Global Markets Monthly

FEBRUARY 2023

MUFG Bank, Ltd. & MUFG Securities EMEA
Members of MUFG, a global financial group

Global Markets Monthly

21 February 2023

DEREK HALPENNY
Head of Research,
Global Markets EMEA and International Securities
Global Markets Research
Global Markets Division for EMEA
E:Derek.Halpenny@uk.mufg.jp

LEE HARDMAN
Senior Currency Analyst
Global Markets Research
Global Markets Division for EMEA
E:Lee.Hardman@uk.mufg.jp

LIN LI
Head of Global Markets Research Asia
Global Markets Division for Asia
E:Lin_Li@hk.mufg.jp

EHSAN KHOMAN
Head of Commodities, ESG and Emerging Markets Research – EMEA
MUFG Bank
E:Ehsan.Khoman@ae.mufg.jp

GEORGE GONCALVES
Head of U.S. Macro Strategy
Institutional Client Group
MUFG Securities Americas, Inc
E:George.Goncalves@mufgsecurities.com

ERIC RUFF
Director
Credit Trading Group
U.S. Investment Grade
MUFG Securities Americas Inc.
E: Eric.Ruff@mufgsecurities.com

BILL MATTHEWS
Director
Credit Trading Group
U.S. High Yield
MUFG Securities Americas Inc.
E:Bill.Matthews@mufgsecurities.com

CARLO MAREEL
Director
Credit Trading Group
European Banks
E:Carlo.Mareels@mufgsecurities.com

A member of MUFG, a global financial group

Contents

What sort of man is Kazuo Ueda? 3

US Fixed Income: Rates rise as credit is in denial 8
- US Macro to Market views 9
- US IG Credit: The roller coaster hasn't stopped! 10

FX Outlook 12
- Base case expectations, JPY, EUR & CNY 12
- USD/JPY – Neutral Bias 12
- EUR/USD – Bearish Bias 13
- USD/CNY – Neutral Bias 14
- Key risk factors in the month ahead 16

NAOMI MUGURUMA
Chief Fixed Income Strategist

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Investment Research Division

T: +81 (0) 3 6742 6753
E: Muguruma-naomi@sc.mufg.jp

A member of MUFG, a global financial group

What sort of man is Kazuo Ueda?

- In surprise development, government has moved to nominate well-known economist and former Policy Board member Kazuo Ueda as next BoJ governor
- Ueda served as Policy Board member for seven years starting in April 1998 and emphasizes theory and empirical analysis
- Ueda seems reluctant to abandon negative interest rates but is also concerned about side effects of YCC, and his selection does not change our expectation of an end to YCC

Government set to nominate economist Kazuo Ueda as next BoJ governor

Late in the day on Friday, February 10, Japanese media reported that the government had decided to appoint economist and former Policy Board member Kazuo Ueda as the next BoJ governor, with former FSA Director Ryozo Himino and BoJ Executive Director Shinichi Uchida serving as deputies (Table 1). The Nikkei initially reported on February 6 that the government had sounded out current Deputy Governor Masayoshi Amamiya about the post, but it later said he had declined the offer. The choice of Mr. Ueda, who does not come from either the central bank or the Ministry of Finance and was not viewed as a potential candidate, came as a surprise. He would be the first BoJ governor to hail from the private sector since Makoto Usami, who became governor in 1964 after a career at Mitsubishi Bank. The government is scheduled to submit its nominations to the Diet on February 14, with Lower House confirmation hearings to be held on February 24 (Upper House hearings have yet to be scheduled).

TABLE 1: GOVERNMENT DECIDES TO NOMINATE ACADEMIC AND FORMER POLICY BOARD MEMBER KAZUO UEDA FOR BOJ GOVERNORSHIP

	Name	Age	Career, etc.
Governor	Kazuo Ueda	71	Graduated from University of Tokyo in 1974, earned PhD from Massachusetts Institute of Technology in 1980. Became professor at University of Tokyo in 1993 and served on BoJ Policy Board from 1998 to 2005. Returned to University of Tokyo in 2005 and taught there until 2017. Currently professor at Kyoritsu Women's University. Born in Shizuoka prefecture.
Deputy Governor	Ryozo Himino	62	Graduated from University of Tokyo Faculty of Law in 1983 and joined Ministry of Finance. Became vice minister for international affairs at the Financial Services Agency in 2016 and served as FSA director from 2020 to 2021. Born in Toyama prefecture.
	Shinichi Uchida	60	Graduated from University of Tokyo Faculty of Law in 1986 and joined Bank of Japan. After serving as Niigata branch manager, became director-general of Monetary Affairs Department in 2012 and Nagoya branch manager in 2017. Was appointed executive director in 2018. Born in Tokyo.

Source: MUMSS, from Nikkei newspaper

Ueda served on BoJ Policy Board for seven years starting in April 1998

Before considering the outlook for BoJ policy conduct under Mr. Ueda, we would like to briefly review his time as a Policy Board member. Mr. Ueda served on the Board for seven years, from April 1998 to April 2005 (Table 2). The revised Bank of Japan Act, which fixed the number of Policy Board members at nine and called for monetary policy decisions to be made by majority vote, took effect on April 1, 1998, and Mr. Ueda was one of the inaugural Board members under the new law. He initially served out the remainder of Shigeru Koino's term and was then reappointed in April 2000. When the new Bank of Japan Act took effect in 1998, growth and inflation were both increasingly

Contributed by Mitsubishi UFJ Morgan Stanley Securities Co., LTD.

depressed due to heavy pressure on the economy from the banking sector's bad loans. However, the general view was that there was little room to cut rates any further -- the official discount rate was already at an all-time low of 0.5% and the uncollateralized overnight call rate was slightly less than 0.5%. (At the time, the Bank was in the process of shifting the short-term policy rate from the official discount rate to the uncollateralized overnight call rate.)

