Feb 25, 2022

FX Flash

Will AXJs Hold Up Against Russian Invasion?

Analysts

Saktiandi Supaat
(65) 6320 1379
saktiandi@maybank.com.sg

Christopher Wong
(65) 6320 1347
wongkl@maybank.com.sg

Tan Yanxi
(65) 6320 1378
tanyx@maybank.com.sg

Fiona Lim
(65) 6320 1374
fionalim@maybank.com.sg

Invasion Begun

On the morning of 24 Feb 2022, Russia President Putin declared the start of military operation in Ukraine after weeks of guessing and speculation about Russia's intent after it amassed 150,000 troops near Ukraine's borders. Putin said that his goal was to "demilitarise" Ukraine and not occupy it. In a statement, US President Biden said that Putin has chosen a premeditated war that will bring catastrophic loss of life and human suffering and the US and its allies will hold Russia accountable.

Bigger Moves Seen in Oil, Gold and Equities

The full-scale Russian invasion of Ukraine has resulted in an initial sell-off across most asset classes. At one point, Russia MOEX index slumped 33%, while RUB fell 7% to record low (vs. USD). Closer to home, most Asian equities also traded lower with FTSE STI down 3.5% and NIFTY down 4.8% at close. Oil prices surged over 8% to trade at almost $106/bbl (worries of global supply chain disruptions) while gold extended its run-up to 17-month high of above-$1,970 handle (risk aversion) before pulling back.

Within the region, some Asian FX similarly slumped up to >1%, although losses were pared overnight. Some overshooting and retracement seem to be occurring across asset classes (US equity rebound overnight too) amid the expected volatility, with long USD haven flows also paring a tad. For now, it seems like inflation fears (exacerbated by elevated oil) could keep UST yields supported and constraint the extent of decline in USDJPY. We are mindful that elevated oil prices, despite overnight pullback, could still lead to more discernible drags on KRW, THB and INR in the current episode versus likely resilience for oil-linked MYR. Looking back on historical geopolitical events, while the trough for most Asian FX took varied durations to materialize, most losses had been reversed on average after three months. Yuan remains well-cushioned for now and can serve as an anchor for other AxJ FX.

Sharp Spikes in Gold and Oil to Multi-Year highs But a Quick Recovery

Source: Bloomberg, Maybank FX Research & Strategy

geFX Moves on 24th Feb and in Past Geopolitical Episodes (% Change)

