

Weekly Market View

The Fed deflates another bear market rally

→ Market hopes of a Fed policy pivot were dashed yet again this week. As we expected, the Fed remains firm on turning its policy rate, now at a 14-year high of 4%, more restrictive until the spectre of inflation has been sustainably quashed.

→ Chair Powell signalled that the central bank's 4.75% terminal rate projection, upgraded only in September, is likely to be revised higher next month. Markets are pricing in a terminal rate of 5.25% by May 2023, up from 5% priced a week ago. Still higher rates, which likely raises the risk of a recession, means the equities rally since mid-October may be long in the tooth.

→ As another bear market rally fizzles, we gain confidence in our 3Rs strategy of rebalancing into investment grade corporate bonds, rotating into a diversified income allocation and risk managing via USD and higher-than-usual allocation to cash, while hedging inflation risks via energy sector equities.

Is the S&P500 index likely to continue outperforming the Nasdaq 100 index?

Have we seen the bottom in Chinese equities yet?

What are the implications of the latest Fed meeting on US bond yields and the USD?

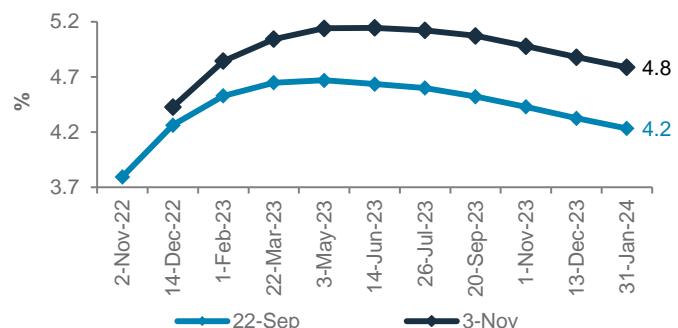
Charts of the week: Bear market rally fizzles as Fed stays hawkish

The US S&P500 index pulled back from a key resistance after Fed Chair Powell reiterated plans to continue raising rates

S&P500 index, with 50-, 100- and 200-day moving averages



Money market expectations of the Fed's median policy rate*



Source: Bloomberg, Standard Chartered; *03 Nov was the day after the latest Fed meeting, 22 Sep was the day after the previous Fed meeting

Editorial

The Fed deflates another bear market rally

Market hopes of a Fed policy pivot were dashed yet again this week. As we expected, the Fed remains firm on turning its policy rate, now at a 14-year high of 4%, more restrictive until the spectre of inflation has been sustainably quashed. Chair Powell signalled that the central bank's 4.75% terminal rate projection, upgraded only in September, is likely to be revised higher next month. Markets are pricing in a terminal rate of 5.25% by May 2023, up from 5% priced a week ago. All this means the equities rally since mid-October may be long in the tooth. As another bear market rally fizzles, we gain confidence in our 3Rs strategy of rebalancing into investment grade corporate bonds, rotating into a diversified income allocation and risk managing via USD and higher-than-usual allocation to cash, while hedging inflation risks via energy sector equities.

When will the Fed turn and when will bond yields peak? History suggests the US 10-year government bond yield peaks just before the Fed rate hiking cycle tops out. Going by this week's surprisingly strong US job openings data and Fed comments, we are likely to see that peak only in H1 2023. Even as some areas of US economic activity starts to slow - as signalled by the near-stagnation in US ISM Manufacturing PMI data - the Fed will need to be sure that the US job market is cooling enough to dampen wage pressures and services sector inflation. Unfortunately, data this week showed that the services sector activity, which accounts for more than two-thirds of US output, while slowing, remains robust. US households have over USD 2trn of savings, which they are deploying for services consumption as life normalises after two years of the pandemic. The robust job market is adding fuel to this consumption trend.

Friday's payrolls data is the next focus. The consensus estimates around 195,000 net new jobs were added in October. That rate of job creation is twice what is needed to maintain the current jobless rate around the 50-year low of 3.5%. The Fed expects the jobless rate to surge to 4.4% by the end of next

year, which implies that it anticipates a significant slowdown in the economy over the coming year as tighter monetary policy starts to bite with a lag. A resolutely hawkish Fed in the face of slowing growth suggests the US corporate earnings growth estimate (5% for 2023) has further downside. The S&P500 has pulled back from its 100-DMA resistance, below the prior support of 3,800. The next technical supports are around 3,660 and 3,570.

We believe the prudent course for investors in this scenario is to stay defensive and follow the 3Rs strategy:

Rebalance into Investment Grade corporate bonds in Developed Markets and Asia and some deeply undervalued equity markets such as Asia ex-Japan and the UK.

Rotate into high-quality income assets. Decade-high yields from the bonds segment of our model multi-asset income strategy (yielding c.7%) are likely to more than offset any near-term price declines as Fed rates rise further. The high dividend equities segment, which accounts for almost a quarter of the model allocation, remains more resilient than broader equities – the Global High Dividend equities index is down 14% YTD vs 23% drop in global equities. This segment offers the opportunity to collect attractive dividends, while staying invested in quality companies and awaiting an eventual Fed pivot likely next year.

Risk-manage through cash/cash-like assets and the USD, which would provide dry powder to pick up assets as the rising risk of a recession means more assets go on sale in the coming months. Energy sector equities can provide an inflation hedge.

What we are watching: a) US mid-term elections on 8 Nov: Republicans are most likely to win control of the House, if not also the Senate. A Republican-controlled Congress would constrain President Biden's ability to respond fiscally in a recession. b) US inflation (10 Nov): at 6.6%, the consensus expects no change in core CPI from September's 40-year high.