TABLE 2: BOJ GOVERNORS AND POLICY BOARD MEMBERS SINCE 1998

	1998	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25-
Governor	Masaru HAYAMI	Toshihiko FUKUI	Masaaki SHIRAKAWA (initially appointed as DG)	Haruhiko KURODA (reappointed in 2018)	Kazuo UEDA (until Apr 2028)																							
Deputy Governor	Yutaka YAMAGUCHI	Toshiro MUTO	V	Hirohide YAMAGUCHI	Kikuo IWATA	Masataka AMAMIYA	Shinichi UCHIDA (until Mar 2028)																					
Deputy Governor	Sakuya FUJIWARA	Kazumasa IWATA	Kiyohiko NISHIMURA (promoted from regular member)	Hiroshi NAKASO	Masazumi WAKATABE	Ryozo HIMINO (until Mar 2028)																						
Board members	Eiko SHINOZUKA	Miyako SUDA (reappointed in Mar 2006)	Sayuri SHIRAI	Makoto SAKURAI	Asahi NOGUCHI (until Mar 2026)																							
	Susumu TAKETOMI	Shin NAKAHARA	Tadao NODA (-2011/6/16)	V	Koji ISHIDA	Takako MASAI	Junko NAKAGAWA (until Jun 2026)																					
	Toshio MIKI	Hidehiko HARU	Seiji NAKAMURA (-2012/4/4)	V	Takehiro SATO	Goshi KATAOKA	Hajime TAKATA (until Jul 2027)																					
	Nobuyuki NAKAHARA	Toshikatsu FUKUMA	Hidetoshi KAMEZAKI (-2012/4/4)	V	Takahide KIUCHI	Hitoshi SUZUKI	Naoki TAMURA (until Jul 2027)																					
	Yasuo GOTO	Teizo TAYA	Atsushi MIZUNO (-2009/12/2)	V	Ryuzo MIYAO	Yutaka HARADA	Seiji ADACHI (until Mar 2025)																					
	Shigeru KOINO	Kazuo UEDA (reappointed Apr 2000)	Kiyohiko NISHIMURA	Vacant	Norihisa MORIMOTO	Toshiyuki FUNO	Toyoaki NAKAMURA (until Jun 2025)																					
	1998	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25-

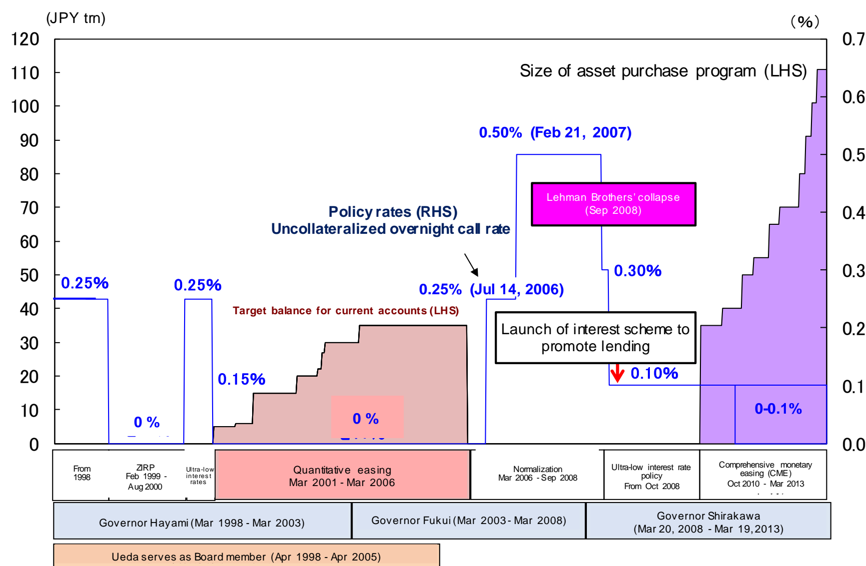
Note: V indicates vacancy.
Source: MUMSS, from BoJ data and media reports

Ueda voted against February 1999 decision to end ZIRP, arguing costs of waiting would not be significant

In February 1999, BoJ Governor Masaru Hayami decided to adopt a globally unprecedented zero-interest-rate policy, declaring that rates would be kept at zero until an end to deflation concerns was in sight (Graph 1). With the so-called "time commitment" (forward guidance), the Bank promised to leave the short-term policy rate on hold until its goal was achieved. Mr. Ueda played a large role in the adoption of the time commitment. A year and a half later, in August 2000, the BoJ decided that the conditions for winding down ZIRP had been satisfied and proceeded to end the policy, raising its guidance target for the uncollateralized overnight call rate to 0.25%. The government opposed the rate hike and exercised its right to request a delay of the decision. Mr. Ueda, along with fellow Board member Shin Nakahara, voted against the proposal to end ZIRP, which was approved in a 7-2 vote. Mr. Ueda gave three reasons for dissenting: 1) he believed developments in the stock market should be monitored for a little longer; 2) he thought that the appropriate interest rate had only just reached 0% (if that) and that it would not hurt to wait until it was clearly in positive territory; and 3) the costs of waiting, given inflationary conditions at the time, would not be significant. As an economist, Mr. Ueda conducted his own analysis and came to the conclusion that Japan's equilibrium interest rate was still low and that it was too early to raise rates.

.

GRAPH 1: BOJ MONETARY POLICY FROM APRIL 1998 TO MARCH 2013



Source: MUMSS, from BoJ data and media reports

Ueda was involved in BoJ decisions on unconventional monetary policy

In the autumn of 2000, several months after ZIRP was brought to an end, the worldwide IT bubble collapsed. The global economy suffered a sharp slowdown, and the strong yen and falling stock prices exerted heavy deflationary pressures on Japan's economy. At the time, world-famous economists like Paul Krugman and Ben Bernanke recommended that the BoJ adopt quantitative easing policies to end deflation in Japan. The Bank introduced a Lombard-type lending facility on February 9, 2001, and on February 28 it lowered the uncollateralized overnight call rate to 0.15%. The next month, it embarked on a policy of quantitative easing that targeted the outstanding balance of current accounts. It also adopted a time commitment under which it pledged to continue quantitative easing "until the consumer price index...registers stably a zero percent or an increase year on year." But Japan's economy still failed to emerge from its slump, forcing the BoJ to reinforce QE (i.e., to increase the "quantity" of easing). It was not until March 2006 -- five years later and after Mr. Ueda had left the Bank -- that QE was wound down. Incidentally, Mr. Ueda also cast a dissenting vote at the February 9, 2001, Board meeting, when he voted for a proposal by fellow Board member Teizo Taya to lower the uncollateralized overnight call rate, while the main proposal called for keeping it at its current level. Mr. Ueda was thus involved in decisions regarding the unconventional monetary policy measures of zero interest rates, time commitments (forward guidance), and quantitative easing. In a book published after he left the Bank titled "The Battle with Zero Interest Rates" (Nihon Keizai Shimbunsha), he wrote about his experience conducting policy in the face of a zero bound on nominal interest rates.

