

# Revisiting the case for investing in China real estate: Focus on fundamental and secular trends

This document is for Qualified Investors in Switzerland, Professional Clients only in Dubai, Continental Europe, Ireland and the UK; for Institutional Investors only in the United States, Australia and Singapore; in New Zealand for wholesale investors (as defined in the Financial Markets Conduct Act); for Professional Investors in Hong Kong; for Qualified Institutional Investors in Japan; for Qualified Professional Investors only in Republic of Korea; for certain specific sovereign wealth funds in the People's Republic of China; in Taiwan for Qualified Institutions/Sophisticated Investors; for Qualified Institutional Investors and/or certain specific institutional investors in Thailand; for certain specific institutional investors in Brunei and Indonesia and for qualified buyers in Philippines for informational purposes only; in Canada, this document is restricted to Accredited Investors as defined under National Instrument 45-106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. Please do not redistribute this document.

## Introduction

Just a few years ago, there was more optimism around China's economic outlook - an extended (though moderating) growth cycle, an ambitious Belt and Road Initiative, and a visionary goal of "Made in China 2025" - made the country a target for global investors.

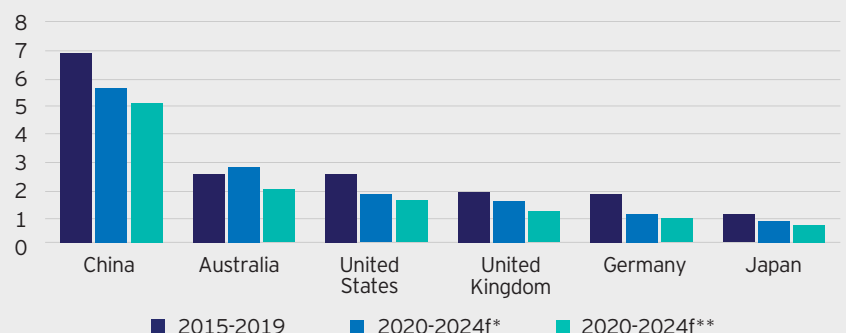
Then came the US-China trade/tech war, and more recently COVID-19, marking China's first economic contraction since 1976. How will China's role change on the global stage post-crisis and what does it mean for Chinese real estate? In this time of pervasive uncertainty and volatility, it is particularly important for investors to distinguish between near-term impacts, which make investors hesitant to make investment decisions, and the structural drivers underpinning longer-term growth.

The situation is very fluid, and a lot may happen in the coming months. In this paper, instead of making predictions of actions and retaliation between the superpowers, we try to look beyond the current uncertainties and ground our analyses of China's future beyond the crises - by revisiting China's investment themes, looking at if/how policy responses may bring China out of the woods, and what a potentially peaking globalization could mean for portfolio allocation. We would also look at some myths of the Chinese real estate, to help investors attain a level-headed nuanced understanding of what lies ahead for China.

To sum up, despite the softer economic outlook in the near-term:

- We see the structural growth drivers for Chinese real estate - urbanization, infrastructure and consumption - have not derailed.
- The recent incidents and crises are pushing the Chinese government to modify and expedite some structural reforms; we expect the evolution of these secular growth drivers to continue in a more refined and targeted way.
- The potential deglobalization could mean diversification to Chinese real estate more essential than ever before. That said, short term shocks and volatilities are inevitable - picking the more resilient markets and sectors are crucial to secure more defensive incomes going forward.

**Figure 1 - Average annual real GDP growth, 2015-24f (%)<sup>1</sup>**



Source: Invesco Real Estate using data from Oxford Economics as of June 2020  
 \*Forecast as of Jan 20 \*\*Forecast as of Jun 20

## What is the significance of China in the global context?

China is a global power in scale. It has been the world's largest goods trading nation since 2013 and became the world's largest economy in purchasing-power-parity terms in 2014. Despite its slowing growth due to the escalating geopolitical tension and the COVID-19 pandemic, China is still expected to grow at a speed at least twice as fast as other major economies (Figure 1). Since the COVID-19 outbreak, the Chinese authorities have exercised strong administrative measures promptly (eg. swift and aggressive lockdown, digital contact tracing) and demonstrated sooner containment of the virus spread. Together with the rather self-sufficient supply chains, China is on its track to normalcy<sup>2</sup>, barring the risk of the another wave of virus outbreak.

As the impacts of the trade war and coronavirus gradually surface, it is evidenced that the world is highly integrated, yet the supply chains can be brittle. From textiles to electronic products, the global value chains are deeply embedded, and China is now one of the major centres of the global value chains. According to UNCTAD, as of today, about 20% of global trade in manufacturing intermediate products originates in China (up from 4% in 2002). Based on another study by McKinsey Global Institute in 2019, even before the escalating tension with the US, China has become less exposed to the rest of the world, but the world had an increasing reliance on China. An abrupt slowdown of China exports in intermediate goods would affect the productive capacity in the rest of the world (Figure 2).

Yet, the economic development within China is far from even. The three megalopolises (Figure 3), altogether accounting for 43% of China's economy but only 8% of land area and 33% of population, are the growth engines of China.

