THE AGONY & THE ECSTASY

The Risks and Rewards of Concentrated Stocks in Asia

Inspired by Michael Cembalest's <u>The Agony & the Ecstasy</u>, a study of the risks and rewards of concentrated stock positions, we have applied a similar analysis on major equity markets in Asia to broaden the scope of the research and test the hypotheses in an alternate geographical and economic context. Broadly, our findings corroborate the conclusions from the original study, and we believe the key takeaway for investors still hold true – "While concentrated stock holdings can create substantial wealth, they also carry a high risk of significant losses that could derail your financial future and that of your family."

The story of concentrated wealth is particularly relevant in Asia. This region has more billionaires than any other part of the world¹, and has continued to produce them at an astonishing pace. Pioneering innovation in various sectors coupled with vibrant economic fundamentals and capital markets have sowed opportunities for entrepreneurs and investors in the region. However, core to this story of competition and success is "creative destruction", where new and innovative businesses disrupt or displace incumbents who once led their respective fields, creating both winners and losers. Both the positive and negative experiences of investors in those markets would be magnified by the level of concentration they have in specific companies or sectors. Furthermore, sector and macro risks are ever-present in this region – for example, policy uncertainty and the many macro risks inherent to emerging markets – adding more layers of complexity to managing concentration risk.

Since our last analysis in late 2022, investors have rode a wave of Al-led value creation in equities and positive risk sentiment in anticipation of easier monetary policy around the world. This tide has lifted equity markets in many parts of the world to all-time (or recent) highs. However, some companies and sectors failed to capitalize for various micro and macro reasons, and risks persist around geopolitical uncertainty, resurgent inflation, and long-term fiscal sustainability, among many others.

Against this backdrop, we quantify the risks of concentrated stock positions, highlight several case studies, and summarize some of the broader macro risks which characterize the markets in Asia. At this buoyant time in markets, investors would do well to recall past experiences of market drawdowns and implement practical strategies to manage concentration risks, diversify sources of return and take steps towards achieving their long-term financial goals.

Measuring Concentration Risks

We focus on two of the leading exchanges in the Asia ex-Japan region, Hong Kong and Singapore. A significant number of companies (60% for Singapore, 74% for Hong Kong) that were ever listed on those exchanges since 1986 experienced "catastrophic decline", which, for the purposes of this analysis, is a stock that declines by 70% from its peak and does not recover.

-

¹ UBS. Data as of 2024.

To be clear, some of these stocks may still recover, while others have still generated substantial gains vs IPO levels despite an interim catastrophic decline. We include such stocks in this analysis since our primary focus is portfolio risk management for current holders of concentrated positions, rather than returns relative to initial public offering prices.

We also consider another way to think about the risks of concentrated stock positions: "How often would a family have been better or worse off owning cash, or the relevant stock market's index instead of the concentrated position?"

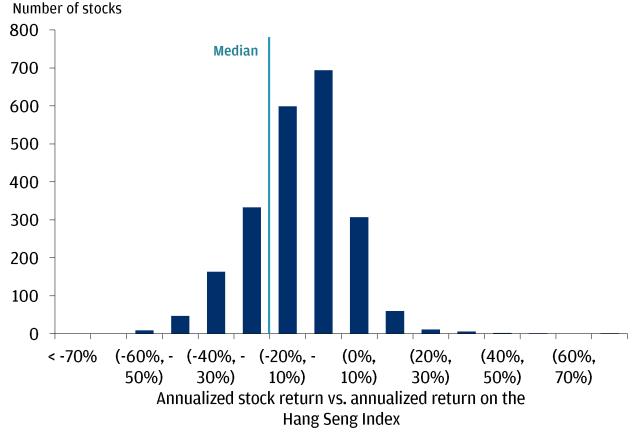
For around two thirds of cases, a concentrated position in a single stock delivered negative absolute returns (which means it underperformed cash). For around 80% of cases, a concentrated position in a single stock underperformed a diversified position its respective stock market index. The most successful companies did generate substantial wealth over the long run, but only 4% of stocks met the definition of "mega winners", which we define by outperformance over their respective indices by over 500% cumulatively. The median stock in both exchanges also delivered noticeably negative returns relative to their indices.

HONG KONG STOCK EXCHANGE

Sector	% stocks catastrophic loss	% stocks negative absolute return	% stocks negative excess returns vs Index	% of stocks megawinners
All	74%	74%	82%	4%
Information Technology	74%	75%	80%	5%
Energy	79%	71%	79%	3%
Consumer Discretionary	77%	73%	83%	5%
Health Care	67%	72%	78%	4%
Communication Services	76%	81%	86%	1%
Real Estate	82%	76%	87%	3%
Industrials	74%	72%	80%	4%
Materials	72%	71%	81%	3%
Financials	59%	71%	79%	5%
Consumer Staples	71%	73%	79%	2%
Utilities	64%	60%	69%	6%

Source: FactSet, Bloomberg Finance L.P., Hong Kong Stock Exchange, J.P. Morgan Private Bank. Data as of June 2025.

HONG KONG STOCK EXCHANGE DISTRIBUTION OF EXCESS LIFETIME RETURNS ON INDIVIDUAL STOCKS VS. HANG SENG INDEX, 1986 -2025



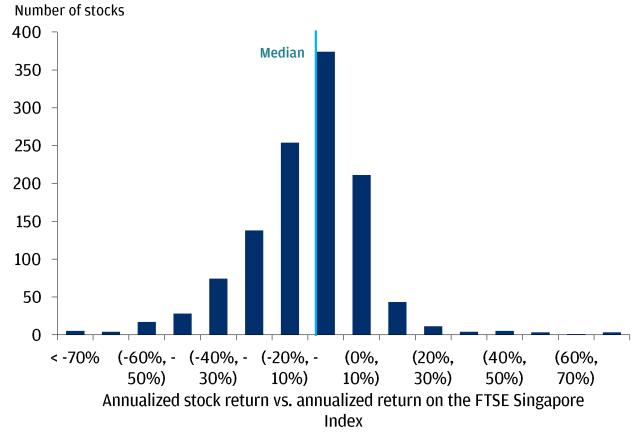
Source: FactSet, J.P. Morgan Private Bank. Data as of June 2025.