— Rajat Bhattacharya

The weekly macro balance sheet

Our weekly net assessment: On balance, we see the past week's data and policy as negative for risk assets in the near term.

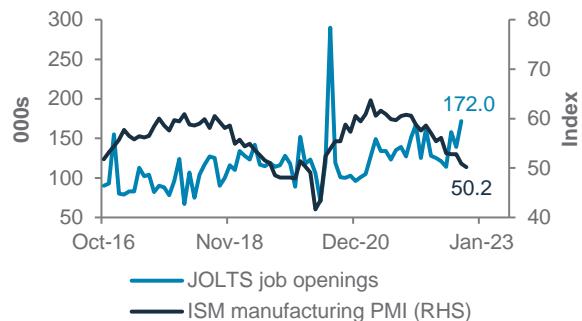
(+ factors: US manufacturing still expanding, still-positive Euro area GDP growth

(-) factors: Hawkish Fed, strong US job market, weaker-than-expected US services PMI, weak China PMIs, record Euro area inflation

	Positive for risk assets	Negative for risk assets
Macro data	<ul style="list-style-type: none"> US ISM Manufacturing index fell less than expected at 50.2, new orders PMI was less contractionary at 49.2 US core capital goods orders (non-defence, excluding aircraft) fell less than expected Euro area Q3 GDP growth stronger than consensus 	<ul style="list-style-type: none"> US ISM services PMI was weaker than expected at 54.4 US job openings surprisingly rose China manufacturing and non-manufacturing PMIs fell more than expected, dipping below the contractionary level Euro area consumer inflation rose more than expected Euro area unemployment rate remained at record low of 6.6%
	<p>Our assessment: Negative – Resilient US job market implies the Fed likely to stay hawkish for now; weaker-than-expected US services PMI, China PMIs; record high Euro area inflation</p>	
Policy developments	<ul style="list-style-type: none"> The RBA raised rates by 25bps as expected; forward guidance was more dovish than expected 	<ul style="list-style-type: none"> The Fed's Powell signalled higher terminal rates after delivering the fourth straight 75bps hike The BoE raised rates by 75bps as expected, but signalled a slower pace of hikes going forward amid a deteriorating economic outlook
	<p>Our assessment: Negative – Hawkish Fed policy guidance</p>	
Other developments	<ul style="list-style-type: none"> China National Development and Reform Commission met with US companies to discuss foreign investments 	<ul style="list-style-type: none"> North Korea fired one-day record number of ballistic missiles to protest against US and South Korea military drills
	<p>Our assessment: Negative – Geopolitical tensions</p>	

US job openings surprisingly rose in September, which is likely to keep the Fed hawkish for now, adding downward pressure on economic activity

US JOLTS job openings, ISM Manufacturing PMI



Source: Bloomberg; Standard Chartered

Euro area inflation scaled a new record high in October, adding pressure on the ECB to continue raising rates even as economic growth slows

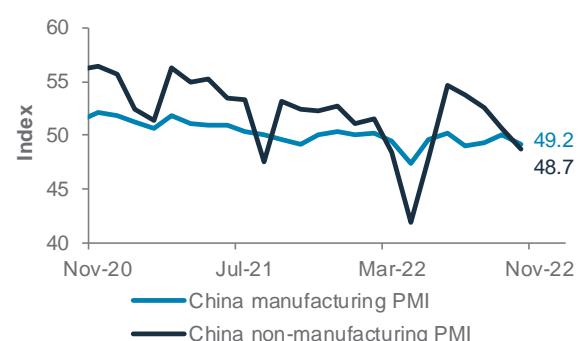
Euro area headline and core consumer inflation



Source: Bloomberg, Standard Chartered

China's business confidence indicators were surprisingly weak in October

China's manufacturing and non-manufacturing PMI



Source: Bloomberg, Standard Chartered

Top client questions

Q Is S&P500 likely to continue to outperform Nasdaq-100?

The technology, communication services and consumer discretionary sectors comprise c.80% of the Nasdaq-100 index and c.44% of the S&P500 index. These three sectors are dominated by technology and internet companies that have seen a significant valuation de-rating (albeit from relatively high levels) over the past year as interest rates moved to a higher regime, resulting in the Nasdaq-100's underperformance vs the S&P500. In addition, recent Q3 earnings have seen the most positive earnings surprises in the energy, healthcare and financial sectors. Discretionary and Communication sectors saw negative earnings surprises, while technology was in the bottom half in terms of earnings surprises. Hence, the earnings adjustments and expectations of further rate hikes (particularly given the Fed's hawkish message) are likely to favour the S&P500's outperformance over the Nasdaq-100 for now.

Within US equities, we prefer exposure to our preferred sectors of energy and healthcare, which have delivered the most positive Q3 earnings surprises. We still see room for energy stocks to catch up to their strong earnings performance, while healthcare equities are reasonably valued and provide defensive exposure in an uncertain macro environment. We also favour high dividend equities, as they tend to do well in an inflationary environment and have also outperformed both the S&P500 and Nasdaq-100 in the past year.

— **Fook Hien Yap, Senior Investment Strategist**

Q Have we seen the bottom in Chinese equities yet?

We believe markets are offering attractive tactical opportunities in oversold Chinese large cap equities, as represented by the Hang Seng index. Positioning remains light and valuation remains cheap.

