# UBS Australia and New Zealand Research

## Research Overview

Equities

Australasia

**Marcus Curley**
Analyst
marcus.curley@ubs.com
+64-9-913 4750

**Nature and scope of UBS Securities Australia Ltd ("UBS") research services**

UBS has one of the largest equities research teams in Australia and New Zealand, with approximately 25 analysts covering over 200 stocks.

UBS equities research analysts undertake in-depth financial analysis on the companies we cover that are publicly listed and primarily trade on the Australian Stock Exchange. The analysts perform extensive background research and due diligence by meeting with senior management, building extensive and detailed financial models, forming a balanced and objective understanding of the company, its competitors, and the industry in which it operates. Analysts are required to form an investment thesis and valuation estimate for each company by forecasting a minimum of 5 years of future earnings, culminating in a recommendation to Buy, Hold or Sell the securities.

Sector teams are structured to cover macro segments and industry sectors. Macro segments include: economics, strategy, commodities and quantitative analysis. Industry sectors include financial services, real estate, metals and mining, energy, materials, transport, infrastructure and utilities, health care and pharmaceuticals, media and telecommunications, retailing, food and beverages, gaming, engineering and contractors, chemicals and packaging, and emerging industrials or small cap companies.

UBS Macro Strategy provides investors with critical global and cross-asset analysis.

Our breadth of coverage and depth of resources enable us to deliver truly global insights into today’s challenging investment decisions. Rigorous analysis, open and transparent dialogue, and an integrated economics and strategy platform offer unique perspectives on the fundamental drivers of investment outcomes.

The UBS Interest Rates strategy team provides global analysis of interest rate and government bond markets in the form of directional, spread, inflation-linked, derivative strategy research. Each of our strategists provides in-depth knowledge in their field of expertise. The team works together to formulate views on the key drivers of fixed income returns.

**Coverage policy and how we make coverage decisions**

The UBS equities research coverage policy is covered under the UBS Global Policy on Research Independence. The purpose of the policy is to protect the independence and impartiality of the Research Department and prevent analysts from being involved in activities that could conflict with their ability to produce objective research.Coverage policy and how we make coverage decisions.

The coverage policy on whether to initiate or cease coverage of a stock is at the sole discretion of the Head of Research. Research analysts must not be biased or inappropriately influenced by the interests of any issuer, by other business areas or business divisions, by any client, or by the personal interests of the analyst. Generally speaking, the criteria used to make coverage decisions are based on the following: sufficient resources to ensure continual and continuity of coverage of a company, and the liquidity and volume of shares traded on the stock exchange to ensure analyst recommendations are readily tradable at any time.

**UBS Research Analysts**

Please find below a summary of the scope, expertise, and qualifications of some of our most senior Research analysts.

**Marcus Curley** is an Executive Director and Head of ANZ Research at UBS. His stock coverage includes NZ transport, infrastructure, agriculture and gaming sectors. Prior to joining UBS in 2015, Marcus was Head of NZ Research at Goldman Sachs between 2005 and 2014. He is currently a top-3 rated analyst in NZ transport, infrastructure and gaming sectors. Marcus was also a Director at Merrill Lynch in London between 1995 and 2004, and responsible for Pan-European research coverage for transport infrastructure and logistics. He holds Bachelor of Commerce and Bachelor of Science from the University of Auckland.

**Paul Winter** is an Managing Director at UBS, and Global Head of the Quantitative Research team. He has followed the equity markets for over 15 years. His areas of expertise include equity strategy, portfolio strategy and quantitative analysis. Prior to joining UBS, Paul held positions with Investors Mutual, Bear Stearns, Citigroup and Dresdner Kleinwort Benson. Paul has an MBA from the Brisbane Graduate School of Business.

**George Tharenou** is the Chief Economist for Australia at UBS, and has been part of the top-ranked Australian economics team since 2006. Prior to joining UBS, George worked at the Reserve Bank of Australia for 2 years, analysing Australia's institutional markets, and contributing to the management of the RBA's daily market operations. Prior to this, George also spent 2 years as an economist and statistician at the Queensland Government's Treasury Department. George holds a Bachelor of Business degree, as well as a 1st Class Honours degree in Economics from the Queensland University of Technology.

