Executive Summary

- Since the introduction of economic reforms some 40 years ago, China’s economy has metamorphosed into a formidable driver of global growth as it opens its market to international investors.

- This growth has been driven by decades of policy and economic reforms that has transformed its economy into the second largest in the world.

- Its achievement has been based on political stability and long-term reforms that have urbanized its vast population to drive its expansionary policies into manufacturing and export-orientated growth.

- Large investment in infrastructure and expansion of its cities have supported the migration of its workforce, although an aging population and a growing, wealthy middle class have shifted focus towards automation, robotics and a service-based economy.

- China’s focus on economic growth has been at the cost of high levels of air, water and soil pollution which has spurred growth in environmental initiatives supported by government subsidies and investment opportunities.

- State-owned companies have consolidated in support of the shift in economic policy. This has led to a spotlight in how companies are managed, on corporate governance and the adoption of international accounting principles.

- Stock exchanges and regulators are driving change to listing requirements as well as the way companies report. Regulators have opened the door to international institutional investors to access equities and the China Interbank Bond markets. They have expanded the Stock Connect scheme to include the Shanghai and Shenzhen Stock Exchanges and opened Bond Connect.

- All these developments provide opportunities to international investors as they look to diversify their exposure to a market where the majority of investors have historically had no access.

- FTSE Russell continues to support these investment choices via years of experience in the mainland China market. As the first international index provider of mainland Chinese benchmarks and an index product suite that demonstrates the breadth and depth of China’s equity/bond markets, FTSE Russell leads the way in providing solutions to our clients’ needs.

- As a result of recent enhancements, China A Shares (available through the ‘Northbound’ Stock Connect route) will be assigned as Secondary Emerging and will join the FTSE Russell’s global equity benchmarks in June 2019.
For fixed income, FTSE Russell has recently completed a market consultation on a proposal to establish a transparent and evidence-driven country classification framework for the FTSE global fixed income benchmarks. It will calibrate an annually-reviewed “Market Accessibility Level” for local currency government bond markets.

As within the equity framework, a Watch List of countries on the cusp of reclassification will be published and maintained. China government bonds will be added to this Watch List and assessed against the stated criteria of the framework for possible inclusion in the flagship investment grade FTSE World Government Bond Index.

Historic reforms drive China's economic transformation

1978: Economic reforms introduced by Deng Xiaoping: the Third Plenary Session of the 11th Central Committee of the Communist Party lays the groundwork for future growth.

1979: The Law on Chinese Foreign Equity Joint Ventures allows foreign capital to enter the country, boosting regional economies.

1980: The Chinese government permits companies to retain profits and set up their own wage structures, increasing GDP and the pace of urbanization. Shenzhen becomes the first ‘special economic zone’.

1990: The Shanghai stock market reopens for the first time since 1949.


1996: Renminbi becomes a convertible currency.

2001: China joins the World Trade Organization leading to a deeper integration into the world economy.

2002: Qualified Foreign Institutional Investor (QFII) scheme launches.

2005-2006: Non-tradable share reform which increased the number of shares available to trade and reduced government ownership of listed shares - prior to reforms non-tradable shares accounted for 64% of total shares outstanding*.


2011: Renminbi Qualified Foreign Institutional Investor (RQFII) scheme launches.

2014: Shanghai/Hong Kong Stock Connect scheme launches.

2016: IMF adds renminbi to SDR basket, Shenzhen Stock Connect launches, AIIB launches.

2017: Bond Connect scheme launches.

2019: Inclusion into the FTSE Russell global equity benchmarks.

## Contents

1. Old to New – China’s Giant Steps .................................................. 5
2. Chinese equity markets: a mirror on ‘New China’ ....................... 16
3. China is adapting its corporate governance framework ............ 19
4. The opportunity set: access to China’s domestic market .......... 22
5. Rising star – China’s fixed-income market ................................. 29
6. Foreign investor access to the Chinese onshore bond market .......................................................... 34
7. China is opening its equity market to international investors ....... 38
8. FTSE Russell’s approach to managing China’s transition into global benchmarks .......................................................... 40
9. Appendix ..................................................................................... 48
1. Old to New – China’s Giant Steps

Since the introduction of economic reforms some 40 years ago, China’s economy has metamorphosed into a formidable driver of global growth. From a largely agrarian society, the country has evolved into a manufacturing powerhouse and is transitioning under President Xi’s guidance into a high-end, service-based economy.

China is the second largest G20 economy behind the United States (Chart 1).

Chart 1: China a leader among G20 economies

![G20 Countries Nominal GDP (USD, billions)](chart)

Source: FTSE Russell and Thomson Reuters Datastream, December 2017.

China has owed its rapid expansion to decades of policy and economic reforms, the openness of its markets to attract international capital, strong exports and the substantial urbanization of its society. The country gained from its status as the manufacturing hub of the developed world where companies set up assembling plants for re-exports by taking advantage of lower labor costs.

This resulted in one of the largest work-migrant transfers in recent history as rural migrants, in search of a better life, moved to cities, fueling the country’s spectacular economic boom. To house the growing number of workers, hundreds of new cities were built or expanded, requiring large investment in infrastructure.

At the beginning of Deng Xiaoping’s economic reforms in 1978, about 18% of the Chinese population lived in urban areas. By 2018, this figure had risen to 57.9%¹ and is forecast to approach 80% by 2050, according to United Nations estimates (Chart 2).

Chart 2: China has rapidly urbanized during the past 50 years


Transitioning to a service-based economy

By the mid-2000s, China saw its economic dependency on heavy industries diminish as it moved up the value chain and embraced new technologies. As living standards improved and salaries increased, Chinese industries shifted focus towards automation, robotics and a new service-based economy.

Chart 3: A new service-based economy emerges from mid-2000s

Source: FTSE Russell and Thomson Reuters as at June 30, 2017.
Today China aims to become a High-Income economy an increase from its Upper-Middle Income level currently, based on the World Bank’s GNI per Capita Rating in 2017. The country's per capita gross national income (GNI) has more than quadrupled since the mid-1990s, but it is still significantly below that of some Asian economies. China’s GNI per capita is US$8,250, compared to US$27,600 for South Korea and US$37,930 for Japan (Chart 4).

On a relative percentage basis, China’s per capita GNI is only 11.3%² of that of the United States with large parts of the country still resembling the early stages of economic development seen in South Korea and Japan for example.

Chart 4. The long road: China economic journey

![GNI Per Capita (USD, World Bank Atlas Method)](chart)


As its economy becomes more mature, China’s growth rate is on a trajectory to grow by a more sustainable 6% per annum. In 2017, the country’s GDP grew by 6.9%³ driven by private consumption and investment growth.

China and the US have been the dominant contributors to global GDP growth since 2012, offsetting negative growth elsewhere in the world (Chart 6). Should China's role as a growth driver diminish, what will the impact be for the world economy? The Chinese government has taken numerous steps to offset slowing growth, including a middle-class tax cut aimed at stimulating consumer spending following a fall in retail sales. The central bank has also cut the reserve requirement ratio for lenders several times during 2018, amid concerns over market liquidity and the potential impact from a trade dispute with the US.

**Chart 5: Chinese growth has slowed from teens to single digit**

China Real GDP Growth (%)

Source: FTSE Russell and Thomson Reuters as at June 30, 2018.

The Chinese government has taken numerous steps to offset slowing growth.

**Chart 6: China has been a main contributor to global growth since 2012**

Expansion of GDP 2012-2017 (USD, Bn)

China's actions reverberate worldwide

China's significant contribution to the world economy means that its actions can have unexpected consequences beyond its borders. One instance was when the authorities unilaterally took actions to depreciate the yuan in August 2015 to make it more competitive on the back of a slowing economy. The move impacted currency, fixed income, equity and commodity markets globally (Chart 7).

Chart 7: The fall in Chinese equity market affected global stock markets

Source: FTSE Russell as at September 1, 2018. Past performance is no guarantee of future results. Returns shown prior to index launch reflect hypothetical historical performance. Please see the end for important legal disclosures.

The Chinese authorities promptly restored confidence by successfully stepping in to defend the renminbi using their foreign exchange reserves and enacting several measures to stem the tide of turbulence such as cutting interest rates, buying equities, halting initial public offerings and limiting capital outflows and short selling. A similar effort of currency intervention was implemented during 2018 as trade tensions with the United States intensified.

Chart 8: Contraction of foreign exchange reserves has stabilized

Source: FTSE Russell and Thomson Reuters as at July 31, 2018.
For much of the past two years, the yuan has appreciated against the US dollar but an escalation in trade tensions during 2018 reversed the trend prompting a sharp devaluation of the Chinese currency (Chart 9).

**Chart 9: The yuan has taken the brunt of China-US trade tensions**

![Chart 9](image)

Source: FTSE Russell and Thomson Reuters as at August 30, 2018.

Despite China’s attempts to diversify its large foreign reserves and internationalize the yuan, the US Treasury market (US$15.7 trillion)\(^4\) has remained the only relatively low risk market which is liquid enough to provide China with investible assets for its large foreign reserves. Most of those reserves - around US$2 trillion - are held in US dollars, of which about US$1.2 trillion today is invested in US Treasuries\(^5\), some 37% of China’s total foreign exchange reserves (Chart 10).

