# Investment Outlook

## More volatility in the rate hiking phase

February 2022

SEB

# Contents
## February 2022

# Introduction

This year has begun in a dramatic way – with low risk appetite, rising interest rates and bond yields, falling share prices and large differences in returns between various types of shares. This stands in contrast to the strong performance that characterised most of 2021. Since last autumn, share prices have been considerably more volatile and the direction of the market less clear. If we look below the surface, it appears that many previous winners among growth companies have recently fallen by more than 30 per cent. Such weak performance is not surprising, since responses to the outbreak of the COVID-19 pandemic have triggered other problems, such as high inflation. Meanwhile the pandemic is still with us. New restrictions and increased virus transmission are creating bottlenecks in value and logistics chains as well as in energy production.

Uncertain market performance in the third quarter of 2021 led us to make a number of downward adjustments to the risk level in our portfolios. Among other things, we halved our overweight in equities and neutralised our overweight in corporate bonds with higher credit risks ("high yield"). Our aim was to create more robust portfolios.

The main source of investor concern is higher-than-forecast inflation. Among others things, it has led the US Federal Reserve (Fed) to revise its monetary policy plans in a restrictive direction.

This has resulted in rather steeply climbing rates and yields, initiating a phase of risk aversion that has led investors to noticeably reallocate their portfolios. The Fed's message has, in essence, led market participants to adapt to a late-cyclical phase earlier than planned. This was one of the risks we warned about in the December issue of *Investment Outlook*. In this February issue, we outline our views on how we believe a suitable portfolio should be structured, now that events have shifted to a new phase and valuations have been adjusted.

We present three theme articles in this issue. First, we analyse what happens when monetary policy is tightened and central banks end their quantitative easing (QE), and we look at its opposite – quantitative tightening (QT). In our second theme article, we examine the Metaverse, Web 3.0 and many other concepts that are poised to become part of our everyday life. Finally, we review emission rights. They are always a current topic, and their price levels are now beginning to make a difference and lead to concrete action.

Wishing you enjoyable reading,

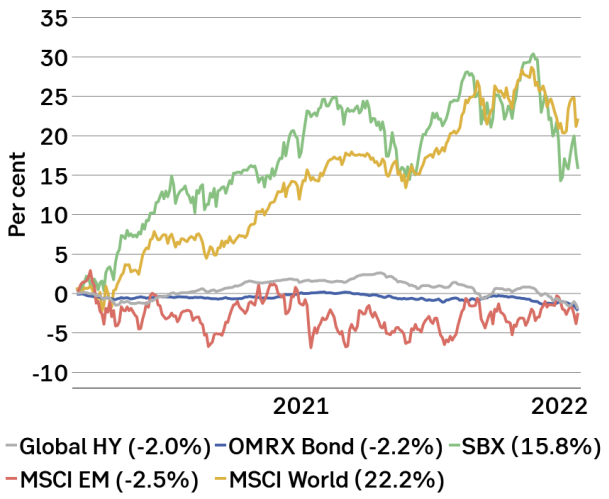
Fredrik Öberg, Chief Investment Officer
Asset Management & Investments

# Market view, risk exposure and allocation

Unusually high inflation is putting pressure on central banks to tighten their monetary stance and hike key interest rates faster than expected, but their policies will remain stimulative for some time to come. Economic growth will slow from high levels. A tug-of-war between continued good fundamentals and a clear weakening trend will lead to greater volatility. We are maintaining some overweight in risk assets but expect more modest returns.

Last year ended with a real spurt on the world's stock exchanges. But as soon as 2022 began, the tone of the capital market changed. Government bond yields began to climb rapidly – due to signals from the US Federal Reserve of a faster, more powerful shift in its monetary policy. The Fed's new plan calls for cutting short its period of expansionary policy. We now expect five key interest rate hikes in 2022 and further hikes in 2023. We also expect the Fed to cease quantitative easing (QE) during the first quarter and begin shrinking its balance sheet (quantitative tightening, QT) during Q4 2022. This is a big change compared to the Fed's tone a year ago. The shift in monetary policy is being driven by an unexpectedly high inflation rate combined with low unemployment, that is, by classic overheating tendencies. Investors have responded with reduced risk-taking, both by decreasing their exposure to equities and by changing the composition of their stock portfolios. They have cut their exposure to growth companies and high-valuation quality companies, which include the majority of market winners in recent years. These companies have thus had a weak start in 2022. Instead, investors have bought shares of companies with lower valuations and in cyclical and defensive sectors.

**Stock market volatility is continuing**




Source: Bloomberg

The chart shows the performance during the past 12 months of Swedish equities (SBX); the MSCI World Index and MSCI Emerging Markets Index, both in terms of Swedish kronor; Sweden's OMRX bond index; and a global high yield (HY) bond index, currency-hedged to kronor.

### Continued above-trend growth but slower momentum

According to SEB's recently published *Nordic Outlook* report, the rapid spread of the Omicron variant, unexpectedly high and persistent inflation and the tense geopolitical situation in Eastern Europe will overshadow the economic outlook and push down near-term growth. Restrictions in response to large-scale COVID-19 transmission are disrupting the supply as well as the demand side for both goods and services. High inflation threatens to erode purchasing power, while forcing central banks to accelerate monetary policy normalisation. In the United States, which is struggling with higher inflation than the European Union, the Federal Reserve will soon end its bond purchases and hike its key interest rate more and faster than previously forecast. The Fed's peers, including the European Central Bank (ECB) and Sweden's Riksbank, are following its example – though at a much slower pace. Now that fiscal stimulus measures initiated after the outbreak of the pandemic are fading, and political disunity in the US is likely to make President Joe Biden's Build Back Better package smaller than he intended, sources of growth support are also clearly diminishing.

Yet all this is happening against the backdrop of an ongoing recovery since the highly negative impact of the pandemic on growth early in 2020, and there are plenty of bright spots. The rapid spread of the Omicron variant may also bring a faster return to normal, due to higher levels of COVID-19 immunity as well as new vaccines and medicines. Inflation, which is partly driven by temporary effects, will begin to recede this spring. High household savings – together with pent-up consumption needs – may generate solid demand as the outlook improves. But because of short-term worries, we have lowered our 2022 global growth forecast by around one quarter of a percentage point. Risks to economic growth have undoubtedly increased, but we still expect growth to match the historical trend this year and slightly exceed it in 2023.

For a more detailed account of SEB's economic forecasts, see the "International overview" section of this issue, which is an excerpt from the February 2022 issue of *Nordic Outlook*.

**GDP growth forecasts, per cent**

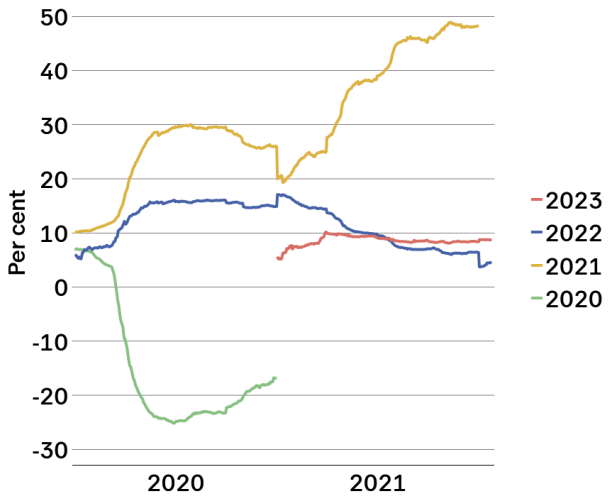
| Market | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| World | -3.3 | 5.8 | 4.1 | 3.6 |
| United States | -3.4 | 5.6 | 3.5 | 2.1 |
| China | 2.2 | 8.1 | 5.2 | 5.4 |
| Japan | -4.6 | 2.0 | 3.2 | 1.2 |
| Sweden | -2.9 | 4.9 | 3.0 | 2.7 |
| OECD | -4.6 | 5.2 | 3.7 | 2.4 |
| Euro area | -6.4 | 5.3 | 4.0 | 2.9 |
| Baltic countries | -1.7 | 5.6 | 3.8 | 3.4 |
| Emerging markets | -2.1 | 6.4 | 4.5 | 4.5 |

Source: SEB Nordic Outlook. The table shows forecasts of real economic growth in line with our main scenario.

### Expected corporate earnings

At this writing, companies are reporting their fourth quarter results, which are confirming that 2021 was a record year – with aggregate earnings increases of around 50 per cent for listed companies. This outcome is twice as high as the forecasts that were being made one year ago. Such a profit explosion naturally means that expected earnings increases in the next couple of years will be both more modest and subject to greater uncertainty, since a lot of companies are already showing record-high margins. There is also uncertainty about the impact of input prices, pandemic effects and slower economic growth rates, and to what extent the corporate sector can continue to raise the prices of its goods and services to compensate for higher inflation. If we make a simplified calculation – assuming a real growth rate of 4 per cent and slightly falling margins and assuming that both inflation and the number of COVID-19 cases are close to their peak – global earnings should increase a bit more than the real economic growth rate. Many forecasts for 2022 and 2023 end up in the 5-8 per cent range, which seems reasonable.

**Earnings forecasts are reverting to more normal levels**




Source: Bloomberg

The chart shows how aggregate yearly earnings estimates for companies in the MSCI All Country World Index have been adjusted over time. Earnings in 2021 are expected to end up around 50 per cent higher than the preceding year, while 2022 and 2023 earnings growth will be within the long-term average range of 5-10 per cent.