Technicals are positive. First, trading volume in the Hang Seng Index over the last 1.5 weeks has been nearly three times the normal volume in H2 2022. Volume is a useful indicator as it shows the level of activities. This indicates a significant change of hands in shares, in the area between 14,600 and 16,000. This strong indication of large-sized bargain hunting is likely to help stabilise Chinese equities. Moreover, on days where the index "opened at the highs, closed at the lows", there was relatively little volume, suggesting that the "selling power" was relatively limited on these bearish days.

Over the past two months, the following key drivers have also started to set up Chinese equities more positively, in our view: a) Earnings season this month – expectations are already low; b) Central Economic Work Conference in December 2022 – the authorities are expected to propose concrete actions to strengthen growth in line with stated policy goals. These are likely to be catalysts that bargain hunters are relying upon.

While we believe these fundamental drivers and the technical picture are more positive, risks include: a) US mid-term elections this month and b) the continued assessment with regard to auditing of Chinese companies listed in the US.

— **Daniel Lam CFA, Head, Equity Strategy**

De-rating of technology and internet companies has led to Nasdaq underperforming the S&P500 index. However, high dividend equities have outperformed both indices in the past year

S&P500, Nasdaq-100 and MSCI ACWI High Dividend indices (Rebased to 3-Nov-2021=100)



Source: Bloomberg, Standard Chartered

Cheap valuation continues to be a key supporting factor for Chinese equities

Price/earnings ratio: a) MSCI China index, and b) Ratio of MSCI China vs MSCI AC World indices



Source: FactSet, Standard Chartered

Top client questions (cont'd)

Q What are the implications of the latest Fed meeting on US bond yields and the USD?

After yet another 75bps policy rate hike, Fed Chair Powell reiterated the Fed's singular focus on taming inflation and added that the terminal rate could be higher than its September estimates. He also hinted that the pace of rate hikes could slow as early as the next FOMC meeting. Over the next 1-3 months, we continue to expect US Government bond yields to maintain an upward bias as investors push back nascent expectation of an early Fed pivot and price a higher terminal rate (which markets now see at 5.25%). This is likely to keep the 10-year US Government bond yield above 4% for now, with technical resistance levels sitting initially at 4.136% and 4.212%. Our long-term (12-month) view of the modestly lower bond yields, to below 3.75%, though remains unchanged as tightening financial conditions start to shift the focus to recession risks.

For the USD, we believe this upward pressure on bond yields is consistent with our 1-3-month view of further USD strength. We expect the USD index (DXY) to rise c.3% to 115.8 over the next 1-3 months amid still-supportive rate differentials, global growth concerns and geopolitical worries.

— Cedric Lam, Senior Investment Strategist

Q Is there any change to your Asia USD bond view amid surging credit events in North Asia?

This week, key person risk escalated among Chinese private-owned developers. Senior management resignations are often interpreted as credit-negative developments, and within Asia USD bonds, the JACI Real Estate index bore the brunt of these worries with a negative return of 11.4% in the last 5 trading days. In addition, a surprise default of a KRW-denominated onshore asset-backed security squeezed onshore KRW liquidity, resulting in a spike in KRW yields despite several stabilisation measures imposed by the regulators. The worries were, however, limited largely to onshore Korean markets, with the offshore Korean USD bonds sector remaining largely stable, outside of a limited sell-off in the riskier subordinated bonds sub-asset class.

However, we assess the impact of these credit events on the Asia USD bond asset class as relatively contained for now, given Chinese real estate and Korean bonds account for roughly 3% and 11% respectively of Asia USD bonds' market capitalisation. Hence, we retain our preference for Asia USD bonds at an aggregate level, and a relative preference for higher quality investment grade bonds within this asset class. We are much less constructive on the China USD property sector, with the sector likely to continue to face headwinds in the next 6-12 months. Contagion risks to Korean USD bonds are likely to be well contained, in our view, especially if regulatory stabilisation efforts continue.

— Cedric Lam, Senior Investment Strategist

Expectation of the Fed's terminal rate has moved higher and further out after the November policy meeting

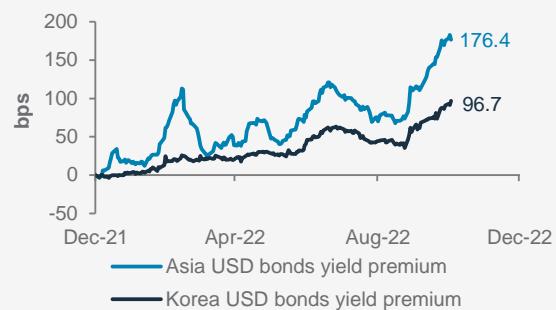
Money market expectations of the Fed's policy rate



Source: Bloomberg, Standard Chartered

The surprise Korea onshore bond default has had a limited effect on the offshore bond market

Yield premium on JPMorgan Asia Credit Index (JACI) and Korea USD bonds



Source: Bloomberg, Standard Chartered

Top client questions (cont'd)

Q What is your latest view on the AUD?

