

Preliminary Observation – Potential Impact of COVID-19 on Asia Pacific

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Preliminary Observation: Potential Impact of COVID-19

1. Potential Impact on Asia Pacific
2. Potential Impact on China logistics

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As infection cases of COVID-19 evolve daily, it is unknown how quickly and successfully the virus will be contained worldwide. At this point, the situation is too fluid for a precise assessment of the impact on economic growth and real estate markets in Asia Pacific. The critical timing will be as and when the virus can be contained worldwide. A more precise assessment then would be more feasible than now.

PRELIMINARY OBSERVATION:

POTENTIAL IMPACT OF COVID-19 ON ASIA PACIFIC

MACROECONOMIC ENVIRONMENT

01

- Premature to determine the precise impact until the containment of the outbreak worldwide
- As long as the outbreak lasts,
 - tourism, retail sales and supply chain disruptions are expected
 - fiscal and monetary policies to offset some negative economic impact
- If the outbreak is prolonged, disruptions could be severe

REAL ESTATE MARKETS

02

- Expect weaknesses in occupier demand as long as the outbreak lasts, but potential impact varies by market/sector
 - Retail, hotels, and serviced apartments to be the most impacted
 - Asia Pacific logistics likely to be the relative winner, particularly temperature-controlled warehouses
 - Markets/sectors with strong fundamentals pre-outbreak more resilient, e.g. China logistics, Japan RE (ex. Retail)
 - Markets/sectors with challenges pre-outbreak more vulnerable, e.g. Australian retail, Shanghai office, HK RE
- If the outbreak is prolonged, no real estate sector/market is immune
- Liquidity, covenant, and flexibility on asset strategies are increasingly important as uncertainty remains

INVESTMENT MARKETS

03

- Some investors could take a wait-and-see view
 - The COVID-19 outbreak presents risk, but also potential opportunities
 - Good time to look for distress among property owners with liquidity constraint, if available
 - Flight-to-safety could widen pricing differences between assets with secured cash flow and those without
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01

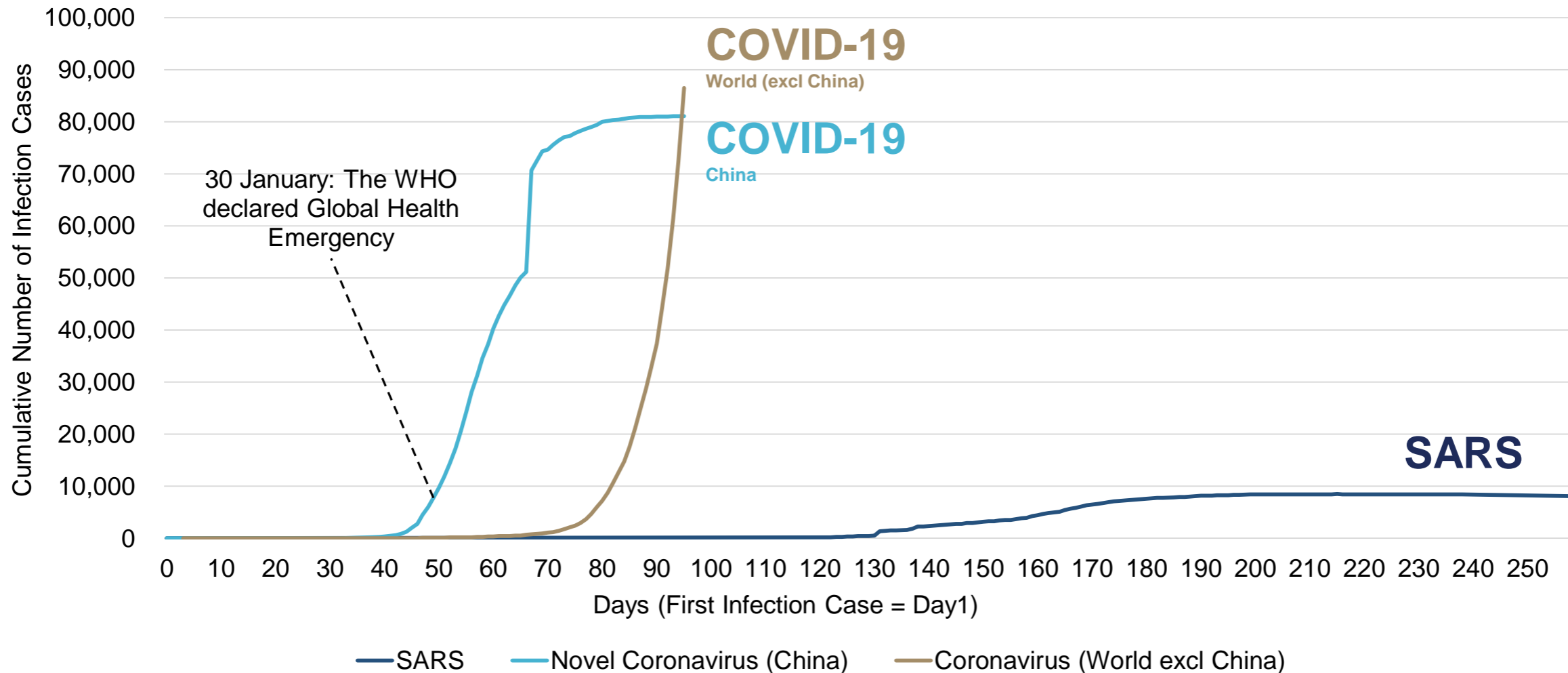
Potential Impact
on Asia Pacific

COVID-19 is spreading fast, while efforts to contain have been substantial

MASSIVE RESPONSES TO CONTAIN THE OUTBREAK COULD AFFECT GLOBAL GROWTH IN THE SHORT TERM

The pace of infection cases has slowed in China.

Cumulative Number of Infection Cases – SARS Nov. 2002-July 2003 vs. COVID-19 since 13 Dec. 2019



	COVID-19 (as of 16 March)	SARS
	China	World (excl China)
Number of Deaths	3,218	774
	3,388	

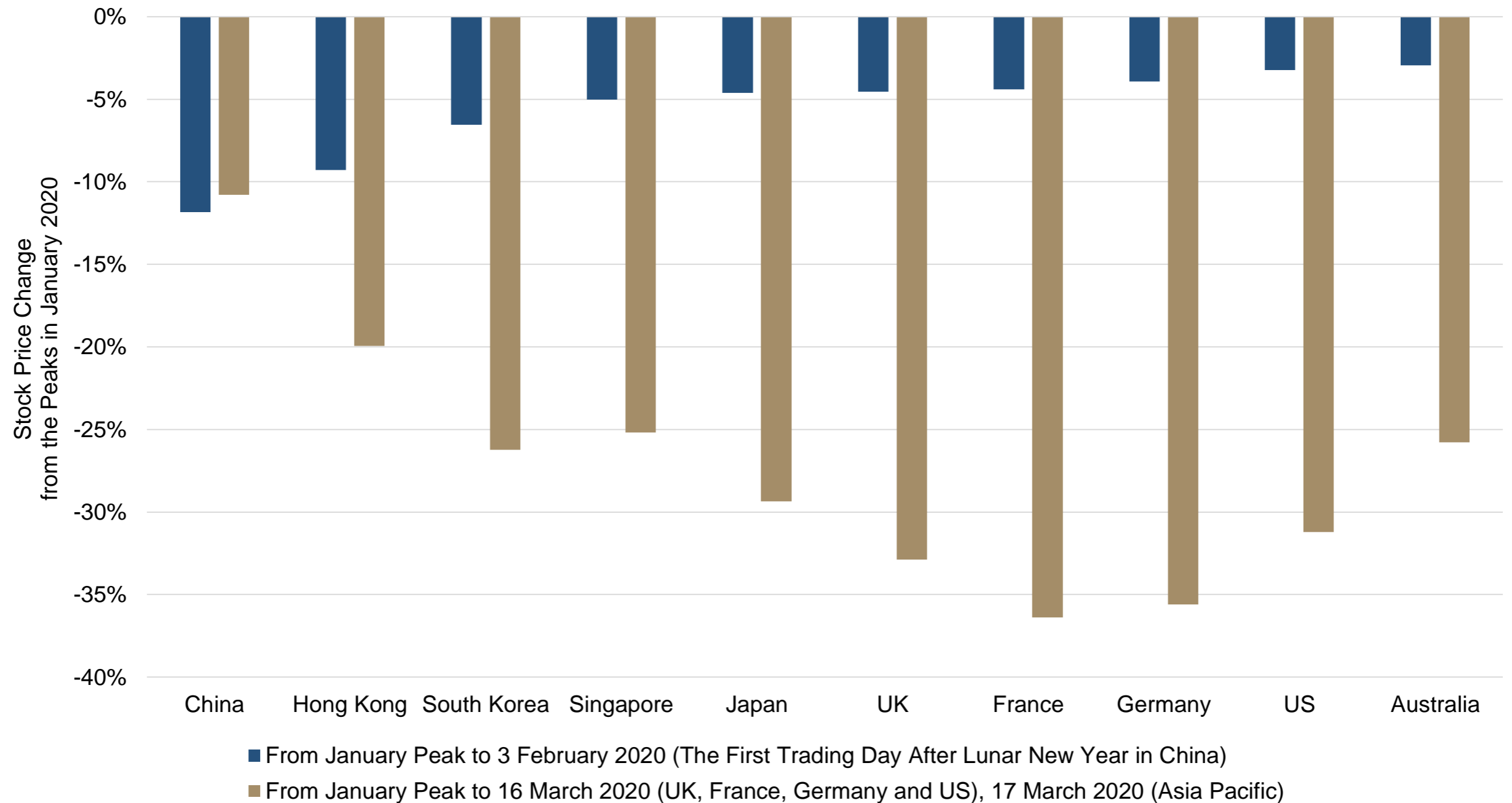
Note: China's national health committee announced a methodology to change the definition of infection cases on 12 February 2020, which led to a spike on Day 60 (17 February 2020), the criteria was changed again on 19th February 2020.

Source: The World Health Organization and Bloomberg, as of 6.00pm (Singapore) 17th March 2020.