	Russia Attack on Ukraine	September 11 attacks, 11 Sep 2001			Iraq War, 20 Mar 2003			Mar 2014 Russia's annexation of Crimea, 20 Feb 2014			Brexit Referendum Results, 24 Jun 2016			US-China trade war, 6 July 2018			Turkish Offensive into North-Eastern Syria, 6 Oct 2019		
	Intraday % Chg, 24 Feb, 3pm	1-Day	1-Week	3-Mths	1-Day	1-Week	3-Mths	1-Day	1-Week	3-Mths	1-Day	1-Week	3-Mths	1-Day	1-Week	3-Mths	1-Day	1-Week	3-Mths
RUB	-6.0	2.4	0.0	-2.0	0.2	0.2	3.3	0.1	-0.7	3.7	-2.4	-0.6	-0.5	0.3	1.5	-4.2	-0.5	0.6	4.8
BGN	-0.6	0.0	1.9	-1.7	0.3	1.0	10.9	-0.1	-0.3	-0.2	-2.4	-2.5	-2.1	0.4	-0.2	-1.8	-0.1	0.5	1.8
RON	-0.5	0.0	0.0	-4.9	0.0	-0.8	2.7	-0.2	-0.4	1.5	-2.7	-2.8	-0.4	0.6	-0.1	-1.9	-0.1	0.3	1.0
ZAR	-1.0	-0.8	-1.2	-22.0	0.4	3.3	3.2	0.3	2.0	5.7	-4.4	-2.1	6.2	0.5	1.8	-7.6	-0.9	1.7	6.8
HUF	-1.6	0.0	-0.3	-0.3	0.2	0.9	1.6	0.2	0.5	2.3	-3.6	-3.0	0.0	0.6	-0.6	-1.7	-0.3	0.6	3.0
PLN	-1.8	-0.5	-0.4	3.5	0.2	0.1	7.3	0.0	-0.5	-0.6	-4.5	-2.8	0.0	0.4	0.5	-0.6	-0.4	0.7	3.5
CZK	-1.8	0.5	2.0	2.5	0.3	0.4	11.5	0.0	-0.1	-0.6	-2.6	-2.5	-1.6	0.5	-0.1	-1.0	-0.2	0.2	3.3
TRY	-2.6	-5.3	-6.7	-1.0	-0.2	0.1	21.2	0.7	-0.6	4.8	-2.5	-0.8	-3.4	0.3	-5.3	-24.1	-2.3	-3.2	-4.4
KRW	-0.8	0.2	-1.0	0.8	0.9	1.0	6.1	-0.4	-0.2	4.2	-2.6	-1.0	3.4	0.3	-0.5	-0.5	-0.4	0.7	3.0
TWD	-0.5	-0.1	0.2	0.7	0.0	-0.2	0.0	-0.1	0.1	0.5	-1.6	-0.9	2.5	0.2	0.0	-0.7	0.0	0.8	3.0
CNH	-0.1	-	-	-	-	-	-	-0.4	-1.1	-3.0	-0.8	-1.2	-1.3	-0.1	-0.5	-3.4	-0.3	0.4	2.2
MYR	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.7	-3.3	-0.9	-3.5	0.2	0.4	-2.2	0.0	0.0	2.4
IDR	-0.3	-4.2	-2.4	-11.2	0.7	2.0	10.8	-0.2	1.3	2.5	-2.3	-0.5	0.3	0.3	0.4	-5.3	-0.3	0.1	1.8
SGD	-0.5	0.0	1.0	-4.5	0.3	0.1	2.3	0.0	-0.3	0.9	-1.3	-0.7	-1.2	0.6	0.1	-1.1	-0.2	0.4	2.3
THB	-0.7	0.4	1.4	1.7	-0.4	0.0	3.0	0.1	0.0	0.2	-0.4	0.0	1.3	0.2	0.0	2.1	-0.2	0.1	0.9
PHP	-0.2	-0.8	-0.2	-1.2	1.1	2.2	2.7	-0.5	-0.1	1.9	-1.2	-1.5	-2.5	0.1	-0.1	-1.7	-0.3	0.1	1.9
INR	-1.3	-0.8	-0.4	-1.0	0.0	-0.4	2.4	0.5	-0.4	6.4	-0.9	-0.4	0.8	0.0	0.6	-7.0	0.2	-0.3	-0.7
VND	0.0	0.0	0.0	-0.4	0.0	0.0	-0.2	0.1	-0.1	-0.2	-0.1	0.0	-0.1	0.0	0.0	-1.3	0.0	0.0	0.1
EUR	-0.6	1.7	3.0	-0.8	0.4	1.2	10.6	-0.1	-0.3	-0.2	-2.4	-2.5	-1.7	0.5	-0.2	-1.8	-0.1	0.6	1.8
GBP	-0.4	1.3	0.6	-1.5	0.1	0.6	7.3	-0.2	-0.1	0.9	-8.1	-10.5	-12.4	0.5	-0.1	-2.1	-0.3	2.7	6.6
JPY	0.5	1.4	2.7	-3.9	0.1	0.4	2.2	0.0	-0.1	1.0	3.9	2.9	5.8	0.2	-1.7	-3.4	-0.3	-1.4	-1.5
CHF	0.0	2.9	5.1	1.5	0.4	0.9	5.4	-0.1	-0.2	-0.4	-1.6	-1.8	-1.6	0.4	-0.9	0.1	0.1	-0.1	2.5
AUD	-0.7	1.6	-2.1	0.2	0.5	1.4	14.0	0.1	-0.4	2.7	-1.9	-2.1	0.1	0.6	0.3	-3.8	-0.6	0.3	3.3
NZD	-0.8	0.4	-4.6	-3.8	0.9	-0.1	6.7	0.4	0.5	3.6	-1.7	-1.6	1.4	0.6	0.0	-4.0	-0.5	0.3	6.0
CAD	-0.4	-0.1	-0.5	-1.0	0.2	1.1	11.1	-0.2	-0.4	1.6	-1.8	-1.2	-2.5	0.3	-0.2	2.1	0.0	0.8	2.5
DXY	0.4	-0.4	-2.2	1.4	-0.4	-1.0	-8.3	0.2	0.4	-0.1	2.1	2.8	2.3	-0.5	0.5	1.4	0.2	-0.5	-2.0
Gold	1.8	5.3	6.5	0.5	-1.2	-1.8	6.2	0.9	1.5	-1.3	4.7	5.2	6.2	-0.2	-0.8	-4.8	-0.7	-1.0	1.6
Brent	5.7	5.9	3.4	-33.8	-4.7	-5.5	-1.8	-0.2	-0.9	-0.7	-4.9	-2.4	-8.0	-0.4	-3.8	11.5	0.0	3.7	13.5