---

\(^4\) Source: US Treasury website; [https://www.treasurydirect.gov/govt/reports/pd/pd_debttothepenny.htm](https://www.treasurydirect.gov/govt/reports/pd/pd_debttothepenny.htm), as at August 30, 2018

\(^5\) [http://ticdata.treasury.gov/Publish/mfh.txt](http://ticdata.treasury.gov/Publish/mfh.txt), June 2018

Some 37% of China’s total foreign exchange reserves are held in US Treasuries.
Headwinds: China’s heavy debt burden

However, China’s high debt level has become a notable headwind for the country’s economic growth plans. The sheer size grew out of the large build-up of debt in the non-financial corporate sector as the Chinese authorities flooded the market with liquidity to stimulate the economy in the aftermath of the global financial crisis.

The government combined cuts in short-term interest rates with a reduction in its banks’ reserve requirement ratio to encourage lending to state-owned enterprises (SOEs). This fostered unprecedented demand, not only for corporate, but also for household borrowing.

In January 2018, the International Monetary Fund (IMF) warned of the financial risk posed by the credit growth outpacing GDP growth if left unchecked and called for the need to deflate the ‘credit boom’. Household debt, while still comparatively low, has also been rising (Chart 11).

---

Chart 10: China is the single largest foreign owner of US government debt

Chinese Holdings of US Treasuries % of FX Reserves

Source: FTSE Russell and Thomson Reuters as at June 30, 2018.

---

IMF Working Paper, Credit Booms – Is China Different, Sally Chen and Joong Shik Kang
Between 2006 and 2017, China became one of most indebted countries in the world after Japan (Chart 12) as its non-financial corporate debt rose from 146% to 255% of GDP (Chart 11).

Chart 12: China joins Japan as the most indebted countries in the world
To support growth, the authorities increased their lending to state-owned enterprises and for a while, their output soared and profits grew. Over time however, it created overcapacity and misallocations of capital, especially in sectors such as steel, cement, solar, shipbuilding, heavy machinery and mining. Cheap loans also ignited a housing boom, boosting the construction sector and sending real estate prices higher (Chart 13).

**Chart 13: Easy credits fueled housing bubble**

![Chart showing China House Prices (70 medium & large cities)](chart)

Source: FTSE Russell and Thomson Reuters as at July 31, 2018.

**The non-performing loans dilemma**

For years international investors have viewed Chinese banks' official non-performing loan (NPL) ratios with concern, amid suspicion that banks were using loan rollovers or off-balance-sheet accounting - known as shadow banking - to disguise the extent of their credit losses.

**Shadow banking explained**

Shadow banking involves the creation of off-balance sheet assets via wealth management (WMP) and trust products that are sold by banks and non-bank financial institutions. WMPs and trusts promise higher fixed returns compared to bank deposits and generally have short maturities. Proceeds from these products are usually invested in the mainland bond and equity markets where, due to their short maturities (maturity mismatching) and leveraged trading, investments tend to have rollover and principal risks.

---

7 Source: https://geopoliticalfutures.com/china-gets-serious-financial-reform/
The Chinese authorities are implementing measures to address the non-performing loans (NPLs). In 2008 at the height of the Global Financial Crisis, the average NPL rate had declined significantly as the Agricultural Bank of China transferred most of its NPLs to its asset management companies. In 2016, the former banking regulator, the China Banking Regulatory Commission (CBRC), enforced one of the highest coverage-ratio provisions by requiring commercial banks to adopt a range of 120%-150% to curb lending. This helped drive the ratio of NPLs as a percentage of total loans from over 10% to around 2%. However, during 2018 the number of bad loans from real estate has risen as part of regulator’s clamping down on risks in the financial sector

Chart 14: Chinese authorities have been tackling the non-performing loans

Value of Chinese Non-Performing Loans (Qly % Change, CNY)

Source: FTSE Russell and Thomson Reuters as at June 30, 2018.

Even so, given China’s size in the world economy, the IMF in a January 2018 working paper raised its concerns about the country’s systematic risks and the impact it could have on the global economy due to its growing influence.

Headwind: Will China get old before it gets rich?

Aging population is another potential impediment to China’s economic growth. The government’s imposition of strict controls on family size (One Child Policy) between 1980 to 2016 significantly increased the proportion of its elderly population (Chart 15). As a consequence, the working age population (those aged 15-64) started to decline in 2014. China’s dependency ratio (the difference between those not in the labor force with those who are working) could also rise to 44% by 2050, causing further challenges.

---

8 Source: https://geopoliticalfutures.com/chinas-problem-with-non-performing-loans/
10 IMF Working Paper: Credit Booms-Is China Different? By Sally Chen and Joong Shik Kang, January 2018
12 United Nations
The Chinese authorities have been exploring ways to reduce the problem. Among the ideas being considered are lifting family-size limits, raising the retirement age from 60 years for men, 55 for female (white-collar workers) and 50 for female blue-collar employees and improving the health care system.

**Chart 15: China’s worker to retiree ratio is sharply falling**

<table>
<thead>
<tr>
<th>Year</th>
<th>0-19</th>
<th>20-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>23.5</td>
<td>66.9</td>
<td>9.7</td>
</tr>
<tr>
<td>2025</td>
<td>22.3</td>
<td>63.5</td>
<td>14.2</td>
</tr>
<tr>
<td>2050</td>
<td>18.7</td>
<td>55.0</td>
<td>26.3</td>
</tr>
</tbody>
</table>

2. Chinese equity markets: a mirror on ‘New China’

As China’s economy transformed so did the size and the make-up of its equity market. Home to three of the world’s 10 largest stock exchanges (Shanghai and Shenzhen in Mainland China and Hong Kong), China’s domestic equity market is the second largest in the world with a market capitalization of about US$9 trillion.\(^{13}\)

Chart 16: Market-capitalization of domestic listed companies in 2017 (USD trillion)


New Chinese sectors are displacing old ones

Healthcare, technology, consumer-related sectors, education, entertainment and financial services have gained market share during the last 10 years at the expense of heavy industries, oil and gas and basic materials.

China has rapidly automated its manufacturing industry and today dominates the production of most consumer electronics and a large share of industrial electronics. Called the “robot revolution” the country owns the highest stock of industrial robots globally, consuming 30% of the world’s total supply of robots in 2016, as China looks to offset rising labor costs and the beginning of a falling labor force.\(^{14}\)

Renewable energy is another important sector in which China has made significant investments. High levels of air, water and soil pollution had spurred the Chinese government to heavily invest in environmental initiatives. In 2017, Chinese investments accounted for 45% of the global total.

---

\(^{13}\) Worldbank.org as at December 29, 2017

Within a broad green economy universe\textsuperscript{15} of some 3000 companies, China now represents 12% of the market with both the number of green companies and their green revenues exposure outpacing many other nations.

\textbf{Chart 17: China has become a significant participant in the green economy.}

\begin{center}
\begin{tikzpicture}
\pie{
United States = 43, \quad China = 12, \quad Japan = 13, \quad France = 3, \quad Taiwan = 4, \quad Germany = 4, \quad Other = 21}
\end{tikzpicture}
\end{center}

Source: FTSE Russell, December 2017

China is uniquely placed in that it has become a global market-leader in the production of solar panels and is rapidly taking market share in the manufacture and adoption of electric vehicles. China was one of the fastest growing markets for plug-in electrical vehicles in Q1 2017.\textsuperscript{16}

Domestically, China is also recognized as the largest installer of renewable energy. However the cost of renewable projects, which have been heavily subsidized by the Chinese government, have added to the country’s existing high debt levels and resulted in the oversupply of solar energy.

To limit waste and reduce costs, the authorities have introduced alternative schemes. For example, recent projects have included setting capacity limits in regions with high waste rates, launching a nationwide carbon emissions trading market and issuing via the China National Renewable Energy Centre green electricity trading certificates.

\textsuperscript{15} FTSE Russell paper, Investing in the global green economy: busting common myths on FTSErussell.com

Chart 18: Over the last 10 years, China has diversified across a broader section of industries

![Chart](image)

Source: FTSE Russell as at August 31, 2018.

Although financials are gradually losing their market dominance to the faster growing technology sector, they still represent a significant portion of the equity market, especially in financial services where new opportunities are opening up.

China's demographics will change the future national reallocations of resources and priorities as more funds are expected to flow to health care, pensions and insurance with existing and newly formed financial institutions (as the industry and services move online) lying at the heart of this structural change. Further reforms to the banking, securities, futures, asset management and insurance sectors are opening up these areas to foreign investment, therefore increasing choice and competition.

The country's pension system will need to further develop to avoid a large funding gap and meet the needs of an aging population. Occupational pensions (through the Enterprise Annuity system) and private pensions for individuals are still in their infancy with most Chinese dependent on the government-run schemes the Public Pension Fund (PPF) and the National Council for Social Security Fund (NCSSF). Substantial regulatory progress have already been made. Asset managers are now able to pitch for external allocations from the state-run pension funds. The enterprise annuity market is adopting a hybrid system, where both employers and employees contribute and gradually open it up to foreign companies and for individual retirement accounts. The State Council is introducing a pilot tax deferred pension plan and promoting elderly endowment insurance. In doing so, it would provide an opportunity for an important shift into occupational or private pension savings in the future and pave the way for China to become one of the world's most dynamic pension markets.