**Richard Schellbach** joined UBS in November 2021 as our Equity Strategist and plays a key part of our growing investment in Economics, Strategy, ESG, Macro and Quant teams. Richard has a combined 20 years' experience in investment strategy roles including 14 years in the Australian and London strategy teams of Citi. Richard was an II-rated analyst in his most recent sell-side research role in London.

**Tom Bodor** is an Executive Director in the Australian Real Estate equity research team. Prior to re-joining the team he worked at Lendlease in the Retirement Living Division and in Group Strategy from 2012 to 2019. Previous UBS experience incudes equities research in the European Building Materials team (2011 to 2012) and the Australian Real Estate team (2008 to 2011). He started his career in real estate IBD (2006 to 2008). Tom has a Bachelor of Electrical Engineering (honours) and Bachelor of Commerce (Accounting) degrees from the University of Sydney.

**John Storey** is Head of Australian Bank Research at UBS, based in Sydney, Australia. Prior to this, John was J.P. Morgan's Head of South African Equity Research, and a top-ranked emerging market equity analyst with stock coverage of South African bank and non-bank (insurance) financials. John is skilled at equity and credit research, banking, equity valuations, equity capital market (ECM) transactions, and management. John is a Harvard Business School Alumnus, CFA Charterholder, and University of Stellenbosch Graduate.

**Scott Russell** joined UBS in August 2021 as Head of Insurance and Diversified Financials. He is a fully qualified actuary and a fellow of the Institute of Actuaries of Australia. Prior to UBS, Scott spent 11 years in Hong Kong with Macquarie Securities, most recently as Head of Financials Research, Asia. In that time he covered a range of insurers, banks and other financial companies listed in Hong Kong, China, Japan and London. Scott started his career with actuarial consulting firm Towers Perrin in 1998. He transitioned into Equity Research in 2004 as an insurance analyst at Morgan Stanley in Sydney.

**Lachlan Shaw** joined UBS in March 2015 as a global commodity analyst and rejoined in 2021 as Co-Head of Mining Research. Prior to joining UBS, Lachlan was chief commodity strategist at Commonwealth Bank of Australia for 7 years, ranking Top 3 in the 2014 Peter Lee survey with CBA Priority Clients. Before CBA, Lachlan held Senior Economist/Policy Advisor positions for 6 years at Department of the Treasury in Canberra, Australia; advising the Treasurer and Australian Government on economic analysis and forecasting. Lachlan holds a First Class Honours degree in Economics from Monash University, studies towards Masters in Economics from Australian National University and has completed level 1 of the CFA programme.

**Levi Spry** joined UBS in October 2021 as Co-Head of Mining Research. Levi has 10 years sell side experience, 5 years buy side and 6 years as a Mining Engineer. Levi holds a Bachelor of Engineering (Mining, Honours) and a Bachelor of Applied Science (Geology) from the University of South Australia and a Graduate Diploma in Applied Finance and Investment from FINSIA.

**Lee Power** joined UBS in 2021 as a Director in the Industrials team covering Building Materials and Steel. Prior to joining UBS, Lee covered Building Materials and Steel equities in research roles at CLSA and Deutsche Bank. Lee started his career as a lawyer at Clayton Utz (2009-2012). Lee graduated from The University of Sydney with a Bachelor of Science (Hons) and Bachelor of Laws (Hons) and has completed a Master of Applied Finance (Kaplan).

**Shaun Cousins** is an Executive Director and Head of Retail & Consumer equities research in Australia. Shaun joined UBS in July 2021 following 20yrs at J.P. Morgan during which time he was Top 3 rated in Retail since 2006 and Top 3 rated in Food & Beverages since 2016 in the Peter Lee survey, including being #1 rated in both sectors in 2020. Shaun holds an MBA from the Judge Business School within the University of Cambridge and a B Com (Hons) and LLB (Hons) from the University of Sydney.