Policy conduct by Ueda expected to emphasize theory and empirical analysis

In view of the above, what sort of monetary policy is Mr. Ueda likely to pursue as governor? As a representative Japanese economist who is well-versed in monetary policy, he will probably emphasize theory and empirical analysis in his policy-making. There are passages in the minutes from Policy Board meetings he attended in which he analyzes the appropriate rate of interest based on the Taylor Rule and the equilibrium rate of interest using the Fisher equation and then explains his conclusions to other Board members. The same sort of objective, academic analysis was also behind his decision to oppose an end to ZIRP. He endorsed the negative-interest-rate policy (NIRP), which the Bank decided to introduce in January 2016, and said in an interview with the Asahi Shimbun on February 17, 2016, that "I currently see no

effective monetary measures other than negative interest rates." While noting that it was an extremely powerful policy, he said that "another option is to apply a negative interest rate to cash." We suspect that along with his intellectual curiosity as an academic, Mr. Ueda believed that Japan's equilibrium interest rate at the time was actually negative. In view of the above, we think Policy Board meetings under Mr. Ueda are likely to feature more academic discussion covering topics such as the equilibrium interest rate.

Ueda noted at Board meeting on March 19, 2001, that QE carries "hellish" risks

While Mr. Ueda's views may have changed over time, he was relatively skeptical of quantitative easing policies when he served on the Board, instead supporting the combination of zero interest rates and a time commitment. He argued that a time commitment could lower long-term interest rates and achieve the same effect as purchases of government bonds since the yield curve represents the accumulation of forecasts of the short-term policy rate. At the March 19, 2001, meeting, when the BoJ finally embarked on QE, Mr. Ueda expressed the concern that by targeting a quantity -- the outstanding balance of current accounts -- in its market operations, the BoJ risked putting itself in a "hellish" situation in which it was repeatedly forced to increase the amount of easing (Table 3). Just as he feared, the Bank was ultimately forced to raise the target for the balance of current accounts to JPY30-35 trillion. In view of this experience, we suspect Mr. Ueda will not aimlessly continue policies that were tried and did not prove effective or that have started to produce more significant side effects.

TABLE 3: EXCERPTS FROM MINUTES OF MARCH 19, 2001, POLICY BOARD MEETING WHEN QE WAS UNVEILED

Board member Kazuo Ueda
The initial target of JPY5 trillion for the outstanding balance of current accounts is the approximate value of operations that would be needed to achieve zero interest rates. After a while, I suspect we may see a situation in which the economy has not improved significantly and perhaps prices are still falling. When demands for further easing arrive, the Bank has already created a moveable target of JPY5 trillion, so they will try to raise this to JPY6 trillion or JPY7 trillion. Since ordinary short-term financial assets will probably no longer be enough to achieve a target of JPY7 trillion, I think the only option left would be to increase the size of the Bank's JGB buying operations. All will be well if that succeeds in raising inflation expectations and bond yields and bolsters the economy, but if it does not, the Bank will find itself in a hellish situation.

Board member Susumu Taketomi
It would be hellish indeed. It depends on what prompts market participants and the general public to demand more quantitative easing from the Bank and on what logic that demand is based, but I suspect there would actually be no logic behind it. They would probably argue that just a little more easing will produce different results, and it is impossible to say they are categorically wrong without first trying it. That will ultimately lead to demands for more, more, more.

Source: BoJ. Colored fonts for names and emphasis by MUMSS

Ueda seen as being reluctant to end negative interest rates

In view of the above, what is likely to happen to the policy framework of QQE + YCC if Mr. Ueda becomes the next BoJ governor? On the evening of February 10, when news of his selection became public, Mr. Ueda told a group of reporters that "monetary policy must be conducted based on the current state of the economy and prices and especially on the outlook for the same." He also said that "under the current circumstances, I think monetary easing must continue." While such a statement is only natural given the setting, Mr. Ueda appears to believe there is little need for the BoJ to rush ahead with rate hikes in response to inflation driven by cost-push factors. In an article he contributed to the Nikkei on July 6, 2022, he argued that "rushing to raise interest rates when the rate of inflation has only temporarily exceeded 2% will have a negative impact on the economy and inflation and in the longer term will make it more difficult to raise rates sufficiently. I am reminded of the short-lived rate hikes of 2000 and 2006." We think he may be relatively reluctant to wind down NIRP.

Re: YCC, he warned about bond market speculators and said framework was not amenable to fine-tuning

In contrast, the policy of yield curve control (YCC) may well come under review. In the Nikkei piece noted above, Mr. Ueda cited bond market speculation conducted in anticipation of BoJ rate hikes (which was observed in June 2022) as one problem with leaving easing policies in place and warned that "if sustained 2% inflation becomes more likely, we may see the recent sort of speculation carried out repeatedly and on a larger scale." He also pointed out that "the difficult thing is that the policy framework of long-term interest rate control does not lend itself to fine-tuning" (Table 4). He had previously cited shortening the target duration under YCC as one way of achieving a more flexible approach to YCC, but in this piece he said that reducing the target duration or modestly raising the top end of the target range could spark "a massive further sell-off in government bonds." He also said that the Federal Reserve in the 1950s and the Reserve Bank of Australia in 2021, both of which targeted interest rates, "made only one adjustment." He stated that "at some point, it will be necessary to conduct a serious examination of the outlook for this unprecedented monetary easing framework, which has lasted far longer than most expected."

TABLE 4: UEDA SAYS LONG-TERM YIELD CONTROL DOES NOT LEND ITSELF TO FINE-TUNING

If sustained 2% inflation looks increasingly likely, I expect the sort of speculation seen recently will happen recurrently and on a larger scale. The difficult thing is that the policy framework of long-term interest rate control does not lend itself to fine-tuning. A modest increase in the ceiling of the target may prompt market participants to anticipate the next rate hike and thus prompt a massive further sell-off in government bonds. The proposals to shorten the target duration from 10 years to seven or five years suffer from the same problem.
The Bank needs to develop an exit strategy. Both the Federal Reserve in the 1950s and the Reserve Bank of Australia in 2021 were able to extricate themselves from a policy of controlling longer-term interest rates, but they made only one adjustment. In any event, it will be necessary at some point to conduct a serious examination of the outlook for this unprecedented monetary easing framework, which has lasted far longer than most expected.

Source: "Japan needs to avoid hasty monetary tightening; monetary policy during inflationary phases," Nikkei, July 6, 2022 edition (Japanese; title translated by MUMSS)

We still expect BoJ to wind down YCC in Apr-Jun 2023 while leaving NIRP in place

For some time, our baseline scenario has called for the BoJ to end YCC in Apr-Jun 2023 under the new governor while leaving NIRP in place. It appears as if Kazuo Ueda will become the next governor, and for now we see no need to alter this outlook. If Mr. Ueda gives priority to a comprehensive assessment of the ten years of QQE and delays actual policy revisions until later, the end to YCC may come somewhat later than we expect. But given the ongoing costs of this policy, including distortions in the yield curve and a lack of liquidity in the JGB market, we do not think the Bank will wait too long. The selection of Mr. Uchida, who is very familiar with the practical details of policymaking, and Mr. Himino, who has much expertise in prudential policy, to serve as deputy governors is supportive of this view.