### Central banks and liquidity

The changing behaviour and plans of central banks vary around the world, both in terms of direction and pace. The Federal Reserve, as the central bank of the dominant US capital market, is very important and its signals are having a major impact worldwide. Below is a summary of the plans of some leading central banks and of Sweden's Riksbank. Our assessment is that at the end of 2023, key interest rates will still be low in a historical perspective.

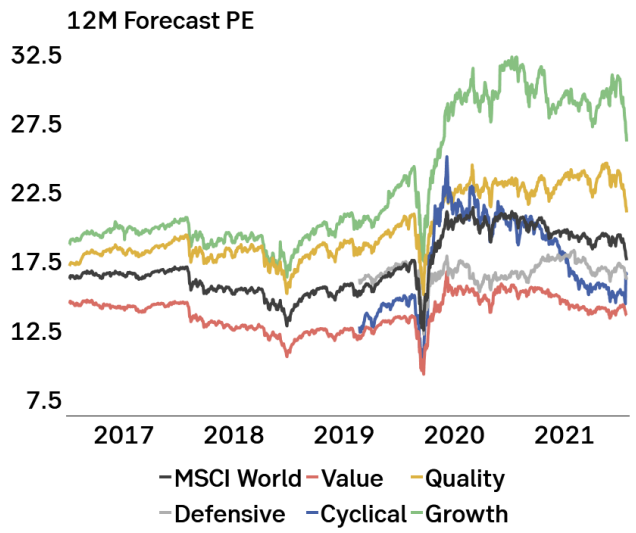
**Central banks are adjusting their future plans**

| Central bank | Quantitative easing (QE) | Key interest rate(s) | Comments |
|---|---|---|---|
| Federal Reserve (US) | Phasing out during Q1 | 5 rate hikes in 2022, 3 hikes in 2023 | Letting the balance sheet shrink from this summer |
| European Central Bank (euro area) | Closes the QE before the rate hikes start. | Begins to raise by the beginning of 2023 at the latest. | Inflation situation not as acute, labour markets not as over-extended |
| Riksbank (Sweden) | Has closed the QE. | 2 rate hikes in 2023 | Will start to shrink the balance sheet, H2 2022 |
| People's Bank of China | | Has recently lowered key interest rates | Has made various decisions to stimulate the domestic economy |

**Valuations and relative valuations**

For several years, asset markets have been driven by strong economic performance and earnings generation, as well as a low proportion of defaults and bankruptcies in the economic system. In addition, stimulative central bank policies and globalisation have clearly affected inflation as well as interest rates and bond yields, and especially the availability of cheap capital. The emergence of phenomenally profitable digital service companies is, and has been, a major structural force. Overall, this has resulted in very strong performance for most financial and real assets. During 2021, we saw a slow adjustment of the benchmark price in the system – government bond yields. They have slowly begun to rise from very low levels. This means we have probably seen the peak of the upturn in corporate valuations (often expressed as a price/earnings or P/E ratio). This might also apply to the record-low cost at which companies and governments have been able to fund their activities. There are simply a lot of signs that the availability of money has peaked and that its price has bottomed out. This is affecting valuation parameters in the capital market.

**Valuation gaps between styles are narrowing**




Source: Bloomberg

The chart shows the P/E ratios for various types of companies in the MSCI World Index since 2017. Growth companies are those with rapid sales growth. Quality companies are those with high returns on shareholders' equity, stable earnings growth and low financial debt. Cyclical companies are sensitive to economic cycles, while defensive companies are not. Value companies are those with low valuations compared to the MSCI World average.

The chart at the left clearly shows how valuations of various equity styles and of the World Index have been affected by falling government bond yields and by large-scale liquidity. Valuations rose markedly after the pandemic stabilised and until early 2021, then slowly fell, which is exactly the opposite of what happened to government bond yields. Average equity valuations remain high in a historical perspective, but there are major differences between types of companies as well as between companies in the same sector. We believe it is reasonable to assume there will be a continued slow downtrend in price/earnings (P/E) ratios, since our forecast is that government bond yields will climb somewhat higher from today's levels. If this happens, the pressure should be greatest on high-valuation companies, which is what we saw early in 2022. At the same time, we know that companies with long-term structural growth potential are generally good investments. If they also have a low level of cyclical sensitivity and good profitability, they deserve a clear valuation premium, but in some cases this premium had become too large, which the market is now at least partly correcting.

**Risk appetite and positioning**

After a long period of rising stock markets and falling interest rates and yields, it is not surprising that risk appetite has remained high over the years, although we have had plenty of serious crises and setbacks over the past 20 years. If we review the latest survey responses from the global investor community, they now show a downward adjustment in risk appetite and redistribution within asset classes. The normal situation is that over time, investors want to be overweight in risk assets in relation to their normal weightings, except during genuine crisis periods. At present, the investor community has not given up on equities or more risky corporate bonds, private equity funds etc. The risk adjustment that has taken

place so far is mainly a combination of profit-taking and steps towards more cautious risk-taking. We can interpret it as meaning that investors do not believe that the economy will collapse. They believe very high inflation will soon start to fall back from stressed levels and that there is a life even after QE. In addition, the TINA (There Is No Alternative) effect still prevails in large parts of the world where government bond yields remain very low.

It seems natural that given the prevailing uncertainty, investors have reduced their risks by lowering the proportion of equities and of high-valuation companies in their portfolios. This also means that average investors have a somewhat lower concentration risk today, since they have reduced the share of large, highly successful major companies in their portfolios. This has resulted in various dramatic shifts between different types (or styles) of equities this past year and has coincided with movements in long-term government bond yields. These shifts will continue in 2022 and will be linked to changes in rates and yields. Rising rates and yields benefit value stocks and cyclical companies, while falling rates and yields support growth companies and high-valuation companies. For the total stock market and overall risk appetite, central bank actions and actual economic growth outcomes will be decisive.

**Risks**

Central banks are now changing their policy direction, which is obviously a risk since the entire economic system – including the capital market – has operated under highly stimulative monetary policies for much of the period since the global financial crisis. During the 2015-2018 period, the Fed hiked its key interest rate from 0 to 2.25 percent, but when the central bank also tried to reduce its balance sheet in the final phase, the capital market reacted negatively. After that, the Fed chose to cut interest rates and again increase its balance sheet (QE) to stop rising volatility. New attempts at normalisation may of course lead to new volatility, like what we saw in early 2022.

The inflation rate will fall back from today's high levels, which are definitely connected in part to bottlenecks and pandemic effects. Other reasons behind inflation may be more structural – for example declining globalisation momentum, rising wage inflation and persistently high energy prices as an effect of the transition to a more sustainable society.

We do not want to see a weaker economy that squeezes corporate earnings profits while inflationary forces do not fall as much as we hope. This would put pressure on central banks to keep their current plans intact. But experience shows that central banks are sensitive to both economic weakness and rising capital market volatility. Perhaps this is changing, since the Fed signalled after its January 26 policy meeting that growth is strong, inflation is high and the balance sheet is large, so it is time to stop stimulating the economy and eventually apply the brakes. The speed and magnitude of this change will depend on incoming data. Nothing in the Fed's statement indicates that this year's initial market volatility has affected its plans.

Tensions are high at the geopolitical level, with conflicts between Russia and Ukraine/Western countries, between China and the US etc. The capital market rarely attaches very great importance to this, except during brief periods. But on the margins and combined with other problems, these geopolitical tensions pose a risk that cannot be ignored. For example, a war between Russia and Ukraine would lead to further upward pressure on oil and natural gas prices.

When it comes to risks, we usually think mainly of negative outcomes, but another view of risks may of course be that we are painting an overly negative scenario. Falling inflation and reduced COVID-19 transmission – combined with solid economic growth and continued very low key interest rates –could very well stabilise and reverse the fall in risk appetite that we witnessed early in 2022.

**Return expectations, %, next 12 months ( SEK)**

| Equities | Return | Risk |
|---|---|---|
| Advanced economies | 7.5 | 15.6 |
| Emerging markets (local currencies) | 7.1 | 14.9 |
| Sweden | 8.2 | 17.6 |
| **Fixed income investments** | **Return** | **Risk** |
| Government bonds | -0.2 | 1.4 |
| Corporate bonds, investment grade (Europe, IG) | 1.1 | 7.1 |
| Corporate bonds, high yield (Europe/US 50/50) | 1.5 | 10.9 |
| Emerging market debt (local currencies, EMD) | 5.3 | 10.6 |
| **Alternative investments** | **Return** | **Risk** |
| Hedge funds | 3.5 | 6.0 |

* 24-month historical realised volatility.
Source: SEB, forecasts, February 2022

**Return expectations**

Given weak market performance early in 2022, combined with our relatively optimistic economic outlook and earnings forecast, we expect share prices to rise from today's levels despite headwinds from central bank actions and slowly falling valuations. However, uncertainty is higher than for years, as illustrated by our own lower risk-taking, but in keeping with the optimistic return forecasts below, we remain overweight in risk assets.

**Some overweight in equities, despite weaker performance**

Last year was fantastic for investors, and to some extent we were overcompensated for our risk-taking. We have had to "give back" some of this in 2022, due to prevailing inflation problems and the shift in central bank policies (which had

surprisingly little impact in 2021 year, but has mattered all the more so far this year).