3. China is adapting its corporate governance framework

The corporate governance framework in China is developing and adapting as the country’s economy transforms. Stock exchanges and regulators are driving changes to the listing requirements as well as the way companies report. A large part of this change is via state-owned enterprises (SOEs), which are regulated by the State-Owned Assets Supervision & Administration Commission (SASAC). This oversees some US$30 trillion in government assets. 18

In recent years, the government has increased the pace of its reform of the financial industry as it seeks to internationalize its economy and business practices. In 2015, the authorities unveiled a comprehensive plan to establish a modern enterprise system and management system under the State Council blueprint for state-owned enterprise consolidation.19 As a result, SOEs have been consolidating, bringing a new generation of more-entrepreneurial managers to run them more efficiently, shutting down loss-making ‘zombie’ companies and encouraging private capital.

Until recently, the oversight of securities, banking and insurance had been under different regulators. This had created a fragmented financial regulatory structure. To better address financial risks (i.e. the large debt levels of SOEs), China’s State Council created in 2017 a super regulator, the Financial Stability Development Committee, to coordinate the supervision and management of financial stability. At the same time, China’s central bank, the People’s Bank of China (PBOC), was given a larger role with new powers to exercise macro-prudential regulation and safeguard against systemic risks.

The China Securities Regulatory Commission (CSRC) and the State Administration of Foreign Exchange (SAFE) have remained separate regulators. Their role is to continue the pace of reform and open the domestic stock markets to global investors.

As more global investors consider investing in Chinese equities, these efforts have put a spotlight on how companies are managed and their adoption of standard accounting principles20 and corporate governance.

Accounting principles are aligned to international standards

Chinese authorities have adopted their version of International Financial Reporting Standards (IFRS) in 2006 to align them with global standards. The convergence of Chinese accounting rules into international accounting standards has been an important step towards China’s continuing integration into the world economy. Depending on their specific circumstances, companies are required to implement the appropriate accounting standard as follows:

18 Size and Sectoral Distribution of State-Owned Enterprises: [https://www.oecd.org/industry/ind/Item_6_3_OECD_Korin_Kane.pdf](https://www.oecd.org/industry/ind/Item_6_3_OECD_Korin_Kane.pdf)
• All publicly listed Chinese companies which trade in China are required to use Chinese Accounting Standards for Business Enterprises (ASBEs) for financial reporting within mainland China.

• Chinese companies, whose securities trade on the Hong Kong Stock Exchange, can choose between IFRS Standards, Hong Kong Financial Reporting Standards (HKFRS) and ASBEs for the purposes of financial reporting to Hong Kong investors.

• Where international and Chinese accounting rules can differ is in the treatment of 'related party' accounting. The International Accounting Standard Board requires entities to disclose in their financial statements information about transactions with related parties. However, state-owned enterprises have a partial exemption for 'related party' disclosures due to the large ownership of government enterprises situated off-balance sheet.

The formulation and implementation of regulatory provisions has greatly promoted the corporate governance reform process and facilitated the improvement of the corporate governance level of listed companies in the areas of independent directorship; information disclosure; interest related party transaction; general shareholders’ meeting; merger and acquisition; reorganization; and investor protection.

**Shareholder rights today are similar to other markets**

The Company Law of the People’s Republic of China (PRC Company Law) provides many of the rights and protections for shareholders:

• Shareholders have the right to attend and vote at shareholder meetings (via one share, one vote principle).

• Shareholders are entitled to dividend payments and to liquidation of proceeds in the event of bankruptcy.

• Shareholders can appoint a candidate as an independent director for shareholders who hold 1% or more shares of a listed company.

• No fewer than one-third of the board of directors of a listed company should be independent directors.

• Shareholders are to be treated equally in the event of a takeover.

• When an investor’s shareholding reaches 5% of the issued shares of a target company the investor is required to disclose their position.

However, foreign investors should be aware of existing limitations:

• The PRC Company Law only provides for common shares and to date does not include preferred stock, deferred stock or golden shares. Hence in practice, there are no meetings for certain classes of shareholders. Article 104 of the Company Law provides that each shareholder is entitled to one vote per share.
- There are regulatory oversight differences between A Share (mainland China) and H Share (Hong Kong) listings, in some cases for the same company, contributing to extra layers of risk and complexity.
- Companies employing variable interest entity (VIE) governance structures are often tilted to favor the founder and ownership risk is increased due to legal uncertainties.
- Many Chinese companies have a degree of direct and/or indirect state ownership.
- The overall foreign ownership is limited to 30% for most companies.

Many Chinese companies have a degree of direct and/or indirect state ownership.

China’s Variable Interest Entity (VIE) structure in brief

- VIE is a structure in which an investor has a controlling interest which is not based on a majority of voting rights. To achieve the initial public offering, Chinese companies can opt for an offshore-listing structure, which allows foreign investors access to Chinese companies in ‘restricted’ industries (i.e. Internet).
- More than one hundred Chinese companies have adopted the VIE structure for their offshore listings. Examples include well-known technology companies such as, Alibaba, Tencent and Baidu.

International investors should inform themselves of the potential risks of investing in VIE structures, some of which are as follows:

- Offshore holding companies can lose control over domestic companies within the structure.
- Changes to founder, senior management or shareholder of the domestic company, could affect the life of the structure.
- The reputation and equity commitment held by the founder is key to the company’s success.
- The structure may not be compliant with PRC law, posing risks to settlement of disputes.
- The incorporation in the Cayman Islands (utilizing the CI ‘Exempt Companies’ provisions) means an absence of legal requirements to hold AGMs and an excessively high request threshold for calling an EGM.

Source: China Law Insight

See: [variable-interest-entity-structure-in-china](https://www.chinalawinsight.com/2012/02/articles/corporate/foreign-investment/variable-interest-entity-structure-in-china)
4. The opportunity set: access to China's domestic market

China has historically been a difficult market to access for foreign investors. Up until 2002, international institutional investors aiming to enter China had to be in a joint venture with a local Chinese equivalent. Since then, regulators have opened the door to overseas investors to access the China A Share market and the China Interbank Bond Market.

Although investors can gain exposure to China through overseas listings, the domestic A Share market accounts for the majority of the China equity opportunity set. The table below provides an overview of the different types of shares available to Chinese and foreign equity investors.

Table 1: Guide to Chinese Share Classes and where there are traded

<table>
<thead>
<tr>
<th>Shares Class</th>
<th>Country of Incorporation</th>
<th>Country of Listing</th>
<th>Currency of Listing</th>
<th>Open to Chinese Investors</th>
<th>Open to Foreign investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Share</td>
<td>China</td>
<td>China</td>
<td>RMB</td>
<td>Yes</td>
<td>Yes via QFII, RQFII and Stock Connect schemes.</td>
</tr>
<tr>
<td>B Share</td>
<td>China</td>
<td>China</td>
<td>USD (Shanghai), HKD (Shenzhen)</td>
<td>Yes with foreign currency dealing accounts.</td>
<td>Yes</td>
</tr>
<tr>
<td>H Share</td>
<td>China</td>
<td>Hong Kong</td>
<td>HKD</td>
<td>Yes if QDII approved or under Stock Connect Schemes.</td>
<td>Yes</td>
</tr>
<tr>
<td>Red Chip</td>
<td>Outside China</td>
<td>Hong Kong</td>
<td>HKD</td>
<td>Yes if QDII approved or under Stock Connect Schemes.</td>
<td>Yes</td>
</tr>
<tr>
<td>P Chip</td>
<td>Outside China</td>
<td>Hong Kong</td>
<td>HKD</td>
<td>Yes if QDII approved or under Stock Connect Schemes.</td>
<td>Yes</td>
</tr>
<tr>
<td>S Chip</td>
<td>Outside China</td>
<td>Singapore</td>
<td>SGD/USD</td>
<td>Yes if QDII approved.</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Chinese depositary receipt (CDR)

A new route for Chinese companies to list back on the mainland China equity market is via Chinese depositary receipts (CDRs). The authorities have offered CDRs to some of its biggest and fastest growing companies, many of which had listed overseas to avoid the legal and technical barriers to a mainland listing as well as to gain access to international investors and bond markets.

China Depositary Receipt

China’s depository receipts are a certificate issued by a custodian bank that represents a pool of foreign equity that is traded on Chinese exchanges. Chinese regulators have modelled CDRs after US-listed American depositary receipts so that overseas stocks could be traded on China’s mainland market. The goal of issuing CDRs is to entice capital back to the Chinese market to drive the economy as China’s technology giants have traditionally opted to list outside their home market.

The issuance of CDRs allows both Chinese institutional and private investors to own shares in Chinese foreign-listed companies.
Main entry routes to China A Shares for foreign investors

There are three main points of access which can be used by foreign investors: The Qualified Foreign Institutional Investors (QFII), the Renminbi Qualified Foreign Institutional Investor (RQFII) and the Connect schemes. Each provides a mechanism for foreign investors to invest in one of the largest global markets. Using the current access points, to date international institutional investors represent only 2.3% of the China A Share market.

Chart 19: Timeline of access schemes for international investors

Qualified Foreign Institutional Investor (QFII) and other arrangements

The Qualified Foreign Institutional Investor scheme has historically been the primary channel to access China, although the Connect schemes have now become a popular route for international investors.

Introduced in December 2002, QFII allows institutional investors who meet certain requirements to directly invest on both the Shanghai and Shenzhen exchanges. Foreign investments in China are restricted due to foreign exchange control; the quota, products, accounts and fund conversions are strictly monitored and regulated.

22 FTSE Russell paper, data as at March 29, 2018 – Embracing China’s economic shift through the Total China Concept
QFII requirements & other Arrangements

International fund management institutions, insurance companies, securities companies and other asset management institutions must be approved by the China Securities Regulatory Commission (CSRC) and granted investment quotas by the State Administration of Foreign exchange (SAFE).