Emergency response & liquidity injections are evidenced in China

EXPECT CAPITAL MARKET VOLATILITY TO REMAIN ELEVATED DUE TO UNCERTAINTY

Stock Prices declined from January Peak

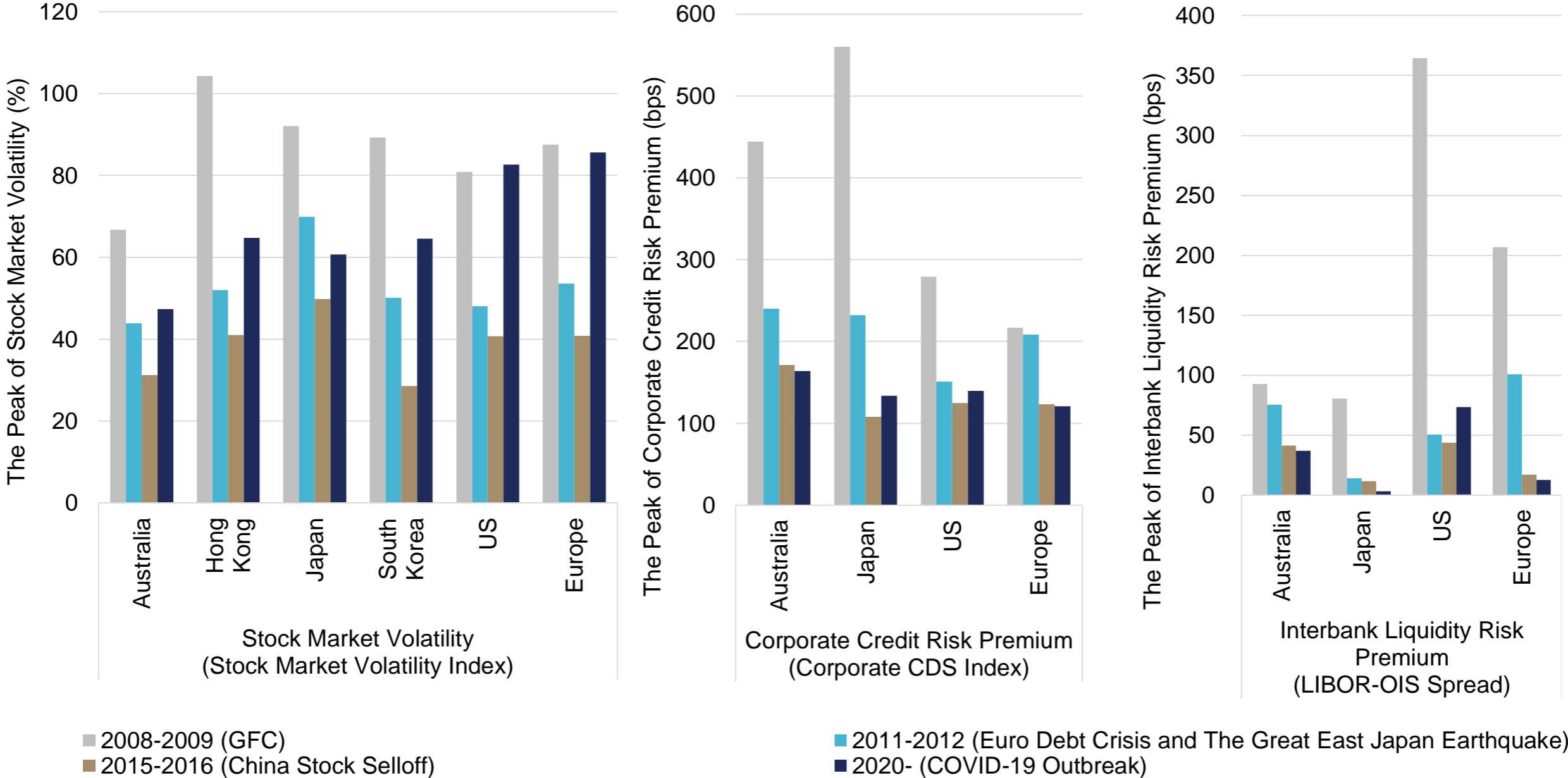


Note: The peaks of stock market prices of each country in January 2020 are as below: China was on 13 January; Hong Kong, Singapore, France, U.K., and the U.S. were on 17 January; Japan was on 20 January; South Korea and Australia were on 22 January; and Germany was on 24 January.

Source: Bloomberg (Asia Pacific is as of 17th March 2020, Europe and the U.S. are as of 16th March 2020).

Liquidity risk rising substantially over the past few weeks

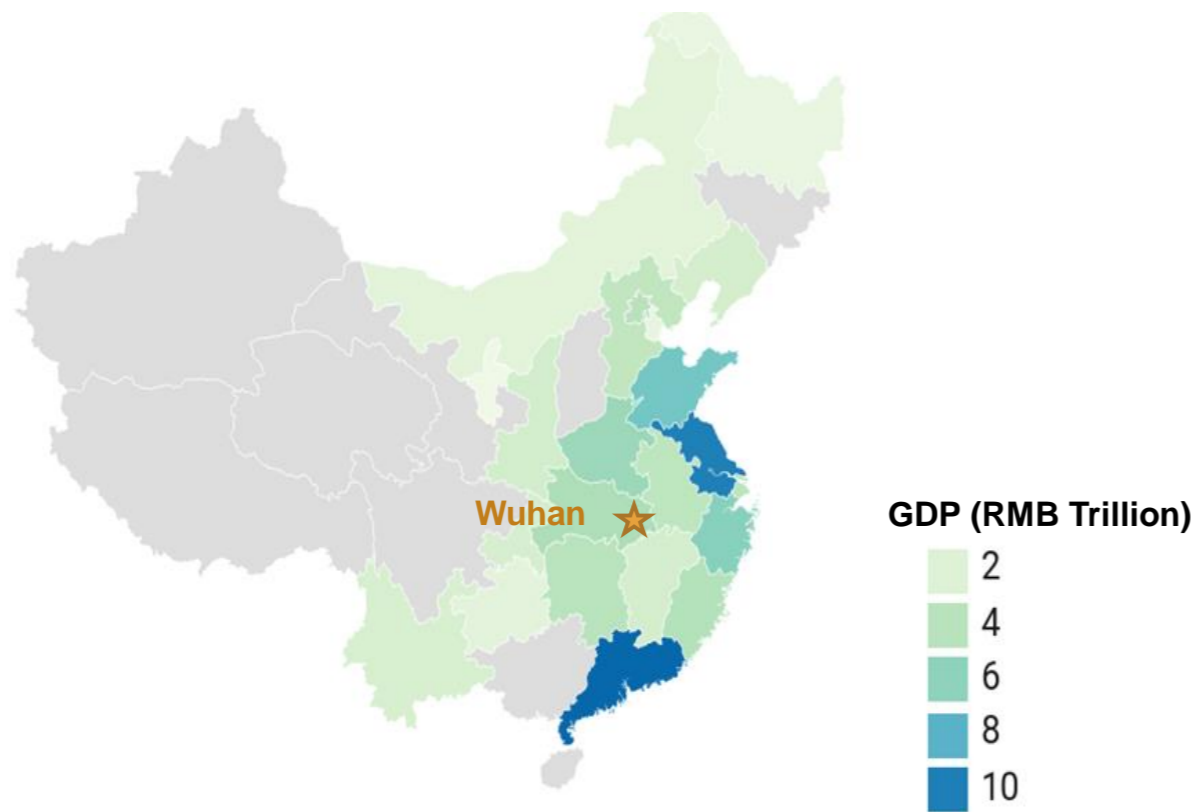
Comparison of major risk-off events since the GFC



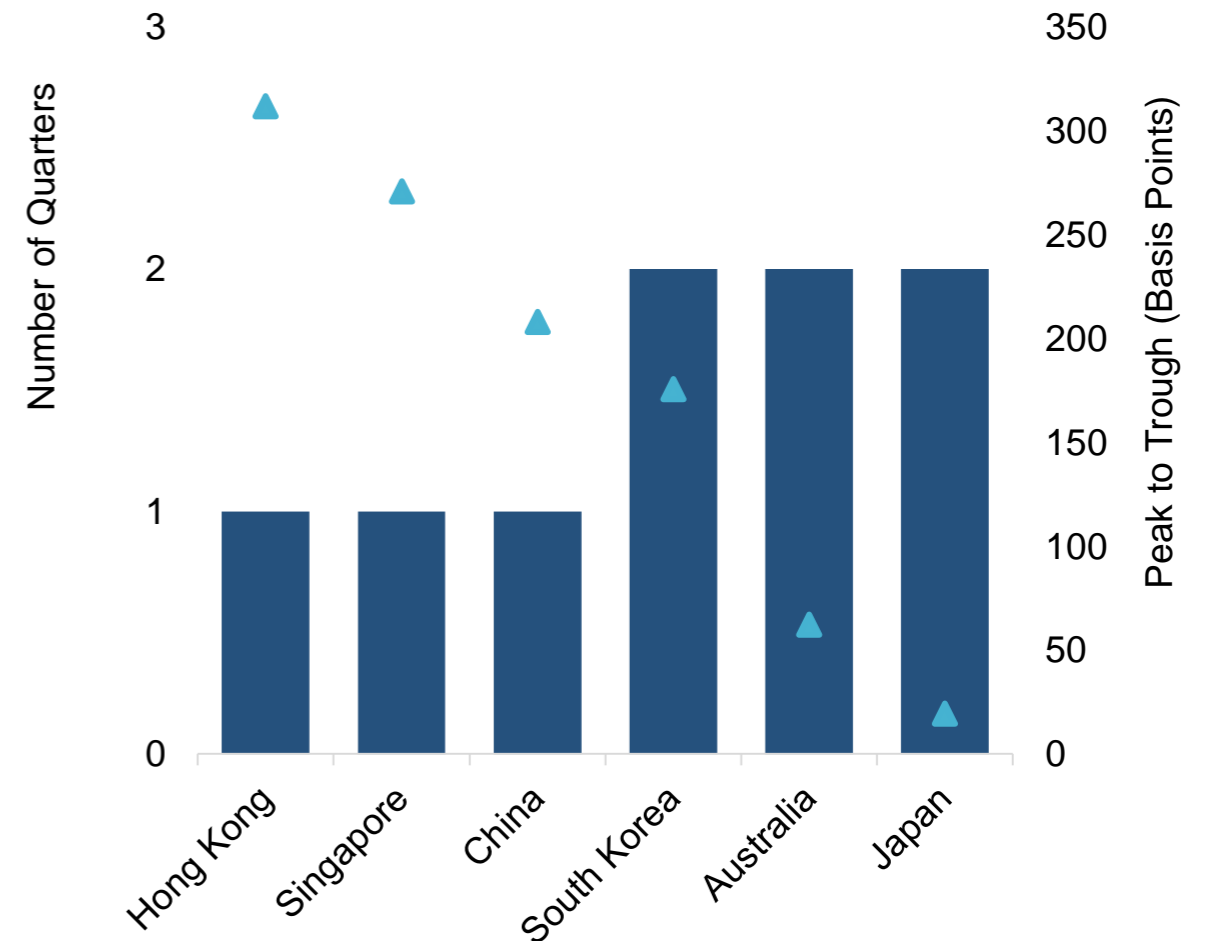
Source: Bloomberg (Asia Pacific is as 19:00 TKY 17th March 2020, Europe and the U.S. are as of 16th March 2020).

Premature to determine the precise impact until the containment

More than Half of China Extends the CNY* Holiday over COVID-19



SARS Impact on Asia Pacific GDP Growth



- Number of Quarters to Return to the Pre-Outbreak Growth rate (LHS)
- ▲ Peak to Trough Q-o-Q GDP Growth (RHS)

* CNY stands for Chinese New Year or Lunar New Year
Source: CNN (China GDP Map), Oxford Economics (GDP Growth Q-o-Q), as of February 2nd, 2020

Synchronized monetary and fiscal stimulus in Asia Pacific

	Announced / Proposed Fiscal Stimulus						Estimated Fiscal Stimulus (as a % of GDP)	Monetary Stimulus since 2H 2019	
	Short Term (to mitigate exogenous shocks e.g. COVID-19, bushfires)		Medium to Long Term						
	Households	Corporates	Households	Corporates	Infrastructure	Rate Cuts			
China	✓	✓	✓	✓	✓	2.0% - 2.5%	✓	✓	
Japan	✓	✓	✓	✓	✓	1.5% - 2.0%			
Australia	✓	✓			✓	2.5% - 3.2%	✓		
Hong Kong	✓	✓	✓	✓		2.0% - 2.5%	✓		
Singapore	✓	✓		✓	✓	1.5% - 2.0%			
South Korea	✓	✓	✓	✓	✓	3.0% - 3.5%	✓		

Note: Short Term stimulus are more targeted stimulus aimed at events such as COVID-19, Australia bushfire and Hong Kong protest.

