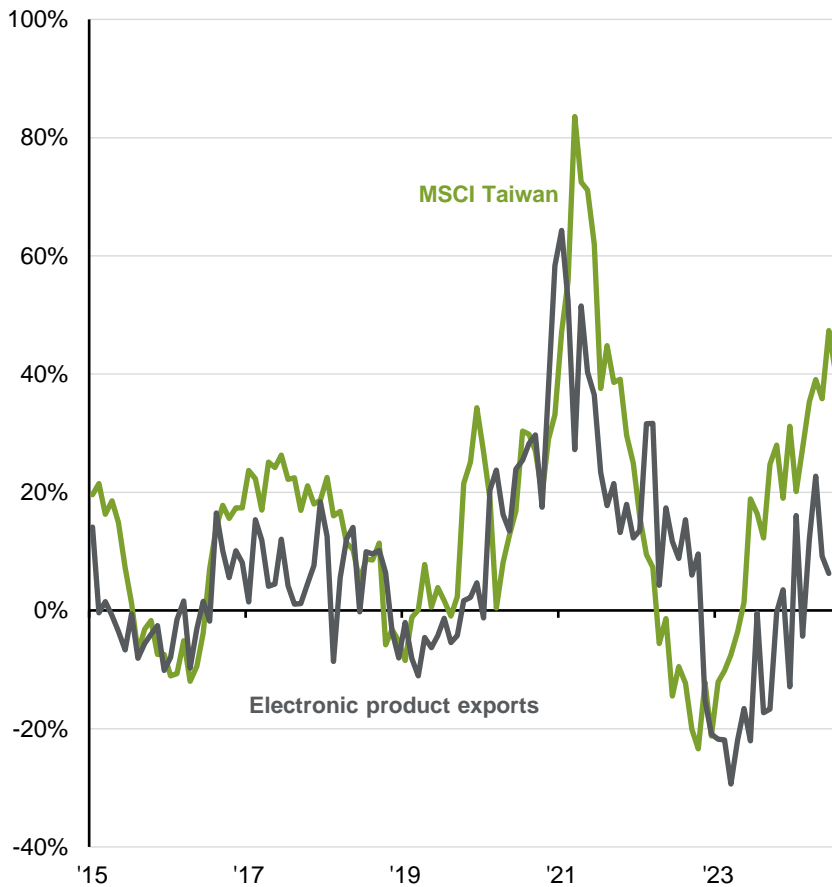
MI

GTIA

68

Electronic product exports and equity returns

Year-over-year % change



Single stock concentration

2-year rolling weekly correlation between returns of MSCI Taiwan and largest stock by market cap*



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Left) Ministry of Economic Affairs Taiwan. Past performance is not indicative of current or future results. *As of 7/31/2024, the largest stock by market cap is the Taiwan Semiconductor Manufacturing Company. Past performance is not indicative of current or future results. *Guide to Investing in Asia*. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Korea: Market snapshot

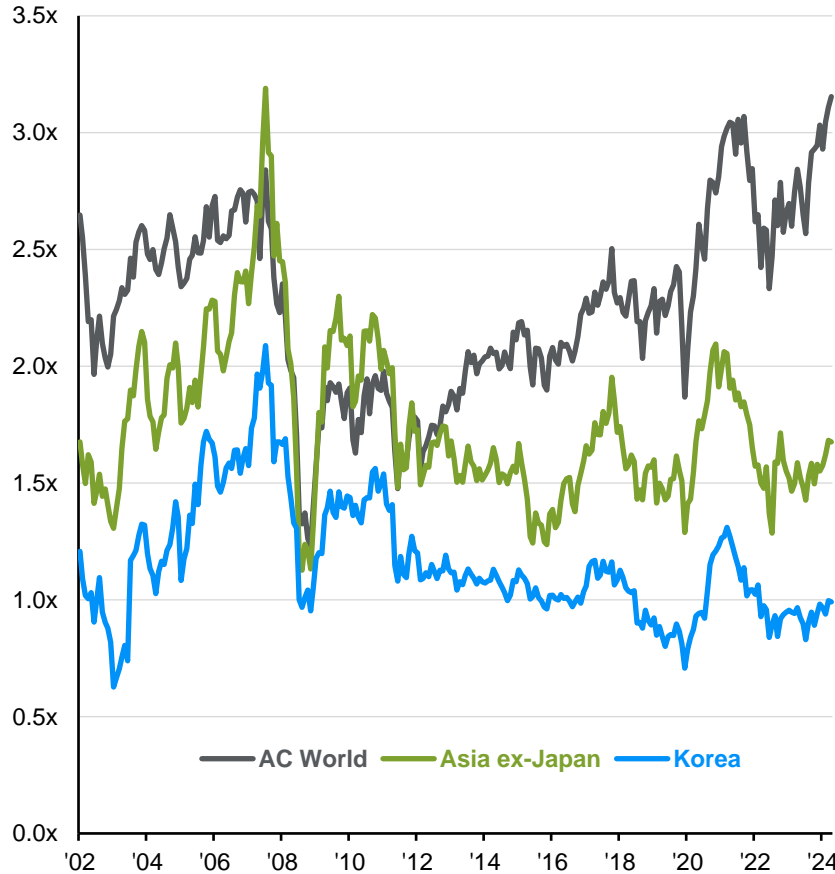
MI

GTIA

69

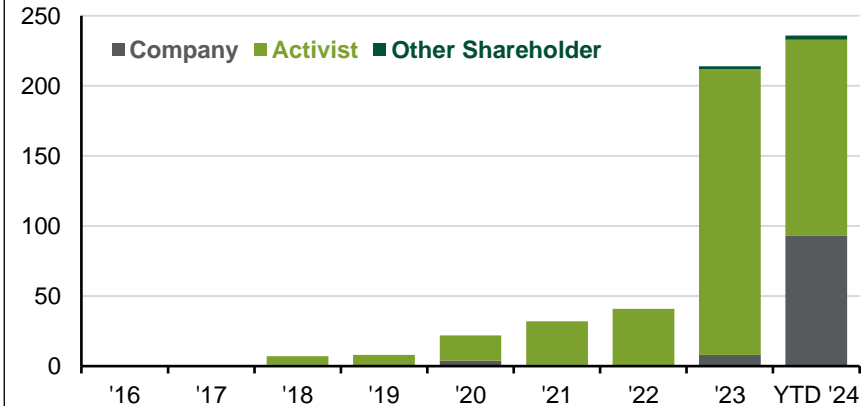
Price-to-book ratio

Monthly



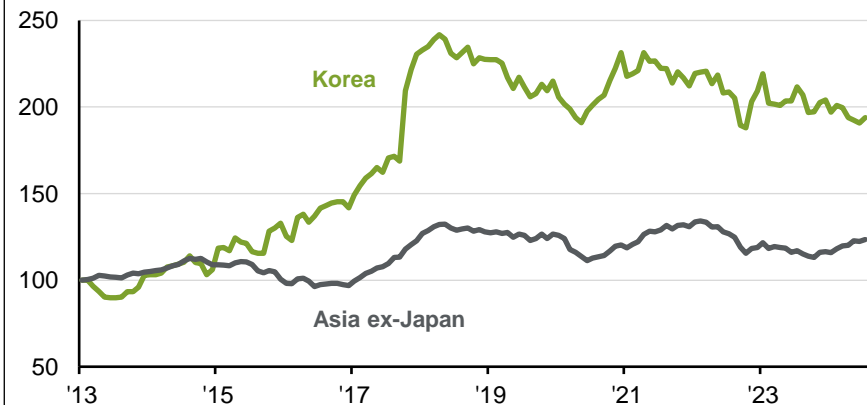
Number of company and activist proposals

All publicly-listed companies in Korea



Dividend per share growth

Jan. 2013 = 100, USD, monthly



Source: J.P. Morgan Asset Management. (Left) Bloomberg, KOSPI, MSCI. AC World = MSCI AC World Index, Asia ex-Japan = MSCI AC Asia ex-Japan, Korea = KOSPI Index. (Top right) Bloomberg. Includes all proposals, not just those that were passed. (Bottom right) FactSet, MSCI. Korea = MSCI Korea Index. Asia ex-Japan = MSCI AC Asia ex-Japan Index. *Guide to Investing in Asia*. Data are as of July 31, 2024.



