

UBS House View

Monthly Letter | 17 August 2023 | Chief Investment Office GWM, Investment Research

Recession risks recede

We have greater confidence the US will avoid a recession over the next 12 months.

Earnings outlook improves

US businesses have beaten profit expectations and provided reassuring guidance.

Look for laggards

While the prospects for stocks have improved, we favor focusing on market laggards.

Asset allocation

We move equities to neutral from least preferred. Bonds stay our most preferred asset class, though we move to neutral on emerging market bonds.



Mark Haefele

Chief Investment Officer
Global Wealth Management

[Follow me on LinkedIn](https://www.linkedin.com/in/markhaefele)
linkedin.com/in/markhaefele



Our views, live with Q&A

The next CIO global monthly livestream will take place on 22 August.
Find out more: ubs.com/cio

When elephants dance

Many years ago, a wise colleague shared with me the adage, “When elephants dance, mice get nervous.”

Last year, major central banks hit the dance floor with a radically different set of moves to any seen in recent history. After 40 years of cutting interest rates and doing “whatever it takes” to flood the world with liquidity, the Federal Reserve and other central banks began what would become the fastest set of rate hikes ever. Bond prices plunged, yields soared to their highest levels in over a decade, and US mortgage rates nearly tripled, the largest relative change on record.

Faced with a ground-shaking shift for markets, our strategy was to take advantage of the much higher yields on offer. We sought to collect income from bonds—both safer investment grade corporate bonds and riskier emerging market bonds—until we could better assess the impact of this generational turning point in central bank policy on growth and inflation. Beyond the “unknown unknowns” that could, did, and may still arise because of the Fed’s rate hikes, we saw at least two serious risks in the first half of the year: weaker corporate profits and falling real wages.

In retrospect, the elephants did dance, and some victims were crushed. It has also been a weak summer for major stock indexes. Yet overall, we overestimated the risks of central bank rate hikes for the global economy and were too pessimistic on stocks. It was almost too easy to buy bonds as prices fell to multidecade lows. While our bond positioning and currency calls yielded positive returns, performance would have been stronger if we had allocated more heavily to equities. Corporate earnings fell by less than we anticipated, and stronger-than-expected economic data and optimism about artificial intelligence boosted stock valuations.

This report has been prepared by UBS AG.
Please see important disclaimers and disclosures at the end of the document.



We move equities to neutral and keep bonds as most preferred.

With earnings estimates now improving and real wages growing again in the US, we have greater confidence that interest rate hikes will not cause a US recession over the next 12 months. Growth in China has disappointed, but not so much as to change the global picture, and it may help reduce developed market inflation.

Overall, we now have a more balanced risk-reward outlook for equities, and move the asset class from least preferred to neutral this month. Bonds stay our most preferred asset class, albeit with a smaller relative preference versus equities than before; tighter credit spreads also mean we are moving emerging market bonds from most preferred to neutral. In currencies, the US dollar stays least preferred, and we see more potential for appreciation in the euro.

While the S&P 500 is down 4% and the Nasdaq 6% from their recent highs, major equity indexes are still expensive, and a wide set of outcomes for markets is still possible. We think investors looking to reengage with equities should focus on companies, sectors, and regions that have lagged broader markets this year, while in fixed income we focus on high-quality bonds.

The elephants of central banking are still dancing, but they now look less likely to trample on the global economy over our tactical investment horizon.

Potential scenarios from here

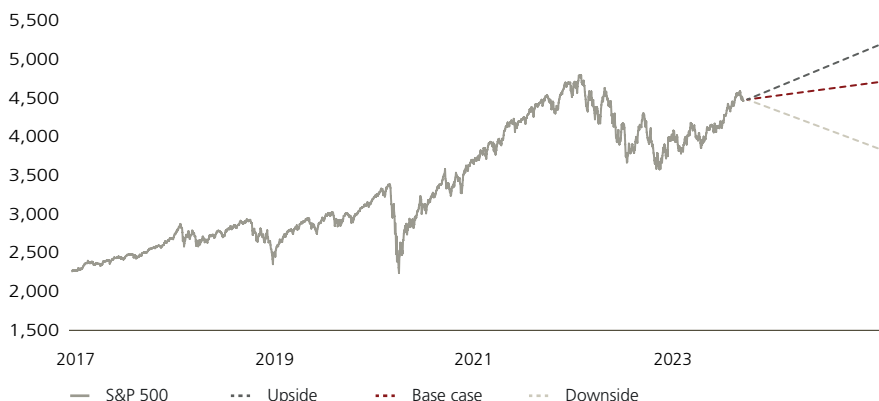
Creating scenarios helps build more robust portfolios.