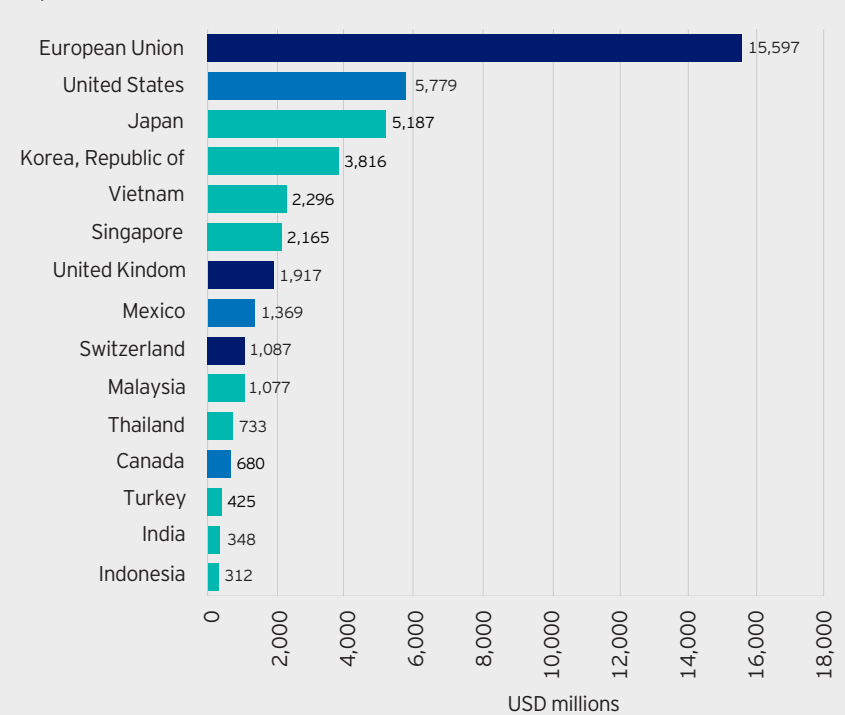
## How about the risks associated to the geopolitical tension and COVID-19?

In the coming months, even though the supply disruption in China may alleviate, the global demand shock may become more alarming. On top of that, the health crisis is urging three of the world's four largest economies to reduce trade dependence on China and cast long shadows in the years ahead.

However, the global supply chains are complex. The recent events may urge some manufacturers to diversify their production lines, but it is not as easy as it seems, particularly in a low growth era when production costs and capital expenditure are important considerations. Besides, China is the world's largest consumer market. There

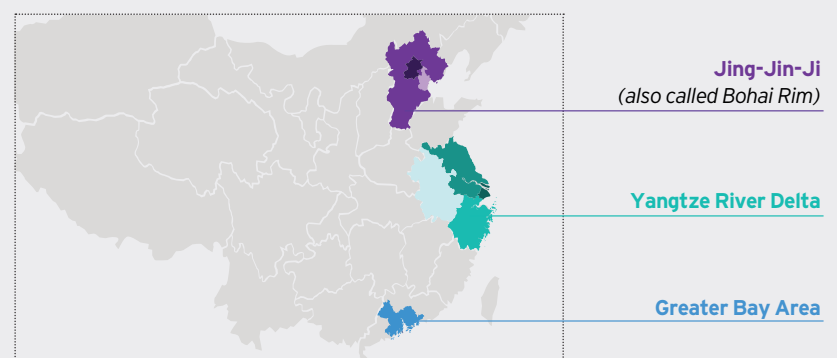
**Figure 2 - Trade impact of COVID-19 pandemic**

### Top 15 most affected countries



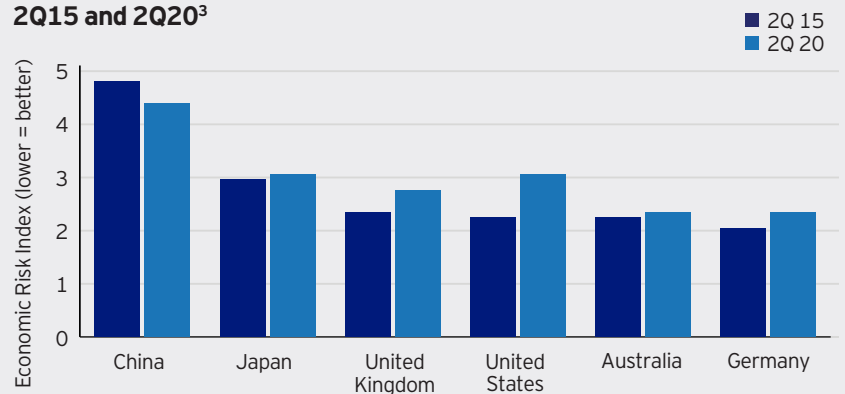
Source: UNCTAD estimates. Estimates are based on a drop of Chinese supply in February 2020 as measured by the Chinese PMI. The list does not include Taiwan Province of China and Hong Kong, SAR of China.

**Figure 3 - The three megalopolises in China**



Source: Invesco Real Estate, July 2020.

**Figure 4 - Overall Economic Risk Indices of select countries, 2Q15 and 2Q20<sup>3</sup>**



Source: Invesco Real Estate using data from Oxford Economics as of June 2020.