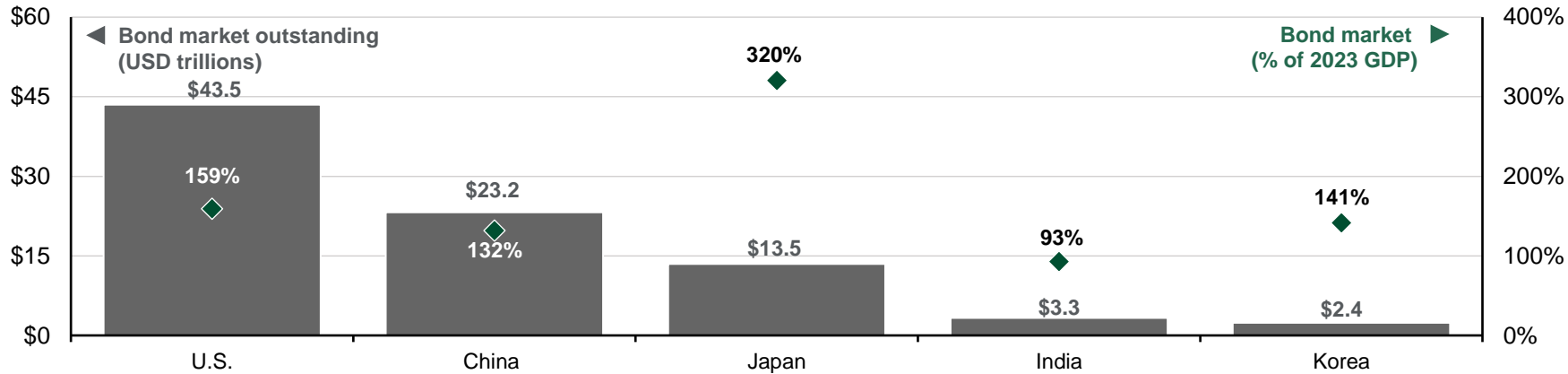
Global debt and bond market size

MI

GTIA

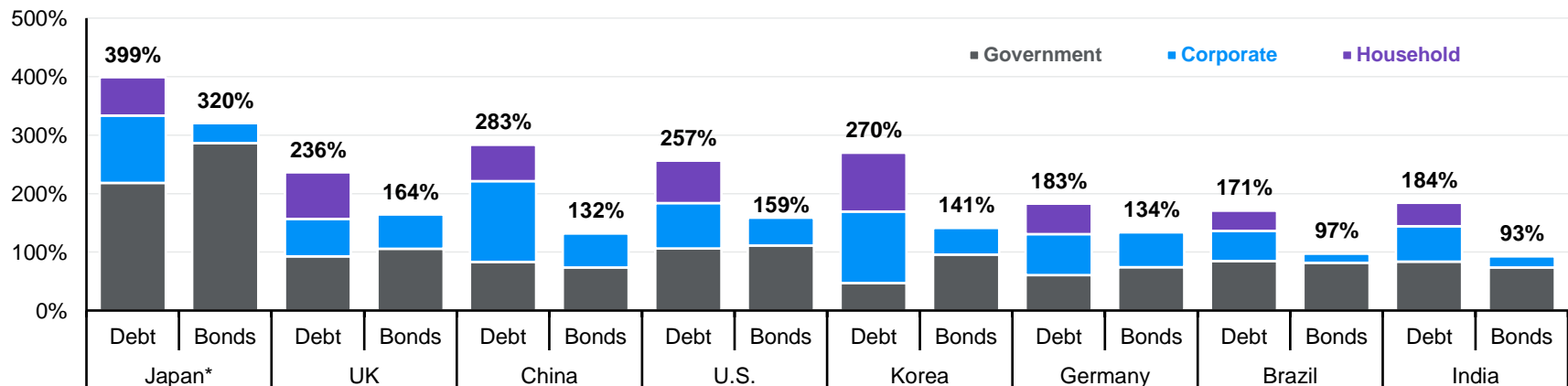
70

Bond market size in value and as % of GDP



Debt and bonds as % of GDP

Total market value of total debt and bonds* as % of nominal GDP, 2023



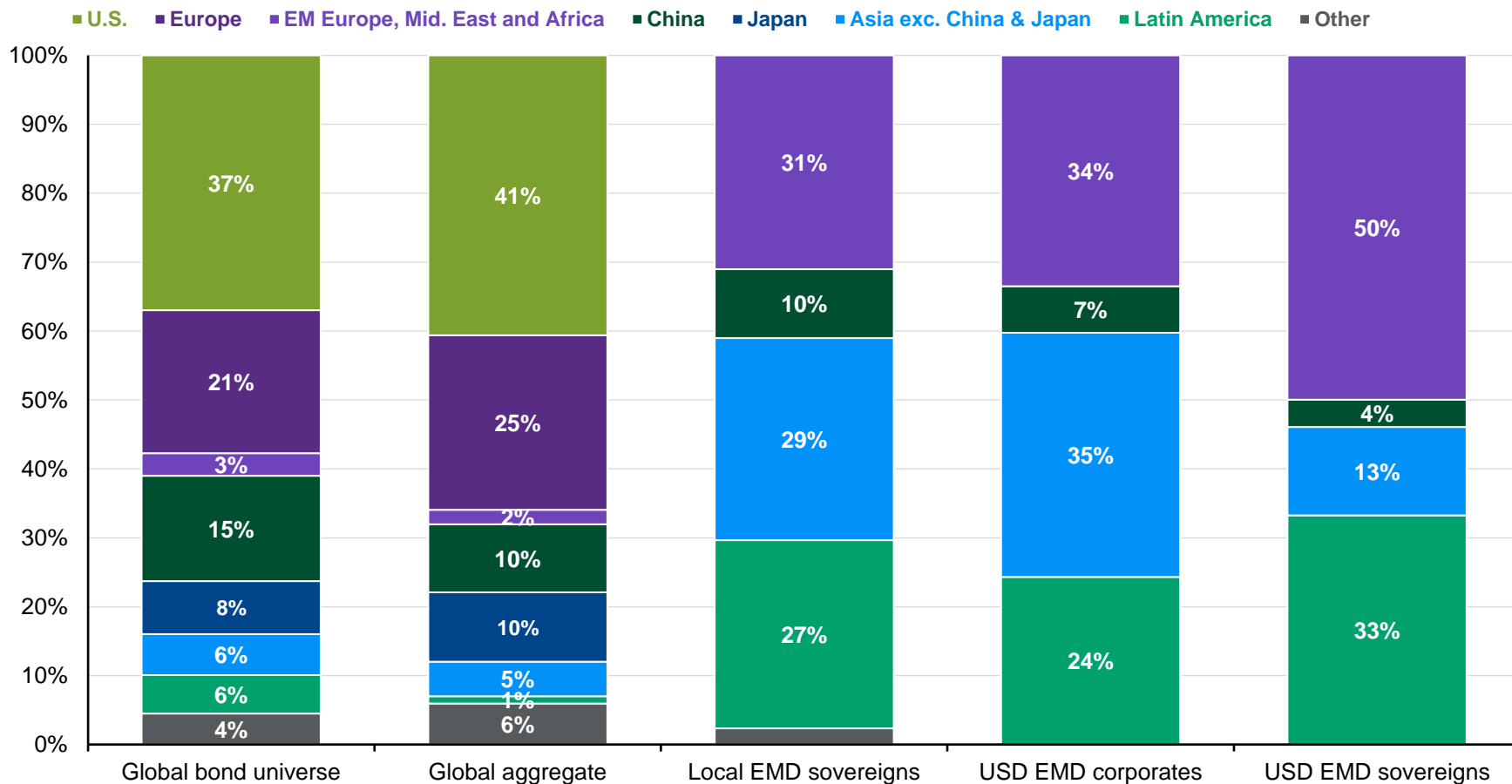
Source: BIS, Bloomberg L.P., IMF, World Federation of Exchanges, J.P. Morgan Asset Management. Debt valuation is as of 4Q23, bond valuation is as of July 31, 2024. Bond market outstanding refers to the total U.S. dollar value of bonds (corporate and government) in the market and does not reflect mandatory 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 Investing in Asia. Data are as of July 31, 2024.