AUD/USD has weakened recently in the face of USD strength and is currently hovering around the support level of 0.63. We expect the AUD to weaken modestly further to 0.62 levels in the next 1-3 months in view of the relatively less hawkish stance by the RBA. This week, the central bank increased its benchmark interest rate by 25bps, as expected. This means the rate differential vs. the USD is likely to keep downward pressure on the AUD for now. Nonetheless, one of the key takeaways from Governor Lowe's speech this week was his hint that the RBA is leaving an option open for adjusting the pace of rate hikes in need. In addition, the central bank highlighted in its policy statement that major tailwinds existed for an upward bias on inflation, mostly due to "global factors", but added domestic demand was "also playing a role". We believe, in the next 12 months, factors such as global inflation, a relatively strong economic growth in Australia, a weaker USD following a Fed policy pivot and China's reopening would support AUD/USD towards our 12-month target of 0.66.

— Cedric Lam, Senior Investment Strategist

Q What is the implication for the real estate sector post the FOMC meeting?

The Fed's hawkish rhetoric poses upside pressure on interest rates, which is a headwind for the real estate equity sector. The global real estate equity sector is down close to 30% YTD. Sharply higher mortgage rates are translating into lower affordability and reduced demand for property, putting downward pressure on property prices globally. To put this in perspective, US 30-year mortgage rates more than doubled from 3.2% to 7.2% since the beginning of this year. By some estimates, every 1% move up in mortgage rates is associated with a 10% decline in home sales. The 30-year mortgage rate has risen almost 400bps since January. Monthly pending home sales slumped 30% y/y in September to the lowest since the height of the pandemic and even worse than the sales reported during the Global Financial Crisis. Eventually slower employment growth will be an additional pressure on home prices. This is, however, mitigated by still low housing inventory relative to pre-pandemic levels, slowing pace of construction and existing homeowners being disincentivised to sell given 90% of them enjoy lower 30-year mortgage rates than the rate today. That said, downside risk to home prices will persist so long as the Fed continues to keep rates high and tolerates higher unemployment in order to rein in inflation.

For the rest of the world, where mortgages are typically shorter-tenure loans (1-3 years), there could be greater downside risks as affordability bites with higher mortgage rates. Hong Kong property has already fallen 8% since the beginning of this year. We have a less preferred view on the publicly-listed real estate sector globally.

— Audrey Goh, Head, Asset Allocation and Thematic Strategy

We expect AUD/USD to move higher in the next 6 to 12 months to catch-up with Australia's strong Terms of Trade

AUD/USD and Australia's Terms of Trade (quarterly)



Source: Bloomberg, Standard Chartered

The publicly-traded global real estate equity sector has underperformed broader equity markets over the past year

Relative performance of MSCI All Country World Index and the MSCI World Real Estate Index



Source: Bloomberg, Standard Chartered

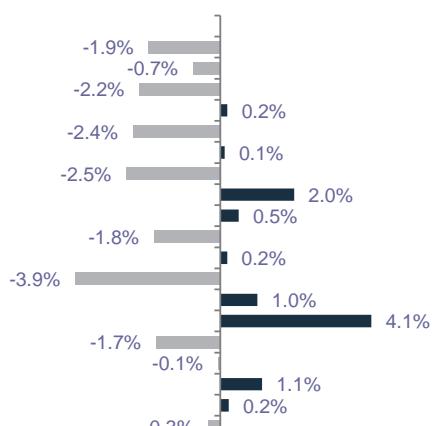
Market performance summary *

2022 YTD

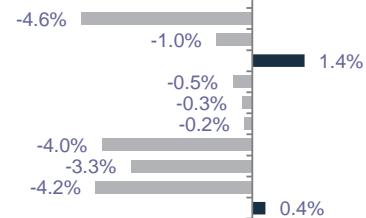
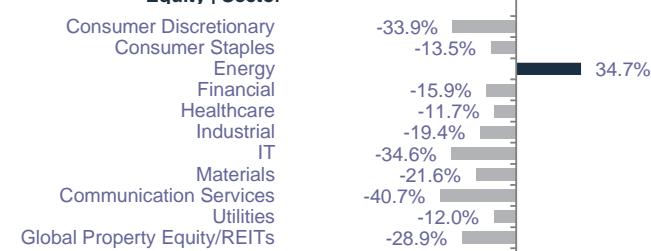
Equity | Country & Region



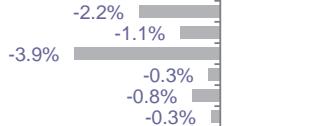
1 Week



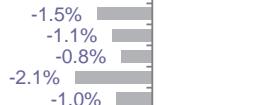
Equity | Sector



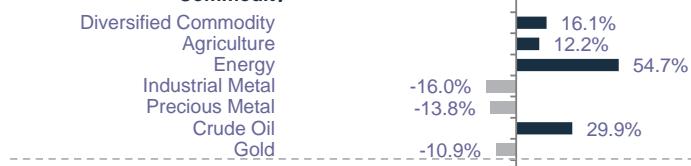
Bonds | Sovereign



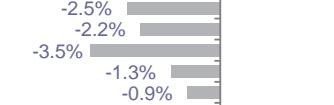
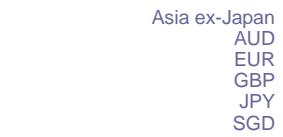
Bonds | Credit



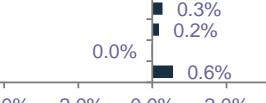
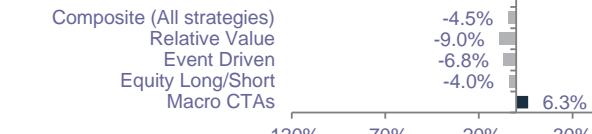
Commodity



FX (against USD)



Alternatives



Sources: MSCI, JP Morgan, Barclays Capital, Citigroup, Dow Jones, HFRX, FTSE, Bloomberg, Standard Chartered

