Vontobel

Investors' Outlook

Three bowls of porridge

September 2023

Content

Imprint

Publishing by
Bank Vontobel AG
Gotthardstrasse 43
8022 Zurich

Editors
Corinne Gretler,
Senior Investment Writer,
Vontobel
Investment Content Team,
Vontobel

Authors*
Stefan Eppenberger,
Head Multi Asset Strategy,
Vontobel
Frank Häusler,
Chief Investment Strategist,
Vontobel
Michaela Huber,
Cross-Asset Strategist,
Vontobel
Christopher Koslowski,
Senior Fixed Income & FX Strategist,
Vontobel
Mario Montagnani,
Senior Investment Strategist,
Vontobel
Dan Scott,
Head of Vontobel Multi Asset,
Vontobel

Frequency
Ten times per year
(next issue October 2023)

Concept
MetaDesign AG

Creation & Realization
Vontobel

Images
Gettyimages,
Vontobel

Input deadline for this edition
September 6, 2023

Remarks
* See "Analyst confirmation" in "Legal information" on page 13

Three bowls of porridge

—
Dan Scott
Head of Vontobel Multi Asset,
Vontobel

Dear readers,

As this publication returns to the stove, shifts in the economy and markets have continued to simmer.

In the blink of a summer's eye, circumstances have changed, stirring the pot even as the topics on investors' minds remain the same: interest rates, inflation, and the will-there-won't-there debate around a recession. The US Federal Reserve's economists dropped their recession projections as the economy has proven surprisingly resilient. Many investors now lean toward anticipating a soft landing, along with the possibility of elevated rates for years to come.

We still believe in a recession—the data point to one—but pushed back to around year-end. The Inflation Reduction Act has provided quite a bit of stimulus, with consumers going strong and seeming eager to spend in a last hurrah before an anticipated slowdown and a labor market that has kept providing surprises, including a host of wage negotiations.

Intuitively, no landing sounds great (who wants a recession?) but that scenario probably wouldn't tame inflation, and the Fed would likely have to keep hiking rates with the risk of breaking all sorts of things. On the other side of the spectrum, a deep recession sparked by an overly zealous Fed would see a domino effect of companies slashing investments, consumers curtailing their spending, and a spike in corporate and personal default rates. The Fed would feel the need to cut rates aggressively to save the economy—but working from behind the curve would have little immediate impact and carry the risk of inflation flaring back up again. A soft landing could represent the best-case scenario here, as it would generate enough demand destruction to get inflation under control, allowing central banks to pause and maybe even cut rates if necessary. It would also pave the way for a non-volatile way forward for asset prices.

Translating the various scenarios into one analogy for investors, the current situation calls for finding just the right temperature, much like in the fairytale in which Goldilocks finally finds the third bowl of the three bears' porridge to her liking, being neither too hot nor too cold, but just right.

Elsewhere, the economy is grappling with weak points. China's recovery, which many investors have pinned their hopes on to spur global growth, has stalled. The disappointing economic momentum underscores our view that Beijing needs to provide a higher degree of stimulus—though we do not expect the big bazooka many are waiting for.

Whether a recession ends up occurring or not, a diversified portfolio can help with market volatility. At our most recent Investment Committee meeting, we've reduced risk assets and added a pinch of cash equivalent holdings. In this Investors' Outlook, read up on the dynamics in fixed income, oil, and find a checklist for inflation drivers.

We're happy to share our bowl of porridge with you. And to try to make it just right.

⟶ Webcast
To view our webcast on recent market developments, click **here.**

—
Frank Häusler
Chief Investment Strategist,
Vontobel

While it cools …

Those who expected the month of August to represent a quiet oven for financial markets—as it often is—were thrown a curveball this time around. A mix of headlines out of the US blew hot and cold, highlighting the stark contrasts found in the world's largest economy: On the one hand, we saw a downgrade of its long-term debt rating amid an expected fiscal deterioration and growing government debt burden, as well as ratings cuts for several banks as challenges arise with the sharp increase in interest rates. On the other hand, data showed the tight housing market fueled construction spending, the robust labor market created new jobs, and the strong consumer kept on spending.

The question is how long this can go on. We suspect not for that much longer. The latest labor market reports have already recorded the weakest monthly job gains in more than two years and excess savings have shrunk. The full extent of the Fed's tightening cycle has yet to seep through, which we believe will ultimately end in a recession around the turn of the year.

And yet, the US economy is still in a better position than its peers. A worrisome picture is presenting itself in the Eurozone, where it appears the services industry has now followed the manufacturing industry into contraction territory. And China is juggling a multitude of challenges. Aside from worse-than-expected retail sales and industrial production, it is also dealing with turmoil in its property sector and record high youth unemployment. The impact of any Chinese spillover effects, in turn, spells potential trouble for Europe as it is likely to feel those the most.

We have benefited from a strong rally and have decided that now is a good time to trim risk by closing our equity overweight while continuing to seek opportunities in select regions. See the details of our changed asset allocation on page 5.