Global bond index weightings

MI GTIA 71

Weightings in different bond universes and indices



Source: BIS, Bloomberg L.P., 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). Global bond universe data from the BIS are as of 4Q23. If the total debt figure was not available, international debt + domestic debt was used as a proxy.
Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Fixed income returns

MI GTIA 72

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD '24	2014-2023	
											Ann.	Vol.
India 13.7%	Asia HY 5.2%	U.S. HY 17.1%	Local EMD 15.2%	Cash 1.8%	U.S. IG 14.5%	U.S. IG 9.9%	U.S. HY 5.3%	Cash 1.5%	U.S. HY 13.4%	Asia HY 12.1%	U.S. HY 4.6%	Local EMD 11.1%
China 9.4%	India 3.8%	Asia HY 11.2%	USD EMD 9.3%	U.S. Treas 0.9%	USD EMD 14.4%	India 9.0%	China 1.4%	China - 8.2%	Local EMD 12.7%	U.S. HY 4.6%	India 4.2%	Asia HY 10.2%
USD Asian 8.3%	China 2.9%	USD EMD 10.2%	U.S. HY 7.5%	China 0.8%	U.S. HY 14.3%	U.S. Treas 8.0%	Cash 0.0%	India - 8.3%	USD EMD 10.5%	USD Asian 4.2%	China 3.6%	USD EMD 8.6%
U.S. IG 7.5%	USD Asian 2.8%	Local EMD 9.9%	Asia HY 6.9%	India - 0.5%	Local EMD 13.5%	U.S. HY 7.1%	India - 0.2%	USD Asian - 11.0%	U.S. IG 8.5%	USD EMD 3.7%	USD Asian 3.1%	U.S. HY 7.6%
Asia HY 6.1%	USD EMD 1.2%	U.S. IG 6.1%	U.S. IG 6.4%	USD Asian - 0.8%	Asia HY 12.8%	USD Asian 6.3%	U.S. IG - 1.0%	U.S. HY - 11.2%	India 8.1%	Cash 3.1%	USD EMD 3.1%	U.S. IG 6.9%
USD EMD 5.5%	U.S. Treas 0.8%	USD Asian 5.8%	USD Asian 5.8%	U.S. HY - 2.1%	India 11.6%	China 6.3%	USD EMD - 1.5%	Local EMD - 11.7%	USD Asian 7.0%	China 3.0%	U.S. IG 3.0%	India 5.6%
U.S. Treas 5.1%	Cash 0.0%	China 3.7%	India 4.9%	U.S. IG - 2.5%	USD Asian 11.3%	USD EMD 5.9%	U.S. Treas - 2.3%	U.S. Treas - 12.5%	China 6.5%	India 3.0%	Asia HY 1.9%	USD Asian 4.9%
U.S. HY 2.5%	U.S. IG - 0.7%	India 2.0%	China 4.6%	Asia HY - 3.2%	China 9.6%	Asia HY 4.9%	USD Asian - 2.4%	Asia HY - 15.1%	Cash 5.1%	U.S. IG 1.9%	U.S. Treas 1.3%	U.S. Treas 4.8%
Cash 0.0%	U.S. HY - 4.5%	U.S. Treas 1.0%	U.S. Treas 2.3%	USD EMD - 4.6%	U.S. Treas 6.9%	Local EMD 2.7%	Local EMD - 8.7%	U.S. IG - 15.8%	Asia HY 4.8%	U.S. Treas 1.3%	Cash 1.2%	China 3.7%
Local EMD - 5.7%	Local EMD - 14.9%	Cash 0.3%	Cash 0.8%	Local EMD - 6.2%	Cash 2.2%	Cash 0.5%	Asia HY - 11.0%	USD EMD - 16.5%	U.S. Treas 4.1%	Local EMD - 1.5%	Local EMD 0.1%	Cash 0.5%

Source: Bloomberg, J.P. Morgan Economic Research, J.P. Morgan Asset Management. All returns are total return in USD. U.S. HY: Bloomberg U.S. Aggregate Credit Index – Corporate High Yield, Local EMD: JP Morgan GBI-EM Global Diversified Composite Index, USD EMD: JP Morgan EMBI Global Index, U.S. IG: Bloomberg U.S. Corporate Index – Investment Grade, China: JP Morgan EMBI China Index, USD Asian: JP Morgan JACI, India: MSCI EMBI India Index, Asia HY: JP Morgan JACI Non-Investment Grade, U.S. Treas: Bloomberg Global U.S. Treasury Index, Cash: Bloomberg U.S. Treasury Index – Bills (1-3 months). Past performance is not indicative of current or future results.
Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Sovereign bonds