We chose to adjust our overweight in equities downward in the second half of 2021, which was a bit too early, but the current market correction has made our decision look relatively good. The same applies to our neutralisation of the share of high yield corporate bonds in our portfolios. We have not further reduced our risk level since then, both because the market has fallen sharply in a short period and because we think our portfolios have coped well with market weakness. The decline in our global equity portfolio is softened by a rising US dollar, and our Swedish equity portfolios are generally performing well since we are not overexposed to the growth companies or high-valuation companies that have declined the most. In our fixed income portfolios, we have so far seen a stable trend due to short maturities and reduced exposure to riskier corporate bonds. In our alternative investment portfolios, hedge funds have managed volatility well, although we know that in some cases we receive feedback with a time lag that may create a more nuanced picture.

The dominant portfolio risks compared to our benchmark indices are that in global equities – an asset class where we are overweight – we prefer growth companies and low-valuation small and medium-sized companies and that we are overweight in Asia excluding Japan. This is because we are overweight in China, where there have recently been various signals of government and central bank support for the economy. In Swedish equities – where our portfolio weighting is neutral – a significant proportion of our holdings is in companies with lower valuations than average and in cyclical companies. Our fixed income investment portfolios – where we are underweight – are currently dominated by shorter maturities than in our benchmark indices. In other words, we benefit from rising interest rates and bond yields. For many years, we had a large overweight in high-yield bonds, but we have reduced it to almost a neutral position. Our alternative investment portfolio – where we are underweight – is allocated among many sub-strategies, and we try to keep down co-variation with the stock market.

Overall, this means that compared to our benchmark indices, we will still benefit from rising stock markets and rising rates/yields, as well as a recovery in risk appetite, but the sensitivity of our portfolios is clearly lower than during most of 2021. In these turbulent times, it is also important to remember that as a rule, both shares and commodities perform positively at the beginning of a rate hiking cycle, but the outcome will depend on both the initial situation and the speed of interest rate and yield changes. It is thus important to point out that amid all of today's worries, we need to think about what the world will look like in a few months. By then we will probably have a lower inflation rate, less pressure on central banks, smaller pandemic problems and a potential pent-up need for consumption. This will potentially result in more stable markets ahead.

# Global equities

## High inflation squeezes stock markets

Increasing headwinds are dominating early 2022. Growth forecasts and interest rates still provide support, but equities are squeezed when both factors are under pressure. How the US Federal Reserve handles the inflation threat will be vital to stock markets.

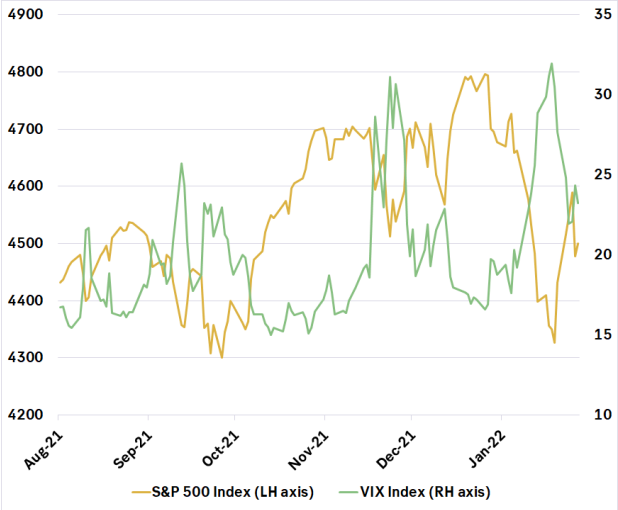
Troublingly high inflation will push up interest rate and bond yield expectations, threatening demand and eventually high corporate margins. How the US Federal Reserve (Fed) can handle the inflation threat – and how long-term yields will react to key rate hikes and reduced central bank bond purchases – will be vital to stock markets. Further escalation of the geopolitical situation around Ukraine would also be negative, with higher risk premiums as a consequence. We expect higher volatility, but TINA ("There Is No Alternative") and corporate adaptability still offer hope.

After sources of concern had gradually built up, especially in recent weeks, 2022 began with uncertainty and weak stock markets. A correction after last year's almost linear rally is not in itself surprising, but today's tumultuous situation calls for caution. In the last *Investment Outlook* (December 2021), we said stock markets were benefiting from a benign growth picture and continued low rates/yields (the TINA argument), but incipient sources of concern were creating volatility risks, justifying lower return expectations. Equities ended the year strongly, but now problems are now piling up. Our fundamentally positive scenario is being squeezed from two directions, with both economic growth and interest rates/bond yields being questioned. Early quarterly reports for Q4 2021 have been strong, providing an optimistic picture of the demand situation and the ability of companies to manage cost inflation.

**Less support from the Fed**

It is easy to list additional uncertainty factors. Rising energy and commodity prices, supply side disruptions and component shortages, the effects of COVID-19 transmission, geopolitical worries, high corporate margins and historically high share valuations are part of the picture. But the biggest concern is the inflation trend and its effects. US quantitative easing will be phased out faster, and we can also expect earlier and more key interest rate hikes than previously anticipated. This will weaken support from a positive liquidity flow and ultra-low short-term interest rates, leading to investor worries and higher volatility. But China may move in the opposite direction. After a tough year of increased regulation and falling equity prices, we are seeing interest rate cuts there – aimed at stabilising the economy and stock market ahead of next autumn's Communist party elections.

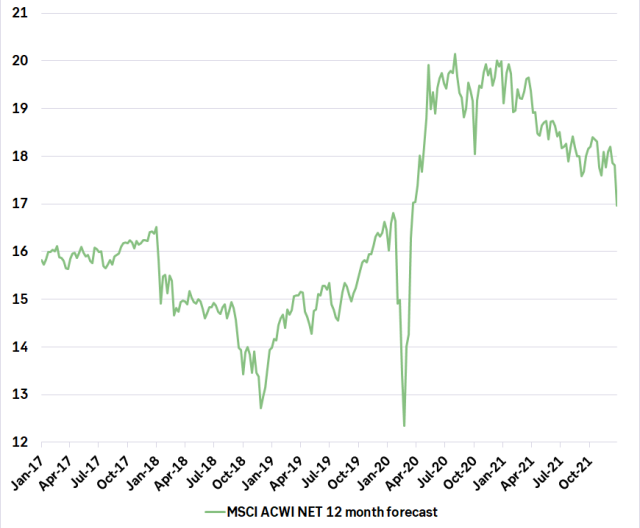
## Inflation, tightening and geopolitical unrest are causing volatility and falling share prices




Source: Bloomberg

The chart shows the performance of the broad S&P 500 Index in the United States and the VIX Index, which measures expected volatility in the S&P 500. There are many sources of investor concern, which is reflected in falling share prices and expectations of dramatic stock market shifts.

## Global equity valuations have moderated but remain somewhat above normal




Source: Bloomberg

The chart shows price-earnings (P/E) ratios for companies in the MSCI All Countries World Index. During the past year, these valuations have fallen due to rising profits. Most recently they have fallen due to the decline in share prices, while revised earnings forecasts have been relatively unchanged.

### Inflation will create more threats

The inflation picture will also put pressure on economic growth and corporate earnings. Although companies have so far shown great skill in handling increased costs, corporate surveys indicate that cost upturns are both large and broad-based and thus risk squeezing margins. High inflation will also limit consumption and lead to lower demand and growth forecasts.

### 2021 profit explosion moderated valuations

If the negative trend continues, equities will come under strong pressure, but so far there are balancing forces. In our main scenario, we still expect above-trend economic growth in 2022. Bond yields will rise but remain low. Last year's stock market rallies were more than justified by the profit explosion we saw. From expectations of around 25 per cent earnings growth early in 2021, we ended up with twice as much – earnings revisions were largely on a par with share price increases. Valuations expressed as price/earnings (P/E) ratios actually fell slightly during the year but remain on the high side historically. At present, we expect earnings to increase by 5-10 per cent in both 2022 and 2023. Given the growth picture, these levels should be reachable even if there is some pressure on margins. The skill that companies have demonstrated so far in generating healthy earnings under difficult conditions also inspires hope.

