

Investing in China

Opportunities for **global** investors



03 March 2021

Chief Investment Office GWM
Investment research



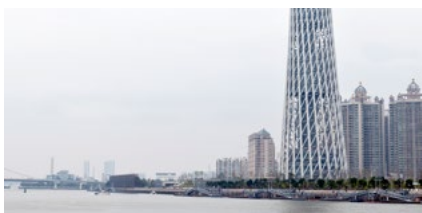
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This version reflects updates and corrections on pages 9 and 17.

Investing in China

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Investing in China

Over the past 20 years, China's economy has grown fivefold to become the second largest in the world. For years, China's financial markets lagged the country's economic ascendency, but they are now rapidly making up ground. As a result, over the past five years, global investors have started to diversify into Chinese financial assets, yet many are still significantly underallocated relative to China's weight in global equity and fixed income benchmarks.

One reason for this behavior is that global investors often lack sufficient understanding of the investment opportunities in China. This report aims to help them overcome their hesitancy by demystifying investing in China. We begin by reviewing the equity and fixed income opportunity sets, including their size, characteristics, and market access. We then detail how best to incorporate these asset classes, including China's currency, the renminbi, into global portfolios. Finally, we consider the macro, regulatory, and geopolitical risks to investing in China.

In today's economic environment, understanding the opportunities in China and considering portfolio allocations there is key. Some of the most compelling growth opportunities in the world are originating in Asia, with China at its core, and they appear very promising against a backdrop of low global growth. And as China and the US, along with other Western countries, pursue divergent economic, technological, and political models, exposure to China can improve long-term portfolio diversification.



A handwritten signature in black ink that reads "Mark Haefele".

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Why China: Too big and distinct to ignore

Burgeoning secular growth opportunities

Competing great power models

China's economic and social transformation over the past two decades has been nothing short of extraordinary. Given the blistering pace of change, many investors' view of the country is likely years out of date. China now accounts for about 20% of the world's total economic output and 30% of annual global GDP growth, and is now larger than the US economy measured in purchasing power parity (Fig. 1). The rise in living standards has kept pace with this expansion: The percentage of the population living on less than USD 5.5 a day has plummeted from over 80% in 2000 to less than 24% today, while the middle class now makes up about 50% of the population.

This transformation has been accompanied by an increase in the size and liquidity of China's asset markets. Its equity market capitalization is 25 times larger than it was in 2002 and now makes up close to 11% of the global total (Fig. 2). The market for tradable debt securities has also grown exponentially, from USD 200

billion in 2000 to USD 15.8 trillion as of June 2020, with the vast majority of these bonds issued in local currency. The renminbi has evolved from being a globally irrelevant currency to the eighth most-traded currency in the world in 2019, and is gaining a spot in central banks' international reserve allocations.

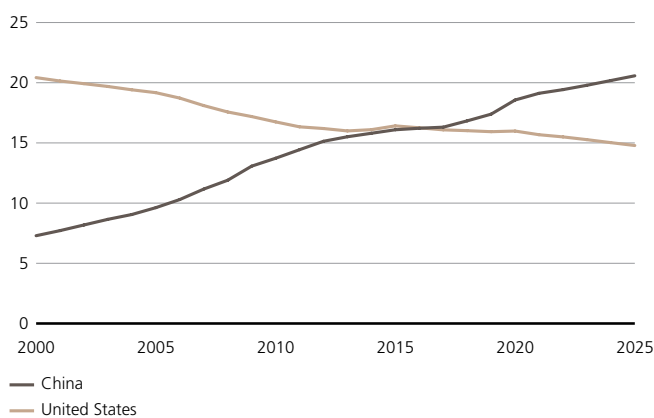
Most of these economic, social, and financial market changes appear poised to accelerate as a result of the pandemic. China and other north Asian countries have managed to control the disease relatively successfully, allowing economic growth to normalize more rapidly, and leaving them well positioned to deliver sustainable growth in the future. This is one reason we expect returns on Chinese equities and fixed income assets to be solidly above their developed market counterparts in the coming years.

The prospect of relatively high returns may already be enough to justify larger allocations to Chinese assets, but what makes them more compelling is the size of the growth opportunities as the economy evolves. Not to be ignored is how China's strategic competition with the US offers a way to diversify portfolios from being implicitly reliant on a single economic model.

Figure 1

Rising economic influence

Chinese GDP as % of world total in PPP terms, with forecasts



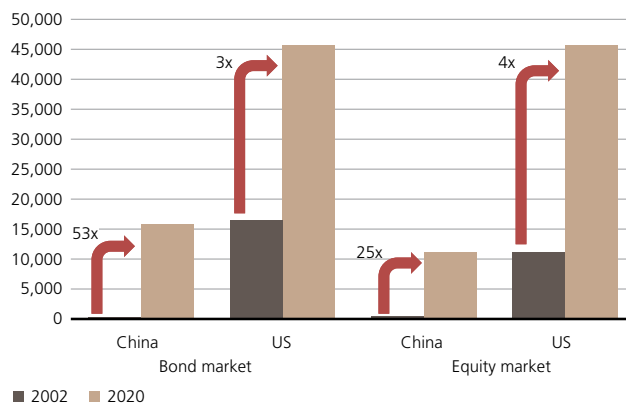
Note: Countries report GDP data in their own currency. To compare the data, each country's statistics must be converted into a common currency. One way to do so is to use market exchange rates. Another commonly used approach is to employ purchasing power parity (PPP) exchange rates—the rate at which the currency of one country would have to be converted into that of another country to buy the same amount of goods and services in each country. While the US economy measures larger than China when using market exchange rates, the opposite is true when employing PPP ones.

Source: IMF World Economic Outlook, UBS, as of October 2020

Figure 2

China's growing opportunity set

Market cap (equities) and total notional outstanding (bonds), in USD billions



Source: Bloomberg, BIS, UBS, as of February 2021

Burgeoning secular growth opportunities

China has long shed its reputation as just a center of cheap manufacturing. The country is striving to innovate and achieve technological self-sufficiency. Its trade war with the US has only intensified this ambition, and we expect the Chinese economy to become more digital, smarter, and greener over time.

The government's latest five-year plan makes clear its goal of reducing China's dependence on foreign technology. R&D spending is growing twice as fast as that of the US, and the country has the world's second-largest number of "unicorns"—privately owned startups with valuations in excess of USD 1 billion. This is evident in IPO activity in 2020, as China and the US towered over other regions in terms of number and dollar value of new equity offerings (Fig. 3).

Furthermore, China is now home to the largest stock of supercomputers and industrial robots. Enabling technologies like 5G, artificial intelligence, cloud computing, and big data are powering smarter infrastructure across China, as described in our *Longer Term Investments* (LTI) report "Enabling technologies."

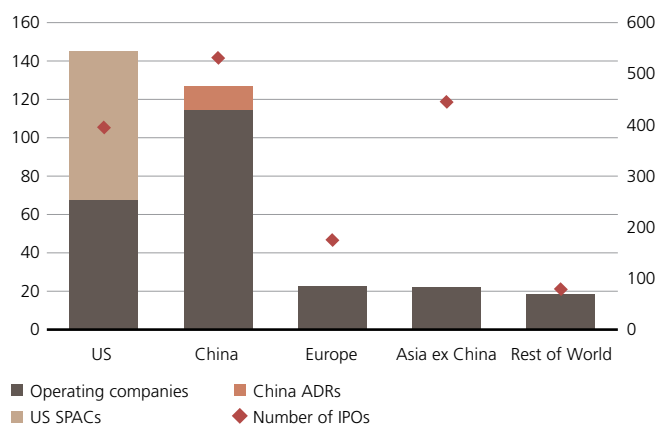
The push toward tech-enabled infrastructure is closely linked to China's ambitions to achieve carbon neutrality by 2060, by improving energy efficiency and supporting the transition to renewable energy and vehicle electrification. The abundance of greenfield projects as part of ongoing industrialization puts China in a unique position to leapfrog in the energy transition. We forecast that China's green ambitions will drive a twofold rise in solar installments, 40% growth in wind installments, and a fivefold increase in electric vehicle (EV) production by 2025. China is a leader in EV battery cell technology, and limited supplies could open a path for it to penetrate foreign markets in the future, as outlined in our "Smart mobility" and "Greentech goes global" LTI reports.