For Chinese investors, a reciprocal scheme to QFII, the Qualified Domestic Institutional Investor scheme (QDII), was introduced in 2006 that allows Chinese financial institutions to invest overseas in foreign fixed income and equities. The eligible foreign markets include those that have signed a Memorandum of Understanding (MOU) with the CSRC.

Wholly foreign-owned enterprises (WFOE) are also available for overseas companies to access the mainland market. They are 100% foreign-owned firms that can manufacture and market their own products for sale to mainland investors. This structure allows overseas asset management companies to operate under their own name and benefit from the same rules as local private funds.23

Renminbi Qualified Foreign Institutional Investors (RQFII)

Introduced in 2011, RQFII is a local currency version of QFII which permits investment in the same range of investment products and is subject to many of the same restrictions. Initially the RQFII program was limited to only Chinese financial institutions with subsidiaries in Hong Kong but has been expanded to other Hong Kong financial institutions and institutions in other countries including Australia, Canada, United States, Hungary, France, Germany, Switzerland, Luxembourg, Ireland, United Kingdom, South Korea, Singapore, Taiwan, Malaysia, Thailand, UAE and Chile.24 Like QFII, approvals from both CSRC and SAFE are also required.

23 Source: http://www.wfoe.org/
24 CSRC
Prior to the Stock Connect scheme, if investors did not have QFII/RQFII quota, their only alternative access point to the mainland market was via overseas Chinese listings. However, only 24% of China A Share companies (by market cap) can be accessed by other China share classes. Although large cap China A Shares have the highest representation, they make up only 33.7% (Chart 21).

**Chart 21: Overseas China listings only provide a small exposure to the mainland equity market**

![Bar chart showing % of China A Shares (by market cap) Accessed by Other China Share Classes]

Source: FTSE Russell as at August 31, 2018.

**Connect Schemes**

Connect schemes are the newest and most flexible entry points to China’s domestic equity (Stock Connect) and bond (Bond Connect) markets for foreign investors. Connect provides a mutual market-access program that allows international and mainland Chinese investors to trade securities in each other’s markets using eligible local trading and clearing facilities. Connect helps pave the way for Chinese securities to be included in global benchmarks.

**Stock Connect**

Stock Connect has been growing rapidly. First launched in 2014 (Shanghai-Hong Kong Stock Connect), Stock Connect is a collaboration between the Hong Kong, Shanghai and Shenzhen stock exchanges and allows Hong Kong and foreign investors to access eligible listed securities using broker accounts in Hong Kong.

The link was extended in 2016 to the Shenzhen and Hong Kong stock exchanges (Shenzhen-Hong Kong Stock Connect). Each link has a daily quota of RMB 52 billion (USD 8bn) - increased from RMB 13 billion (USD 2bn) since May 1, 2018.
Under Shanghai Connect, Hong Kong investors can trade constituent stocks of the SSE180, SSE 380 indexes and all dual-listed A Shares that have an equivalent H Share on the Hong Kong stock exchange.\textsuperscript{25}

For Shenzhen Connect, Hong Kong and overseas institutional investors can trade the Shenzhen Component index - the main index whose constituent stocks are available for investment through the scheme - and the Shenzhen Mid- and Small-Cap Innovation index, with a minimum market cap of RMB 6 billion. This represents some 900-listed securities. Similar to the Shanghai Connect, all dual-listed A Shares that have an equivalent H Share on the Hong Kong stock exchange are also eligible.

Elsewhere, separate preparations are being made to create a new link between Shanghai and the London Stock exchanges (Shanghai-London Stock Connect).

Today, the Stock Connect program covers some 2000 eligible Chinese equities.\textsuperscript{26}

**Restrictions of access schemes**

While the development of access routes is constantly evolving, there are still some restrictions which do not provide the same mechanisms and coverage that international investors are accustomed to when accessing capital in other developing markets.

- The recent removal of restrictions on the outflow of capital is a positive development. However, QFII and RQFII accounts are not available to all investors. For example an investor has to be of a certain size, assets under management, experience and have its principal place of business in certain jurisdictions to receive a license and quota.

- Stock Connect, QFII and RQFII access routes operate on a pre-funded basis, with securities settling on T+0 and cash settling on T+1. For Stock Connect, Delivery versus Payment (DvP) is not available or available at an additional cost via a local broker/custodian.

- There are concerns over the availability of CNH/CNY around index balances. The PBOC recently permitted 20 foreign exchange banks in Hong Kong which have a China Foreign Exchange Trade System (CFETS) license to offer onshore RMB (CNY) for Stock Connect settlement which should alleviate this concern.

**Security suspensions: a barrier to entry**

Despite continued positive market developments, the high incidence of security suspensions, which far exceeds those in other markets, affect the ability of index trackers to replicate benchmark changes. At the height of the stock market decline on July 9, 2015, nearly half of China's 1424-plus listed companies, as measured by the FTSE China A All Cap Index, halted trading.

\textsuperscript{25} HKEX at https://www.hkex.com.hk/Mutual-Market/Stock-Connect/Eligible-Stocks/View-All-Eligible-Securities?sc_lang=en

\textsuperscript{26} HKEX at http://www.hkex.com.hk/Mutual-Market/Stock-Connect?sc_lang=en
On average between the beginning of 2015 to August 2018\(^{27}\) approximately 8% of China A Share securities in the FTSE China A All Cap Index have been suspended on a daily basis. More recently, levels have decreased to about 4%.

**Chart 20: The rising number of suspensions has affected the Chinese market**

![Chart 20: The rising number of suspensions has affected the Chinese market](image)

Source: FTSE Russell, Wind, data as at August 31, 2018. Past performance is no guarantee of future results. Returns shown prior to index launch reflect hypothetical, historical performance. Please see the end for important disclosures.

For a detailed summary of the different equity access schemes consult Table 1 in the Appendix (page 48).

---

\(^{27}\) FTSE Russell, data from January 5, 2015 to August 31, 2018.
5. Rising star – China’s fixed-income market

China's bond market has come a long way since the first bond was issued in 1980. It ranks today as the third largest bond market in the world behind the United States and Japan.

Chart 22: Chinese bond market has grown significantly in the last 10 years

![Size of Chinese Bond Market Since 2009](chart22)

Source: WIND, August 31, 2018.

China's onshore bond market is dominated by sovereign and regional government bonds with a growing credit sector. Investors view policy bank bonds (non-commercial, 100 percent state-owned banks that lend in support of government priorities) having similar risk as sovereign bonds. Municipal bonds have been growing rapidly since 2015.

Chart 23: Segmentation of the Chinese onshore bond market (% weight)

![Chart 23: Segmentation of the Chinese onshore bond market (% weight)](chart23)

Source: WIND, August 31, 2018.

China’s bond market ranks third largest in the world.

China’s domestic bond market is dominated by sovereign and regional government bonds.
The majority of outstanding issues, many of which have implied government support, are AA-rated by local Chinese rating agencies (Chart 24).

Although international foreign ratings agencies are now allowed to operate in China to rate domestic Chinese issuers, at the time of writing none had been granted a license. Prior to the change in the rules, global rating agencies could only hold minority stakes in joint-venture operations and not issue ratings on local bonds.

Chart 24: Most Chinese bonds, which defaulted, were rated AA at issuance

Chinese onshore bonds are mostly traded through the interbank bond market (Chart 25), which includes a wide range of financial institutions. In addition to their on-balance sheet holdings, commercial banks, which dominate the market in terms of ownership, control many bonds through their off-balance sheet wealth management products (see Shadow Banking box on page 13) that they sell to customers as a higher yielding alternative to traditional saving deposits.28


28 Financial Times, July 3, 2017 – China’s interbank bond market in five charts
As the authorities continue to restrict off-balance sheet lending and push up funding costs, corporate bond defaults have risen six-fold since the end of 2015. 2016 saw the largest number of defaults when 78 bonds defaulted, which represented RMB 39.3 billion in principal amount. In the first eight months in 2018, the issue sizes were significantly larger with 60 bond defaults representing RMB 57.38 billion in principal amount (Chart 26).

**Chart 26: The number of corporate bond defaults peaked in 2016, but is rising again**

The increased incidence of corporate defaults reflects the government's efforts to contain leverage and reduce complexity in the financial system, particularly through a clampdown on shadow-financing activities. Corporates over stretched their balance sheets during the previous credit boom to fund aggressive business expansion, and those which had uncompetitive or structurally ailing business models have struggled to refinance their maturing debt.

Nearly 20% of bond defaults are by state-owned enterprises as regulators moved away from the old model of implicit guarantees for most debt securities to allow defaults to take place.

**Chart 27: Corporate issuers are making up the majority of defaulting bonds**

![Chart showing the percentage of default bonds by type of issuer](source: Wind as at August 31, 2014-2018.)

_Nearly 20% of bond defaults are by state-owned enterprises._
Much of the outstanding debt issuance has been tilted towards short maturities, with the majority of issues due to mature in less than four years (Chart 28).

**Chart 28: China's average bond life is less than five years**

Source: FTSE Russell and Wind, August 31, 2018; WAL= Weighted Average Life based on FTSE Chinese (Onshore CNY) Broad Bond Index, Regional Government and FTSE Chinese (Onshore CNY) Broad Bond Index, Corporate.

New issuance has fallen sharply as the central bank has squeezed liquidity and China’s banking regulator introduced new regulations to discourage leveraged investment in the bond market.