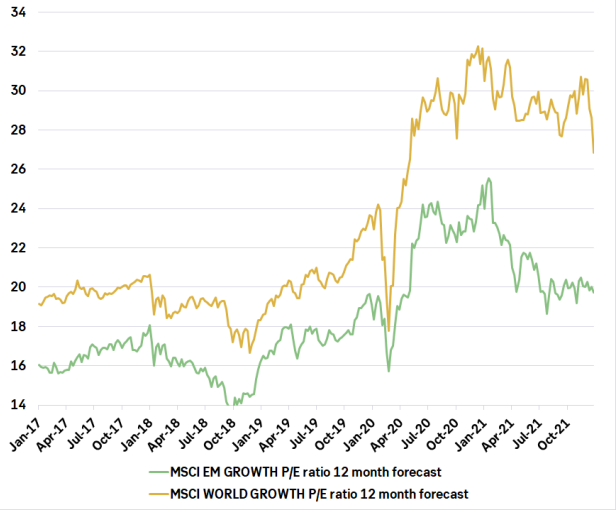
### Setbacks in emerging markets will create opportunities

Sluggish growth in emerging market (EM) economies has made the discrepancy in their equity valuations compared to developed market (DM) economies – especially the US – record-wide. The risks and overall fundamental factors that usually put the EM sphere at a disadvantage, such as a strong dollar, higher US rates/yields and a narrowing gap in GDP growth between EM and DM countries, are well known and understood. The investor community has followed old truths and reduced its exposure to EM countries, creating capital outflows and thus intensifying their weak trend, but the beginning of 2022 is showing early signs of a turnaround. Markets that were weak last year, such as Brazil and China, are leading the upturn while 2021 winners India, Russia and Taiwan have started off weaker. Overall, however, the EM sphere has withstood the risk aversion that has characterised stock markets early in 2022. China will be the key to continued positive performance. GDP growth forecasts for China have gradually been adjusted lower due to that country's zero-tolerance policy towards COVID-19, excessive borrowing problems in the construction sector and increased regulation in parts of the information technology (IT) sector. Steps have been taken to reverse this trend. The stock market has taken note of monetary easing and signs of Chinese government-supported credit expansion. Weaker economic growth will lead to downward adjustments in earnings forecasts, but these are still moderate.

Valuations in China are at about the same level as five years ago, even though growth companies now represent a larger proportion of the stock market, which means that there is room for some expansion of multiples. As in more advanced economies, low-valued shares in the EM sphere have performed better than high-valued shares, but EM growth shares have done significantly better than their Western counterparts this year. We continue to prefer the growth segment in EM stock markets, since valuations are relatively low in relation to expected earnings increases, while P/E ratios

are below 20. This growth segment is dominated by Taiwan and South Korea, which have world-leading companies in the semiconductor segment, and China, whose internet giants suffered quite a beating last year, but which are basically well-managed, fast-growing and now low-valued. In fast-growing EM countries such as India and Vietnam, there are also growth companies in traditional sectors such as real estate, financial services and defensive consumer goods. We have seen some multiple expansion in these growth companies over the past five years, but not nearly to the same extent as in the West.

## Large discrepancy between growth company valuations in EM and DM countries




Source: Bloomberg

The chart shows P/E ratios for growth companies in developed markets (MSCI World Growth, which excludes EM countries) and in the EM sphere. Even though America's tech-heavy Nasdaq exchange fell sharply in January, the valuation gap is still wide.

### Upside potential after a bad start to the year

If our basic macroeconomic scenario holds, the risk of further stock market declines is limited. Today's turbulence may persist for another while, but for example if the onset of spring is accompanied by a clear downturn in COVID-19 transmission, reduced geopolitical tensions and falling inflation while forecasts are largely intact, the growth and interest rate/bond yield outlook still suggests that the stock market year may end on the plus side. But increased uncertainty and limited upside potential suggest greater volatility and an unclear market direction.

If growth withstands headwinds while interest rates and bond yields rise, this should mean continued potential for low-valued, cyclically sensitive companies. If the upturn in rates and yields should slow, there is instead greater short-term upside potential for growth companies whose shares have recently plummeted. Rapid shifts between different categories of companies (growth, value, momentum, quality etc.) are likely to continue until the macroeconomic picture – especially the trend of long-term yields – has become clearer.

But we believe that tighter monetary policies will pull the entire yield curve upward. After this year's initial stock market hangover, we expect a traditional, fundamentals-based valuation approach to take precedence over a speculative approach. Given rising inflation and tighter monetary policies, companies with strong market positions that can pass cost inflation onward to their customers are at an advantage. Low valuations and strong balance sheets are other characteristics that are desirable in times of inflation.

# Nordic equities

## Last year's winners, this year's losers?

The stock market got off to a weak start this year, in part due to factors we believe will dominate the full year but also due to concerns about events that do not feature in our main scenario. The earnings trend is expected to remain strong, but at the same time the stock market will be forced to give back some of the extraordinary gains generated by monetary stimulus in recent years.

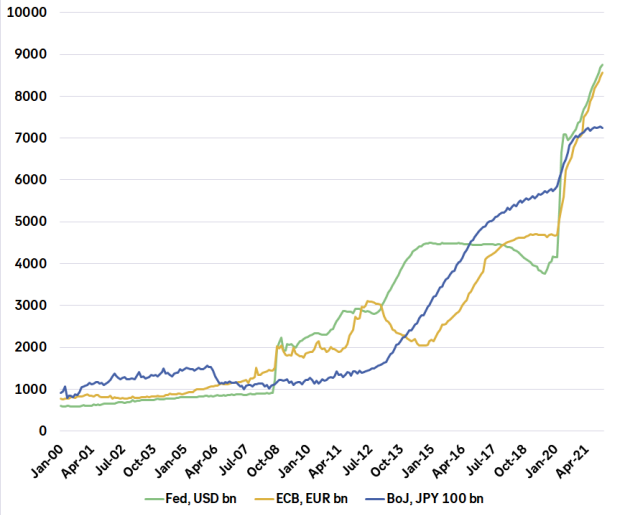
In 2022, the stock market is expected to be dominated by the struggle between earnings growth and multiple contraction (a negative trend in share valuation multiples). The stocks, sectors and exchanges that benefited most from declining return requirements/multiple expansion over the past two years will probably be the ones most adversely affected by the monetary policy reversal now under way. Meanwhile, earnings growth will benefit from increased inflation. Virtually every company is wrestling with high cost inflation, but most of them expect they will be able to offset this by raising prices. Russia's sabre-rattling is a cause for concern that may potentially upend our main scenario and create a significant stagflationary impulse throughout Europe.

**The most important driver is shifting into reverse**

In our view, unprecedented central bank monetary expansion since the outbreak of the COVID-19 pandemic is by far the most important driver behind the stock market rally in recent years. This year, financial markets have suddenly realised it will soon be time to normalise monetary policy. The Bank of England and the US Federal Reserve are expected to lead the way, but the trend is the same for essentially every major central bank except China's. We believe that what were once strong tailwinds for the stock market are now turning into headwinds, and as usual the stock market has started to factor in what will happen before it occurs.

This represents an extremely significant trend reversal for stock markets. We believe the exchanges, stocks and sectors that benefited most from monetary stimulus will also be the ones most adversely affected as these measures are rolled back.

**Monetary stimulus boosted global stock markets, but the wind has now changed direction**




Source: Bloomberg, SEB

The chart shows the size of the balance sheet at the US Federal Reserve (USD billion), the European Central Bank (EUR billion) and the Bank of Japan (JPY hundred billion). Large-scale central bank asset purchases have been a strong contributing factor in asset price inflation over the past few years. As these balance sheets stop expanding and then start shrinking, it is reasonable to expect that global stock markets will be greatly affected, something we have already had a taste of.

### Multiple contraction will be this year's theme

In recent years, the valuations of many but certainly not all equities seem to have lost touch with the old normal. While there are major differences in what investors are enthusiastic about, their sentiment is in many ways reminiscent of the so-called IT (dotcom) bubble at the turn of the millennium. In 2021, valuations of many Nordic and especially Swedish equities reached levels not seen in the 20+ years since that bubble burst. In other words, investors chose to discount high growth for a prolonged period going forward, which is associated with high risk. Signs of some sobering up after last year's euphoria are now apparent, and we expect continued normalisation in 2022. Although we cannot assume that valuations will return to pre-pandemic levels, we believe the correction is still far from over. We do not anticipate a linear recovery; it will be a volatile transition period with repeated reversals. However, adjustment to this new reality can be expected to dominate much or all of 2022.

### Good earnings growth a positive factor in the balance

At SEB's annual Nordic Seminar for investors in early January 2022, the listed companies in attendance generally confirmed the positive earnings outlook we have for this year. Certainly, some companies are suffering from high cost inflation, which has also become more widespread than a few quarters ago. It is no longer only commodity, microchip, electricity and transport prices that are rising; most costs including salaries and wages are moving higher. A number of companies also say that they expect real wage increases in 2022 and 2023, since employees have a relatively good negotiating position in many industries and are demanding compensation for the higher consumer price inflation they have recently experienced.

Nonetheless, few business leaders at the seminar were downcast. They virtually all agreed that they will be able to offset rising costs by passing them on to customers through price hikes. In some cases, companies expect a time lag, with cost increases squeezing margins in the short term before compensatory price hikes have had a chance to impact results, but a surprisingly large number of business leaders believe they will be able to react faster. It is also interesting that companies in industries traditionally considered to have difficulty raising prices – for example, automakers and white goods manufacturers – and which thus often see their margins squeezed in times like these, are now showing considerable confidence that this time around they can quickly offset cost increases in full by hiking their own prices.

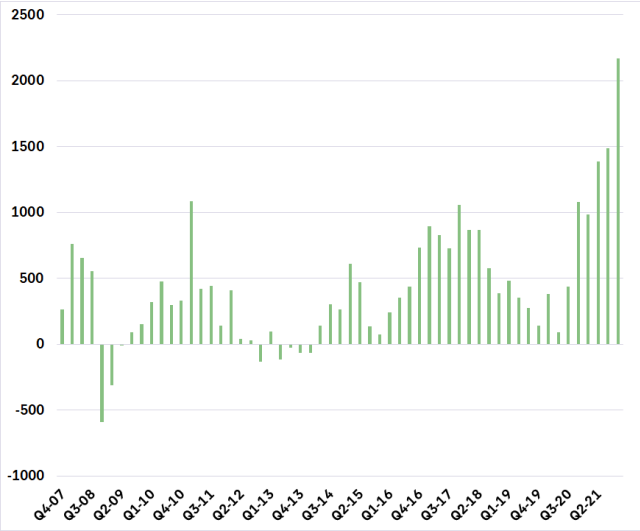
After earnings growth for Nordic listed equities of 75 per cent in 2021, we expect a further 10 per cent earnings growth in 2022, while the corresponding forecasts for Sweden are 42 per cent in 2021 and a further 18 per cent in 2022. Naturally, this has already been factored into forecasts but still provides support for the stock market rally that has taken place; it is not based only on multiple expansion.