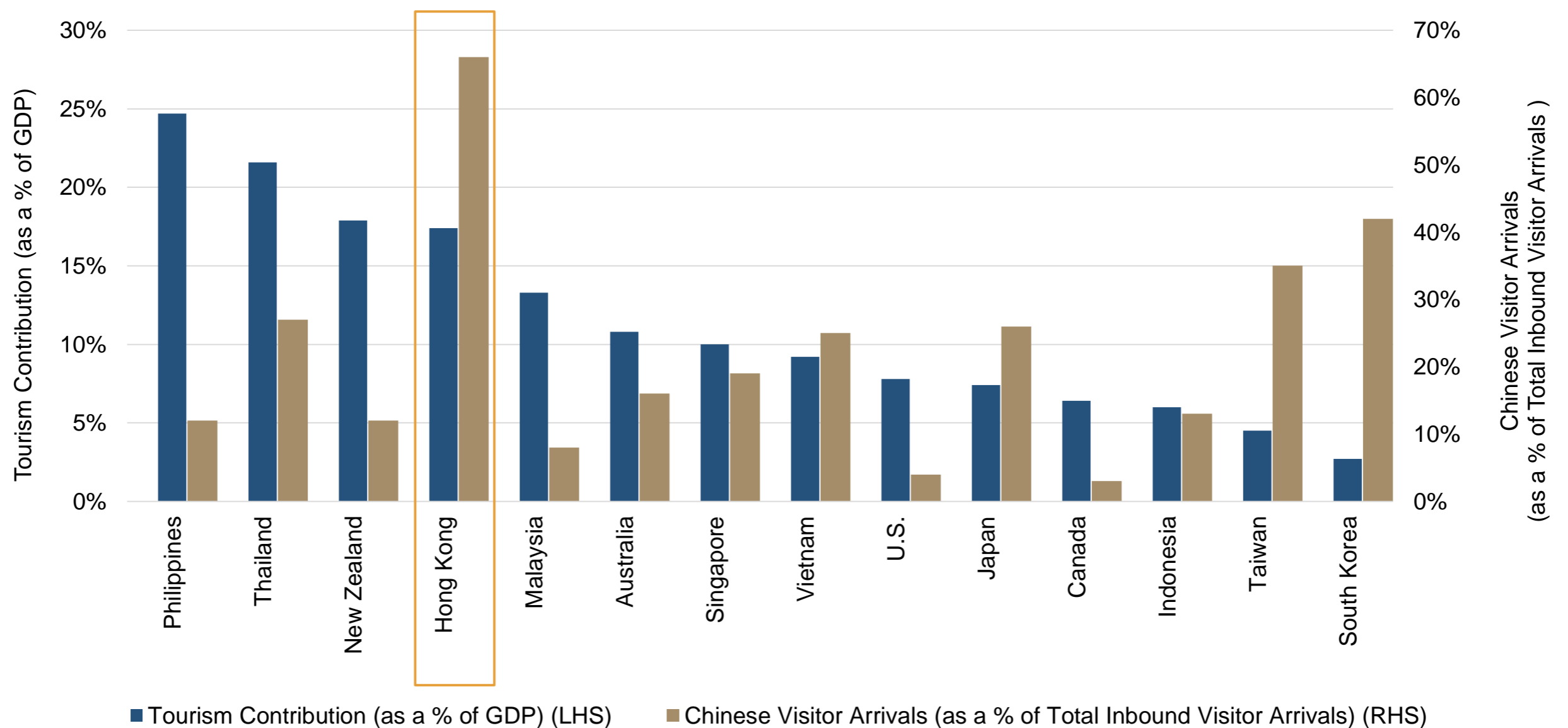
Source: The Services Australia, 12th March 2020, The Singapore Ministry of Finance, as of 19th February 2020, The Hong Kong Monetary Authority, 21st February 2020, The Cabinet Office of Japan (economic measures announced on 5th December 2019), The Cabinet Secretariat of Japan (fiscal stimulus and financial support on COVID-19, as of 29th February 2020), The Ministry of Finance of Japan (social welfare spending due to consumption tax hike, as of 20th December 2019), The Ministry of Economy and Finance of South Korea, as of 29th August 2019, The Ministry of Finance of PRC and The People's Bank of China, as of 20th February 2020.

Tourism most impacted by travel bans in the short term

EXPECT HONG KONG TO BE THE MOST NEGATIVELY IMPACTED

Economies with a high share of tourism in GDP and a strong reliance on Chinese tourists are the most vulnerable.

Chinese Visitor Arrivals (as a % of Total Inbound Visitor Arrivals in each Country) and Tourism (as a % of GDP)

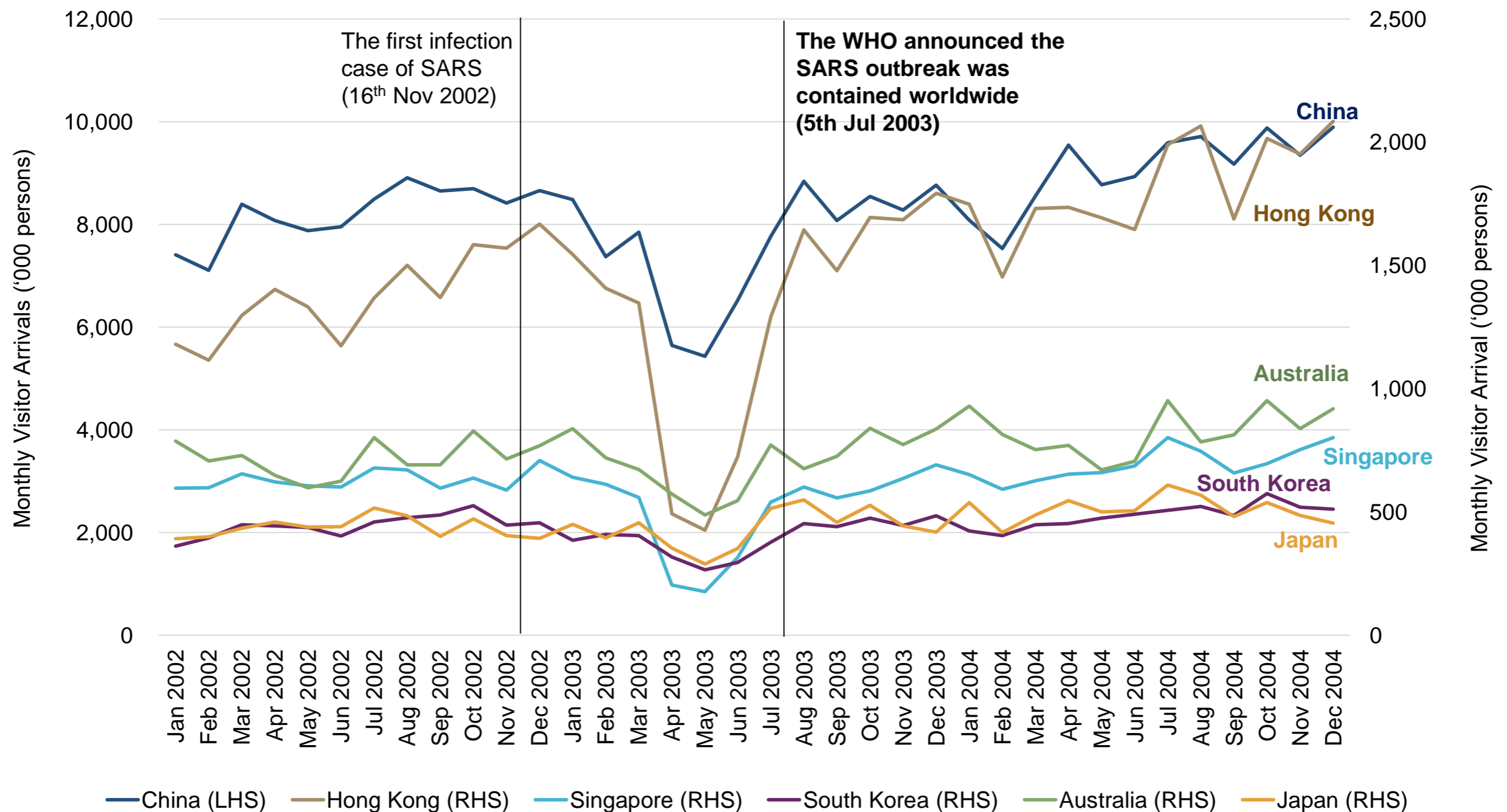


Note: Data are average shares over the 2015 – 2017 period (Tourist Arrivals), 2018 data (Travel and Tourism Contribution).
Source: World Travel and Tourism Council, as of 2019

SARS: tourist arrivals recovered almost instantly after the containment

During the SARS period, hotel occupancies declined more severely than ADRs* in most Asia Pacific hotel markets, due to visitor withdrawals.

Monthly Visitor Arrivals

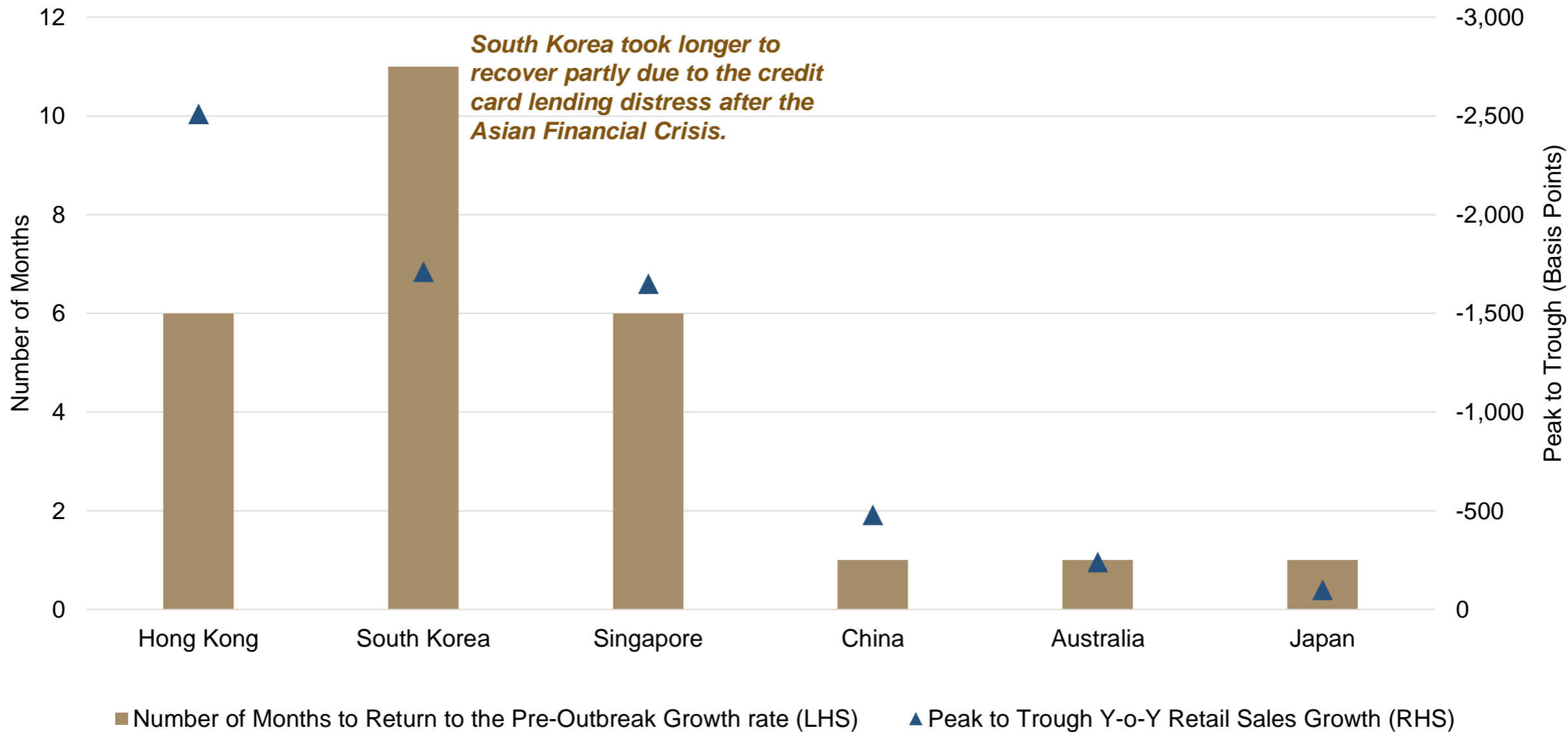


Note: *ADRs stands for Average Daily Rates for hotel rooms.
Source: CEIC, as of December 2004.