SINGAPORE STOCK EXCHANGE

Sector	% stocks catastrophic loss	% stocks negative absolute return	% stocks negative excess returns vs Index	% of stocks megawinners
All	60%	64%	79 %	4%
Information Technology	60%	73%	82%	3%
Energy	81%	78%	85%	0%
Consumer Discretionary	59%	61%	80%	4%
Health Care	42%	56%	69%	8%
Communication Services	59%	59%	94%	0%
Real Estate	47%	61%	79%	4%
Industrials	63%	62%	75%	4%
Materials	74%	72%	86%	2%
Financials	41%	41%	65%	7%
Consumer Staples	61%	60%	79%	4%
Utilities	70%	74%	85%	7%

Source: FactSet, Bloomberg Finance L.P., Singapore Stock Exchange, J.P. Morgan Private Bank. Data as of June 2025.

SINGAPORE STOCK EXCHANGE DISTRIBUTION OF EXCESS LIFETIME RETURNS ON INDIVIDUAL STOCKS VS. FTSE SINGAPORE INDEX, 1986 -2025



Source: FactSet, Bloomberg Finance L.P., Singapore Stock Exchange, J.P. Morgan Private Bank. Data as of June 2025.

While the rates of underperformance were spread out across sectors, it is clear that companies with smaller market caps faced a higher rate of catastrophic loss compared to larger ones.

HONG KONG STOCK EXCHANGE

SINGAPORE STOCK EXCHANGE

Market cap	· · · · · · · · · · · · · · · · · · ·	% total stocks catastrophic loss	Market cap	% market cap catastrophic loss	% total stocks catastrophic loss
Small	80%	38%	Small	63%	92%
Mid	78%	38%	Mid	45%	7%
Large	61%	24%	Large	35%	2%

Sources: FactSet, J.P. Morgan Private Bank. Data as of June 2025.

Note: Market values are measured at their peak. Large cap companies are defined by a market value above \$10 billion, small caps below \$2 billion, and mid caps between \$2 billion and \$10 billion.

The takeaway: it is statistically likely that a concentrated position would lose a large proportion of its value over time, underperform cash, and underperform an index. An investor would usually be better off investing into a diversified index fund, which in these cases tend to be more concentrated in larger cap companies, which themselves have a much lower chance of catastrophic loss.

Case Studies

While business-specific failures arising from shortcomings in management may seem obvious and inevitable in hindsight, many instances of failure may arise from sectoral, regulatory or macro factors that were outside of the management team's control. This section contains a selection of notable business failures over past decades. We have grouped these case studies into three broad categories: sectoral shifts, regulatory and market uncertainties, and macroeconomic risks.

1. Sectoral shifts

Even the most celebrated companies eventually must learn that cultural cachet can be as fleeting as fashion. What dazzles one generation of consumers—whether a social network that reshaped daily life, a restaurant chain that became "the spot," or a luxury brand whose demand seemed to be endless—inevitably dulls under the weight of shifting tastes, economic cycles, and competitive disruption. Nowhere is this cycle more dramatic than in China, where the past three decades of rapid urbanization and digital transformation have accelerated and amplified these shifts, sometimes leaving the savviest of investors and consumers in the dust.

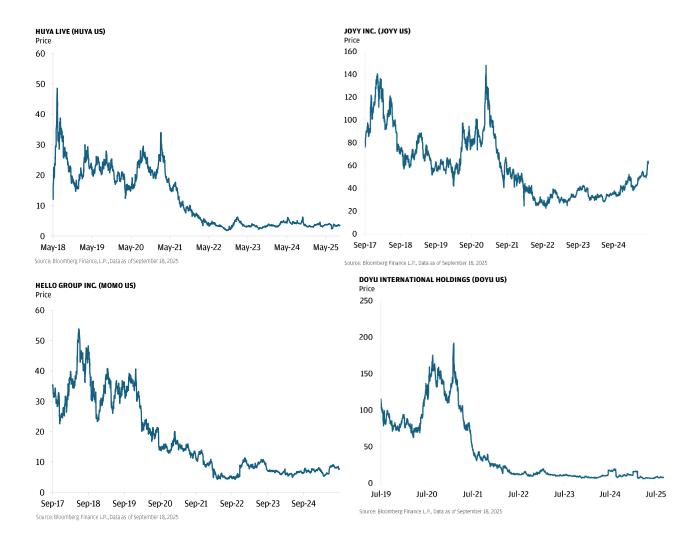
Live streaming's short life

Online preferences rise and fall at the speed of the internet – keep up.

Each generation has its own medium of entertainment. Not too long ago, live streaming was deemed one of the most promising and engaging online entertainment formats. Numerous types of activities, from esports to talent shows, to board games and even dining, were brought online and viewed by hundreds of millions of users every month. The share price of a newly listed live streaming leader at the time, Huya, jumped over three times in one month following its IPO in 2018.

It took less than three years for this former rising star to become a near-consensus short on the street. The share prices of its peers also dropped 70-80% from peaks, as they quickly surrendered their users' time share to a more addictive entertainment channel, namely short-form video. Apps such as Tiktok, Douyin, and Kuaishou saw their combined user time share in online entertainment rise to around 50% from just 5% seven years ago. Powered by their robust algorithm that parses user preferences, short-form video apps can easily keep a user for over an hour per day on average—even unconsciously, by filling up his or her fragmented pockets of time on the subway or in a queue using hundreds of video clips, each just a minute long.