With the equity market now trading close to levels consistent with the upside scenario we set back in November, in the remainder of this letter I share our latest thinking on the potential scenarios that may materialize over the year to come. Creating scenarios helps us stay anchored in the data, avoid a failure of imagination about the good or bad things that could transpire, and build more robust portfolios.

Figure 1

Potential scenarios for the S&P 500

S&P 500 and CIO targets and scenarios for end-June 2024 (dotted lines)



Source: Bloomberg, UBS, as of August 2023

		<i>Upside</i>	<i>Base case</i>	<i>Downside</i>
	<i>Current</i>	Brave new world	"Softish" landing	Hard landing
S&P 500	4,406	5,200	4,700	3,500
10-year US Treasury yield (%)	4.31	3.75	3.00	2.00
Equity risk premium (earnings yield basis; bps)	110	125	220	400
12-month forward price-to-earnings ratio (multiple)	19	20	19	16.5
Forward earnings per share (USD)	237	260	245	210

Source: UBS, targets are for end-June 2024

Evidence is mounting that the Fed can bring down inflation without inducing a recession.

Base case: "Softish" landing – bonds up, equities modestly higher

Over the past few months, evidence has mounted that inflation is falling to low-enough levels that the Fed need not hike rates much further, and that the US economy is strong enough to avoid a near-term recession despite the 525 basis points of rate hikes the US central bank has enacted so far.

The latest data shows that headline inflation stood at 3.2% year-over-year in July and core inflation was below 0.2% month-over-month. Overall wage pressures have also receded, with the employment cost index, the broadest gauge of wage inflation, falling to its slowest level in two years. This is despite the headlines about wage increases in a handful of industries with heavy labor union representation.

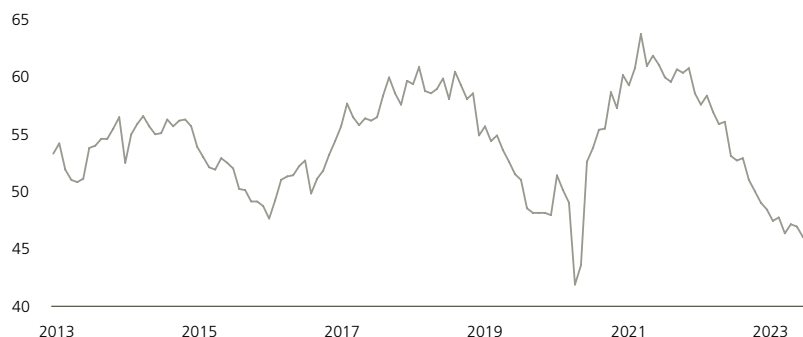
Rate-sensitive parts of the US economy have held firm.

Meanwhile, US GDP growth accelerated to 2.4% on an annualized basis in the second quarter, from 2% in the first. A broad swath of traditionally rate-sensitive parts of the economy have held firm, including housing and autos. And some key leading indicators are starting to bottom or inflect higher, including consumer confidence and the ISM manufacturing index. All of this supports our base case of a "softish" landing for the economy, i.e., inflation moving closer to the Fed's target without a recession this year.

Figure 2

Base case: Measures of manufacturing activity appear to be bottoming

ISM manufacturing index



Source: Bloomberg, UBS, as of August 2023

The Fed may keep rates higher for longer. US growth may fall below its long-term trend.

To be sure, this softish-landing base case is not a just-right “Goldilocks” scenario. Core inflation is still high on a year-over-year basis, and the labor market remains tight in absolute terms—the jobless rate of 3.5% is close to a 50-year low. This means the Fed is likely to keep interest rates at elevated levels for at least the rest of the year, and we therefore expect US economic growth to slow to a below-trend pace. Higher interest rates may be having a smaller effect on the economy than we thought, but that doesn’t mean they will have no impact at all.

The Fed’s projections suggest that policymakers only envision cutting rates next year when inflation has fallen closer to their 2% target. Even then, we think the Fed will cut its policy rate by no more than 100bps in 2024.