Finally, China is leading in the digital disruption of the retail and financial industries. It accounts for 57% of the global e-commerce market, and its online penetration rate is forecast to rise further from 37% currently to 64% in 2023, according to eMarketer. Local e-commerce giants offer a wide range of services, including online marketplaces, online payment, financial services, logistics, video and content, cloud services, and others. Further, China has emerged as a leader in the transition to cashless societies. The country's two largest mobile payment solutions, Alipay and WeChat Pay, today claim over 500 million and 900 million users, respectively. China may also soon become the first large economy to introduce a digital currency—the "e-yuan" is sponsored by the central bank, very different in nature to decentralized cryptocurrencies such as Bitcoin—underscoring its position as the global leader in payments technology. These developments support our positive

Figure 3

US and China led global IPOs in 2020

Amount in USD billions (shaded bars, lhs); number of IPOs (red dots, rhs)



Source: Bloomberg, UBS, as of 31 December 2020

view on China's leading internet platforms, select banks, and global fintech leaders, as detailed in our "E-commerce" and "Fintech" LTI reports.

Competing great power models

The current world order emerged right after World War II, with the creation of the Bretton Woods monetary system and US-centered multilateral institutions, including the United Nations, the World Bank, and the International Monetary Fund. For decades since, the US remained the undisputed global leader. But the data on the next page illustrates that the global order is changing, and the US now has to share some of the spotlight with China.

Thus, it's no wonder that the US and China have been clashing more often in a growing set of realms in recent years. As Graham Allison describes in his book *Destined for War: Can America and China Escape Thucydides's Trap?*, situations in which an established economic and geopolitical power faced an emerging competitor have led to schism, often but not always addressed in the battlefield.

It's impossible to know for sure whether the US will manage to preserve its global leadership position, or whether China will come to dominate the agenda in the future. A third possibility is that the US and China pursue distinct economic and technological models that operate in parallel, occasionally in collaboration and other times in competition. As both countries test their power and influence in the coming years, investors should build portfolios resilient enough to withstand all possible outcomes. This means allocating to Chinese assets with a view considering the country's economic, political, and financial weight in a fast-changing world.

The US and China— A comparison

United States



Nominal GDP
USD 20.8 trillion



GDP (% of world in PPP)
16%



Growth contribution (% of world in PPP)
14%



Population
330 million



Military spending (% of GDP)
3.4%



R&D spending CAGR 2013–2018
5%



Number of unicorns
(startups valued >USD 1bn)
233



Number of industrial robots
293,000



Number of supercomputers
113

China



Nominal GDP
USD 14.9 trillion



GDP (% of world in PPP)
19%



Growth contribution (% of world in PPP)
30%



Population
1,404 million



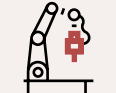
Military spending (% of GDP)
1.9%



R&D spending CAGR 2013–2018
10.6%



Number of unicorns
(startups valued >USD 1bn)
227



Number of industrial robots
783,000



Number of supercomputers
214

Investing in China
Coral Shell Bridge
Shandong, Qingdao, China



Chinese equities: Multifaceted and rapidly evolving

Onshore equities: The A-share market

Offshore equities: H-shares and ADRs

Multiple benchmarks with different characteristics

Index inclusion of China A-share stocks

Investor participation: Who they are and how this has evolved

How to invest in Chinese equities

Foreign investor interest in China's equity markets has been on the rise due to their potential for high returns and growing accessibility. Yet the universe of Chinese equities can be complex and remains poorly understood, even by seasoned investors. It is made up of the onshore (mainland-listed) and offshore (Hong Kong-listed plus American depository receipts, or ADRs) markets, with a total market cap exceeding USD 19 trillion. There are multiple onshore stock exchanges with different attributes, and myriad benchmarks track either specific exchanges or cut across markets. Finally, there have been significant market developments and benchmark composition changes in just the last five years.

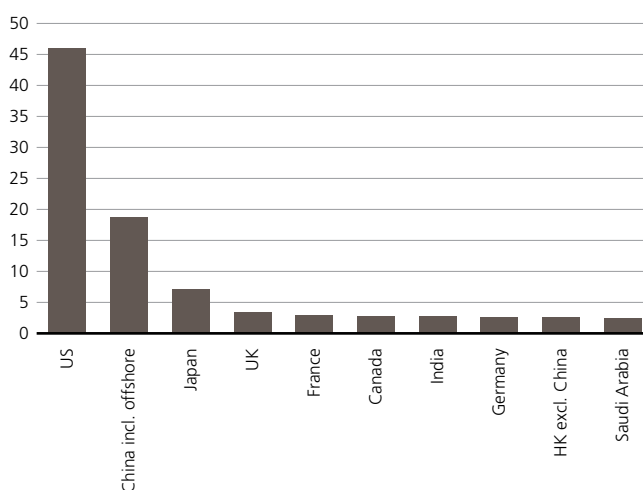
The complexity of China's equity markets can be simplified by viewing them in stages, as illustrated in Fig. 4. Beginning with the universe of all Chinese equities, they can be divided between onshore and offshore markets and then further subdivided into different exchanges. Each level of the market has corresponding benchmarks, distinct sector and style tilts, and different dominant investor types.

In aggregate, the total market capitalization of all listed Chinese companies puts China second only to the US, at more than double the size of the third largest market, Japan (Fig. 5). China is now home to some of the world's largest companies, and nine of them have market valuations over USD 100 billion (Fig. 6, next page).

Figure 5

China has the second-largest stock market in the world

Top 10 stock markets by market cap (in USD trillions)



Source: Bloomberg, UBS, as of February 2021

Figure 4

China equity market structure deconstructed, with leading benchmarks

	Sector tilts	Market cap (in USD bn)	Currency	Key investors	
All China MSCI All China	Onshore MSCI China A/CSI 300				
	Shanghai SHCOMP	Financials/SOEs	7,300	CNY	Retail dominates trading, institutions dominate holdings
	Shenzhen SZCOMP	IT, healthcare	5,500	CNY	
	Offshore MSCI China* (*incl. some A shares)				
	HK HSCEI/HSI	Financials/SOEs	5,000	HKD	Mostly institutional
	Others (mainly US) MSCI China Overseas	Internet, consumer	2,000	USD	

Source: Bloomberg, UBS, as of 19 February 2021

Figure 6

Many of the biggest companies in the world are Chinese

Top 10 constituents of MSCI China All Shares Index

Companies	Market cap (in USD bn)	Exchange*	Sector	Main business
Tencent Holdings Ltd	882.9	Hong Kong, ADR	Communication services	Gaming, social media, e-commerce
Alibaba Group Holding Ltd	689.2	Hong Kong, ADR	Consumer discretionary	E-commerce, digital payment, cloud services
Kweichow Moutai Co Ltd	444.6	Shanghai	Consumer staples	Liquor
Meituan	303.9	Hong Kong, ADR	Consumer discretionary	E-commerce
Pinduoduo Inc	231.4	ADR	Consumer discretionary	E-commerce
Ping An Insurance Group Co of China Ltd	229.7	Hong Kong, Shanghai, ADR	Financials	Insurance and financial services
China Construction Bank Corp	204.3	Hong Kong, Shanghai, ADR	Financials	Banking and financial services
JD.com Inc	154.1	Hong Kong, ADR	Consumer discretionary	E-commerce
Baidu Inc	113.6	ADR	Communication services	Search engine, internet
NIO Inc	79.5	ADR	Consumer discretionary	Electric vehicle

*Note: ADRs trade in the US.

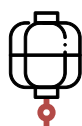
Source: Bloomberg, UBS, as of 19 February 2021

Onshore equities: The A-share market

The mainland stock market is commonly referred to as the A-share market. It currently operates with two exchanges—the Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE)—that differ in size, listing standards, and sector tilts. The SSE consists of the main board and the Science and Technology Innovation Board (STAR Board), an equity trading platform launched in 2019 dedicated to high-tech and innovation companies. The STAR Board serves as a testbed for capital market reforms modeled after international standards, featuring market-oriented pricing and a registration-based IPO system. The SZSE consists of the the main board, the Small and Medium Enterprises Board (SME), and ChiNext, another Nasdaq-style board launched a decade ago. There are about 4,100 A-share companies, and, combined with B-shares (a small group of stocks traded in foreign currency), the total market capitalization is about USD 12 trillion, enough to make China the second-largest stock market in the world.

