China and the future of equity allocations

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Contents

Executive summary

The partial inclusion of China A shares in the MSCI ACWI and Emerging Market Indexes in 2018 and announced increases to the weighting of this class of shares in 2019 have prompted investors to reconsider the appropriate allocation to China in their equity portfolios.

In light of MSCI's February 2019 plan to raise the inclusion factor of China A shares to 20% by the end of 2019 from 5%, institutional investors may consider these issues:

1. The size of the China allocation in both global and EM equity portfolios.
2. Whether to integrate China within a broader EM portfolio or to pursue a dedicated China-only approach.
3. The asset allocation implications of different policy options.

In this paper, we analyze and contrast different ways of configuring policy benchmarks, considering two broad options: An "integrated" option, with China as an indispensable part of a wider equity opportunity set, such as emerging markets; and a "dedicated" option, where China is treated as a separate equity segment (similar to U.S. equities for some investors). Institutional investors may choose different options based on their specific situations and evaluations of the relative merits of each approach.

Starting at the global equity policy level, investors with positive convictions about China's growth prospects and its diversification potential may wish to study the potential implications of integrated or dedicated approaches.

How China fits into the emerging-market allocation has other important implications. According to our analysis, carving out China from EM historically would have impaired EM ex China's long-term growth rate, shrunk the breadth of the investment opportunity set and increased risk exposure.

Under a hypothetical scenario where China A shares are fully included into the MSCI Emerging Markets Index, China as an integrated allocation would have constituted more than 40% of the index market capitalization, based on proforma index data as of April 17, 2019. No matter how institutional investors configure their equity allocation (as reflected in their benchmark choices), the importance of China may significantly impact their asset allocation and portfolio implementation approaches.

Framing the discussion

MSCI's February 2019 announcement[1] to further increase China A shares' weight in the MSCI Emerging Markets Index reaffirms that the China A shares market, consisting of domestic listed stocks, has become more accessible to global investors.

Prior to MSCI's June 2017 announcement that it would include China A shares in the MSCI Emerging Markets Index at a 5% inclusion rate, there were about 1,700 Stock Connect accounts through which investors gained exposure to China A shares.[2] This increased to more than 7,300 following the announcement to increase the weight further. The rise in the number of active accounts reflects that more international investors are participating in the domestic Chinese equity market in response to changes in their benchmarks.

As of May 30, 2019, Chinese equities accounted for 31% of the MSCI Emerging Markets Index by free float-adjusted market capitalization. If the weight of A shares continues to increase, many long-term investors may want to put a greater focus on the China allocation decision in their investment policy.

In this research paper, we first review the rise of China's economic influence and examine investors' recent underweight position to Chinese equities within global and EM portfolios. We then discuss investors' varying views of the global equity opportunity set and compare the weight of China in different global benchmarks. We put this in context by comparing the long-term growth and diversification profiles of various countries and regions.

Institutional investors typically focus on two broad choices for configuring benchmarks to incorporate China: an "integrated" option, in which China is an indispensable part of a broader equity opportunity set; and a "dedicated" option, which acknowledges China's special status in the asset allocation process. However, the way investors implement these choices may vary depending on their starting point. For example, some investors may have more experience investing in China while others are only beginning their journey; some may have a positive view of the prospects for Chinese equities, while others remain cautious. As a result, different investors may choose varying paths based on their specific situations.

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[1] "MSCI will increase the weight of China A shares in MSCI Indexes." MSCI press release, Feb. 28, 2019.

[2] The Stock Connect account refers to the Special Segregated Account (SPSA) service provided by the Hong Kong Exchange to facilitate investors who maintain China Connect Securities with custodians but want to sell their China Connect Securities without having to pre-deliver the securities from their custodians to their executing brokers.

We evaluate and contrast several dimensions of emerging and Chinese equity markets including investability, market breadth and alpha opportunity, the significance of factor premiums and the current availability of different investment structures across various equity opportunity sets. We then analyze several asset allocation scenarios.

Under a hypothetical scenario where China A shares are fully included in the MSCI Emerging Markets Index, China would make up more than 40% of the Index, based on proforma index data as of April 17, 2019. No matter how investors configure their equity allocations (as reflected in their policy benchmarks), China's growing role in global and emerging-market indexes may bring significant changes in their approach to asset allocation and portfolio implementation.

Weighting China in equity portfolios

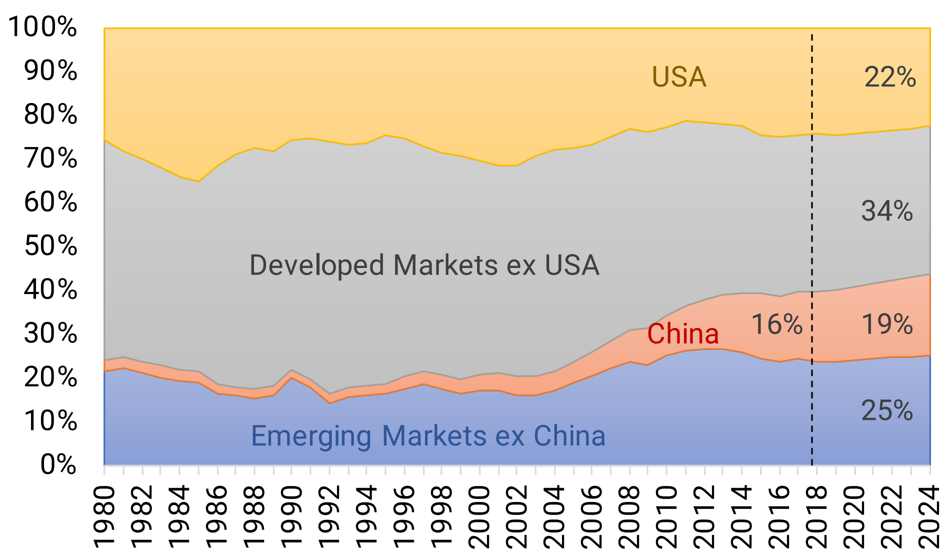
We approach the strategic question of China's weight in the equity allocation from several perspectives, including the investor's objectives, their view of the global equity opportunity set and their investment convictions.

Investment objectives

Investors make strategic allocations to the equity asset class for a variety of reasons. While a significant number look to capture the long-term growth premium historically attached to the cash flow of equity portfolios, many also allocate to equities to meet future liabilities, to obtain the desired mix of reserve currencies, to enhance liquidity and transparency for the total portfolio and to provide diversification to other asset classes.

Return-driven investors often look at the relative size of the economies that underlie listed equity performance. Exhibit 1 below shows that, based on the IMF's latest forecasts, China is set to contribute 19% of global gross domestic product (GDP) by 2024, not far behind the U.S.'s 22% contribution.