### Risks and opportunities in the east

Our main scenario for 2022 is continued economic recovery, which will contribute to expected strong earnings growth again this year, but as always there is a risk of both worse and better scenarios related to international developments. At this writing, there is a risk that the escalating conflict between NATO and Russia over Ukraine will lead not only to humanitarian suffering but will also seriously worsen and prolong the ongoing energy crisis in Europe. The main reason for high European electricity prices is Russia's limited natural gas exports to the region. The impact of this can be expected to be many times greater if a war actually breaks out. In that case, what looks today like a transient winter headache risks becoming both long-term and far worse. It would add a significant stagflationary impulse to the European economy, which would upend our main scenario and pave the way for substantially more negative stock market performance.

On the positive side, China apparently changed its economic policy early this year, adding both monetary and fiscal stimulus measures targeted to sectors such as residential construction and infrastructure. This far more growth-friendly policy is an attempt to reverse the economic slowdown. It bodes well for the rest of 2022, especially for the commodities sector and for industrials with a large presence in China – two heavyweight sectors in the Nordic stock market. We find it very encouraging for steel, non-ferrous metals and other commodity-based industrials that the market remained so strong over the past year despite a significant slowdown in China, including a continuous deceleration in GDP growth. While growth was 18 per cent in the first few months of 2021 based on extremely low year-earlier figures, subsequent slowdowns to 8 per cent in Q2, 5 per cent in Q3 and 4 per cent in Q4 might have had a far greater impact on this sector, which is now expected to post record earnings for 2021 and is off to a very strong start in 2022.

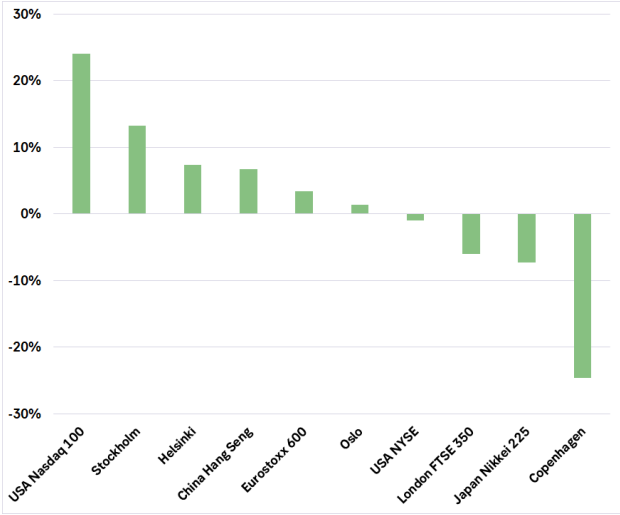
## New earnings record for metals industry expected




Source: Bloomberg, SEB

The chart shows quarterly earnings for the five largest listed Nordic steel and non-ferrous metal companies in millions of euros. After what is expected to be a record year in 2021, so far 2022 looks very promising.

## Large multiple expansion for Stockholm exchange




Source: Bloomberg, SEB

Between January 1, 2020, and January 20, 2022, the P/E ratio (12-month forward consensus) expanded sharply on the Stockholm stock exchange and for American IT stocks, while the trend for the rest of the Nordics and other international financial markets was more in line with earnings growth. Since this multiple expansion, the OMX Stockholm All Share Index has been trading at P/E ratios above 20, compared to Oslo, which is trading at a P/E ratio of 14, while Helsinki and Copenhagen are valued at P/E ratios above 16.

### Major differences among the Nordics

The Oslo and Helsinki stock exchanges have not kept up with those in Stockholm and Copenhagen since January 2020, but their upturns of 25 per cent and 35 per cent respectively are impressive as long as they are not compared to the 48 per cent upturns on the Stockholm and Copenhagen exchanges. The global equity index has climbed 30 per cent. Despite the share price correction of early 2022, Stockholm still stands out with its relatively large valuation rise, driven entirely by certain segments where the multiple expansion has been more or less extreme.

The Copenhagen stock exchange stands out with a large P/E contraction since the start of 2020, but aggregate figures are significantly affected by the shipping company A.P. Møller-Mærsk, which alone accounts for 45 per cent of total earnings in 2020 and 2021, but whose profitability is expected to decrease as quickly and sharply as it rose due to the pandemic and subsequent container transport shortage. Its shares are valued at a P/E ratio of 3 in our forecast for 2022, which dramatically lowers the average P/E ratio for the Copenhagen stock exchange. In other words, the multiple contraction in 2020-2021 on the Copenhagen exchange is primarily a function of a temporary spike in the earnings of one company. Valuations for the Danish pharmaceutical industry have risen substantially, although no corresponding multiple expansion was seen in Danish special purpose acquisition companies (SPACs) like that experienced in Sweden during the same period. However, it is quite clear that the stock exchanges in Helsinki and Oslo were never affected by the euphoria that spread across Sweden last year and that they performed far better in early 2022. Since the Norwegian and Finnish markets did not benefit as much from ultra-loose monetary policy, we think it reasonable that they will not be affected nearly as much as the Stockholm exchange by the imminent tightening either.

### Bubble tendencies in some market segments

The euphoria of 2021 was strongly reminiscent of the 1999 IT (dotcom) bubble in many respects, although of course there were some significant differences. The focus of the euphoria this time around has generally been profitable and growing companies. However, a valuation bubble in equities is not incompatible with companies growing through profitability. The telecom systems manufacturer Ericsson was a highly profitable and especially fast-growing company in the late 1990s. Although its decline was clearly exacerbated and prolonged by the crisis that subsequently hit the entire telecom sector, the main problem was initially that its shares were valued on January 1, 2000, at 88 times its 1999 earnings. Today Ericsson is valued at 17 times last year's earnings.

Today there are 57 equities trading on the Stockholm stock exchange with valuations 40 times their 2021 earnings or higher. They have a combined market capitalisation of SEK 1.822 trillion and represent 13 per cent of total market capitalisation excluding investment companies, loss-making companies and companies without a consensus forecast. The weighted average P/E ratio is 52 for these companies. Obviously, there is no defined limit for when something is a bubble. Nor can this be determined based on earnings for a single year, but P/E ratios of 40-50 or more imply high expectations of future earnings growth. So far in 2022, the shares of this group of companies have fallen by 13 per cent, which at this writing is twice as much as the index. Nonetheless, they are up 37 per cent on average from 12 months ago, outperforming the index by 13 per cent. The latter figure holds for companies that have been listed for at

least one year; no fewer than 13 of the 57 companies with the highest valuations went public within the past year.

In addition to operating companies with high P/E ratios, there are a number of real estate and investment companies for which expectations of continued net asset value growth are remarkably high. Meanwhile, higher interest rates/yields and tapered central bank stimulus will put the brakes on asset price inflation, which will make it difficult for these companies to maintain historical growth in their net asset values.

**Last year's winners risk the strongest headwinds this year**

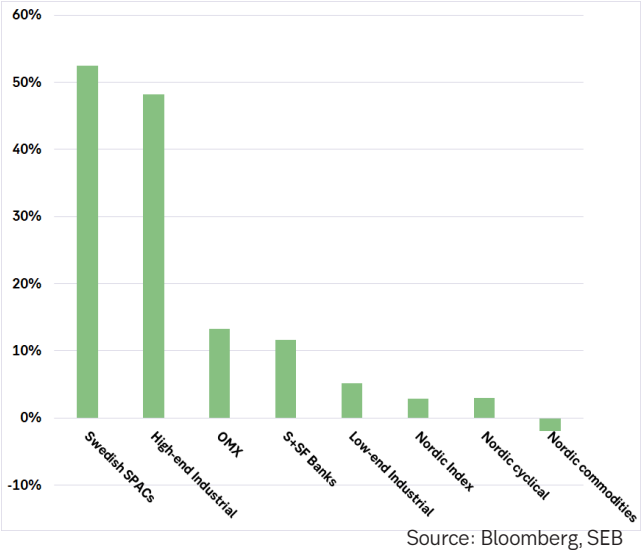
The most noticeable aspect of the Stockholm exchange's performance in recent years is the extreme differences between stock market segments, both between and within economic sectors. Among the hottest segments are special purpose acquisition companies (SPACs), certain real estate companies and many investment companies as well as selected IT and medical technology companies. Meanwhile, many cyclical industrials – but also defensive companies such as consumer staple producers – have seen virtually no upward valuation (any share price increases are explained solely by growing profits).