SARS: retail sales growth in most Asia Pacific countries recovered in 6 months after the containment

During the SARS period, retail sales growth in China was slashed in half but still growing, and recovered instantly after the outbreak was contained.

SARS Impact on Asia Pacific Retail Sales Growth



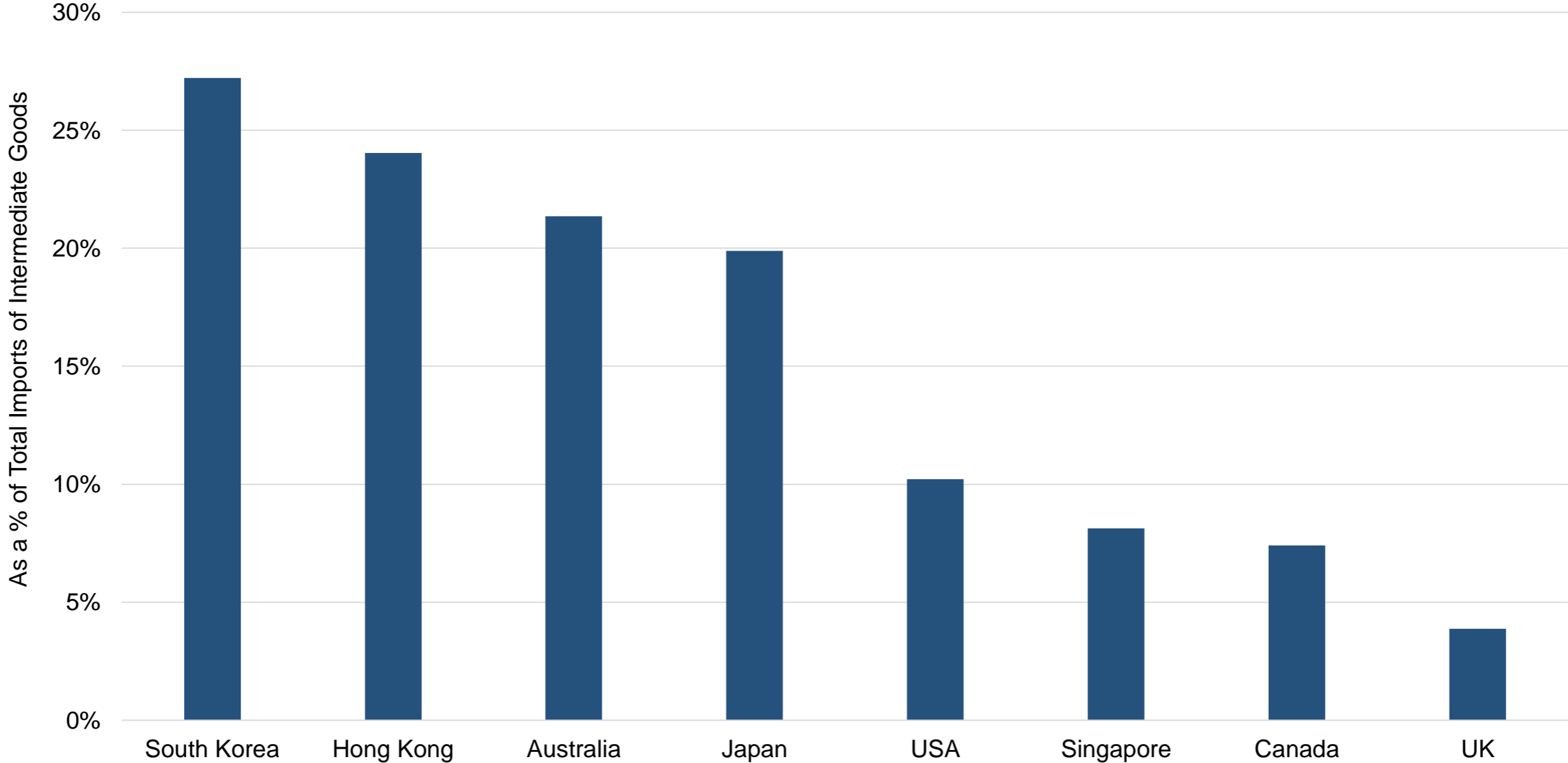
Source: Bloomberg, as of December 2004

Global supply chains highly rely on China

THE CHINESE GOVERNMENT IS DEPLOYING MULTIPLE MONETARY AND FISCAL MEASURES TO LIMIT SUPPLY CHAIN DISRUPTION

Limited impact on China logistics demand as 89% of demand comes from domestic consumption.

Imports of Intermediate Goods from China (as a % of Total Imports of Intermediate Goods)

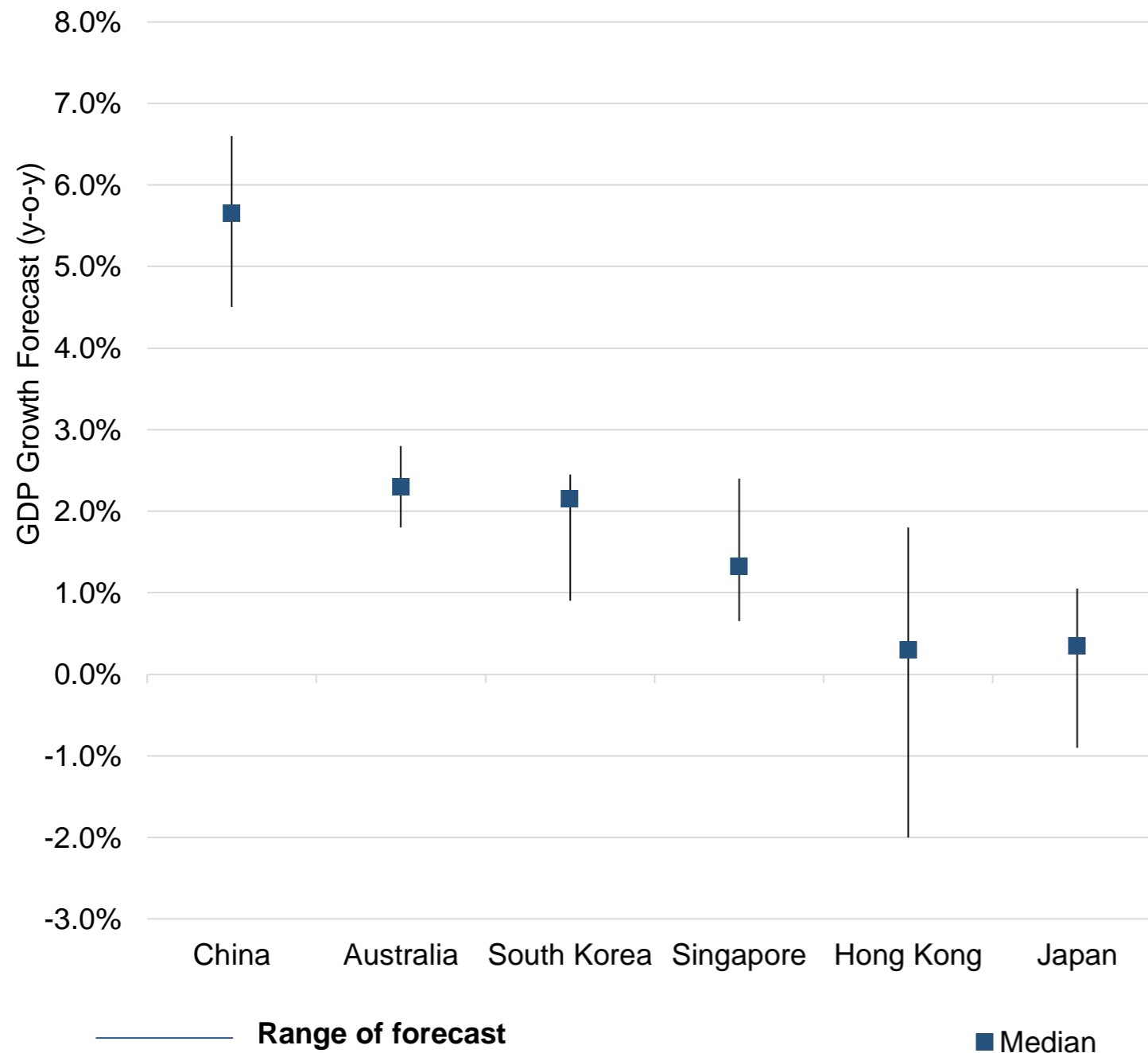


Source: The World Bank, WITS, as of 2018

Most forecasters expect substantial economic slowdown or mild recession in 2020-21

PROJECTIONS ARE TRENDING DOWNWARDS ON A WEEKLY BASIS

Bloomberg Survey of Asia Pacific GDP Growth Forecast 2020-2021 (Annual Average)



Historical / Target GDP Growth

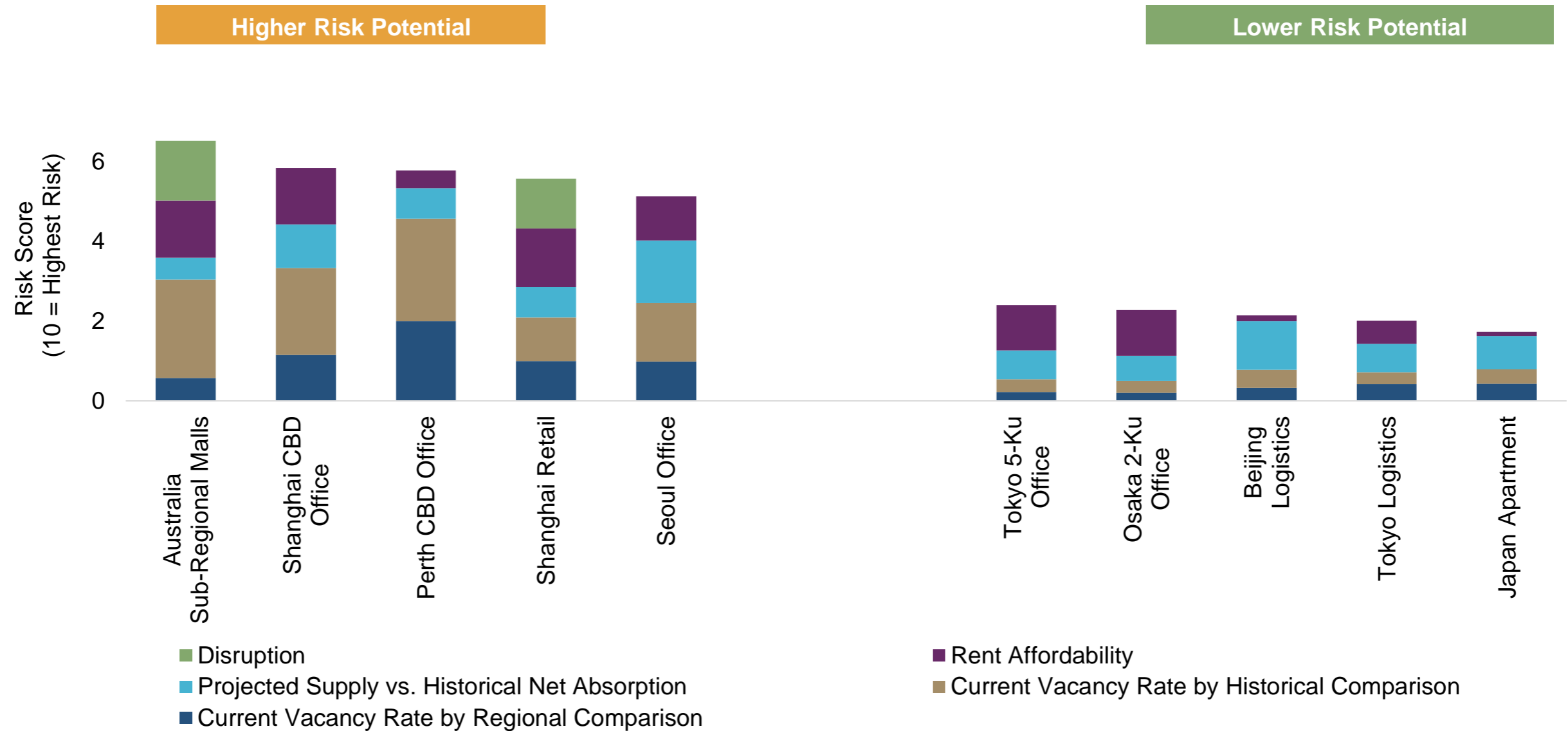
Country	Hist. Avg. GDP Growth or Government Target	Lowest GDP Growth during GFC (Q1 2009)
China	6.0% (govt. target)	6.4%
Australia	3.0%	1.5%
South Korea	4.5%	-1.9%
Singapore	1-3% (govt. target)	-7.7%
Hong Kong	3.7%	-7.8%
Japan	0.9%	-8.7%