Source: Bloomberg, Maybank FX Research & Strategy

As of late afternoon yesterday post Russian attack, amongst DM majors, high-beta AUD, NZD (sentiment channels) and EUR (given trade, energy linkages and sentiment channel) were more impacted but initial declines had been rather well-behaved (0.4% - 0.8% depreciation). Not surprisingly JPY held up (+0.5%) at first given its safe haven attributes.

We find EMEA FX most affected by the Ukraine tensions down (0.5%-6%). And this is likely due to their economic linkages via trade, investment flows and energy. Among AxJ FX, INR, THB and KRW led declines of between 0.7% and slightly >1% as of 24th late afternoon. Looking out, geopolitical situation remains fluid and tougher sanctions are expected to be imposed especially when Russia's move represents an invasion of Ukraine while planned US-Russia dialogues this week have been called off.

We looked at FX performance in past geopolitical episodes in a world post-2000.

At one glance, most geopolitical events in the past saw gold bid on most occasions, and Brent seeing mixed performances depending on whether there were risks to supply.

Notably, whether FX reacted in a knee-jerk fashion or sentiment drags took longer to materialize also depend on the specific event-flow accompanying each bout of geopolitical events.

Having said that though, we summarize some findings.

Currencies that are directly linked to the geopolitical events are typically hurt the most such as GBP in the event of the Brexit referendum. The Brexit referendum actually elicited the biggest reaction from all the currencies which suggests that **events that cause significant economic uncertainties have a greater impact on FX than military conflict**. This is also observed in the performance of Asian FX during the US-China trade war, where trade was viewed as a key channel for activity spillovers and drags on Asian FX turned out to be significant and protracted.

On the other hand, with the exception of the September 11 attacks—which coincided with a short economic recession in US and subsequently also led to the war in Afghanistan—most short-lived military conflicts in the past did not lead to lasting drags on currencies. This could be because of the more contained channels (mostly financial in nature) in which sentiment drags can proliferate. **While the trough for most FX took varied durations to materialize, most losses had been reversed on average after three months**.

For the Russian attack on Ukraine, sentiment drags are similarly likely to emerge through financial channels for most AxJ FX. **Notably, Russia's trade shares with most Asian economies are not significant,** with the exception of China (20% of Russian trade in 2020) and South Korea (3% of Russian trade in 2020). For CNH though, we note that it continues to display resilience to risk-off headlines centred on the geopolitical tensions. To be sure, yuan always had smaller sensitivity to exogenous events (geopolitical or Fed actions) compared to regional peers. With fundamental underpinnings of yuan (such as exports performance) steadfast and added boost from the recent USDCNY fixes (lower than median estimates), yuan remains well-cushioned and can serve as an anchor for other AxJ currencies.

Still, we are cognizant of one key channel of transmission—i.e., upward pressures on oil prices if conflict worsens. To some extent, this could lead to some differentiation in near-term FX performance. Among AxJ FX, energy importers such as INR, THB could see more discernible drags if oil prices stay elevated, while oil-linked MYR could be a tad more resilient.

Interestingly, upward pressures on oil prices as tensions escalate could also lead to raised bets for central bank tightening on inflation concerns. This could induce UST yields to see some support on dips, concomitantly constraining the extent of decline in interim USDJPY as well.

Amongst G7 we expect EUR to remain somewhat vulnerable to further US-Russia tensions over the invasion of Ukraine. EUR has shown that it can be affected due to trade, energy and sentiment channels. In 2020, Russia was 5th largest partner for EU exports and imports. A military conflict could see Russia potentially turning off gas supplies to Europe, in turn exacerbating Europe's energy shortage situation as the EU relies heavily on Russia for energy consumption (40% gas comes from Russia). We also keep a look out for harsher sanctions such as barring Russia's access to Belgium-based SWIFT for Russian money flows. Risk-sensitive AUD had a comparable pullback yesterday but further declines could be limited by potential export gains - Australia had stepped up to export more LNG to the energy-starved continent.