Offshore equities: H-shares and ADRs

In contrast to A-shares, H-shares refer to mainland companies that trade on the Hong Kong Exchange (HKEX). As of December 2020, there were 291 such companies, with a total market cap of USD 5 trillion, accounting for 80% of the market. Of these companies, 176 are categorized as "red chip" stocks because the government owns the majority of the shares. The offshore market also includes companies listed and trading on foreign exchanges, mainly as ADRs. There are currently 149 Chinese ADRs trading on the New York Stock Exchange, with a total market cap close to USD 2 trillion.



China is now home to some of the world's largest publicly traded companies.

Multiple benchmarks with different characteristics

The three major benchmarks tracking A-shares are the Shanghai Stock Exchange Composite Index (SHCOMP), the Shenzhen Stock Exchange Composite Index (SZCOMP), and the Shanghai Shenzhen CSI 300 Index (SHSZ300). The financial sector dominates the first, making up about 26% of the index (Fig. 7). By contrast, the Shenzhen composite focuses more on “new economy” stocks, such as consumer, healthcare, education, and IT, with tech accounting for over 20% of the index. The CSI 300 features the largest 300 stocks onshore (186 from the Shanghai exchange and 114 from the Shenzhen exchange), with the largest representations from the financial sector (25%), consumer staples (16%), and IT (14%). Given their more domestic focused sector composition and investor base, A-shares tend to be more sensitive to domestic growth and policy cycles than ADRs.

The major indexes for offshore equities are the Hang Seng China Enterprises Index (HSCEI), which only tracks mainland shares traded in Hong Kong, and the Hang Seng Index, which

tracks both mainland and Hong Kong stocks. In addition, the global MSCI China index tracks both offshore (88%) and A-share (12%) stocks. The sector composition of offshore indexes is heavily tilted toward consumer discretionary and communication services, which include the mega-cap internet names with long-term growth potential and higher corporate governance standards.

Two major differences between the onshore and offshore indexes are the weightings of state-owned enterprises (SOEs) and their valuations. The relative weight of SOEs versus private companies is much higher in onshore indexes than offshore (Fig. 8, next page). For example, 62% of the CSI 300 market cap is SOEs, whereas it’s only 26% for MSCI China. Regarding valuations, for companies with shares listed in both onshore and offshore markets, the A-share stock usually trades at a premium to the corresponding H-shares due to different investor mix. This premium has averaged over 25% since 2014 (Fig. 9, next page).

Figure 7

Sector weights for various China stock market indexes

In %

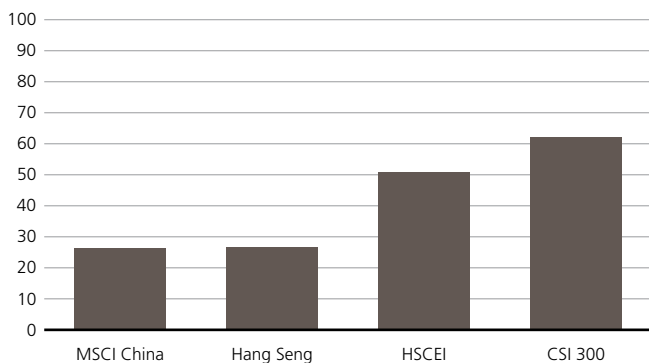
	Onshore			Offshore		Offshore + onshore
	SHCOMP	SZCOMP	CSI300	HSCEI	Hang Seng Index	MSCI China
	Mainland	Mainland	Mainland	Mainland	Mainland + HK	Mainland + HK + Overseas
Consumer discretionary	7.7	11.2	10.0	20.3	16.5	36.0
Consumer staples	12.7	12.6	16.2	5.0	2.3	4.3
Communication services	1.4	2.9	1.8	15.8	13.1	20.7
Energy	4.6	0.7	1.1	3.7	2.5	1.6
Financials	26.0	5.5	25.4	31.4	41.9	12.9
Banks	15.5	2.1	12.2	21.1	20.5	7.3
Insurance	5.2	0.1	5.6	10.3	16.1	4.0
Diversified financials	5.4	3.3	7.6	–	5.3	1.6
Healthcare	7.0	13.4	9.6	4.3	4.7	6.8
Industrials	15.2	17.4	10.8	1.4	3.8	4.3
Information technology	10.0	20.1	14.0	7.9	5.0	6.0
Materials	9.7	11.9	6.9	0.8	–	2.1
Real estate	2.6	2.5	2.7	6.2	7.1	3.5
Utilities	3.1	1.2	1.5	3.2	3.1	1.8

Source: Bloomberg, JPMorgan, UBS, as of February 2021

Figure 8

SOEs dominate onshore markets

Proportion of SOEs by market cap for various offshore and onshore benchmarks, in %



Source: Bloomberg, UBS, as of February 2021

Figure 9

Historically, A-shares trade at a premium to H-shares

Hang Seng Stock Connect China A-H premium index



Note: Base=100. Higher numbers indicate higher A-share valuation premium over H-share
Source: Bloomberg, UBS, as of 17 February 2021

Index inclusion of China A-share stocks

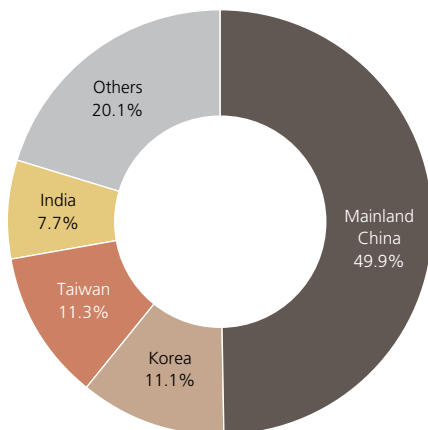
Many major global index providers started to include A-shares into their benchmark indexes in 2018 in response to better market access for foreign investors and the growing importance of the Chinese equity market. As China's markets continue to open up, international index providers may consider further inclusion

of A-share stocks. Hypothetically, if MSCI included all A-shares into its benchmarks, at current market prices, China would account for about 50% of the MSCI Emerging Markets Index versus 40% currently (Fig. 10) and 8% of the MSCI All Country World Index, up from 5.5% (Fig. 11).

Figure 10

China would be half of MSCI EM assuming full inclusion of A-shares

Projected MSCI EM market weights after full inclusion (100%) of China A-shares, based on current market caps

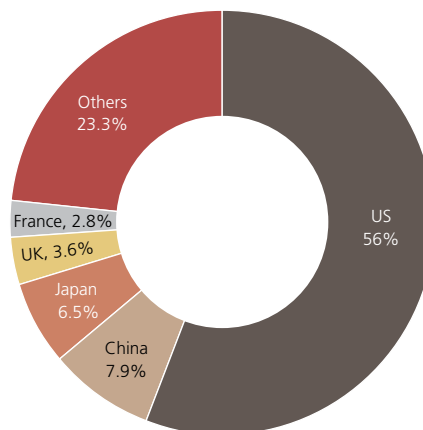


Source: MSCI, UBS, as of 4 February 2021

Figure 11

China would be the second-largest country in MSCI ACWI with full inclusion of A-shares

Projected MSCI ACWI country weights after full inclusion (100%) of China A-shares, based on current market caps

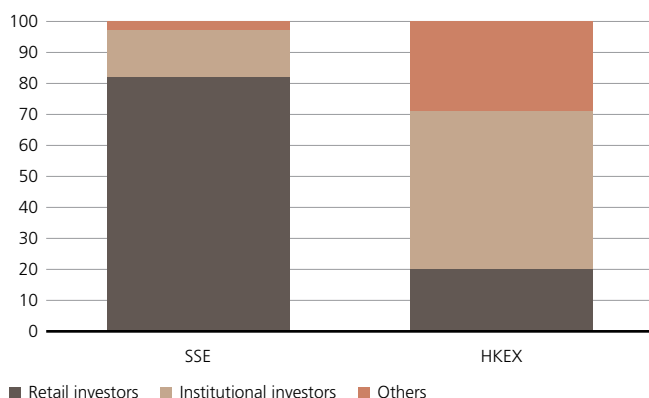


Source: MSCI, UBS, as of 4 February 2021

Figure 12

Onshore equities are still largely retail-driven

Average trade volume composition for Shanghai and Hong Kong Stock Exchange, in %



Source: Shanghai Stock Exchange, Hong Kong Stock Exchange, UBS, as of January 2021

Investor participation: Who they are and how this has evolved

There are vast differences between the types of investors participating in the onshore and offshore markets. According to the Shanghai Stock Exchange, retail investors account for more than 80% of its average daily trading volume, with institutions contributing the rest (Fig. 12). This is why onshore equities exhibit higher levels of volatility. By contrast, institutional investors account for more than 50% of the total trading volume on the Hong Kong Exchange, while retail investors make up only about 20%.