GEORGE GONCALVES
Head of U.S. Macro Strategy

Institutional Client Group
MUFG Securities Americas Inc.
T: +1-212-405-6687
E: George.Goncalves@mufgsecurities.com

ERIC RUFF
Director

Credit Trading Group
U.S. Investment Grade
MUFG Securities Americas Inc.

T: +1-212-405-7489
E: Eric.Ruff@mufgsecurities.com

Mitsubishi UFJ Securities
A member of MUFG, a global financial group

US Fixed Income: Rates rise as credit is in denial

Macro Review: We are sceptical that the recent improvement in US data. Although the January NFP and retail sales were stronger than expected, there could be some anomalies related to the seasonal factor and the adjustments made to the underlying data (many of these data normalization techniques have been impacted post CV19 data swings too). Then there are the compositional aspects of the data to consider. For example, many of the jobs being created in the US remain low paying and part-time employment. Meanwhile other jobs data point to losses in higher paying jobs. And then there is retail sales, which is a posted as a nominal number, but when adjusted for high inflation, the actual units of items being sold is not that robust. Overall the improved data picture, even if its partially optics, has given hope that the US will avoid a hard landing. Some are even skipping the idea that we get a soft landing and instead we will experience a "no landing" (meaning growth doesn't even get a chance of relapsing i.e. we continue with the recovery). These are misplaced, or at a minimum, it's premature to jump to such conclusions. The damage from inflation, and now super elevated rates to fight it, will likely still tip the US into a recession during 2023.

Fed Policy: Wow, it's interesting what a few weeks of optically better data and ongoing hawkish Fed speaker communiques can do to Fed Funds rate expectations. In our last update the market was starting to bring no hike chances at the upcoming meetings as well multiple rate cuts at the end of 2023. Fast forward to today and we have seen the terminal Fed Funds rate, as implied by the market, move beyond the median rate dot forecast from the December FOMC projections, specially the market is pricing around 5.25-5.3% as the final resting point versus the Fed's forecast of 5.125%. Market is implying a hike at the March and May meeting as basically a done deal. At this juncture we agree and see scope for the Fed to take rates firmly into the 5% range and at a minimum hit their target of 5.125%. There is scope for another hike in June (taking the median to 5.375%) but a lot can change in a matter of weeks (as early 2023 shows) so we aren't obsessed with the terminal rate. As we've said before, it's not about what level the Fed gets to per-se, but what are the conditions needed for them to stop hiking and then how long can they keep rates "higher for longer" before they flip to cuts.

Rates Views: Although we think the curve inversion will be right once again, in that the US economy will slip into a recession, our view has been nuanced. Where the level of rates (in addition to curvature) matters. Thus, we have been bearish USTs expecting one last bigger rate sell-off to get us closer aligned to Fed hiking expectations. US rates are better balanced now but have scope for a further rise into mid-Q2.

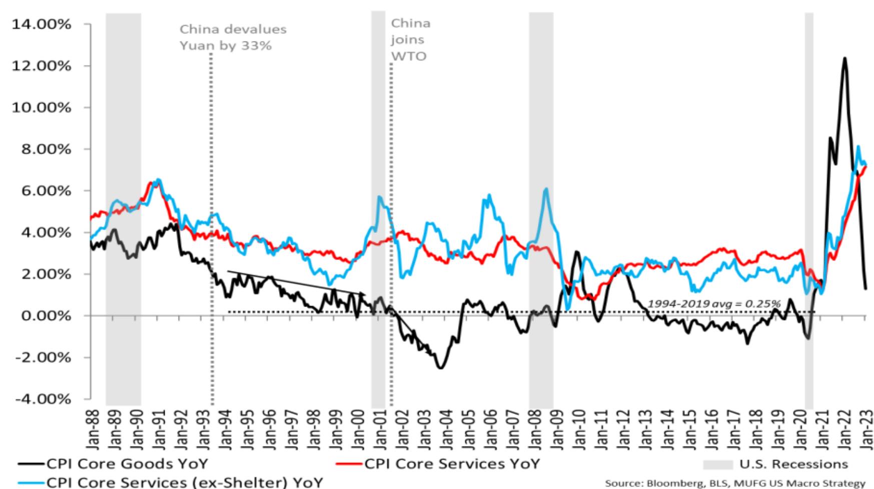
Credit Views: We maintain our initial 2023 house view that IG spreads should stay within our range forecast of 115–175bps. And whenever IG

spreads are near the bottom of our range (as they have been) we would lighten up on IG because spreads are poised to widen from such levels.

US MACRO TO MARKET VIEWS

Macro: The market has been changing the narrative to the price action (i.e. a strong bullish start for risk markets in 2023 being misconstrued, in our view, as proof positive we have dodged the worst). However, the irony is the more evidence we get that the economy can handle the higher rates (we doubt it over the medium-to-long run) and jobs data doesn't weaken fast enough, it only means the Fed can keep raising rates and also keep them higher for longer. And then we get the January US CPI report which serves as a reminder that inflation won't decline in a straight line. And so long as services-based CPI stays elevated, the risk of higher rates remains.

CPI COMPOSITION: SERVICE-BASED INFLATION REMAINS ELEVATED

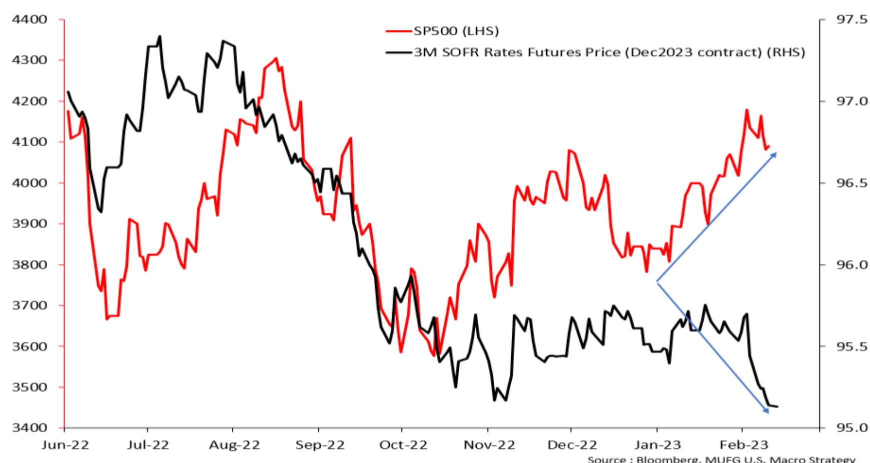


Source: Bloomberg, MUFG US Macro Strategy

Markets: We've been cautioning not to extrapolate the strong gains from January as reflective of what to expect month in, month out in 2023. The "January effect" is a powerful force, especially after a tough period like we saw in 2022, where investors actually got defensive into year-end (via raising cash and tax-loss harvesting). In our view, short-covering by some investors, passive inflows (that are typical at the start of the year) plus underinvested idle cash from defensive investors triggered a fear of missing out (FOMO) and that took markets up too soon too fast (especially given the macro backdrop). Meanwhile risk markets are ignoring rate expectations which have increased massively lately. In our view, risk markets (stocks and credit) are in denial.

