

Imprint

This content constitutes **marketing material** and is not the result of independent financial/investment research. It has therefore not been prepared in accordance with the legal requirements regarding the independence of financial/investment research and is not subject to any prohibition on dealing ahead of the dissemination of financial/investment research. It has been produced by Bank Julius Baer & Co. Ltd., Zurich, which is authorised and regulated by the Swiss Financial Market Supervisory Authority FINMA. This content is issued regularly. Information on financial instruments and issuers will be updated irregularly or in response to important events.

Authors

The authors are employed by Bank Julius Baer & Co. Ltd., Zurich, which is authorised and regulated by the Swiss Financial Market Supervisory Authority FINMA.

Financial instrument information

For the purposes of this content, the term 'financial instruments' shall not only include 'financial instruments' but also 'financial products'.

Price information: Unless otherwise stated, the price information reflects the closing price of the previous trading day.
Net asset value (NAV): The net asset value is calculated on the basis of the fund's dealing frequency and will be published with a delay.

Benchmark data: Julius Baer may select other benchmark/market data than those chosen by the financial instrument provider in order to display and/or compare risk/return patterns. This may lead to deviations in comparison to the financial instrument documentation made available by the financial instrument provider, such as the Key (Investor) Information Document (KIID/KID), the prospectus, and the like. Where Julius Baer compares financial instruments that are managed and/or arranged by the Julius Baer Group with third-party financial instruments, it has implemented appropriate measures to avoid and/or mitigate potential conflicts of interest to ensure the fair representation of performance comparisons between financial instruments. For any investment decision, the sole source of financial instrument-related data and information shall be the documents made available by the financial instrument provider only. Due to technical reasons, no financial instrument benchmarks can currently be displayed.

Methodologies and glossary

Julius Baer: www.juliusbaer.com/en/legal/methodologies-and-glossary/

Morningstar: www.global.morningstar.com/equitydisclosures

Equities

Rating system

Buy	Expected to outperform the regional industry group by at least 5% in the coming 9-12 months, unless otherwise stated.
Hold	Expected to perform in line ($\pm 5\%$) with the regional industry group in the coming 9-12 months, unless otherwise stated.
Reduce	Expected to underperform the regional industry group by at least 5% in the coming 9-12 months, unless otherwise stated.

Risk rating system

The risk rating (High/Medium/Low) is a measure of a stock's expected volatility and the risk of losses in the case of negative news flows. This non-quantitative rating is based on criteria such as historical volatility, industry, earnings risk, valuation, and balance-sheet strength.

Frequency of equity rating updates

An update for Buy-rated equities will be provided on a quarterly basis. An update for Hold- and Reduce-rated equities will be provided semi-annually or on an ad hoc basis.

Morningstar rating system

For stocks covered by Morningstar Equity Research, the following rating system applies, which has been formulated by Morningstar, meaning that the first person (i.e. 'we', 'our') refers to Morningstar.

Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically recalculated at the market close on every day that the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow and, based on a thorough and ongoing analysis, raise or lower their fair value estimates as warranted. Please note that there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star (★★★★★) stocks, the stock market as a whole is more undervalued, in our opinion, than when very few companies garner our highest

rating. We expect that if our base-case assumptions are true, the market price will converge on our fair value estimate over time, generally within three years (although it is impossible to predict the exact time frame in which market prices may adjust). Our star ratings are guideposts for a broad audience, and individuals must consider their own specific investment goals, risk tolerance, tax situation, time horizon, income needs, and complete investment portfolio, among other factors. The Morningstar Star Ratings for stocks are defined below.