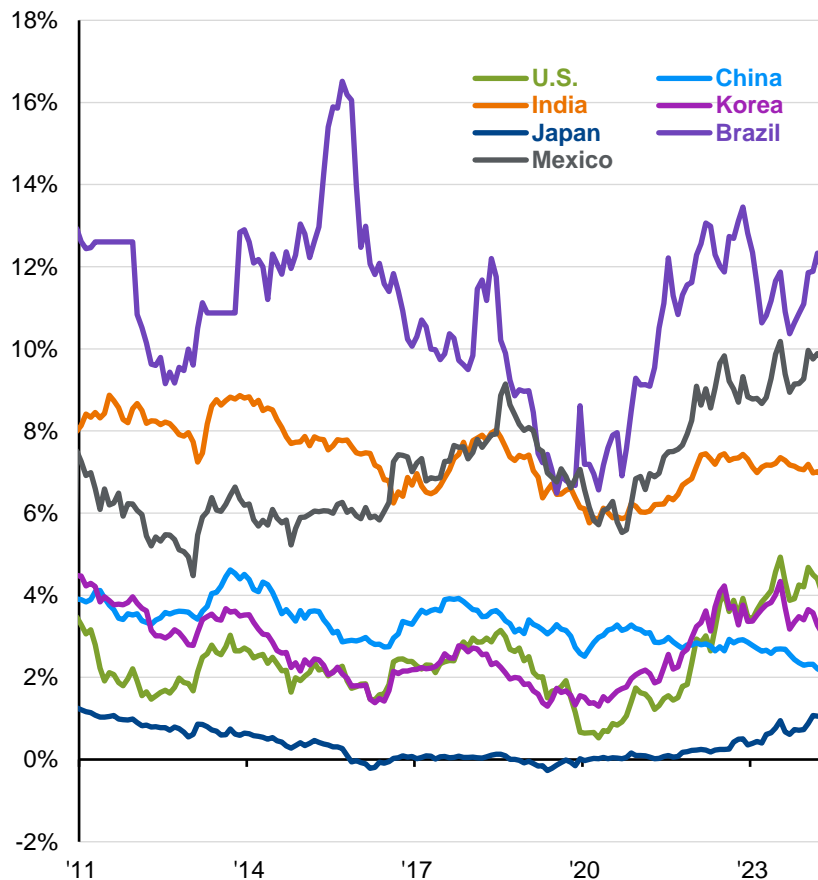
MI

GTIA

73

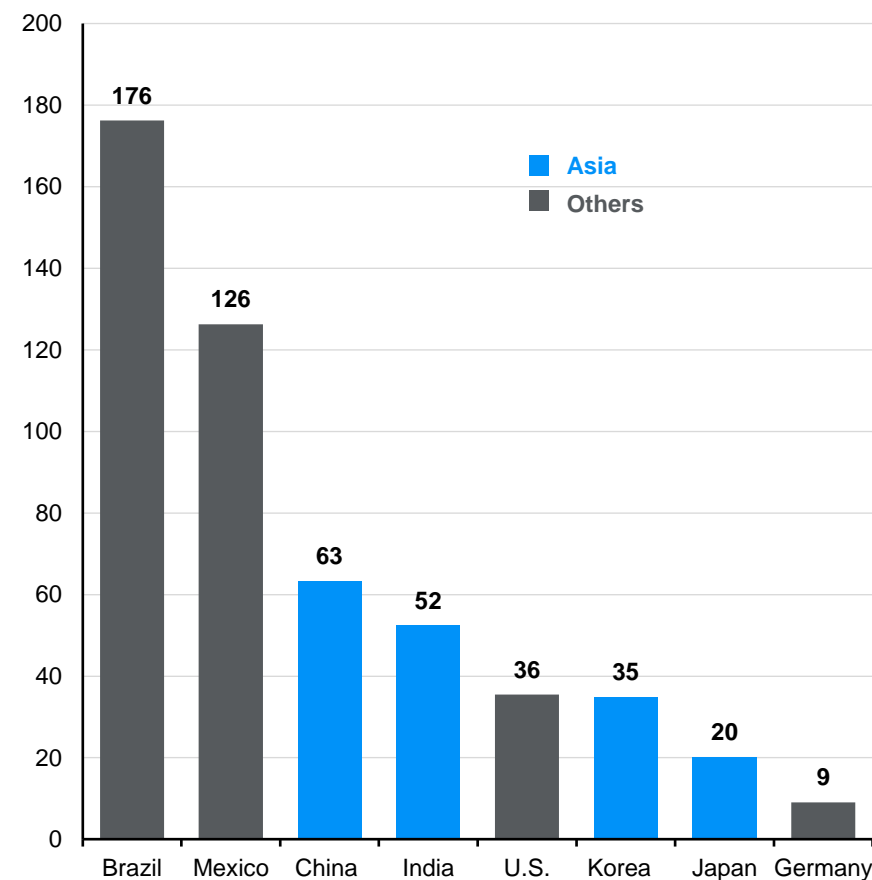
Sovereign bond yields

10-year maturity, monthly



Current credit default swap spreads

Basis points, 5-year USD sovereign bond



Source: J.P. Morgan Asset Management. (Left) Bloomberg. (Right) FactSet. CDS spreads are as of 8/6/2024.

Guide to Investing in Asia. Data are as of July 31, 2024.

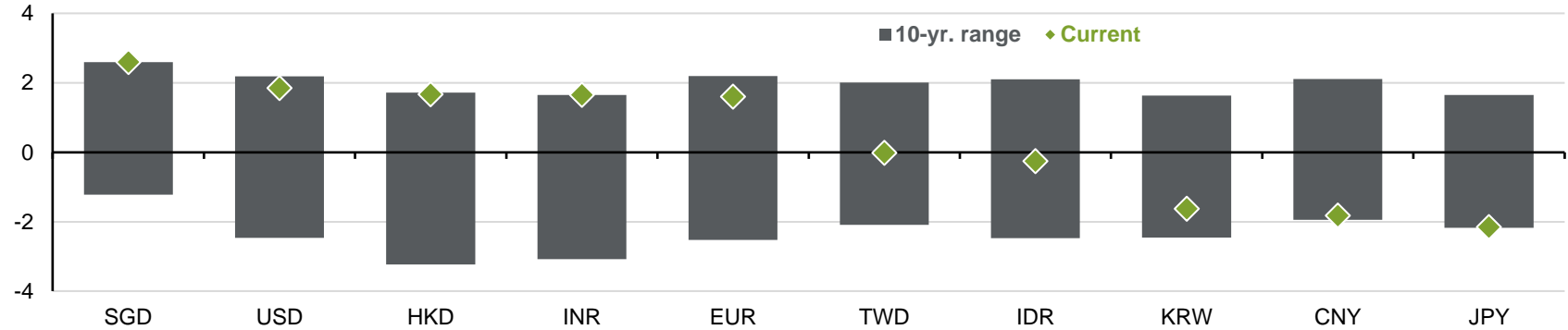
J.P.Morgan
ASSET MANAGEMENT



Asian currencies

Currency deviation from 10-year average in real effective exchange rate terms

Standard deviations above/below 10-year average



Asian FX correlations with the CNY

Correlation coefficient



Source: J.P. Morgan Asset Management. INR: Indian rupee, IDR: Indonesian rupiah, JPY: Japanese yen, KRW: Korean won, HKD: Hong Kong dollar, SGD: Singapore dollar, TWD: Taiwan dollar, USD: U.S. dollar, EUR: euro, CNY: Chinese yuan. (Top) J.P. Morgan Economic Research. The real trade-weighted exchange rate index is the weighted average of a market's currency relative to a basket of other major currencies adjusted for the effects of inflation. The weights are determined by comparing the relative trade balances, in terms of one market's currency, with other markets within the basket. (Bottom) FactSet. Correlation with the CNY is calculated by taking the correlation of USDCNY returns and the returns of other currency shown per USD. *Guide to Investing in Asia*. Data are as of July 31, 2024.



