

LIN LI, PHD

Head of Global Markets Research Asia

Global Markets Research
Global Markets Division for Asia
T: +852 2862 7005
E: lin_li@hk.mufg.jp

KHANG SEK LEE

Associate

Global Markets Research
Global Markets Division for Asia
T: +852 2862 7838
E: khangsek_lee@hk.mufg.jp

ChinaPulse: Growth slowed as divergence widened

Key Points:

- July data indicates a slowdown in aggregate economic momentum, with growth decline seen in IP, retail sales, FAI and main property activity indicators.
- A striking divergence, the "K-shaped" split between the "new economy" (tech and high-end manufacturing) and the "traditional economy" (consumption and real estate), is happening in Chinese economy.
- While factors, like the renewed risk of conflict in the Middle East, and natural disasters such as typhoons, heavy rainfall, and extreme heat, exerted some short-term negative pressure on the productions of certain sectors, overall demand remained weak, necessitating further policy stimulus.
- Government may accelerate the pace of project pipeline development and the disbursement of funds. We expect infrastructure investment to pick up from September onwards.
- We maintain the view of USD/CNY to reach 6.65 by the end of 2026

China released its key macroeconomic indicators for July yesterday.

July numbers indicated that China continues a two-speed economy, with production significantly outperforming consumption. The 4.5%yoy Industrial value-added expansion was supported by robust gains in high-tech manufacturing, which surged 16.9%yoy. In contrast, the subdued 0.6%yoy retail sales growth underscored the continued weakness in household demand despite solid manufacturing momentum. A significant divergence existed between high-tech FAI investment and overall FAI investment this July: Investment in high-tech industries bucked the trend with a 5.0%yoy ytd growth, whereas total fixed-asset investment fell by 6.7%yoy ytd, hitting a new low since April 2020, and real estate investment plummeted by 19.2%yoy ytd.

July numbers continued to indicate a significant contrast between resilient external demand and weak internal demand. AI-related exports remained robust, but effective domestic demand was insufficient, with household consumption and corporate investment sentiment remaining sluggish.

This "K-shaped" divergence is essentially a typical growing pain associated with the transition from old to new growth drivers. Although the new drivers—exemplified by AI and high-tech industries—are expanding rapidly, their scale is not yet sufficient to fill the massive void left by the slowdown of traditional drivers like real estate.

Short-term factors amplified economic fluctuations in July. Extreme weather, typhoon, heavy rainfall, caused disruptions in both production and consumption in July. And high-frequency data from August indicates that this weather impact persists.

Looking ahead, we still think that the pattern of economic recovery may become clearer from September onwards. The development of the "six networks" remains a key area to support current infrastructure investment. However, judging by the current project pipeline and the pace of fund disbursement, the rate of implementation remains

18 August 2026**MUFG Bank, Ltd.**

A member of MUFG, a global financial group

relatively slow. The Politburo meeting held at end-July made it clear that the priority is to speed up the implementation of existing policy measures, and we expect accelerated pace to finish the remaining 44% of annual bond quota.

Positively, the Chinese media reported that nearly 90% of the local government debt-swap quota (RMB 1.79tn out of RMB 2.0tn) had been utilized as of early August. Besides easing local governments' hidden debt repayment burden, the program should also improve liquidity conditions by freeing up capital that can be deployed to support the real economy. The progress made in debt swaps could also allow local governments to shift their focus toward accelerating the issuance of special local government bonds (LGBs) earmarked for infrastructure work.

Details of July macro data are as follows:

Muted retail sales growth highlights lingering weak consumption

July retail sales of consumer goods rose by merely 0.6%yoy, missing market expectations for a mild acceleration to 1.5%. The sequential growth was muted.

By product category for above-designated-size enterprises, a broad-based growth slowdown in retail sales was seen across categories from previous month. The exception was communication appliance (+3.9ppts), medicine (+2.3ppts) and household electric & video appliance (+6.8ppts). That said, 4 out of 6 trade-in related goods categories remained in negative growth and the big-ticket item such as automobile saw growth worsened further to -17.0%yoy.

In YTD term, total retail sales of goods and services (a new indicator introduced in June) increased by 2.6%yoy, edging lowered by 0.1ppts from previous month. In particular, services sales slowed faster by 0.3ppts to 5.0%yoy, whereas good sales growth inched down to 1.2%yoy.

Stabilization in FAI requires an acceleration in fiscal rollout

In July, FAI sequential contraction widened to -1.4%mom from -0.6%mom previously, marking the sixth consecutive month of contraction.

In year-to-date term, FAI growth worsened further to -6.7%yoy this July from -5.7%yoy; the growth slowdown was broad-based across sectors too, and the infrastructure investment growth further declined by 1.2ppts to -3.6%yoy. Separately, the overall manufacturing FAI growth worsened to -1.7%yoy. That said, most of the equipment-making sectors still managed a positive FAI growth thus far, except special equipment. Indeed, FAI on equipment purchase maintained a high single-digit growth with also a modest 0.9ppts growth acceleration. Furthermore, computer, communication and other electronic equipment defied the overall downward trend vividly, with growth accelerating by 1.3ppts to 7.8%yoy, highlighting a clear case of K-shape dynamics within the economy.

By ownership, the appetite for investment deteriorated across state-owned and private enterprises, with private FAI worsening to -9.4%yoy YTD and state-owned enterprises FAI growth declining to -3.3%yoy YTD.

Looking ahead, an accelerated fiscal rollout is required to stimulate infrastructure investment and stabilize overall FAI growth. That said, private sectors (ex-tech) are likely to remain under pressure which will limit the broader FAI recovery.

Property market continued to underperform

In year-to-date terms, property investment growth slumped to another new record low of -19.2%yoy, with growth slowdown seen across most other major property indicators including a -11.8%yoy growth of floor space sold and a -24.0%yoy growth of floor space started. For single month of July, some indicators posted year-over-year growth improvement but continued to experience double-digit growth decline.

Prices wise, overall home prices continued to decline, with varied degree of decline across new (-0.18%mom) and secondary home (-0.29%mom). This July, the price decline of new home prices widened slightly while the decline of secondary home prices narrowed somewhat compared to previous month. It is worth noting that home prices in tier-1 cities continued to recover with positive month-over-month gains for both new and secondary homes.

That said, NBS signaled some recovery of home prices expectations ahead. According to NBS survey in June, 63.1% of real estate professionals expected prices of newly built residential properties to remain stable or rise over the next six months. The proportion has remained above 60% for four consecutive months and has recovered by nearly 20ppts from last year's low point.