**Andre Fromyhr** leads UBS's coverage of the Australian Transport & Infra sector. Andre joined UBS in 2021 after 5 years as a strategy consultant with McKinsey & Company serving executive teams across multiple industries on topics of corporate strategy, business unit strategy, and transformation. Prior to McKinsey, Andre spent 6 years at Commonwealth Bank Institutional Equities and was the lead Transport & Infrastructure analyst. Before that, he covered Transport and Consumer at J.P.Morgan as an associate analyst. Andre as an MBA from London Business School and a Bachelor of Commerce (with honours and university medal) and Bachelor of Science from the University of Queensland.

**Nathan Reilly** leads the Australian Industrial Materials research team at UBS which includes coverage of the engineering, chemicals, packaging and building materials sectors. Prior to joining UBS, Nathan worked at Goldman Sachs for over ten years and was the head of Australian infrastructure and construction research, having also previously covered emerging companies. Nathan holds a Bachelor of Business (Accounting) from RMIT University and is a member of the Institute of Chartered Accountants in Australia.

**Tom Allen** is an Executive Director in Equities Research and leads the Australian utilities sector coverage. Tom joined UBS early in 2019 following nearly a decade at Jemena, where he held senior advisory roles in corporate development and economic regulation. Tom has Bachelor degrees in Economics and Commerce from Monash University.

**Lucy Huang** joins UBS as Head of Telco, Media & Technology Research on 18 July. She has spent the last 6 years at Bank of America Merrill Lynch where she has built a strong client franchise across these sectors. Lucy holds a Bachelor of Commerce/Law and Finance from UNSW.

**Tim Plumbe** is an Executive Director at UBS and Co-Head of the Emerging Companies team in Australia. Tim has been with UBS since 2015 years and holds 14 years sell-side research experience, with previous research roles at Deutsche Bank and CIMB across both the Emerging Companies and Media sectors. Tim holds a Bachelor of Business from the University of Technology, Sydney and is a Chartered Accountant (CA).

**Phil Campbell** is an Director in the NZ Equity research team at UBS focusing on TMT sectors. His stock coverage includes Spark, Chorus, Vista, Gentrack and SkyTV. Prior to joining UBS in 2017, Phil was CFO of Crown Infrastructure Partners which was responsible for the NZ$3bn Ultrafast Fibre build in NZ . He is currently a top-3 rated analyst in NZ Telcos. Phil was also a Director at Citigroup in Australia between 2003 and 2010 responsible for Australasian Telco and Transport research coverage. Prior to that he covered pan European Telcos at Citigroup in London from 1997 to 2003. He holds Bachelor of Commerce from Victoria University of Wellington.

**Bianca Fledderus** is a Research Analyst covering New Zealand stocks in the Aged Care, Property and Retail sectors. Prior to joining UBS in 2020, Bianca was a Portfolio Manager and Investment Analyst at Pie Funds Management between 2016 and 2020. She holds a Bachelor of Business Administration and Master of Science in Finance from the University of Groningen.

## Required Disclosures

This document has been prepared by UBS New Zealand Ltd, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates, including Credit Suisse AG and its subsidiaries, branches and affiliates are referred to herein as "UBS".

For information on the ways in which UBS manages conflicts and maintains independence of its UBS Global Research product; historical performance information; certain additional disclosures concerning UBS Global Research recommendations; and terms and conditions for certain third party data used in research report, please visit https://www.ubs.com/disclosures. Unless otherwise indicated, information and data in this report are based on company disclosures including but not limited to annual, interim, quarterly reports and other company announcements. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report. This recommendation was finalized on: 14 May 2024 08:56 AM GMT. UBS has designated certain UBS Global Research department members as Derivatives Research Analysts where those department members publish research principally on the analysis of the price or market for a derivative, and provide information reasonably sufficient upon which to base a decision to enter into a derivatives transaction. Where Derivatives Research Analysts co-author research reports with Equity Research Analysts or Economists, the Derivatives Research Analyst is responsible for the derivatives investment views, forecasts, and/or recommendations. **Quantitative Research Review:** UBS Global Research publishes a quantitative assessment of its analysts' responses to certain questions about the likelihood of an occurrence of a number of short term factors in a product known as the 'Quantitative Research Review'. Views contained in this assessment on a particular stock reflect only the views on those short term factors which are a different timeframe to the 12-month timeframe reflected in any equity rating set out in this note. For the latest responses, please see the Quantitative Research Review Addendum at the back of this report, where applicable. For previous responses please make reference to (i) previous UBS Global Research reports; and (ii) where no applicable research report was published that month, the Quantitative Research Review which can be found at https://neo.ubs.com/quantitative, or contact your UBS sales representative for access to the report or the Quantitative Research Team on qa@ubs.com. A consolidated report which contains all responses is also available and again you should contact your UBS sales representative for details and pricing or the Quantitative Research team on the email above.