Exhibit 1. Breakdown of global GDP by nominal value in USD

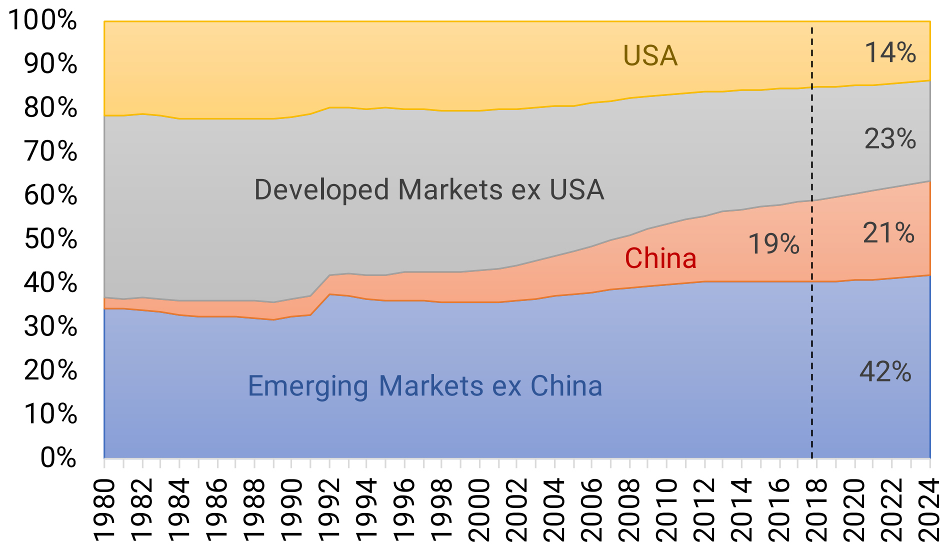


Source: IMF World Economic Outlook, April 2019

In comparison, the global output for China and the U.S., respectively, were 16% and 24% in 2018, and 3% and 29% in 1998, reflecting the rapid growth in China's economy over the past two decades.

China's purchasing power overtook the U.S. in 2014 and is forecast to be 1.5 times the size of the U.S. by 2024 (Exhibit 2). This drastic shift in the balance of economic power may have significant implications for investors' equity portfolios if they seek exposure from financial assets that may benefit from this growth trend.

Exhibit 2. Breakdown of global GDP by purchasing power



Source: IMF World Economic Outlook, April 2019

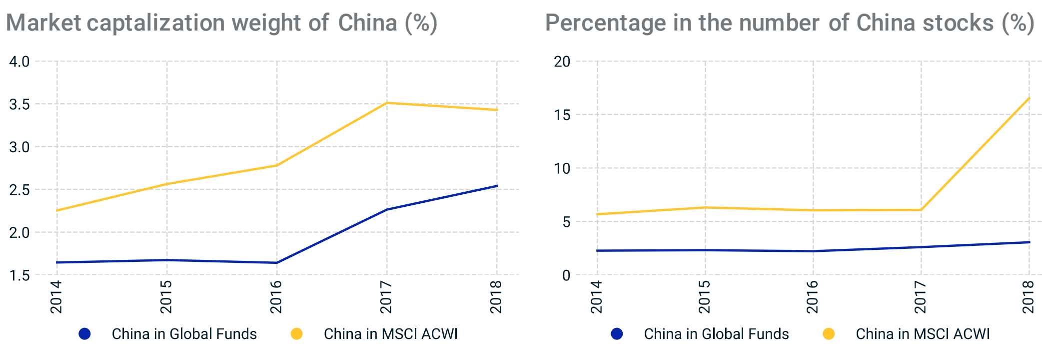
A direct result of China's growth has been that many countries around the world are now exposed to its economy via increasing cross-border trade and investments. Demand has risen for assets linked to Renminbi-denominated cash flows, and there is also greater recognition of China's technology and infrastructure capabilities.

For example, as the Renminbi plays a more significant role as an alternative reserve currency to the U.S. dollar, euro and the Japanese yen, central banks and monetary authorities have increased their allocations to Chinese debt and equity. Liability-driven investors, such as pension funds, who see the future of their domestic economies closely tied to China, could, in some cases, reassess the pros and cons of having an explicit strategic allocation to Renminbi-denominated financial assets.

Have global and emerging market investors caught up with this fast-changing reality? Evidence suggests that investors have only started to reconsider the place of China in their equity allocations, particularly since June 2017, when MSCI announced its decision to partially include China A shares in the MSCI Emerging Markets Index and the MSCI ACWI Index, among other indexes.

Exhibit 3 shows a marked increase in China allocations made by global equity mutual funds, starting in 2017. However, global funds remained underweight in Chinese stocks compared to the MSCI ACWI Index. After partial inclusion was implemented in 2018, about one in six constituents in the MSCI ACWI Index were Chinese, compared to only about one in 30 stocks held by global equity mutual funds.

Exhibit 3. China allocation of global mutual funds and MSCI ACWI Index

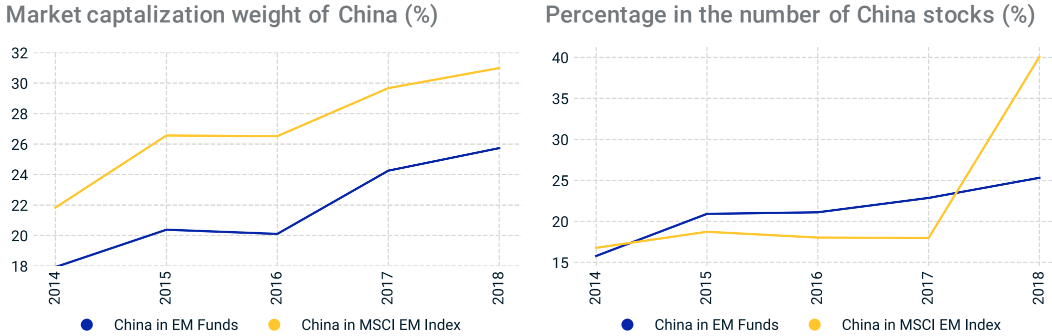


Source: Lipper, MSCI Peer Analytics Database

China's role in EM allocations has been considerably higher, as it has been the largest emerging-market country by market capitalization since 2007. On average, EM mutual funds allocated about a quarter of their portfolios to China in 2018, though still lagging the index on average (Exhibit 4).[3]

[3] According to Cambridge Associates, institutional active EM funds had a higher allocation to China than EM mutual funds, but this still fell short of the MSCI Emerging Market Index.

Exhibit 4. China allocation of EM mutual funds and MSCI EM Index



Source: Lipper, MSCI Peer Analytics Database

Whether in global or emerging-market funds, this consistent underweight may be due to various investors' concerns, such as China's macroeconomic risks, lower familiarity with the universe of stocks and limited access to risk-management tools. As China's capital markets and financial infrastructure evolve, investors are likely to consider alternatives to the role of Chinese equities in their broader global equity opportunity set.