We do expect a gradual increase in institutional participation in China's onshore market, as regulatory reforms encourage higher equity holdings from insurance companies, asset managers, and pension and mutual funds, among other institutional channels. Institutional investor holdings as a percentage of the total market cap have already risen to over 50% in 2020 from only 30% in 2021 (Fig. 13).

How to invest in Chinese equities

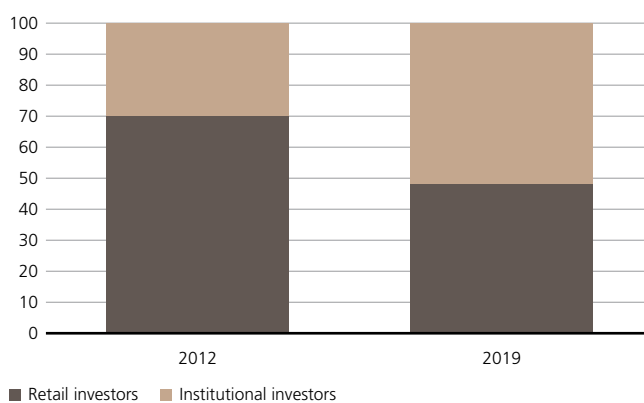
The challenge that global investors have faced is getting access to the full set of Chinese equities, but this is becoming easier. Foreign investors can get exposure to H-shares and ADRs fairly simply through either individual stock purchases or a wide range of active and passive funds. For A-shares, thanks to the gradual increase of their representation in global benchmarks, foreign investors can now get a larger exposure to onshore stocks through funds in a "hassle-free" manner.

There are two main channels for direct access to A-shares: the Northbound Stock Connect program, and the Qualified Foreign Institutional Investors (QFII) or Renminbi Qualified Foreign Insti-

Figure 13

Institutional investors' share in onshore markets meaningfully picking up

Investor type holdings as % of Shanghai Stock Exchange total market cap



Source: Shanghai Stock Exchange, Wind, JPMorgan, UBS, as of February 2021

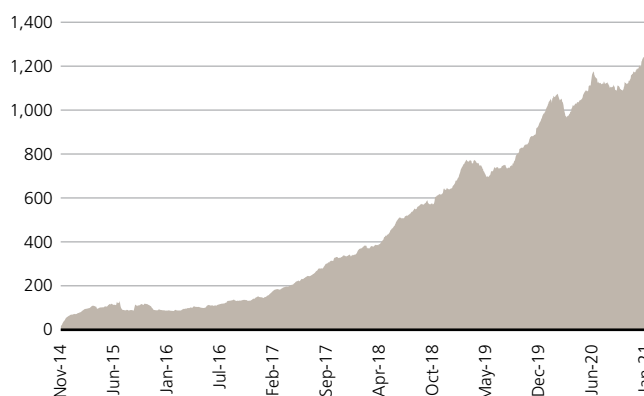
tutional Investors (RQFII) program. The latter is only for institutional investors and requires registration, while Stock Connect welcomes both institutional and retail investor participation.

Introduced in November 2014, the Stock Connect channel first linked the Shanghai and Hong Kong exchanges. This was followed by the Shenzhen-Hong Kong Stock Connect in December 2016. Offshore investors do not need to apply for licenses or quotas to trade eligible onshore stocks. This has resulted in CNY 1,250 billion worth of northbound flows since 2014 (Fig. 14). "Northbound" refers to trading in A-shares from Hong Kong by offshore investors via the Stock Connect programs.

Figure 14

Growing interest in onshore markets from offshore investors

China Stock Connect northbound accumulated flows, in CNY billions



Source: Bloomberg, Wind, JPMorgan, UBS, as of January 2021

Investing in China
Chinese New Year
China



Chinese bonds: A booming onshore market

Market composition: Government and corporates driving onshore growth

Multiple signs of a maturing market

China's dominance in green bonds

An under-accessed market

The Chinese bond market has also become too big to ignore. Since 2010, it has grown fivefold to over USD 16 trillion, is now second only to the USD 45 trillion, US bond market, and has room to grow (Fig. 15). This rapid ascent parallels the growth in Chinese equities, and while they share similarities in market structure, there are important differences. Onshore and offshore markets exist for Chinese bonds, but the former dwarfs the latter. There are three main types of issuers: governments, financial firms, and corporations, with the first two being the biggest drivers of growth over the past five years. Finally, global investor activity in Chinese bonds has increased, aided by the market opening up, index inclusion, and better liquidity. This growth has also created concerns about high debt levels being a systemic risk to China's economy, which we address in the risk section.

Market composition: Government and corporates driving onshore growth

The onshore Chinese bond market, which comprises Chinese entities issuing bonds in CNY, accounts for 95% of the entire amount of bonds outstanding, totaling about USD 16 trillion (Fig. 16, next page). Government bonds are the largest segment and can be subdivided into Chinese government bonds (CGBs), policy bank bonds (tracked by the ChinaBond Finance Bond index), and local government bonds (LGBs). The Ministry of Finance issues CGBs, which are analogous to US Treasury bonds, with maturities ranging from three months to 50 years. Bonds issued by the three main policy banks—China Development Bank, Export-Import Bank of China, and Agricultural Development Bank of China—are considered quasi-sovereign, with a slight yield premium to CGBs. LGBs are issued by provincial and city governments and are either general bonds (60%) or special bonds (40%). General bonds are used to finance general government expenses, while special bonds are used to fund certain projects, usually infrastructure-related. LGBs do not have an explicit central government guarantee, but they are perceived to have implicit backing and therefore have a slight yield premium to CGBs.

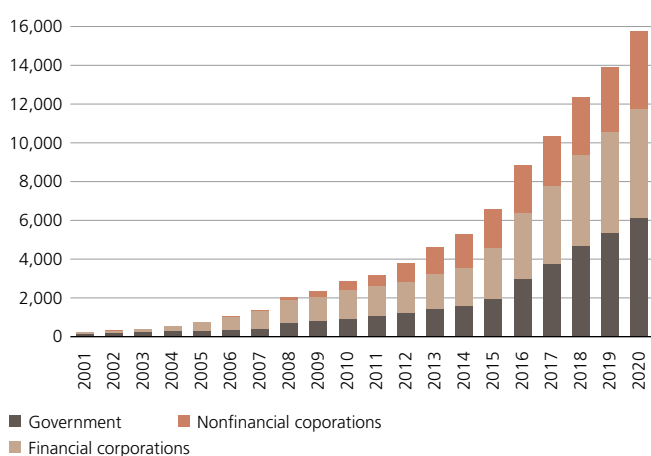
Corporate bonds are issued by SOEs or privately owned enterprises. The SOE category includes local government financing vehicle (LGFV) bonds, issued by companies created by local governments for the purpose of raising funds, and are often backed implicitly by local governments.

The remaining 5% of the Chinese bond market consists mostly of USD 600 billion of offshore bonds issued in USD. A large portion of these bonds is issued by SOEs and financial institutions, composed mostly of high-quality investment grade (IG) issuers seeking to diversify their investor base. High yield (HY) issuers are mostly property developers. The other market segments are the so-called "dim sum" bonds, also known as the CNH bond market, and Panda bonds. The former are issued by

Figure 15

From near zero to USD 16tr, the evolution of Chinese debt markets over two decades

Total bonds outstanding, in USD billions



Source: BIS, Bloomberg, UBS, as of February 2021

Figure 16

Anatomy of the Chinese bond market

Market "nickname"	Issuers	Currency*	Market size	Index	Main participants
China onshore bonds	Chinese entities: majority government/financials	CNY	USD 16,000bn	ChinaBond Aggregate Index	Chinese banks and financial intermediaries
China offshore bonds	Chinese entities: majority government/SOEs/IG corporates	USD	USD 600bn	Markit iBoxx Asian Local Bond Index (ALBI) China Offshore Index	Global investors
Dim sum bonds	Chinese entities: majority government/SOEs/IG corporates	CNH	USD 90bn	ICE BofA Dim Sum (China Offshore) Broad Market Index	Global investors
	Foreign entities: majority large foreign corporates	CNH			
Panda bonds	Foreign entities: majority large foreign corporates	CNY	USD 20bn	n/a	Chinese banks and financial intermediaries

*The official name for China's currency is the renminbi (RMB). The CNY refers to the RMB circulated within mainland China, while the CNH refers to the RMB circulated outside. Please see the currency section of this report for more information.