**Chart 29: Bond issuance has declined sharply since 2016**

6. Foreign investor access to the Chinese onshore bond market

Foreign investor access to the Chinese domestic debt market has been less restrictive than equities. The market has grown to RMB 81 trillion (USD12 trillion). In 2002, the China Securities Regulatory Commission and the PBOC initiated the QFII scheme to allow foreign investors to enter China's capital markets directly.

Chart 30: Evolution of the opening up of the Chinese bond market

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2010</td>
<td>PBOC launched a pilot scheme allowing (i) foreign banks or monetary authorities, (ii) RMB settlement banks in HK and Macau and (iii) cross-border RMB settlement participating banks in HK and Macau to trade and settle bonds in the CIBM.</td>
</tr>
<tr>
<td>Dec 2011</td>
<td>HK-based subsidiaries of Chinese fund management and securities companies, which had been granted QFII status during the 1st phase of the scheme were allowed to apply for approval and quota to invest in the CIBM via a bond settlement agent.</td>
</tr>
<tr>
<td>Apr 2015</td>
<td>First onshore SOE defaults.</td>
</tr>
<tr>
<td>July 2015</td>
<td>PBOC announced that central banks, monetary authorities, international financial organizations could invest in the CIBM without approval requirements and quota limits.</td>
</tr>
<tr>
<td>Feb 2017</td>
<td>Bond Connect is operational, allowing international investors to access the onshore bond market.</td>
</tr>
<tr>
<td>Feb 2016</td>
<td>Quota-free access to CIBM market.</td>
</tr>
<tr>
<td>May 2016</td>
<td>Restrictions on repatriation of currency and holdings periods are eliminated.</td>
</tr>
<tr>
<td>Oct 2016</td>
<td>IMF includes CNY in the Special Drawing Right basket, the 1st addition for 15 years and making it the 3rd largest in the basket of currencies held as reserves for IMF members.</td>
</tr>
<tr>
<td>Feb 2018</td>
<td>Phased, inclusion of Onshore Treasury bonds into the FTSE EMGBI, AGBI and APGBI.</td>
</tr>
<tr>
<td>Jun 2018</td>
<td>SAFE removed the restrictions on the repatriation for QFII/RQFII investors; also allows currency forward to be used for hedging purpose.</td>
</tr>
</tbody>
</table>

Source: FTSE Russell

Like the equity access, international investors can access the Chinese government bond market via a number of routes: QFII, RQFII, CIBM* Direct and Bond Connect schemes (refer to Table 2 on page 35).

International investors are also given direct access to primary issuances in the CIBM. Not all derivatives are yet available to foreign investors, although more derivatives are available on CIBM. For Bond Connect, only cash bonds are available currently.

Bond Connect

Launched in July 2017, Bond Connect29 provides the Northbound access to the China Interbank Bond Market. This mutual market-access scheme allows investors from mainland China and overseas to trade in each other’s bond.


*CIBM= Chinese Interbank Bond Market
markets through connection between the related mainland and Hong Kong Financial Infrastructure Institutions (the Hong Kong Exchanges and Clearing Limited (HKEX) and the Central Moneymarkets Unit (CMU).

Prior to Bond Connect, foreign investors could access China’s onshore bond market through the CIBM direct channel without quota through a local bond settlement agent. Today, foreign investors can buy Chinese debt directly through Bond Connect.

Table 2: Comparison of the various bond access schemes available to foreign institutional investors

<table>
<thead>
<tr>
<th>Shares Class</th>
<th>QFII</th>
<th>RQFII</th>
<th>RMB Participating Bank</th>
<th>CIBM</th>
<th>Bond Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheme Launch Year</td>
<td>2002</td>
<td>2011</td>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible Investments</td>
<td>Cash bonds</td>
<td>Cash bonds</td>
<td>Cash bonds; RMB repo</td>
<td>Cash bonds, RMB IRS and bond forwards for hedging</td>
<td>Cash bonds</td>
</tr>
<tr>
<td>Repatriation</td>
<td>No monthly repatriation limit since June 2018</td>
<td>No monthly repatriation limit since June 2018</td>
<td>RMB only</td>
<td>Roughly maintain foreign currency and RMB ratio</td>
<td>No repatriation restrictions</td>
</tr>
<tr>
<td>Quota</td>
<td>Investment quota for each QFII</td>
<td>Investment quota for each RQFII</td>
<td>Investment quota for each RMB participating bank</td>
<td>No investment limit; no intended amount</td>
<td>No investment limit</td>
</tr>
</tbody>
</table>


However, there remains some restrictions for foreign investors

- Monetary policy communication appears to be less clear compared with that of major central banks, in major bond markets (UK, US, Japan and Eurozone).
- Perception of exchange rate risk could remain high if China’s ‘managed floating’ regime continues to see frequent parameter changes that are not clearly articulated.
- RMB is the highest ranked emerging market currency by turnover, but its share of global turnover remains relatively modest (~4%).
- Sovereign credit risk is difficult to assess given the potential large liabilities not reflected by the level of government debt and fiscal deficit.
• The level of foreign ownership in the overall domestic market is markedly low, at around 2%, despite a 41% YOY growth in foreign inflows in 2017.  

• The index impact of its inclusion will be significant, owing to the substantial size of the Chinese debt market.

• The inclusion of Onshore Treasuries would represent 5.8% of the FTSE World Government Bond Index.

• While it is generally improving, liquidity remains a concern particularly for off-the-run bonds, Policy Bank bonds are more liquid than treasuries. CDs are the most actively traded instrument on Bond Connect.

• There is no coverage of onshore CNY credit bonds by international rating agencies which are in the process of getting a license.

However, since August 30, 2018, foreign bond investors have been exempted from corporate income tax and VAT for a tentative period of three years for non-government bonds (regional and government bonds are exempted).

Renminbi: Gaining importance globally?

China’s opening of its financial and capital markets is helping the renminbi become a major global currency which, based on the Bank of International Settlements data, ranks as the 8th most traded currency worldwide (Table 2).

The introduction of a hybrid net settlement clearing system, the Cross-Border Interbank Payment System (CIPS) for on and offshore businesses trading in yuan, has created an express channel for the internationalization of the currency. CIPS is modelled on USD CHIPS and uses SWIFT messaging as well as SWIFT standards.

The use of CIPS has greatly improved the efficiency of cross-border clearing and marked major progress in establishing a modern payment system that complies with international standards. As a result, the Chinese yuan has become increasingly used as a settlement currency within Asia Pacific since the establishment of Hong Kong and Shanghai as offshore RMB clearing centers.

30 Wind, September 2018

Since August 30, 2018, foreign bond investors are exempted from corporate income tax.

China’s opening of its financial and capital markets is helping the renminbi become a major global currency which ranks as the 8th most traded currency worldwide.
The Cross-Border Interbank Payment System (CIPS)

CIPS provides controlled cross-border access to the onshore CNY clearing system (China National Automated Payment System version 2) for use in offshore and cross-border CNY payments, so that offshore CNY settlement can access onshore liquidity directly. However, CIPS does not facilitate funds transfer, rather it sends payment orders which must be settled by correspondent accounts that the institutions have with each other.

Table 2: The yuan ranks in the top ten of the most traded currencies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FX</td>
<td>Share</td>
<td>Rank</td>
<td>Share</td>
<td>Rank</td>
<td>Share</td>
<td>Rank</td>
</tr>
<tr>
<td>USD</td>
<td>89.9</td>
<td>1</td>
<td>88</td>
<td>1</td>
<td>85.6</td>
<td>1</td>
</tr>
<tr>
<td>EUR</td>
<td>37.9</td>
<td>2</td>
<td>37.4</td>
<td>2</td>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td>JPY</td>
<td>23.5</td>
<td>3</td>
<td>20.8</td>
<td>3</td>
<td>17.2</td>
<td>3</td>
</tr>
<tr>
<td>GBP</td>
<td>13</td>
<td>4</td>
<td>16.5</td>
<td>4</td>
<td>14.9</td>
<td>4</td>
</tr>
<tr>
<td>AUD</td>
<td>4.3</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>6.6</td>
<td>6</td>
</tr>
<tr>
<td>CAD</td>
<td>4.5</td>
<td>6</td>
<td>4.2</td>
<td>7</td>
<td>4.3</td>
<td>7</td>
</tr>
<tr>
<td>CHF</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6.8</td>
<td>5</td>
</tr>
<tr>
<td>CNY</td>
<td>0.0</td>
<td>35</td>
<td>0.1</td>
<td>29</td>
<td>0.5</td>
<td>20</td>
</tr>
<tr>
<td>SEK</td>
<td>2.5</td>
<td>8</td>
<td>2.2</td>
<td>8</td>
<td>2.7</td>
<td>9</td>
</tr>
<tr>
<td>NZD</td>
<td>0.6</td>
<td>16</td>
<td>1.1</td>
<td>13</td>
<td>1.9</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: BIS, April 2016.
7. China is opening its equity market to international investors

China's deepening integration into global financial markets provide opportunities to international investors as they look to diversify their exposure to a market where the majority of investors have historically had no access. However there remain outstanding questions on the appropriate allocation and trading schemes to accomplish this. For example, when do investors need to review their current China portfolios in the light of the opening of the mainland Chinese equity market? Do investors have a diversified representation of the Chinese economy? Do their existing allocations support changes in accessibility of the China share classes and its future economic shift?