**UBS Global Research: Global Equity Rating Definitions**

| 12-Month Rating | Definition | Coverage[1] | IB Services[2] |
|---|---|---|---|
| **Buy** | FSR is > 6% above the MRA. | 51% | 36% |
| **Neutral** | FSR is between -6% and 6% of the MRA. | 40% | 38% |
| **Sell** | FSR is > 6% below the MRA. | 8% | 33% |
| **Short-Term Rating** | **Definition** | **Coverage[3]** | **IB Services[4]** |
| **Buy** | Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event. | <1% | <1% |
| **Sell** | Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event. | <1% | <1% |

Source: UBS. Rating allocations are as of 31 March 2024.
1:Percentage of companies under coverage globally within the 12-month rating category.
2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
3:Percentage of companies under coverage globally within the Short-Term rating category.
4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

**KEY DEFINITIONS: Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. In some cases, this yield may be based on accrued dividends. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

**EXCEPTIONS AND SPECIAL CASES: UK and European Investment Fund ratings and definitions are: Buy:** Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

**UBS New Zealand Limited:** Marcus Curley.

The views in this report are based on UBS's proprietary quantitative models. These views are made independently of the recommendations of UBS's fundamental equity research analysts.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

# UBS Global Research Disclaimer

This document has been prepared by UBS New Zealand Ltd, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates, including Credit Suisse AG and its subsidiaries, branches and affiliates are referred to herein as "UBS".

Any opinions expressed in this document may change without notice and are only current as of the date of publication. Different areas, groups, and personnel within UBS may produce and distribute separate research products independently of each other. For example, research publications from **UBS CIO** are produced by UBS Global Wealth Management. **UBS Global Research** is produced by UBS Investment Bank. Research methodologies and rating systems of each separate research organization may differ, for example, in terms of investment recommendations, investment horizon, model assumptions, and valuation methods. As a consequence, except for certain economic forecasts (for which UBS CIO and UBS Global Research may collaborate), investment recommendations, ratings, price targets, and valuations provided by each of the separate research organizations may be different, or inconsistent. You should refer to each relevant research product for the details as to their methodologies and rating system. Not all clients may have access to all products from every organization. Each research product is subject to the policies and procedures of the organization that produces it.

**This document is provided solely to recipients who are expressly authorized by UBS to receive it. If you are not so authorized you must immediately destroy the document.**

UBS Global Research is provided to our clients through UBS Neo, and in certain instances, UBS.com and any other system or distribution method specifically identified in one or more communications distributed through UBS Neo or UBS.com (each a system) as an approved means for distributing UBS Global Research. It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means.

All UBS Global Research is available on UBS Neo. Please contact your UBS sales representative if you wish to discuss your access to UBS Neo. Where UBS Global Research refers to "UBS Evidence Lab Inside" or has made use of data provided by UBS Evidence Lab and you would like to access that data please contact your UBS sales representative. UBS Evidence Lab data is available on UBS Neo. The level and types of services provided by UBS Global Research and UBS Evidence Lab to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g., market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS Global Research and UBS Evidence Lab and legal and regulatory constraints.

When you receive UBS Global Research through a system, your access and/or use of such UBS Global Research is subject to this UBS Global Research Disclaimer and to the UBS Neo Platform Use Agreement (the "Neo Terms") together with any other relevant terms of use governing the applicable System.