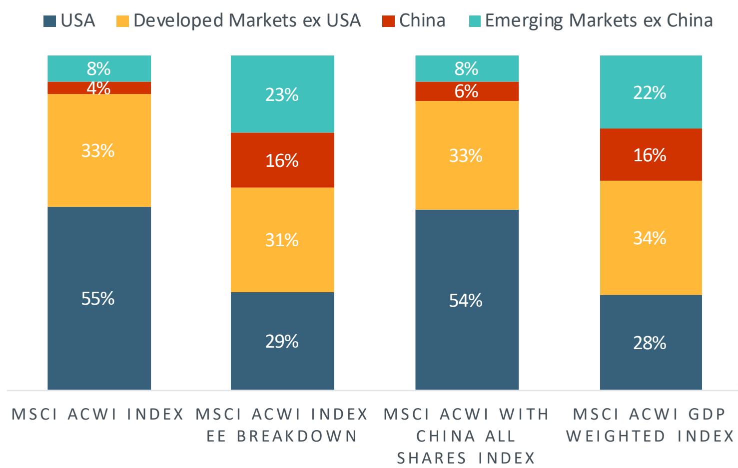
Ways to slice the world

Traditionally, many institutional investors have used market-capitalization-weighted benchmarks to guide their asset allocation decisions. Given cap-weighted benchmarks are designed to reflect the performance of the underlying investable opportunity set, they serve as a neutral starting point for any capital allocation decision.

However, the size of public equity market does not always accurately represent a country's relative share in the global economy. Issues such as the extent that listed companies represent a country's corporate sector, the extent that shares are free floating, ownership restrictions, the maturity of the capital market and even relative market valuations could potentially distort the true economic significance of a stock market. Hence, some investors turn to GDP or economic exposure-weighted indexes as proxies for underlying economies to help guide their long-term asset allocation decisions.

Exhibit 5 shows that China currently represents 16% of global GDP or economic exposure weight but makes up only 4% of the cap-weighted index.

Exhibit 5. Reviewing China's weight in the MSCI ACWI Index



Data as of Feb 28, 2019. The second bar represents the economic exposure of the MSCI ACWI Index, based on the MSCI Economic Exposure Security Data module.

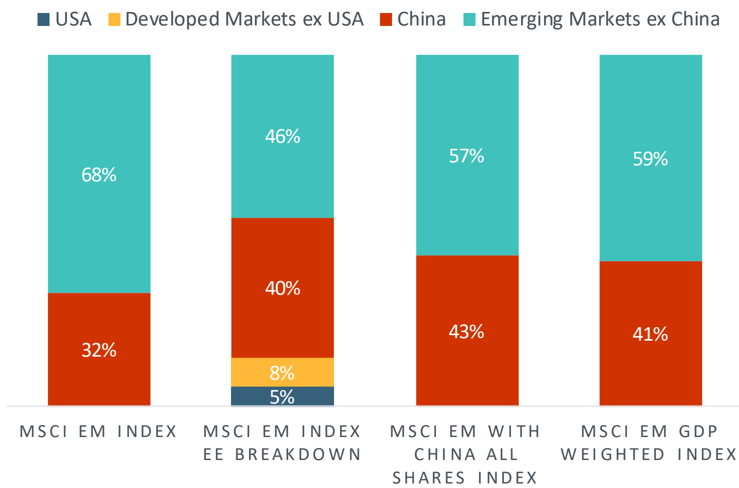
This discrepancy in weights mainly reflects two issues: Publicly held companies in less-developed capital markets typically have lower levels of free-floating shares, and China A shares are still not fully represented in the index.

Depending on their views and level of skill, some investors may decide to use an alternative index or combination of indexes in defining the China opportunity set within global equities.

In the context of emerging-market allocations, however, China's current index weight does not significantly trail its GDP or economic exposure weight. Should A shares be fully included in the cap-weighted index, the weight of China could potentially converge with that of the GDP or economic exposure-weighted indexes.[4]

[4] MSCI has not made any decisions about the future inclusion of China A shares.

Exhibit 6. Reviewing China's weight in the MSCI Emerging Markets Index



Data as of Feb 28, 2019. The second bar represents the economic exposure of the MSCI EM Index, calculated based on the MSCI Economic Exposure Security Data module.

Investment conviction

Under a classic asset allocation framework, investors typically have two objectives in mind when investing in an asset class or segment. The first is to improve the expected return of the portfolio, while the second is to improve portfolio diversification. In other words, the choice is fundamentally driven by the investor's return objectives and risk tolerance, although practical considerations including liability obligations, accessibility constraints and regulatory restrictions may also influence the decision.

Improving the expected return may require a high level of conviction about the potential of the opportunity set, given that no investor can claim to predict the future. Institutional investors, however, have long considered emerging-market equities, of which China is now the biggest component, as an important segment in their global equity portfolios.

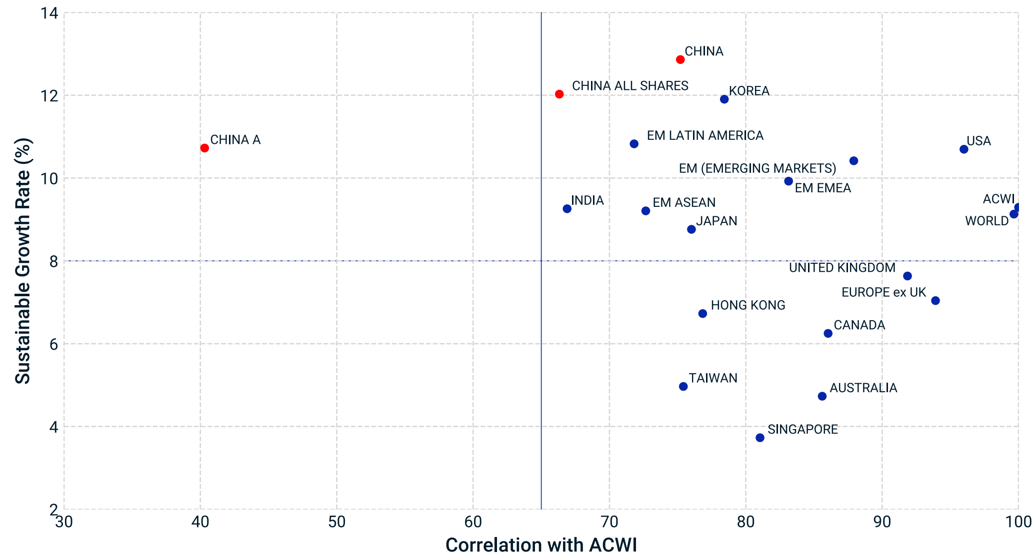
Despite the already large weight of China in the MSCI Emerging Markets Index, some investors sought early exposure to China A shares, taking the view that the restricted domestic Chinese equity market would one day become more open to international investors and potentially become a significant part of their portfolio. Such investors have traditionally taken an off-benchmark bet by investing in dedicated QFII/RQFII

China mandates.[5] Assuming all else remains constant, their approach to allocating to China may not necessarily change in the event of a full inclusion of China A shares in the Index. Given this logic, these investors are likely to continue to overweight China and pursue a strategy that works for them.