This was simply a case of a successful game being replaced by another, more addictive one. The question is: will short-form video platforms be different this time?



Hotpot boils over

Empty chairs at empty tables - A victim of Covid-19

Remember the days when people had to wait 2 hours to get a table for hotpot? With the rise in urban incomes in China in the 2010s, Chinese consumers began seeking out more experimental dining offerings. Haidilao and other new hotpot restaurants captured the scene perfectly—giving consumers memorable service experiences, creative menu items, and a lively dining environment. Stores expanded at a rapid pace. In the years leading up to 2021, fan-favorite franchises' store count grew at around 40% CAGR, with revenues expanding at an equally breathtaking speed. There was a science behind this madness too: F&B-related consumption per capita in China was meaningfully lower than in other developed nations, and the market was fragmented, with leading chains only covering around 10% of food service as of 2017, compared to Japan and the United States at nearly 50%.

Share prices grew in parallel with the length of the restaurant queues, and Haidilao, along with its supplier Yihai, helped investors more than double their money from 2018 to 2020. Yet, challenges came in 2021. Extended Covid-19 lockdowns and the ensuing prolonged period of economic distress in China reduced people's desire and ability to spend on outdoor dining, with pandemic habits of relying on food and grocery delivery proving harder to shake. Same-store sales growth (SSSG) collapsed, particularly in low-tier cities, and store numbers began to shrink as table turns slowed. Since then, management has begun to prioritize store optimization over expansion after learning the lesson that being everywhere is no match for a change in appetite.



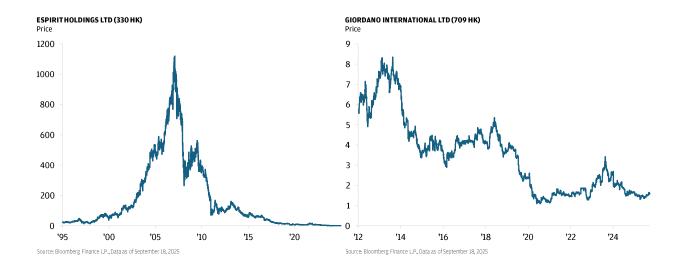


Fast fashion going out of fashion fast

A long-term consumption growth story may always sound compelling, but underlying tastes can shift quickly.

It would be difficult to find something more fickle than consumers' fast fashion preferences. A number of large-scale fashion brands, such as Esprit, Bossini, and Giordano, which used to dominate the fashion industry from Hong Kong in the 1990s, are now a shadow of their former selves. This is mainly due to the rise of European fast fashion chains, Zara and H&M, and their ability to outcompete the incumbents.

The general lessons are broadly applicable across the sector—failures to quickly adapt to fast-moving shifts in consumer tastes and e-commerce adoption. We look deeper into one of the brands, Esprit, which thirty-somethings in Asia would be familiar with growing up but is hardly known among teenagers today. Entrepreneur Michael Ying introduced the previously U.S.-based brand to Hong Kong in 1993 and rapidly turned it from a small retailer into a Hong Kong-listed fast fashion giant of the decade. Sales surged 30-fold under his tenure. At its peak, Esprit recorded HK\$37.2 billion in revenue in 2008, many times greater than the HK\$770 million achieved in 1993. However, Esprit was then pressured by a new wave of European fast fashion chains, Zara and H&M, and it was unable to adapt its styles to attract younger customers while its core customer base began to grow out of the brand. Eventually, the company announced the closure of all 56 stores across Asian markets in early 2020 amidst Covid-19-induced lockdowns.



2. Regulatory and market uncertainty

Regulation can serve as both the catalyst and a constraint on equity market performance. When policymakers greenlight a project—like renewable energy, pharmaceuticals, and fintech—preferential treatment is given, capital floods in, and valuations surge. But changes can come swiftly and without warning, as shown by the examples of the Chinese real estate and gaming industries in 2021. Each wave of policy shift can create new market darlings while turning old fairytales into stories of caution. As we near the cusp of a new five-year plan and a potential refreshed policy direction, one cannot help but wonder: what disruptions and innovations will we see next?

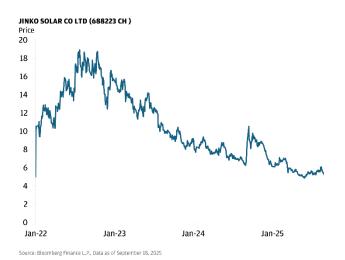
Solar's bad sunburn

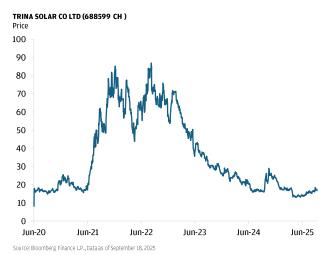
Too many panels, not enough profits: the dangers of outrunning demand.

It is no secret that China is the leading solar energy equipment manufacturer globally. As of 2024, China produced more than 80% of the world's supply of solar panels and upstream components such as polysilicon, wafers, and cells. But Chinese solar companies didn't always reign supreme. In the early 2010s, China's solar sector, which was then recognized as a strategic emerging industry by policymakers, faced heavy scrutiny from competitors in the U.S., who claimed that the Chinese government's subsidies and Chinese solar manufacturers' below-cost pricing formed the basis for unfair price competition. The claims were not completely egregious. To help foster advancements in solar, Chinese officials provided firms with R&D grants, tax rebates, preferential loans, and cheap land access, all the while introducing measures like feed-in tariffs to encourage domestic demand. The result? Chinese solar panels consistently enjoyed a 50%+ pricing advantage over American and European equivalents, and Chinese production capacity grew to be able to supply double of current global demand.