	UNDERWEIGHT significantly	UNDERWEIGHT slightly	NEUTRAL	OVERWEIGHT slightly	OVERWEIGHT significantly	
1 Liquidity			↗			We have chosen to prune risk across our portfolios. We closed our long-standing equity overweight and moved some of the proceeds into cash, which moves to neutral from underweight. We plan to keep this cash as "dry powder", to be used when an opportunity presents itself.
2 Bonds			→			Government bond yields marched higher throughout the summer as better-than-expected US economic data had investors rethink how long the Fed may keep rates high. Given our economic baseline scenario (i.e., slowing growth, falling inflation, and the start of the Fed's cutting cycle in early 2024), we continue to believe that yields will eventually come down. We stay overweight on government and emerging-market bonds, neutral on investment grade and negative on high yield. And we stick with emerging-market bonds as a weaker US dollar (which is our base case if the Fed turns dovish) usually boosts this sub-asset class.
3 Equities			↘			After a strong rally of close to 30 percent through the end of July*, we deem it sensible to lock in some gains in the equity asset class. We reduce our exposure to emerging-market stocks to neutral from slightly overweight. While some emerging markets continue to show positive momentum, index heavyweight China has disappointed. Despite an attractive market valuation, the economy remains highly leveraged, the timing of long-awaited government stimulus remains hard to gauge, investors' confidence is waning, and earnings revisions are weak. We cut our exposure to European stocks to double underweight from neutral amid the recent worsening of Eurozone leading indicators and the region's higher cyclical profile, but also our belief that any Chinese spillover effects will affect the region the most—a reversal of what we saw in the first half, where many indexes were driven by quality growth sectors, most of them largely exposed to the "Chinese reopening". Even so, we believe there are select regions that display quality, resilience, and superior earnings predictability. We reallocate some capital back into US and Swiss stocks. The US economy is still faring better than others; it seems to be ahead of the curve in the inflation fight and remains a defensive region overall. We like Swiss stocks for their defensive and resilient character, and, above all, for the Swiss franc. Both regions move up to slightly overweight from neutral. This results in an overall neutral view on stocks.
4 Gold				→		After an impressive rally, gold has recently pared some of its gains, mainly attributable to markets having priced out the possibility of a Fed rate cut in 2023. This has pushed up US real yields and the US dollar. Both share an inverse relationship with the yellow metal. However, as we continue to expect a US recession towards year-end and a Fed rate cut sometime in Q1 2024, we deem a slight gold overweight still warranted.
5 Commodities			→			Commodities delivered a solid performance last month, driven entirely by the energy complex. Coordinated action by the Organization of the Petroleum Exporting Countries (OPEC), growing evidence of tightening supply and concerns about an escalation of the Russia-Ukraine war pushed oil prices higher. We stick to our neutral commodity view for now.
6 Alternative strategies			→			We reiterate our neutral view on alternative investments, unchanged from last month.

Changes month-on-month: same → higher ↗ lower ↘

* Refers to MSCI ACWI Net Total Return Index from 30.9.2022 to 31.07.2023, in USD and absolute terms.

Inflation: What's ahead, a savory path or a spicy twist?

Inflation is a bit like hunger pangs: it comes and goes in waves. This was particularly evident during the "Great Inflation" that hit the US between 1965 and 1982. Indeed, inflation has recently picked up again. This raises the question of whether a second wave with all its negative consequences may be imminent.

—
Stefan Eppenberger
Head Multi Asset Strategy, Vontobel

—
Michaela Huber
Cross-Asset Strategist, Vontobel

To answer this question, we have developed a checklist that examines 10 potential inflation drivers (see table 1). These factors do not necessarily have to occur simultaneously—if history is any guide, just two or three can be enough to trigger a second wave.

Table 1: Inflation: Second wave checklist

	WHAT IS NEEDED?	CHECK?
Monetary policy	Strongly rising money supply	
	Loose real policy rates	
	Significant currency weakness	
Demand shocks	Strong economic growth	
	Substantially rising fiscal stimulus	Watchlist
	Unanchored inflation expectations	
Supply shocks	Another energy price shock	
	Global supply-chain issues	
	Housing shortage	✓
	Labor shortage	✓

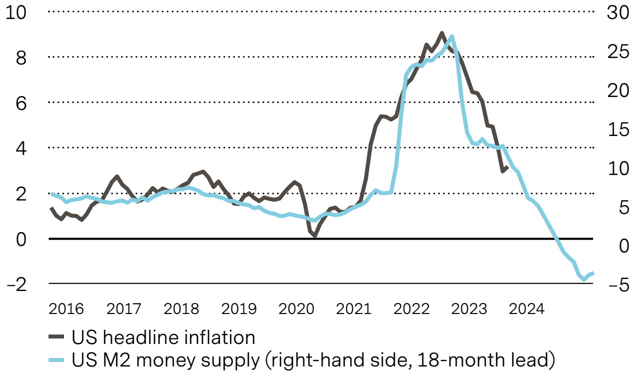
Note: Not all signals have to be fulfilled to see a second wave of inflation, in the extreme case two or three are already enough. However, expansive monetary policy (at least one out of the first three arguments) is a necessary condition for high inflation.

Source: Vontobel

What argues against it
In our view, expansionary monetary policy is a mandatory prerequisite for a second wave. Examples of this include a sharp increase in the money supply, loose real interest rates, or significant currency weakness. We don't believe the criterion of "expansionary monetary policy" is currently met. That's because, for starters, current money supply growth is negative, which has previously pointed to lower inflation levels ahead (see chart 1). Second, real interest rates have clearly entered restrictive territory. Third, concerns about further monetary tightening have caused the US dollar to appreciate again. Other factors also argue against a second wave. According to the University of Michigan, consumer inflation expectations remain well anchored, while a New York Federal Reserve indicator points to continued normalization in supply chains.