Source: Bloomberg, JPMorgan, UBS, as of February 2021

mainland Chinese and foreign entities in Hong Kong and are heavily IG-focused. Issuers participate in the market either for cheaper funding costs after swapping back to hard currencies, or for their own business needs in CNY or CNH (see note in asterisk under table above for the distinction). The Panda market consists of foreign entities issuing CNY bonds in mainland China and is used primarily by local subsidiaries of foreign firms doing business in China. Given the ongoing opening of the onshore market and access to a large investor base, the Panda market has grown to USD 20 billion in recent years, and that's likely to continue, potentially at the expense of the CNH market.

Multiple signs of a maturing market

In addition to rapid expansion over the past five years, the bond market has evolved in ways that make it more attractive to global investors, contributing to positive market momentum.

Credit ratings: Until 2018, domestic rating agencies were the sole providers of onshore bond ratings. As regulators opened up market access, foreign credit rating agencies including S&P, Fitch, and Moody's were allowed to set up China subsidiaries to rate Chinese bonds. Ratings from the domestic and international agencies do vary significantly, according to a [Fitch report released in 2019](#). Yet allowing credit rating agencies with an established track record with international investors marked an important step, as it enabled global investors to size up issuer risk in a familiar manner.

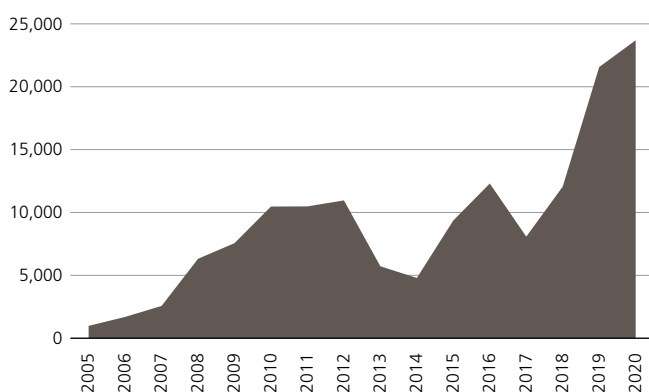
Default rates: Another positive but counterintuitive sign of China's bond market maturation is the rising default rate. Currently at 1.3%, it is still low relative to global peers. But historically negligible default rates were evidence of government support for failing businesses, which distorts the efficient allocation of capital and results in credit spreads not indicating true risks. Thus, we believe the rising default rate is actually proof of the government's deleveraging efforts to contain systemic risk and local governments' greater tolerance toward defaults. In short, the government is allowing the market to regulate itself with less direct oversight. Evolving bankruptcy laws and workout processes point to a further maturing of China's bond markets. Despite the lack of credit differentiation by the onshore credit agencies, market participants are able to distinguish between similarly rated issuers as reflected by credit spreads.

Market liquidity conditions: Liquidity has also improved, especially in the last four years, as seen by the impressive growth in trading volume (Fig. 17, next page). The turnover ratio (annual trading volume divided by average outstanding value) recently reached nearly 1.5x, with CGBs accounting for a large share of the increase. CGB daily trading volume was over USD 20 billion in October 2020.

Figure 17

Bond trading volumes are maturing

Annual trading volumes, in US billions



Source: ChinaBond, UBS, as of February 2021

Index inclusion: Major benchmark providers have raised their weightings to Chinese bonds, spurring global investors to increase their allocations to the asset class. Chinese government and policy bank bonds are already included in many world bond indexes, which are tracked by over USD 5 trillion in assets, and that's set to increase in the next year (Fig. 18). In October this year, FTSE's World Government Bond Index (WGBI) will begin a 12-month process to gradually add Chinese bonds. With an estimated USD 2–3 trillion of assets tracking the WGBI, and assuming a weight of around 5% to China, this implies roughly USD 100–150 billion of inflows into CGBs.

China's dominance in green bonds

The large and active green bond market is yet another untapped opportunity for global investors. At USD 165 billion as of December 2020, China's green bond market is the second-largest in the world. And with the 2020 taxonomy update aligning to international standards, it has become another reason for investors to consider the market for breadth of opportunities as well as enhanced yield.

Figure 18

Index inclusion of Chinese bonds already a reality

Weightings in global bond indexes, in %

Index	Weight
JPMorgan Asia Credit Index (JACI)	50.8%
Bloomberg Barclays Global Aggregate Bond Index	7.4%
JPMorgan Corporate Emerging Market Bond Broad Diversified Index (CEMBI)	7.2%
JPMorgan Emerging Market Bond Global Diversified Index (EMBI)	4.3%
FTSE World Government Bond Index (WGBI)	TBD

Source: JPMorgan, Bloomberg, FTSE, UBS, as of February 2021

An under-accessed market

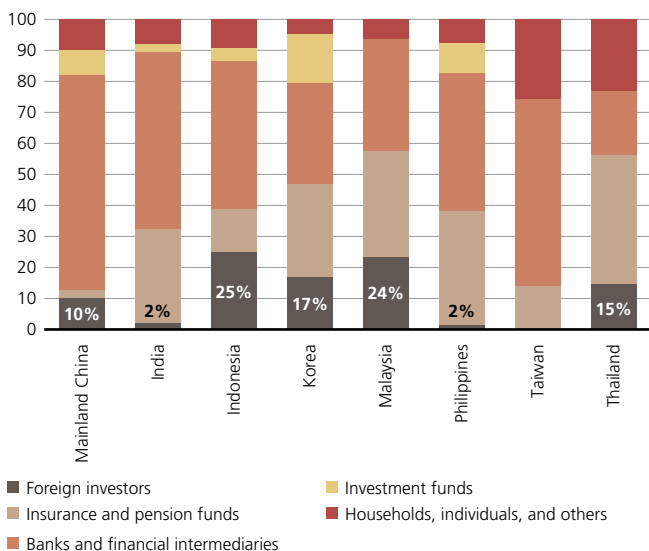
Global investors looking to access the Chinese bond market have a few options. The easiest approach is to buy one of the small but growing number of passive and active funds that track one of the aforementioned benchmarks. For instance, USD-denominated Chinese bonds make up roughly 50% of the JPMorgan Asia Credit Index (JACI).

The real opportunity lies in the onshore market, which was difficult to access until recently. Global investors' primary interest is in CGBs as they are the most liquid and considered to be of high credit quality. Foreign investors own only a small percentage of CGBs compared with government bonds from other countries in the region, although these countries have much smaller capital markets (Fig. 19, next page). As a result, foreign penetration in the Chinese onshore market is still only 3%. Yet this low percentage belies very large inflows: USD 165 billion in 2020, bringing the total amount of foreign holdings to USD 500 billion, nearly five times more than in early 2017 when Bond Connect was launched (Fig. 20, next page).

Figure 19

Foreign investors still hold small proportion of Chinese government bonds

Investor holdings of Asian government bonds, in %



Source: JPMorgan, UBS, as of January 2021

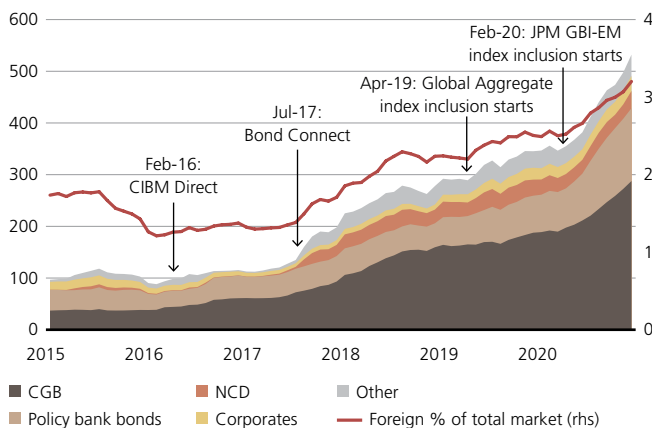
Changes in the regulatory environment partly explain why global investors have been growing their holdings. It began with the launch of the QFII framework, which gave institutional investors access to the Chinese bond market under certain conditions, and continued in 2017 with the launch of Bond Connect, which extended the access to a broader range of international investors.