Private equity: Global fundraising

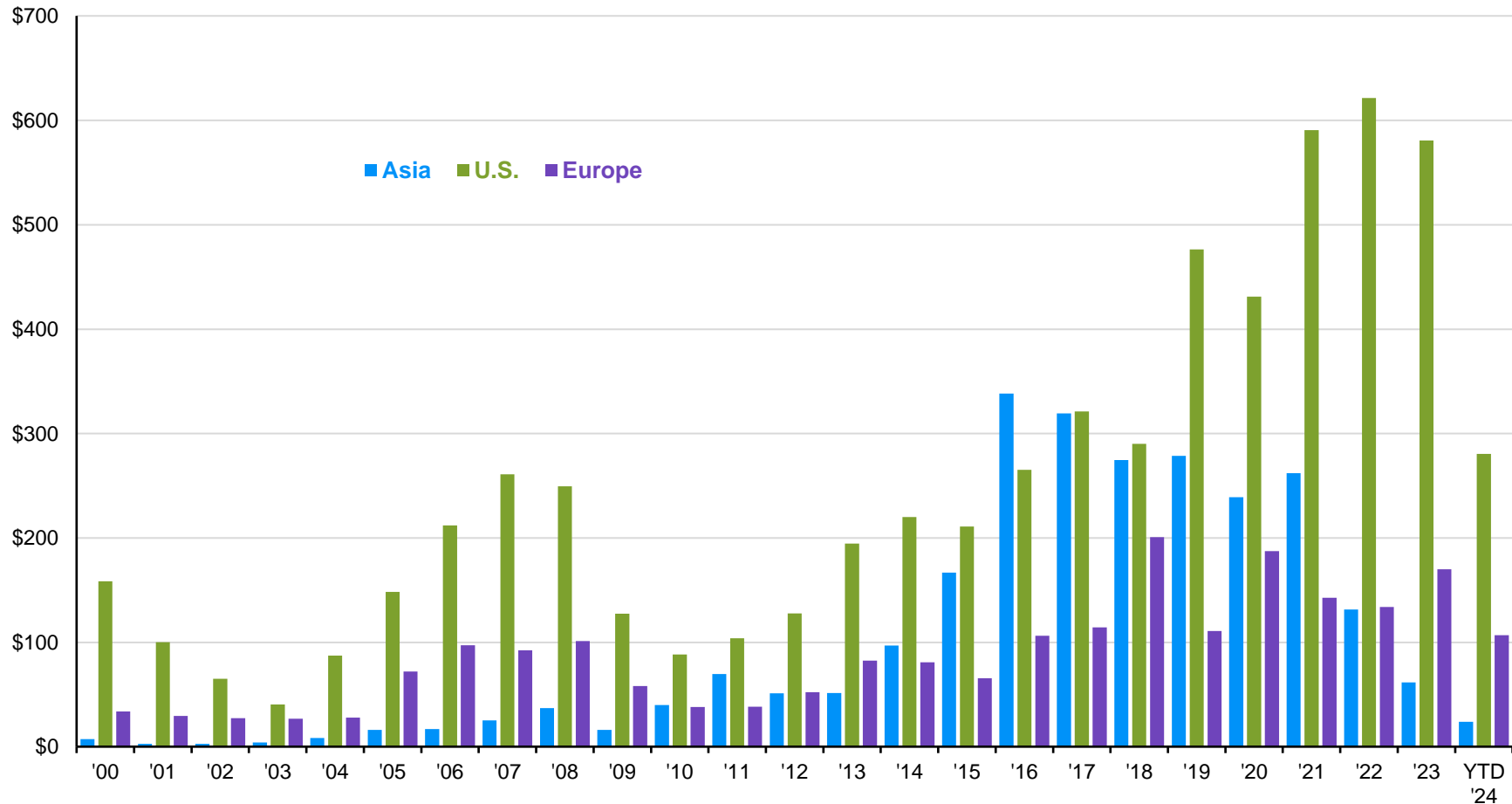
MI

GTIA

75

Private equity fundraising

USD billions



Source: Preqin, J.P. Morgan Asset Management. "Asia" = China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam. "Europe" = Western European countries.
Guide to Investing in Asia. Data are as of July 31, 2024.



Private equity: Deals by market and industry

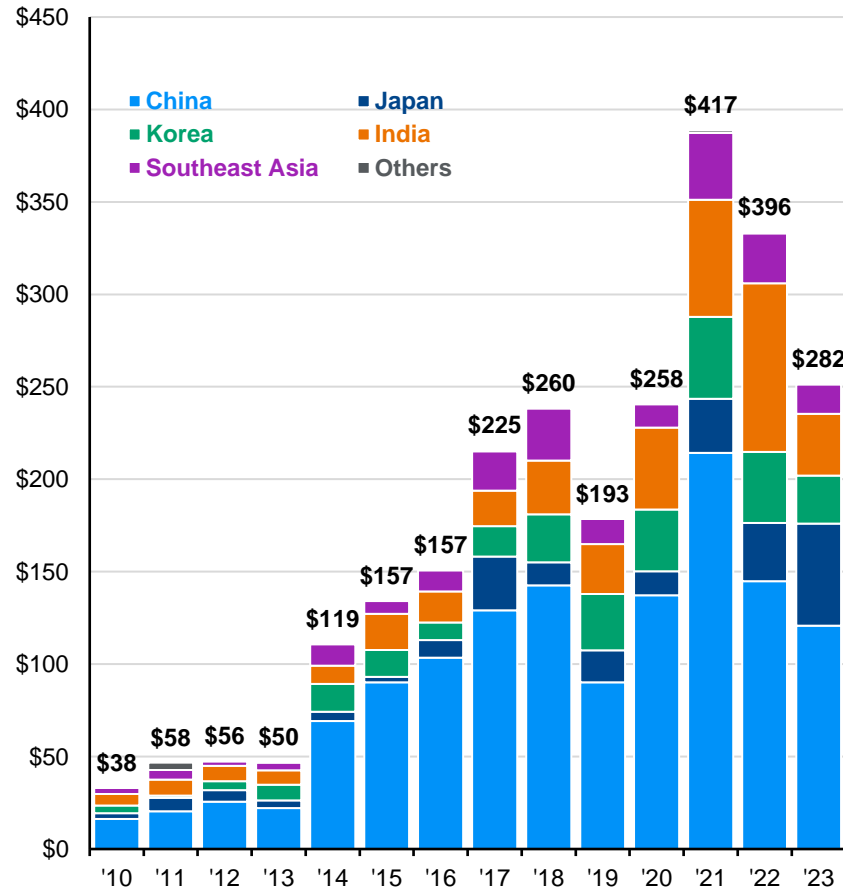
MI

GTIA

76

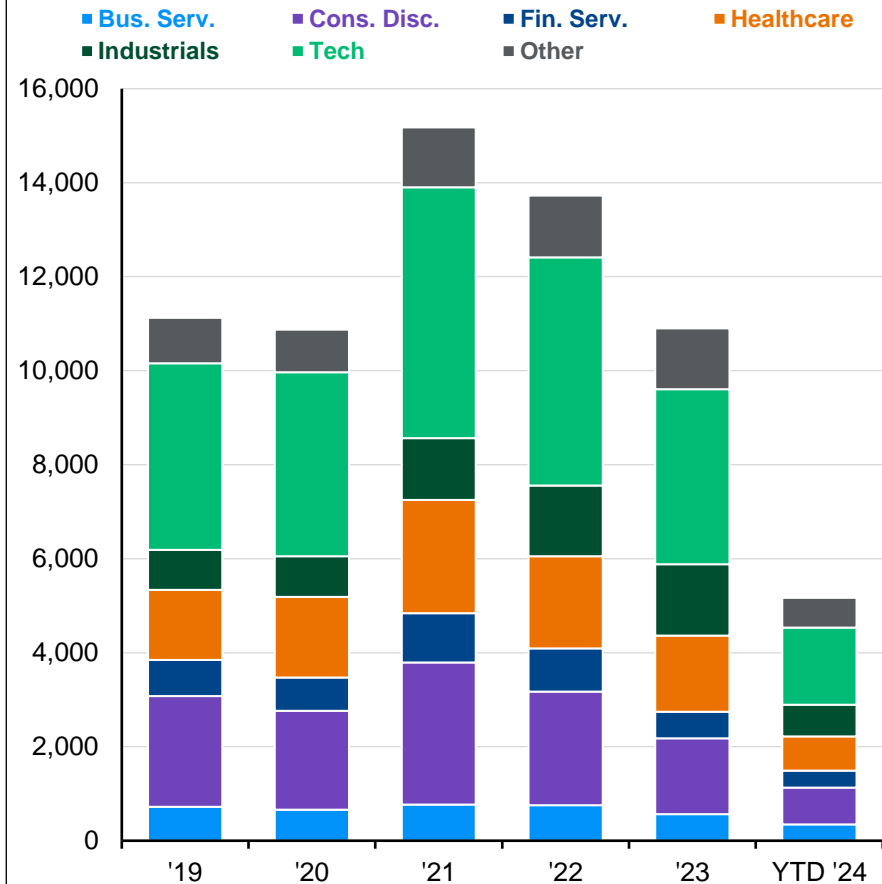
Private equity deal value by market

USD billions



Private equity deals in Asia by industry

Number of deals



Source: Preqin, J.P. Morgan Asset Management. (Left) Others includes other Asian markets. (Right) Data from the following markets are included: China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam. Other includes Energy & Utilities, Raw Materials & Natural Resources, Real Estate and Telecoms & Media. Bus. Serv.: Business Services, Cons. Disc.: Consumer Discretionary, Fin. Serv.: Financial Services, Tech: Technology.
Guide to Investing in Asia. Data are as of July 31, 2024.