IP growth slowed more than expected despite strong tech

July IP surprised to the downside with growth moderating to 4.5%yoy versus the market estimates of 5.0%, partly linked to extreme weathers. Sequential momentum was muted with merely 0.1%mom growth. While manufacturing sector IP growth slowed by 0.5ppts to 5.5%yoy, the overall growth level remained healthy nevertheless. Interestingly, equipment-related sectors continued to do well with growth ranging between 9%-19%yoy in July, and especially so for computer, communication & other electronic equipment with 3.4ppts acceleration. Separately, high-tech manufacturing growth further accelerated to 16.9%yoy. On the other hand, more traditional industries such as pharmaceutical, chemical-related or ferrous metal smelting & pressing experienced some growth deceleration from previous month. Beyond manufacturing sector, the utilities (electricity, heat, gas and water) growth moderated from high single-digit growth to 5.0%yoy whereas mining output growth declined further to -4.2%yoy.

Exports of mechanical & electrical products including tech are booming

China's export growth remained robust in July, printing slightly above expectations at 23.9%yoy, although moderating from the previous month's 27%yoy. The uptrend in tech exports remained firmly intact, with combined exports of chips and automatic data processing machines and parts (i.e. tech exports) surging 93%yoy. As a result, the contribution of tech exports to headline export growth rose to 10.0ppts, reaching double digits for the first time (ex- Covid) despite accounting for only 11% of total exports. Beyond tech, mechanical & electrical products growth was firm and evidently in ships, motor vehicles and general machinery, all posting high double-digit growth, with particularly notable acceleration in ship exports (+50ppts) and general machinery exports (+16ppts).

Across destinations, export growth to major trading partners, including the US, remained healthy, ranging between 14% and 38%yoy. Notably, ASEAN share of China's exports gained steadily to currently 19% from 16% prior to Trump 2.0, strengthening its status as the top export destination.

On the import side, growth moderated and undershot expectations, coming in at 27.5%yoy (vs. consensus 29.7%). The slowdown was driven by a sharp deceleration in non-tech imports, where growth eased by 11ppts to 12%yoy. By contrast, tech imports continued to strengthen as China is ramping up its tech capability.

Weaker-than-expected inflation highlights reflation challenges

China's headline and core CPI inflations came in lower than prior month and below market expectations again in July, to 0.5%yoy and 0.9%yoy respectively. While the 0.5ppts decline in headline CPI from prior month was mainly driven by lower gasoline prices, the continued moderation in core CPI inflation since May is more concerning. Meanwhile, services CPI also edged lower by 0.2ppts to 0.7%yoy during the same period, consistent with a broad-based weak domestic demand. Bright spot was

however the communication facility prices (e.g., mobile phones) which likely benefited from higher chip prices, rising by 8.3%yoy.

For PPI, the headline reading moderated to 3.5%yoy in July from June's 4.1%yoy. On month-on-month basis, it declined further by 0.7%mom due to sharper decline in the prices of refined petroleum, coal and other fuels products (-6.0%mom). Separately, both ferrous and non-ferrous metal mining/ smelting and pressing also recorded prices decline, with the former affected by adverse weathers and the latter weighed down by lower global prices. Lastly, consumer goods PPI remained largely stable.

Aggregate financing growth stabilized with faster government bond issuance

In July, the new increase in aggregate financing picked up to RMB 1.4tn from RMB 1.13tn same period last year. The closely watched government bond issuance matched the size last year at around RMB 1.3tn, marking also a sequential pick-up from RMB 0.77tn in previous month. Net corporate bond financing increased to RMB 454bn from RMB 275bn last year, helping to offset the larger local currency loan contraction. Stock wise, aggregate financing growth stabilized at 7.4%yoy following recent decline.

Bank loan wise, the picture of weak loan demand remained intact. The household loan reversed to seasonal contraction but the magnitude suggests continued subdued demand (-RMB 460bn). For corporates, overall loan stock declined dragged by contraction in medium & long-term loan (a gauge of investment appetite) and smaller increase in bill financing compared to previous year. Lastly, M2 growth slowed to 7.7%yoy with M1 growth flat at 4.0%yoy.

Recently, the PBoC played down the focus on seeing loans as a sole-financing channel and encouraged a broader metric to gauge corporates' financing demand, which includes bond/ equity financing. Combining YTD corporate new loan, bond and equity financing, the size has reached RMB 13.9tn, around RMB 0.6tn higher than same period last year. However, excluding short-term loans and bill financing, which better reflect firm's longer-term investment plan, the total stood at RMB 8.2tn, around RMB 0.3tn lower than a year earlier, still pointing to a weaker investment appetite.

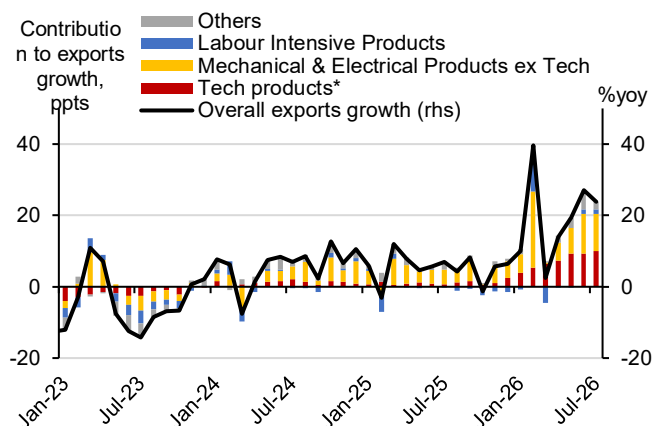
Looking ahead, a potential higher pace of fiscal stimulus implementation may help support the overall aggregate financing growth. A 44% of annual bond quota, or equivalent to RMB 6.1tn, remains as of July.

USD/CNY: Directionally positive on CNY

Month-to-date, CNY gained 0.2% against US dollar, reflecting softer DXY index. Notably, market's strong appreciation bias on CNY has seemed to reappear with the USD/CNY spot now trading away (lower) from the daily fixing level again since late July as market likely took the message from July's Politburo meeting somewhat positively and also against the backdrop of broader equity market rebound following July tech sell-off.