As China continues to open its financial markets to international investors, it will become increasingly important for investors to understand the profile of each to make informed decisions around their China equity allocations. For example, China's listed equity markets will come to dwarf the rest of the emerging markets (Chart 31). In the FTSE Emerging Markets All Cap China A Inclusion (No Quota) Index, exposure to China A Shares makes up nearly half of the total China weight, while in contrast China A Shares are not currently included in the FTSE China Index.

Chart 31: China's A Shares represent a large weight within emerging market indexes.

It will become increasingly important for foreign investors to understand the onshore market profile to make informed decisions around their China equity allocations.

China's listed markets will come to dwarf the rest of the emerging markets.

Investors will also need to understand that over half of the Chinese stock universe is represented by China A Shares to which they have had limited access historically.
Chart 32: Investor access to overseas listings (excludes China A Shares)

Source: FTSE Russell, data as at August 31, 2018, based on FTSE China International All Cap Index.

The FTSE China A All Cap Index comprises 1,919 China A Share constituents, representing 56% of the total Chinese equity market universe.

Chart 33: China A Shares are significantly larger than the other China share class listings

Source: FTSE Russell, data as at August 31, 2018, based on FTSE China International All Cap Index; the weight is calculated assuming the A Shares are included at their free float adjusted market capitalization (i.e. without FOL).

A growing but small number of investors have already ‘dipped their toes’ into the domestic Chinese market via strategic allocation in QFII/RQFII that has grown over time as they become more accustomed to the mainland market.

Others have used tactical allocations via futures and funds tracking key index benchmarks depending on whether they want exposure to China A Shares or related equities that are listed in Hong Kong and overseas markets.
8. FTSE Russell's approach to managing China's transition into global benchmarks

FTSE Russell continues to support investment choices through years of experience in the mainland China market. As the first international provider of mainland Chinese benchmarks and an index product range that demonstrates the breadth and depth of China’s equity and bond markets, FTSE Russell leads the way in providing solutions to its clients’ needs.

FTSE Russell acknowledges the efforts of the Chinese authorities to increase the accessibility of the China A Share market for international investors. Since March 2018, FTSE Russell has evaluated the China A market against the three access routes available to foreign investors:

- Stock Connect
- Qualified Foreign Institutional Investor (QFII)
- Renminbi Qualified Foreign Institutional Investor (RQFII).

As a result of recent enhancements to the Northbound Stock Connect program, including but not limited to a four-fold increase in the Daily Quota limit and the use of the Special Segregated Accounts (SPSA), which allows the facilitation of effective DvP via the Northbound Stock Connect program, China A Shares available via the Northbound Stock Connect route will be assigned as Secondary Emerging.

The following provides a high level summary of the first phase of FTSE Russell's China A share implementation plan:

- **Stock Selection**: constituents of the FTSE China A Stock Connect All Cap Index
- **Size Segments**: large, mid and small securities
- **Portion of China A Shares being added**: 25% of each security's investability weight
- **Implementation Commencing**: June 2019 (nine months’ notification)
- **Implementation Schedule**: Three tranches - June 2019, September 2019 and March 2020 (phase 1)
- **Size Tranche**: 20% in June 2019, 40% in September 2019* and 40% in March 2020*
- **Regional Review**: China to be reviewed separately from Asia Pacific ex Japan

* Please note that the implementation of Tranche 2 in September 2019 and Tranche 3 in March 2020 will be contingent upon the successful implementation of Tranche 1 in June 2019.
The future: the inclusion of China A Shares in FTSE Russell’s global equity indexes

How the addition of China’s A Shares in the FTSE Russell’s indexes will look like in the future will depend on the continued development of this market. The end goal is for all China A Shares to be included, not just those that are available via the Northbound Stock Connect program. Constituents will initially be weighted by foreign ownership limits (and not quota), and finally, where foreign ownership restrictions have been relaxed, companies will be weighted by their free floats.

Prior to the conclusion of phase 1 in March 2020, FTSE Russell will consider the inclusion of future tranches and any market developments that have taken place in the meantime. Such a future proposal would consider:

- Whether the size of the next phase should be based on a) any increase to the quota sizes since the commencement of phase 1, or b) whether phase 1 should be repeated (i.e., taking the total inclusion factor to 50%);
- Whether stocks outside of Stock Connect should be included (this will depend on enhancements to the QFII and RQFII access routes);
- The availability of DvP via the QFII and RQFII access routes;
- The timing of future tranches.

Chart 34. The growth of China A Shares in the FTSE Emerging Index

FTSE Russell will consider the inclusion of future tranches following the conclusion of the phase 1 inclusion.
FTSE Russell has a rigorous inclusion methodology

While an important first step, it takes more than just opening up a market to attract foreign capital. Investors must be assured that important criteria for market efficiency and quality (such as asset security, ease of access and trading) are met. Ensuring that those investor conditions are achieved lies at the foundation of the FTSE Russell country classification evaluation process.

China's classification process is a result of constructive engagement with Chinese regulators, stock market officials and international investors/custodians. To attain the Secondary Emerging classification, a market must satisfy nine of the 21 key market quality and regulatory criteria, referred to as the FTSE Quality of Markets Matrix.

Consistent with the Principles for Financial Benchmarks published in 2013 by International Organization of Securities Commissions, which promotes regulatory standards for the world's securities and futures markets, the operation of the country classification process is overseen by FTSE Russell's strong internal governance structure, supported by independent advisory committees consisting of senior market practitioners with extensive global market knowledge and experience.
FTSE Russell classifies countries according to objective criteria and engages with stock exchanges, regulators and central banks in those countries where markets are being considered for potential reclassification. The transparency of the process provides portfolio managers and asset allocators with a clear view of expected future index evolution.

To give investors time to plan for potential classification changes, FTSE Russell operates a Watch List of those countries with scores on the Quality of Markets matrix that have been judged to have met (or are becoming close to meeting) the technical criteria required for reclassification.

**China’s inclusion into the FTSE Global Equity Index Series (GEIS)**

FTSE Global China A Inclusion Indexes are available for market participants, with a choice of how to include China A-shares in global benchmarks. The series also includes FTSE China A Indexes and China A Stock Connect Indexes.

**Please refer to the following Link for further information on FTSE Russell Country Classification:** [https://www.ftse.com/products/downloads/FTSE-Country-Classification-Update_latest.pdf](https://www.ftse.com/products/downloads/FTSE-Country-Classification-Update_latest.pdf)
Table 3: China A Shares latest inclusion assessment in global equity benchmarks

<table>
<thead>
<tr>
<th>FTSE Quality of Markets</th>
<th>Secondary Emerging</th>
<th>China A Share via Stock Connect *</th>
<th>China A Share via QFII**</th>
<th>China A Share via RQFII**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal stock market regulatory authorities actively monitor market</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>No objection to or significant restrictions or penalties applied to the investment of capital or the repatriation of capital and income</td>
<td>Yes</td>
<td>Pass</td>
<td>Restricted</td>
<td>Restricted</td>
</tr>
<tr>
<td>Settlement – rare incidence of failed trades</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Custody – sufficient competition to ensure high quality custodian services</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Clearing and settlement – T+2 / T+3</td>
<td>Yes</td>
<td>T+0 / T+1***</td>
<td>T+0</td>
<td>T+0</td>
</tr>
<tr>
<td>Brokerage – sufficient competition to ensure high quality broker services</td>
<td>Yes</td>
<td>Pass</td>
<td>Restricted</td>
<td>Restricted</td>
</tr>
<tr>
<td>Liquidity – sufficient broad market liquidity to support sizeable global investment</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Transaction costs – implicit and explicit costs to be reasonable and competitive</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Transparency – market depth information / visibility and timely trade reporting process</td>
<td>Yes</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Source: FTSE Russell as at September 26, 2018.

* China A Share via Northbound Stock Connect to be reclassified as Secondary Emerging, commencing June 2019

** Other China A Share access routes - currently Unclassified

*** Indicates a rating change from March 2018 decision
The FTSE Russell Country Classification Process

FTSE Russell classifies stock markets as either Developed, Advanced Emerging, Secondary Emerging or Frontier following a rigorous, systematic and research-based process.

Markets are assessed against a set of 21 criteria referred to as the FTSE Quality of Markets Matrix, which is used to evaluate the suitability of inclusion based on each market’s scale, regulatory environment, liquidity, stability and ease of non-domestic investor access.

The FTSE Russell process was developed in conjunction with and is supported by an independent Country Classification Advisory Committee, which consists of senior market practitioners with a wide range of technical expertise in trading, portfolio management and custody services. With support from its independent advisors, FTSE Russell also actively engages with local authorities on technical issues or concerns that may require to meet international standards.

FTSE Russell maintains a “Watch List” for markets potentially approaching reclassification and, as a policy of engagement, to help them understand the steps needed to meet international standards.

On this basis, the Country Classification Advisory Committee makes recommendations to FTSE Russell’s Product Governance Board, which renders the final decision on classifications. The Annual Country Classification announcement is published each September and an Interim Update is published in March.

[http://www.ftserussell.com/sites/default/files/indexing-the-world_0.pdf](http://www.ftserussell.com/sites/default/files/indexing-the-world_0.pdf)
FTSE Russell’s approach to China’s onshore bonds classification

FTSE Russell provides a range of fixed income indexes designed to measure the performance of onshore Chinese yuan-denominated fixed-rate government, agency, and corporate debt issued in mainland China. These include the FTSE Chinese (Onshore CNY) Broad Bond, the FTSE Chinese (Onshore CNY) Broad Bond Index and the FTSE Chinese Government and Policy Bank Bond (CNGPBI) Indexes.