All told, these changes signaled that the Chinese bond market was open for business for global investors. We expect that China will continue to gradually open up its bond market and address lingering concerns about low liquidity in some market segments, rating differentiation, a lack of derivatives for hedging, a lack of transparency, and capital controls.

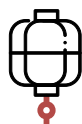
Figure 20

Foreign investors increase Chinese bond holdings

Foreign investor holdings by bond type, in USD billions (lhs); foreign investor holdings as % of total Chinese bond market (rhs)



Source: Wind, UBS, as of January 2021



The large and active green bond market is yet another untapped opportunity for global investors. At USD 165 billion as of December 2020, China's green bond market is the second-largest in the world.

Investing in China
Tianjin Binhai Library
Tianjin, Binhai, China



Global portfolio considerations: China is an attractive diversifier

Equities: A diversified market with a growth and defensive tilt

Bonds: High-quality, low-correlation yields

For global investors, the increasing accessibility of China's rapidly growing equity and bond markets not only opens up new investment opportunities, but also offers a potential benefit to portfolios. Incorporating Chinese assets into a global portfolio can provide meaningful diversification because China's domestically oriented economy and independent monetary policy, uncoordinated with developed market central banks, result in economic and interest rate cycles that often diverge from major global markets. For example, in 2018 the Federal Reserve hiked its policy rate by 100 basis points (bps) as the US economy was growing above trend, while the People's Bank of China cut the reserve requirement ratio by 250bps as the Chinese economy slowed. As a result, bond yields went up in the US and fell dramatically in China.

Viewing Chinese assets through a portfolio construction lens puts the focus on their expected return and risk characteristics. In that regard, equities and bonds both have attributes that can make them valuable additions to global portfolios.

Equities: A diversified market with a growth and defensive tilt

The rapid evolution of China's equity market structure is also evident in the market's sector and style composition, which in turn has altered its risk-return characteristics. Ten years ago, the sector weighting skewed toward cyclical and value stocks, such as financials and industrials, reflecting China's focus on industrializing its economy and investing in export-led growth. Today, the composition is very different, with consumer discretionary and communication services now the two largest sectors, as they include the mega-cap internet and tech companies (Fig. 21).

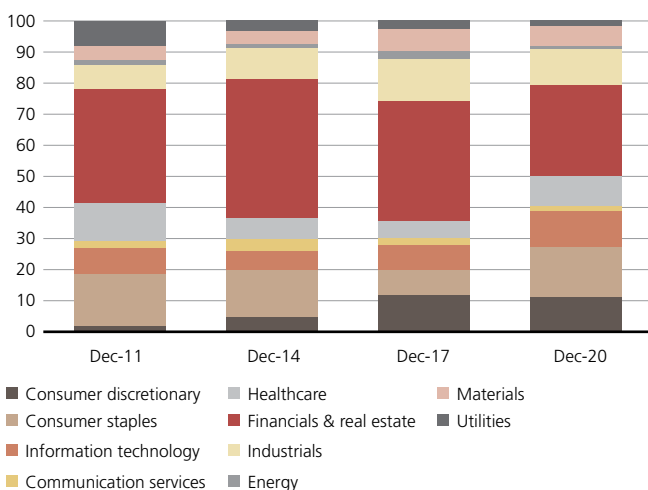
The consequence is that Chinese equities, especially the MSCI China benchmark, have a clear tilt toward growth stocks and a slightly defensive bias (Fig. 22 on next page). China's listed companies also generate over 85% of their revenue domestically, contrary to the economy's historical reliance on exports.

Figure 21

Equity sector weightings have shifted from old to new economy stocks

Financials still the biggest sector in onshore market

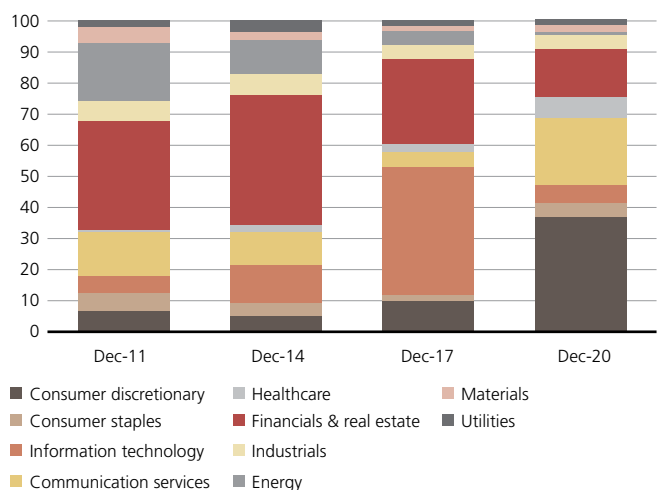
CSI 300 sector composition evolution, in %



Source: Bloomberg, UBS, as of February 2021

Consumer discretionary rising to dominate MSCI China

MSCI China sector composition evolution



Source: Bloomberg, UBS, as of February 2021

This sector and style tilt is similar to US equities, where growth stocks and sectors have also significantly increased their market weight over the past decade. US and Chinese equity markets are also similar in that both have fairly diverse sector representation, rather than being dominated by two or three sectors, as is the case for many countries.

These sector and style tilts are only one reason we expect returns on Chinese equities as an asset class of close to 10% per annum in the coming years, well above those in the US and other developed markets. The higher expected returns for Chinese equities are due to likely earnings growth at least 2 to 3 percentage points higher than for developed market equities on average. Plus, valuations for Chinese equities are relatively low compared to US equities, and that should add 1 to 2 percentage points of outperformance to China versus US equities on an annualized basis.

The trade-off to higher returns is that Chinese equities also have higher volatility, but that masks their diversification benefits because of their relatively low correlations with other equity markets. The MSCI China A Onshore Index has had a historical correlation of 0.5 with the MSCI All Country World Index (ACWI), whereas the correlation is 0.84 for MSCI Emerging Markets and 0.97 for MSCI USA Index (Fig. 23, left chart). In addition, different styles within Chinese equities also provide diversification. For instance, small-cap stocks led the 2015 equity rally, while large-cap stocks took the lead in 2017 as small-caps struggled.

Bonds: High-quality, low-correlation yields

The compelling feature for Chinese bonds, especially CGBs, is the additional yield pickup they offer versus US Treasuries and

even more so versus other developed market sovereign bonds. For example, the yield on the 10-year CGBs is currently about 185bps above the 10-year Treasury yield, while offshore Chinese high yield USD bonds offer 250bps more than US high-yield bonds, despite having the same average credit rating. In a world of very low interest rates, this yield pickup should continue to attract global investors.

Like equities, Chinese bonds also share the important attribute of low correlation to global bonds (Fig. 23, right chart). The onshore CGB bond index has a historical correlation of only 0.35 with the Bloomberg Barclays Global Aggregate Bond Index, whereas it is 0.82 for US bonds (Bloomberg Barclays US Aggregate Bond Index) and 0.88 for Europe (Bloomberg Barclays EU Aggregate Bond Index). China's domestically oriented monetary policy and economic cycle is the main source of these low correlations, while developed market bond yields have increasingly moved together as their central banks have all adopted highly accommodative monetary policies.

Figure 22

China's sector weights in a global context

MSCI and S&P index weights, in %

Name	China	China A	S&P	ACWI	EM
Tech+ (IT+discretionary+Comm Svcs)	62.0	27.1	51.5	44.9	50.5
Domestic defensives (HC+staples+UT)	12.7	27.3	21.6	21.1	12.6
Financials+Real estate	17.2	22.8	13.4	16.3	20.0
Deep cyclicals (IN+MT+EN)	8.1	22.8	13.6	17.7	16.9

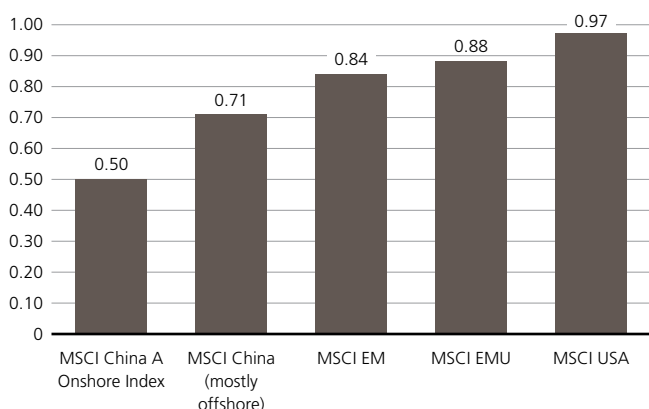
Note: IT means Information Technology, HC Healthcare, UT Utilities, IN Industrials, MT Materials, and EN Energy.