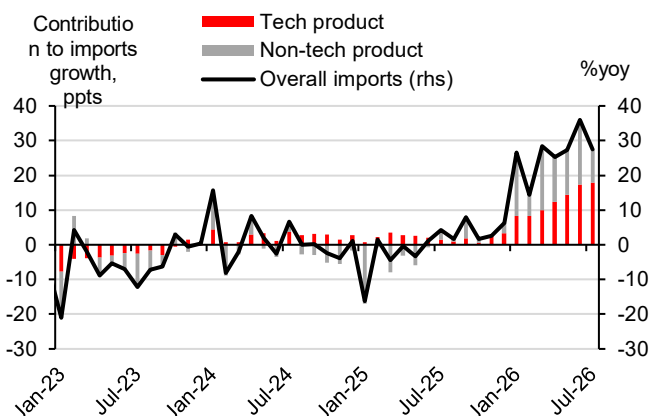
We remain constructive on CNY through year-end, forecasting USD/CNY at 6.65 by Q4. CNY should benefit from the continued strength in exports/ trade surplus, recurring tech-led China's asset revaluation theme which may help to attract portfolio inflow. The pace of appreciation however will likely be gradual given the intense domestic growth headwind. In the absence of growth improvement in coming months, CNY could face downside risk if the PBoC delivers policy rate cuts, which could widen the negative yield spread with the US. External factors like Fed rate path, US yields and US dollar trend may create renewed volatility on USD/CNY pair.

M&E INCLUDING TECH PRODUCTS ARE DRIVING GROWTH



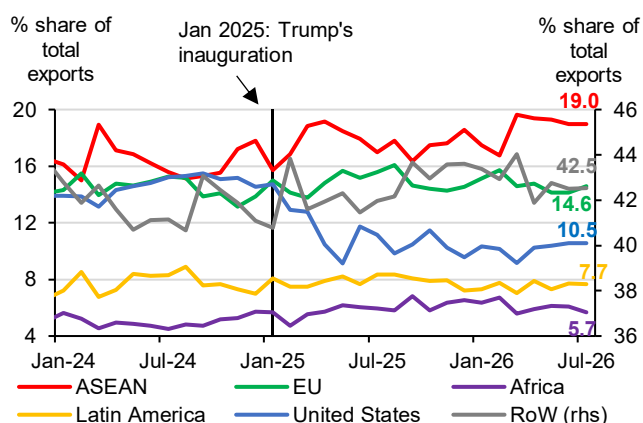
Source: CEIC, Bloomberg, MUFG GMR. *Tech refers to chips + automatic data processing machine & part

NON-TECH PRODUCT IMPORTS GROWTH SLOWED NOTABLY IN JULY



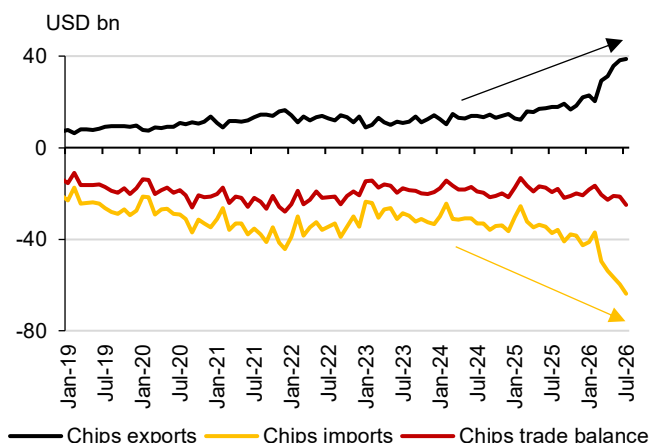
Source: CEIC, Bloomberg, MUFG GMR. *Tech refers to chips + automatic data processing machine & part

CHINA'S EXPORTS MIX HAS GRADUALLY CHANGED SINCE TRUMP 2.0



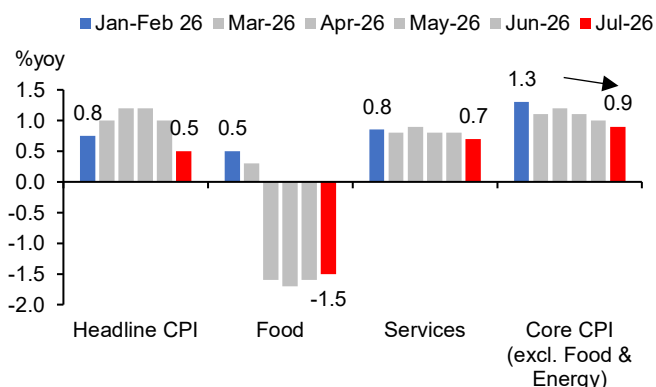
Source: CEIC, Bloomberg, MUFG GMR.

CHINA REMAINS DEPENDENT ON CHIPS IMPORTS



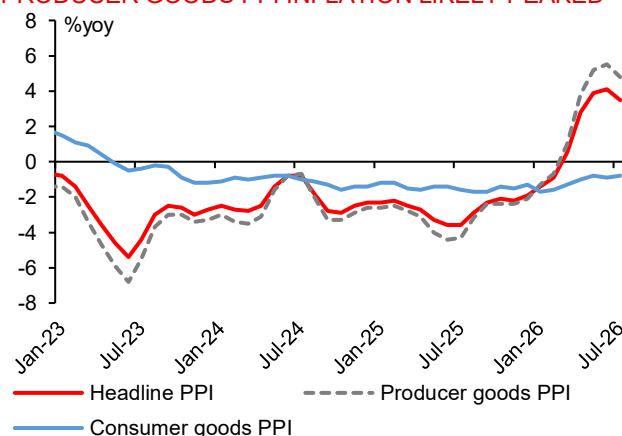
Source: CEIC, Bloomberg, MUFG GMR.

CORE CPI INFLATION IS GRINDING LOWER



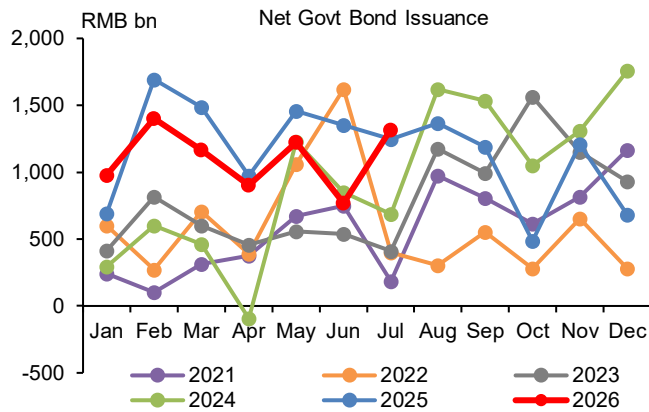
Source: CEIC, Bloomberg, MUFG GMR.