The stock rally was supercharged, with names such as JA Solar and LONGi Green Energy returning 2x to even over 30x to investors from 1Q15 to 3Q21. But the bulls flew too close to the sun. Share prices collapsed after 3Q21 and haven't recovered since. Stimulative policies allowed solar manufacturers to grow fast—too fast—eclipsing even record highs in global solar demand. Installation rates, despite growing steadily at double digits since 2020, couldn't keep up with manufacturing capacity. Factory utilization rates stayed consistently below full production capacity, and excess supplies piled up. In an effort to offload inventory, Chinese firms cut prices to compete with one another, which destroyed margins and made the industry an original poster child for China's "involution" problem.







Health is wealth. Well, not always.

A case of the intended and unintended effects of public policy

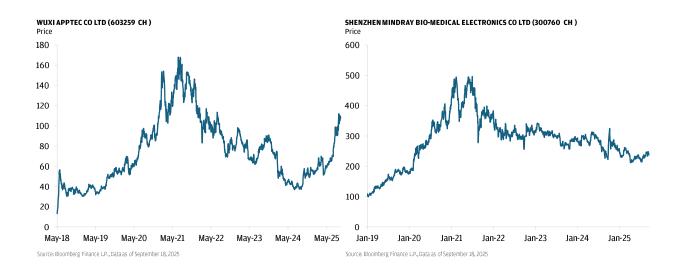
Since the turn of the new millennium, China has not only become a wealthier nation, but a healthier one as well. Average life expectancy for Chinese citizens improved from 71 years in 2000 to 79 years by 2022, and during the same period, healthcare spending per capita also soared from the low base of \$44 to \$899. While healthcare spending partially caught up to developed nations, when compared to countries like Japan and the U.S., whose residents spend \$4,800 and \$12,000 per capita respectively, there was still an obvious spending gap.

Seeing the enticing opportunity and betting that China could catch up in healthcare spending, multinational corporations increased their presence in the country—tasking Chinese CROs and CDMOs to help them develop and manufacture next-generational therapeutics. Policy backdrops also supported private healthcare growth. Listing rules were relaxed, foreign ownership rules were loosened, while IP protection laws were tightened.

Overall, the future looked bright for the Chinese healthcare sector, and so did investor returns. From 1Q16 to 3Q21, the MSCI China Healthcare Index helped investors more than double their money.

But just like so many other industries, changes in policy cut the party short. The expansion of the volume-based procurement program (VBP) in 2021, which capped prices for included drugs and medical devices, squeezed corporate profits and led to a sector-wide de-rating given the worsened earnings outlook. Subsequent probes into corruption in 2023 and 2024 that targeted the healthcare industry also dampened valuations, with policy risks reducing investors' willingness to hold Chinese healthcare assets.

The silver lining is, while VBP capped generic drug prices, it also encouraged companies to dedicate more resources to R&D, which laid the groundwork for renewed optimism in the sector in 2025. But while healthcare outperformance this year can make investors feel better in 2025, they can't write a prescription to help investors forget the losses endured in 2021.





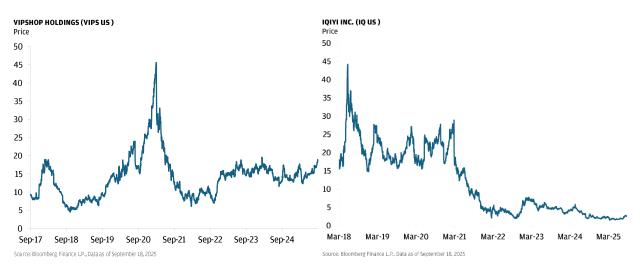
Lessons from the Archegos saga: 'who's moving my stocks?'

The unknown unknowns and the risk of concentration elsewhere in the market.

Bill Hwang's Archegos Fund, alongside a number of its fellow "Tiger cubs", has been investing in a remarkably similar way: conducting in-depth fundamental research, levering up on concentrated positions, and making big returns. The stocks it owned, like Vipshop Holdings and Baidu, jumped 2x from 4Q20 to 1Q21. Not bounded by the 50% margin loan cap on individual retail investors, Archegos' leverage exceeded 5x by late March of 2021, funded by the prime desks of various investment banks.

The party ended when one of Hwang's bets, ViacomCBS, tumbled over 30% in two days following its stock and convertible bond offering in March 2021. Jeopardized by their swap agreement with Archegos, Morgan Stanley and Goldman Sachs preemptively liquidated \$15bn+ of Hwang's shares through blocks on March 25 and 26 and blew up the broader portfolio. Significant losses were taken by investors, as well as the prime desks in other investment banks who were not prepared enough to escape unscathed.

The moral of this story is that we cannot expect our fellow investors to be rational. While Archegos was a victim in the saga it created, it is an important point worth considering for company owners to think about how diversified their shareholder base is; another shareholder could just be their undoing.





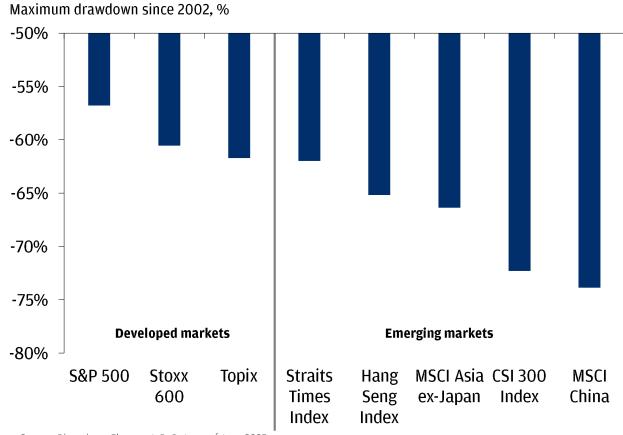
Source: Bloomberg Finance L.P., Data as of September 18, 2025

3. Macro Risks

Even with the most adept of corporate management teams navigating the pitfalls of competitors and regulators, broader macro risks may not spare their companies from bouts of volatility which impact most, if not all sectors in their respective geographies. This is even more apparent in emerging markets (EM).