Venture capital by market and industry

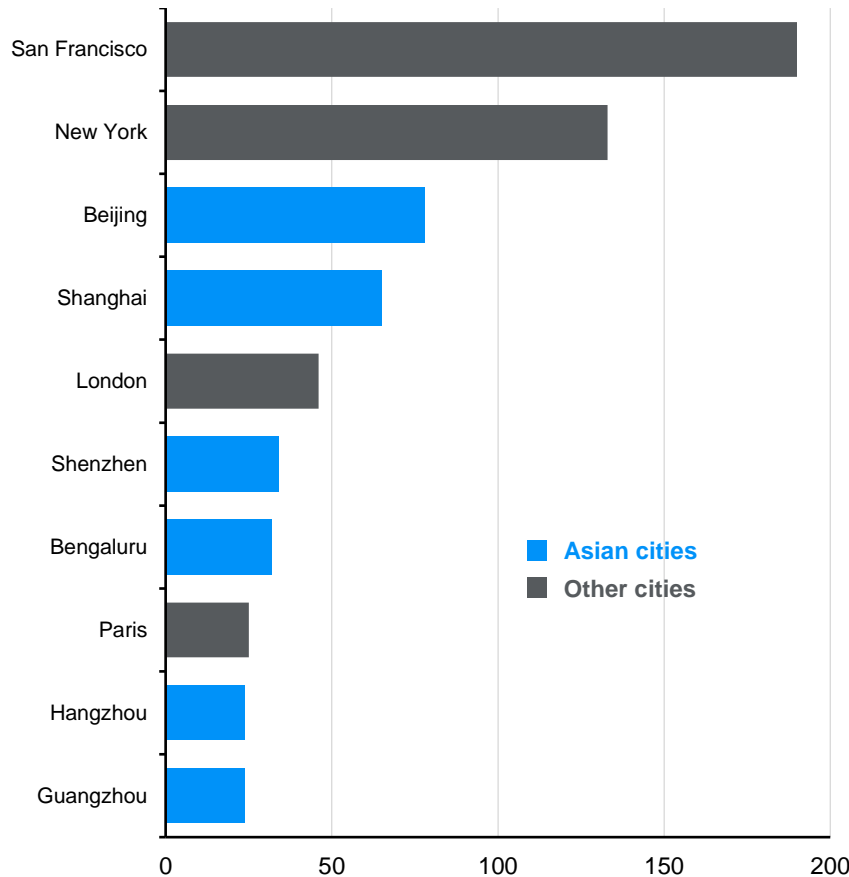
MI

GTIA

77

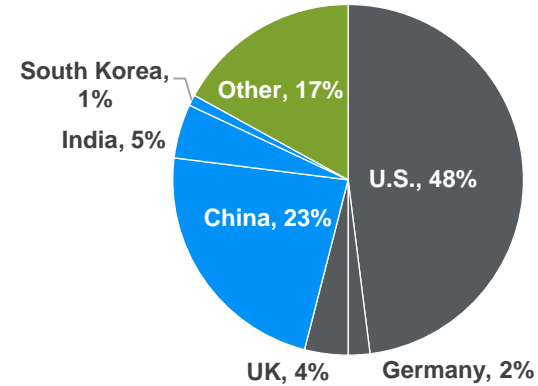
Number of unicorns by city

Top 10 cities in the world with the most unicorns

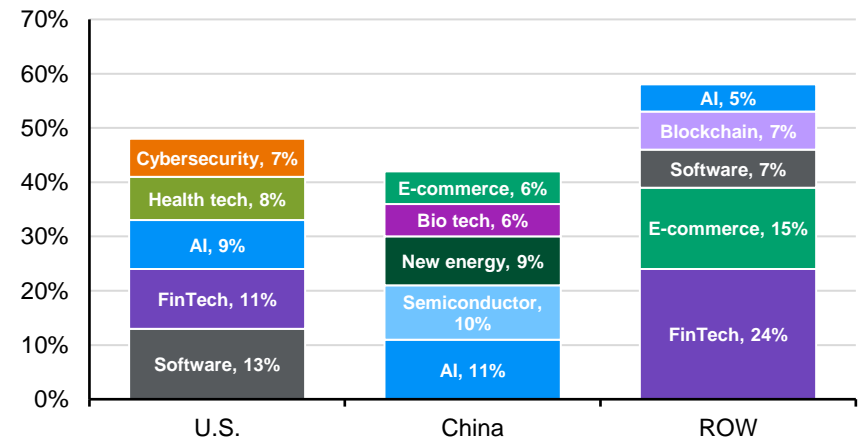


Number of unicorns by location

% of total unicorns worldwide



Share of top five industries for unicorns by location



Source: Hurun Research Institute, Hurun Global Unicorn Index 2024 Report, J.P. Morgan Asset Management. Unicorns defined as companies worth at least a billion dollars and are not yet listed on a public exchange.
Guide to Investing in Asia. Data are as of July 31, 2024.



Global investment in artificial intelligence

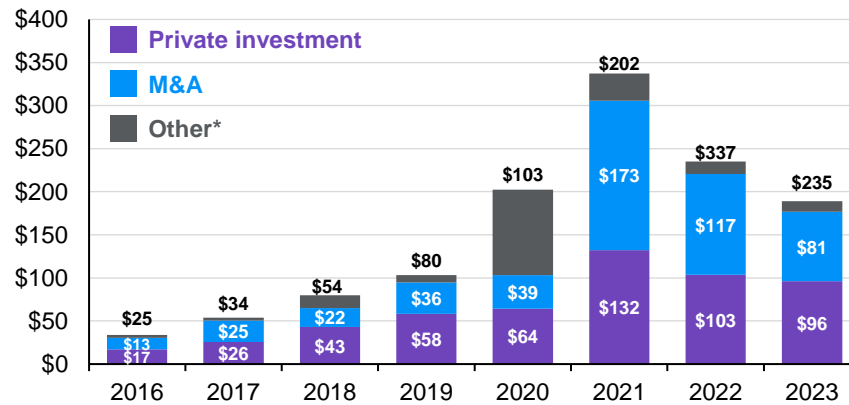
MI

GTIA

78

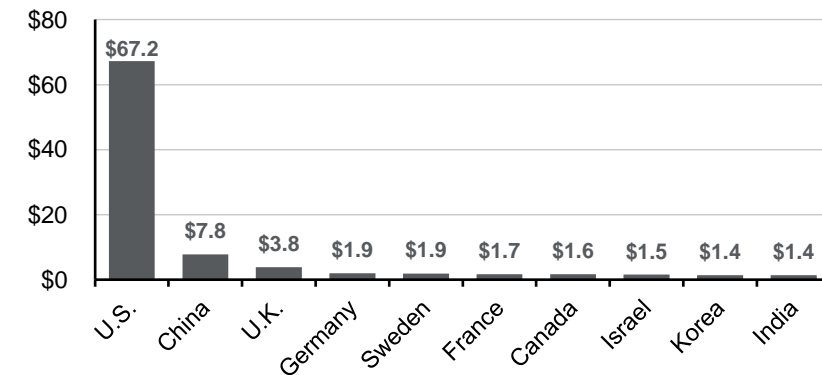
Global corporate investment in AI by type