MUFG

STOCK MARKET CAN ONLY DECOUPLE FOR SO LONG FROM FED HIKES



Source: Bloomberg, MUFG US Macro Strategy

US IG CREDIT: THE ROLLER COASTER HASN'T STOPPED!

Markets Summary: IG spreads tightened partly due to the equity rally as well as positive net fund inflows and strong new issuance. Currently spreads, after having stalled at our 2023 house view lower band of 115bps in early February, have moved back up about 4bps to 119, the first up week for IG spreads in over a month.

Markets became more volatile in early February after the Fed rate decision came in as expected with a 25-bps hike and expected further hikes but with a slightly dovish tone that charged the markets higher. However, markets reversed course on Feb. 3 after a very strong payrolls report that raised concerns about persistent inflation. Markets continued to remain volatile through mid-February, driven by comments from Fed Chair Powell, more hawkish comments from other Fed members, and mixed economic and earnings reports.

Fourth quarter earnings season is mixed so far, but generally weighted to weaker earnings and/or outlooks, mostly from the tech, industrial, and even consumer staples sectors. This was partially offset by earnings that were stable to stronger in the auto, telecom, healthcare, and other consumer sectors. Regardless, it appears that investors continue to interpret earnings as "not as bad as feared", and thus an excuse to rally occasionally.

Demand Update: Market participants have turned more bullish in the secondary market over the past month, partly due to the occasional market rally and partly due to FOMO (fear of missing out). The bid for the long-end remains very broad and deep. While investors are not favoring current valuation levels, they are being forced to look down the ratings spectrum for yieldier offerings. Credit remains orderly though given the amount of cash on the side-lines, relative yields vs historical levels, as well as the amount of high-quality credit paper trading at deep discounts due to low coupons. Overall, fund flows have been orderly and started the year on a positive note, with net YTD IG fund flows of positive $14.6bn, far ahead of last year's $3.5bn but lower than the 4-year average of $23bn. We expect flows to trend to net positive in 2023 once investors become more comfortable that financial and economic indicators are close to bottoming.

IG SPREADS, RETURNS, AND EQUITY RETURNS - AS OF 2/16/23

OAS AND SPREAD CHANGES						Total Return		Excess Return	Spread Variance		S&P 500 Equity
Sector	OAS	1 Month	YTD	1 Year	YTW	MTD (%)	YTD (%)	YTD (%)	Sector vs Total	Sector 5 Yr Avg Diff	YTD Return
Total IG	119	-3	-11	4	5.37%	-2.59%	1.31%	0.94%	-	-	6.8%
Financial Institutions	120	-14	-20	12	5.45%	-1.82%	1.62%	1.41%	0	-8	6.3%
Utility	124	-1	-5	-2	5.35%	-3.10%	1.31%	0.76%	4	-1	-3.8%
Energy	135	1	-9	0	5.52%	-2.99%	1.41%	0.98%	16	38	0.1%
Basic	142	-3	-11	1	5.54%	-2.97%	1.41%	0.97%	22	30	5.7%
Capital Goods	105	0	-5	-1	5.22%	-2.59%	1.16%	0.79%	-14	-10	4.3%
Technology	110	7	-1	7	5.25%	-2.88%	0.72%	0.32%	-9	-21	13.8%
Communications	150	4	-10	4	5.57%	-3.29%	1.74%	1.26%	30	27	13.9%
Consumer Noncyclical	110	4	-4	-2	5.24%	-3.10%	0.96%	0.48%	-9	-8	-2.2%
Pharmaceuticals	93	6	-1	-7	5.08%	-3.39%	0.72%	0.20%	-26	-19	-3.7%
Food/Beverage	110	5	-4	-3	5.22%	-3.35%	0.81%	0.34%	-9	-4	-2.2%
Consumer Cyclical	98	-2	-6	-2	5.17%	-2.49%	0.77%	0.44%	-22	-6	16.4%
Transportation	117	-2	-9	-1	5.27%	-3.38%	1.05%	0.46%	-3	2	4.3%

Source: Bloomberg, MUFG U.S. Macro Strategy

IG New Issuance Update:

- 2023 started off very strongly with new IG issuance in January reaching $144bn, beating the $135bn estimate and even higher than the $142bn in January last year. We believe this strong issuance is partly due to the market rally early in the month and companies wanting to issue before fourth quarter earnings and the Fed meeting on February 1.
- New issuance continues at a strong pace through mid-February, with $98bn issued so far, which nearly matches the $100bn estimate for the entire month, well ahead of the $81bn in February last year, and also matching the 3-year average for February of $98bn.
- YTD issuance is currently at $242bn, ahead of $223bn in 2022.
- Markets have been able to absorb supply very well thus far and selling against the calendar has been relatively muted given the large amount.
- Demand for new issues is very strong, with many new issues coming with minimal to negative concessions and books multiple times covered.
- For 2023, we estimate IG issuance of about $1.3 trillion, which is 9% above 2022 and 12% below the 3-year average of $1.478 trillion. The reason for growth in issuance this year is primarily due to refinancing of debt maturities as well as the potential for increased issuance in the second half of 2023 if the Fed begins to pivot on its rate policy.