One starting point for framing the volatility across these markets could be to compare the maximum drawdown for various indices over a set time frame. Over the past 20 years, most of these drawdowns transpired over the 2008-09 financial crisis. EM Asia experienced a markedly larger degree of downside compared to developed markets (DM).

EMERGING MARKETS IN ASIA EXPERIENCED LARGER MAXIMUM DRAWDOWNS IN THE PAST 20 YEARS



Source: Bloomberg Finance, L.P., Data as of June 2025

Over the past 10 years, EM Asia also experienced a larger degree of volatility than DM peers. While some indices or individual companies have generated impressive returns, investors who hold concentrated positions in these markets would likely be dealing with a higher degree of volatility in their portfolios, reinforcing the need for prudent risk management.

THOUGH EMERGING ASIAN MARKETS DELIVERED HIGHER HISTORICAL RETURNS, THEY ALSO HAD HIGHER VOLATILITY

June 2005 - June 2025

Market	Annualized Returns (%)	Market	Annualized Volatility (%)
India	13.9	China A	27.6
u.s.	10.7	China	26.0
Taiwan	10.5	India	21.2
China A	9.9	ASEAN	18.9
China	8.2	Taiwan	18.9
Korea	8.0	Korea	18.8
Japan	6.8	Japan	17.4
Europe	6.7	u.s.	15.3
ASEAN	6.0	Europe	14.4

Source: Bloomberg Finance, L.P., Data as of June 2025. Note: Total return and annualized monthly volatility.

China's 2015 stock market bubble and the 1997 Asian Financial Crisis are some of the more evocative historical examples of macro volatility which led to precipitous stock market declines. We have summarized a few of those case studies below.

Easy come, easy go: The Asian Financial Crisis

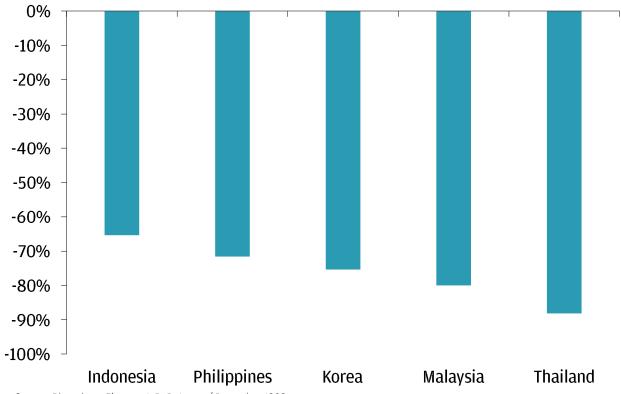
Too good to be true? Look below the surface of emerging markets to understand their macro vulnerabilities.

Against a backdrop of seemingly sound economic fundamentals and rapid growth, especially in exports, several emerging Asian economies prospered from the 1980's to 1990's. However, the headline strength belied structural issues in many of those economies, including external debt exposure, poor credit underwriting standards and corruption, which led to excessive asset bubbles. By the mid 1990's, there was growing pressure from rising U.S. interest rates and an appreciating dollar. The immediate crisis was triggered by the collapse of the Thai baht in 1997 after the government was forced to float the currency when its USD peg broke amidst speculative attacks and depleted foreign reserves. Panic then spread amongst lenders, leading to a credit crunch which spread to other emerging economies in the region, pressuring currencies and asset markets, eventually leading to collapses in the corporate and financial sectors. At the worst of the carnage, economies, currencies and and stock markets had lost anything from 30% to 70% of their values, with Indonesia, South Korea and Thailand being some of the worst affected.

While the region gradually recovered after the crisis, the historic volatility in the currencies and respective stock markets would have claimed the portfolios of many investors who failed to diversify their risks. The speed of those declines, many of which happened within a year, would have also left investors with little time to manage their exposures. Investors would do well to be mindful of specific risks for more vulnerable emerging economies and broader risks within EM.

EMERGING MARKETS IN ASIA EXPERIENCED SIGNIFICANT EQUITY DRAWDOWNS DURING THE ASIAN FINANCIAL CRISIS

Maximum drawdown, %



Source: Bloomberg Finance, L.P., Data as of December 1998.

EMERGING ASIA EQUITY MARKETS TOOK A LONG TIME TO RECOVER TO PRE-CRISIS LEVELS AFTER THE 1997 ASIAN FINANCIAL CRISIS

Indexed, January 1996 = 100



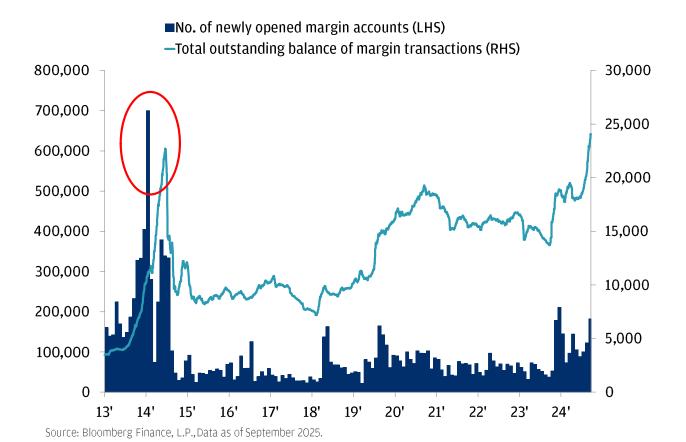
Source: Bloomberg Finance, L.P., Data as of December 1998.