**Table 1 - Understanding China's three megalopolises**

These megalopolises have different positionings and their economic development is more advanced than the rest of China. Due to their industry diversity, more favorable levels of human capital, social infrastructure (eg. education and healthcare) and technological resources, these megalopolises have been more resilient riding through the previous downcycles. Despite the primary cities may constrain the population inflow, the diverse dynamics among the cities within these clusters are expected to facilitate the urbanization in the rest of the megalopolises. At the time of writing (July 2020), these three regions are also seeing sooner resumption of economic activities than many lower tier cities.



Positioning	Political, cultural and ducation centre; best universities; high concentration of unicorns	Most integrated city cluster, with a complete supply chain network	Most open region to foreign investment; diverse culture with the most immigrant population
Economic scale	<ul style="list-style-type: none"> <li>- 8.5% of China's GDP</li> <li>- On par with Mexico</li> </ul>	<ul style="list-style-type: none"> <li>- 23.9% of China's GDP</li> <li>- Larger than the UK</li> </ul>	<ul style="list-style-type: none"> <li>- 10.9%* of China's GDP</li> <li>- Larger than Australia</li> </ul>
Cities top in competitiveness & innovation	<ul style="list-style-type: none"> <li>- Beijing</li> <li>- Tianjin</li> </ul>	<ul style="list-style-type: none"> <li>- Shanghai</li> <li>- Hangzhou</li> <li>- Suzhou</li> <li>- Nanjing</li> </ul>	<ul style="list-style-type: none"> <li>- Shenzhen</li> <li>- Guangzhou</li> <li>- Hong Kong</li> </ul>

Source: CEIC as of June 2020. \*Excluding Hong Kong and Macau

is sufficient need to have goods “made in China for China”, serving the country’s 1.4 billion consumers. There is basically no substitute comparable to the comprehensive supply chains in China and at the same time offering a large consumer market. Furthermore, China has been gradually moving up the value chain over the years and manufacturing industries now make up of 45.4% of the economy compared to 47.2% five years ago. Hence, even in a case of some supply chain outflow, we believe the resulting impact to the economy may not be as big as how people would perceive.

According to Oxford Economics, despite the uncertainties, the broader economic risks in China have improved. Figure 4 shows their Economic Risk Index scores<sup>4</sup> in major economies. While China’s absolute risk score is still higher than that of the mature markets, its improvement over the period suggests the country is much better positioned today than it was five years ago. On the contrary, the Economic Risk Indices in some developed countries have considerably deteriorated during the same period.

### What are being done to revive the economy and advance structural change?

After the lockdown in 1Q20, to revitalize the economy, similar to many others in the world, China responded quickly by launching emergency rescue packages. Even at the local level, city and provincial government officials have been providing extensive and proactive support to the private sector (eg. obtaining medical gear, arranging worker to return, getting regulatory approvals). At the time of writing, although the international borders are still largely closed, domestic economic activities are largely returning to pre-COVID level. However, in the months ahead, investors would still question how effective the policies are to bring China back on its feet, and how to unlock opportunities when the broader property market fundamentals are weakening?

package and policy responses are directed to the targeted areas as much as possible. These include:

#### A.) Support to the private sector particularly the SMEs

- Loan extensions, lower interest rates and dedicated credit growth by the larger banks;
- Tax cuts and fee reductions to reduce corporate burden by over RMB 2.5 trillion in 2020.

#### B.) Deepening financial market reforms

- Foreign ownership restrictions in the financial sector is now abolished; several global money managers<sup>5</sup> have already applied to set up wholly owned fund management companies in China;
- A pilot public REIT program was announced in April 2020, adding an investment channel onshore.

#### C.) New Economy<sup>6</sup> and New Infrastructure<sup>7</sup> development as national strategic focus (Figure 5)

- To launch around RMB 3.75 trillion local government special bonds in 2020 (up by RMB 1.6 trillion from 2019) focusing on New Infrastructure;
- To prioritize the growth of these industries by providing funding and tax incentives to encourage venture investment and easier access to capital markets.

With a mix of fiscal, monetary and investment policy tools to channel capital to the areas in need, the Chinese government targets to create 9 million new jobs in 2020<sup>8</sup>. Specifically, the financial reforms are expected to enhance the transparency and governance of the financial sector, widen the investment options domestically and redirect household savings from investing in the housing market to the capital-intensive commercial properties and infrastructure projects.

On the New Economy development front, the commercialization of 5G technology and the application of industrial internet of things have higher multiplier effect. They are expected to create new consumption demand, reduce the

reliance of technological imports, transform the supply chains and facilitate the logistics industry to be more efficient in the long run.

We have identified certain industries, such as the financial sector, advanced manufacturing, healthcare, telecommunication, to become the leading drivers for real estate demand before COVID-19. If the rescue policies are executed properly, these sectors are expected to recover sooner, resulting in a stronger growth of demand in modern logistics, business parks focusing on New Economy industries and , data centers and to some extent offices in the tier 1 cities. In short, when is happening now has not changed, but reinforced, the real estate trends.