Benchmark-sensitive investors, on the other hand, may choose to take a more conservative approach when it comes to off-benchmark allocation. These investors may continue to approach the new opportunity set prudently while improving their understanding of the market.

From a diversification viewpoint, A shares historically have exhibited low correlations with the rest of the world as shown in Exhibit 7.

Exhibit 7. Where have investors found growth and diversification in equities?



Correlation with ACWI is based on historical monthly index returns from December 2008 to April 2019; Sustainable growth is approximated by the average of long-term sustainable reinvestment growth (sustainable ROE times earnings retention ratio) and earnings per share growth during the past five years (from April 2014 to April 2019).

[5] The Qualified Foreign Institutional Investor (QFII) scheme was introduced in 2002, allowing foreign investor's direct access to China's capital market. The Renminbi Qualified Foreign Institutional Investor (RQFII) scheme was introduced in 2011, allowing the use of Renminbi funds raised in eligible locations outside of mainland to invest in the domestic securities market.

Different approaches to the China allocation

When considering how to allocate to China, global investors commonly choose between a dedicated allocation to China or letting the China exposure be determined by its weight in the MSCI Emerging Markets Index.

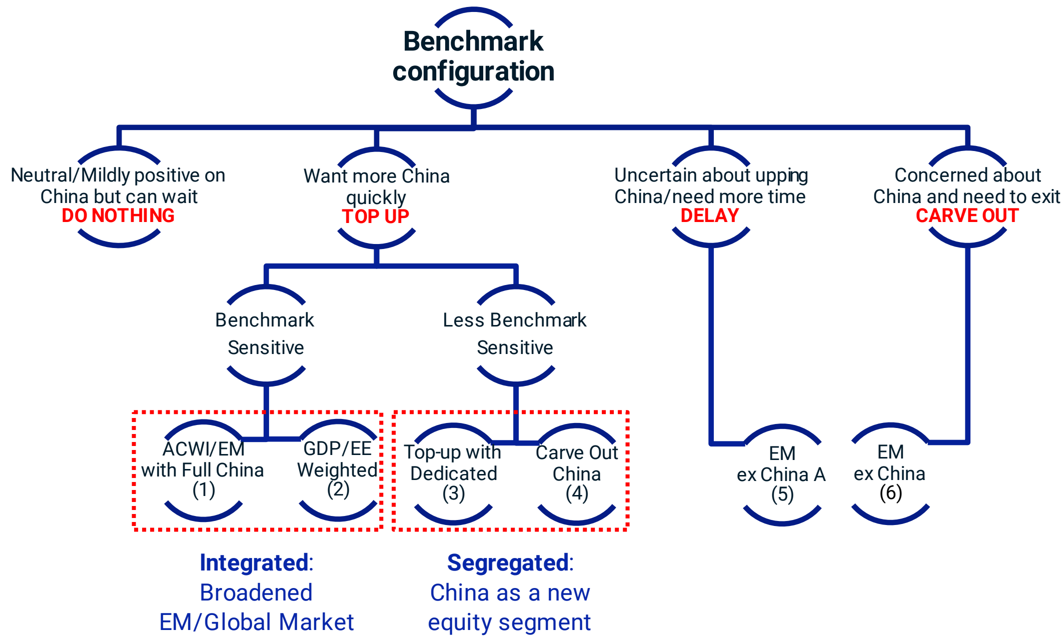
In the previous section, we explained that some investors with a positive long-term conviction about China have chosen to pursue a dedicated China allocation, thus compensating for the country's lower weight in the benchmark, while benchmark-oriented investors have preferred to follow changes to indexes as they occur. These different approaches partly reflect investors' different levels of experience and varying outlooks when investing in Chinese equities. In addition, these approaches may evolve if more A shares are added to the benchmark index over time.

A framework for policy benchmarks

The approach to the China allocation may be determined either at the policy level, strategic asset allocation level or portfolio implementation level. For this paper, we address the question in the context of the policy benchmark, recognizing that this yardstick has the largest impact on the overall investment process. In addition, most investors have discretion and flexibility over their asset allocation and implementation decisions. We emphasize that any decision to reconfigure the policy benchmark should be evaluated with great care and diligence.

There is no single path likely to meet all investors' requirements for setting a policy benchmark, given differing convictions and timeframes. However, for purposes of simplification, we assume that all paths begin with the same cap-weighted MSCI ACWI Index policy benchmark. Exhibit 8 illustrates a possible thought process for configuring policy benchmarks.

Exhibit 8. Possible thought process for policy benchmark configuration



Some investors may believe that China will grow in size and importance within the global equities framework, while others may not. They may have varying approaches to how they treat China within their broader global equity allocation.

- Investors with a neutral or a mildly positive view on China, but who do not need to act urgently, could choose to grow their China exposure organically by simply sticking with their current policy benchmark — basically, by doing nothing. Any increase in A shares to the index theoretically would result in a larger China allocation as these investors would seek to remain neutral (or close to neutral) to the benchmark.
- Investors with positive convictions about the long-term prospects for China's economic growth or a bullish view of China's equity markets may wish to raise their exposure quickly. This implies a higher China exposure than the global equity benchmark. Investors considering this may select different routes, depending on how much they care about deviating from the policy benchmark:

  - More benchmark-sensitive investors may consider an integrated approach to an ACWI or EM equity allocation, with a benchmark reflecting a higher weight for China.
  - Less benchmark-sensitive investors might simply raise their exposure via a dedicated allocation to China or, more narrowly, to China A shares only.
- Investors who are less certain about the implications of adding China A exposure to an existing emerging-market portfolio may consider delaying the decision to add China A weight.
- Some investors might be less convinced of the prospects for China's growing economic global role or the long-term trajectory of its equity market. In this case, a complete "Carve Out" solution may be more appropriate.

We evaluate the pros and cons of various approaches to benchmark configuration in the next section.

Integrated versus dedicated approaches

Which of the approaches described in the previous section is best for each investor depends, to a large degree, on their objectives and constraints. There is no "one-size-fits-all" answer. Institutional investors may consider the merits of each proposed set-up from both an asset allocation and an implementation perspective.

We set out these considerations in Exhibit 9, which compares the potential pros and cons of integrated versus dedicated approaches. With integrated solutions, investors may be able to maintain continuity with the existing investment process and governance structure by fine-tuning the weight of China in a broader equity portfolio.