Morningstar Qualitative Star Rating

Five-Stars	★★★★★	We believe appreciation beyond a fair risk-adjusted return is highly likely over a multiyear time frame. Scenario analysis developed by our analysts indicates that the current market price represents an excessively pessimistic outlook, limiting downside risk and maximizing upside potential.
Four-Stars	★★★★	We believe appreciation beyond a fair risk-adjusted return is likely.
Three-Stars	★★★	Indicates our belief that investors are likely to receive a fair risk-adjusted return (approximately, the cost of equity).
Two-Stars	★★	We believe investors are likely to receive a less than fair risk-adjusted return.
One-Star	★	Indicates a high probability of undesirable risk-adjusted returns from the current market price over a multiyear timeframe, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Morningstar Quantitative Star Rating

Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate (Quant FVE), current market price, and the Quantitative Uncertainty Rating. The rating is expressed as One-Star, Two-Stars, Three-Stars, Four-Stars, and Five-Stars.

Five-Stars	★★★★★	The stock is undervalued with a reasonable margin of safety. $\text{Log (Quant FVE/Price)} > 1 \times \text{Quantitative Uncertainty}$
Four-Stars	★★★★	The stock is somewhat undervalued. $\text{Log (Quant FVE/Price)}$ between $(0.5 \times \text{Quantitative Uncertainty}, 1 \times \text{Quantitative Uncertainty})$
Three-Stars	★★★	The stock is approximately fairly valued. $\text{Log (Quant FVE/Price)}$ between $(-0.5 \times \text{Quantitative Uncertainty}, 0.5 \times \text{Quantitative Uncertainty})$
Two-Stars	★★	The stock is somewhat overvalued. $\text{Log (Quant FVE/Price)}$ between $(-1 \times \text{Quantitative Uncertainty}, -0.5 \times \text{Quantitative Uncertainty})$
One-Star	★	The stock is overvalued with a reasonable margin of safety. $\text{Log (Quant FVE/Price)} < -1 \times \text{Quantitative Uncertainty}$

Equity strategy Rating system

Overweight	Expected to outperform regional or global benchmark indices in the next 9–12 months, unless otherwise stated.
Neutral	Expected to perform in line with regional or global benchmark indices in the next 9–12 months, unless otherwise stated.
Underweight	Expected to underperform regional or global benchmark indices in the next 9–12 months, unless otherwise stated.

Fixed income Market-segment rating system

Overweight	Expected to outperform the broad fixed income market in the next 3–6 months.
Neutral	Expected to perform in line with the broad fixed income market in the next 3–6 months.
Underweight	Expected to underperform the broad fixed income market in the next 3–6 months.

Issuer rating system

Buy	The issuer has a strong financial and business profile (e.g. strong balance sheet, income statement and cash flow), and its bonds are an attractive investment from a risk/return perspective.
Hold	The issuer has stable credit fundamentals and/or average expected return characteristics relative to industry peers, and its bonds remain an attractive investment from a risk/return perspective.
Sell	The issuer's fundamental data has deteriorated significantly relative to industry peers, and its bonds are no longer an attractive investment from a risk/return perspective.

Risk categories

Fixed Income Research assigns one of the following four risk categories to each issuer of the **active universe**:

Conservative	Issuers most likely to preserve their top rating throughout the business cycle.
Quality	Issuers very likely to service and repay debt within a five-year credit scenario. These issuers are likely to preserve their investment-grade rating throughout a normal business cycle.
Opportunistic	Issuers quite likely to service and repay debt within a five-year credit scenario. They have an attractive risk/return profile but are subject to rating downgrade risk and might thus be periodically replaced.
Speculative	Sub-investment-grade issuers likely to service and repay debt in the current credit scenario. These issuers are subject to a higher downgrade and default frequency, requiring active management.

Credit ratings, following the definitions and methodology of credit-rating agencies

Investment grade

Moody's	S&P	Fitch	Credit-rating definition
Aaa	AAA	AAA	Obligations are of the highest quality, with minimal credit risk.
Aa1, Aa2, Aa3	AA+, AA, AA-	AA+, AA, AA-	Obligations are of high quality and subject to very low credit risk.
A1, A2, A3	A+, A, A-	A+, A, A-	Obligations are subject to low credit risk.
Baa1, Baa2, Baa3	BBB+, BBB, BBB-	BBB+, BBB, BBB-	Obligations have certain speculative characteristics and are subject to moderate credit risk.