### Portfolio-enhancing characteristics of Chinese real estate and Investment timing

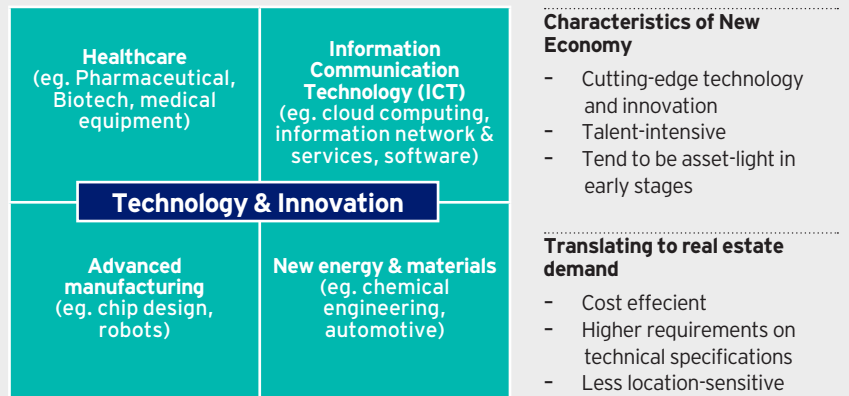
China is the second largest real estate market in Asia Pacific, with investable stock valued at USD\$540 billion, or 23% of the regional total<sup>9</sup>. The market is growing importance as a destination for cross-border activity and is only likely to grow going forward, as China continues to widen its doors.

Apart from the growing market size, improving liquidity and deepening capital markets, property-level total returns in China offer some of the lowest cross-regional correlations of any country in Asia Pacific, offering a potential diversifying element to one's portfolio. As shown on the All-Property efficient frontier, adding Chinese real estate to a pan-Asian portfolio potentially has the dual benefit of not only lowering risk through improved diversification, but enhancing returns as well. (Figure 7)

2019 was a remarkable year for the property investment market in China. Because of the deleveraging campaign, the tightened credit environment made it very hard for domestic investors to invest in real estate. Even the low leverage domestic insurance companies were shy away from investing in real estate as "advised" by the regulators. Many foreign investors took advantage of this window of opportunity to increase their exposure in China (Figure 8). Having said that, according to RCA, US investors only accounted for 4.6% of all commercial real estate transactions<sup>10</sup> in China during 2010-19. In a worst-case scenario where some US investors are required to sell off their real estate holdings in China, we expect the impact to the market pricing to be temporary and limited.

According to RCA, tier 1 cities in China are indeed fairly liquid comparing with their global peers (Figure 9). Therefore, apart from foreign funds who have long been seeking higher return opportunities for years, major sovereign wealth funds have raised their China allocation and several foreign insurance

**Figure 5 - New Economy industries in China**



**Characteristics of New Economy**

- Cutting-edge technology and innovation
- Talent-intensive
- Tend to be asset-light in early stages

**Translating to real estate demand**

- Cost efficient
- Higher requirements on technical specifications
- Less location-sensitive

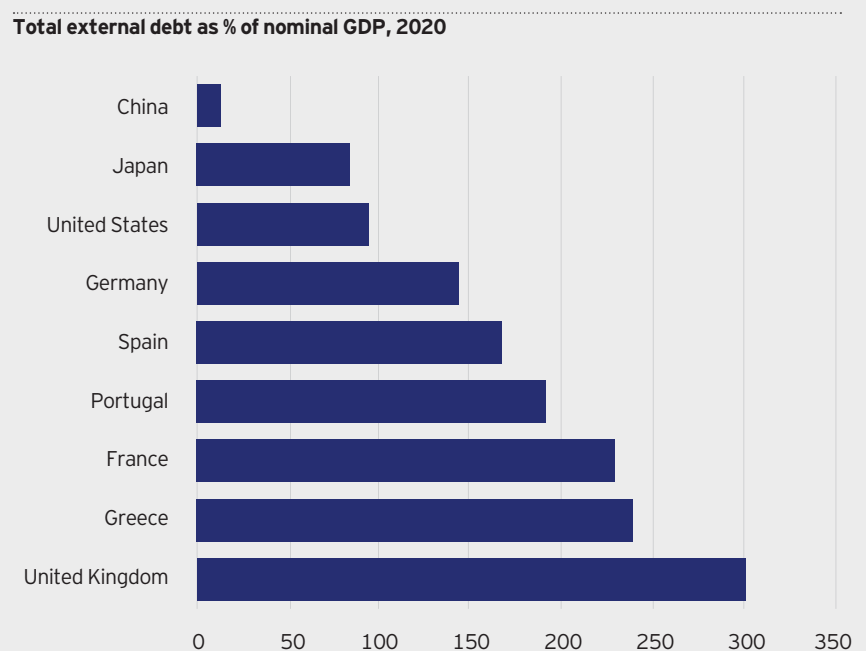
Source: Invesco Real Estate as of July 2020.

### Myth 1: How close is China from a debt crisis?

The impression that China, facing significant debt stress, is heading for a debt crisis has been fairly pervasive. Yet, debt stress alone has not, historically, necessarily led to a debt crisis. There is no doubt that China's debt level is rising, as so is the rest of the world. The Chinese government has learnt a lesson from the post-GFC era which made them launch the deleveraging campaign in 2016. This time round, the monetary and fiscal stimuli are more conservative than other countries.