Chart 1: Current money supply growth suggests significantly lower inflation ahead

Year-on-year percentage change (both axes)



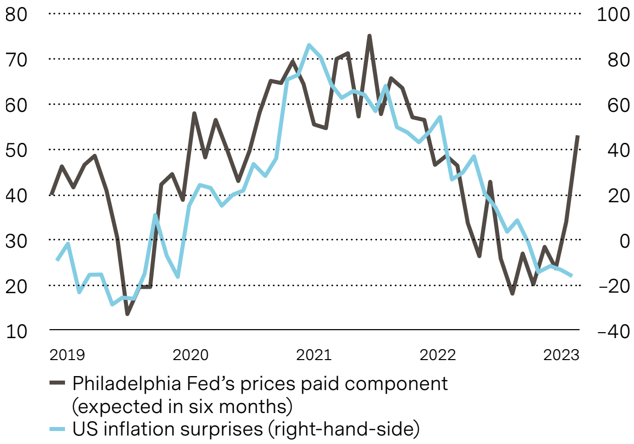
Source: LSEG, Vontobel

What (still) argues against it

The overall weakness of the global economy also does not (yet) argue in favor of a second wave. Leading indicators such as the purchasing managers' index for global manufacturing continue to paint a very subdued picture. In addition, China, the world's second-largest economy, is currently struggling with deflation rather than inflation—and is thus likely to export negative price pressure to the rest of the world. However, some recent data points have raised eyebrows. Surveys by regional US central banks examining the situation in the US manufacturing sector indicate, in some cases, significantly higher prices paid and prices received by companies. This poses the risk of unwelcome inflation surprises in the months ahead (see chart 2). It is also important to keep an eye on energy prices. Currently, both oil and gas are trading well below last year's highs. However, the OPEC+ cartel seems determined to further curb oil production and tighten supply, which has recently led to a remarkable oil price rally. Natural gas prices also rose sharply in August after reports of possible strikes in Australia put investors on alert.

Chart 2: If manufacturing surveys are any guide, inflation could surprise to the upside again

Index (both axes)



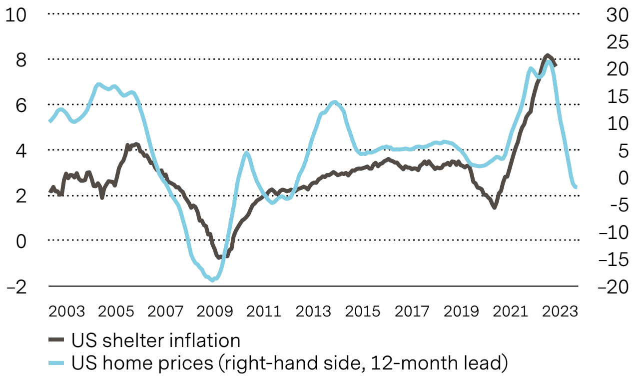
Source: LSEG, Vontobel

Ongoing causes for concern

The situation is different on the supply side. For example, so-called shelter inflation still accounts for around 50 percent of US core inflation. However, various indicators, such as US house prices or the NAHB Housing Market Index, suggest that the housing market is starting to weaken (see chart 3). Another supply-side factor is the still very robust labor market, which could keep wage pressure high and thus trigger a wage-price spiral. While companies continue to add jobs for now, recent labor market reports have also shown that the job market is slowly but surely cooling.

Chart 3: Home prices suggest lower shelter inflation ahead

Year-on-year percentage change (both axes)



Source: LSEG, Vontobel

Against this backdrop, investors should keep in mind that their individual time horizons may differ and that the circumstances can change quickly. Hence, it is important to look at all the factors on our checklist that could trigger a second wave.

The tale of yields and maturity walls

—
Christopher Koslowski
Senior Fixed Income & FX Strategist, Vontobel

While the bearish bond trade currently has a lot of momentum, we continue to think that Treasury yields are close to a cyclical peak and will be lower on a six- to 12-month horizon. A slowing economy and a less hawkish Fed will trigger a bull-steepening of the yield curve, meaning short-term interest rates fall faster than long-term ones.

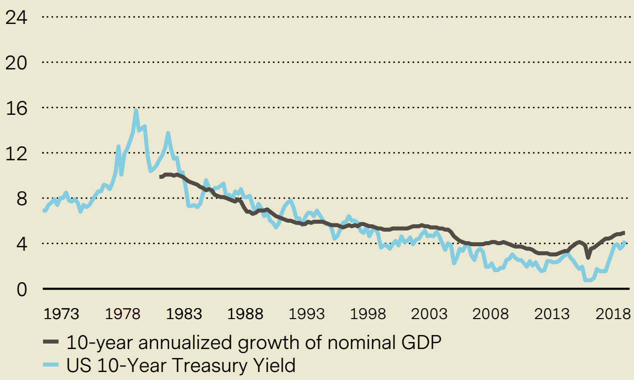
Currently, the most significant news in the fixed income markets is the 10-year yield trading above 4.3 percent, a peak not seen since November 2007. With the era of zero-interest policies still fresh in our memories, this rate feels high. While notable, by historical measures, it isn't. The rise in the 10-year yield is mainly due to the real yield component, driven by a higher Fed policy rate or improved growth expectations, but with minimal change in inflation expectations. The 10-year annualized growth rate of nominal gross domestic product (GDP) could serve as a reference when examining the long-term trend in interest rates (see chart 1). The 10-year growth trend is on an upward trajectory and is now at its highest level since the Lehman crisis in 2008. For over 20 years, the 10-year yield hasn't ended a quarter above the 10-year nominal growth rate. So, there's a case to be made that bond yields might not rise further in the present cycle.