USD billions



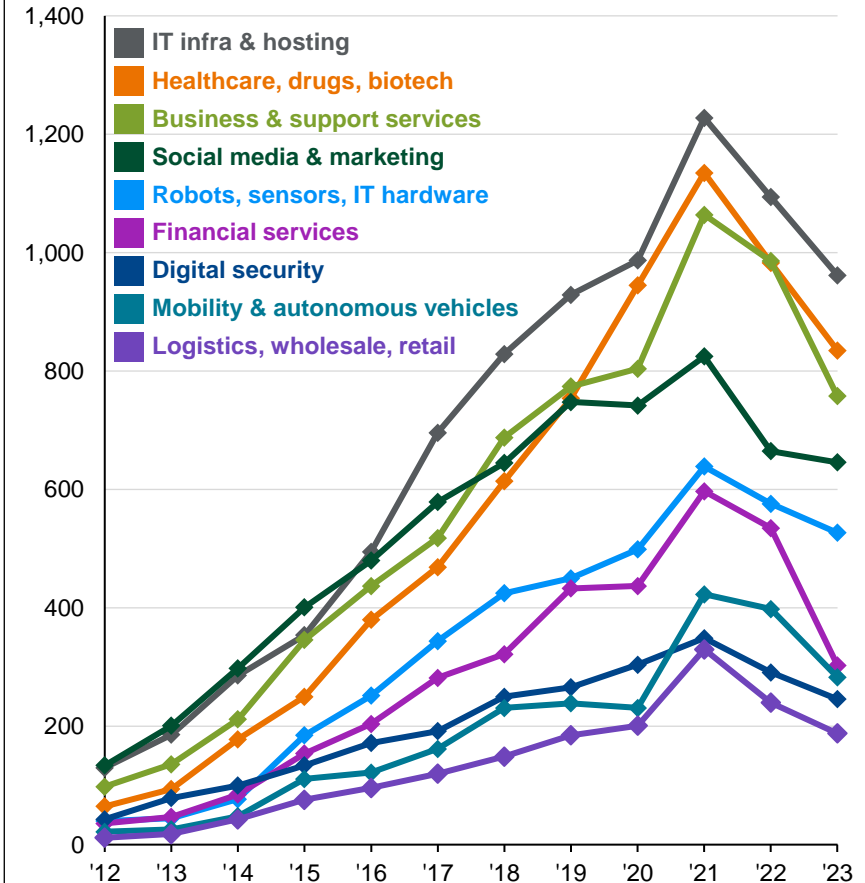
Global private investment in AI by region

USD billions, 2023



Global venture capital investments in AI by industry

Number of investments



Source: Stanford University, OECD, Preqin, J.P Morgan Asset Management.

(Left) Stanford Artificial Intelligence Index Report 2023. *Other includes minority stake and public offering. (Right) Data from OECD.AI. 2023 data is an estimate. This slide comes from our Guide to Alternatives. Guide to Investing in Asia. Data are as of July 31, 2024.



Real estate: Transaction volumes and performance

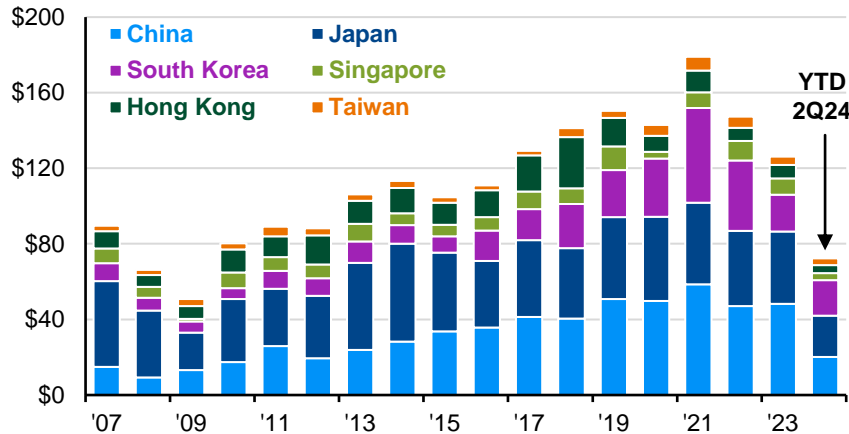
MI

GTIA

79

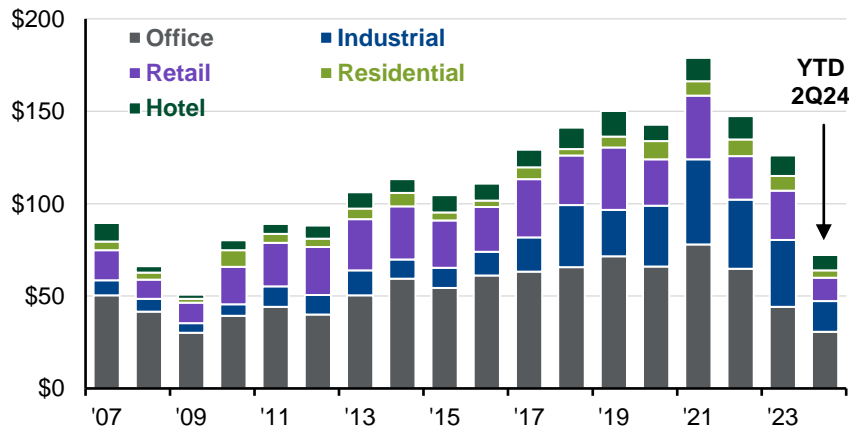
Transaction volume by market

USD billions



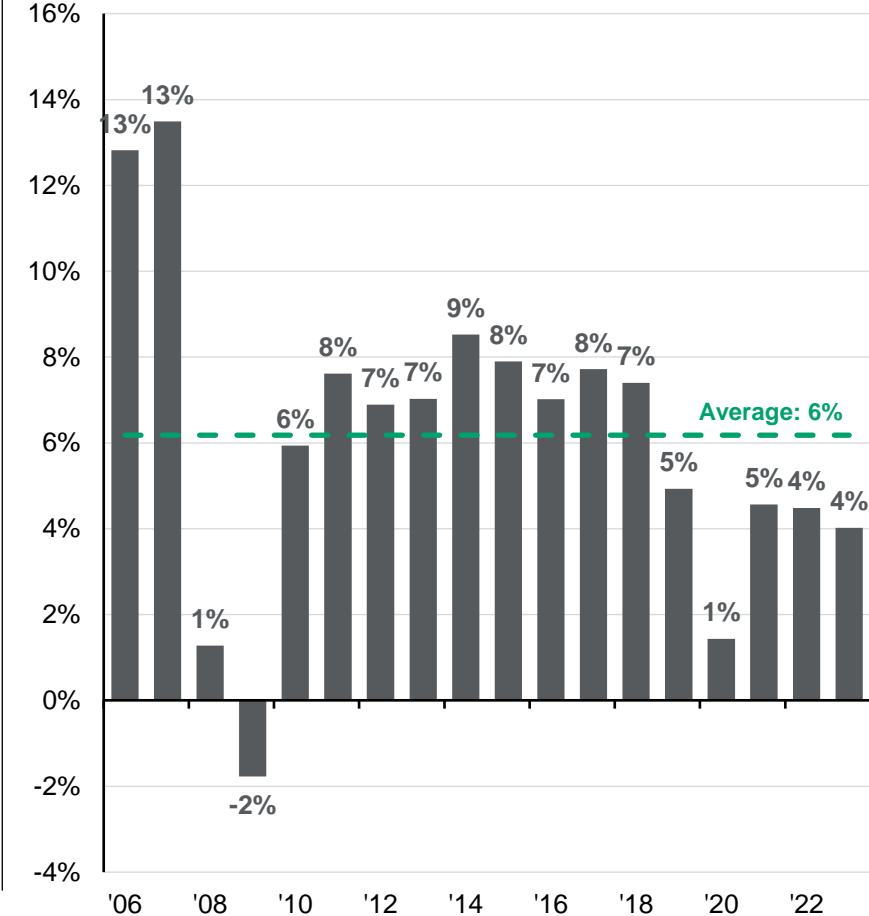
Transaction volume by real estate sector

USD billions



Performance of MSCI Asia Property Index

Total return



Source: J.P. Morgan Asset Management – Real Estate Asia Pacific. (Top and bottom left) MSCI-Real Capital Analytics. Data shown for YTD 2024 are preliminary. Includes investments greater than or equal to USD 10 million and excludes development sites. Figures are not frozen and subject to updates by RCA. (Bottom left) Includes data for China, Japan, South Korea, Singapore, Hong Kong and Taiwan. (Right) The MSCI Asia Property Index includes China, Hong Kong, Japan, Korea, Singapore, Taiwan, Indonesia, Malaysia and Thailand. Past performance is not indicative of current or future results.

Guide to Investing in Asia. Data are as of July 31, 2024.