Non-investment grade

Moody's	S&P	Fitch	Credit-rating definition
Ba1, Ba2, Ba3	BB+, BB, BB-	BB+, BB, BB-	Obligations are subject to substantial credit risk.
B1, B2, B3	B+, B, B-	B+, B, B-	Obligations are speculative and subject to high credit risk.
Caa1, Caa2, Caa3	CCC+, CCC, CCC-	CCC+, CCC, CCC-	Obligations are of poor standing and subject to very high credit risk.
Ca	CC, C	CC, C	Obligations are highly speculative and are likely in or close to default, with some prospect of a recovery of principal and interest.
C	D	D	Obligations are typically in default, with little prospect of a recovery of principal or interest.

Frequency of issuer rating updates

Financial or corporate issuers will be updated as events warrant and at least once semi-annually. Sovereign or supranational issuers will be updated as events warrant and at least once annually.

Rating system for single bonds

Buy	The bond is considered attractive from a risk/reward perspective relative to the respective peer group/risk category over a targeted investment period of six months up to its repayment.
Hold	The bond is considered unattractive from a risk/reward perspective relative to the respective peer group/risk category over its remaining lifetime but may nevertheless continue to be held given a lack of alternatives and/or uneconomic switch conditions and the fact that investment losses are unlikely.
Sell	A bond is downgraded to Sell for the following reasons: <ul style="list-style-type: none">- The issuer rating has been downgraded to Sell by Julius Baer Fixed Income Research.- The respective bond score (or, in the absence of a bond score, the issuer score) falls to 1.- The bond is expected to perform in an extraordinarily weak manner relative to its respective peer group/risk category over its remaining lifetime, and investment losses are likely. Following a downgrade to Sell, a bond's rating and assessment will no longer be updated (i.e., termination of coverage).

An exception applies to the 'Top Picks – Other Currencies', where Buy and Hold ratings are given for liquidity reasons only.

Buy	The bond is issued by an issuer of the Julius Baer Advisory Universe that has an overall issuer score of at least 2, is not Sell-rated by Julius Baer Research, and is expected to be liquid.
Hold	The bond is issued by an issuer of the Julius Baer Advisory Universe that has an overall issuer score of at least 2 and is not Sell-rated by Julius Baer Research but does not show sufficient liquidity anymore or looks less attractive than bonds of the same issuer.

Frequency of single-bond rating updates

Buy ratings will be updated as events warrant but no less than bi-weekly. Ratings on bonds that were downgraded to Hold will be updated as events warrant but no less than bi-weekly. Following a downgrade to Sell, a bond's rating and assessment will no longer be updated (i.e., termination of coverage).

Funds

Distribution types

Accumulation	All capital income (e.g. dividends, interest income) is reinvested.
Income	Capital income (e.g. dividends, interest income) is distributed among investors. The amount of distributed capital income is at the discretion of the fund manager.

Frequency of fund rating updates

The fund ratings are updated monthly. In some special cases, ratings may be updated more frequently than monthly. Due to specific investment philosophies, fund managers cannot be expected to outperform every calendar year, and therefore actively managed funds are not appropriate for short-term investment.

Structured products

Frequency of structured-products rating updates

The recommendations are not updated on a regular basis but rather depend on their fixed duration.

Disclosures & recommendation history

www.juliusbaer.com/disclosures

<https://derivatives.juliusbaer.com/en>

Important legal information

The information and opinions expressed were valid at the date of writing, may be based on numerous assumptions and, thus, are subject to change without notice. This content serves for **information purposes only and is not intended as legal, accounting, or tax advice or an offer** or invitation to buy or sell financial instruments. The opinions and comments of the authors reflect their current views but not necessarily those of other Julius Baer entities or any other third party. Other Julius Baer entities may have issued, and may in the future issue, other content that is inconsistent with, and may reach different conclusions than, the information presented. Julius Baer assumes no obligation to ensure that such other content be brought to the attention of any recipient of this content. Although the information is trusted to be accurate and complete, and data has been obtained in good faith from sources believed to be reliable, no representation or warranty, expressed or implied, is made in this respect. In particular, the information provided may not cover all material information on the financial instruments or issuers of such instruments. To the extent permitted by applicable laws and/or regulations, Julius Baer accepts no liability whatsoever for any claims for loss or damages of any kind arising directly or indirectly from this content (including acts or omissions by third parties, such as auxiliary persons and/or agents of Julius Baer). Entities within the Julius Baer Group provide advice which is not

considered ‘independent’ within the meaning given to that term by EU Directive 2014/65/EU on markets in financial instruments (known as MiFID II).