Not all fixed income parts are created equal
We believe the absolute return potential across fixed income remains compelling but favor higher-quality and more defensive segments, such as Treasuries. Corporates don't look very attractive to us at current valuations as rising debt service costs will erode interest-rate coverage and thus credit quality. Default rates are on the rise amid tighter bank lending standards.

Junk-rated companies are in a race against time to replace debt they secured when major central banks slashed rates and boosted quantitative easing programs to support economies two years ago. On average, these firms now have up to five years to secure fresh financing, the shortest amount of time ever. A rolling measure of bonds maturing over the next two years has surged to a record high of 127 billion US dollars (see chart 2). This "maturity wall" accounts for nine percent of the high-yield market.

When bonds have less than a year to maturity, this debt becomes current on a firm's balance sheet, potentially leading to downgrades. Considering that spread changes typically precede downgrades by one to two quarters, a negative spread reaction can start 18 months before the official bond maturity date. This looming maturity wall is poised to become a prominent concern for high-yield investors in the coming year, especially with rising financing expenses.

Chart 1: 10-year nominal GDP growth is a good indicator of bond-yield trend
In %



Source: Bloomberg, Vontobel

Chart 2: Maturity wall (of worry)—Bonds maturing in next two years has hit record (127 billion US dollars)
In %

Source: Bloomberg, BofA Global Research, ICE Data Indices, Vontobel

Adapting the recipe

—
Mario Montagnani
Senior Investment Strategist,
Vontobel

Global stock markets traditionally never rise or fall in a straight line. The stellar month of July saw the MSCI ACWI Index, MSCI's flagship global equity index, firmly closing in on bull market territory. Then August proved torrid, and investors eagerly awaiting arguments in support of a correction during the traditionally unseasonal summer period were certainly not disappointed.

Stock markets faced steepening US yield curves, increasingly stretched valuations mostly supported by re-rating (see chart 1), and uninspiring inflation data for July that pointed to a moderate uptick in most developed countries. Then, of course, there was the downgrade of US credit by the rating agency Fitch to AA+ from triple AAA, along with bouncing commodity prices, weakening economic data across most developed economies, and, instead of a recovery, worsening conditions in China, the world's second-largest economy and biggest contributor to global GDP growth.

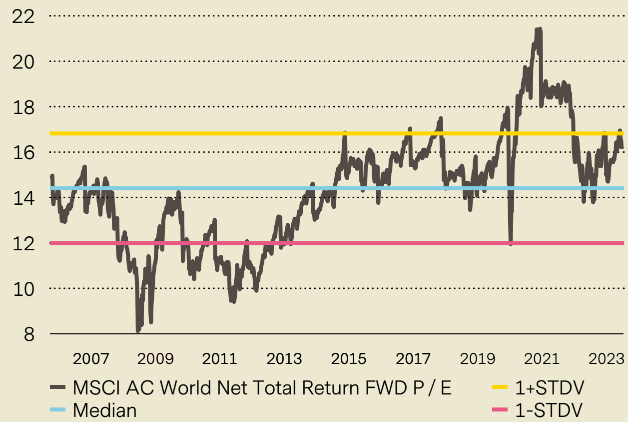
Adding this all up, it looks tough to find incrementally good news in the short term that supports equity markets. In fact, the solid earnings surprise the second-quarter reporting season brought along was of little help to stock markets, which barely reacted, signaling most of the good news seem priced in in the near term (see chart 2).

What is our take? Considering one of the most widely anticipated recessions in decades, we believe that investors with a nine-month investment horizon should retain a constructive view on equities. We think the worst lies behind us in this asset class, which is currently following a typical post-slowdown recovery pattern: choppy in the short term but ultimately grinding higher. Our thoughts are supported by the prospect of seeing a Fed rate hike pause in Q3 2023 and a pivot as early as Q1 2024.

Let's not forget that markets have also become increasingly efficient, structurally stronger and less leveraged by any historical comparison. That said, we see volatility prevailing in the near term in the absence of catalysts. This led Vontobel's Investment Committee to tactically close its long-standing equity overweight last month. We shifted some of the proceeds into cash but continue to seek opportunities in select regions displaying quality and sound earnings predictability. More details on page 5.