Exhibit 9. Integrated vs. dedicated China approaches

	Integrated	**Dedicated (China as a new equity segment)**	
	Emerging Market/ACWI with neutral or higher China weights	**Top Up:** Dedicated allocation to China strategies	**Carve Out:** China + EM ex China configuration
Pros	• Continuity with existing investment process and governance structure • Little interruption in manager selection or quant investment strategy • No need to spend additional resource on dedicated China	• Flexibility in configuring China's weight in policy and tactical asset allocation decisions • Historic risk premium for being in a less efficient market • Possibly no impact on existing EM/ACWI policy	• Additional precision in policy configuration and flexibility in tactical asset allocation decisions • Historic risk premium for being in a less efficient market
Cons	• Less flexible in tactical asset allocation • Shortage of managers who can manage global equities with significantly higher China weight	• May need to change investment process and governance structure • Need to spend dedicated resource on China • May need to re-deploy existing allocation to fund new China strategy	• Possible disruption to investment process and governance structure • Shortage of managers who can manage EM equities without China • Higher exposure to China market-timing risk

Turning to dedicated approaches, investors who opt for a "Top Up" approach to the China allocation may have greater flexibility to reflect their views on China without impacting the existing ACWI or EM policy and existing manager configuration. However, introducing China as an equity segment is likely to mean a change in the investment process with potential implications for the governance structure.

Carving out China A shares or the whole China market from ACWI or EM allocations is a potential option for investors who want to achieve better precision in their equity allocations and avoid overlaps. But these options carry the risk of disrupting well-seasoned emerging-market investment processes.

MSCI CHINA INDEX OPTIONS

Investors have traditionally used the MSCI China Index to define the opportunity set for dedicated China strategies. With the partial inclusion of China A shares in MSCI indexes, these constituents are now incorporated in the MSCI China A Index and MSCI China All Shares Index, among others. Exhibit 10 summarizes the construction and characteristics of select MSCI China indexes.

Exhibit 10. Benchmark choices for dedicated China allocation

Category	**Index Name**	**Index Methodology Highlight**	**Differentiation**	**Index Constituent**	
				Standard (LC+MC)	Small Cap
Integrated China	**MSCI China**	Aims to cover 85% of the free-float market cap of the China equity universe across H-shares, B-shares, Red-chips, P - chips and foreign listed shares. A shares partially included.	• China universe included in MSCI EM • B, H, P, Red and foreign-listed (A to be added in June 2018) • FIF and CNH rate	495	239
	MSCI China All Shares	Aims to cover 85% of the free-float market cap of integrated China Equity Universe, combining A - shares, B-shares, H - shares, Red - chips, P - chips and foreign listed shares	• Integrated China universe with A shares fully represented* • A, B, H, P, Red and foreign-listed • FIF and CNY rate	693	1,983
China A	**MSCI China A**	Derived from MSCI China A International Index, applying Stock Connect eligibility screening	• Connect-compatible A shares, expands to mid-cap; beyond the initial inclusion in MSCI EM • FIF and CNH rate	436	-
	MSCI China A Interna-tional	Includes the China A-share constituents of the MSCI China All Shares Index	• A-share component of the MSCI China All Shares • QFII Compatible A shares • FIF and CNY rate	462	1,744
	MSCI China A Onshore	Aims to cover 85% of the free float market cap of China A Investable Equity Universe	• For PRC-based Investors • Size def. not based on ACWI • DIF and CNY rate	646	1,762

As of May 30, 2019

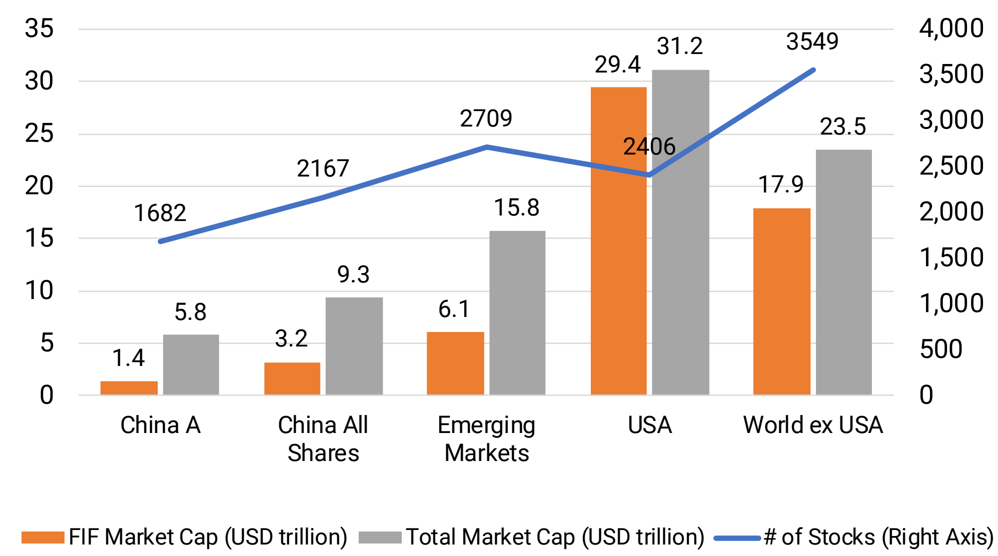
OPPORTUNITY SET: CAPACITY, BREADTH AND FACTOR PREMIUM

Configuring policy benchmarks often requires a detailed assessment of the chosen benchmark's implications for broader asset allocation decisions. Specifically, investors may want to evaluate:

- **Asset class investability**: What is the market capitalization and liquidity of the benchmark index?
- **Market breadth and alpha opportunity**: How many investable securities are included? How big are potential alpha and factor premium opportunities?
- **Investment structure availability**: How many investment structures are available for the opportunity set? How large are they? What is the trend in new structures?

In other words, besides investment conviction and their merits for asset allocation, benchmark configuration decisions may also take account of the current and future availability of investment structures at scale. Exhibit 11 shows the number of stocks, free float and total market capitalization of a number of MSCI investable market indexes encompassing large-, mid- and small-cap segments.[6]

Exhibit 11. Size of MSCI Investable Market Indexes



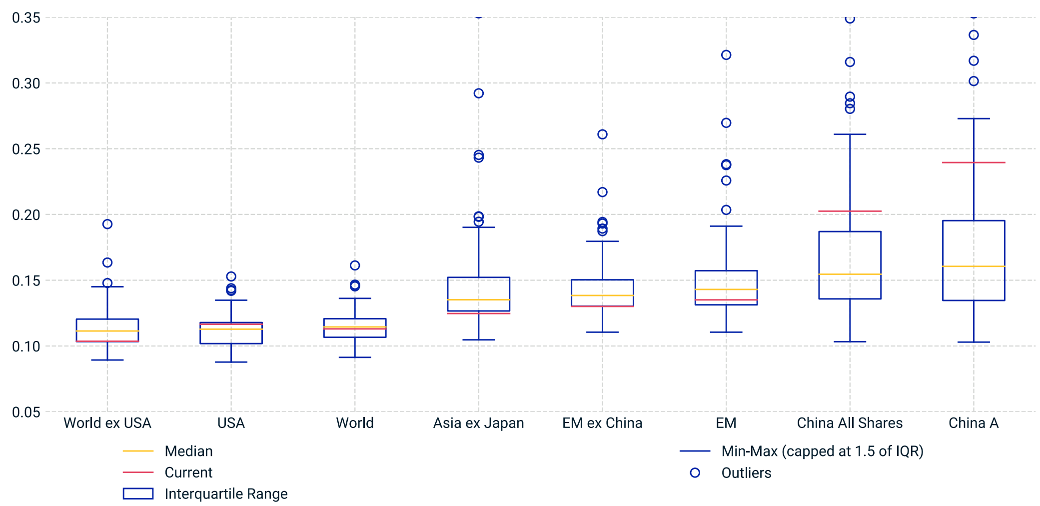
Data as of April 30, 2019

[6] Free-float market capitalization is calculated under foreign inclusion factor (FIF), accounting for the 30% foreign ownership limit (FOL) in China A shares.