What does it mean for investors?

We expect S&P 500 profit growth to accelerate to 9% in 2024.

We think a softish landing for the US economy is still consistent with corporate earnings growth, as well as an improvement in areas like digital advertising, cloud computing, capital markets, and goods consumption. The 4% drag that the energy sector has exerted on S&P 500 profit growth this year will likely be gone by 2024. And companies reporting second-quarter profits have provided reassuring guidance about their prospects for the third quarter—a break from the usual pattern of lower expectations for this period. Overall, we look for 9% earnings per share growth in 2024, up from 0% this year.

We expect valuation multiples to stay close to current levels in our base case. In some of the growth segments of the market, price-to-earnings ratios do look high, but when they contract, as we expect, we think they will be offset by an expansion in multiples in other areas as real interest rates and bond yields fall. We expect the 10-year US benchmark yield to fall to 3% by June next year from around 4.3% today as the market starts to anticipate Fed rate cuts in 2024 and into 2025.

In our base case, bond total returns exceed US equities' by the end of next June.

Overall, this implies a modestly higher profile for equities over the next six to 12 months in our base case, although stock prices will almost certainly not move in a straight line. Our S&P 500 target is 4,700 by end-June 2024, for a total return of 7–8% from today. We would expect bonds to deliver somewhat better returns in this scenario (we estimate total returns of 10% for high-grade government and investment grade debt over the same period) with lower volatility, supporting our continued relative preference for bonds over equities.

We assign a 60% probability to this scenario.

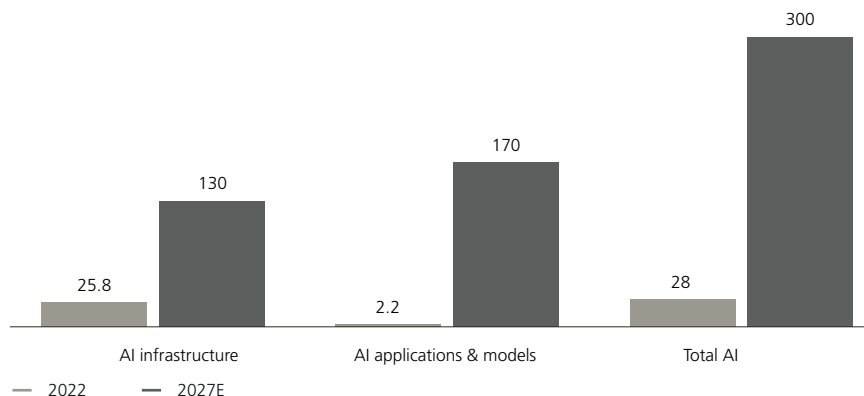
Upside scenario: Brave new world – equities sharply up, bond returns modestly positive

After a 17% rally year-to-date, it can be hard to imagine a case for meaningful further upside for equities. Yet options markets are pricing a roughly 15% probability that the S&P 500 could trade at or above 5,200 by end-June next year.

Figure 3

Upside scenario: Markets rise further on expected growth in AI's addressable market

In USD bn; based on our expectations, the AI addressable market could rise by 61% a year over the next few years



Source: Bloomberg Intelligence, UBS estimates, as of July 2023

Artificial intelligence could boost growth and earnings in an upside scenario.

To be willing to buy stocks at higher prices, investors would need more reassurance that we are entering a period of above-trend economic growth, or that companies will be able to meaningfully grow earnings beyond the 9% we expect in our base case. Artificial intelligence is one potential trigger for both.

Think about the following three ideas:

First, artificial intelligence could increase both near-term investment and longer-term productivity, leading to higher economic growth prospects.

Tight jobs markets increase the incentive to deploy AI and raise productivity.

With the labor market still fairly tight, businesses of all stripes are likely trying to do more with the same number of workers. This could unleash an improvement in investment and productivity that could drive faster economic growth.

Second, artificial intelligence could increase the share of income attributable to capital compared to labor.

AI's potential to boost output per employee could increase both corporate profits and their contribution to the overall economy, irrespective of its overall performance. In other words, money spent on AI software and saved on wages increases the share of economic contribution from capital (corporate spending) relative to labor (wages).

Third, artificial intelligence could increase the share of corporate profits attributable to large, listed companies versus small, typically unlisted businesses.