Chart 1: Forward P / E valuations have mostly expanded on re-rating since last year

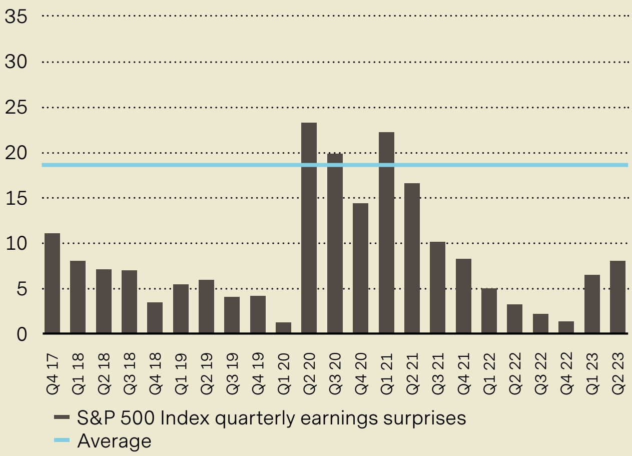
Forward P / E multiple



Source: LSEG, Vontobel

Chart 2: US equities—Q1 brought a clear inflection in positive earnings surprises

In %



Source: LSEG, Vontobel

Crude oil: Tight supply's tough fight against weak appetite

—
Michaela Huber
Cross-Asset Strategist,
Vontobel

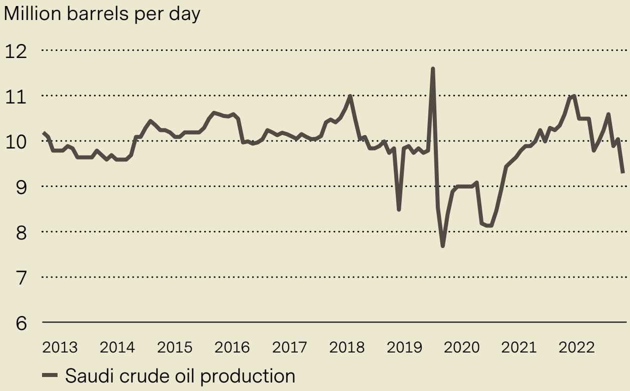
This summer, crude oil prices seemed to climb in lockstep with sweltering temperatures. While the so-called "black gold" was still quoted at around 74 US dollars per barrel in mid-July, it began a remarkable rally in the weeks that followed, scraping the 90 US dollar mark at the beginning of August and even surpassing it the following month.

Cartel-orchestrated tightening boosted prices
Most of the surge was attributable to supply concerns. While market participants initially had doubts about whether OPEC and its allies (OPEC+) would implement the previously announced production cuts, the publication of July data proved them wrong. According to the cartel's monthly oil market report, OPEC-13 crude oil production totaled 27.31 million barrels per day (bpd) in July, a decline of about 836,000 bpd from the previous month. This was mainly due to aggressive Saudi production cuts (–968,000 bpd), which, among other factors, outweighed the increase in non-OPEC+ supply (see chart 1). Saudi Arabia's initial announcement that it would extend its cutbacks through September and comments that the reduction may be "extended, or extended and deepened", took care of the rest. In early September, it followed through, saying it will continue curbing production for an additional three months.

Russia, which had initially produced more oil than expected, has followed suit. The world's second-largest oil exporter first announced it would curb its supplies by 300,000 bpd in September, then also prolonged the reduction until December. At the same time, many US refineries increased their utilization rates over the summer months. This resulted in increased crude oil withdrawals and declining inventories, fueling concerns over a potential deficit in the months ahead (see chart 2).

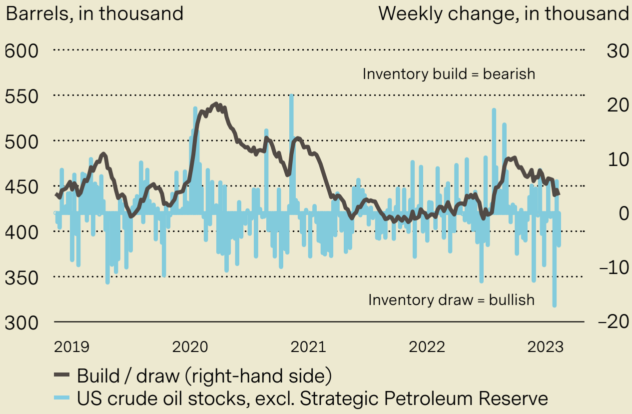
Upside risks held in check by weak economy
As long as the OPEC+ cartel keeps "managing" the oil supply, oil prices are poised to continue to trade above the 80 US dollar mark. While the latest output cuts have taken markets by surprise and bear the risk of supply deficits and prices rising further, there are also factors that could keep those developments in check: global economic growth has yet to make it out of the woods, and the Chinese economy is still grappling with various headings, including turmoil in its real estate sector. Moreover, in our view, there is an ongoing risk of a US recession. If, contrary to our expectations, the recession does not end up materializing, the alternative does not look much better: a more robust US economy could force the Fed to keep interest rates higher for longer—which is likely to support the US dollar and weigh on oil (as the greenback and oil are said to have an inverse relationship).

Chart 1: Saudi Arabia currently bears the brunt of the cuts



Source: LSEG, Vontobel

Chart 2: Crude oil inventories are increasingly being drawn



Source: LSEG, Vontobel

Revival of the bearish view of the US dollar?

—
Christopher Koslowski
Senior Fixed Income & FX Strategist,
Vontobel

Elevated US interest rates, a robust domestic US economy, and a sluggish foreign investment climate have collectively contributed to the US dollar's strength this summer (see chart 1). The Fed's nearing rate peak and evidence of a turning US economy should revive the bearish view of the dollar in the second half of this year.

Narrowing growth and interest rate differentials, which were fundamental drivers behind the dollar's strength since early 2021, contribute to the less optimistic outlook for the currency in the upcoming months. Dollar-supportive interest rate spreads have already weakened considerably since late 2022, when European central banks started to tighten monetary policy.