When you receive UBS Global Research via a third party vendor, e-mail or other electronic means, you agree that use shall be subject to this UBS Global Research Disclaimer, the Neo Terms and where applicable the UBS Investment Bank terms of business (https://www.ubs.com/global/en/investment-bank/regulatory.html) and to UBS's Terms of Use/Disclaimer (https://www.ubs.com/global/en/legalinfo2/disclaimer.html). In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (https://www.ubs.com/global/en/legalinfo2/privacy.html) and cookie notice (https://www.ubs.com/global/en/legal/privacy/users.html).

**If you receive UBS Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, provide to any third party, or in any way commercially exploit any UBS research provided via UBS Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via UBS Global Research or otherwise, without the prior written consent of UBS.**

In certain circumstances (including for example, if you are an academic or a member of the media) you may receive UBS Global Research otherwise than in the capacity of a client of UBS and you understand and agree that (i) the UBS Global Research is provided to you for information purposes only; (ii) for the purposes of receiving it you are not intended to be and will not be treated as a "client" of UBS for any legal or regulatory purpose; (iii) the UBS Global Research must not be relied on or acted upon for any purpose; and (iv) such content is subject to the relevant disclaimers that follow.

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction.

This document is a general communication and is educational in nature; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. By providing this document, none of UBS or its representatives has any responsibility or authority to provide or have provided investment advice in a fiduciary capacity or otherwise. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. None of UBS or its representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. The recipient should carefully read this document in its entirety and not draw inferences or conclusions from the rating alone. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors.

Options, structured derivative products and futures (including OTC derivatives) are not suitable for all investors. Trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Prior to buying or selling an option, and for the complete risks relating to options, you must receive a copy of "The Characteristics and Risks of Standardized Options." You may read the document at https://www.theocc.com/publications/risks/riskchap1.jsp or ask your salesperson for a copy. Various theoretical explanations of the risks associated with these instruments have been published. Supporting documentation for any claims, comparisons, recommendations, statistics or other technical data will be supplied upon request. Past performance is not necessarily indicative of future results. Transaction costs may be significant in option strategies calling for multiple purchases and sales of options, such as spreads and straddles. Because of the importance of tax considerations to many options transactions, the investor considering options should consult with his/her tax advisor as to how taxes affect the outcome of contemplated options transactions.

Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Prior to making any investment or financial decisions, any recipient of this document or the information should take steps to understand the risk and return of the investment and seek individualized advice from his or her personal financial, legal, tax and other professional advisors that takes into account all the particular facts and circumstances of his or her investment objectives.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in any materials to which this document relates (the "Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party. In no circumstances may this document or any of the Information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes:

(i) valuation or accounting purposes;

(ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or

(iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

UBS has policies and procedures, which include, without limitation, independence policies and permanent information barriers, that are intended, and upon which UBS relies, to manage potential conflicts of interest and control the flow of information within divisions of UBS and among its subsidiaries, branches and affiliates. For further information on the ways in which UBS Global Research manages conflicts and maintains independence of its research products, historical performance information and certain additional disclosures concerning UBS Global Research recommendations, please visit https://www.ubs.com/disclosures.

UBS Global Research will initiate, update and cease coverage solely at the discretion of UBS Global Research Management, which will also have sole discretion on the timing and frequency of any published research product. The analysis contained in this document is based on numerous assumptions. All material information in relation to published research reports, such as valuation methodology, risk statements, underlying assumptions (including sensitivity analysis of those assumptions), ratings history etc. as required by the Market Abuse Regulation, can be found on UBS Neo. Different assumptions could result in materially different results.

The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by UBS Global Research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS and/or its divisions as a whole, of which investment banking, sales and trading are a part, and UBS as a whole.

For financial instruments admitted to trading on an EU regulated market: UBS (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms under English law or, if not carried out by UBS in the UK the law of the relevant jurisdiction in which UBS determines it carries out the activity) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

Within the past 12 months UBS may have received or provided investment services and activities or ancillary services as per MiFID II which may have given rise to a payment or promise of a payment in relation to these services from or to this company.