Source: Bloomberg, as of 12th March 2020; Historical GDP growth data sourced from Oxford Economics

Markets/sectors with strong fundamentals pre-outbreak to be more resilient

MARKETS/SECTORS WITH CHALLENGES PRE-OUTBREAK TO BE MORE VULNERABLE

LaSalle Asia Pacific Occupier Market Risk Score



The occupier market risk scores are based on a factor model that takes into account the respective market/sector's current vacancy rate by region (comparing to all AP markets/sectors included in this analysis), the respective market/sector's current vacancy rate by historical comparison (comparing to the respective market/sector's historical high and low), projected supply as a percentage of the respective market/sector's historical net absorption, current gross face rent in comparison to the respective market/sector's historical high and low, and disruption in the market/sector (e.g., e-commerce or geopolitical events). A total of 37 markets/sectors include: 1) Office: Sydney CBD, Melbourne CBD, Brisbane CBD, Perth CBD, Macquarie Park, Brisbane Fringe, Beijing CBD, Shanghai CBD, Shanghai Fringe, Hong Kong Central, Hong Kong Kowloon East, Tokyo 5-Ku Grade A and Grade B, Osaka, Singapore CBD, Seoul CBD, Yeouido and Gangnam; 2) Retail: regional malls in Brisbane, Sydney, Perth, and Melbourne, Prime retail in Beijing, Shanghai, and Hong Kong; shopping centers in Tokyo and Osaka, suburban malls and Orchard Road malls in Singapore; 3) Logistics: Beijing, Hong Kong, Shanghai, Tokyo, Osaka, and Singapore; and 4) Rental Apartment: Tokyo and Osaka.

Source: CBRE and ARES (for Australia retail, Japan retail, logistics, and rental apartment), Jones Lang LaSalle REIS and LaSalle Investment Management (for the rest of markets/sectors), as of March 2020. Past performance is not an assurance of future results. There is no guarantee that such trends will continue or materialize as expected.

Implications for investment strategies in Asia Pacific



Reduce return uncertainty, where possible



Stress test downside scenario



Maintain liquidity and flexibility



Submarket/micro-location selection



Asset-level debt covenant & lease expiry



Preserve some capital, where possible



Be ready to take advantage of dislocation, if occurs

Source: LaSalle Investment Management, October 2019. The above pictures are sourced from Flaticon.com (Becris, Freepik), Iconarchive.com (Elegantthemes), The Noun Project (AdbA Icons, Adrien Coquet, Ben Davis, Eucalyp, Andrejs Kirma)



02

Potential Impact on China

PRELIMINARY OBSERVATION: POTENTIAL IMPACT OF COVID-19 ON CHINA

MACROECONOMIC ENVIRONMENT

01

- So far, China fares slightly better than the rest of the world in the virus containment
- Immediate and substantial policy response from China to limit the impact of disruption
- International forecasters are substantially more negative than domestic forecasters on China's 2020 GDP growth
- Confidence in China's long-term growth remains, according to a recent survey

REAL ESTATE MARKETS

02

- Retail and hotels to be the most impacted as long as the outbreak lasts
 - Logistics, particularly temperature-controlled warehouses / cold storage, likely to be the relative winner
 - The trend of growing online grocery sales is here to stay, even post the outbreak
 - Shanghai office to fare worse than logistics, due to the combined challenges of trade war and the outbreak
 - Office landlords are likely to reduce rents to maintain occupancies during times of weaknesses
- If the outbreak is prolonged, no real estate sector/market is immune

INVESTMENT MARKETS

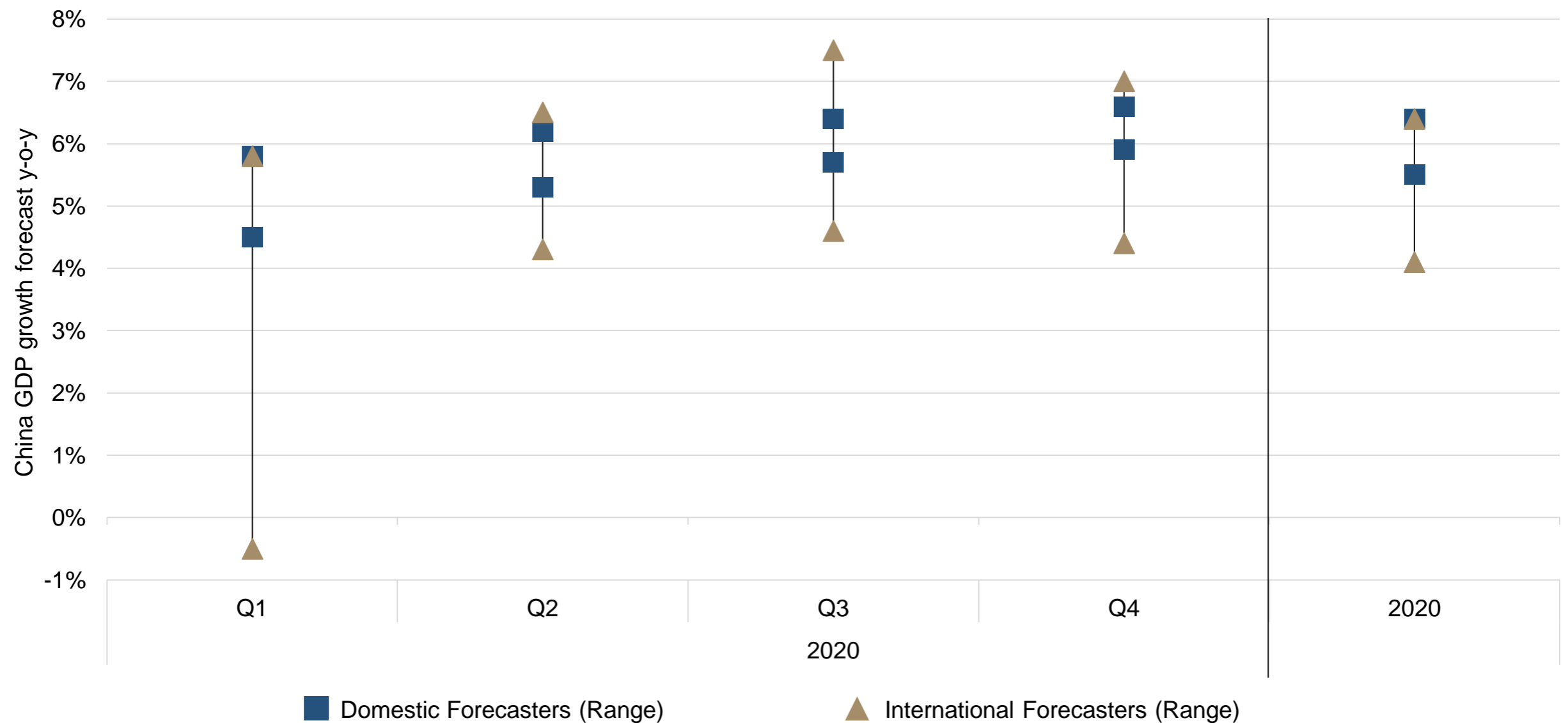
03

- Liquidity among large domestic real estate companies remains ample
 - Expect some liquidity constraint among small- and medium-sized property owners
-

Most forecasters continue to revise down the outlook of China's GDP growth

INTERNATIONAL FORECASTERS ARE SUBSTANTIALLY MORE NEGATIVE THAN DOMESTIC FORECASTERS

Forecasts of China GDP Growth (Year-on-Year)



Source: Bloomberg, JRJ.com.cn, as of 17th March 2020

China: recently announced measures to mitigate the immediate impact

EXPECT MORE GROWTH-ORIENTED STIMULUS TO COME

Measures announced recently to mitigate the immediate impact of the COVID-19 Outbreak

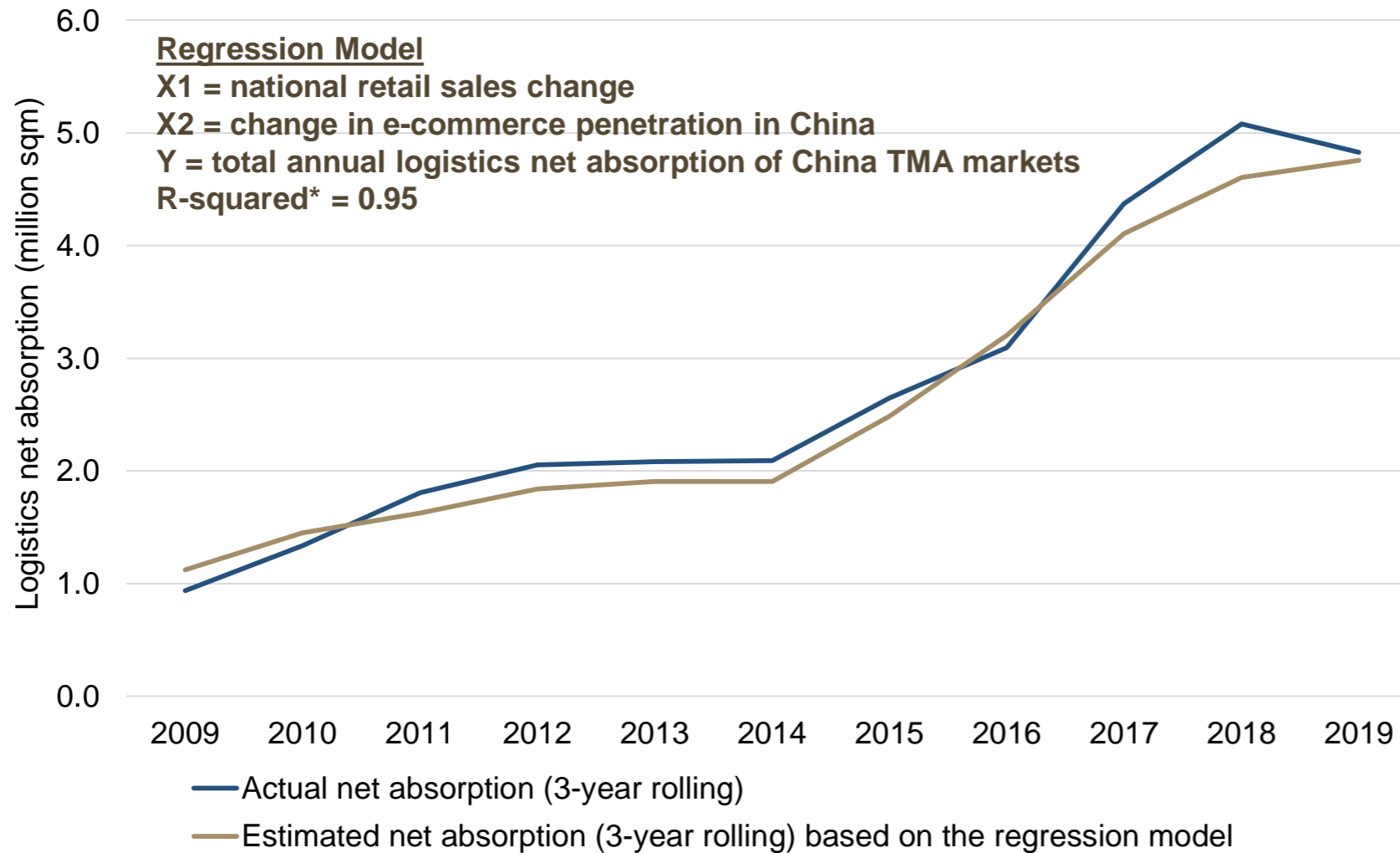
1	<ul style="list-style-type: none">▪ The PBOC lowered interest rates on reverse repurchase agreements by 10bps on Feb 3<ul style="list-style-type: none">▪ 7-day reverse repo rate to 2.4% from 2.5%▪ 14-day tenor to 2.55% from 2.65%
2	<ul style="list-style-type: none">▪ The PBOC injected RMB1.2 trillion (US\$173 billion) of liquidity to money markets on Feb 3▪ However, the net effect is much lower at RMB150 billion (US\$22 billion) as there are more than RMB1 trillion of short-term funds scheduled to mature on Feb 3.
3	<ul style="list-style-type: none">▪ Regulators in China has implemented various measures to stabilize the stock market<ul style="list-style-type: none">▪ suspend its night-time trading sessions until further notice▪ ban short-selling▪ ban major shareholders from selling stock for six months
4	<ul style="list-style-type: none">▪ Regulators in China also have eased rules such as<ul style="list-style-type: none">▪ “suitably extend the grace period” for firms to comply with new asset management rules, which force banks to remove implicit guarantees for their investments▪ allow insurers, with ample solvency, to “appropriately raise their investment” in stock from the current limit of 30% of total assets.
5	<ul style="list-style-type: none">▪ The PBOC to provide financial institutions with RMB300 billion of low-cost funding to lend to affected firms. The financial institutions are also encouraged to:<ul style="list-style-type: none">▪ not withdraw loans from affected firms, especially from smaller ones▪ consider rolling over loans or cutting interest rates to help affected firms▪ reduce counter-guarantee requirements by government financial guarantee and re-guarantee entities at all levels
6	<ul style="list-style-type: none">▪ China’s finance ministry to subsidize interest payments for affected firms; and the subsidies will be based on 50% of the interest rate on loans for a period no longer than a year
7	<ul style="list-style-type: none">▪ The government to subsidize landlords who reduce rents, postpone raising of social security funds, reductions or remissions of taxes
8	<ul style="list-style-type: none">▪ The regulators have announced import duties exemption for donated supplies from overseas that are used for epidemic control