China's 2015 stock market crash

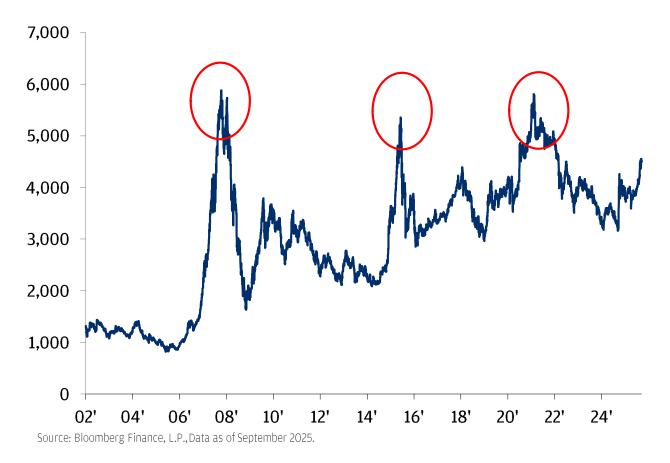
Will this time be different? Market structure and regulators may matter more than fundamentals.

Before the 2021 tech regulation crackdown, we had the original China crashes, which took place in 2007 and 2015. We focus on the latter case. Regulators began gradually loosening rules prohibiting short-selling and margin trading in the years leading up to the bubble. The government ran a campaign promoting stock investments. Retail investors, who dominate China's onshore equity markets, started piling into stocks in 2014 with tens of millions opening margin accounts, leading to a substantial build-up of outstanding margin. The market more than doubled from 2014 to 2015, detaching from corporate and economic fundamentals, while the economy was experiencing a slowdown. The bubble eventually turned against the investors in June 2015, and over-leveraged investors faced margin calls, precipitating the steep decline. Intervention efforts by the authorities to stem the turbulence, including limiting short-selling, enforcing lock-up periods for positions held by major shareholders, and providing liquidity for direct purchasing of stocks by state-owned financial institutions, were not effective beyond short-term boosts to the market. The initial sell-off wiped out over \$2.6 trillion in value from onshore indices within a month of their peaks, with several more bouts of volatility in the months after.

MARGIN TRADING WAS A KEY DRIVER OF THE 2015 CHINA STOCK MARKET BUBBLE AND BUST Number of accounts 100 million RMB



CHINA'S ONSHORE STOCK MARKET HAS YET TO RECOVER TO PREVIOUS PEAKS CSI 300 Index



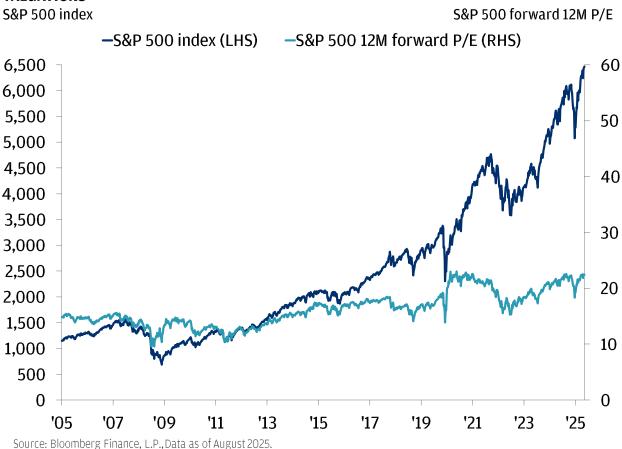
When the dust started to settle at the start of 2016, the onshore equity indices have almost halved from peak levels. If an investor bought the index at the 2015 peak, they would still be at a loss today (even after a >40% rally since late 2024). While China has continued to deliver robust high single-digit economic growth rates in the years following (and prior to) that bust, the equity market has not kept pace with the economy.

In fact, most Chinese equity market rallies throughout history were almost driven entirely by valuation expansion and momentum rather than underpinned by fundamental economic and earnings growth, a sharp contrast to a market like the U.S. which has been driven by steady earnings growth in the long-term. The key takeaway for investors is that investing into an equity market which consistently delivers earnings growth to shareholders is a surer way to meet their financial goals than trying to time a tricky "trader's market" like Chinese equities.

CHINESE EQUITY RETURNS HAVE ALMOST ENTIRELY BEEN DRIVEN BY CHANG ES IN VALUATIONS







When it comes to assessing risk in China, its unique characteristics and market dynamics, and propensity for regulatory intervention, are just some of the considerations that concentrated investors, not only in single stocks, but also in geographies, should be aware of and can take essential steps to mitigate. This is an active trader's market, not a buy-and-hold one, should history be any guide. As the China equity rally gathers steam in 2025, are we facing another similar boom and bust?

What can concentrated investors do?

While concentrated positions are often the result of successful business ventures or investments and are responsible for substantial wealth creation, they also increase the probability of significant losses and increase the uncertainties of long-term financial plans. It is essential for investors to develop their long and short-term financial goals, which would guide the approaches they can consider for managing their concentrated positions. There is a broad range of strategies designed for investors to de-risk, monetize and diversify their positions in line with their goals and specific financial circumstances. The latest *Agony and Ecstasy* paper provides a comprehensive discussion of those. Please contact your J.P. Morgan representative to discuss tailored strategies for your specific needs.

Definitions

S&P 500 Index: market capitalization weighted index of the five hundred, largest, publicly traded companies in the United States

TOPIX Index: It is a metric for stock prices on the Tokyo Stock Exchange (TSE). It is a capitalization-weighted index that lists all firms in the "first section" of the TSE, a section that organizes all large firms on the exchange into one group. The second section of the TSE pools all of the smaller remaining companies.

MSCI China Index: Captures large and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 712 constituents, the index covers about 85% of this China equity universe. Currently, the index includes Large Cap A and Mid Cap A shares represented at 20% of their free float adjusted market capitalization.

CSI 300 Index: A capitalization-weighted stock market index designed to replicate the performance of the top 300 stocks traded on the Shanghai Stock Exchange and the Shenzhen Stock Exchange.