Suitability & sustainability

Suitability: Investments in the financial instruments and/or services mentioned may not be suitable for all recipients and may not be available in all countries. **Clients of Julius Baer are kindly requested to get in touch with the local Julius Baer entity in order to be informed about the financial instruments and/or services available in their country** (www.juliusbaer.com/locations). Before entering into any transaction, investors should consider the suitability of the transaction to their individual circumstances and objectives. Any investment, trading, or other decision should only be made by the client after a thorough reading of the relevant product term sheet, subscription agreement, information memorandum, prospectus, or other offering document relating to the issue of financial instruments. **This content does not constitute a personal recommendation nor take into account specific personal circumstances (e.g. investment objectives, financial situation, or investment strategies).** Julius Baer recommends that investors independently assess, with a professional advisor, the specific financial risks, as well as legal, regulatory, credit, tax, and accounting consequences.

Where reference is made to a specific research report, this content should not be read in isolation without consulting the full research report, which may be provided upon request.

Sustainability: Depending on the recipient’s domicile or place of incorporation, this content may not adhere to any applicable existing or proposed principles, laws, rules, or regulations related to the environmental, social, and governance (ESG) criteria. For further details on ESG data, ESG methodology, and the existing legal/regulatory framework, as well as potential implications on financial return and eligible investments, please refer to the ‘ESG Disclaimer’: <https://www.juliusbaer.com/esg-disclaimer-en>

General risks

The price and value of, and income from investments in, any asset class mentioned may fall, as well as rise, and **investors may not get back the amount invested**. Risks involved in any asset class mentioned may include, but are not necessarily limited to, market risks, credit risks, political risks, and economic risks. The investor may be exposed to **currency risk** when the financial instrument or underlyings of the financial instrument are denominated in currencies other than that of the country in which the investor is resident. The investment, as well as its performance, would therefore be exposed to currency fluctuations and may increase or decrease in value. Investments in emerging markets are speculative and may be considerably more volatile than investments in established markets. This content may include figures relating to simulated past performance. **Past performance, simulations, and performance forecasts are not reliable indicators of future results**. The return may increase or decrease as a result of currency fluctuations. Shares, bank debt securities (e.g. interest-bearing bank bonds and certificates), as well as other claims against financial institutions, are subject to special regulations, such as the Bank Recovery and Resolution Directive, the Single Resolution Mechanism Regulation, and related national laws implementing such special regulations. These regulations can have a negative effect for the investor/contractual partner of the financial institution in the case of a default and the necessity of a resolution of the financial institution. For further details, please refer to: www.juliusbaer.com/legal-information-en

Specific risks

The prospectus, Key (Investor) Information Document (KID/KIID), and other relevant documents are available free of charge from the local Julius Baer entity (www.juliusbaer.com/locations). In addition, the Key (Investor) Information Document (KID/KIID) can be found at www.juliusbaer.com/product-information

Contingent convertible bonds (CoCo bonds): In the European Economic Area (EEA) and the UK, references to contingent convertible securities are intended for professional clients only.

Structured products (e.g. baskets, certificates): These are complex financial products and therefore involve a higher degree of risk. They are intended for investors who understand and are capable of assuming all risks involved. Structured products may therefore only be sold to experienced investors and require additional advice regarding product-specific risks. The value of the products is not only dependent on the development of the underlying but also on the creditworthiness of the issuer, which may vary over the term of the product. In the case of the issuer's insolvency or bankruptcy, the investors may lose their entire investment in the product.