An integrated China universe as represented by the MSCI China All Shares Index has exhibited broad capacity and diversity. However, an integrated EM benchmark including China has offered still greater investment capacity. Investors should account for these types of considerations when selecting a policy benchmark.

An indication of market breadth is apparent from the historical dispersion of security returns, as measured by the cross-sectional volatility (CSV) of trailing 3-month returns of index constituents. We find the largest return dispersion (indicating market breadth) occurred in the MSCI China A and MSCI China All Shares Indexes, followed by the MSCI Emerging Markets Index and MSCI Asia ex Japan Index. Return dispersion in the U.S. and other developed markets was lower over the past decade.

Exhibit 12. Breadth (cross-sectional volatility) of markets

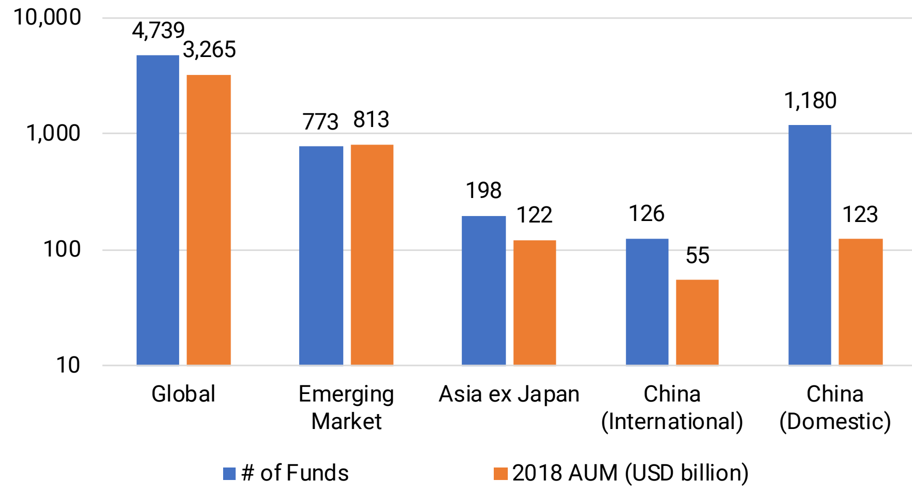


Based on weighted cross-sectional standard deviation of trailing 3-month returns of MSCI country and regional IMI indexes, from January 2010 to April 2019

The number of mutual funds and amount of assets managed to a given regional exposure also indicates the breadth of opportunities available to investors. We looked at the current market size of mutual funds with a focus on global, emerging-market, Asia ex Japan and Chinese equity markets, respectively. As of September 2018, there were over 4,700 global equity mutual funds managing over USD 3 trillion of assets, according to the MSCI Peer Analytics database. By comparison, there were 773 EM mutual funds with over USD 800 billion of assets, and 198 Asia ex Japan mutual funds with more than USD 122 billion of assets.

China has a maturing domestic mutual fund market with many players. However, dedicated China mutual funds that cater to international investors remain small in both absolute and average fund size, compared to Asia ex Japan and emerging-market mutual funds.

Exhibit 13. Mutual fund market size



Data as of September 2018. Global, EM, Asia ex Japan and China (International) fund data based on Lipper and MSCI Peer Analytics. China (domestic) data based on December 2018 figures from the Asset Management Association of China.

Another measure of the market can be seen through the lens of factors. In Exhibit 14, the left-hand chart compares the historical factor premium in different markets from December 2008 to April 2019 as shown by the annualized outperformance of MSCI Diversified Multiple-Factor Indexes, which are designed to reflect return premia attributable to strategic exposure to value, quality, low size and momentum factors.[7]

Consistent with Exhibit 12, we find that, while not indicative of future results, factor-based quantitative strategies delivered better relative performance in the Chinese equity markets than elsewhere in the world.[8] Interestingly, multi-factor strategies

[7] MSCI Diversified Multiple-Factor Indexes are designed to maximize exposure to four factors – value, momentum, quality and low size – while maintaining a risk profile similar to that of the underlying parent index. See https://www.msci.com/diversified-multi-factor-index for more details of the index methodology.

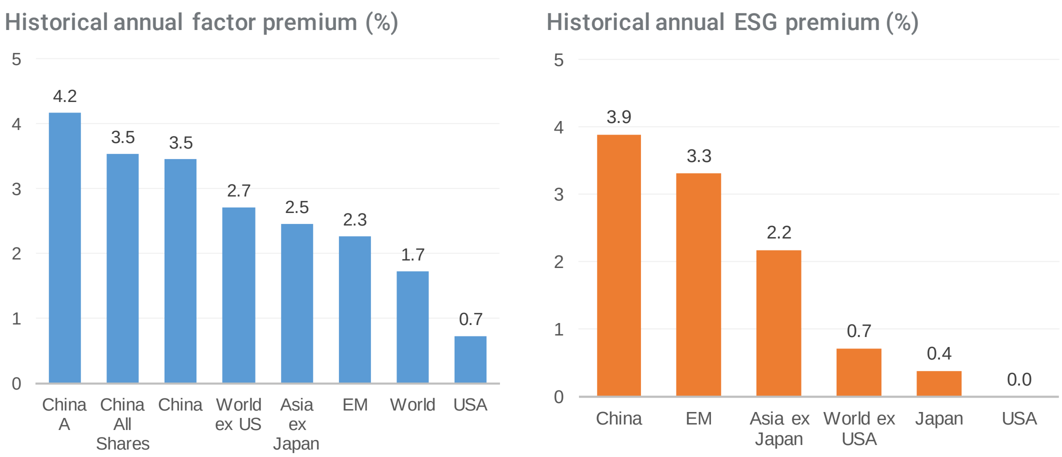
[8] We explained potential reasons for the better returns of factor-based strategies in China A shares in our blog post: "Can your investment strategy work with China A shares?"

also outperformed in developed markets outside the U.S. as in emerging markets and Asia ex Japan.

In recent years, a growing number of investors have integrated ESG into their policy portfolios and some investors may treat ESG as an additional factor to those used by traditional quantitative portfolios (Melas et al., 2016; Giese et al., 2018).

As shown in the right-hand chart in Exhibit 14, integrating ESG historically enhanced return more in the China, emerging-market and Asia ex Japan universes than in developed markets.