Hang Seng Index: is a free float-adjusted market-capitalization-weighted stock-market index in Hong Kong. It is used to record and monitor daily changes of the largest companies of the Hong Kong stock market and is the main indicator of the overall market performance in Hong Kong.

MSCI All Country Asia Semiconductor and Semiconductor Equipment Index: is a stock market index designed to measure the performance of companies in the semiconductor and semiconductor equipment industries across Asia. This index includes companies from both developed and emerging markets within the region, providing a comprehensive view of the semiconductor sector's performance in Asia.

The **FTSE Singapore Index** is a stock market index that measures the performance of the largest and most liquid companies listed on the Singapore Exchange (SGX). It is part of the FTSE Global Equity Index Series, which is managed by FTSE Russell, a global index provider.

The **Straits Times Index (STI)** is the primary stock market index that tracks the performance of the top 30 companies listed on the Singapore Exchange (SGX) by market capitalization and liquidity. It is widely regarded as the benchmark index for the Singapore equity market.

The **STOXX Europe 600 Index** (commonly referred to as the **STOXX 600**) is a leading stock market index that represents 600 of the largest publicly traded companies across 17 European countries. It is designed to provide a broad and diversified benchmark for the European equity market.

The **MSCI China Healthcare Index** is a stock market index that measures the performance of the large and mid-cap companies in China's healthcare sector. The index is part of the broader MSCI China Index family and is maintained by MSCI Inc., a leading global index provider.

The **MSCI Asia ex-Japan Index** is a stock market index that tracks the performance of large and mid-cap companies across developed and emerging markets in Asia, excluding Japan. It is widely used as a benchmark for Asian equity portfolios that do not include Japanese stocks.

CROs: Contract Research Organization

CDMOs: Contract Development and Manufacturing Organization

VBP: Volume Based Procurement

Disclaimers

For illustrative purposes only. Estimates, forecasts and comparisons are as of the dates stated in the material.

Past performance is not a guarantee of future results.

Indices are not investment products and may not be considered for investment.

All case studies are shown for illustrative purposes only and should not be relied upon as advice or interpreted as a recommendation. They are based on current market conditions that constitute our judgment and are subject to change. Results shown are not meant to be representative of actual investment results. Implied performance is not a guarantee of future results.

The information presented is not intended to be making value judgments on the preferred outcome of any government decision or political election.

Emerging markets carry higher risks for investors who should therefore ensure that, before investing, they understand the risks involved and are satisfied that such investment is suitable. Investors must understand that transactions involving emerging markets currencies bear substantial risks of loss.

Investments in emerging markets may not be suitable for all investors. Emerging markets involve a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations. Investments in emerging markets can be more volatile.

International investments may not be suitable for all investors. International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations. Investments in international markets can be more volatile.

Investments in commodities may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage.

The price of equity securities may rise or fall due to the changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Investing in alternative assets involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are generally not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than

traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Real estate, hedge funds, and other private investments may not be suitable for all individual investors, may present significant risks, and may be sold or redeemed at more or less than the original amount invested. Private investments are offered only by offering memoranda, which more fully describe the possible risks. There are no assurances that the stated investment objectives of any investment product will be met. Hedge funds (or funds of hedge funds): often engage in leveraging and other speculative investment practices that may increase the risk of investment loss; can be highly illiquid; are not required to provide periodic pricing or valuation information to investors; may involve complex tax structures and delays in distributing important tax information; are not subject to the same regulatory requirements as mutual funds; and often charge high fees. Further, any number of conflicts of interest may exist in the context of the management and/or operation of any hedge fund.

This material is for information purposes only, and may inform you of certain products and services offered by private banking businesses, part of JPMorgan Chase & Co. ("JPM"). Products and services described, as well as associated fees, charges and interest rates, are subject to change in accordance with the applicable account agreements and may differ among geographic locations. Not all products and services are offered at all locations. If you are a person with a disability and need additional support accessing this material, please contact your J.P. Morgan team or email us at accessibility.support@jpmorgan.com for assistance. **Please read all Important Information.**

GENERAL RISKS & CONSIDERATIONS

Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and past performance is not a reliable indicator of future results. Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g. equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/situation, contact your J.P. Morgan team.

NON-RELIANCE

Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/ reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from

those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and **this material should not be regarded as a research report.** Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

Conflicts of interest will arise whenever JPMorgan Chase Bank, N.A. or any of its affiliates (together, "J.P. Morgan") have an actual or perceived economic or other incentive in its management of our clients' portfolios to act in a way that benefits J.P. Morgan. Conflicts will result, for example (to the extent the following activities are permitted in your account): (1) when J.P. Morgan invests in an investment product, such as a mutual fund, structured product, separately managed account or hedge fund issued or managed by JPMorgan Chase Bank, N.A. or an affiliate, such as J.P. Morgan Investment Management Inc.; (2) when a J.P. Morgan entity obtains services, including trade execution and trade clearing, from an affiliate; (3) when J.P. Morgan receives payment as a result of purchasing an investment product for a client's account; or (4) when J.P. Morgan receives payment for providing services (including shareholder servicing, recordkeeping or custody) with respect to investment products purchased for a client's portfolio. Other conflicts will result because of relationships that J.P. Morgan has with other clients or when J.P. Morgan acts for its own account.

Investment strategies are selected from both J.P. Morgan and third-party asset managers and are subject to a review process by our manager research teams. From this pool of strategies, our portfolio construction teams select those strategies we believe fit our asset allocation goals and forward-looking views in order to meet the portfolio's investment objective.

As a general matter, we prefer J.P. Morgan managed strategies. We expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to 100 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.

While our internally managed strategies generally align well with our forward-looking views, and we are familiar with the investment processes as well as the risk and compliance philosophy of the firm, it is important to note that J.P. Morgan receives more overall fees when internally managed strategies are included. We offer the option of choosing to exclude J.P. Morgan managed strategies (other than cash and liquidity products) in certain portfolios.