Just as striking as the differences between economic sectors are the big differences within certain sectors, for example between groups of industrials, where the difference in valuations is historically high and has remained so for many months. The same pattern, though even more extreme, can be seen in the real estate industry. Companies with more aggressive expansion strategies, rapid implementation of lower return requirements for property valuations and/or more charismatic executives with good media visibility have seen strong upward movement in valuations, while the share prices of other companies have essentially followed the change in their underlying net asset value. The same gap in performance is also seen regarding the implicit return requirement for these companies' property portfolios. However, the basis of comparison is somewhat different here since hot real estate stocks tend to be concentrated in property categories that have historically higher return requirements factored into valuations, for example warehouses and properties in suburban locations or small communities in Norrland (northern Sweden). The implicit return requirement is probably a worse comparative variable for different groups of stocks, since the pandemic has had a varying impact on different categories of properties; however, a premium to net asset value takes into account the characteristics of different property types and their valuation trends.

We are consistently seeing that the stocks which benefited most from the unprecedented monetary expansion during the pandemic now risk being most adversely affected. In such a scenario, the losers would include real estate companies – especially those with a high premium to net asset value – SPACs, parts of the health care and IT sectors, and investment companies with a premium to net asset value which specialise in sectors with high valuations.

Stocks in defensive industries with modest valuations, especially those also characterised by growth, should perform well. So should other value shares, including many cyclical industrials. This trend should also favour the Oslo and Helsinki stock exchanges over the Stockholm exchange. In Stockholm, large caps will have an advantage over mid-sized companies (which have market capitalisations slightly less than those of the 30 largest companies and which are often called "small caps" despite a market capitalisation of SEK 30-100 billion). Today they are valued significantly higher on average than the biggest listed companies. The OMX Stockholm All Share Index, which includes all companies listed on the exchange, is trading at around 20 times expected annual earnings whereas the 30 largest companies are valued at 17 times earnings and the index of the 100 largest companies – where mid-sized companies have a large weight – is valued at 23 times earnings. The Oslo stock market is valued at a P/E ratio of 14 and Helsinki at 16.

## Large multiple expansion differential between sectors and markets

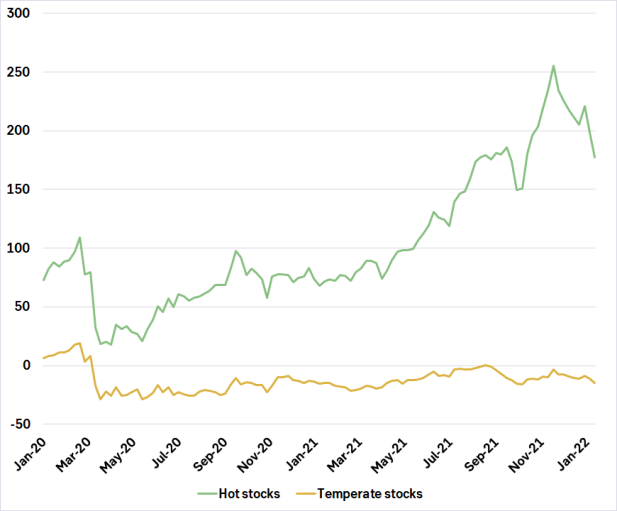



Source: Bloomberg, SEB

Between January 1, 2020, and January 20, 2022, the P/E ratio (12-month forward consensus) increased sharply for Swedish SPACs but also for many other so-called growth companies in everything from IT and medical technology to industrials. However, for many cyclical industrials, valuation multiples were basically unchanged, and for defensive consumer staple companies, their P/E ratio has even decreased somewhat.

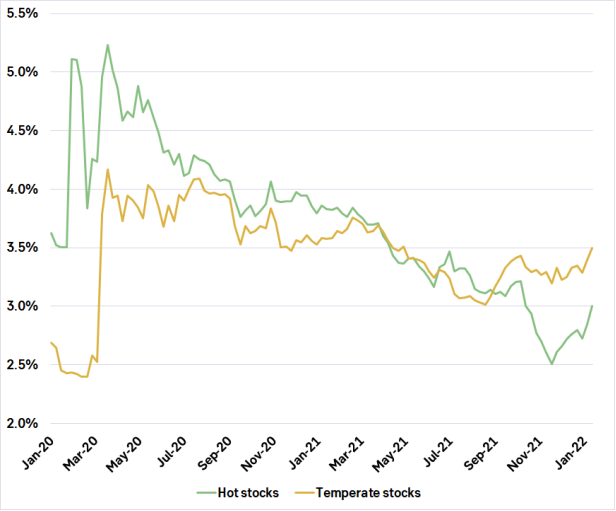
The groups above are defined as the equal-weighted average for eight Swedish SPACs, four of the largest and relatively more expensive Swedish capital goods companies, four of the largest relatively cheaper Swedish capital goods companies, four major Swedish and Finnish banks, ten Nordic forest product, metal and industrial companies with low P/E ratios, and six big Nordic consumer staple producers.

## Sentiment towards real estate stocks sharply divided during the pandemic




Source: Bloomberg, SEB

The chart shows the equal-weighted average premium/discount to net asset value for three popular real estate companies and for three large real estate companies with mixed property portfolios not affected by the euphoria seen in some parts of the market for real estate stocks.




Source: Bloomberg, SEB

The chart shows the equal-weighted average implicit return requirement (EBITDA/EV) for three popular real estate companies and for three large real estate companies with mixed property portfolios not affected by the euphoria seen in some parts of the market for real estate stocks.

### Summary

In our main scenario, last year's winners will continue to lose out in favour of more attractively valued equities, both cyclical and defensive. This transition process will not take place without setbacks but will probably continue throughout the year or for a large part of it. Stock market performance overall will be a struggle between growing corporate earnings and multiple contraction. This will be a challenging environment for much of the Stockholm stock exchange, while conditions in Oslo and Helsinki will be better. Despite high cost inflation, strong earnings growth is expected throughout the Nordic region, driven by companies that have a strong ability to raise prices. In case of a major conflict between Russia and NATO, there is a risk that the trend will be more negative than our main scenario since this will probably result in lower economic growth and higher energy costs.

# Fixed income investments

## Mounting expectations of reduced stimulus

Because inflation speeded up instead of decelerating late last year, the world's central banks were finally forced to abandon their belief that inflation increases were transitory. Central bank stimulus in the form of low key interest rates and bond purchases are thus certain to be reversed.

Central banks in some countries have already started to reduce asset purchases and raise key interest rates, while expectations of imminent rate hikes are quite high. However, most analysts foresee a brief, intense period of rate hikes in 2022 and 2023, after which key rates are expected to remain unchanged.

**Government bonds (excl emerging markets)**

Initial monetary tightening last year – in the form of reduced asset purchases by the Federal Reserve (Fed) and the European Central Bank (ECB) as well as interest rate hikes by Norges Bank and the Bank of England (BoE) among others – had its greatest impact in the form of rising short-term yields. Long-term yields generally treaded water during the autumn, which in our view largely reflected mounting rate hike expectations for 2022-23 – mainly in the US – but largely unchanged key interest rates after 2023. The market priced in a relatively steep but short US rate hiking cycle, indicating that initial rate hikes are viewed as a step towards easing long-term higher inflation pressure. However, this is also expected to have adverse effects on the economy, resulting in key rates peaking at relatively low levels. While expectations of a relatively short hiking cycle have limited the upside in long-term yields, prospects that the Fed may begin to shrink its balance sheet as early as the second half of 2022 have contributed to rising long-term yields in the past month.

Given our cautiously optimistic macro scenario, our forecast is that over time the market will factor in a somewhat longer rate hiking cycle, which is expected to contribute to rising long-term yields. Combined with the Fed's move to start shrinking its balance sheet as early as this year, this means US 10-year Treasury yields are expected to rise to 2.10 per cent by the end of 2022. In the euro area, the balance between the ECB's bond purchases and net government bond sales will be somewhat less bond-friendly in 2022 than in recent years. Taking into account rising global long-term yields, we expect German 10-year yields will rise to just above zero (0.20 per cent) at the end of 2022. Our forecast is that the ECB will hike its key rate during the second half of 2023, which will also contribute some upward pressure on long-term yields during the latter part of 2022 and in 2023.

As for Swedish bonds, the market is now pricing in a Riksbank rate hike of a full 25 basis points by year-end 2022 and four further hikes by mid-2024. However, we believe the first hike will be postponed until 2023 but that the central bank will instead start shrinking its balance sheet as early as this year. The yield spread versus German 10-year bonds narrowed in late 2021, with Swedish bonds now near their lowest spreads since autumn 2020, around 45 basis points. Continued strong government finances and the risk of a further reduction in bond supply are expected to help keep the yield spread narrow for much of 2022. Nonetheless, speculation that the Riksbank will raise its key rate before the ECB could contribute to some widening of the spread in late 2022 and in 2023.