FTSE Russell’s multi-currency benchmarks were also the first to include Onshore Chinese government bonds in emerging market and regional government bond indexes – following a 2016 client consultation, it was announced in March 2017 that China would be added to the flagship EM local currency FTSE EMGBI; as well as the regional FTSE Asian Government Bond Index (AGBI). Inclusion was effective from February 2018, with weight staggering over three months. While FTSE Russell’s fixed income benchmarks offer broad tracking of China in standalone, emerging markets and regional benchmarks, it is not currently a member of our flagship multi-currency government investment grade FTSE World Government Bond Index (WGBI).

In the fixed income benchmarking world, credit quality has tended to supersede formal emerging market definitions, creating what are commonly referred to as “crossover markets” within flagship investment grade, multi-currency benchmarks for global portfolios. Benchmarks such as the FTSE World Government Bond Index (WGBI) are comprised of high credit quality government bond markets that are generally considered developed but have overlap with dedicated emerging markets benchmarks such as the FTSE Emerging Markets Government Bond Index (EMGBI). Examples of such crossover markets currently include South Africa, Mexico and potentially China.

FTSE Russell has recently completed a market consultation on our proposal for a robust and process-oriented fixed income country classification framework for local currency government markets. It will calibrate a Market Accessibility Level for a superset of local fixed-rate government bond markets with accessibility measured across four dimensions: Market, Macroeconomic and Regulation; Foreign Exchange and Fixed Income Derivatives; Technical and Market Structure; and Global Settlement and Custody. These levels will be formally incorporated into the inclusion criteria of flagship multi-currency FTSE Russell government benchmarks and available for use in custom indexes.

As with the equity framework, a Watch list of countries on the cusp of reclassification will be published and maintained with status updates provided each March and September. Inclusion of a market on the Watch List signals FTSE Russell’s intent to engage with governments, central banks and regulators to address specific feedback from investors on the fulfilment of the criteria for the proposed accessibility level. China government bonds will be added to this Watch List and assessed against the stated criteria of the framework for possible inclusion in the FTSE World Government Bond Index. The full FTSE Fixed
Income Country Classification framework and a complete Watch List will be published later this year.

Our goal as a multi-asset index provider is to offer index users and stakeholders clarity and transparency into the country classifications that underpin our benchmark construction for both fixed income and equity markets, while acknowledging and preserving the clear and important nuances between the two asset classes.

**Conclusion**

China has achieved an extraordinary economic transformation over the last fifty years to become the world’s second largest economy. Political stability and long-term reforms have urbanized its vast population and driven its expansionary policies into manufacturing and export-orientated growth. Lifestyles are changing with increasing demand for better healthcare and consumer services by a rapidly growing middle class and a focus towards automation and robotics by a shrinking working population. In the process of this gigantic undertaking, there has been costs to the environment and financial stability. But these are being addressed and redirected into new opportunities. China today is becoming a dominant player in the green economy and reforming its financial system to provide a robust corporate governance framework in which international investors can operate.

Historically, international investors have had limited access to China’s vast domestic market. Today there are a number of investment access routes as the country opens its local market to international investors. As more overseas investors enter China’s onshore markets, they will need to review their existing investment strategy and determine whether they have sufficient representation of the Chinese economy and their allocations are diversified across the different China share classes.

FTSE Russell is delighted to announce the introduction of China A Shares into its global equity benchmarks. As a result of recent enhancements to the Northbound Stock Connect program, including but not limited to a four-fold increase in the Daily Quota limit and the use of the Special Segregated Accounts (SPSA), which allows the facilitation of DvP, China A Shares available via the Northbound Stock Connect route will be classified as a Secondary Emerging market.

For fixed income, FTSE Russell has recently completed a market consultation on our proposal for a robust and process-oriented fixed income country classification framework for local currency government markets. China has been included on the Watch List of markets for potential future promotion.
9. Appendix

Table 1: The table below compares the different equity access schemes and summarizes important differences (June 2018).

<table>
<thead>
<tr>
<th>Scheme Launch Year</th>
<th>QFII</th>
<th>RQFII</th>
<th>Northbound Stock Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2011</td>
<td>2014</td>
</tr>
</tbody>
</table>

Eligible Entities

- **Asset Management**
  - Having operated fund business for over 2 years
  - Not less than US$500 million in securities asset under management in the last financial year

- **Insurance companies**
  - Established for over 2 years
  - Not less than US$500 million in securities asset under management in the last financial year.

- **Securities companies**
  - Having operated securities business for over 5 years
  - Not less than US$500 million in net assets and not less than US$5 billion in securities asset under management in the last financial year.

- **Commercial banks**
  - Having operated banking business for over 10 years
  - Not less than US$300 million in tier one capital and not less than US$5 billion in securities asset under management in the last financial year.

- **Others (pension fund, charity fund, endowment fund, trust company, government investment institution)**
  - Established for over 2 years
  - Not less than US$500 million in securities asset under management in the last financial year.

- **QFII**
  - Having operated fund business for over 2 years
  - Not less than US$500 million in securities asset under management in the last financial year.

- **RQFII**
  - Qualified financial institutions registered and having its principal place of business in the approved RQFII sites with asset management license issued by the competent local securities regulator, and have already conducted relevant asset management business.
  - Total 19 RQFII sites: Australia, Canada, Chile, France, Germany, Hong Kong, SAR, Hungary, Ireland, South Korea, Luxembourg, Malaysia, Qatar, Singapore, Switzerland, Thailand, UAE, UK, United States, and Japan.
  - Note: Shares listed on the ChiNextBoard of the SZSE will be available only to institutional professional investors.