Regarding the cyclical dynamics between the US and the Eurozone, the Fed leads when it comes to monetary policy. The Fed started increasing interest rates in March 2022, while the European Central Bank (ECB) began in July 2022. The US's more advanced progress in combating inflation aligns with our view that the Fed will reach its peak interest rate before the ECB does and will also make the first rate cut before its European counterpart.

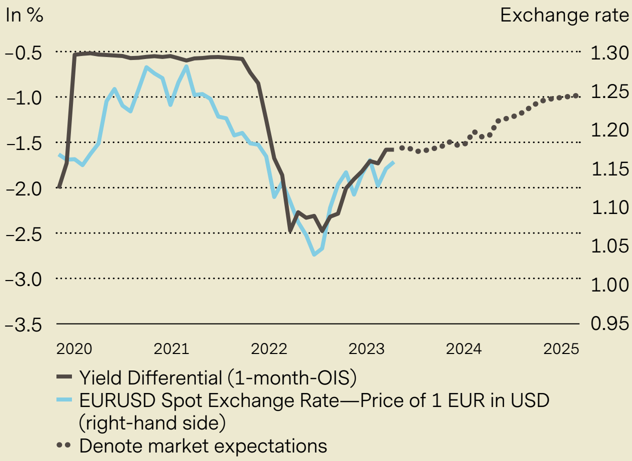
However, there's still considerable uncertainty about these timings. Soft data out of the Eurozone more recently have curbed expectations of an ECB hike on September 14, but markets are still pricing in some minor (8 bps) risk of a hike and are 50 / 50 on another 25 bps hike before year-end. For now, though, our positive euro-dollar relative yield differential outlook still holds (see chart 2).

Drivers of uncertainty appear on the horizon
Earlier this year, the main concern in the market was determining when inflation would reach its peak and estimating the associated rate peak timing. However, this issue has been somewhat solved as we've already experienced inflation peaks. Recently, the primary focus has shifted to concerning news from China, which might have significant implications for the euro-dollar market as the year progresses. If the situation in China improves, it could greatly benefit the euro-dollar. Conversely, any further setbacks post-summer could adversely impact global markets, leading to more risk-averse market behavior and increasing the potential for a decline in the euro as we move into the latter half of the year.

Chart 1: The US dollar strengthens

Source: Bloomberg, Vontobel

Chart 2: Relative yield differential still supports the bullish euro view



Source: Bloomberg, Vontobel

Economy and financial markets 2021 – 2024

The following list shows the actual values, exchange rates and prices from 2021 to 2022 and consensus forecasts for 2023 and 2024 for gross domestic product (GDP), inflation / inflationary expectations, key central bank interest rates, ten-year government bonds, exchange rates, and commodities.

GDP (IN %)	2021	2022	CURRENT[1]	2023 CONSENSUS	2024 CONSENSUS
Global (G20)	5.6	2.6	3.5	2.4	2.2
Eurozone	5.3	3.5	0.6	0.6	0.9
USA	5.9	2.1	2.6	2.0	0.8
Japan	2.3	1.1	2.0	1.6	1.0
UK	8.5	4.0	0.4	0.2	0.5
Switzerland	4.3	2.0	0.7	0.8	1.4
Australia	5.3	3.6	2.3	1.5	1.4
China	8.4	3.0	6.3	5.2	4.6

INFLATION	2021	2022	CURRENT[2]	2023 CONSENSUS	2024 CONSENSUS
Global (G20)	3.5	7.3	3.7	5.1	4.0
Eurozone	2.6	8.4	5.3	5.5	2.5
USA	4.7	8.0	3.2	4.1	2.5
Japan	–0.3	2.5	3.3	3.0	1.9
UK	2.6	9.1	6.8	7.4	3.0
Switzerland	0.6	2.9	1.6	2.3	1.6
Australia	2.9	6.6	6.0	5.6	3.2
China	0.9	2.0	–0.3	0.8	2.0

KEY INTEREST RATES (IN %)	2021	2022	CURRENT	CONSENSUS IN 3 MONTHS	CONSENSUS IN 12 MONTHS
EUR	–0.50	2.00	3.75	3.89	3.41
USD	0.25	4.50	5.50	5.50	4.50
JPY	–0.10	–0.10	–0.10	–0.10	–0.07
GBP	0.25	3.50	5.25	5.60	4.95
CHF	–0.75	1.00	1.75	1.97	1.61
AUD	0.10	3.10	4.10	4.25	3.80
CNY	3.80	3.65	4.35	4.30	4.25

GOVERNMENT BOND YIELDS, 10 YEARS (IN %)	2021	2022	CURRENT	CONSENSUS IN 3 MONTHS	CONSENSUS END OF 2024
EUR (Germany)	–0.2	2.6	2.54	2.31	2.13
USD	1.5	3.9	4.25	3.86	3.62
JPY	0.1	0.4	0.66	0.68	0.72
GBP	1.0	3.7	4.45	4.09	3.62
CHF	–0.1	1.6	1.00	1.16	1.11
AUD	1.7	4.1	4.16	3.83	3.39