Exhibit 14. Historical annual factor and ESG premium by markets

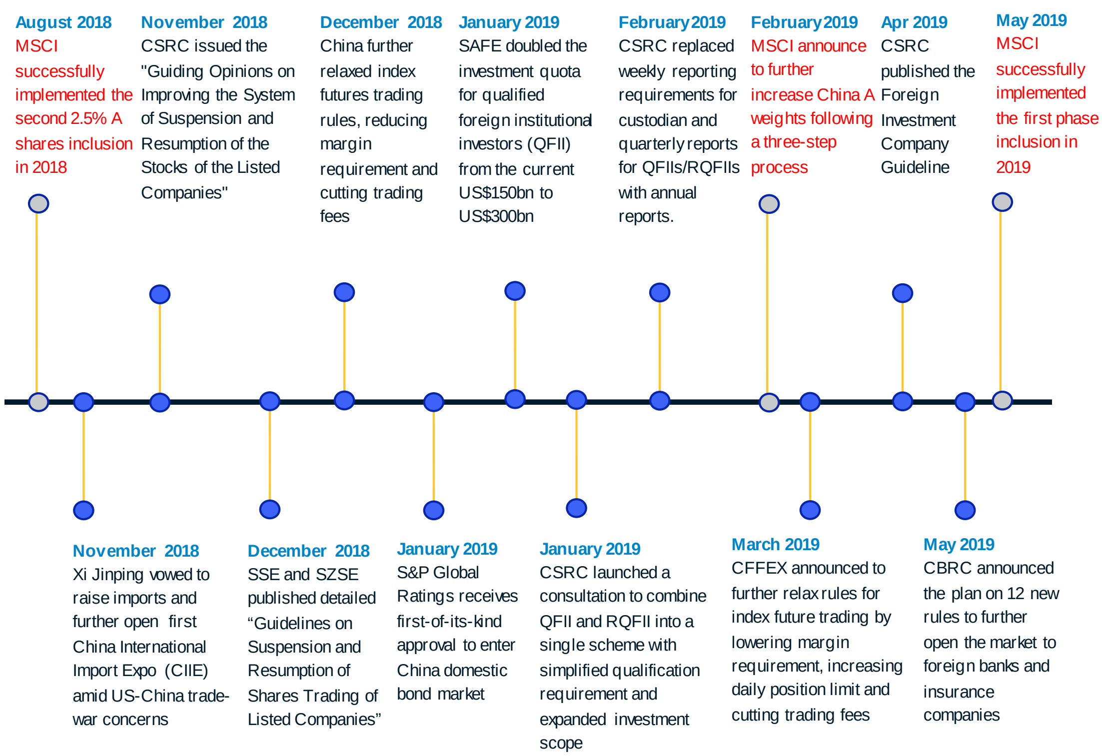


Historical annual factor premium is based annualized active return (%) of MSCI Diversified Multiple-Factor Indexes from December 2008 to April 2019; historical annual ESG premium is based annualized active return (%) of MSCI ESG Leaders Indexes from December 2008 to April 2019

Possible thought process for equity allocation

Institutional investors broadly welcomed China's market liberalization measures during MSCI's recent consultation. However, some investors still see several areas in need of further improvement before they are comfortable with a larger inclusion ratio.[9]

Exhibit 15. Latest market opening measures in China and MSCI inclusion progress

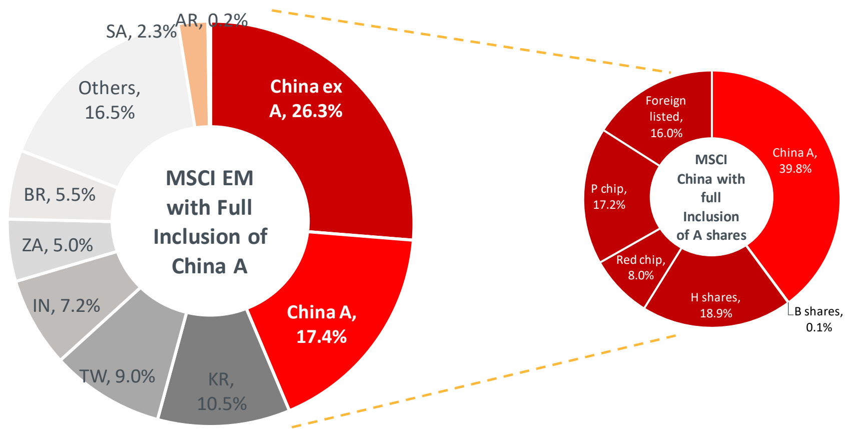


Under a hypothetical scenario where China A shares are fully included in the MSCI Emerging Market Index, China would make up more than 40% of the Index, based on proforma index data as of April 17, 2019. If China continues to improve its market accessibility and addresses remaining areas of investor concern, the inclusion ratio of China A shares may rise further and ultimately could reach 100%, at which point

[9] See the Appendix for a description of remaining areas of concern.

Chinese equities may comprise over 40% of the MSCI Emerging Markets Index (Exhibit 16).

Exhibit 16. MSCI EM Index with hypothetical full inclusion of China A



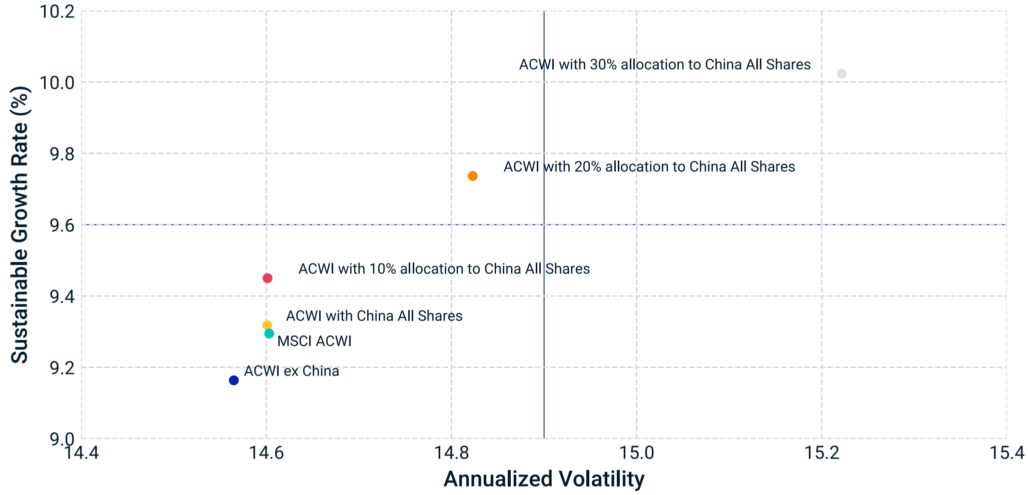
Data as of April 17, 2019

We illustrate a potential thought process for investors using a hypothetical full inclusion scenario, calculating the trade-off between historical volatility and an estimate of sustainable earnings per share (EPS) growth rate under several hypothetical examples of benchmark index configurations.[10]

China would have only a 6% weight in the MSCI ACWI Index upon full inclusion, based on proforma data as of April 17, 2019. However, despite China's low weight in the global index, carving out China completely would have reduced the sustainable growth rate of the benchmark index by about 13 basis points (bps) in this hypothetical example (Exhibit 17).