AI-related profits could accrue most to large, listed companies.

The high capital intensity and complexity of running AI mean the biggest tech companies are likely to become the key providers of AI services and hardware, and the hundreds of millions of users these platform companies already have put them in a strong position to expand market share. This could mean that large, listed companies generate a higher proportion of AI-related profits than small businesses.

Clearly, we can't yet be sure about the ultimate validity of these ideas. But we would argue that each is sufficiently plausible that, with the right backdrop, markets could begin to increasingly believe in them in the coming months. This potentially supports much greater optimism about the outlook for equity markets than our base case economic and interest rate outlook might imply.

What does it mean for markets?

In this upside scenario, optimism about higher economic growth, driven by the transformative impact of AI, supports higher earnings estimates and keeps valuations high, and investors price in nominal US GDP growth close to 5% for a sustained period.

In our upside scenario, the S&P 500 could reach 5,200 by the end of next June.

In this scenario, S&P 500 profit growth of 12% in 2024 is not unfathomable, even coming from higher actual profits in 2023 than our base case assumes. And as investors respond to stronger realized and prospective earnings growth, valuation multiples could also rise somewhat from current levels. This could leave the S&P 500 reaching 5,200 by end-June 2024.

We assign a 20% probability to this scenario.

It's also important to note that while AI optimism may be a key driver for markets in this scenario, it does not necessarily imply that market gains would come from the technology sector.

The combined global tech market capitalization has already climbed by USD 6 trillion this year, yet it remains too early to tell exactly how the gains from any AI-driven productivity enhancements might be shared between higher revenues for those companies providing software and services, those producing the enabling hardware, or the broader swath of companies in the economy that might see higher revenues and cost savings by deploying AI.

Within technology equities, we prefer software over semiconductors and hardware.

Within the tech sector, we think software stocks are best positioned to ride the next wave of the technology cycle and the broadening of AI demand as companies try to monetize the applications driven by the underlying AI technologies. This is consistent with our tech playbook, which calls for a switch into midcycle segments like software and away from semiconductors and hardware, which have already performed so well in 2023.

Downside scenario: Rate hikes bite – bonds up, equities sharply down

Our downside scenario sees market expectations of a soft landing ultimately proving too benign.

There are two potential routes to this scenario.

A downside scenario could result from a US recession or stubborn US inflation prompting further hikes.

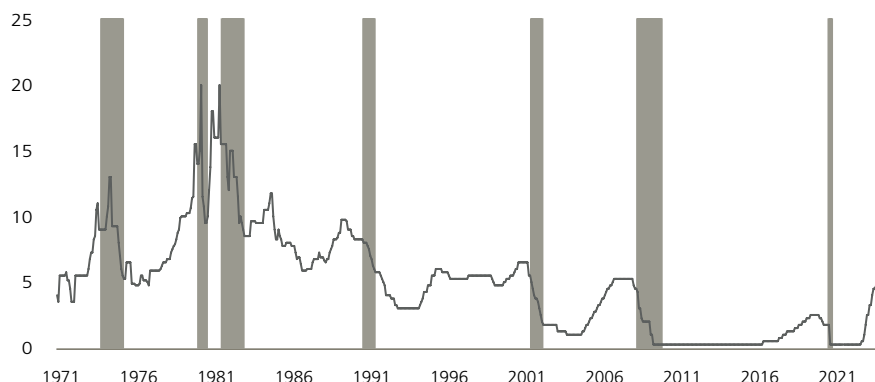
First, the current resilience of developed economies proves only to be a function of higher interest rates taking time to filter through the system. Tighter monetary policy ultimately overcomes its typical lag and eventually bites, potentially pushing the US economy into a recession.

Second, core inflation proves stubborn, above the level that the Fed considers consistent with achieving its medium-term 2% target, meaning the central bank either keeps rates high for much longer—well into 2024—or raises them further. This would run counter to both market expectations and the Fed’s own estimates, which show rate cuts during 2024.

Figure 4

Downside scenario: Aggressive tightening triggers a recession

Federal funds rate, in %; shaded areas indicate US recessions



Source: Bloomberg, UBS, as of August 2023

What does it mean for markets?

In a downside scenario, equities would underperform safe-haven assets like high-quality bonds and the Swiss franc.