FX Outlook

DEREK HALPENNY
Head of Research,
Global Markets EMEA and
International Securities

Global Markets Research
Global Markets Division for EMEA
T: +44 (0)20 7577 1887
E: Derek.Halpenny@uk.mufg.jp

LEE HARDMAN
Senior Currency Analyst

Global Markets Research
Global Markets Division for EMEA
T: +44 (0)20 7577 1968
E: Lee.Hardman@uk.mufg.jp

LIN LI
Head of Global Markets Research Asia

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

MUFG Bank, Ltd.
A member of MUFG, a global financial group

The US dollar on a DXY basis has rebounded by just over 3% since early this month. It has been the largest rebound for the USD since the weakening trend began in late September. The main driver behind the USD rebound has been the hawkish repricing of Fed rate hike expectations. US rate market participants have become more concerned that higher inflation could prove more persistent than expected following firmer inflation in January and the ongoing resilience of the US labour market. Recent developments provide more support for the USD although we remain sceptical over the sustainability of the move higher. Market attention is set to intensify again in the month ahead over potential shifts in BoJ policy ahead of Governor Kuroda's final meeting. Market participants will be closely scrutinizing comments from Kazuo Ueda to assess how policy could shift further under his leadership to the benefit of the JPY.

BASE CASE EXPECTATIONS, JPY, EUR & CNY

USD/JPY – NEUTRAL BIAS

- **Range : 128.00-138.00**

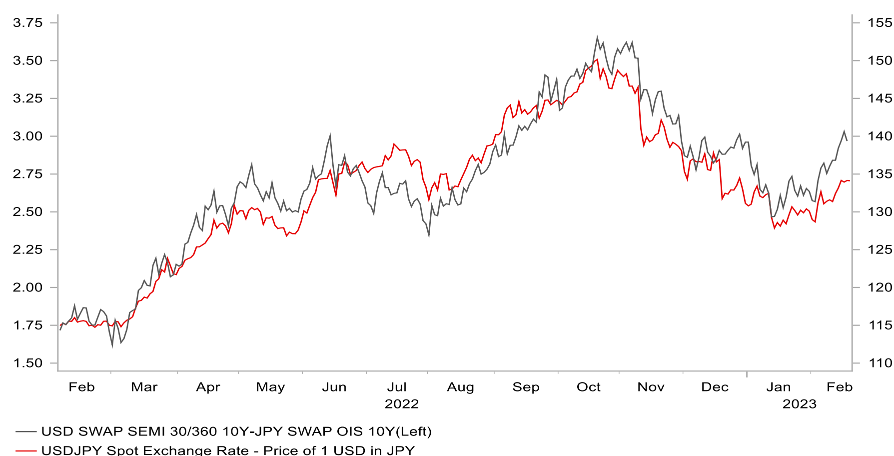
The JPY's sharp rebound from deeply undervalued levels has lost upward momentum over the past month. After falling sharply from the intra-day high of 151.95 on 21st October to an intra-day low of 127.23 on 16th January, USD/JPY has since rebounded back up towards the 135.00-level over the past month. The recent re-weakening of the JPY followed the BoJ's decision to leave YCC policy settings unchanged at their last policy meeting on 18th January. The lengthy time gap until the next BoJ policy meeting on 10th March has helped to dampen expectations for a more imminent shift in YCC policy settings and speculative demand for the JPY.

The next BoJ policy meeting on 10th March will be the last one under the leadership of BoJ Governor Kuroda. In the interim period, it has just been announced that the Japanese government have put forward former Policy Board member Kazuo Ueda to be the next BoJ Governor after current Deputy Governor Masayoshi Amamiya reportedly turned the job down. The announcement initially triggered some speculative JPY buying although it proved short-lived. Market participants are now eagerly awaiting to hear Kazuo Ueda's confirmation hearing at the Lower House of parliament on Friday that is expected to provide further insights into his current thinking on monetary policy. Based on previous comments, our analysts in Tokyo have not changed their outlook for the BoJ to abandon YCC in Q2 while maintaining negative rates. If Mr. Ueda gives priority to a comprehensive assessment of the ten years of QQE and delays actual policy revisions until later, the end to YCC may come somewhat later than we expect.

The developments could encourage some renewed JPY buying in the month ahead if there is a stronger indication that YCC will be abandoned as early as in Q2. It has even been speculated by some Japanese economists that the BoJ could take the decision to abandon YCC at Governor Kuroda's last policy meeting on 10th March although that is not our base case scenario. In contrast, the worst outcome for the JPY would be if incoming Governor Ueda signals he is not in a hurry to abandon YCC and wants to maintain negative rates.

The recent rebound in USD/JPY has also coincided with renewed upward momentum for US rates especially at the short-end of the curve. The hawkish repricing of Fed rate hike expectations has seen the correlation between USD/JPY and US rates strengthen this month. Stronger US growth and firmer inflation at the start of the year have also provided a more solid external backdrop for USD/JPY and will make a break back below the 130.00-level a tougher nut to crack in the near-term. On the topside the next important resistance level is provided by the 200-day moving average that comes in at just below the 137.00-level. After weighing up risks from the repricing of BoJ and Fed policy outlooks, we are maintaining our neutral USD/JPY bias for the month ahead.

BOJ POLICY SHIFT SPECULATION HAS EASED FOR NOW



Source: Bloomberg, Macrobond, MUFG GMR

EUR/USD – BEARISH BIAS

- **Range: 1.0300-1.1000**

The EUR has corrected lower against the USD so far in February. After hitting an intra-day high of 1.1033 on 2nd February, the pair has fallen back to an intra-day low of 1.0613 at the end of last week. It has been the largest pullback in percentage terms since the bullish trend started in the autumn of last year that resulted in the pair moving up from a low of 0.9536 on 28th September.

The main trigger for the correction lower has been the hawkish repricing of Fed rate hike expectations. Short-term US yields have moved sharply higher in recent weeks as market participants have moved to both price in a new cyclical high for the Fed's terminal policy rate, and scaled back expectations for rate cuts later this year. The US rate market is currently pricing in almost three further 25bps hikes from the Fed by the June/July FOMC meetings while one 25bps rate cut is no longer fully priced in by the end of this year. US economic data at the start of this year that has dampened fears over a sharper slowdown/recession, and firmer inflation prints have prompted the hawkish repricing of US rates. The resilience of the US labour market has made market participants nervous over the risk that inflation could prove more persistent than expected, and thereby require even tighter monetary policy.

Euro-zone yields have continued to move higher alongside US yields although to a lesser extent recently resulting in yield spreads moving in favour of lower EUR/USD. The ECB is continuing to strike a hawkish tone by signalling that it plans at least one more larger 50bps hike in March, and will then assess the outlook for policy beyond. After raising the deposit rate to 3.00% next month, we expect the ECB to slow down the pace of hikes. The euro-zone rate market is already hawkishly priced and is

expecting the policy rate to peak later this year at around 3.75%. It sets a higher bar for further hawkish ECB policy surprises. The EUR's recent loss of upward momentum could reflect that the stronger cyclical outlook for the euro-zone economy is better priced in now. Economic data releases from the euro-zone are still surprising to the upside on the whole but by less than at the start of this year.