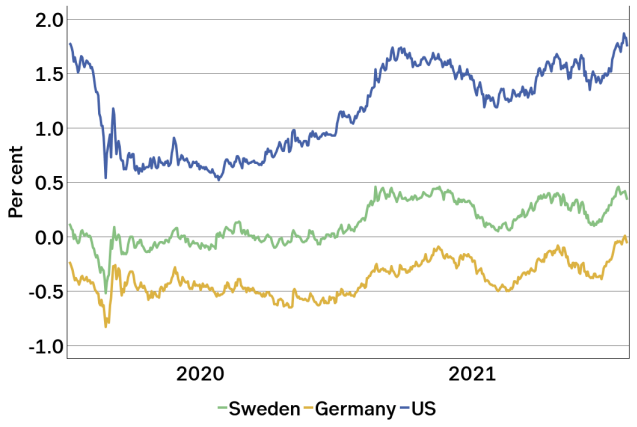
### Government bond yield forecasts

| 10-year government bond yields | Jun 2022 | Dec 2022 | Dec 2023 |
|---|---|---|---|
| US | 1.90 | 2.10 | 2.50 |
| Germany | 0.00 | 0.20 | 0.50 |
| Sweden | 0.45 | 0.70 | 1.05 |

Source: SEB, forecasts January 2022

After a limited upturn in long-term government bond yields during 2021, central bank monetary tightening is expected to lead to higher yields over the next few years. The risk of an adverse impact on growth will limit this upturn somewhat, while the Fed's potential shrinking of its balance sheet will have the opposite effect.

### Limited 2021 upturn in 10-year government bond yields




Source: Macrobond

Because central banks believed that strong inflation was transitory, together with the spread of COVID-19, long-term government bond yields traded flat during 2021.

**Corporate bonds – investment grade (IG) and high yield (HY)**

In isolation, higher central bank interest rates together with higher long-term bond yields are not necessarily directly negative for corporate bonds and their credit spreads. Instead, uncertainty about how quickly and forcefully central banks intend to normalise monetary policy is what creates volatility and dampens investors' risk appetite. The negative price movement for corporate bonds that we saw in early December 2021 was partly linked to the Fed's policy shift – speeding up the pace of its planned tapering – while the spread of the Omicron variant of course also contributed to uncertainty. Nonetheless, credit markets were able to recover much of the downturn during the final weeks of the year, with yield spreads once again returning to their relatively narrow pre-pandemic levels.

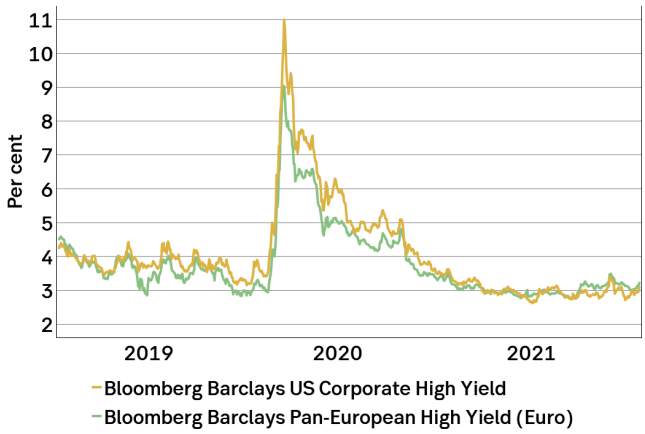
Indirectly, these narrow yield spreads signal a positive view of corporate bond conditions, which may seem strange given the rhetoric and strategy that central banks use and communicate. But taking the above reasoning into account – combined with the fact that companies have improved their creditworthiness over the past year – this is not entirely illogical. Strong earnings improvement has bolstered corporate balance sheets despite higher debt leverage in some cases. Companies also hold larger liquidity buffers, which means they are better equipped to handle unforeseen events, while the interest coverage ratio – which indicates their ability to service their loans – is in good shape compared to previous years. Another clear trend is that many companies have used the low interest rate environment to refinance their debt, both at lower interest rates and with longer maturities.

In light of the above arguments, we believe the corporate bond market looks fairly solid. Although there is limited potential for a further narrowing of yield spreads given current low rates, company fundamentals together with a good underlying rate of return should continue to provide good potential for corporate bonds. The fact that central banks and monetary policy are tightening more and more is, in itself, not a significant risk either; instead, the danger is in whether this tightening will lead to a sharp deceleration in economic growth, which would indirectly change this picture into a negative one. Company- and sector-specific effects due to higher input prices may also result in a more fragmented picture of conditions going forward. Assuming a higher underlying interest rate, lower interest rate risk and a favourable flow situation for high yield bonds compared to investment grade bonds, we see some continued advantages in holding high yield bonds. However, this advantage will shrink as interest rates rise and yield spreads narrow.

**Emerging market debt (EMD)**

Early 2022 will probably hold the same challenges for fixed income investments in emerging markets as those encountered in the second half of 2021. Market pricing of the normalisation of US monetary policy now under way

## Yield spreads back to pre-pandemic levels




Source: Bloomberg/Macrobond

The yield spread – the difference between the yield on both US and European HY corporate bonds versus government bonds with the same maturity – is now back at levels noted before the pandemic broke out.

is initially expected to be supportive during the year for both the dollar and USD interest rates/yields, which will indirectly have a negative impact on emerging market debt. The picture is much the same for China, where regulatory intervention and tighter lending – combined with problems in the real estate sector – put pressure on the entire financial market last year and probably also at the start of this year.

However, these negative effects should ease over the course of the year as inflation stabilises. Meanwhile, the slower spread of COVID-19 should lead to the reopening of most emerging market economies. For China too, reduced quantitative easing and stimulus could contribute to a somewhat more stable situation during 2022.

Although macroeconomic headwinds will probably persist for emerging markets during the first few months of 2022, investors will probably shift their attention back once inflation starts falling and the interest rate/yield trend is clearer and more stable. At that point, corporate bond valuations in the high yield segment should be attractive after last year's decline. Meanwhile, the estimated credit event rate (excluding China) is expected to be less than 2 per cent in 2022, and most emerging market currencies are trading at low levels.


# Theme: From QE to QT

## What happens when monetary policy is tightened?

Since the global financial crisis of 2008-2009, central banks have pumped liquidity into the financial system, with a clear acceleration during the pandemic. Now that the economy is in an above-trend growth phase, a much-needed normalisation of monetary policy is becoming possible, though not without challenges. Phasing out stimulative policy too quickly can stall growth, while continued stimulus can lead to persistently high inflation.

Central banks have continued to pump liquidity into the financial system during the pandemic, having supplied the market with a total of about USD 20 trillion. This has contributed to stability and kept down bond yields. Meanwhile, central banks have established ultra-low key interest rates, driven by very low inflation at times. This has led, among other things, to rising asset prices and a major redistribution of wealth. Increased debt also risks undermining confidence in the financial system in the long term.

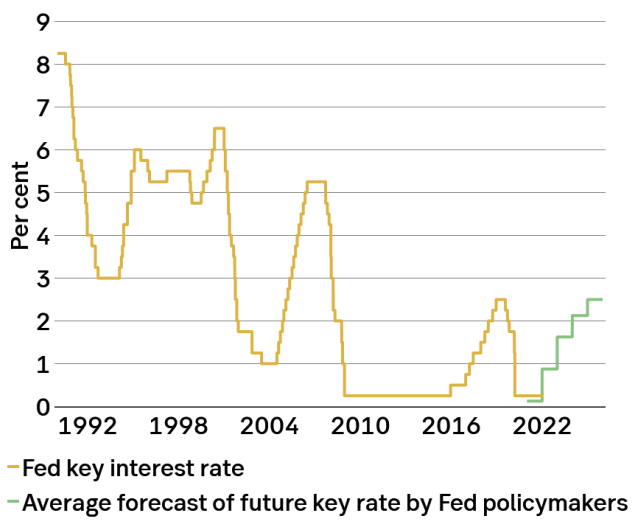
Now that the economy is in a recovery phase with above-trend growth, a much-needed normalisation of monetary policy is becoming possible, and central banks have three main steps to take:

- Reduce their bond purchases (end stimulus)
- Hike their key interest rates
- Shrink their existing bond portfolios (withdraw liquidity)

However, this is not without its challenges. The spread of COVID-19 creates growth risks, while troublingly high inflation presents central banks with a dilemma, particularly since it means that their real key interest rates become increasingly negative as inflation rises. Phasing out stimulative policy too quickly risks triggering a decline in asset prices and may stall growth. Too much stimulus can add fuel and lead to persistently high inflation.

It is reasonable to assume that the US Federal Reserve (Fed) will hike interest rates by a couple of percentage points in 2022 and 2023. The aim of such rate hikes is to push down today's unsustainably high inflation, currently about 7 per cent. This is supported by the fact that today's strong economic growth does not require continued stimulus. The Fed will also shrink its balance sheet as a way to cool the economy. A majority of the world's other central banks are also planning to move in the same direction, though the pace and scale will vary. One clear exception is the People's Bank of China (PBoC), which recently introduced a number of measures to promote growth, including interest rate cuts.

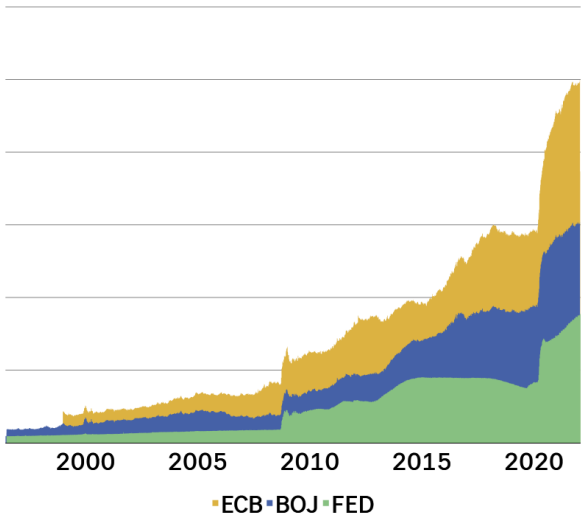
## The Fed is planning rapid interest rate hikes




Source: Morningstar

The chart shows the US federal funds rate and the average future rate projected by Fed policymakers ("dot plots"), which implies an expected total rise of 2 percentage points by year-end 2023.