In a downside scenario, we would expect sharply lower equity prices as investors mark down earnings expectations and demand higher risk premiums, considering potential second-order effects on financial stability. High-quality bonds would eventually rally as investors seek safe-haven assets and markets price swifter rate cuts from central banks to support growth. Other traditional safe havens such as gold, the Swiss franc, and the Japanese yen would also likely appreciate.

In our downside scenario, the S&P 500 could decline to 3,500 by next June.

Overall, we estimate that the S&P 500 could fall to 3,500 by end-June 2024 in a downside scenario, more than 20% below current levels. The decline would largely be driven by both an unraveling of present relatively lofty valuations, and likely a decline in S&P 500 profits.

Given the consistency with which economic data has remained robust in the face of higher rates, and the steady downward trend in inflation, we assign a 20% probability to this scenario.

How to build a robust portfolio

As we navigate fast-changing markets and consider potential near-term scenarios, it's crucial for investors to build a robust long-term portfolio based on time-tested principles.

First, keep a clear view of your financial goals and align your portfolio with those objectives. Over the short-term horizon, we can be more certain about the potential outcomes for cash and bonds than we can for equities. Yet over a longer time frame, we can be more confident that equities will deliver stronger performance than cash or bonds. By aligning your short-, medium-, and long-term financial goals with your portfolio, you can reduce the risk that unpredictable turns in asset markets get in the way of your plans. The UBS Wealth Way approach suggests segmenting portfolios into Liquidity, Longevity, and Legacy* strategies along these lines.

Second, don't let the short-term possibilities distract from your long-term plan. Short-term hopes, fears, and prophecies about

financial markets can often get in the way of aligning portfolios with long-term goals. Delaying a long-term equity plan because of fears about current valuations or predictions of a market crash, and not optimizing current yields on a cash portfolio because of hopes of higher rates to come, are two of the most common problems today. It's important to keep in mind that the potential short-term gains made, or losses avoided, are often small in a longer-term context.

Third, stay diversified. There is almost always a hot sector grabbing the headlines that we wish in hindsight to have had more exposure to. But there are equally almost always companies, sectors, or countries incurring potentially irrecoverable losses for investors. Broad diversification almost certainly won't make you rich quickly, but if your goal is wealth preservation and steady accumulation, it is the surest approach to avoid wealth destruction, even if you get FOMO—the fear of missing out—from time to time.

*Time frames may vary. Strategies are subject to individual client goals, objectives and suitability. This approach is not a promise or guarantee that wealth, or any financial results, can or will be achieved.

Investment outlook

The risk-reward outlook for equities is now more balanced, in our view. We move to neutral.

Investors looking to reengage with equities should favor laggards with scope to catch up.

Equities. We now see the risk-reward outlook as more balanced for equities over our forecast horizon, and we move the asset class to neutral from least preferred. The second-quarter earnings season likely marked the trough in year-over-year earnings growth, and guidance for the third quarter was positive. We therefore now expect S&P 500 earnings per share to be flat in 2023 and rise 9% in 2024. Our base case is for the index to reach 4,500 in December and 4,700 by end-June next year.

Within equities, we continue to favor laggards whose valuations are lower and have scope for a catch-up. We see more potential upside for emerging market equities than US equities and keep our preference for equal-weighted US indexes compared to capitalization-weighted ones. This month we upgrade the global energy sector to most preferred from neutral. The sector has lagged this year, but the improving economic backdrop, coupled with a tightening oil market, should support oil prices. We also continue to like global consumer staples and industrial stocks.