**United Kingdom:** This material is distributed by UBS AG, London Branch to persons who are eligible counterparties or professional clients. UBS AG, London Branch is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. **Europe:** Except as otherwise specified herein, these materials are distributed by UBS Europe SE, a subsidiary of UBS AG, to persons who are eligible counterparties or professional clients (as detailed in the Bundesanstalt fur Finanzdienstleistungsaufsicht (BaFin) Rules and according to MIFID) and are only available to such persons. The information does not apply to, and should not be relied upon by, retail clients. UBS Europe SE is authorised by the European Central Bank (ECB) and regulated by the BaFin and the ECB. **Germany, Luxembourg, the Netherlands, Belgium and Ireland:** Where an analyst of UBS Europe SE has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE. In all cases it is distributed by UBS Europe SE and UBS AG, London Branch. **Turkey:** Distributed by UBS AG, London Branch. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG, London Branch is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Europe SE (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Europe SE (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). Should not be construed as an individual Investment Recommendation for the purpose of the Russian Law - Federal Law #39-FZ ON THE SECURITIES MARKET Articles 6.1-6.2.**Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **Italy:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Italy Branch. Where an analyst of UBS Europe SE, Italy Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Italy Branch. **France:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, France Branch. Where an analyst of UBS Europe SE, France Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, France Branch. **Spain:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Spain Branch. Where an analyst of UBS Europe SE, Spain Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Spain Branch. **Sweden:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Sweden Branch. Where an analyst of UBS Europe SE, Sweden Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Sweden Branch. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **UAE / Dubai:** The information distributed by UBS AG Dubai Branch is only intended for Professional Clients and/or Market Counterparties, as classified under the DFSA rulebook. No other person should act upon this material/communication. The information is not for further distribution within the United Arab Emirates. UBS AG Dubai Branch is regulated by the DFSA in the DIFC. UBS Investment Bank is not licensed to provide banking services in the UAE by the Central Bank of the UAE, nor is it licensed by the UAE Securities and Commodities Authority. **Israel:** This Material is distributed by UBS AG, London Branch. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS AG, London Branch and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS AG, London Branch and its affiliates may prefer various Financial Assets to which they have or may have an Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this Material must not be furnished to, relied on or acted upon by any other persons. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a **'non-US affiliate'**) to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this report must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Brazil:** Except as otherwise specified herein, this Material is prepared by UBS Brasil Corretora de Câmbio, Títulos e Valores Mobiliários S.A. (UBS Brasil CCTVM) to persons who are eligible investors residing in Brazil, which are considered to be Professional Investors (Investidores Profissionais), as designated by the applicable regulation, mainly the CVM Resolution No. 30 from the 11th of May 2021 (determines the duty to verify the suitability of products, services and transactions with regards to the client´s profile). UBS Brasil CCTVM is a subsidiary of UBS BB Servicos de Assessoria Financeira e Participacoes S.A. ("UBS BB"). UBS BB is an association between UBS AG and Banco do Brasil (through its subsidiary BB – Banco de Investimentos S.A.), of which UBS AG is the majority owner and which provides investment banking services and coverage in Brazil, Argentina, Chile, Paraguay, Peru and Uruguay. UBS Brasil CCTVM is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. Ombudsman: 0800-940-0266/ https://www.ubs.com/br/pt/ubsbb-investment-bank/ombudsman.html. UBS may hold relevant financial and commercial interest in relation to the company subject to this Research report. **Hong Kong:** Distributed by UBS Securities Asia Limited. Please contact local licensed persons of UBS Securities Asia Limited in respect of any matters arising from, or in connection with, the analysis or document **Singapore:** Distributed by UBS Securities Pte. Ltd. [Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this report has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the report. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (ABN 47 088 129 613 and holder of Australian Financial Services License No. 231087). For all other recipients: Distributed by UBS Securities Australia Ltd (ABN 62 008 586 481 and holder of Australian Financial Services License No. 231098). This document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. For clients of Credit Suisse AG, Sydney Branch: Credit Suisse AG, Sydney Branch (ABN 17 061 700 712, AFSL 226896) is a separately licensed, related body corporate of UBS AG, Australia Branch and UBS Securities Australia Ltd. Credit Suisse AG, Sydney Branch has entered into an arrangement with UBS