Source: The People's Bank of China, China Briefing (<https://www.china-briefing.com/>), Bloomberg (<https://www.bloombergquint.com/global-economics/pboc-vows-to-maintain-ample-liquidity-amid-coronavirus-outbreak>)

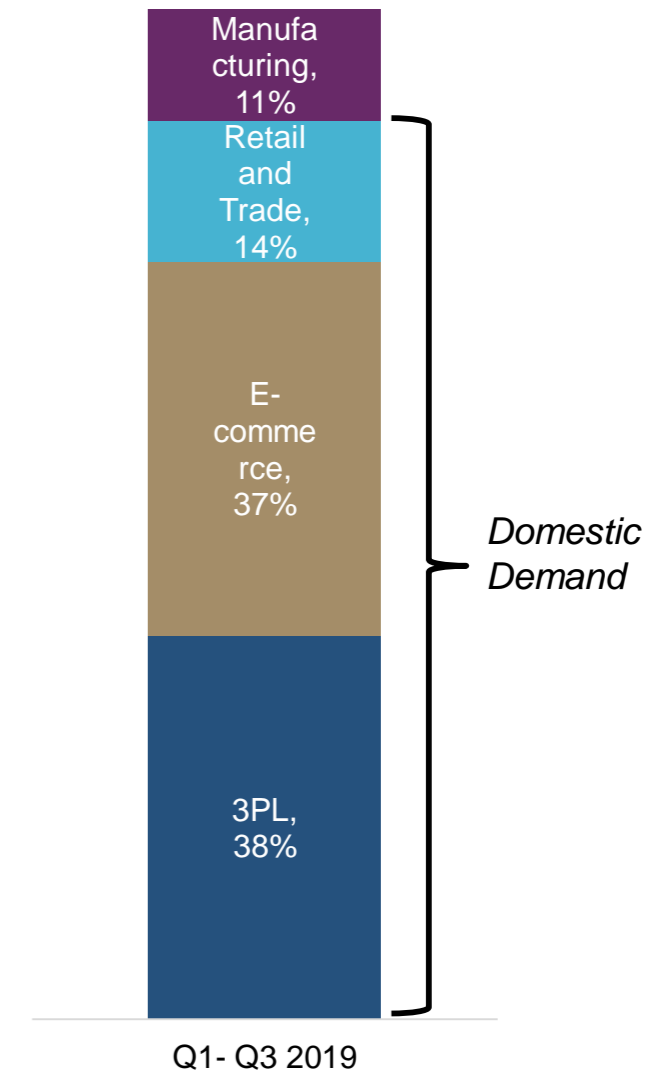
China: retail sales and e-commerce are key drivers of logistics demand

- 89% of China logistics demand comes from domestic consumption.
- If total and online retail sales remain positive, China logistics demand is likely to remain positive.
- Absorption could slow / decline, if retail sales slow / decline due to COVID-19 in the short term.

China Logistics Net Absorption¹



China Logistics Demand* by Tenant Industry²



Note:

Regression model: $Y = 0.68 X1 + 106740492 X2$

X1 (one of the independent variables) = national retail sales change in absolute value (in RMB, real terms); X2 (one of the independent variables) = change in e-commerce penetration in China; and Y (the depend variable) = total annual logistics net absorption of China TMA markets, including Tier 1 cities (Beijing, Shanghai, Guangzhou, Shenzhen), Tier 1 satellite cities (Jiaxing, Suzhou, Kunshan, Taicang, Tianjin, Langfang, Changshu, and Hangzhou) and Tier 2 cities (Nanjing, Ningbo, Wuxi, Xi'an, Wuhan, Shenyang, Qingdao, Chengdu, and Chongqing)

*R-squared is the statistical measure of how close the data is to the fitted regression line. R-squared is always between 0 and 1. In general, the higher the R-squared, the better the model fits.

** Data on China logistics demand by tenant industry covers leasing transactions in 16 Chinese cities, including Beijing, Shanghai, Shenzhen, Guangzhou, Tianjin, Qingdao, Dalian, Shenyang, Suzhou, Nanjing, Hangzhou, Ningbo, Wuxi, Chongqing, Chengdu and Wuhan.

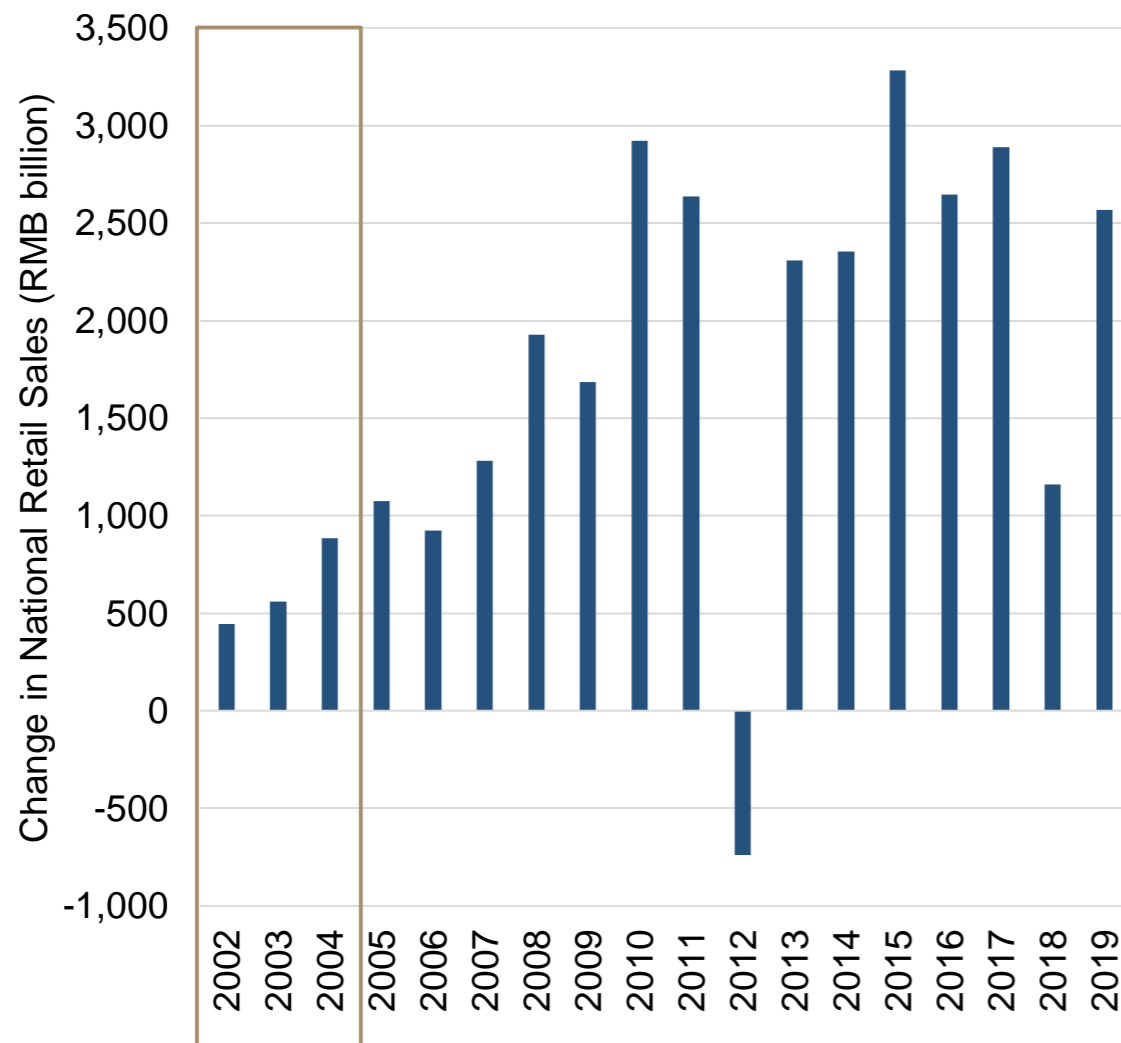
Source: (1) Jones Lang LaSalle REIS, The National Bureau of Statistic of China, Oxford Economics, LaSalle Investment Management, as of Q4 2019, (2) CBRE as of Q3 2019.