Messages in Focus

Manage liquidity as rates peak	Interest rates are peaking in developed markets as inflation falls closer to central bank targets. Investors should therefore actively consider how to optimize yields on cash holdings, while attractive interest rates are still available. We typically recommend that investors hold a liquidity portfolio worth 2–5 years of expected net portfolio withdrawals. A combination of fixed term deposits, a bond ladder, and select structured investment strategies can also help optimize yields and manage liquidity considerations. Assets in excess of 2–5 years of expected withdrawals should be invested in a diversified range of longer-duration financial assets.
Invest in quality bonds and diverse income	Surprisingly robust economic data has boosted bond yields, providing investors with a good opportunity to lock in currently elevated rates for an extended period. In fixed income, we like opportunities in the 5–10-year duration segment in high grade (government), investment grade (including select senior financial debt), and sustainable bonds. Exposure to actively managed income strategies and yield-generating structured investments can help investors take advantage of the breadth of opportunities.
Look for equity laggards	We have a balanced overall outlook on global equities. Valuations are elevated, but developed market economic data has proven better than expected, and AI offers long-term optimism. Since stock market gains have been relatively concentrated this year, we see opportunity in stocks, markets, and sectors that have lagged. In US equities, we prefer equal-weighted indexes to cap-weighted indexes. Regionally, we like emerging market equities, and India in particular. By style, we continue to prefer value over growth.
Position for dollar weakness	The US dollar has regained ground in recent weeks, but we see limited upside from here, given high valuations and the Fed approaching an interest rate peak. Investors with excess dollar holdings should therefore consider selling the currency's upside in exchange for income. We have a preference for the euro.
Diversify with alternatives	We recommend complementing traditional bond-equity portfolios with an allocation to alternatives, which can help diversify portfolios and potentially boost returns. Hedge funds can generate returns even in flattish markets. Meanwhile, private markets offer a variety of opportunities to earn income and grow wealth over time, including in private equity, private credit, and real estate.
Invest in infrastructure	Businesses and governments have been focusing their spending plans on key areas linked to upgrading infrastructure and supporting the net-zero carbon transition—two secular growth drivers that enjoy substantial policy support in the US and in Europe. We think that global industrial stocks should continue to benefit from these dynamics in the short run, while longer-term allocations to infrastructure and greentech look well placed in this environment, too. Infrastructure-linked assets also often operate on long-term contracts tied to inflation.
Go sustainable	Green investment, decarbonization commitments, consumer sentiment, and regulation will continue to drive the case for investing sustainably. We like sustainable bonds; environmental, social, and governance (ESG) leaders; and innovative companies that can do more with less, including within energy and water efficiency. We also see opportunities to gain exposure to sustainable themes such as health and climate through hedge fund and private market vehicles.

We remain most preferred on high grade (government) and investment grade bonds.

We downgrade emerging market bonds to neutral, as spread tightening has run its course.

We close our most preferred view on the yen, but remain least preferred on the US dollar.

Within commodities, we move gold from most preferred to neutral.

Bonds. Fixed income remains our preferred asset class, and we like the higher-quality areas in particular. Slower growth and falling inflation in our base case should be favorable for bonds, and yields are attractive in our view. We prefer high grade (government) and investment grade bonds, which offer attractive all-in yields and should be better placed than stocks if economic headwinds intensify.

This month we downgrade emerging market bonds from most preferred to neutral. These bonds have benefited not only from stronger global growth prospects but also a series of helpful idiosyncratic developments among distressed bond issuers, including countries like Egypt, Nigeria, and Pakistan. As a result, credit spreads are unlikely to tighten substantially further from current levels in our base case.

Currencies. We keep the US dollar least preferred and the euro most preferred. With inflation falling more quickly in the US than in the Eurozone or the UK, we think it is more likely that the peak is near for US rates than for Eurozone rates. The Fed may consider rate cuts sooner than other central banks. For the euro, we think negative economic surprises in the region are already priced into the currency's valuation, and the Eurozone's improving trade balance should be supportive.

Meanwhile, we move our view on the yen from most preferred to neutral. Given relative US economic strength and Japanese yield curve control having already been softly removed, we see limited catalysts that will outweigh the negative 5% carry that a long yen, short dollar position entails. Nonetheless, we continue to see a long yen position as an effective downside hedge, particularly if implemented using optionality.

Commodities. We see balanced risk and reward in broad commodity indexes. China's weaker-than-expected growth has heightened concerns about industrial metal demand. That said, secular demand drivers such as the net-zero carbon transition should provide longer-term support. In energy, supply discipline from the producers means that inventories will remain at structurally low levels. The oil market is likely to tighten further during the rest of this year, and we forecast Brent crude prices to rise to USD 95 per barrel by end-June 2024. We shift our view on gold from most preferred to neutral, given we expect a softish landing in the US and for the Fed to cut rates in 2024, not this year. We trim our gold forecast to USD 1,950/oz (from USD 2,100/oz) by year-end, but expect gold to climb to USD 2,100/oz by end-June 2024.