Funds: Please note that collective investment schemes exclusively open to qualified investors may be fully or partially exempted from producing Key (Investor) Information Documents (KID/KIID) by the Swiss Financial Market Supervisory Authority FINMA. Performance values may be calculated without taking account of commissions and costs that result from selling and buying back investments. **Fund information provided by Morningstar:** © 2022 Morningstar, Inc. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results. For more detailed information about the Morningstar Rating, including its methodology, please go to:

https://s21.q4cdn.com/198919461/files/doc_downloads/othe_disclosure_materials/MorningstarRatingforFunds.pdf

Conflicts of interest

In order to prevent conflicts of interest from adversely affecting the interests of its clients, Julius Baer has established a policy and procedures which are designed to identify and manage such conflicts. These include organisational and administrative arrangements to safeguard the interests of clients. Julius Baer's arrangements include adequate remuneration policies (for persons involved in the production of this content) based largely on qualitative criteria (e.g. the overall quality and accuracy of research) and only remotely on quantitative elements (e.g. the overall performance of Julius Baer). A Julius Baer entity may, to the extent permitted by law, participate or invest in other financing transactions with the issuer of the securities referred to herein, perform services for or solicit business from such issuers, have a position or effect transactions in the securities or options thereof, have any other significant financial interest regarding the issuers of the securities referred to herein, and/or may have done so in the past. For further information about our interest in the investments featured, see the section 'Disclosure & recommendation history' above.

Third-party information

This content may contain information obtained from third parties, including ratings from rating agencies such as Standard & Poor's, Moody's, Fitch, and other similar rating agencies, and research from research providers such as MSCI ESG Research LLC or its affiliates, as well as from index providers such as Bloomberg (as defined below). Issuers mentioned or included in any MSCI ESG Research LLC materials may be a client of, or affiliated with a client of, MSCI Inc. (MSCI) or another MSCI subsidiary. 'Bloomberg' refers to Bloomberg® and Bloomberg indices which are service marks of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited (BISL), as well as the administrator of the index. Bloomberg is not affiliated with Julius Baer. The reproduction and distribution of third-party content in any form is prohibited, except with the prior written permission of the related third party. Third-party

content providers do not guarantee the accuracy, completeness, timeliness, or availability of any information, including ratings or research, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third-party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third-party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special, or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings or research. Third-party content providers do not approve, endorse, review, or recommend any financial instruments, products, and/or services mentioned. In particular, credit and/or research ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold, or sell securities. They do not address the market value of securities or the suitability of securities for investment purposes and should not be relied on as investment advice.

Important distribution information

This content and any market data contained therein shall not be redistributed to any third party unless Julius Baer or the source of the relevant market data gives their approval. This content is not directed to any person in any jurisdiction where (on the grounds of that person's nationality, residence, or otherwise) such content is prohibited.

External Asset Managers (EAM)/External Financial Advisors (EFA): In case this content is provided to EAM/ EFA, Julius Baer expressly prohibits its redistribution or any other way of making it available to clients and/or third parties. The content is of a purely abstract and general nature and is not intended for, nor directed at, client portfolios in general or clients domiciled in the European Economic Area in particular. By receiving any information, the EAM/EFA confirms that they will make their own independent analysis and investment decisions, where applicable.

Switzerland: This content is distributed by Bank Julius Baer & Co. Ltd., Zurich, authorised and regulated by the Swiss Financial Market Supervisory Authority FINMA. Some of the investment funds mentioned may not be authorised for distribution in Switzerland and may therefore only be distributed to qualified investors as defined in the Swiss Collective Investment Schemes Act and the Swiss Collective Investment Schemes Ordinance. Structured products do not constitute a participation in a collective investment scheme. Therefore, they are not supervised by the Swiss Financial Market Supervisory Authority FINMA and the investor does not benefit from the specific investor protection provided under the Swiss Federal Act on Collective Investment Schemes.

UNITED STATES: NEITHER THIS CONTENT NOR ANY COPY THEREOF MAY BE SENT, TAKEN INTO OR DISTRIBUTED IN THE UNITED STATES OR TO ANY US PERSON.