PRODUCER GOODS PPI INFLATION LIKELY PEAKED



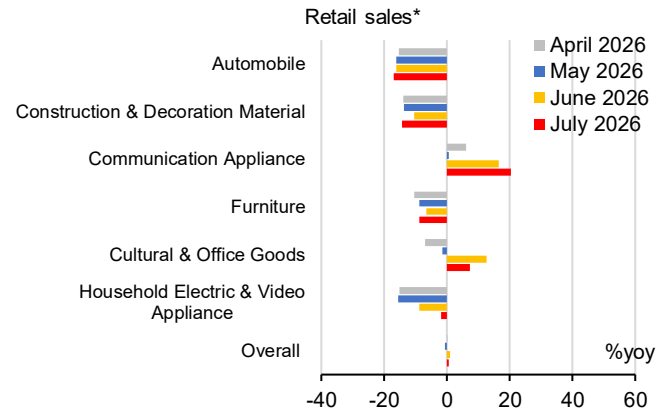
Source: CEIC, Bloomberg, MUFG GMR.

GOVT BOND ISSUANCE PICKED UP IN JULY



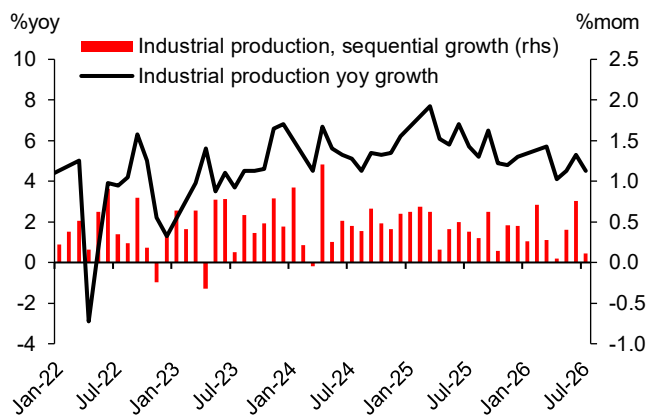
Source: CEIC, Bloomberg, MUFG GMR.

MOST OF TRADE-IN PROGRAM GOODS REMAINED IN NEGATIVE GROWTH TERRITORY



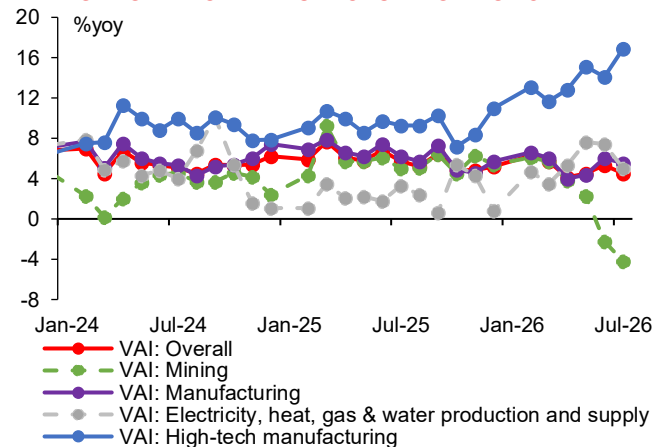
Source: CEIC, Bloomberg, MUFG GMR. *For product breakdown, the sales refer to above designated sized enterprises

RESILIENT IP GROWTH IS SUPPORTING THE ECONOMY



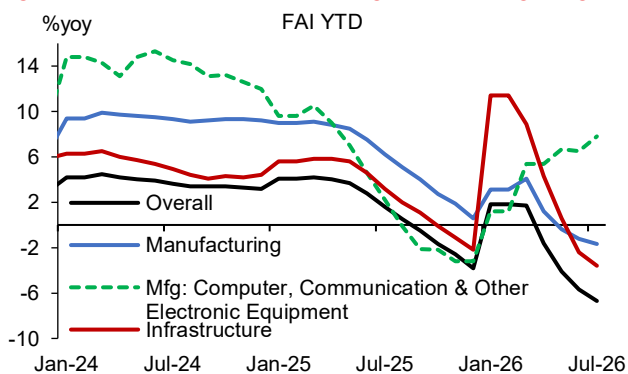
Source: CEIC, Bloomberg, MUFG GMR.

RIISING HIGH-TECH MANUFACTURING IP GROWTH



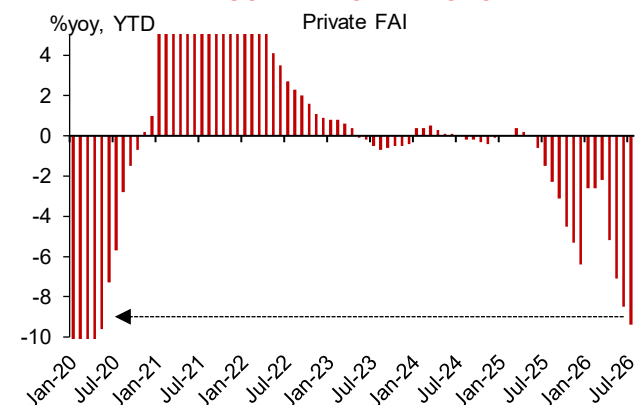
Source: CEIC, Bloomberg, MUFG GMR.

TECH-RELATED FAI DEFIED THE OVERALL SLOWDOWN



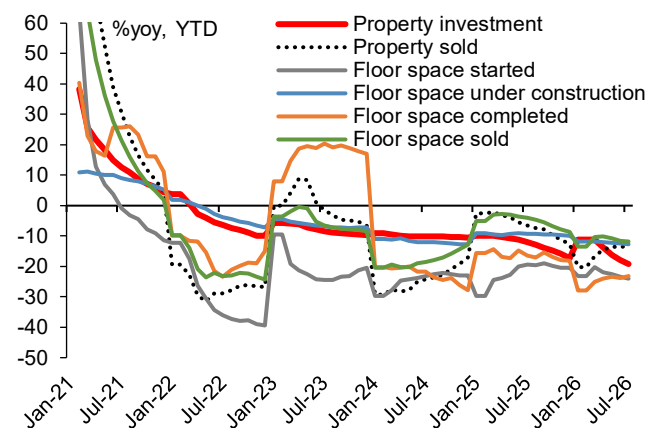
Source: CEIC, Bloomberg, MUFG GMR. Note: 2026 Infrastructure includes "electricity, heat, gas & water production and supply" category

PRIVATE FAI IS STUCK IN NEGATIVE GROWTH



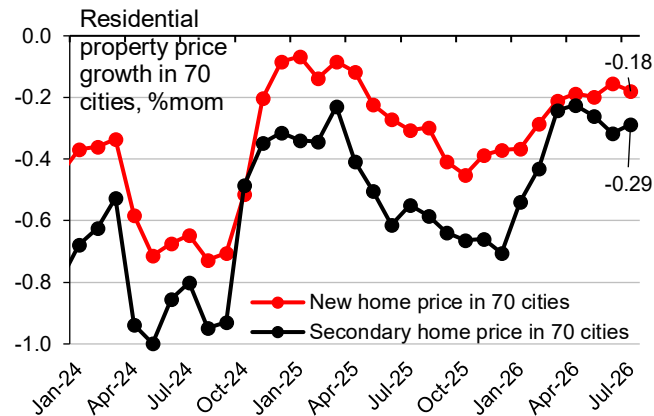
Source: CEIC, Bloomberg, MUFG GMR.