[10] Sustainable EPS growth rate in this section is the average of long-term sustainable reinvestment growth (sustainable ROE times earnings retention ratio) and earnings per share growth during the past five years (from April 2014 to April 2019).

Exhibit 17. Efficient frontier of strategic equity allocation to global equities



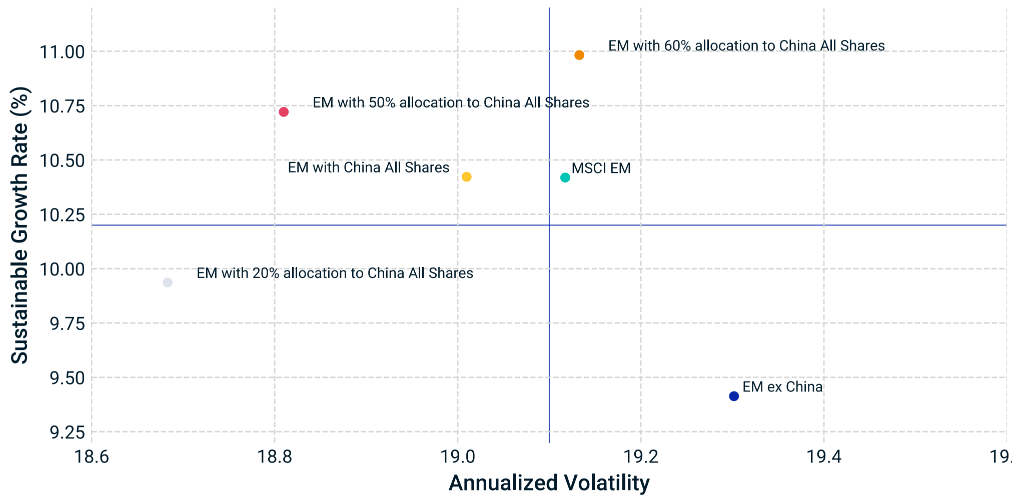
ACWI with China All Shares is the hypothetical MSCI ACWI Index with full inclusion of China A shares assuming no constraints on Stock Connect eligibility. The MSCI ACWI Index with 10%, 20% and 30% allocation to China All Shares are hypothetical cases where the index allocates different weights to China All Shares with corresponding allocation to ACWI ex China at 90%, 80% and 70% respectively. Volatility is calculated based on historical monthly index returns from December 2008 to April 2019

Sustainable growth is approximated by the average of long-term sustainable reinvestment growth (sustainable ROE times earnings retention ratio) and earnings per share growth during the past five years (from April 2014 to April 2019).

China's role in the emerging-market allocation has different implications. Exhibit 18 shows that, based on historical data, carving out China from the benchmark would have reduced the equity segment's sustainable growth rate by as much as one percentage point, while increasing its risk profile.

Using the same analysis and historical data, although fully including China A shares in the MSCI Emerging Market Index would not have significantly changed the sustainable growth profile of the integrated EM asset class, it would have lowered benchmark risk thanks to China A shares' diversification benefits. In addition, investors who previously had topped up their China allocation within EM, for example to a 50% or 60% weight, would have seen additional improvements in the sustainable growth rate or a reduction in their total portfolio risk profile.[11]

Exhibit 18. Efficient frontier for strategic equity allocation to EM Equities



EM with China All Shares is the hypothetical MSCI EM index with full inclusion of China A shares, assuming no constraints on Stock Connect eligibility. EM with 20%, 50% and 60% allocation to China All Shares are hypothetical cases where the index allocates different weights to China All Shares with corresponding allocation to EM ex China at 80%, 50% and 40%, respectively. Volatility is calculated based on historical monthly index returns from December 2008 to April 2019

Sustainable growth is approximated by the average of long-term sustainable reinvestment growth (sustainable ROE times earnings retention ratio) and earnings per share growth during the past five years (from April 2014 to April 2019).

[11] This report may contain analysis of historical data, which may include hypothetical, backtested or simulated performance results. There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy.

The analysis and observations in this report are limited solely to the period of the relevant historical data, backtest or simulation. Past performance — whether actual, backtested or simulated — is no indication or guarantee of future performance. None of the information or analysis herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision or asset allocation and should not be relied on as such.

Conclusion

China's growing economic strength and improving market accessibility may potentially bring significant investment opportunities, as well as challenges, to global investors. Understanding China's role in equity allocation may be crucial to sound investment policy decisions.

Given investors' wide variety of starting points and constraints, no universal allocation solution can address all the issues investors may face. Investors with a more strategic approach to equity allocation may want to look beyond near-term market and macroeconomic volatilities when assessing how to allocate to Chinese equities. In their assessment, investors may want to calibrate two main points: 1) the appropriate size of their China allocation, both within the global equity and EM allocation, and 2) how to implement this allocation.

On the first point, investors may need to assess how each scenario could meet their own investment objectives, align with their segmentation of the global equity opportunity set and provide a match with their investment convictions.

For the second, investors are likely to face a choice between two broad configuration types – either an integrated approach that incorporates China within the ACWI or EM equity opportunity set, or a dedicated approach where China is considered to be a separate equity segment. Under the dedicated approach, there are different implications depending on whether the investor decides, for example, to "carve out" China from the emerging-market portfolio, to pursue an integrated "China All Shares" approach, or to take a specialist China A focus. When deciding on the approach to take, points for consideration will include investment convictions, potential asset allocation merits within the total portfolio and expected availability of various investment structures.

No matter what choice an investor might make, the importance of understanding China's role in equity asset allocations cannot be underestimated.

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Appendix: Remaining market accessibility issues

During the global consultation conducted by MSCI from September 2018 to February 2019, international institutional investors stressed that any increase in the inclusion ratio of China A shares in MSCI indexes should require Chinese authorities to address the following market accessibility concerns:

- **Access to hedging and derivatives**

  The lack of listed futures and other derivatives products may make investors' ability to implement and manage the risk of increasing the weight of China A shares in the MSCI indexes less efficient.

- **Short settlement cycle of China A shares**

  The short settlement cycle of China A shares presents operational risk and tracking challenges, especially for those based outside Asian time zones. It becomes a larger risk as the A share weight and number of securities grows.

- **Trading holidays for Stock Connect**

  The consultation feedback also indicates that investors are concerned with the misalignment between onshore China and Stock Connect holidays.

- **Availability of omnibus trading mechanism in Stock Connect**

  Many large fund managers and broker dealers have highlighted the pressing need for a well-functioning omnibus mechanism, i.e., the ability to place a single order on behalf of multiple client accounts is critical to facilitate best execution and lower operational risk to international institutional investors.[12]

MSCI will continue to monitor market developments to ensure that the weight of China A shares in the MSCI Indexes remains reflective of the improvement of market accessibility standards.

[12] This aspect is especially critical for many investors who are required by law to treat their clients equitably.

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