*Performance in USD terms unless otherwise stated, 2022 YTD performance from 31 December 2021 to 03 November 2022; 1-week period: 27 October 2022 to 03 November 2022

Our 12-month asset class views at a glance

Asset class	
Equities	◆
Euro area	▼
US	◆
UK	▲
Asia ex-Japan	▲
Japan	◆
Other EM	◆
Bonds (Credit)	◆
Asia USD	▲
Corp DM HY	◆
Govt EM USD	◆
Corp DM IG	▲
Bonds (Govt)	▼
Govt EM Local	▼
Govt DM IG	▼
Alternatives	◆
Equity hedge	◆
Event-driven	▼
Relative value	▼
Global macro	▲
Cash	▲
USD	◆
EUR	◆
GBP	◆
CNY	◆
JPY	▲
AUD	▲
NZD	◆
CAD	◆
Gold	◆

Source: Standard Chartered Global Investment Committee

Legend: ▲ Most preferred | ▼ Less preferred | ◆ Core holding

Next support for the S&P500 index is at 3,660

Technical indicators for key markets as of 03 November close

Index	Spot	1st support	1st resistance
S&P 500	3,720	3,660	3,841
STOXX 50	3,593	3,574	3,632
FTSE 100	7,189	7,095	7,236
Nikkei 225	27,200	26,977	27,551
Shanghai Comp	3,071	2,952	3,130
Hang Seng	16,231	15,198	16,755
MSCI Asia ex-Japan	534	524	543
MSCI EM	861	847	874
WTI (Spot)	96.6	95.3	97.3
Gold	1,647	1,635	1,653
UST 10y Yield	4.14	4.05	4.18

Source: Bloomberg, Standard Chartered

Note: These short-term technical levels are based on models and may differ from a more qualitative analysis provided in other pages

Economic and market calendar

	Event	Next week	Period	Expected	Prior
MON	EC	Sentix Investor Confidence	Nov	–	-38.3
	CH	Exports y/y	Oct	4.3%	5.7%
TUE		UN Climate Change Conference 2022 (UNFCCC COP 27)			
	US	Mid-Term Elections			
	EC	Retail Sales y/y	Sep	–	-2.0%
WED	US	NFIB Small Business Optimism	Oct	–	92.1
	CH	PPI y/y	Oct	-1.6%	0.9%
	CH	CPI y/y	Oct	2.4%	2.8%
THU	CH	Money Supply M2 y/y	Oct	12.0%	12.1%
	US	CPI y/y	Oct	8.1%	8.2%
	US	CPI Ex Food & Energy y/y	Oct	6.6%	6.6%
FRI/SAT	UK	GDP y/y	3Q P	–	4.4%
	UK	Industrial Production y/y	Sep	–	-5.2%
	US	U. of Mich. Sentiment	Nov P	60.0	59.9

Source: Bloomberg, Standard Chartered

Prior data are for the preceding period unless otherwise indicated. Data are % change on previous period unless otherwise indicated

P - preliminary data, F - final data, sa - seasonally adjusted, y/y - year-on-year, m/m - month-on-month

Investor diversity has narrowed for equities and bonds

Our proprietary market diversity indicators as of 03 November

Level 1	Diversity	1-month trend	Fractal dimension
Global Bonds	●	→	1.34
Global Equities	●	→	1.47
Gold	●	→	1.54
Equity			
MSCI US	●	↓	1.55
MSCI Europe	●	↓	1.42
MSCI AC AXJ	●	↓	1.28
Fixed Income			
DM Corp Bond	●	↓	1.36
DM High Yield	●	↓	1.63
EM USD	●	↓	1.53
EM Local	●	↓	1.52
Asia USD	●	↓	1.50
Commodities			
WTI Crude Oil	●	↑	1.43

Source: Bloomberg, Standard Chartered; Fractal dimensions below 1.25 indicate extremely low market diversity/high risk of a reversal

Legend: ● High | ● Low to mid | ○ Critically low

Disclosures

This document is confidential and may also be privileged. If you are not the intended recipient, please destroy all copies and notify the sender immediately. This document is being distributed for general information only and is subject to the relevant disclaimers available at our Standard Chartered website under Regulatory disclosures. It is not and does not constitute research material, independent research, an offer, recommendation or solicitation to enter into any transaction or adopt any hedging, trading or investment strategy, in relation to any securities or other financial instruments. This document is for general evaluation only. It does not take into account the specific investment objectives, financial situation or particular needs of any particular person or class of persons and it has not been prepared for any particular person or class of persons. You should not rely on any contents of this document in making any investment decisions. Before making any investment, you should carefully read the relevant offering documents and seek independent legal, tax and regulatory advice. In particular, we recommend you to seek advice regarding the suitability of the investment product, taking into account your specific investment objectives, financial situation or particular needs, before you make a commitment to purchase the investment product. Opinions, projections and estimates are solely those of SCB at the date of this document and subject to change without notice. Past performance is not indicative of future results and no representation or warranty is made regarding future performance. Any forecast contained herein as to likely future movements in rates or prices or likely future events or occurrences constitutes an opinion only and is not indicative of actual future movements in rates or prices or actual future events or occurrences (as the case may be). This document must not be forwarded or otherwise made available to any other person without the express written consent of the Standard Chartered Group (as defined below). Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. Standard Chartered PLC, the ultimate parent company of Standard Chartered Bank, together with its subsidiaries and affiliates (including each branch or representative office), form the Standard Chartered Group. Standard Chartered Private Bank is the private banking division of Standard Chartered. Private banking activities may be carried out internationally by different legal entities and affiliates within the Standard Chartered Group (each an "SC Group Entity") according to local regulatory requirements. Not all products and services are provided by all branches, subsidiaries and affiliates within the Standard Chartered Group. Some of the SC Group Entities only act as representatives of Standard Chartered Private Bank and may not be able to offer products and services or offer advice to clients. ESG data has been provided by Morningstar and Sustainalytics. Refer to the Morningstar website under Sustainable Investing and the Sustainalytics website under ESG Risk Ratings for more information. The information is as at the date of publication based on data provided and may be subject to change.