Securities Australia Ltd to allow Credit Suisse AG to provide UBS Global Research to certain Australian domiciled wholesale clients of Credit Suisse AG, Sydney Branch's Wealth Management Division. If you are receiving UBS Global Research from Credit Suisse, Sydney Branch's Wealth Management Division, this UBS Global Research is issued under the license of UBS Securities Australia Limited. All disclosures and disclaimers contained within this document relating to or provided by UBS Securities Australia Ltd also apply to UBS Global Research received by clients of Credit Suisse AG, Sydney Branch's Wealth Management Division. **New Zealand:** Distributed by UBS New Zealand Ltd. UBS New Zealand Ltd is not a registered bank in New Zealand. You are being provided with this publication or material because you have indicated to UBS that you are a "wholesale client" within the meaning of section 5C of the Financial Advisers Act 2008 of New Zealand (Permitted Client). This publication or material is not intended for clients who are not Permitted Clients (non-permitted Clients). If you are a non-permitted Client you must not rely on this publication or material. If despite this warning you nevertheless rely on this publication or material, you hereby (i) acknowledge that you may not rely on the content of this publication or material and that any recommendations or opinions in such this publication or material are not made or provided to you, and (ii) to the maximum extent permitted by law (a) indemnify UBS and its associates or related entities (and their respective Directors, officers, agents and Advisors) (each a 'Relevant Person') for any loss, damage, liability or claim any of them may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material and (b) waive any rights or remedies you may have against any Relevant Person for (or in respect of) any loss, damage, liability or claim you may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This report may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. This material is intended for professional/institutional clients only and not for distribution to any retail clients. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). This material is intended for professional/institutional clients only and not for distribution to any retail clients. **India:** Distributed by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 3 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Number: INZ000259830; and Research Analyst services bearing SEBI Registration Number: INH000001204. Name of Compliance Officer Mr. Parameshwaran Shivaramakrishnan, Phone : +912261556151, Email : parameshwaran.s@ubs.com, Name of Grievance Officer Parameshwaran Shivaramakrishnan, Phone : +912261556151, Email: ol-ubs-sec-compliance@ubs.com Registration granted by SEBI, and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. UBS may have debt holdings or positions in the subject Indian company/companies. UBS may have financial interests (e.g. loan/derivative products, rights to or interests in investments, etc.) in the subject Indian company / companies from time to time. Within the past 12 months, UBS may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: https://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html **Taiwan:** Except as otherwise specified herein, this material may not be distributed in Taiwan. Information and material on securities/instruments that are traded in a Taiwan organized exchange is deemed to be issued and distributed by UBS Securities Pte. LTD., Taipei Branch, which is licensed and regulated by Taiwan Financial Supervisory Commission. Save for securities/instruments that are traded in a Taiwan organized exchange, this material should not constitute "recommendation" to clients or recipients in Taiwan for the covered companies or any companies mentioned in this document. No portion of the document may be reproduced or quoted by the press or any other person without authorisation from UBS. **Indonesia:** This report is being distributed by PT UBS Sekuritas Indonesia and is delivered by its licensed employee(s), including marketing/sales person, to its client. PT UBS Sekuritas Indonesia, having its registered office at Sequis Tower Level 22 unit 22-1,Jl.Jend. Sudirman, kav.71, SCBD lot 11B, Jakarta 12190. Indonesia, is a subsidiary company of UBS AG and licensed under Capital Market Law no. 8 year 1995, a holder of broker-dealer and underwriter licenses issued by the Capital Market and Financial Institution Supervisory Agency (now Otoritas Jasa Keuangan/OJK). PT UBS Sekuritas Indonesia is also a member of Indonesia Stock Exchange and supervised by Otoritas Jasa Keuangan (OJK). Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens except in compliance with applicable Indonesian capital market laws and regulations. This report is not an offer of securities in Indonesia and may not be distributed within the territory of the Republic of Indonesia or to Indonesian citizens in circumstance which constitutes an offering within the meaning of Indonesian capital market laws and regulations.

The disclosures contained in research documents produced by UBS AG, London Branch or UBS Europe SE shall be governed by and construed in accordance with English law.



UBS