Conclusion

Geopolitical situation is fluid and risks are 2-way for markets. We cannot predict how long the conflict will last but we draw on experience from past military conflicts (such as 9-11 attack, Crimea annexation in 2014 and Turkish offensive into Syria in 2009). Initial weaknesses in AXJs tend to reverse after a few weeks. Assuming this is not a long-drawn conflict, we expect the negativity surrounding AXJs to slowly fade. Moreover most of AXJ linkages to Russia is via sentiment channel, unlike EMEA FX and EUR where linkages extend beyond sentiments to trade, energy and investment flows.

We see interim weakness for EUR, given trade, energy and investment ties with Russia. Potentially ECB's policy normalisation plans may be delayed as ECB officials expressed caution. We look for better levels on dips to buy into. Near term support at 1.1110, 1.1040 levels. Resistance at 1.1290, 1.14 levels.

Potential supply chain disruptions may continue to keep oil and energy prices supported in the interim. inflation fears (exacerbated by elevated oil) could keep UST yields supported and constraint the extent of decline in USDJPY. We are mindful that elevated oil prices, despite overnight pullback, could still lead to more discernible drags on KRW, THB and INR in the current episode versus likely resilience for oil-linked MYR.

DISCLAIMER

APPENDIX I: TERMS FOR PROVISION OF REPORT, DISCLAIMERS AND DISCLOSURES

DISCLAIMERS

This research report is prepared for general circulation and for information purposes only and under no circumstances should it be considered or intended as an offer to sell or a solicitation of an offer to buy the securities referred to herein. Investors should note that values of such securities, if any, may fluctuate and that each security's price or value may rise or fall. Opinions or recommendations contained herein are in form of technical ratings and fundamental ratings. Technical ratings may differ from fundamental ratings as technical valuations apply different methodologies and are purely based on price and volume-related information extracted from the relevant jurisdiction's stock exchange in the equity analysis. Accordingly, investors' returns may be less than the original sum invested. Past performance is not necessarily a guide to future performance. This report is not intended to provide personal investment advice and does not take into account the specific investment objectives, the financial situation and the particular needs of persons who may receive or read this report. Investors should therefore seek financial, legal and other advice regarding the appropriateness of investing in any securities or the investment strategies discussed or recommended in this report.

The information contained herein has been obtained from sources believed to be reliable but such sources have not been independently verified by Maybank Investment Bank Berhad, its subsidiary and affiliates (collectively, "MKE") and consequently no representation is made as to the accuracy or completeness of this report by MKE and it should not be relied upon as such. Accordingly, MKE and its officers, directors, associates, connected parties and/or employees (collectively, "Representatives") shall not be liable for any direct, indirect or consequential losses or damages that may arise from the use or reliance of this report. Any information, opinions or recommendations contained herein are subject to change at any time, without prior notice.

This report may contain forward looking statements which are often but not always identified by the use of words such as "anticipate", "believe", "estimate", "intend", "plan", "expect", "forecast", "predict" and "project" and statements that an event or result "may", "will", "can", "should", "could" or "might" occur or be achieved and other similar expressions. Such forward looking statements are based on assumptions made and information currently available to us and are subject to certain risks and uncertainties that could cause the actual results to differ materially from those expressed in any forward looking statements. Readers are cautioned not to place undue relevance on these forward-looking statements. MKE expressly disclaims any obligation to update or revise any such forward looking statements to reflect new information, events or circumstances after the date of this publication or to reflect the occurrence of unanticipated events.

MKE and its officers, directors and employees, including persons involved in the preparation or issuance of this report, may, to the extent permitted by law, from time to time participate or invest in financing transactions with the issuer(s) of the securities mentioned in this report, perform services for or solicit business from such issuers, and/or have a position or holding, or other material interest, or effect transactions, in such securities or options thereon, or other investments related thereto. In addition, it may make markets in the securities mentioned in the material presented in this report. One or more directors, officers and/or employees of MKE may be a director of the issuers of the securities mentioned in this report to the extent permitted by law.

This report is prepared for the use of MKE's clients and may not be reproduced, altered in any way, transmitted to, copied or distributed to any other party in whole or in part in any form or manner without the prior express written consent of MKE and MKE and its Representatives accepts no liability whatsoever for the actions of third parties in this respect.

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 located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation. This report is for distribution only under such circumstances as may be permitted by applicable law. The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. Without prejudice to the foregoing, the reader is to note that additional disclaimers, warnings or qualifications may apply based on geographical location of the person or entity receiving this report.