FOREIGN EXCHANGE RATES	2021	2022	CURRENT	CONSENSUS IN 3 MONTHS	CONSENSUS END OF 2024
CHF per EUR	1.04	0.99	0.96	0.98	0.98
CHF per USD	0.91	0.94	0.89	0.89	0.89
CHF per 100 JPY	0.79	0.72	0.61	0.65	0.65
CHF per GBP	1.23	1.12	1.11	1.13	1.13
USD per EUR	1.14	1.06	1.08	1.11	1.11
JPY per USD	115.00	130.00	146.00	136.00	136.00
USD per AUD	0.73	0.67	0.64	0.68	0.68
GBP per EUR	0.84	0.88	0.86	0.87	0.87
CNY per USD	6.37	6.91	7.29	7.10	7.10

COMMODITIES	2021	2022	CURRENT	CONSENSUS IN 3 MONTHS	CONSENSUS IN 12 MONTHS
Brent crude oil, USD per barrel	79	86	84	84	87
Gold, USD per troy ounce	1,829	1,824	1,915	1,975	2,015
Copper, USD per metric ton	9,720	8,372	8,360	8,500	8,802

1 Latest available quarter
2 Latest available month, G20 data only quarterly
Source: Vontobel, respective statistical offices and central banks; as of August 25, 2023

Disclosure notice and disclaimer

1. Analyst confirmation
The financial analysis contained in this Vontobel Report was prepared by the organisational unit responsible for financial analysis (Group Investment Strategy, Global Equity Research and Global Trend Research, Buy-Side Analysis divisions) of Bank Vontobel AG, Gotthardstrasse 43, CH-8022 Zurich, Tel +41 (0)58 283 71 11 (www.vontobel.com), or Vontobel Asset Management AG, Genferstrasse 27, CH-8022 Zürich, Tel +41 (0)58 283 71 50 (www.vontobel.com/am). Bank Vontobel AG is subject to supervision by the Swiss Financial Market Supervisory Authority FINMA, Einsteinstrasse 2, 3003 Bern (www.finma.ch/e/). The authors listed on page 1 of the study confirm that this study gives a complete and accurate reflection of their opinion of the financial instruments and issuers analysed, and that they have neither directly nor indirectly received any compensation for the specific assessments or opinions held by them in this financial analysis. The compensation of the authors of this financial analysis is not directly related to the investment-banking business-volume generated between Vontobel and the issuers analysed. The authors of this financial analysis do not own any equity securities in the companies analysed. The financial analysis was not made available to the analysed issuers prior to distribution or publication. Individual separate contributions contain no direct or indirect reference to specific financial instruments or issuers, and do not represent a financial analysis. Such contributions may therefore also have been compiled by authors outside the areas responsible for financial analysis. The latter are not subject to the restrictions applicable to financial analysis and are thus not covered by the above confirmation either, and are accordingly not mentioned in the list of financial analysts on page 2 of this document.

Investors' Outlook also regularly contains information on in-house Vontobel fund products. The Bank takes into account any risk of conflict of interest arising due to existing economic interests by having the AM/GIS MACI/Funds Research and Investments unit make the selections of the respective in-house products based on the best-in-class principle. This unit is organisationally and informationally independent of the Bank's sales units and is monitored by the Bank's Compliance department.

The prices used in this financial analysis are the last available closing prices on the indicated cut-off date. Any deviations from this rule will be disclosed. The underlying figures and calculations of any company valuation are based on the latest financial information, in particular the profit and loss statement, cash-flow statement and balance sheet, published by the analysed issuers. As the information comes from external sources, reliance on the information is subject to risks for which Bank Vontobel AG accepts no liability. The calculations and assessments made for the analysis may change at any time and without notice when other valuation methods are used and/or they are based on other differing models, assumptions, interpretations and/or estimates. The use of valuation methods does not rule out the risk of fair values not being achieved within the anticipated forecast period. A vast number of factors influence price performance. Unforeseen changes may arise, for example, due to the emergence of competitive pressure, a change in demand for the products of an issuer, technological developments, macroeconomic activity, exchange rate fluctuations or even a shift in the moral concepts of society. Changes in regulatory or tax laws may likewise have unforeseen and serious consequences. This discussion of valuation methods and risk factors does not claim to be complete. For more remarks/information on the methodological approaches used in our financial analysis and the rating system, see www.vontobel.com/CH/EN/Companies-institutions-research-equity-research.

Basis of valuation and valuation methods
The Vontobel financial analysts use a variety of valuation methods (e.g. the DCF and EVA model, sum of the parts valuation, breakup and event-related analysis, key figure comparisons of peer groups and market) to prepare their own financial forecasts for the companies covered by them.