Mark Haefele
Chief Investment Officer
Global Wealth Management

Global forecasts

Economy

Real GDP y/y, in %

	2022	2023E	2024E
US	2.1	1.9	0.2
Canada	3.4	1.4	0.5
Japan	1.0	1.6	1.0
Eurozone	3.5	0.5	0.7
UK	4.1	0.2	0.6
Switzerland	2.1	0.9	1.3
Australia	3.7	1.4	1.6
China	3.0	5.2	5.0
India	7.2	6.2	6.0
World*	3.4	2.8	2.7

* Excludes Venezuela

Source: Bloomberg, UBS, as of 17 August 2023, updated bimonthly.

Inflation (average CPI), y/y, in %

	2022	2023E	2024E
US	8.0	4.1	2.1
Canada	6.8	3.5	2.3
Japan	2.5	3.0	1.9
Eurozone	8.4	5.4	2.3
UK	9.0	7.2	2.5
Switzerland	2.8	2.2	1.7
Australia	6.6	5.5	3.0
China	2.0	0.5	1.5
India	6.7	5.4	5.0
World*	8.4	6.0	4.8

Asset classes

	Spot	Dec-23	Jun-24
Equities			
S&P 500	4,404	4,500	4,700
Eurostoxx 50	4,284	4,500	4,700
FTSE 100	7,357	8,000	8,200
SMI	10,992	12,000	12,400
MSCI Asia ex-Japan	618	680	700
MSCI China	60	68	71
Topix	2,261	2,300	2,400
MSCI AC World	811	840	870
Currencies			
EURUSD	1.09	1.12	1.16
GBPUSD	1.27	1.29	1.35
USDCAD	1.35	1.32	1.30
AUDUSD	0.64	0.66	0.70
EURCHF	0.96	0.97	0.97
USDCHF	0.88	0.87	0.84
USDJPY	146	142	138
USDCNY	7.30	7.40	7.20

Source: Bloomberg, UBS, as of 17 August 2023, updated bimonthly.

	Spot	Dec-23	Jun-24
Policy rates			
Fed	5.33	5.08	2.58
ECB	3.75	4.00	3.75
BoE	5.25	5.50	5.00
BoJ	-0.10	-0.10	-0.10
SNB	1.75	2.00	2.00
10-year yields			
USD 10y Treas.	4.25	3.50	3.00
EUR 10y Bund	2.65	2.00	2.00
GBP 10y Gilts	4.64	3.75	3.25
Swiss 10y Eidg.	1.00	1.10	0.90
JPY 10y JGB	0.62	0.80	0.80
Commodities			
Brent crude, USD/bbl	83.5	95	95
WTI, USD/bbl	79.4	91	91
Gold, USD/oz	1,896	1,950	2,100

Disclaimer

Non-Traditional Assets

Non-traditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments). Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments, there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund and should consider an alternative investment fund as a supplement to an overall investment program.

In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

- **Hedge Fund Risk:** There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-US securities and illiquid investments.
- **Managed Futures:** There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.
- **Real Estate:** There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.
- **Private Equity:** There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.
- **Foreign Exchange/Currency Risk:** Investors in securities of issuers located outside of the United States should be aware that even for securities denominated in U.S. dollars, changes in the exchange rate between the U.S. dollar and the issuer's "home" currency can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other risks (such as political, economic or regulatory changes) that may not be readily known to a US investor.

UBS Chief Investment Office's ("CIO") investment views are prepared and published by the Global Wealth Management business of UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS"), part of UBS Group AG ("UBS Group"). UBS Group includes Credit Suisse AG, its subsidiaries, branches and affiliates.

The investment views have been prepared in accordance with legal requirements designed to promote the **independence of investment research**.

Generic investment research – Risk information:

This publication is **for your information only** and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. The analysis contained herein does not constitute a personal recommendation or take into account the particular investment objectives, investment strategies, financial situation and needs of any specific recipient. It is based on numerous assumptions. Different assumptions could result in materially different results. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this document were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to UBS). All information and opinions as well as any forecasts, estimates and market prices indicated are current as of the date of this report, and are subject to change without notice. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of UBS as a result of using different assumptions and/or criteria.

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 otherwise rely on any of the information for any of the above purposes. UBS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by UBS and its employees may differ from or be contrary to the opinions expressed in UBS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS, into other areas, units, divisions or affiliates of UBS. Futures and options trading is not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information.