Source: Bloomberg, UBS, as of 19 February 2021

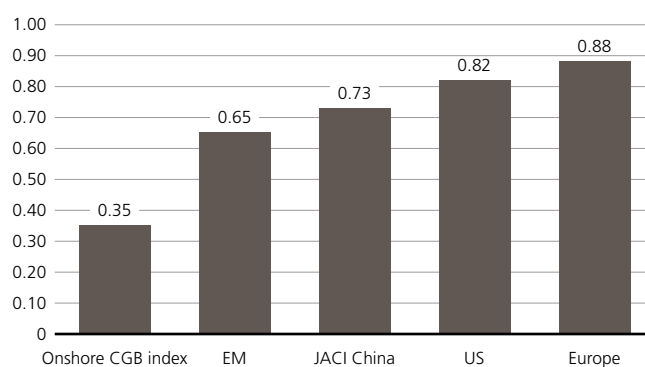
Figure 23

Chinese assets provide meaningful diversification benefits

Historical equity correlations with MSCI ACWI



Historical bond correlations with Bloomberg Barclays Global Aggregate index



Note: Bond indexes are the Bloomberg Barclays US Aggregate Bond Index, Bloomberg Barclays Euro-Aggregate Bond Index, and Bloomberg Barclays Emerging Market Hard Currency Aggregate Bond Index.

Source: Bloomberg, UBS, based on 5-year weekly correlation as of November 2020

Investing in China
Three Gorges Dam
Hubei, Yichang, China



The renminbi: It's a marathon, not a sprint

Knocking on the door of the reserve currency club

China's currency is another consideration because its relative performance, volatility, and internationalization will directly impact the performance of Chinese assets in global investors' home currencies. The CNY becoming more widely adopted as a reserve currency could also trigger additional flows into the Chinese bond market.

The official name for China's currency is the renminbi (RMB), which can be translated as "the people's currency." The CNY refers to the RMB circulated within mainland China, while the CNH refers to the RMB circulated outside. The CNY follows a managed-float regime, and is not freely convertible. The CNH is free-floating, and freely convertible, meaning it can be exchanged into other major global currencies without restrictions. The establishment of the offshore CNH market in 2004 has been part of China's broader plan to internationalize the CNY.

The CNY and the CNH are traded in different markets and as a result can diverge in price (Fig. 24). But that gap is likely to become increasingly small as China continues to deepen the CNH market's liquidity and allow the CNY exchange rate to become largely market-determined. The People's Bank of China has signaled that it does not desire a wide divergence between the CNH and the CNY, and has intervened in the past to support the CNH when it traded at a significant discount to the CNY.

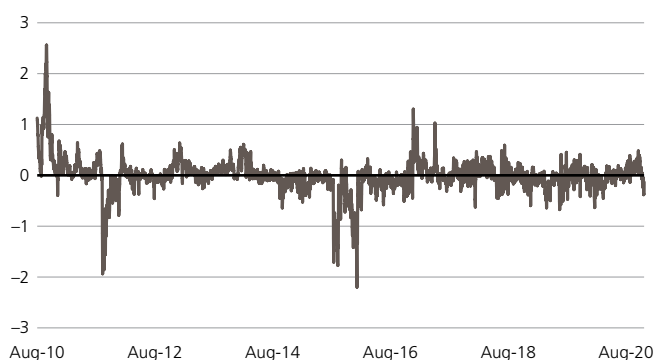
Knocking on the door of the reserve currency club

Great economic and geopolitical powers have risen, matured, and eventually declined repeatedly over the course of history. At certain points in time, the currencies of countries that led in trade and capital flows became the preferred global medium of exchange, unit of account, and store of value, which led to their becoming reserve currencies. Changes in the world's dominant currency take a long time to materialize. As the au-

Figure 24

Divergences between CNH and CNY tend to be small and short-lived

CNH-CNY differential, in %. A positive number indicates CNH is trading at a premium to CNY (and vice versa)



Source: Bloomberg, UBS, as of February 2021

thor Ray Dalio documents in his latest book, *The Changing World Order*, while factors such as quality of education, degree of innovation, and technological developments have been leading indicators of the rise of great powers, the reserve status of their currency has been a lagging one.

This historical perspective offers an insight to the evolution of reserve currencies in the next decade or two. The US dollar's dominant role goes back to the Bretton Woods system of 1944, in which most currencies were pegged to a gold-backed greenback. Before the US dollar, the British pound was the dominant currency due to Britain's leading role as a trading nation. The Dutch guilder played a similar role in earlier times.

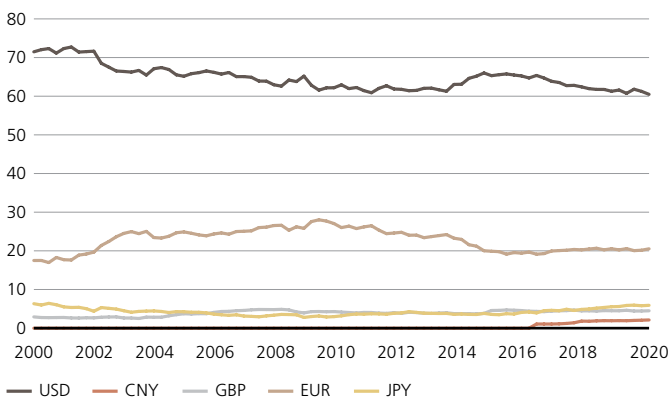
The US dollar continues to dominate financial markets. The Bank of International Settlements reports that 88.3% (USD 5.8 trillion) of daily trading in foreign exchange markets in 2019 involved the US dollar, followed by the euro (32.3%), the Japanese yen (16.8%), and the British pound (12.8%). The Chinese yuan ranked eighth, with a share of 4.3%.

But the renminbi is positioned to become more important in the next decade due to China's growing economy and central role in global trade, the opening up of its domestic capital markets, and the policy initiatives that support RMB internationalization. This is already apparent in the international reserves held by central banks, as the RMB's share in official reserves has been growing (Fig. 25). In a September 2020 survey of over 30 central banks from around the world, UBS Asset Management found that 83% of respondents were invested, or consider investing, in the renminbi, up from 77% in 2019 (Fig. 26). The average long-term (10-year) target allocation to the RMB increased to 5% from 4.2% over the same period.

Figure 25

Adoption of renminbi still at early stages in global international reserve circles

Share of selected currencies in allocated reserves, in %

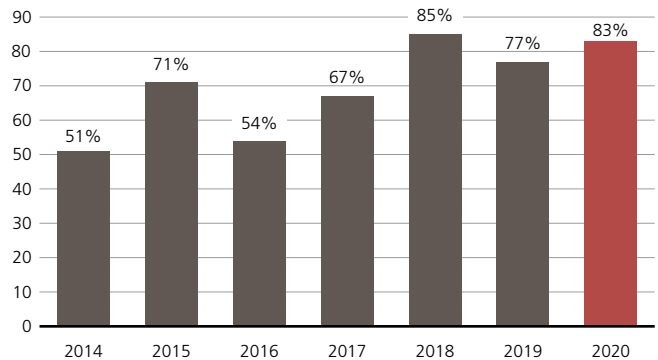


Source: IMF, UBS, as of December 2020

Figure 26

Yet interest in renminbi by international reserve managers is growing

Percent of survey respondents invested, or considering investing, in RMB



Source: UBS Annual Reserve Manager Survey, results as of September 2020



Great economic and geopolitical powers have risen, matured, and eventually declined repeatedly over the course of history. At certain points in time, the currencies of countries that led in trade and capital flows became the preferred global medium of exchange, unit of account, and store of value, which led to their becoming reserve currencies.

Investing in China
Solar power station
Zhejiang, Hangzhou, China



Multiple risks of varying magnitude

Regulatory landscape and corporate governance

US delisting risk

Debt market and deleveraging dynamics

Demographics

Final thoughts

There are many risks to investing in China, including macro, regulatory, and geopolitical risks, yet their relative magnitude is often misunderstood. In assessing these risks, we begin with those that we believe are most pressing for global investors and then move on to longer-term macroeconomic risks. It's difficult to assign probabilities to these risks because they hinge a great deal on political calculations, which are less predictable than economic factors.