China logistics demand drivers

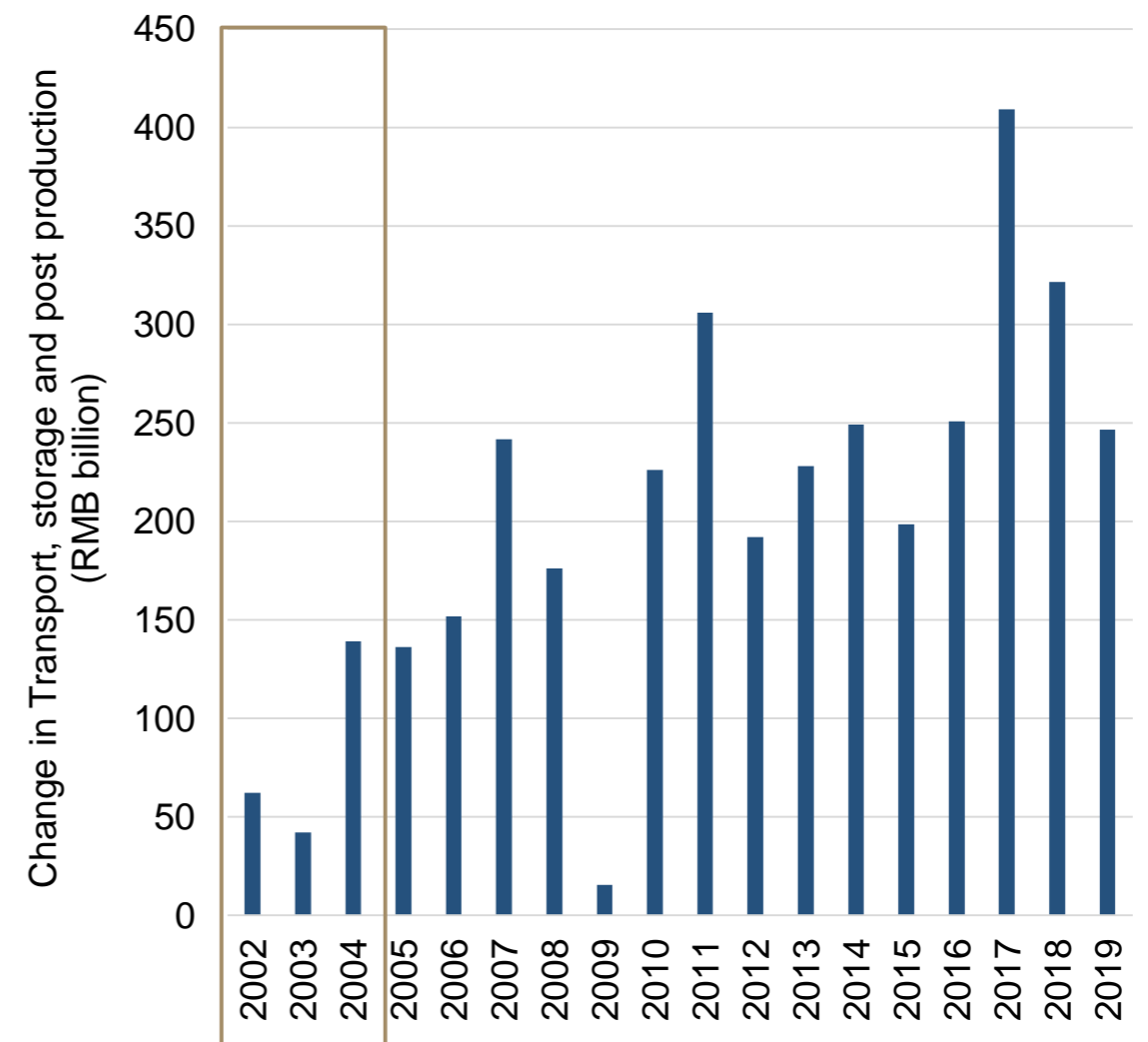
Due to China's large economic and population base, retail sales are still increasing in absolute value.

The transportation sector production is still increasing in absolute value, despite the slowdown in growth.

Change Of National Retail Sales



Change of the Transportation Sector Production

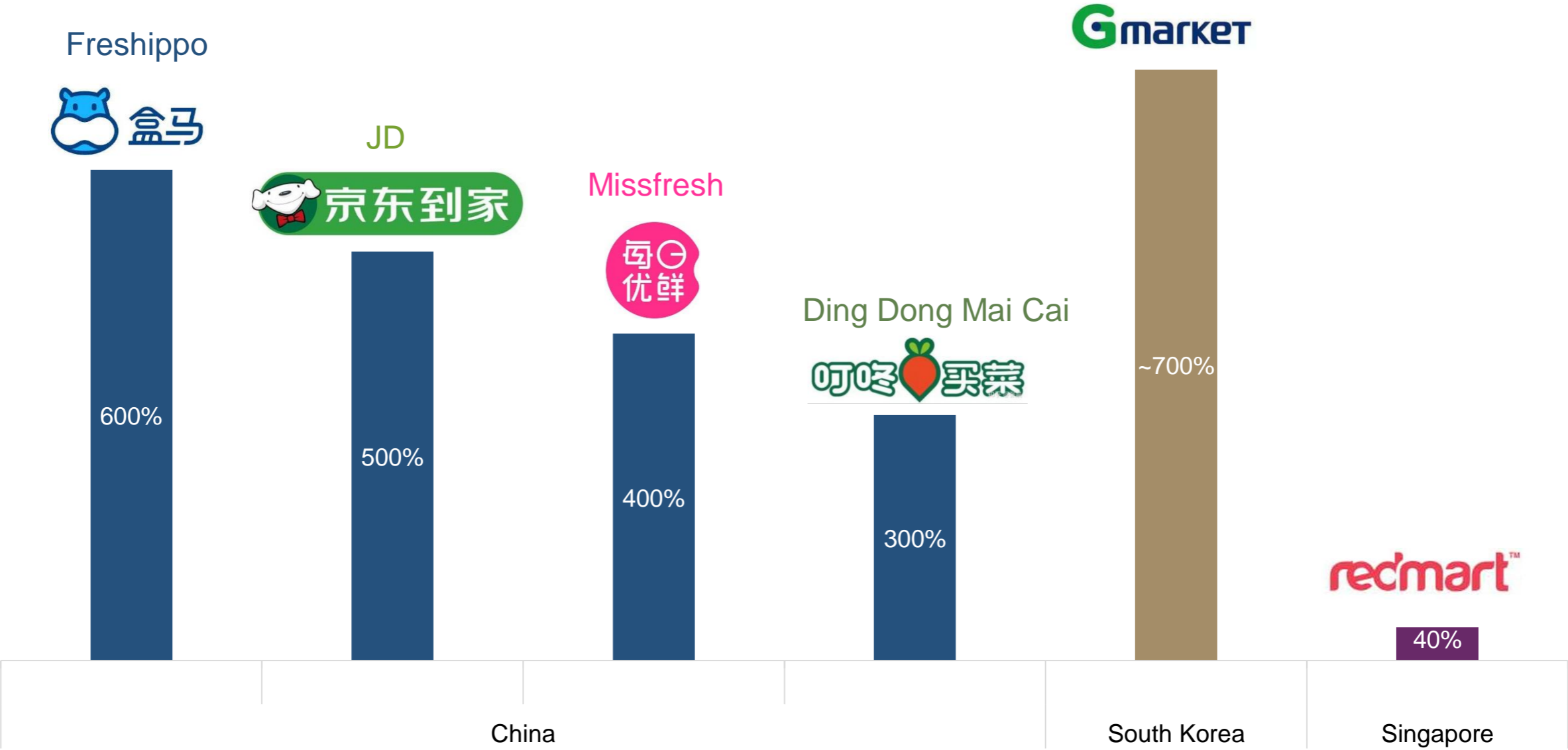


Source: The National Statistics Bureau of China, as of December 2019.

Rapid growth of online grocery sales since the COVID-19 outbreak

GROWING ONLINE GROCERY SALES TO DRIVE DEMAND FOR LOGISTICS, ESPECIALLY COLD STORAGE

Growth of Online Grocery Sales since the COVID-19 Outbreak (compared to same period last year or daily average)

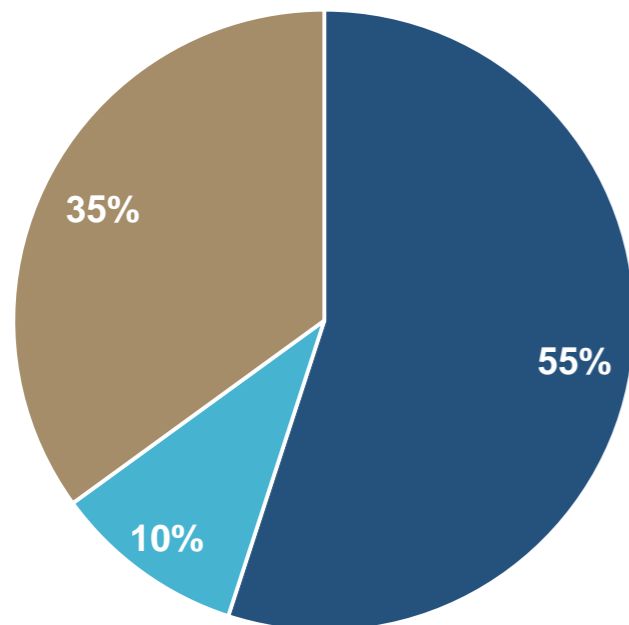


Note: In China, vegetable supply in Freshippo's ~50 Shanghai stores during the 2020 Lunar New Year was six times higher than its normal volume. JD Daojia (Walmart's delivery business in China) reported a five-time increase in sales volume during the Lunar New Year week (January 24 -30, 2020) from the same period of 2019. A local fresh food provider, Ding Dong Mai Cai, reported a 300% increase in the number of orders on January 24, 2020, compared to the daily average in December 2019. Missfresh, a local online fresh food shop, reported a 400% increase in sales volume (from the beginning of the COVID-19 outbreak to Feb 18, 2020) as compared to the same period in 2019. In Singapore, RedMart, an online grocery store, observed a more than 40% increase in orders in the week of Jan 23 2020, compared to the same time in the previous year. In South Korea, Gmarket reported that sales of home-style lunches rose 723 % 28th-29th January, 2020 compared to the same period in the previous year.

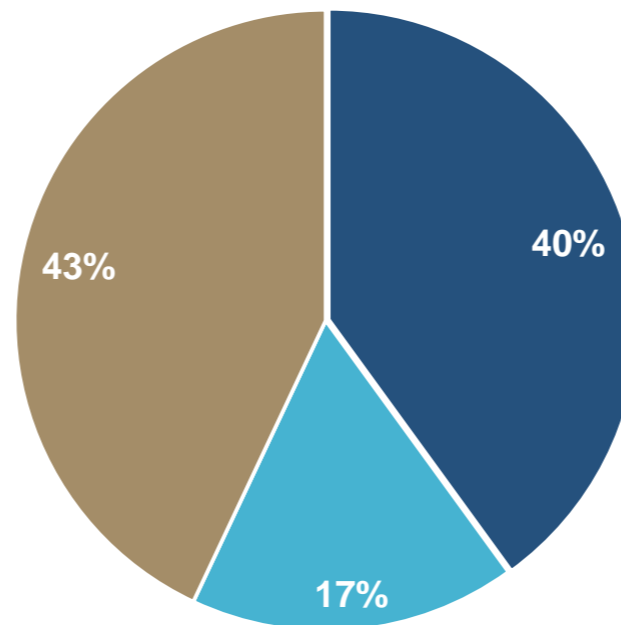
Some warehouse operators signal challenges while some still optimistic

Colliers' Survey among 700 real estate developers, online retailers, etc.