PROPERTY ACTIVITY INDICATORS REMAINED DEPRESSED



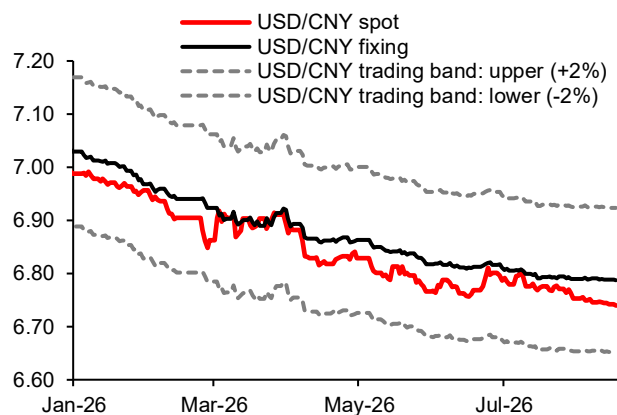
Source: CEIC, Bloomberg, MUFG GMR.

OVERALL HOME PRICES REMAINED ON DECLINE, WITH PACE DIFFERED BY HOME TYPE



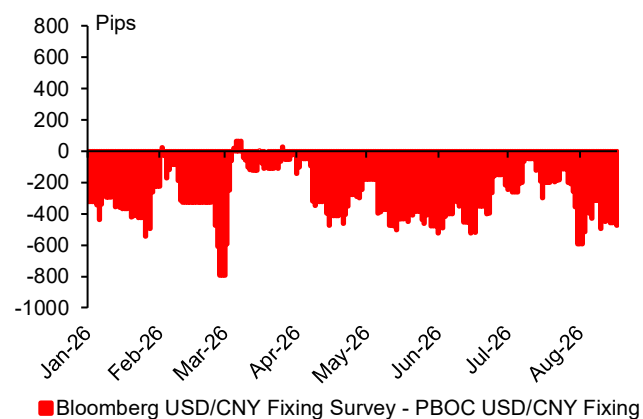
Source: CEIC, Bloomberg, MUFG GMR.

CNY APPRECIATION TREND REGAINED MOMENTUM



Source: CEIC, Bloomberg, MUFG GMR.

PBOC APPEARED TO HAVE SLOWED DOWN THE PACE OF CNY APPRECIATION AGAIN



Source: CEIC, Bloomberg, MUFG GMR.

SUMMARY OF CHINA ECONOMIC DATA

	Jul-26	Jun-26	May-26	Apr-26	Mar-26	Feb-26	Jan-26
GDP							
Value, RMB bn		36,151			33,419		
%yoy (real)		4.3			5		
%qoq (real), sa		0.9			1.3		
%yoy (nominal)		5.9			4.9		
Contribution to GDP growth							
Final Consumption Expenditure		1.9			2.3		
Gross Capital Formation		1.5			1.9		
Net Export of Goods and Service		0.9			0.8		
Surveyed unemployment rate, %	5.2	5.0	5.1	5.2	5.4	5.3	5.2
Industrial Production							
%yoy ytd	5.3	5.4	5.4	5.6	6.1	6.3	
%yoy	4.5	5.3	4.5	4.1	5.7	6.3	
%mom	0.11	0.76	0.40	0.05	0.28	0.71	0.26
Retail sales							
%yoy ytd	1.2	1.3	1.4	1.9	2.4	2.8	
%yoy	0.6	1	-0.6	0.2	1.7	2.8	
%mom	0.06	0.35	-0.15	-0.27	0.1	0.23	0.18
Fixed asset investment, %yoy ytd							
Total	-6.7	-5.7	-4.1	-1.6	1.7	1.8	1.8
Domestic Enterprise	-6.4	-5.5	-3.9	-1.3	2.1	2.1	2.1
Manufacturing	-1.7	-1.2	-0.4	1.2	4.1	3.1	3.1
Tertiary Industry: Real Estate		-18	-15.9	-13.4	-10.6	-10.7	-10.7
Infrastructure	-3.6	-2.4	0.6	4.3	8.9	11.4	11.4
%mom	-1.42	-0.60	-1.14	-2.74	-0.35	-0.26	0.58
Real Estate, %yoy ytd							
Property Investment	-19.2	-18	-16.2	-13.7	-11.2	-11.1	-11.1
Building Sold(value)	-13.8	-14.2	-13.9	-14.9	-17.0	-20.2	-20.2
Floor Space Sold(area)	-12.7	-12.5	-11.3	-10.6	-10.7	-13.5	-13.5
Floor Space Started (area)	-24.2	-23.5	-22.7	-22.1	-20.2	-23.1	-23.1
Floor Space under Construction(area)	-12.7	-12.5	-12.2	-12.1	-11.7	-11.7	-11.7
Residential property Price, %yoy ytd avg	-0.5	-1.4	-2.2	-3.9	-6.2	-6.9	-6.9
Trade							
Export(USD), %yoy	23.9	27.0	19.4	14.1	2.5	39.6	9.8
Import(USD), %yoy	27.5	36.0	27.4	25.3	27.8	13.8	25.9
Trade Balance, USD bn	112.5	125.6	105.4	84.8	51.1	91.0	122.6
PMI							
Composite	49.3	50.6	50.5	50.1	50.5	49.5	49.8
Manufacturing	49.2	50.3	50	50.3	50.4	49.0	49.3
Non-manufacturing	49	50.2	50.1	49.4	50.1	49.5	49.4
Inflation							
CPI, %yoy	0.5	1	1.2	1.2	1	1.3	0.2
Core CPI, %yoy	0.9	1	1.1	1.2	1.1	1.8	0.8
CPI, %mom	-0.1	-0.3	-0.1	0.3	-0.7	1	0.2
PPI, %yoy	3.5	4.1	3.9	2.8	0.5	-0.9	-1.4
PPI, %mom	-0.7	-0.3	0.5	1.7	1	0.4	0.4
Money							
M2, %yoy	7.7	8	8.6	8.6	8.5	9	9
Aggregate Financing, %yoy	7.4	7.4	7.7	7.8	7.9	8.2	8.2
Loan, %yoy	5.1	5.2	5.5	5.6	5.7	6	6.1
Rates							
7D Reverse Repo, %	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Loan Prime Rate: 1 year, %	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Treasury Bond Yield: 10 year, %	1.7	1.7	1.7	1.8	1.8	1.8	1.8
FX							
USD/CNY, monthly avg.	6.80	6.82	6.84	6.87	6.90	6.95	7.00
CFETS RMB Index	102.2	102.6	100.7	100.2	100.9	98.6	97.0

Source: CEIC, MUFG GMR.