Copyright © 2022, Accounting Research & Analytics, LLC d/b/a CFRA (and its affiliates, as applicable). Reproduction of content provided by CFRA in any form is prohibited except with the prior written permission of CFRA. CFRA content is not investment advice and a reference to or observation concerning a security or investment provided in the CFRA SERVICES is not a recommendation to buy, sell or hold such investment or security or make any other investment decisions. The CFRA content contains opinions of CFRA based upon publicly-available information that CFRA believes to be reliable and the opinions are subject to change without notice. This analysis has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While CFRA exercised due care in compiling this analysis, CFRA, ITS THIRD-PARTY SUPPLIERS, AND ALL RELATED ENTITIES SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, to the full extent permitted by law, regarding the accuracy, completeness, or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. No content provided by CFRA (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of CFRA, and such content shall not be used for any unlawful or unauthorized purposes. CFRA and any third-party providers, as well as their directors, officers, shareholders, employees or agents do not guarantee the accuracy, completeness, timeliness or availability of such content. In no event shall CFRA, its affiliates, or their third-party suppliers be liable for any direct, indirect, special, or consequential damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with a subscriber's, subscriber's customer's, or other's use of CFRA's content.

Market Abuse Regulation (MAR) Disclaimer

Banking activities may be carried out internationally by different branches, subsidiaries and affiliates within the Standard Chartered Group according to local regulatory requirements. Opinions may contain outright "buy", "sell", "hold" or other opinions. The time horizon of this opinion is dependent on prevailing market conditions and there is no planned frequency for updates to the opinion.

This opinion is not independent of Standard Chartered Group's trading strategies or positions. Standard Chartered Group and/or its affiliates or its respective officers, directors, employee benefit programmes or employees, including persons involved in the preparation or issuance of this document may at any time, to the extent permitted by applicable law and/or regulation, be long or short any securities or financial instruments referred to in this document or have material interest in any such securities or related investments. Therefore, it is possible, and you should assume, that Standard Chartered Group has a material interest in one or more of the financial instruments mentioned herein. Please refer to our Standard Chartered website under Regulatory disclosures for more detailed disclosures, including past opinions/ recommendations in the last 12 months and conflict of interests, as well as disclaimers. A covering strategist may have a financial interest in the debt or equity securities of this company/issuer. This document must not be forwarded or otherwise made available to any other person without the express written consent of Standard Chartered Group.

Country/Market Specific Disclosures

Botswana: This document is being distributed in Botswana by, and is attributable to, Standard Chartered Bank Botswana Limited which is a financial institution licensed under the Section 6 of the Banking Act CAP 46.04 and is listed in the Botswana Stock Exchange.

Brunei Darussalam: This document is being distributed in Brunei Darussalam by, and is attributable to, Standard Chartered Bank (Brunei Branch) | Registration Number RFC/61 and Standard Chartered Securities (B) Sdn Bhd | Registration Number RC20001003. Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18 and Standard Chartered Securities (B) Sdn Bhd, which is a limited liability company registered with the Registry of Companies with Registration Number RC20001003 and licensed by Brunei Darussalam Central Bank as a Capital Markets Service License Holder with License Number AMBD/R/CMU/S3-CL and authorised to conduct Islamic investment business through an Islamic window.

China Mainland: This document is being distributed in China by, and is attributable to, Standard Chartered Bank (China) Limited which is mainly regulated by China Banking and Insurance Regulatory Commission (CBIRC), State Administration of Foreign Exchange (SAFE), and People's Bank of China (PBOC). **Hong Kong:** In Hong Kong, this document, except for any portion advising on or facilitating any decision on futures contracts trading, is distributed by Standard Chartered Bank (Hong Kong) Limited ("SCBHK"), a subsidiary of Standard Chartered PLC. SCBHK has its registered address at 32/F, Standard Chartered Bank Building, 4-4A Des Voeux Road Central, Hong Kong and is regulated by the Hong Kong Monetary Authority and registered with the Securities and Futures Commission ("SFC") to carry on Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activity under the Securities and Futures Ordinance (Cap. 571) ("SFO") (CE No. AJI614). The contents of this document have not been reviewed by any regulatory authority in Hong Kong and you are advised to exercise caution in relation to any offer set out herein. If you are in doubt about any of the contents of this document, you should obtain independent professional advice. Any product named herein may not be offered or sold in Hong Kong by means of any document at any time other than to "professional investors" as defined in the SFO and any rules made under that ordinance. In addition, this document may not be issued or possessed for the purposes of issue, whether in Hong Kong or elsewhere, and any interests may not be disposed of, to any person unless such person is outside Hong Kong or is a "professional investor" as defined in the SFO and any rules made under that ordinance, or as otherwise may be permitted by that ordinance. In Hong Kong, Standard Chartered Private Bank is the private banking division of Standard Chartered Bank (Hong Kong) Limited, a subsidiary of Standard Chartered PLC.