Inflation has started to surprise to the downside in the euro-zone. ECB policymakers have welcomed the recent pullback in headline inflation but are concerned that core inflation remains elevated and has not yet peaked. Natural gas prices in Europe remain at lower levels which should keep downward pressure on headline inflation. The EUR would be vulnerable though to a further correction lower if core inflation was to fall more quickly as well in the coming months. In these circumstances, we room for EUR/USD to continue correcting lower in the near-term.

HAWKSIH FED REPRICING TRIGGERS CORRECTION LOWER FOR EUR/USD

Source: Bloomberg, Macrobond & MUFG GMR

USD/CNY – NEUTRAL BIAS

Range**: 6.7500–6.9500**

The CNY has weakened 1.4% month-to-date against the US dollar in February after three-straight-months of appreciation, amid a 1.4% appreciation of the dollar, mixed signs of recovery in China and renewed concerns over geopolitical tensions.

Data-wise, China's headline CPI inflation rose to 2.1%yoy in January from 1.8%yoy in December, in line with market expectations, and core inflation excluding food and energy came in at or below 1.0%yoy for the tenth month in a row. These indicated that although a recovery existed in the country's consumer spending due to seasonal effects of the Lunar New Year holidays along with China's abandonment of Zero-Covid policy, but the pace of overall consumption recovery still was moderate, and so did the pace of price change. More notably, this January, food inflation climbed by 1.4ppts, while service inflation only rose by 0.4ppts which was much more muted than what was expected. But January credit data offered a more upbeat near-term picture. The new increased yuan loan came in at RMB4.9 trillion this January, RMB920 billion higher than the level in January 2022. There was a divergence between January's corporate and household demands for bank loans. We see a significant increase in the new increased corporate loans this January. Compared with a year ago, the new increased corporate loan was RMB1.32 trillion higher this January, completely due to the corporates' stronger demand for medium- & long-term loan which recorded an increase of RMB1.4 trillion from the level in January 2022. The strong demand of corporates for bank loan indicated that policy stimulus on infrastructures, strategic

MUFG

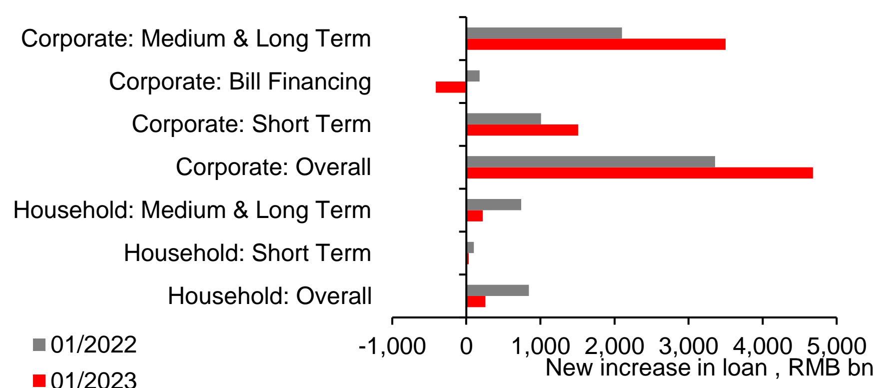
projects and property sectors were taking effects. In contrast, the new increased household loan was RMB585.8 billion lower this January than the level a year ago, with the new increased medium- & long-term loan down RMB519.3 billion, underscoring still weak sentiment in home purchases.

Balancing these, while we think the recovery in both corporates and household sides likely persist, still more policy supports are needed especially to boost consumption. Notably, the new increased household saving deposits this January came in at a record monthly high of RMB6.2 trillion. Chinese households were being conservative and hoarding cash as they felt strong uncertainties on economic outlook and their future income. Establishing consumers' confidence is the key that policies shall focus on, once this is achieved, the "extra" savings that households accumulated during the past three years suggest big potential for consumption recovery.

The Chinese governments have stepped up their support for the property sector through efforts in propping up property sales. On 6th February, Wuhan announced to allow local households to buy an additional home in the city, the first major Chinese city to ease the key restriction on housing purchases and is expected to be followed by other cities as a number of cities plan for promotion of housing consumption in their development plans this year. For instance, Liaoning Province said on 27th January it will encourage housing consumption by providing equal subsidies and support to buyers of both new and second-hand homes, and Guangdong Province announced on 28th January to support for housing consumption, including differentiated mortgage policies and favourable tax rates for owner-occupied homes. Also, Shanghai said on 29th January it will strengthen housing demand, meet reasonable financing requirements of property developers, and ensure stable and healthy development of the city's property market. In addition, PBOC said it will monitor marginal changes in the sector in a dynamic manner, implement differentiated housing credit policies from cities to cities, actively provide financial services to ensure the delivery of buildings, and increase financial support for house leasing, adding to promote the smooth transition of the sector to a new development model, according to a statement issued on 15th February after a work conference held on 10th February. All the positive developments will likely support a soft landing for the property market this year.

Looking ahead, we expect China's economy to continue recovering, and a more noticeable pace of recovery will happen in second half of this year, helped by the stronger consumption due to more measures to boost domestic demand. And China's "Two Sessions" held in March likely provides a clearer and positive roadmap for this year's economic development. In the near term, USD/CNY is likely to be ranging between 6.7500-6.9500, largely due to potential volatility of the US dollar.

CHINA'S HOUSEHOLD LENDING REMAINED WEAK



Source: CEIC, MUFG GMR

KEY RISK FACTORS IN THE MONTH AHEAD

- Risks appear more titled to the upside for USD/JPY in the near-term. After finding good support at around the 130.00-level over the past month, the pair is moving back towards the 200-day moving average at just below the 137.00-level. A break above the 137.00-level could open the door to a more extended rebound. Potential fundamental triggers for a higher USD/JPY include: i) the Fed displaying more concern over persistent inflation risks and the lack of slowdown in the US labour market prompting it to signal that rates need to rise even further above 5.00%, and or ii) the new BoJ governor signaling a stronger desire to leave policy settings unchanged for longer until at least a comprehensive assessment of policy has been conducted.
- The main upside risk for the EUR/USD in the month ahead would be a combination of: i) the ECB delivering another larger 50bps hike in March and not ruling out one more larger hike in May that opens the door to rates moving closer to 4.00% later this year and ii) the strength of January US activity and inflation data could prove to be only temporary boosted by favourable seasonal adjustments and warmer than normal weather.
- During the past three-years with a Zero-Covid policy, we see significant “extra deposits” accumulated by the households and significant current assets accumulated by the corporates. Such “cash hoarding” behaviour was largely a reflection of lack of confidence of both consumers and corporates on economic outlook amid the elevated uncertainties. While we believe China is to further recover, but the pace of the recover rests on how the sentiment, the confidence can be improved or restored. We look into “Two Sessions” in early March for further clarifications.