CERTIFICATION

The author(s) mentioned on the cover of this report hereby certify(ies) (or, where multiple authors are responsible, individually certify with respect to each security that the author covers in this report) that the views expressed in this report accurately reflect their personal views about the subject company(ies) and its (their) securities, and also certify(ies) that they have not been, are not, and will not be receiving direct or indirect compensation in exchange for expressing any specific recommendation(s) or view(s) in this report.

This report has been prepared by the Global Markets Research, US Rates and Credit Strategy desks within MUFG Bank, Ltd. ("MUBK"), MUFG Securities EMEA plc ("MUSE") and MUFG Securities Americas Inc ("MUSA") and may be distributed to you either by MUBK, MUSE or MUSA or by another subsidiary of the Mitsubishi UFJ Financial Group ("MUFG").

LEGAL ENTITIES AND BRANCHES

The securities related businesses within MUFG (together referred to in this material as "MUFG Securities") are:

- (1) MUFG Securities EMEA plc ("MUSE"), a limited liability company, registered in England (No:1698498) with its registered office at Ropemaker Place, 25 Ropemaker Street, London, EC2Y 9AJ. MUSE is authorised in the United Kingdom by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA (FS Registration Number 124512). In the USA, MUSE is a registered Swap Dealer ("SD") with the Commodity Futures Trading Commission ("CFTC") and a member of the National Futures Association ("NFA"). MUSE is also a registered Security-Based Swap Dealer ("SBS") with the Securities Exchange Commission ("SEC"). MUSE has a branch office ("MUSE Dubai Branch") that is registered at Level 3, East Wing, The Gate, Dubai International Financial Centre, PO Box 506894, Dubai, UAE. MUSE Dubai Branch is authorised to operate in the Dubai International Financial Centre ("DIFC") as a Non-DIFC Entity (Commercial License Number CL1656) and is regulated by the Dubai Financial Services Authority (Reference Number F002623);
- (2) MUFG Securities (Europe) N.V. ("MUS(EU)"), a public limited company, registered in the Netherlands (chamber of commerce number 71213376) with its registered office at World Trade Center, Tower Two, level 5, Strawinskylaan 1887, 1077 XX Amsterdam. MUS(EU) is authorized by the European Central Bank and regulated by De Nederlandsche Bank ("DNB") and also regulated by the Autoriteit Financiële Markten ("AFM"). MUS(EU) has a branch office (MUSE(EU) Paris Branch) registered in France (chamber of commerce number 844285999) with its registered office at 18 rue du Quatre-Septembre, 75002 Paris. MUS(EU) Paris Branch is regulated in France by the Autorité de contrôle prudentiel et de résolution ("ACPR") and the Autorité des marchés financiers ("AMF");
- (3) MUFG Securities Americas Inc. ("MUSA") which is registered in the United States with the Securities and Exchange Commission ("SEC") and regulated by the Financial Industry Regulatory Authority ("FINRA") (SEC# 8-43026; CRD# 19685);
- (4) MUFG Securities (Canada), Ltd. ("MUS(CAN)") is an investment dealer registered in Canada with the Ontario Securities Commission ("OSC") and in each province and territory of Canada, a member of the Canadian Investment Regulatory Organization ("CIRO") (NRD# 54270), and a member of the Canadian Investor Protection Fund ("CIPF"). Customers' accounts are protected by CIPF within the specified limits;
- (5) MUFG Securities Asia Limited ("MUS(ASIA)") which is incorporated in Hong Kong, licensed under the Hong Kong Securities and Futures Ordinance and regulated by the Hong Kong Securities and Futures Commission (Central Entity Number AAA889). MUS(ASIA) is registered as a foreign company under the Corporations Act 2001 of Australia (ARBN 169 329 453); and
- (6) MUFG Securities Asia Limited, Singapore Branch ("MUS(ASIA Singapore)") has a capital markets services licence under the Securities and Futures Act in Singapore.
- (7) MUFG Securities (India) Private Limited ("MUS(INDIA)") is a registered intermediary under the Securities and Exchange Board of India (Merchant Bankers) Regulations, 1992 having registration number INM000013305.

In respect of the financial services provided to wholesale clients in Australia, MUS(ASIA), MUSE and MUSA are each exempt from the requirement to hold an Australian financial services licence under the Corporations Act 2001 of Australia under the Australian Securities and Investments Commission Class Order Exemption CO 03/1099, CO 03/1103, CO 03/1100, and CO 03/1102, respectively. Each of MUS(ASIA), MUSE, MUSA, are regulated under the laws of Hong Kong, the United Kingdom and the United States respectively, which differ from Australian laws.

The banking related businesses within MUFG (together referred to in this material as "MUFG Bank") are:

- (1) MUFG Bank Ltd ("MUBK"), is a limited liability stock company incorporated in Japan and registered in the Tokyo Legal Affairs Bureau (company no. 0100-01-008846). MUBK's head office is at 1-4-5 Marunouchi, Chiyoda-Ku, Tokyo, Japan. MUBK is authorised and regulated by the Japanese Financial Services Agency. MUBK is registered as a foreign company under the Corporations Act 2001 of Australia (ARBN 103 418 882) and is authorised by the Australian Prudential Regulation Authority to carry on banking business in Australia under the Banking Act 1959 of Australia. MUBK is also a registered Swap Dealer with the Commodity Futures Trading Commission and a member of the National Futures Association.
- (2) MUBK's London branch is at Ropemaker Place, 25 Ropemaker Street, London EC2Y 9AN, and is registered as a UK establishment in the UK register of companies (registered no. BR002013). MUBK's London branch is authorised by the UK Prudential Regulation Authority ("PRA") and subject to regulation by the UK Financial Conduct Authority ("FCA") and limited regulation by the PRA.
- (3) MUFG Bank (Europe) N.V. ("MUFG N.V.") is a company with limited liability (naamloze vennootschap) incorporated under the laws of the Netherlands and registered with the Dutch Chamber of Commerce under number 33132501, with its head office at Strawinskylaan 1887, 1077XX Amsterdam, the Netherlands. MUFG N.V. is authorized and regulated by the Dutch Central Bank (De Nederlandsche Bank) (www.dnb.nl) and the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten) (www.afm.nl) (jointly the "Dutch Authorised Regulators"). MUFG Bank (Europe) N.V. Germany Branch ("MUFG Germany") is the German Branch of MUFG N.V. with its registered office at Breite Strasse 34, 40213 Düsseldorf, Germany, registered with the commercial register (Handelsregister) of the local court (Amtsgericht) of Düsseldorf under no. HRB 82502, and is authorised to provide banking services in Germany under the freedom of establishment in the European Union. Part of its activities are - in addition to the Dutch Authorised Regulators – supervised by the Federal Financial Supervisory Authority for Germany, "BaFin" (Bundesanstalt für Finanzdienstleistungsaufsicht) (www.bafin.de) and Deutsche Bundesbank (www.bundesbank.de).
- (4) MUFG Bank's DIFC branch, is regulated by the Dubai Financial Services Authority (DFSA) (License number: F000470) and has its registered address at Level 3, East Wing, the Gate, Dubai International Financial Centre, Dubai, P.O. Box 506614, United Arab Emirates.
- (5) MUFG Bank's QFC branch is authorised by the Qatar Financial Centre Regulatory Authority (QFCRA) (Licence number: 00103) and has its registered address at Suite A3, Mezzanine Floor, Tornado Tower, West Bay, Doha, Qatar.
- (6) MUFG Bank's Riyadh branch is regulated by the Saudi Central Bank and has its registered address at 13th Floor, East Wing Al Nakhl Tower, King Fahd Road, As Sahafah Dist, Riyadh 13315, Kingdom of Saudi Arabia.
- (7) MUBK's Canada branch (MUFG Bank, Ltd., Canada Branch ("MUBK Canada Branch") principal office is located at 200 Bay Street, Suite 1800, Toronto, Ontario, M5J 2J1, Canada. MUFG Bank's Canada branch is an authorized foreign bank branch permitted to carry on business in Canada pursuant to the Bank Act (Canada); Deposits with MUFG Bank Canada are not insured by the Canada Deposit Insurance Corporation.

- (8) MUBK's Hong Kong branch is a licensed bank by the Hong Kong Monetary Authority and registered with the Securities and Futures Commission of Hong Kong to carry out Type 1 and Type 4 regulated activities in Hong Kong.
- (9) MUBK's Singapore branch is licensed as a bank by the Monetary Authority of Singapore under the Banking Act of Singapore, an exempted capital markets service entity and an exempt financial adviser under the Securities and Futures Act and Financial Advisers Act of Singapore respectively.
- (10) MUBK's Auckland Branch is authorised by the Reserve Bank of New Zealand to carry on banking business in New Zealand under the Banking (Prudential Supervision) Act 1989 of New Zealand.

GENERAL DISCLAIMERS

This report is for information purposes only and should not be construed as investment research (as defined under regulatory rules of the United Kingdom and the European Economic Area) or a solicitation of any offer to buy or sell any security, commodity, futures contract or related derivative (hereafter "instrument") or to participate in any trading strategy. This report does not constitute a personal recommendation and does not take into account the individual financial circumstances, needs or objectives of the recipients. Recipients should therefore seek their own financial, legal, tax or other advice before deciding to invest in any of the instruments mentioned in this report.

Certain information contained in this report has been obtained or derived from third party sources and such information is believed to be correct and reliable but has not been independently verified. MUBK and MUFG Securities do not make any guarantee, representation, warranty or undertaking, express or implied, as to the fairness, accuracy, reliability, completeness, adequacy or appropriateness of any information or comments contained in this report. Furthermore, the information may not be current due to, among other things, changes in the financial markets or economic environment. MUBK and MUFG Securities has no obligation to update any such information contained in this report.

The information contained in this report may contain forward-looking information ("FLI"). FLI is information regarding possible events, conditions, or results of operations that is based on assumptions about future economic conditions and courses of action and may be presented as either a forecast or a projection. This report is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. Upon receipt of this report, each recipient acknowledges and agrees that any FLI included herein should not be relied upon as a material consideration for any investment decisions taken by the recipient. Recipients should consult their own legal and financial advisers for additional information. Any prices provided herein (other than those identified as being historical) are indicative only and do not represent firm quotes as to either price or size.

This report is proprietary to MUBK and MUFG Securities and may not be quoted, circulated or otherwise referred to without our prior written consent. Notwithstanding this, MUBK and MUFG Securities shall not be liable in any manner whatsoever for any consequences or loss (including but not limited to any direct, indirect or consequential loss, loss of profits and damages) arising from any reliance on or usage of this report and accepts no legal responsibility to any investor who directly or indirectly receives this material.

MUBK covers banking business and is responsible for the publication of related research reports. MUFG Securities covers the securities business and is responsible for the publication of securities related research reports. References to "MUBK" shall be interpreted as a reference only for all matters related to bank products and references to "MUFG Securities" shall be interpreted as a reference only for all matters related to securities products.

MUBK and/or its directors, officers and employees, from time to time, may have interest and/or underwriting commitment in the relevant securities mentioned herein or related instruments and/or may have a position or holding in such securities or related instruments as a result of engaging in such transactions. Furthermore, MUBK may have, or have had a relationship with or may provide or have provided corporate finance or other services to any company mentioned herein.

COUNTRY AND REGION SPECIFIC DISCLAIMERS

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or is located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to any law, regulation or rule. Each entity and branch within MUFG is subject to distinct regulatory requirements and certain products and services discussed in this document may not be available in all jurisdictions or to all client types. In this regard, please note the following jurisdictional specific disclaimers.

Europe Middle East and Africa (EMEA):

- United Kingdom (UK) and the European Economic Area (EEA): This report is only intended for a professional client or eligible counterparty and must not be passed onto a retail client, as defined under UK and EEA regulatory rules. It does not constitute investment research as those producing this report are not a research function and therefore this material has not been prepared under conditions designed to promote the independence of investment research including, but not limited to, the prohibition on dealing ahead of the dissemination of investment research. Under the Market Abuse Regulation ("MAR") this report is a marketing communication which may amount to, or include, an investment recommendation and where so there are no plans to update the investment recommendation. Any prices mentioned in the investment recommendation were prices known by us when the recommendation was prepared. Further UK and EEA disclaimers, disclosures policies and notices can be found at <https://www.mufigemea.com/governance/legal-and-regulatory/>, including the Fixed Income and Currency Products Dealing Disclosures, the Conflicts of Interest Summary Policy and MAR investment recommendation disclosures.