Crisis needs triggers. Some common triggers for debt crises include simultaneous economic downturn, capital flights, commodity price collapse, and a "risk off" sentiment among investors - circumstances that collectively make it difficult for a country from repaying or refinancing its debt, particularly external debt which the lenders are not controlled by the country. On this front, China's externally held debts are a much smaller share of GDP than in other countries (Figure 6). This enclosed financial ecosystem allows for the possibility of government bailouts. The insular nature of national debt could help China weather the storm to some extent, thus lessening the risk of the credit bubble bursting in the near term.

**Figure 6 - Total external debt as % of nominal GDP, 2020**



Source: Oxford Economics, as of June 2020. \*Figure for China is a forecast, as of June 2020.

companies also became more active in China in recent years, aiming for a longer term holding of Chinese real estate.

The government has made it clear that the monetary easing is targeted and not meant to be channeled to property investments, but the broad base liquidity loosening may eventually bring back the appetite among domestic funds once the economy finds its footing. In 1Q20, there has been a 13% y-o-y decline in FDI in China, largely due to COVID-19. The trend reversed in April when FDI grew 8.6% y-o-y. Although FDI alone will not drive the overall economic recovery, as the share of FDI inflow was less than 2% of total investment in fixed assets in 2019, it is a particularly important signal the Chinese government wants to show to the world at times when geopolitical tension is rising. We expect the government to be more accommodative to foreign investors in the near to medium term and the property sectors riding on policy tailwinds such as modern logistics, data centers and business parks to capture even more interest going forward.

Investing in Chinese real estate is less straight forward than other asset classes like fixed incomes and equities, and to certain extent harder than investing in many major markets' real estate. Although China is gradually developing its domestic REIT market, it will still take time to resolve key issues before it becomes more transparent and truly institutionalized. Meanwhile, the channels to access Chinese real estate are mainly through direct investments (adopted mostly by SWFs and insurance companies with on-the-ground presence), developers' stocks and bonds, and private real estate funds. For investors without local presence and have low tolerance to the public markets' volatilities, private real estate funds with on-the-ground execution teams provides a more viable channel to gain China exposure.

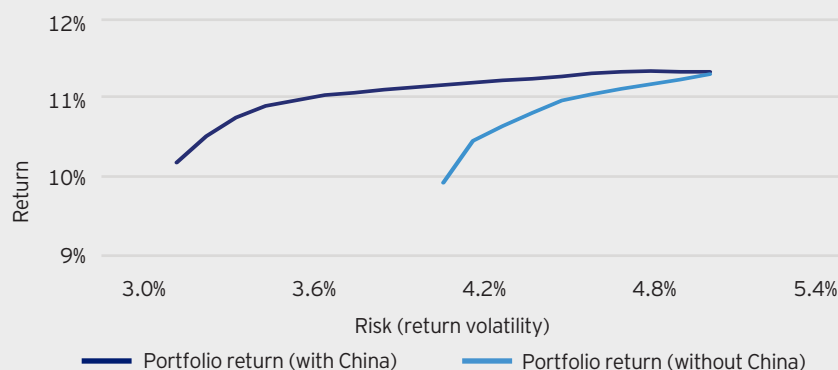
**Figure 7 - Correlation matrix and efficient frontier<sup>11</sup>**

-0.4 < r < 0.4

**Correlation matrix**

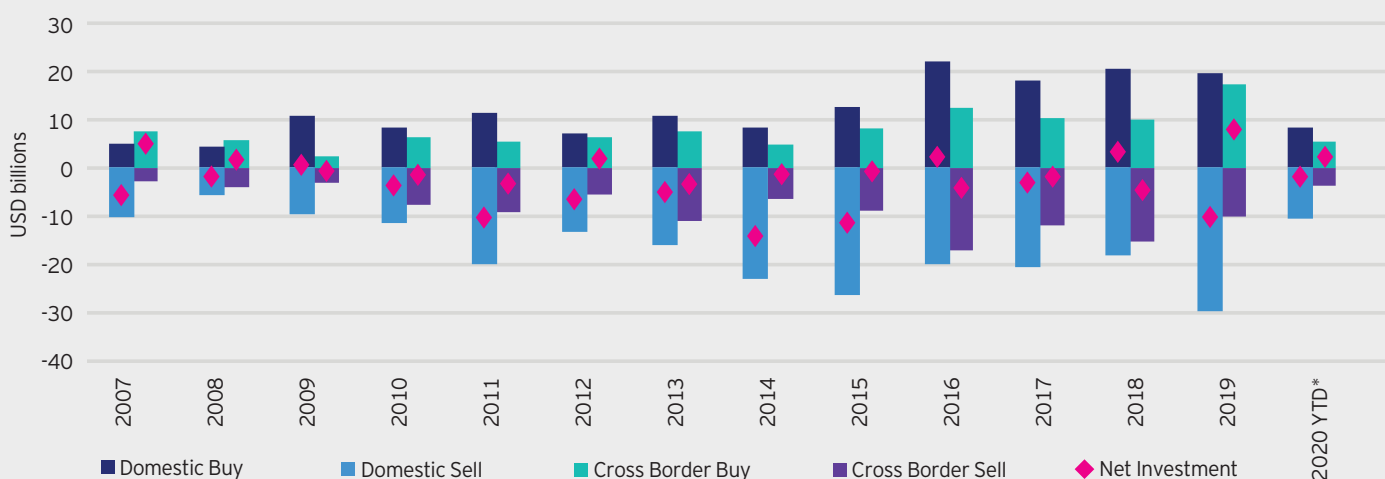
	Australia	Japan	Korea	China	Hong Kong	Singapore	New Zealand
Australia	1.00	0.92	0.61	0.06	0.31	0.73	0.87
Japan	0.92	1.00	0.57	-0.12	0.01	0.62	0.93
Korea	0.61	0.57	1.00	-0.07	0.39	0.84	0.62
China	0.06	-0.12	-0.39	1.00	0.34	0.30	-0.10
Hong Kong	0.31	-0.01	0.39	0.34	1.00	0.42	0.18
Singapore	0.73	0.62	0.84	0.30	0.42	1.00	0.71
New Zealand	0.87	0.93	0.62	-0.10	0.18	0.71	1.00