Global Markets Research

FX

Head of Research, Global Markets EMEA
and International Securities

DEREK HALPENNY
Managing Director
T: +44 (0)20 7577 1887 E: Derek.Halpenny@uk.mufg.jp

Head of Global Markets Research, Asia

LIN LI
Managing Director
T: +852 2862 7005 E: Lin_Li@hk.mufg.jp

Head of Commodities, ESG and Emerging Markets
Research – EMEA

EHSAN KHOMAN
Director
T: +971 4 387 5033 E: Ehsan.Khoman@ae.mufg.jp

Senior Currency Analyst (Asean)

JEFF NG
Associate
T: +65 6918 5536 E: Jeff.Ng@sg.mufg.jp

Senior Currency Analyst (Europe)

LEE HARDMAN
Vice President
T: +44 (0)20 7577 1965 E: Lee.Hardman@uk.mufg.jp

Research Associate

KARMAN LI
Associate
T: +852 2862 7838 E: Karman_KM_Li@hk.mufg.jp

Analyst

RAMYA RS
Analyst
T: +971 4 387 5031 E: Ramya.Rs@ae.mufg.jp

Fixed Income

Head of U.S. Macro Strategy

GEORGE GONCALVES
Director
T: + 1-212-405-6687 E: George.Goncalves@mufgsecurities.com

Credit Strategy

Financial Credit (Europe)

CARLO MAREELS
Director
T: +44 (0)20 7577 2927 E: Carlo.Mareels@mufgsecurities.com

Investment Grade Healthcare, TMT, Consumer (US)

ERIC RUFF
Director
T: +1 212 405 7489 E: Eric.Ruff @mufgsecurities.com

High Yield (US)

BILL MATTHEWS
Director
T: +1 212 405 7486 E: Bill.Matthews@mufgsecurities.com

Investment Grade TMT, Consumer, Retail (US)

ANDREW MYERS
Vice President
T: +1 212 405 7497 E: Andrew.Myers@mufgsecurities.com

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.

DISCLAIMERS

This report has been prepared by the Global Markets Research, US Rates and Credit Strategy desks within MUFG Bank , Ltd. ("MUBK") and MUFG Securities EMEA plc ("MUS(EMEA)") and may be distributed to you either by MUBK, MUS(EMEA) 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 presentation as "MUFG Securities") are: (1) MUFG SECURITIES EMEA PLC ("MUS(EMEA)") which 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). MUS(EMEA) has a branch office that is registered at Level 3, East Wing, The Gate, Dubai International Financial Centre, PO Box 506894, Dubai, UAE ("Dubai Branch"). The 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)") which is authorized and regulated in the Netherlands by the Dutch Authority for the Financial Markets (AFM) and also regulated by De Nederlandsche Bank (DNB). 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. ("MUS(USA)") 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)") which is registered in Canada with the Ontario Securities Commission ("OSC") and regulated by the Investment Industry Regulatory Organization of Canada ("IIROC"); (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 No. 169 329 453; and (6) MUFG Securities Asia (Singapore) Limited ("MUS(SPR)") which is licensed as an approved merchant bank by the Monetary Authority of Singapore. In respect of the financial services provided to wholesale clients in Australia, MUS(ASIA), MUS(EMEA), MUS(USA) and MUS(SPR) 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), MUS(EMEA), MUS(USA), MUS(CAN), and MUS(SPR) are regulated under the laws of Hong Kong, the United Kingdom, the United States, Canada and Singapore respectively, which differ from Australian laws.

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 7-1 Marunouchi 2-Chome, Chiyoda-Ku, Tokyo 100-8388, Japan. 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 is authorised and regulated by the Japanese Financial Services Agency. MUBK's London branch is authorised by the UK Prudential Regulation Authority ("PRA") and regulated by the UK Financial Conduct Authority ("FCA") with limited regulation by the PRA.

General disclosures

This report is for information purposes only and should not be construed as investment research as defined by MIFID 2 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. MUFG Securities does 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. MUFG Securities has no obligation to update any such information contained in this report.

This report is not intended to forecast or predict future events. Past performance is not a guarantee or indication of future results. 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 MUFG Securities and may not be quoted, circulated or otherwise referred to without our prior written consent. Notwithstanding this, 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.

Country and region specific disclosures

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.

In this regard, please note the following in relation to the jurisdictions in which MUFG Securities has a local presence:

• United Kingdom / European Economic Area (EEA): This report is intended for distribution to a "professional client" or "eligible counterparty" as those terms are defined in the rules of the FCA and PRA. In other EEA countries, this report is intended only for persons regarded as professional investors (or equivalent) in their home jurisdiction.

• United States of America: This report, when distributed by MUS(USA), is intended for Institutional Investors ("Institutional Accounts" as defined by FINRA Rule 4512(c)). When distributed by a non-US affiliate of MUS(USA), 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 MUS(USA) 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 MUS(USA) of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

• Hong Kong: This report is 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.

• 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", MUSS is exempt from complying with certain requirements under the Financial Advisers Act, including section 25 of the Financial Advisers Act (which requires a financial adviser to disclose all material information on certain investment products), section 27 (which requires a financial adviser to have a reasonable basis for making recommendations on investments) and section 36 (which requires a financial adviser to disclose any interests that it holds in securities that it recommends).

• Canada: When distributed in Canada, this report is distributed by MUS(EMEA) or MUSA. MUS(EMEA) operates under an International Dealer Exemption from registration with the securities regulators in 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. 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. 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.

• 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., this Note is intended for distribution to a "Professional Investor (tokutei-toushika)" as defined in the FIEA.

• United Arab Emirates: 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.

• 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 of Australia, and are wholesale clients for the purposes of section 761G of the Corporations Act of Australia. This Note is not intended to be distributed or passed on, directly or indirectly, to any other class of persons in Australia.

Other jurisdictions:

MUFG Securities also relies on local registrations or regulatory exemptions in order to undertake certain securities business in other countries. In Thailand, MUS(EMEA) has a derivatives dealer registration with the Securities and Exchange Commission, Thailand. In Canada, MUS(EMEA) and MUS(USA) each operate under an international dealer exemption registered with the securities regulators. MUS(EMEA) operates under the exemption in Alberta, Quebec, Ontario, British Columbia and Manitoba. MUS(USA) operates under the exemption in all Canadian Provinces and Territories..

2023 Mitsubishi UFJ Financial Group