- United Arab Emirates (UAE): This report is only intended for distribution to a professional client or market counterparty as those terms are defined under the rules of the Dubai Financial Services Authority and only a person meeting the criteria for these terms should act upon this report.

- Qatar: This report is only intended for distribution to a Business Customer or Eligible counterparty as those terms are defined under the rules of the Qatar Financial Centre Regulatory Authority and only a person meeting the criteria for these terms should act upon this report.

- South Africa: MUSE is permitted to offer and provide financial services to certain categories of sophisticated clients in South Africa under an exemption issued by the South African Financial Sector Conduct Authority, in terms of the Financial Advisory and Intermediary Services Act, 2002.

The Americas (AMER):

- United States of America: This report, when distributed by MUSA, is intended for Institutional Investors ("Institutional Accounts" as defined by FINRA Rule 4512(c)). When distributed by a non-US affiliate of MUSA, this report is intended for distribution solely to "major U.S. institutional investors" or "U.S. institutional investors" pursuant to Rule 15a-6 under the U.S. Securities Exchange Act of 1934, as amended. Securities referenced in this report may have been underwritten by MUSA and/or its affiliates. Nothing in this report should be considered an offer or solicitation of an offer to buy or sell securities or any other financial product or a commitment of any kind with respect to any transaction.

IRS Circular 230 Disclosure: MUFG Securities does not provide tax advice. Accordingly, any discussion of U.S. tax matters included herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone not affiliated with MUSA of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

In relation to activities undertaken by MUSE in their capacity of a SD or SBSD, further disclosures and notices can be found at <https://www.mufgemea.com/governance/legal-and-regulatory/>.

- Canada: MUSE operates under an International Dealer Exemption and Foreign Derivatives Dealer Exemption from registration within the provinces of Alberta, British Columbia, Manitoba, Ontario and Québec. MUSA operates under an International Dealer Exemption from registration with the securities regulators in all Canadian Provinces and Territories. When distributed by MUSE or MUSA, this report is only intended for a "permitted client" as that term is defined under the National Instrument 31-103 in Canada and is not intended for re-distribution to any other person. When distributed by MUS(CAN), this report is only intended for an "institutional client" as that term is defined under the CIRO dealer member rules and is not intended for re-distribution to any other person. The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Under no circumstance is the information contained herein to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient.

Asia-Pacific (APAC):

- Hong Kong: Reports produced by MUFG Securities are only intended for distribution to a "professional investor" as that term is defined in the Securities and Futures Ordinance and should not be passed onto any other person. All enquiries from recipients of this report in Hong Kong must be directed to your usual sales contact in Hong Kong.

- Singapore: This report is only intended for distribution to an "institutional investor", "accredited investor" or "expert investor" as those terms are defined under regulation 2 of the Financial Advisers Regulation. It is solely for the use of such investors and shall not be distributed, forwarded, passed on or disseminated to any other person. Investors should note that, as a result of exemptions that apply when this report is distributed to "accredited investors" and "expert investors", MUBK's Singapore branch and MUS(ASIA) Singapore is exempt from complying with certain requirements under the Financial Advisers Act, including section 34 of the Financial Advisers Act (which requires a financial adviser to disclose all material information on certain investment products), section 36 (which requires a financial adviser to have a reasonable basis for making recommendations on investments) and section 45 (which requires a financial adviser to disclose any interests that it holds in securities that it recommends). Please contact your respective financial advisor in Singapore in relation to any matters arising from this report.

- India: (i) MUS(INDIA) does not provide any advice/ recommendation to the prospective investors; (ii) the issuer is solely responsible for the completeness and accuracy of all information in the memorandum or otherwise provided to investors in connection with the debentures issued; (iii) MUS(INDIA) does not make any representations or warranties on the creditworthiness of the issuer of the securities, the information provided in the memorandum, or on the adequacy/ sufficiency and legal validity of the legal documentation or structure; (iv) investors must obtain independent advice in connection with the investment; and (v) MUS(INDIA) does not owe any duty of care to investors and expressly disclaims all liability.

- Japan: This Note, when distributed by MUFG Securities affiliates located outside of Japan, is intended for distribution in accordance with Article 58-2 of the Financial Instruments Exchange Act 1948 ("FIEA") i) to a "Financial Instruments Business Operator" engaged in "Securities-Related Business" as defined in the FIEA or ii) to the government, the Bank of Japan, a qualified financial institution defined in Article 209 of the Cabinet Office Ordinance Concerning Financial Instruments Business, Etc., or an Investment Manager.

When distributed by Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. ("MUMSS"), this Note is intended for distribution to a "Professional Investor (tokutei-toushika)" as defined in the FIEA.

- Australia: This Note is only intended for distribution to persons in Australia who are sophisticated or professional investors for the purposes of section 708 of the Corporations Act 2001, and are wholesale clients for the purposes of section 761G of the Corporations Act 2001. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in Australia. This Note is for informational purposes only, it does not make any recommendations and should not be relied upon for any investment purposes. For information on how we collect, use, store and secure personal information, please review our [Privacy Policy](#). MUBK and MUFG Securities have established policies and procedures to identify and manage conflicts of interest to uphold the values of integrity, responsibility, accountability and trust, and to treat clients fairly. MUBK and MUFG Securities have put in place the following arrangements to prevent conflicts of interest: information barriers to prevent the unnecessary exchange or misuse of confidential information; segregated deal teams to manage competing interests in a transaction; defined procedures for dealing with conflicts of interest, including procedures on crossing information barriers; reasonable steps by Compliance to ensure that information barrier arrangements remain effective and are effectively monitored.

- New Zealand: This Note is only intended for distribution to persons in New Zealand who are wholesale clients as defined in clause 4 of Schedule 5 of the Financial Markets Conduct Act 2013, or are wholesale investors as defined in clauses 3(2) and 3, and clauses 36(b) of Schedule 1 of the Financial Markets Conduct Act 2013. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in New Zealand. For information on how we collect, use, store and secure personal information, please review our [Privacy Policy](#).

- Thailand: In Thailand, MUSE has a derivatives dealer registration with the Securities and Exchange Commission, Thailand