**Efficient frontier - Asia Pacific all Property (hypothetical portfolio)**



Source: Invesco Real Estate based on data from MSCI, as of July 2020

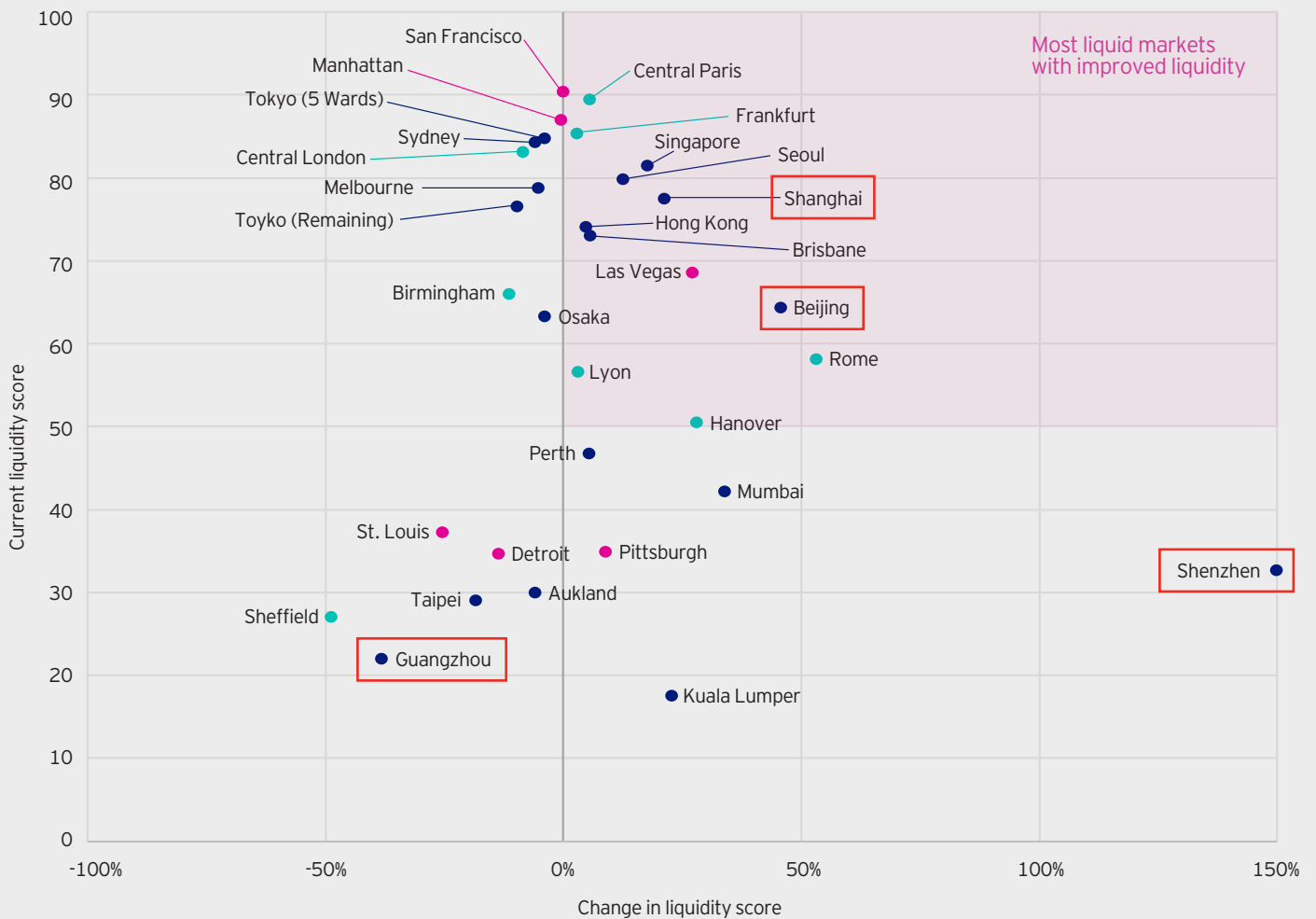
**Figure 8 - China commercial real estate investment transaction volume by investor domicile, 2007-2020 YTD**