J.P.Morgan
ASSET MANAGEMENT



Appendix: Key information

MI

GTIA

80

Market	Demographics		Economy and government		Equity market size (2023, USD)	Markets	
	Population (2023 est.)	Type of economy	Next general election date	Monetary policy objective		Foreign investor access	Restrictions/Notes
China	1.3bn	Socialist market economy	N/A	Maintain stability currency, control money supply and credit to promote econ. growth	\$11tn	FMLs by sectors, access via Qualified Investor program or Stock/Bond connect	Stock lending and short selling allowed with restrictions but not established practices; undergoing regulatory changes
Japan	125mm	Mixed economy	Oct. 2025	Price stability target of 2.0%	\$6tn	No FML except for certain sectors	Undergoing corporate governance reforms
India	1.4bn	Mixed economy	2029	Targets inflation of 4.0%+/-2.0%, while promoting econ. growth	\$4tn	FMLs by sectors, access via a Foreign Portfolio Investor program and with obtainment of a Permanent Account Number.	No offshore currency market and constraints on the onshore market
Hong Kong	8mm	Highly developed, largely free market economy	Expected: 2027	Maintain currency stability within the framework of the Linked Exchange Rate system	\$4tn	Foreign investors can acquire shares of Chinese companies listed on the Hong Kong Stock exchange, but access to Chinese companies is generally limited	N/A
South Korea	52mm	Mixed economy	Mar. 2027	Price stability targeting 2.0% over the medium term	\$2tn	No FML with exceptions for certain sectors	No offshore currency market and constraints on the onshore market; exchange-wide short selling ban in place until 1Q25; undergoing corporate governance reforms
Taiwan	23mm	Free market economy	Expected: Jan. 2028	Promote financial stability, ensure sound banking operations, and foster econ. dev.	\$2tn	No FML except for certain sectors, access with a Foreign Institutional Investor or Foreign Individual Investor qualification	Currency is not freely convertible, and there is no offshore currency market; short selling allowed with some restrictions
Indonesia	277mm	Mixed economy	Expected: 2029	Maintain currency stability, target inflation within the range of 1.5-3.5%	\$758bn	No FML except for certain sectors	No offshore currency market and constraints on the onshore market; overdraft facilities prohibited for foreign investors; some short selling bans in place
Singapore	6mm	Mixed economy	Expected: Nov. 2025	Ensure price stability for the sustainable growth of the economy	\$608bn	No FML except for certain sectors	N/A
Thailand	70mm	Mixed economy	Jun. 2027	Maintain inflation rate of 1.0-3.0% per annum to ensure price stability	\$520bn	FMLs by sectors; Non-Voting Depository Receipts also available for most stocks	No offshore currency markets and some restrictions on the foreign exchange market; stock lending and short selling on stocks in the SET 100 Index; Further short selling restrictions introduced in 2024
Malaysia	22mm	Mixed economy	Feb. 2028	Targets low and stable inflation generally under 3.0%	\$378bn	No FML except for certain sectors	No efficient offshore currency market and constraints on the onshore market. Short selling allowed but restricted for stocks
Philippines	133mm	Mixed economy	Expected: May 2025	Price stability targeting an average inflation of 3.0% +/-1.0%	\$236bn	FMLs by sectors, certain sectors have lower FOIs. Foreign investors may only purchase B-shares, but newly listed companies now offer 1 share class with the level of foreign ownership being monitored	No offshore currency market and constraints on the onshore market; due to the lack of SBL facility, short selling remains dismal and is mostly used to cover failed trades
Vietnam	100mm	Socialist-oriented market economy	Expected: May 2026	Stabilize the currency and target inflation of 4.0-4.5% to ensure macro econ. stability	\$188bn	No FML except for certain sectors	No offshore currency market and constraints on the onshore market

Source: MSCI, J.P. Morgan Asset Management. FML = Foreign Ownership Limit. The information in the “foreign investor access” and “restrictions/notes” columns comes from the MSCI Global Market Accessibility Review – June 2024.
Guide to Investing in Asia. Data are as of latest available.



J.P. Morgan Asset Management: Index Definitions

MI

GTIA

81

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**SM 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**SM 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**SM 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 CNY 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** ("HSCIEI") 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.



J.P. Morgan Asset Management: Index Definitions

MI

GTIA

82

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.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Investing using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

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. **Positive yield does not imply positive return.**

J.P. Morgan Asset Management (JPMAM) **Global Market Insights Strategy Team** as of 04/30/21. There can be no assurance that the professionals currently employed by JPMAM will continue to be employed by JPMAM or that the past performance or success of any such professional serves as an indicator of such professional's future performance or success.



J.P. Morgan Asset Management – Risks & disclosures

MI

GTIA

83

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

For the purposes of MiFID II, the JPM Market Insights and Portfolio Insights programs are marketing communications and are not in scope for any MiFID II / MiFIR requirements specifically related to investment research. Furthermore, the J.P. Morgan Asset Management Market Insights and Portfolio Insights programs, as non-independent research, have not been prepared in accordance with legal requirements designed to promote the independence of investment research, nor are they subject to any prohibition on dealing ahead of the dissemination of investment research.

This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be taken as advice or a recommendation for any specific investment product, strategy, plan feature or other purpose in any jurisdiction, nor is it a commitment from J.P. Morgan Asset Management or any of its subsidiaries to participate in any of the transactions mentioned herein. Any examples used are generic, hypothetical and for illustration purposes only. This material does not contain sufficient information to support an investment decision and it should not be relied upon by you in evaluating the merits of investing in any securities or products. In addition, users should make an independent assessment of the legal, regulatory, tax, credit, and accounting implications and determine, together with their own financial professionals, if any investment mentioned herein is believed to be appropriate to their personal goals. Investors should ensure that they obtain all available relevant information before making any investment. Any forecasts, figures, opinions or investment techniques and strategies set out are for information purposes only, based on certain assumptions and current market conditions and are subject to change without prior notice. All information presented herein is considered to be accurate at the time of production, but no warranty of accuracy is given and no liability in respect of any error or omission is accepted. It should be noted that investment involves risks, the value of investments and the income from them may fluctuate in accordance with market conditions and taxation agreements and investors may not get back the full amount invested. Both past performance and yields are not reliable indicators of current and future results.

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at <https://am.jpmorgan.com/global/privacy>.

Any long form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material are Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

This communication is issued by the following entities:

In the United States, by J.P. Morgan Investment Management Inc. or J.P. Morgan Alternative Asset Management, Inc., both regulated by the Securities and Exchange Commission; in Latin America, for intended recipients' use only, by local J.P. Morgan entities, as the case may be.; in Canada, for institutional clients' use only, by JPMorgan Asset Management (Canada) Inc., which is a registered Portfolio Manager and Exempt Market Dealer in all Canadian provinces and territories except the Yukon and is also registered as an Investment Fund Manager in British Columbia, Ontario, Quebec and Newfoundland and Labrador. In the United Kingdom, by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions, by JPMorgan Asset Management (Europe) S.à r.l. In Asia Pacific ("APAC"), by the following issuing entities and in the respective jurisdictions in which they are primarily regulated: JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited, each of which is regulated by the Securities and Futures Commission of Hong Kong; JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), which this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; JPMorgan Asset Management (Taiwan) Limited; JPMorgan Asset Management (Japan) Limited, which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia, to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Commonwealth), by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919). For all other markets in APAC, to intended recipients only.

For U.S. only: If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

Copyright 2024 JPMorgan Chase & Co. All rights reserved

Google assistant is a trademark of Google Inc.

Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

Prepared by: David Kelly, Gabriela Santos, Marcella Chow, Ian Hui, Raisah Rasid, Mary Park Durham, Sahil Gauba, and Jennifer Qiu.

Unless otherwise stated, all data are as of July 31, 2024, or most recently available.

Guide to Investing in Asia

0903c02a82b00545

J.P.Morgan
ASSET MANAGEMENT