Different areas, groups, and personnel within UBS Group may produce and distribute separate research products **independently of each other**. For example, research publications from **CIO** are produced by UBS Global Wealth Management. **UBS Global Research** is produced by UBS Investment Bank. **Credit Suisse Global CIO Office Research** is produced by Credit Suisse Wealth Management. **Credit Suisse Securities Research** is produced by Credit Suisse operating under its Securities Research function within the Investment Banking Division. **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. The compensation of the analyst(s) who prepared this report is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking, sales and trading or principal trading revenues, however, compensation may relate to the revenues of UBS Group as a whole, of which investment banking, sales and trading and principal trading are a part.

Tax treatment depends on the individual circumstances and may be subject to change in the future. UBS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein.

This material may not be reproduced or copies circulated without prior authority of UBS. Unless otherwise agreed in writing UBS expressly prohibits the distribution and transfer of this material to third parties for any reason. UBS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. For information on the ways in which CIO manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies, please visit www.ubs.com/research-methodology. Additional information on the relevant authors of this publication and other CIO publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your client advisor.

Options and futures are not suitable for all investors, and 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 "Characteristics and Risks of Standardized Options". You may read the document at <https://www.theocc.com/about/publications/character-risks.jsp> or ask your financial advisor for a copy.

Investing in structured investments involves significant risks. For a detailed discussion of the risks involved in investing in any particular structured investment, you must read the relevant offering materials for that investment. Structured investments are unsecured obligations of a particular issuer with returns linked to the performance of an underlying asset. Depending on the terms of the investment, investors could lose all or a substantial portion of their investment based on the performance of the underlying asset. Investors could also lose their entire investment if the issuer becomes insolvent. UBS does not guarantee in any way the obligations or the financial condition of any issuer or the accuracy of any financial information provided by any issuer. Structured investments are not traditional investments and investing in a structured investment is not equivalent to investing directly in the underlying asset. Structured investments may have limited or no liquidity, and investors should be prepared to hold their investment to maturity. The return of structured investments may be limited by a maximum gain, participation rate or other feature. Structured investments may include call features and, if a structured investment is called early, investors would not earn any further return and may not be able to reinvest in similar investments with similar terms. Structured investments include costs and fees which are generally embedded in the price of the investment. The tax treatment of a structured investment may be complex and may differ from a direct investment in the underlying asset. UBS and its employees do not provide tax advice. Investors should consult their own tax advisor about their own tax situation before investing in any securities.

Important Information About Sustainable Investing Strategies: Sustainable investing strategies aim to consider and incorporate environmental, social and governance (ESG) factors into investment process and portfolio construction. Strategies across geographies and styles approach ESG analysis and incorporate the findings in a variety of ways. Incorporating ESG factors or Sustainable Investing considerations may inhibit the portfolio manager's ability to participate in certain investment opportunities that otherwise would be consistent with its investment objective and other principal investment strategies. The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered by the portfolio manager, and the investment opportunities available to such portfolios may differ. Companies may not necessarily meet high performance standards on all aspects of ESG or sustainable investing issues; there is also no guarantee that any company will meet expectations in connection with corporate responsibility, sustainability, and/or impact performance.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

USA: Distributed to US persons by UBS Financial Services Inc. or UBS Securities LLC, subsidiaries of UBS AG. UBS Switzerland AG, UBS Europe SE, UBS Bank, S.A., UBS Brasil Administradora de Valores Mobiliarios Ltda, UBS Asesores Mexico, S.A. de C.V., UBS SuMi TRUST Wealth Management Co., Ltd., UBS Wealth Management Israel Ltd and UBS Menkul Degerler AS are affiliates of UBS AG. **UBS Financial Services Inc. accepts responsibility for the content of a report prepared by a non-US affiliate when it distributes reports to US persons. All transactions by a US person in the securities mentioned in this report should be effected through a US-registered broker dealer affiliated with UBS, and not through a non-US affiliate. The contents of this report have not been and will not be approved by any securities or investment authority in the United States or elsewhere. UBS Financial Services Inc. 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**

For country information, please visit ubs.com/cio-country-disclaimer-gr or ask your client advisor for the full disclaimer.

Version B/2023. CIO82652744

© UBS 2023. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.