Source: Invesco Real Estate based on data from RCA, June 2020. \*YTD: Year to date

**Figure 9 - RCA Capital Liquidity Score, current score vs. change in last 5 years<sup>12</sup>**

● Asia ● Americas ● Europe



Source: Real Capital Analytics, as of June 2020

## Conclusion

There is no doubt that the coming years will be transformative for China, as the country navigates through a period of moderating growth, rearrangement of global supply chains and the escalating geopolitical tension. While there are indeed short-term risks, we believe the structural growth drivers for Chinese real estate - urbanization, technology, consumption - have been adjusted and refined, but not derailed. A more diversified market driven by domestic demand with a larger degree of foreign participation can support a meaningful allocation in a regional and global portfolio, and the next 12-18 months may well be a window of opportunities for foreign investors to gain China exposure. That said, given the uneven economic recovery across China, picking the more resilient markets and sectors are crucial to ride through the upcoming market volatilities.

## Myth 2: Will investors' land use rights (LUR) be discontinued?

All land in China belongs to the state and urban land are generally granted for 40-70 years<sup>13</sup> through auctions or tenders. To date, the law does not stipulate the treatment of LUR upon expiry, except for residential LURs. Without an official clarity on the matter, it is a legitimate concern among foreign investors when looking at Chinese commercial real estate.

We interviewed market participants including property valuers, brokers and commercial banks on this issue. It is a market consensus that commercial LURs could be renewed upon expiry. The fact that over half of the urban land supply in China is granted LURs, the probability that the government would go down the path of not renewing LURs is low. Property valuers generally assume LURs could be renewed and they apply a discount<sup>14</sup> when valuing properties with shorter LUR tenures.

While the entitlement risk regarding LUR cannot be fully mitigated for now, we tend to adopt such approach to quantify the risk for our investments in China.

---

## Supplemental Information and Notes

1. Figures reflect real GDP in local currency, f=forecast.
2. CLSA's CRR survey in July 2020 indicates over half of respondents are back to over 80% of pre-COVID-19 operations.
3. The Economic Risk Index is an overall average of sovereign, credit rating, market cost, market demand, political stability, exchange rate, and trade credit risk ratings; 1 is the lowest risk and 10 is the highest. The indices are an internationally comparable measure of the overall riskiness of a country's economic risk.
4. Latest update as of May 2020.
5. For example, JP Morgan, Blackrock and Fidelity
6. Includes but not limited to the new generation of information and communication technology, biotech, pharmaceuticals, advanced equipment manufacturing and renewable energy.
7. 5G technology, industrial internet of things, ultra-high voltage power transmission, inter-city railway, new energy vehicle and charging stations, data centers and A.I.
8. Source: Xinhua as of May 22, 2020
9. Real Estate Market Size 2018 by MSCI
10. Over US\$10 million
11. The efficient frontier is based on a hypothetical portfolio comprising of Australia, Japan, Hong Kong, Singapore, South Korea, New Zealand and China (each weighting less than 30%). Calculation is based on the longest available total return data from MSCI: Australia (1985-2018), Japan (2002-2018), Korea/Hong Kong (2006-2018), China/Singapore (2007-2018), New Zealand (1994-2018).
12. The RCA Capital Liquidity Score is a measure of property market liquidity which assesses the depth and breadth of investment capital in real estate markets globally. It uses a combination of absolute and relative measures to calculate market liquidity. Elements for consideration include: transaction volume, unique buyers, % institutional investment, % global cross-border capital, % global market maker, % zone market maker. The higher the score, the more liquid is the market. \* Based on the total direct commercial real estate investment transactions in 4Q15-4Q19, excluding land, development and residential transactions. Source: JLL.
13. Except for allocated land to government related parties.
14. (i) deduct an estimated land premium from the valuation, or (ii) adding a "rule of thumb" of 50-80 bps over market cap rate.

---

## Important Information

This document is for Qualified Investors in Switzerland, Professional Clients only in Dubai, Continental Europe, Ireland and the UK; for Institutional Investors only in the United States, Australia and Singapore; in New Zealand for wholesale investors (as defined in the Financial Markets Conduct Act); for Professional Investors in Hong Kong; for Qualified Institutional Investors in Japan; for Qualified Professional Investors only in Republic of Korea; for certain specific sovereign wealth funds in the People's Republic of China; in Taiwan for Qualified Institutions/Sophisticated Investors; for Qualified Institutional Investors and/or certain specific institutional investors in Thailand; for certain specific institutional investors in Brunei and Indonesia and for qualified buyers in Philippines for informational purposes only; in Canada, this document is restricted to Accredited Investors as defined under National Instrument 45-106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. Please do not redistribute this document. Circulation, disclosure, or dissemination of all or any part of this material to any unauthorized persons is prohibited. Telephone calls may be recorded. By accepting this document, you consent to communicate with us in English, unless you inform us otherwise.

For the distribution of this document, Continental Europe is defined as Andorra, Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Norway, Poland, Slovakia, Spain and Sweden.