Ghana: Standard Chartered Bank Ghana Limited accepts no liability and will not be liable for any loss or damage arising directly or indirectly (including special, incidental or consequential loss or damage) from your use of these documents. Past performance is not indicative of future results and no representation or warranty is made regarding future performance. You should seek advice from a financial adviser on the suitability of an investment for you, taking into account these factors before making a commitment to invest in an investment. To unsubscribe from receiving further updates, please send an email to feedback. ghana @ sc . com. Please do not reply to this email. Call our Priority Banking on 0302610750 for any questions or service queries. You are advised not to send any confidential and/or important information to the Bank via e-mail, as the Bank makes no representations or warranties as to the security or accuracy of any information transmitted via e-mail. The Bank shall not be responsible for any loss or damage suffered by you arising from your decision to use e-mail to communicate with the Bank.

India: This document is being distributed in India by Standard Chartered Bank in its capacity as a distributor of mutual funds and referrer of any other third party financial products. Standard Chartered Bank does not offer any 'Investment Advice' as defined in the Securities and Exchange Board of India (Investment Advisers) Regulations, 2013 or otherwise. Services/products related securities business offered by Standard Chartered Bank are not intended for any person, who is a resident of any jurisdiction, the laws of which imposes prohibition on soliciting the securities business in that jurisdiction without going through the registration requirements and/or prohibit the use of any information contained in this document. **Indonesia:** This document is being distributed in Indonesia by Standard Chartered Bank, Indonesia branch, which is a financial institution licensed, registered and supervised by Otoritas Jasa Keuangan (Financial Service Authority). **Jersey:** In Jersey, Standard Chartered Private Bank is the Registered Business Name of the Jersey

Branch of Standard Chartered Bank. The Jersey Branch of Standard Chartered Bank is regulated by the Jersey Financial Services Commission. Copies of the latest audited accounts of Standard Chartered Bank are available from its principal place of business in Jersey: PO Box 80, 15 Castle Street, St Helier, Jersey JE4 8PT. Standard Chartered Bank is incorporated in England with limited liability by Royal Charter in 1853 Reference Number ZC 18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. The Jersey Branch of Standard Chartered Bank is also an authorised financial services provider under license number 44946 issued by the Financial Sector Conduct Authority of the Republic of South Africa. Jersey is not part of the United Kingdom and all business transacted with Standard Chartered Bank, Jersey Branch and other SC Group Entity outside of the United Kingdom, are not subject to some or any of the investor protection and compensation schemes available under United Kingdom law. **Kenya:** This document is being distributed in Kenya by, and is attributable to Standard Chartered Bank Kenya Limited. Investment Products and Services are distributed by Standard Chartered Investment Services Limited, a wholly owned subsidiary of Standard Chartered Bank Kenya Limited (Standard Chartered Bank/the Bank) that is licensed by the Capital Markets Authority as a Fund Manager. Standard Chartered Bank Kenya Limited is regulated by the Central Bank of Kenya. **Malaysia:** This document is being distributed in Malaysia by Standard Chartered Bank Malaysia Berhad. Recipients in Malaysia should contact Standard Chartered Bank Malaysia Berhad in relation to any matters arising from, or in connection with, this document. **Nigeria:** This document is being distributed in Nigeria by Standard Chartered Bank Nigeria Limited ("the Bank"), a bank duly licensed and regulated by the Central Bank of Nigeria. The Bank accepts no liability for any loss or damage arising directly or indirectly (including special, incidental or consequential loss or damage) from your use of these documents. You should seek advice from a financial adviser on the suitability of an investment for you, taking into account these factors before making a commitment to invest in an investment. To unsubscribe from receiving further updates, please send an email to clientcare.ng@sc.com requesting to be removed from our mailing list. Please do not reply to this email. Call our Priority Banking on 01-2772514 for any questions or service queries. The Bank shall not be responsible for any loss or damage arising from your decision to send confidential and/or important information to the Bank via e-mail, as the Bank makes no representations or warranties as to the security or accuracy of any information transmitted via e-mail. **Pakistan:** This document is being distributed in Pakistan by, and attributable to Standard Chartered Bank (Pakistan) Limited having its registered office at PO Box 5556, I.I Chundrigar Road Karachi, which is a banking company registered with State Bank of Pakistan under Banking Companies Ordinance 1962 and is also having licensed issued by Securities & Exchange Commission of Pakistan for Security Advisors. Standard Chartered Bank (Pakistan) Limited acts as a distributor of mutual funds and referrer of other third-party financial products. **Singapore:** This document is being distributed in Singapore by, and is attributable to, Standard Chartered Bank (Singapore) Limited (Registration No. 201224747C/ GST Group Registration No. MR-8500053-0, "SCBSL"). Recipients in Singapore should contact SCBSL in relation to any matters arising from, or in connection with, this document. SCBSL is an indirect wholly owned subsidiary of Standard Chartered Bank and is licensed to conduct banking business in Singapore under the Singapore Banking Act, 1970. Standard Chartered Private Bank is the private banking division of SCBSL. **IN RELATION TO ANY SECURITY OR SECURITIES-BASED DERIVATIVES CONTRACT REFERRED TO IN THIS DOCUMENT, THIS DOCUMENT, TOGETHER WITH THE ISSUER DOCUMENTATION, SHALL BE DEEMED AN INFORMATION MEMORANDUM (AS DEFINED IN SECTION 275 OF THE SECURITIES AND FUTURES ACT, 2001 ("SFA")).** THIS DOCUMENT IS INTENDED FOR DISTRIBUTION TO ACCREDITED INVESTORS, AS DEFINED IN SECTION 4A(1)(a) OF THE SFA, OR ON THE BASIS THAT THE SECURITY OR SECURITIES-BASED DERIVATIVES CONTRACT MAY ONLY BE ACQUIRED AT A CONSIDERATION OF NOT LESS THAN S\$200,000 (OR ITS EQUIVALENT IN A FOREIGN CURRENCY) FOR EACH TRANSACTION. Further, in relation to any security or securities-based derivatives contract, neither this document nor the Issuer Documentation has been registered as a prospectus with the Monetary Authority of Singapore under the SFA. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the product may not be circulated or distributed, nor may the product be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons other than a relevant person pursuant to section 275(1) of the SFA, or any person pursuant to section 275(1A) of the SFA, and in accordance with the conditions specified in section 275 of the SFA, or pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. In relation to any collective investment schemes referred to in this document, this document is for general information purposes only and is not an offering document or prospectus (as defined in the SFA). This document is not, nor is it intended to be (i) an offer or solicitation of an offer to buy or sell any capital markets product; or (ii) an advertisement of an offer or intended offer of any capital markets product. **Deposit Insurance Scheme:** Singapore dollar deposits of non-bank depositors are insured by the Singapore Deposit Insurance Corporation, for up to S\$75,000 in aggregate per depositor per Scheme member by law. Foreign currency deposits, dual currency investments, structured deposits and other investment products are not insured. This advertisement has not been reviewed by the Monetary Authority of Singapore. **Taiwan:** Standard Chartered Bank ("SCB") or Standard Chartered Bank (Taiwan) Limited