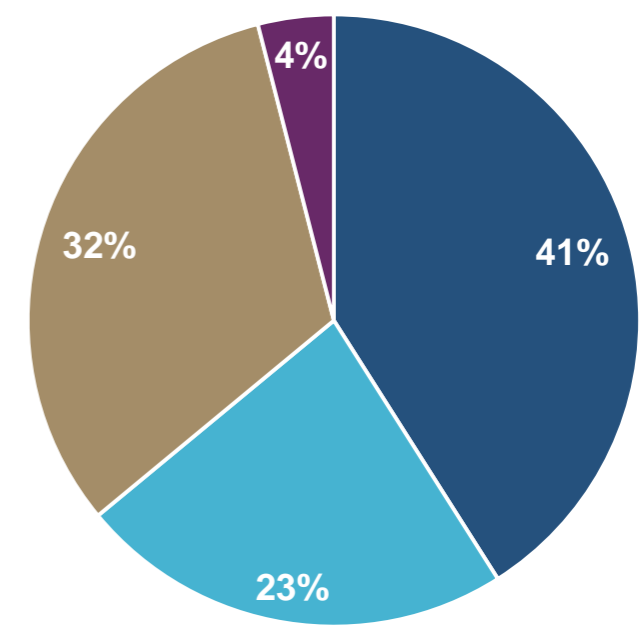
Online Retailers' 2020 Revenue Growth Expectation



Logistics and Warehouse Operators' 2020 Rental Growth Expectation



Logistics and Warehouse Operators' 2020 Occupancy Expectation



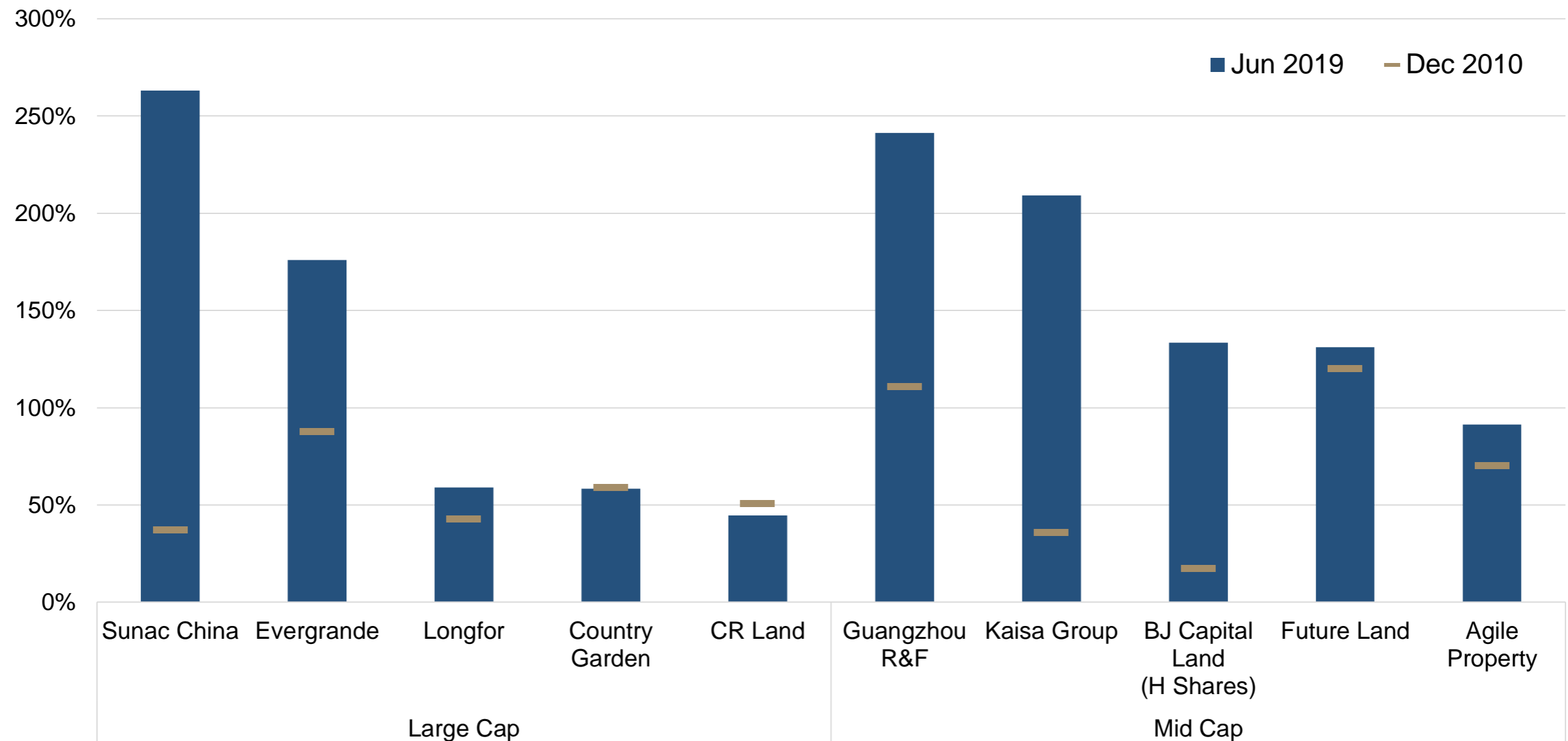
■ Increase ■ Flat ■ Decrease ■ Limited Clarity

Note: The survey sample comprises of over 700 respondents, of which 45% are real estate developers, 34% are online retailers, 6% are 3PL and 15% others.
Source: Colliers, as of 13th February 2020

Most mid-cap Chinese developers are vulnerable to liquidity constraint

EMERGENCY RESPONSE & LIQUIDITY INJECTIONS LIKELY TO BENEFIT LARGE-CAP COMPANIES THE MOST

Net Debt-to-Equity Ratio of Listed Chinese Developers in Hong Kong

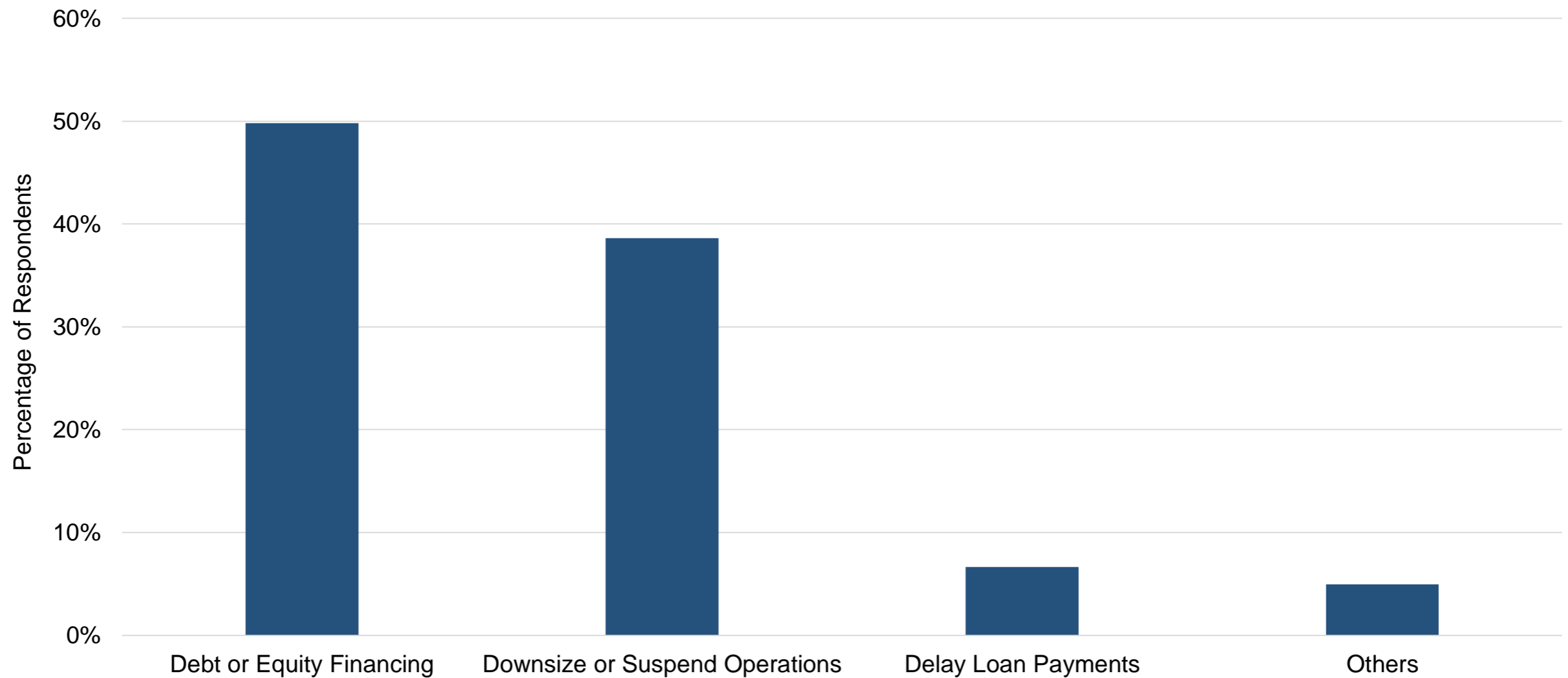


Source: Bloomberg, as of 28th February 2020

Potential distress among property owners with weak balance sheets

EXPECT SOME SHORT-TERM SUPPLY CHAIN DISRUPTIONS, BUT STIMULUS TO STEP IN

Survey of Chinese Small and Medium Enterprises (SMEs) on Cash Flow Management Approaches During the COVID-19 Outbreak



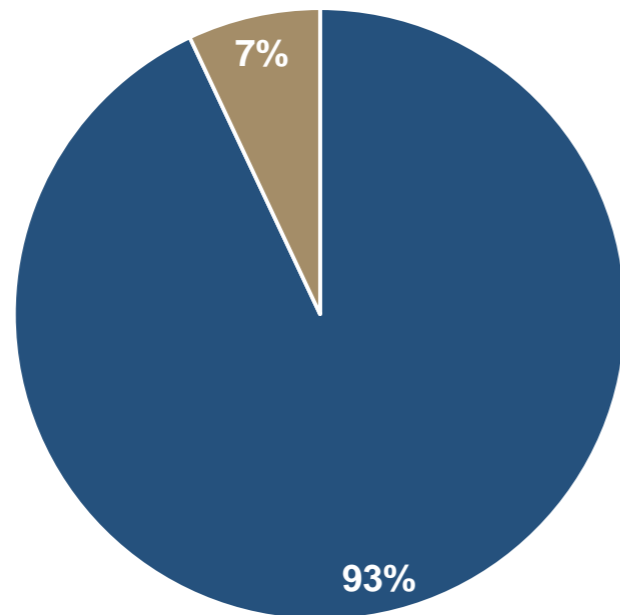
Note: Debt financing includes loans from financial institutions, private lenders, and staff. Equity financing includes capital injections from new or existing shareholders. Downsize operations includes suspension of operations, retrenchment of worker and wage reduction.

Source: CEIBS Business Review, February 2020

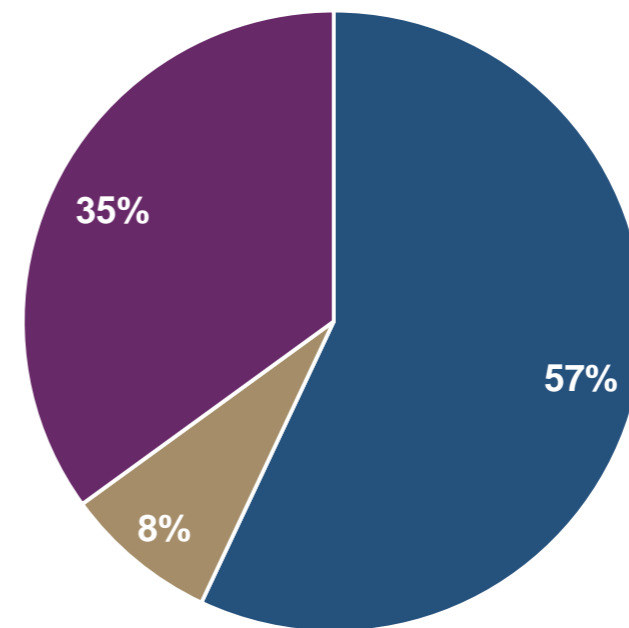
Survey indicates confidence on China's long-term growth

Survey among International Business Leaders on the Prospect of Relocating Operations Out of China

The British Chamber of Commerce in China



The American Chamber of Commerce in Shanghai



■ Not Considering

■ Considering

■ To Early to Tell

Source:

- The American Chamber of Commerce survey was conducted between 4th and 6th February. The survey includes 127 American businesses in China.
- The British Chamber of Commerce survey was conducted between 18th and 21st February. The survey includes 135 British businesses in China, from SMEs to globally-recognised FTSE 100 companies, operating across China and across industries.

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