Target figures, where mentioned, are not the actual allocations of a specific Invesco product. This document is marketing material and is not intended as a recommendation to invest in any particular asset class, security or strategy. Regulatory requirements that require impartiality of investment/investment strategy recommendations are therefore not applicable nor are any prohibitions to trade before publication. The information provided is for illustrative purposes only, it should not be relied upon as recommendations to buy or sell securities or financial instruments. This marketing document is not an invitation to subscribe for shares in a fund or any other investment product and is by way of information only, it should not be considered financial advice. The information contained in this document may not have been prepared or tailored for any audience. It does not take into account individual objectives, taxation position or financial needs. This does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them.

You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco. This material may contain statements that are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield and return and are based on information available on the date hereof. They are based upon certain beliefs, assumptions and expectations, which can change over time. Accordingly, forecasts are not reliable indicators of future performance. You should not place undue reliance on these forward-looking statements.

Where individuals or the business have expressed opinions, they are based on current market conditions, they may differ from those of other investment professionals and are subject to change without notice.

---

### Australia

This document has been prepared only for those persons to whom Invesco has provided it. It should not be relied upon by anyone else. Information contained in this document may not have been prepared or tailored for an Australian audience and does not constitute an offer of a financial product in Australia. You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco.

The information in this document has been prepared without taking into account any investor's investment objectives, financial situation or particular needs. Before acting on the information the investor should consider its appropriateness having regard to their investment objectives, financial situation and needs.

You should note that this information:

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

Issued in Australia by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia which holds an Australian Financial Services Licence number 239916.

---

### New Zealand

This document is issued in New Zealand only to wholesale investors (as defined in the Financial Markets Conduct Act). This document has been prepared only for those persons to whom it has been provided by Invesco. Information contained in this document may not have been prepared or tailored for a New Zealand audience. This document does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for, an opinion or guidance on interests to members of the public in New Zealand. Any requests for information from persons who are members of the public in New Zealand will not be accepted. Issued in New Zealand by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia, which holds an Australian Financial Services Licence number 239916.

---

### Singapore

Issued in Singapore by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.

---

### Hong Kong

Issued in Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 41/F, Champion Tower, Three Garden Road, Central, Hong Kong.

---

### Japan

This document is only intended for use with Qualified Institutional Investors in Japan. It is not intended for and should not be distributed to, or relied upon, by members of the public or retail investors.

Issued in Japan by Invesco Asset Management (Japan) Limited, Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114; Registration Number: The Director-General of Kanto Local Finance Bureau (Kin-sho) 306; Member of the Investment Trusts Association, Japan and the Japan Investment Advisers Association, and/or 2) Invesco Global Real Estate Asia Pacific, Inc., Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114. Registration Number: The Director-General of Kanto Local Finance Bureau (Kin-sho) 583; Member of the Investment Trusts Association, Japan and Type II Financial Instruments Firms Association.

---

### Taiwan

Issued in Taiwan by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). **Invesco Taiwan Limited is operated and managed independently.**

---

### United States

Issued in the US by Invesco Advisers, Inc., Two Peachtree Pointe, 1555 Peachtree Street, N.E., Suite 1800, Atlanta, GA 30309.

---

### Canada

This document is restricted to accredited investors as defined under National Instrument 45-106. All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. This is not to be construed as an offer to buy or sell any financial instruments and should not be relied upon as the sole factor in an investment making decision. As with all investments there are associated inherent risks. Please obtain and review all financial material carefully before investing. Issued in Canada by Invesco Canada Ltd., 5140 Yonge Street, Suite 800, Toronto, Ontario, M2N 6X7.

---

### Continental Europe, Dubai, Ireland and the UK

The document is intended only for Qualified Investors in Switzerland and Professional Clients in Continental Europe, Dubai, Ireland, and the UK and is not for consumer use. Marketing materials may only be distributed without public solicitation and in compliance with any private placement rules or equivalent set forth in the laws, rules and regulations of the jurisdiction concerned. This document is not intended to provide specific investment advice including, without limitation, investment, financial, legal, accounting or tax advice, or to make any recommendations about the suitability of any product for the circumstances of any particular investor. You should take appropriate advice as to any securities, taxation or other legislation affecting you personally prior to investment. No part of this material may be copied, photocopied or duplicated in any form by any means or redistributed without Invesco's prior written consent.

Further information is available using the contact details shown: **Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Luxembourg, Netherlands, Norway, Poland, Spain, Sweden, Switzerland and The United Kingdom** by Invesco Asset Management SA, 16-18, rue de Londres, 75009 Paris, France, which is authorised and regulated by the Autorité des marchés financiers in France; Invesco Asset Management Deutschland GmbH, An der Welle 5, 60322 Frankfurt am Main, Germany; Invesco Asset Management Limited, Perpetual Park, Perpetual Park Drive, Henley-on-Thames, Oxfordshire RG9 1HH, UK. Authorised and regulated by the Financial Conduct Authority

**Dubai** by Invesco Asset Management Limited. PO Box 506599, DIFC Precinct Building No 4, Level 3, Office 305, Dubai, UAE. Regulated by the Dubai Financial Services Authority.

---