(“SCB (Taiwan)”) may be involved in the financial instruments contained herein or other related financial instruments. The author of this document may have discussed the information contained herein with other employees or agents of SCB or SCB (Taiwan). The author and the above-mentioned employees of SCB or SCB (Taiwan) may have taken related actions in respect of the information involved (including communication with customers of SCB or SCB (Taiwan) as to the information contained herein). The opinions contained in this document may change, or differ from the opinions of employees of SCB or SCB (Taiwan). SCB and SCB (Taiwan) will not provide any notice of any changes to or differences between the above-mentioned opinions. This document may cover companies with which SCB or SCB (Taiwan) seeks to do business at times and issuers of financial instruments. Therefore, investors should understand that the information contained herein may serve as specific purposes as a result of conflict of interests of SCB or SCB (Taiwan). SCB, SCB (Taiwan), the employees (including those who have discussions with the author) or customers of SCB or SCB (Taiwan) may have an interest in the products, related financial instruments or related derivative financial products contained herein; invest in those products at various prices and on different market conditions; have different or conflicting interests in those products. The potential impacts include market makers' related activities, such as dealing, investment, acting as agents, or performing financial or consulting services in relation to any of the products referred to in this document. **UAE:** DIFC - Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. Standard Chartered Bank, Dubai International Financial Centre having its offices at Dubai International Financial Centre, Building 1, Gate Precinct, P.O. Box 999, Dubai, UAE is a branch of Standard Chartered Bank and is regulated by the Dubai Financial Services Authority (“DFSA”). This document is intended for use only by Professional Clients and is not directed at Retail Clients as defined by the DFSA Rulebook. In the DIFC we are authorised to provide financial services only to clients who qualify as Professional Clients and Market Counterparties and not to Retail Clients. As a Professional Client you will not be given the higher retail client protection and compensation rights and if you use your right to be classified as a Retail Client we will be unable to provide financial services and products to you as we do not hold the required license to undertake such activities. For Islamic transactions, we are acting under the supervision of our Shariah Supervisory Committee. Relevant information on our Shariah Supervisory Committee is currently available on the Standard Chartered Bank website in the Islamic banking section. For residents of the UAE – Standard Chartered Bank UAE does not provide financial analysis or consultation services in or into the UAE within the meaning of UAE Securities and Commodities Authority Decision No. 48/r of 2008 concerning financial consultation and financial analysis. **Uganda:** Our Investment products and services are distributed by Standard Chartered Bank Uganda Limited, which is licensed by the Capital Markets Authority as an investment adviser. **United Kingdom:** Standard Chartered Bank is incorporated in England with limited liability by Royal Charter 1853 Reference Number ZC18. The Principal Office of the Company is situated in England at 1 Basinghall Avenue, London, EC2V 5DD. Standard Chartered Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and Prudential Regulation Authority. Standard Chartered Bank (trading as Standard Chartered Private Bank) is an authorised financial services provider (license number 45747) in terms of the South African Financial Advisory and Intermediary Services Act, 2002. **Vietnam:** This document is being distributed in Vietnam by, and is attributable to, Standard Chartered Bank (Vietnam) Limited which is mainly regulated by State Bank of Vietnam (SBV). Recipients in Vietnam should contact Standard Chartered Bank (Vietnam) Limited for any queries regarding any content of this document. **Zambia:** This document is distributed by Standard Chartered Bank Zambia Plc, a company incorporated in Zambia and registered as a commercial bank and licensed by the Bank of Zambia under the Banking and Financial Services Act Chapter 387 of the Laws of Zambia.