In the United States, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by **JPMorgan Chase Bank**, **N.A.** Member FDIC.

JPMorgan Chase Bank, N.A. and its affiliates (collectively "**JPMCB**") offer investment products, which may include bank managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through

J.P. Morgan Securities LLC ("JPMS"), a member of <u>FINRA</u> and <u>SIPC</u>. Insurance products are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPMS and CIA are affiliated companies under the common control of JPM. Products not available in all states.

In Germany, this material is issued by J.P. Morgan SE, with its registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). In Luxembourg, this material is issued by J.P. Morgan SE - Luxembourg Branch, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE - Luxembourg Branch is also supervised by the Commission de Surveillance du Secteur Financier (CSSF); registered under R.C.S Luxembourg B255938. In the United Kingdom, this material is issued by J.P. Morgan SE - London Branch, registered office at 25 Bank Street, Canary Wharf, London E14 5JP, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – London Branch is also supervised by the Financial Conduct Authority and Prudential Regulation Authority. In Spain, this material is distributed by J.P. Morgan SE, Sucursal en España, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE, Sucursal en España is also supervised by the Spanish Securities Market Commission (CNMV); registered with Bank of Spain as a branch of J.P. Morgan SE under code 1567. In Italy, this material is distributed by J.P. Morgan SE -Milan Branch, with its registered office at Via Cordusio, n.3, Milan 20123, Italy, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Milan Branch is also supervised by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB); registered with Bank of Italy as a branch of J.P. Morgan SE under code 8076; Milan Chamber of Commerce Registered Number: REA MI 2536325. In the **Netherlands**, this material is distributed by J.P. Morgan SE - Amsterdam Branch, with registered office at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Amsterdam Branch is also supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan SE under registration number 72610220. In Denmark, this material is distributed by J.P. Morgan SE - Copenhagen Branch, filial af J.P. Morgan SE, Tyskland, with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE - Copenhagen Branch, filial af J.P. Morgan SE, Tyskland is also supervised by Finanstilsynet (Danish FSA) and is registered with Finanstilsynet as a branch of

J.P. Morgan SE under code 29010. In **Sweden**, this material is distributed by **J.P. Morgan SE – Stockholm** Bankfilial, with registered office at Hamngatan 15, Stockholm, 11147, Sweden, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Stockholm Bankfilial is also supervised by Finansinspektionen (Swedish FSA); registered with Finansinspektionen as a branch of J.P. Morgan SE. In Belgium, this material is distributed by J.P. Morgan SE - Brussels Branch with registered office at 35 Boulevard du Régent, 1000, Brussels, Belgium, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE Brussels Branch is also supervised by the National Bank of Belgium (NBB) and the Financial Services and Markets Authority (FSMA) in Belgium; registered with the NBB under registration number 0715.622.844. In **Greece**, this material is distributed by J.P. Morgan SE - Athens Branch, with its registered office at 3 Haritos Street, Athens, 10675, Greece, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Athens Branch is also supervised by Bank of Greece; registered with Bank of Greece as a branch of J.P. Morgan SE under code 124; Athens Chamber of Commerce Registered Number 158683760001; VAT Number 99676577. In France, this material is distributed by J.P. Morgan SE – Paris Branch, with its registered office at 14, Place Vendome 75001 Paris, France, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB) under code 842 422 972; J.P. Morgan SE – Paris Branch is also supervised by the French banking authorities the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and the Autorité des Marchés Financiers (AMF). In Switzerland, this material is distributed by J.P. Morgan (Suisse) SA, with registered address at rue du Rhône, 35, 1204, Geneva, Switzerland, which is authorised and supervised by the Swiss Financial Market Supervisory Authority

(FINMA) as a bank and a securities dealer in Switzerland.

This communication is an advertisement for the purposes of the Markets in Financial Instruments Directive (MIFID II) and the Swiss Financial Services Act (FINSA). Investors should not subscribe for or purchase any financial instruments referred to in this advertisement except on the basis of information contained in any applicable legal documentation, which is or shall be made available in the relevant jurisdictions (as required).

In **Hong Kong**, this material is distributed by **JPMCB**, **Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB**, **Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent

professional advice. For materials which constitute product advertisement under the Securities and Futures Act and the Financial Advisers Act, this advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are offered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, including without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund's securities in compliance with the laws of the corresponding jurisdiction.

References to "J.P. Morgan" are to JPM, its subsidiaries and affiliates worldwide. "J.P. Morgan Private Bank" is the brand name for the private banking business conducted by JPM. This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan team.

© 2025 JPMorgan Chase & Co. All rights reserved.

JPMorgan Chase Bank, N.A. (JPMCBNA) (ABN 43 074 112 011/AFS Licence No: 238367) is regulated by the Australian Securities and Investment Commission and the Australian Prudential Regulation Authority. Material provided by JPMCBNA in Australia is to "wholesale clients" only. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001 (Cth). Please inform us if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

JPMS is a registered foreign company (overseas) (ARBN 109293610) incorporated in Delaware, U.S.A. Under Australian financial services licensing requirements, carrying on a financial services business in Australia requires a financial service provider, such as J.P. Morgan Securities LLC (JPMS), to hold an Australian Financial Services Licence (AFSL), unless an exemption applies. JPMS is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (Cth) (Act) in respect of financial services it provides to you, and is regulated by the SEC, FINRA and CFTC under US laws, which differ from Australian laws. Material provided by JPMS in Australia is to "wholesale clients" only. The information provided in this material is not intended to be, and must not be, distributed or passed on, directly or indirectly, to any other class of persons in Australia. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Act. Please inform us immediately if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

This material has not been prepared specifically for Australian investors. It:

- · may contain references to dollar amounts which are not Australian dollars;
- may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and does not address Australian tax issues.