2. Disclaimer and sources
Although the producer believes that the information in this document is based on reliable sources, it cannot accept any responsibility for the quality, accuracy, timeliness or completeness of any of the information contained in this document. This research report is for information purposes only and does not constitute either an offer or a solicitation to buy, sell or subscribe, nor does it constitute investment advice or any advice with respect to tax consequences. The research report was written without regard to the financial circumstances of individual recipients. The producer reserves the right to change and/or retract any opinion expressed in this research report at any time. The producer further points out that the statements contained in this research report are under no circumstances to be construed as advice on tax, accounting, legal or investment matters. The producer neither guarantees that the financial instruments discussed in this research report are accessible to the recipients nor that they are suitable for the recipients. It is recommended that recipients of this report seek advice from an asset manager, investment advisor or other relevant advisor with respect to compatibility with the recipient's own circumstances and with respect to the legal, regulatory, tax and other consequences prior to making any investment decision. The producer does not regard any recipients of this report as clients if there are no other business or contractual relations. Any use of this report, in particular its reproduction in whole or in part, or its distribution to third parties, is only permitted with prior written consent from Bank Vontobel AG and full acknowledgement of sources. Bank Vontobel AG has taken internal organisational measures to prevent any potential conflicts of interest and, if there are any such potential conflicts of interest and they are unavoidable, to disclose them. For more details on handling conflicts of interest and maintaining the independence of the financial analysis department as well as disclosures relative to the financial recommendations of Bank Vontobel AG, see www.vontobel.com/CH/EN/MiFID-Switzerland. Details on how we handle your data can be found in our current data protection policy (www.vontobel.com/privacy-policy) and on our data protection website (www.vontobel.com/gdpr). This publication is deemed to be marketing material within the meaning of Article 68 of the Swiss Financial Services Act and is provided for informational purposes only. If you do not wish to receive any further Investors' Outlook from us, please contact us at wealthmanagement@vontobel.com.

3. Country-specific guidelines and information
The distribution and publication of this document and the investments described in it may be subject to restrictions in some jurisdictions due to local laws and regulations. This document and the information contained in it may only be distributed in countries in which the producer or the distributor holds the applicable licences. If there is no mention to the contrary in this document, it may not be assumed that the producer or distributor holds the applicable licences in any specific country. Please note the following country-specific information must be strictly observed. With the exception of the following distribution-channels, this research report shall be deemed to be distributed by the company indicated on its cover page.

14 Legal information

Additional information for US institutional clients
In the United States of America, this publication is being distributed solely to persons that qualify as major US institutional investors under SEC Rule 15a-6. Vontobel Securities, Inc. accepts responsibility for the content of reports prepared by its non-US affiliate when distributed to US institutional investors. US investors who wish to effect any transaction in securities mentioned in this report should do so with Vontobel Securities, Inc. at the address hereafter and not with Bank Vontobel AG: Vontobel Securities, Inc., 1540 Broadway, 38th Floor, New York, NY 10036, Tel 1 212 792 5820, Fax 1 212 792 5832, e-mail: vonsec@vusa.com. Vontobel Securities Inc. New York, with headquarters at Vontobel Securities AG, Gotthardstrasse 43, CH-8022 Zurich, Tel +41 58 283 76 17, Fax +41 58 283 76 49, is a broker-dealer registered with the Securities and Exchange Commission and a member of the National Association of Securities Dealers. Bank Vontobel Zurich is a foreign broker dealer which is not delivering services into the USA except for those allowed under the exemption of SEC Rule 15a-6.

Additional information for UK clients
Bank Vontobel AG is a company limited by shares with a Swiss Banking license which has no permanent place of business in the UK and which is not regulated under the Financial Services and Markets Act 2000. The protections provided by the UK regulatory system will not be applicable to the recipients of any information or documentation provided by Bank Vontobel AG and compensation under the Financial Services Compensation Scheme will not be available. Past performance is not indicative of future performance. The price of securities may go down as well as up and as a result investors may not get back the amount originally invested. Changes in the exchange rates may cause the value of investments to go down or up. Any literature, documentation or information provided is directed solely at persons we reasonably believe to be investment professionals. All such communications and the activity to which they relate are available only to such investment professionals; any activity arising from such communications will only be engaged in with investment professionals. Persons who do not have professional experience in matters relating to investments should not rely upon such communications. Any contact with analysts, brokers or other employees of Bank Vontobel AG must be conducted with Bank Vontobel AG directly and not through offices or employees of Vontobel affiliates in London / UK.

Information for Italian investors
This research document prepared by Bank Vontobel AG is distributed according to EU rule 2016 / 958 by Vontobel Wealth Management SIM S.p.A, Milano authorized and regulated by Consob, via G.B. Martini, 3 – Roma.

Information for HK clients
The fund is not authorized by the Securities and Futures Commission in Hong Kong. It may only be offered to those investors qualifying as professional investors under the Securities and Futures Ordinance. The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution and if you are in doubt about any of the contents of this document, you should obtain independent professional advice. This document was approved by Vontobel (Hong Kong) Ltd., which is licensed by the Securities and Futures Commission of Hong Kong and provides services only to professional investors as defined under the Securities and Futures Ordinance (Cap. 571) of Hong Kong and has its registered office at 1901 Gloucester Tower, The Landmark 15 Queen's Road Central, Hong Kong. This advertisement has not been reviewed by the Securities and Futures Commission.

Information for SG clients
The fund and its sub-funds are not available to retail investors in Singapore. Selected sub-funds of the fund are currently recognized as restricted schemes by the Monetary Authority of Singapore. These sub-funds may only be offered to certain prescribed persons on certain conditions as provided in the "Securities and Futures Act", Chapter 289 of Singapore. This document was approved by Vontobel Pte. Ltd., which is licensed with the Monetary Authority of Singapore as a Capital Markets Services Licensee and Exempt Financial Adviser and has its registered office at 8 Marina Boulevard, Marina Bay Financial Centre (Tower 1), Level 04 – 03, Singapore 018981. This advertisement has not been reviewed by the Monetary Authority of Singapore.

Bank Vontobel AG
Gotthardstrasse 43
8022 Zurich
Switzerland

vontobel.com