Malaysia

Opinions or recommendations contained herein are in the form of technical ratings and fundamental ratings. Technical ratings may differ from fundamental ratings as technical valuations apply different methodologies and are purely based on price and volume-related information extracted from Bursa Malaysia Securities Berhad in the equity analysis.

Singapore

This report has been produced as of the date hereof and the information herein may be subject to change. Maybank Kim Eng Research Pte. Ltd. ("Maybank KERPL") in Singapore has no obligation to update such information for any recipient. For distribution in Singapore, recipients of this report are to contact Maybank KERPL in Singapore in respect of any matters arising from, or in connection with, this report. If the recipient of this report is not an accredited investor, expert investor or institutional investor (as defined under Section 4A of the Singapore Securities and Futures Act), Maybank KERPL shall be legally liable for the contents of this report, with such liability being limited to the extent (if any) as permitted by law.

Thailand

Except as specifically permitted, no part of this presentation may be reproduced or distributed in any manner without the prior written permission of Maybank Kim Eng Securities (Thailand) Public Company Limited. Maybank Kim Eng Securities (Thailand) Public Company Limited ("MBKET") accepts no liability whatsoever for the actions of third parties in this respect.

Due to different characteristics, objectives and strategies of institutional and retail investors, the research products of MBKET Institutional and Retail Research departments may differ in either recommendation or target price, or both. MBKET reserves the rights to disseminate MBKET Retail Research reports to institutional investors who have requested to receive it. If you are an authorised recipient, you hereby tacitly acknowledge that the research reports from MBKET Retail Research are first produced in Thai and there is a time lag in the release of the translated English version.

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information. The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey may be changed after that date. MBKET does not confirm nor certify the accuracy of such survey result.

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, MBKET does not confirm, verify, or certify the accuracy and completeness of the assessment result.

US

This third-party research report is distributed in the United States ("US") to Major US Institutional Investors (as defined in Rule 15a-6 under the Securities Exchange Act of 1934, as amended) only by Maybank Kim Eng Securities USA Inc ("Maybank KESUSA"), a broker-dealer registered in the US (registered under Section 15 of the Securities Exchange Act of 1934, as amended). All responsibility for the distribution of this report by Maybank KESUSA in the US shall be borne by Maybank KESUSA. This report is not directed at you if MKE is prohibited or restricted by any legislation or regulation in any jurisdiction from making it available to you. You should satisfy yourself before reading it that Maybank KESUSA is permitted to provide research material concerning investments to you under relevant legislation and regulations. All U.S. persons receiving and/or accessing this report and wishing to effect transactions in any security mentioned within must do so with: Maybank Kim Eng Securities USA Inc. 400 Park Avenue, 11th Floor, New York, New York 10022, 1-(212) 688-8886 and not with, the issuer of this report.

UK

This document is being distributed by Maybank Kim Eng Securities (London) Ltd ("Maybank KESL") which is authorized and regulated, by the Financial Conduct Authority and is for Informational Purposes only. This document is not intended for distribution to anyone defined as a Retail Client under the Financial Services and Markets Act 2000 within the UK. Any inclusion of a third party link is for the recipients convenience only, and that the firm does not take any responsibility for its comments or accuracy, and that access to such links is at the individuals own risk. Nothing in this report should be considered as constituting legal, accounting or tax advice, and that for accurate guidance recipients should consult with their own independent tax advisers.

DISCLOSURES

Legal Entities Disclosures

Malaysia: This report is issued and distributed in Malaysia by Maybank Investment Bank Berhad (15938- H) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets and Services License issued by the Securities Commission in Malaysia. **Singapore:** This report is distributed in Singapore by Maybank KERPL (Co. Reg No 198700034E) which is regulated by the Monetary Authority of Singapore. **Indonesia:** PT Maybank Kim Eng Securities ("PTMKES") (Reg. No. KEP-251/PM/1992) is a member of the Indonesia Stock Exchange and is regulated by the Financial Services Authority (Indonesia). **Thailand:** MBKET (Reg. No.0107545000314) is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Philippines:** Maybank ATRKES (Reg. No.01-2004-00019) is a member of the Philippines Stock Exchange and is regulated by the Securities and Exchange Commission. **Vietnam:** Maybank Kim Eng Securities Limited (License Number: 117/GP-UBCK) is licensed under the State Securities Commission of Vietnam. **Hong Kong:** KESHK (Central Entity No AAD284) is regulated by the Securities and Futures Commission. **India:** Kim Eng Securities India Private Limited ("KESI") is a participant of the National Stock Exchange of India Limited and the Bombay Stock Exchange and is regulated by Securities and Exchange Board of India ("SEBI") (Reg. No. INZ000010538). KESI is also registered with SEBI as Category 1 Merchant Banker (Reg. No. INM 000011708) and as Research Analyst (Reg No: INH000000057) **US:** Maybank KESUSA is a member of/ and is authorized and regulated by the FINRA – Broker ID 27861. **UK:** Maybank KESL (Reg No 2377538) is authorized and regulated by the Financial Conduct Authority.