- **Northbound Stock Connect**
  - Enable eligible Hong Kong investors investing to Shanghai Stock Exchange (SSE) & Shenzhen Stock Exchange (SZSE)
  - All Hong Kong and overseas institutional investors
  - All Hong Kong and overseas individual investors
  - Note: QFII license holder is allowed to apply for RQFII as well.
<table>
<thead>
<tr>
<th>QFII</th>
<th>RQFII</th>
<th>Northbound Stock Connect</th>
</tr>
</thead>
</table>
| **Investment Scope** | Shares, bonds and warrants listed and transferred on the stock exchange:  
- Fixed income products traded on China Interbank Bond Market.*  
- Securities investment funds Index futures.  
- Small and Medium-sized Enterprise (SMEs) Private Placement Bonds.  
- Other financial instruments as approved by CSRC.  
- Subscription to IPO, additional issuance, rights issues, and convertible bond issuance.  
- FX derivatives (for hedging purposes). | Same as QFII | Currently limited to:  
- SH-HK Northbound SC:  
  - All the constituent stocks of the SSE 180 Index and the SSE 380 Index.  
  - The SSE-listed shares which are dual-listed in Stock Exchange of Hong Kong (SEHK) (A+H Shares)  
  - Excluding: B Shares and shares under “risk alert”.  
- SZ-HK Northbound SC  
  - All the constituent stocks of the SZSE Component Index and SZSE Small/Mid Cap Innovation Index with market capitalization of >RMB 6bn  
  - The SZSE-listed shares which are dual-listed in SEHK (A+H shares)  
  - Excluding: B Shares and shares under “risk alert” |
| **Scheme Currency** | USD and other foreign currencies (converted to RMB onshore before investment commences). | RMB | RMB |
| **Quota Management** | Unique allowable investment allocation to each financial institution; funding is converted in RMB and registered with SAFE.  
- QFIIs may obtain a Basic Quota up to a certain percentage of their asset size through filing with SAFE.  
- When applying for the investment quota which exceeds the Basic Quota, QFII shall obtain SAFE’s approval.  
When applying for additional quota for existing QFIIs:  
- approved quota + additional quota < Basic Quota: filing with SAFE.  
- approved quota + additional quota > Basic Quota: shall obtain SAFE’s approval. | Allocated to offshore regions  
- RQFIIs may obtain a Basic Quota up to a certain percentage of their asset size through filing with SAFE.  
- When applying for the investment quota which exceeds the Basic Quota, RQFII shall obtain SAFE’s approval.  
- When applying for additional quota for existing RQFIIs:  
  - approved quota + additional quota < Basic Quota: filing with SAFE.  
  - approved quota + additional quota > Basic Quota: shall obtain SAFE’s approval.  
  - A Basic Quota will be granted according to below benchmark:  
    - For QFII or its group | Daily quota of the Northbound Stock Connect: RMB 52 billion.  
Note: The quota is on a ‘first come first served’ basis.  
SEHK Subsidiary shall continuously monitor the daily quota usage of Northbound Trading:  
- Daily remaining quota=daily quota allowance – placed purchase orders + executed sale orders + cancelled/rejected purchase orders + difference between order price and execution price.  
- Once the daily quota limit is triggered during continuous auction period, SEHK Subsidiary shall stop receiving |
<table>
<thead>
<tr>
<th>QFII</th>
<th>RQFII</th>
<th>Northbound Stock Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A Basic Quota will be granted according to below benchmark:</td>
<td>- For QFII or its group company's asset (or assets under management) being mostly outside of mainland China: Basic Quota = USD100 million + 0.2% * average asset size or securities assets under management in the past three years - approved QFII Quota (RMB equivalent);</td>
<td>purchase orders while sale orders can be accepted.</td>
</tr>
<tr>
<td>- For QFII or its group company's asset (or assets under management) being mostly within mainland China: Basic Quota = RMB 5 billion + 80% * asset size or securities assets under management in the past one year - approved RQFII Quota (USD equivalent);</td>
<td>- For RQFII or its group company's asset (or assets under management) being mostly within mainland China: Basic Quota = RMB 5 billion + 80% * asset size or securities assets under management in the past one year - approved QFII quota (RMB equivalent);</td>
<td></td>
</tr>
<tr>
<td>- Sovereign funds, central banks, and monetary authorities may obtain corresponding investment quota based on the investment needs in domestic capital market, and not be restricted by a certain percentage of their asset size</td>
<td>- Where a RQFII fails to effectively utilize the investment quota within 1 year since filing or approval of investment quota upon obtaining the investment quota, SAFE has the right to revoke part or all of its unused Investment Quota.</td>
<td></td>
</tr>
<tr>
<td>- Not exceeding USD 5 billion (including foreign central banks, monetary authorities and sovereign funds);</td>
<td>- Adopted Balance Management regime: the accumulative net remitted-in amount by QFIIs shall not exceed the investment quota filed with or approved by SAFE.</td>
<td></td>
</tr>
<tr>
<td>- Not less than USD 20 million</td>
<td>- Sell or transfer of quota is prohibited.</td>
<td></td>
</tr>
<tr>
<td>- Where a QFII fails to effectively utilize the investment quota within 1 year since filing or approval of investment quota upon obtaining the investment quota, SAFE has the right to revoke part or all of its unused Investment Quota.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Regulations &amp; Restrictions</td>
<td>QFII</td>
<td>RQFII</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>No lock-up period.</td>
<td>No lock-up period.</td>
</tr>
<tr>
<td></td>
<td>Needs to be prefunded.</td>
<td>RQFIs are exempted from business tax on gains derived from the trading of securities in China. However, they are required to pay 10% corporate income tax of dividends, bonuses and interest income gained in China.</td>
</tr>
<tr>
<td>FX derivatives trading are permitted: To engage in the onshore FX derivative trading following ‘trading on actual needs’ principle for the purpose of hedging FX risk.</td>
<td>Positions of FX derivatives not to exceed their onshore asset value (ex cash) as of the previous month-end.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FX derivatives can be adjusted on a monthly basis, within 5 working days of the following month to ensure compliance with the ‘trading on actual needs’ principle.</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Trading Mechanism | - For stock exchange trading: each QFII can appoint 3 domestic securities companies at Shanghai and Shenzhen stock exchanges respectively for securities trading. | Same as QFII | Follow the same trading rules as China A Share market |
|                   | - For CIBM trading: QFIIs shall appoint an interbank bond market settlement agent with international clearing capacity for trading and settlement. | | Trading currency in RMB. |
|                   | For SH-HK SC: SEHK will establish a wholly-owned subsidiary in Shanghai to receive orders to trade in SSE securities from Exchange Participants and route them onto SSE’s trading platform for execution on SSE. | | For SH-HK SC: SEHK has established another SEHK Subsidiary in Qianhai Shenzhen, whose principal function is to receive orders to trade in SZSE Securities from SEHK Participants and route them onto SZSE’s trading platform for matching and execution on SZSE. |
|                   | When trading mainland stocks investors can only place limit orders; orders for Shenzhen- and Shanghai-traded stocks must be within the price limit of +/-10% based on the securities’ previous closing price. Buy orders of A Shares must be in board lot of 100 shares, while sell orders can be in odd lots. Currently all Shanghai and Shenzhen-listed stocks are traded in renminbi. | | When trading mainland stocks investors can only place limit orders; orders for Shenzhen- and Shanghai-traded stocks must be within the price limit of +/-10% based on the securities’ previous closing price. Buy orders of A Shares must be in board lot of 100 shares, while sell orders can be in odd lots. Currently all Shanghai and Shenzhen-listed stocks are traded in renminbi. |</p>
<table>
<thead>
<tr>
<th>FTSE Russell</th>
<th>Understanding China’s Economic Development: Opportunities and Challenges for International Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>QFII</td>
<td>RQFII</td>
</tr>
<tr>
<td>Investors are not allowed of conducting day trading of mainland-listed securities. It means A Shares purchased by investors on a trading day cannot be resold before settlement which is on the following business day. Investors are only allowed to trade on the other markets when both markets are opened. Investors are unable to trade A Shares on July 1st and June 30th.</td>
<td></td>
</tr>
<tr>
<td>Foreign Ownership Limit</td>
<td>- Shareholding by a foreign investor through a QFII in a single listed company shall not exceed 10% of the total number of shares of the listed company; -Aggregate shareholding of A Shares by all foreign investors in a single listed company shall not exceed 30% of the total number of shares of the listed company.</td>
</tr>
<tr>
<td>Settlement &amp; Clearing</td>
<td>T+0 (securities); T+1 (cash)</td>
</tr>
<tr>
<td>Brokerage Services</td>
<td>Can appoint up to 3 brokers in Shanghai and 3 brokers in Shenzhen. Although there are a number of brokers covering the two exchanges, these restrictions limit choice and may be an issue around major index rebalances in the event that the primary broker encounters any issues.</td>
</tr>
<tr>
<td>Market Cost</td>
<td>Fees and taxes applicable to normal A-share trade: -Securities Management Fee - 0.00200% of the consideration of a transaction per side (Charged by CSRC) -Transfer Fee - Equities: 0.002% on the consideration payable by both</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>QFII</td>
<td>RQFII</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>the buyer and seller levied by the China Securities</td>
<td>the buyer and seller levied by the China Securities</td>
</tr>
<tr>
<td>Depository and Clearing Corp (CSDC) Shanghai and Shenzhen.</td>
<td>Depository and Clearing Corp (CSDC) Shanghai and Shenzhen.</td>
</tr>
<tr>
<td>- Bonds: 0.005% is imposed on par value of shares transferred per trade, payable by transferor, with the minimum charged of CNY 10 and maximum of CNY 10000 levied by the CSDC Shanghai and Shenzhen. No charge for Bond Code segment 019 and 020.</td>
<td>- Bonds: 0.005% is imposed on par value of shares transferred per trade, payable by transferor, with the minimum charged of CNY 10 and maximum of CNY 10000 levied by the CSDC Shanghai and Shenzhen. No charge for Bond Code segment 019 and 020.</td>
</tr>
<tr>
<td>- Stamp Duty</td>
<td>- Stamp Duty</td>
</tr>
<tr>
<td>- 0.10000% of the consideration of a transaction on the seller (Charged by SAT)</td>
<td>- 0.10000% of the consideration of a transaction on the seller (Charged by SAT)</td>
</tr>
<tr>
<td>For market cost of CIBM trades, please refer to those specified under CIBM section.</td>
<td>For market cost of CIBM trades, please refer to those specified under CIBM section.</td>
</tr>
</tbody>
</table>

For more information about our indexes, please visit ftserussell.com.


FTSE Russell® is a trading name of FTSE, Russell, FTSE GDCM, MTS Next Limited, Mergent, FTSE FI and YB. “FTSE®”, “Russell®”, “FTSE Russell®”, “MTS®”, “FTSE4Good®”, “ICB®”, “Mergent®”, “WorldBIG®”, “USBIG®”, “EuroBIG®”, “AusBIG®”, “The Yield Book®”, and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, FTSE GDCM, Mergent, FTSE FI or YB. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided “as is” without warranty of any kind. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, express or implied, either as to the accuracy, timeliness, completeness, merchantability of any information or of results to be obtained from the use of the FTSE Russell Products or the fitness or suitability of the FTSE Russell Products for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell Products is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any error (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing contained in this document or accessible through FTSE Russell Products, including statistical data and industry reports, should be taken as constituting financial or investment advice or a financial promotion.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back- tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

This publication may contain forward-looking assessments. These are based upon a number of assumptions concerning future conditions that ultimately may prove to be inaccurate. Such forward-looking assessments are subject to risks and uncertainties and may be affected by various factors that may cause actual results to differ materially. No member of the LSE Group nor their licensors assume any duty to and do not undertake to update forward-looking assessments.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group data requires a licence from FTSE, Russell, FTSE GDCM, MTSNext, Mergent, FTSE FI, YB and/or their respective licensors.
About FTSE Russell

FTSE Russell is a leading global index provider creating and managing a wide range of indexes, data and analytic solutions to meet client needs across asset classes, style and strategies. Covering 98% of the investable market, FTSE Russell indexes offer a true picture of global markets, combined with the specialist knowledge gained from developing local benchmarks around the world.

FTSE Russell index expertise and products are used extensively by institutional and retail investors globally. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for asset allocation, investment strategy analysis and risk management.

A core set of universal principles guides FTSE Russell index design and management: a transparent rules-based methodology is informed by independent committees of leading market participants. FTSE Russell is focused on index innovation and customer partnership applying the highest industry standards and embracing the IOSCO Principles. FTSE Russell is wholly owned by London Stock Exchange Group.

For more information, visit [ftserussell.com](http://ftserussell.com).

To learn more, visit [ftserussell.com](http://ftserussell.com); email [info@ftserussell.com](mailto:info@ftserussell.com); or call your regional Client Service Team office:

<table>
<thead>
<tr>
<th>Region</th>
<th>Office</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMEA</td>
<td>+44 (0) 20 7866 1810</td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td>+1 877 503 6437</td>
<td></td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>Hong Kong +852 2164 3333</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tokyo +81 3 4563 6346</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sydney +61 (0) 2 8823 3521</td>
<td></td>
</tr>
</tbody>
</table>