Regulatory landscape and corporate governance

The regulatory backdrop for Chinese markets has evolved dramatically over the last 50 years, as the country has shifted from being dominated by state-owned enterprises to a more free-market environment. While significant progress has been made to converge with international standards, meaningful differences remain.

Antitrust is a key area where regulations are constantly evolving, although this is a global trend and not unique to China. Compared with other countries, China's relatively light-touch regulations on the tech sector have allowed Chinese internet companies to innovate and monetize user data faster than their global peers. While China's current antitrust law dates back to 2008, in November 2020 the regulator released proposed guidelines for the internet space for the first time. In our view, the government's aim is to create a level playing field for internet players and limit monopolies, rather than stifle innovation and growth. But the move does suggest that the regulatory environment for Chinese internet platforms may be tougher than in the past.

China's domestic accounting standards have substantially converged with international IFRS standards. For offshore listed companies, most already produce IFRS or US GAAP compliant financial statements, with corporate governance modeled after international standards. For onshore listed companies, the quality of financial disclosure and governance varies widely, leading international investors to place most of their investment into a small group of companies having high quality of corporate governance.

US delisting risk

Following the election of former US President Donald Trump, the strategic rivalry between the US and China heated up, culminating in a trade war and a wide range of tit-for-tat retaliations. The latter have included new economic sanctions for US-persons involved in Chinese markets, including Executive Order 13959, issued in November 2020, and the Holding Foreign Companies Accountable Act, passed in December 2020.

Executive Order (EO) 13959 restricts trading in Chinese companies (including related derivatives, index and related products, as well as funds that hold the subject companies) that the US Office of Foreign Assets Control deems to be related to the Chinese military. Currently, over 35 companies have been designated as so, accounting for roughly 2% of MSCI China's market capitalization. Most of the trading in these restricted securities occurs in Hong Kong and mainland China. Consequently, forced selling of these securities by US investors is likely to have a minimal impact on overall trading volume.

The Holding Foreign Companies Accountable Act stipulates that if an independent auditor (acceptable to the Public Company Accounting Oversight Board) is unable to inspect a foreign firm's financial statements over a three-year period, then the US Securities and Exchange Commission must delist the company. There are currently 222 US-listed Chinese companies, accounting for roughly 32% of the MSCI China market cap. However, the largest of these firms are already dual-listed in Hong Kong, thereby mitigating the risk of a US delisting. The remaining firms (roughly 10% of MSCI China market cap) have three years to comply with the requirement, find alternative listing venues, or go private.

While delisting risks will remain in focus, we believe more Chinese companies pursuing listings closer to home and strong investor interest in China are long-term trends that can mitigate the market impact. But US investors will need to follow developments on EO 13959 to ensure compliance.

Debt market and deleveraging dynamics

China's economic expansion in recent decades has been accompanied by an increasing use of debt. Over the past 10 years, the debt-to-GDP ratio has increased by 100 percentage points (Fig. 27). We think a debt crisis is unlikely in the near term given China's current account surplus, large foreign reserves, and high savings rate. Additionally, nearly all Chinese debt is domestic and funded by domestic savings. Policymakers have embarked on several reform measures to improve debt sustainability, such as state-owned enterprise reform, shadow banking regulations, and balance sheet cleanups. As a result, nonfinancial corporate debt-to-GDP (the largest and fastest-growing segment) has stabilized since 2016.

While stimulus programs to combat the COVID-19 pandemic led to a 10ppt increase in the debt-to-GDP ratio in 2020, this is small in a global context thanks to China's successful control of the pandemic. We expect that credit growth will slow going forward and deleveraging efforts will recommence, stabilizing the debt-to-GDP ratio at 294% by the end of 2021.

Another concern in Chinese debt markets comes from the lack of credit differentiation and perceived implicit guarantees embedded in many financial products. This results in lower yields for riskier issuers than if the guarantees weren't included. Regulations introduced since 2018 have aimed to break these implicit guarantees and improve capital allocation efficiency. This has resulted in better credit differentiation and rising default rates (see "Chinese bonds" section). We remain optimistic that China can manage the deleveraging process without a credit crisis or a hard landing. Nevertheless, it will be necessary for investors to actively manage credit risks in their portfolios.

Demographics

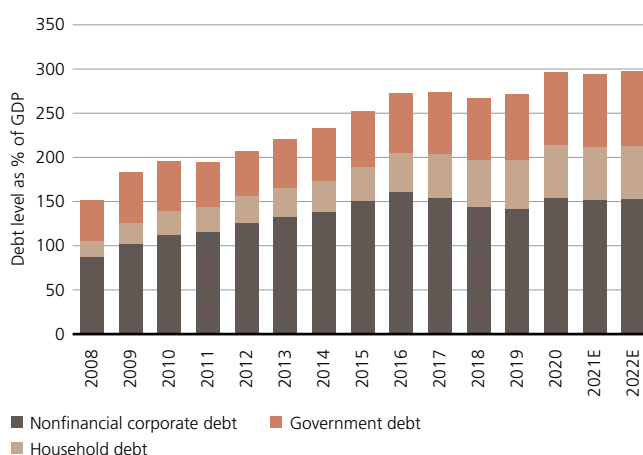
According to the latest UN forecasts, China's total population is set to continue to grow until 2030. Digging deeper, there is a worrisome trend: a shrinking working-age population (age 15–64). In 2019, the share of the working-age population fell to just above 70%, its lowest level since 2003 (Fig. 28). As the world's largest population continues to age, there will be far more elderly citizens in retirement, with far fewer working-age citizens to support them, a challenge for potential growth in the future.

While these demographic trends are concerning, automation may partially mitigate the risk by boosting productivity, and policy changes such as increasing the retirement age and relaxing birth policy can be implemented to avoid the most dire outcomes. China already has the most in the world—nearly three times as many industrial robots as the US—and is set to continue to deploy them extensively. The demographic challenge also comes with investment opportunity, as China shifts from a manufacturing economy toward a more service-based one. Spending on healthcare, insurance, elderly care, and recreation should rise significantly.

Figure 27

Rising debt levels

China's debt-to-GDP ratio, in %

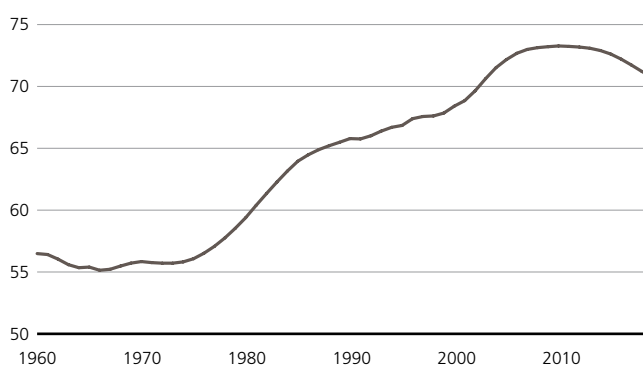


Source: CEIC, UBS, as of February 2021

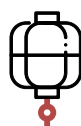
Figure 28

Worrying labor market trends

China's working-age population (15–64) as % of total



Source: World Bank, UBS, as of 2020



We think a debt crisis is unlikely in the near term given China's current account surplus, large foreign reserves, and high savings rate. Additionally, nearly all Chinese debt is domestic and funded by domestic savings.

Investing in China
View of the city
Pudong, Shanghai, China



Final thoughts

Over the past decade, China's financial markets have experienced rapid growth, undergone significant structural reform, and opened up to global investors. These are all likely to continue. While still considered as part of emerging markets and their corresponding benchmarks and investment products, China's equity and bond markets are already of sufficient size and opportunity that global investors should start to think of them as their own distinct category, in our view. The data and analyses presented in the preceding sections highlight the return potential of these assets and how they can benefit globally diversified portfolios.

These opportunities in China also come with complexity and risks, which is why investors should be committed to further understanding, doing due diligence on, and continually monitoring their Chinese investments. This additional effort suggests that global investors should take a long-term perspective on investing in China and its performance potential. While there will be periods, such as currently the case, when Chinese assets are attractive on a tactical horizon, addressing strategic allocations is more likely to have significant long-term benefits on portfolios.

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