Disclosure of Interest

Malaysia: MKE and its Representatives may from time to time have positions or be materially interested in the securities referred to herein and may further act as market maker or may have assumed an underwriting commitment or deal with such securities and may also perform or seek to perform investment banking services, advisory and other services for or relating to those companies.

Singapore: As of 25 February 2022, Maybank KERPL and the covering analyst do not have any interest in any companies recommended in this research report.

Thailand: MBKET may have a business relationship with or may possibly be an issuer of derivative warrants on the securities /companies mentioned in the research report. Therefore, Investors should exercise their own judgment before making any investment decisions. MBKET, its associates, directors, connected parties and/or employees may from time to time have interests and/or underwriting commitments in the securities mentioned in this report.

Hong Kong: As of 25 February 2022, KESHK and the authoring analyst do not have any interest in any companies recommended in this research report.

India: As of 25 February 2022, and at the end of the month immediately preceding the date of publication of the research report, KESI, authoring analyst or their associate / relative does not hold any financial interest or any actual or beneficial ownership in any shares or having any conflict of interest in the subject companies except as otherwise disclosed in the research report.

In the past twelve months KESI and authoring analyst or their associate did not receive any compensation or other benefits from the subject companies or third party in connection with the research report on any account what so ever except as otherwise disclosed in the research report.

MKE may have, within the last three years, served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investment concerned or a related investment and may receive compensation for the services provided from the companies covered in this report.

OTHERS

Analyst Certification of Independence

The views expressed in this research report accurately reflect the analyst's personal views about any and all of the subject securities or issuers; and no part of the research analyst's compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in the report.

Reminder

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct its own analysis of the product and consult with its own professional advisers as to the risks involved in making such a purchase.

Published by:

Malayan Banking Berhad
(Incorporated In Malaysia)

Foreign Exchange

Singapore

Saktiandi Supaat
Head, FX Research
saktiandi@maybank.com.sg
(+65) 6320 1379

Christopher Wong
Senior FX Strategist
Wongkl@maybank.com.sg
(+65) 6320 1347

Fiona Lim
Senior FX Strategist
Fionalim@maybank.com.sg
(+65) 6320 1374

Yanxi Tan
FX Strategist
tanyx@maybank.com.sg
(+65) 6320 1378

Indonesia

Juniman
Chief Economist, Indonesia
juniman@maybank.co.id
(+62) 21 2922 8888 ext 29682

Myrdal Gunarto
Industry Analyst
MGunarto@maybank.co.id
(+62) 21 2922 8888 ext 29695

Fixed Income

Malaysia

Winson Phoon Wai Kien
Fixed Income Analyst
winsonphoon@maybank-ke.com.sg
(+65) 6231 5831

Se Tho Mun Yi
Fixed Income Analyst
munyi.st@maybank-ib.com
(+60) 3 2074 7606

Sales

Malaysia

Azman Amiruddin Shah bin Mohamad Shah
Head, Sales-Malaysia, GB-Global Markets
azman.shah@maybank.com
(+60) 03-2173 4188

Singapore

Janice Loh Ai Lin
Head of Sales, Singapore
jloh@maybank.com.sg
(+65) 6536 1336

Indonesia

Endang Yulianti Rahayu
Head of Sales, Indonesia
EYRahayu@maybank.co.id
(+62) 21 29936318 or
(+62) 2922 8888 ext 29611

Shanghai

Joyce Ha
Treasury Sales Manager
Joyce.ha@maybank.com
(+86) 21 28932588

Hong Kong

Joanne Lam Sum Sum
Head of Corporate Sales Hong Kong
Joanne.lam@maybank.com
(852) 3518 8790