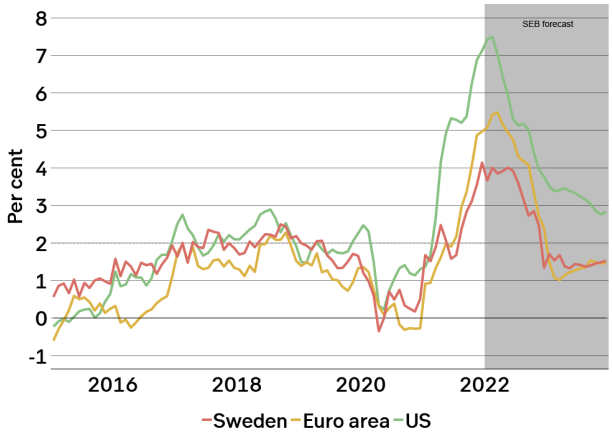
## The Fed, ECB and BoJ will shrink their balance sheets




Source: Morningstar

The chart shows the balance sheets over time of the US Federal Reserve (Fed), the European Central Bank (ECB) and the Bank of Japan (BoJ). They mainly consist of investments in various types of fixed income instruments. The Fed has signalled that it will start shrinking its balance sheet this summer, while the ECB and the BoJ are expected to continue their expansion for a while longer.

## SEB's inflation forecast




Source: SEB Nordic Outlook

The chart shows the historical year-on-year consumer price index (CPI) as well as SEB's forecast for the next two years for the US, the euro area and Sweden. Inflation is not expected to fall back to pre-pandemic level until the end of 2023.

A theme article in the latest issue of *Nordic Outlook* ("Monetary exit policy") examines this issue and tries to estimate the impact on rates and yields when central banks change the direction of their monetary policies. It can be assumed that tapering of bond purchases will put upward pressure on yields, since demand will fall while there is still a need for financing, which increases the bond supply. This takes place in an environment where rising key interest rates also push up the floor for long-term yields. But the

level at which a central bank's key interest rate is no longer stimulative – the neutral rate of interest – is far lower today than historically. It is estimated to be around 2 per cent in the US. This raises a number of questions: What happens to markets when central bank support is withdrawn? How will the stock market react to higher interest rates/yields and reduced liquidity in the system? What is the "pain threshold" for the TINA argument ("There Is No Alternative") – in other words, at what yield level will bonds again be a real investment alternative?

We have chosen to look at these questions from a US perspective, since that country's capital market is dominant and the Federal Reserve is the central bank with the biggest impact on the global capital market. Our forecast is that the federal funds rate will reach 2 per cent at year-end 2023 and that 10-year government bond yields will reach 2.5 per cent. Market pricing of the fed funds rate indicates that most analysts believe the Fed will not succeed in hiking – or will not need to hike – its key rate to more than 2 per cent. However, the central bank has announced a need to go further than that. To prevent 10-year Treasury yields from being pushed above 2.5 per cent, the Fed's rate hikes must produce results and lower inflation close to its long-term inflation target of 2 per cent. Economic growth must also slow from its current pace of about 5.5 per cent by year-end 2023. Our forecast is that this will happen and that the growth rate at year-end 2023 will be close to 2 per cent.

**Bond supply/demand balance less unsettled than feared**

There have long been concerns that the Fed would end up in a situation like the present, where a shrinking of its accumulated balance sheet – dominated by government and mortgage-backed bonds – is justified, while at the same time there are soaring government deficits. During 2020, governments around the world provided ample stimulus to offset the negative effects of the COVID-19 pandemic.

However, as early as last year, this trend was reversed and official pandemic responses were further normalised. This means that the Fed's plans to shrink its balance sheet going forward coincide with a gradual decline in federal borrowing needs. But the net effect of this is not expected to cause other investors to be overwhelmed by a surge in the US bond supply. The Democrats have also been forced to lower their stimulus package ambitions, which has further reduced borrowing needs.

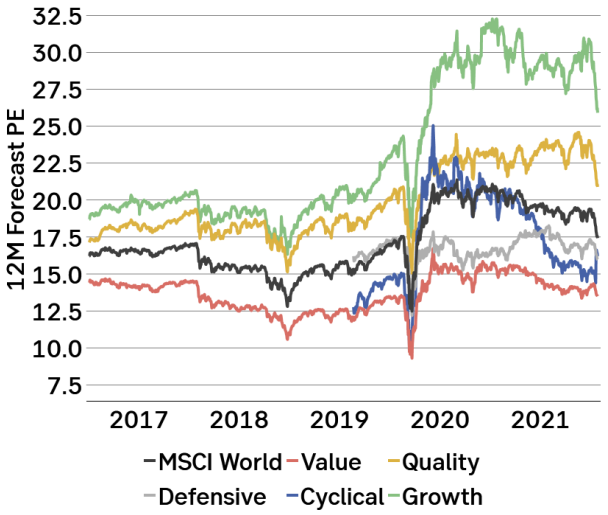
Obviously, the net effect depends on how aggressive the Fed wants to be in trimming its balance sheet. Will it be satisfied with bonds running off the balance sheet naturally or will it also sell bonds that have not yet matured? It is reasonable to assume that the process will be orderly and well-managed, which is what the central bank has signalled to the market to prevent unnecessary worries. For example, the Fed could set a monthly reduction limit of USD 60 billion. With these levels, investors would be able to absorb new US Treasuries over the next couple of years ahead on a par with 2021 volumes. The natural pace of bond maturation over the next two years is about USD 50 billion a month. The market can handle these levels without any great difficulty, and the above assumptions about yields and interest rates are within reason although they are obviously subject to uncertainty. The Fed's most recent announcements support the above conclusions, since the central bank has been clear that it mainly intends use the fed funds rate to push down high inflation.

**Should we say farewell to TINA?**

TINA – an acronym for "there is no alternative" – refers to a situation where investors, given ultra-low bond yields and very little or no compensation for the risk they assume, are forced to seek out other assets.

We have definitely seen a strong TINA effect over an extended period, and we know this has created asset price inflation. Now that consumer price inflation is high and is driving up interest rates and yields, the TINA effect has weakened and share valuations are being challenged. That is because it has become more attractive to hold a 10-year government bond with a 1.8 per cent yield compared to 2020, when the yield was 0.5 per cent at its lowest. Share valuations are also affected by future earnings, which are discounted to determine the current price of a company or its shares. The higher the discount rate used, the lower the asset's present value. This explains why companies with high valuations, which are often largely based on future earnings, have been especially sensitive to this mechanism recently given the upturn in yields. On the other hand, these same company valuations benefited in previous years from the continuous fall in yields. The effect will therefore vary for

## Index valuations are approaching 2017 levels




Source: Bloomberg

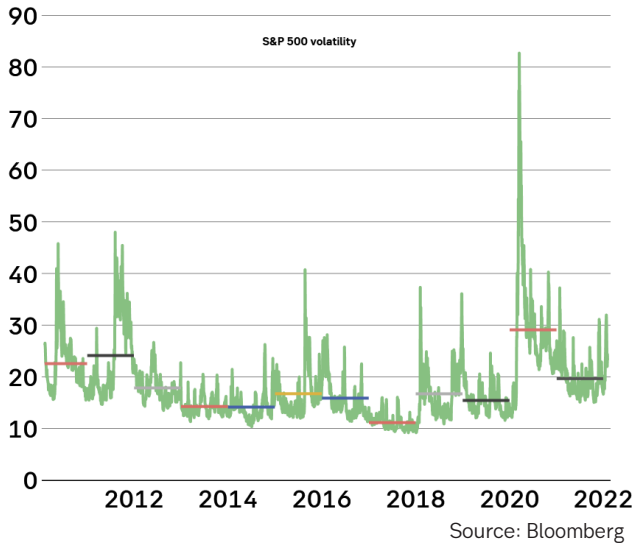
The chart shows how the P/E ratio has valued different kinds of companies in the MSCI World Index since 2017. Growth companies are those with high sales growth. Quality companies are those with a high return on equity, stable earnings growth and low financial debt. Cyclical companies are sensitive to business cycles whereas defensive companies are not. Value companies have low valuations relative to the MSCI World Index average.

different kinds of companies, but the overall effect will be negative. So it is reasonable to expect that the most inflated valuations will face the greatest challenges. Meanwhile, it should be remembered that profitability is strong, and many companies are thus able to pay shareholders dividends or buy back shares. These dividends/buybacks will clearly exceed the 2 per cent coupon on a 10-year Treasury note. Obviously, this does not apply to the entire market. The growth segment – which generally pays out lower dividends to shareholders – deserves a valuation premium, but there are clearly limits. A shift to lower valuations is now taking place at a rapid pace, and we are moving towards more reasonable, balanced pricing in the stock market. For the benchmark world equity index, we are now approaching 2017 valuation levels.

**The shift from QE to QT will affect volatility**

Having a ready buyer who has also previously announced how much they intend to invest each month is by definition an effective way to reduce volatility in the capital market, and the effect of this spreads to other asset classes. Although 2021 was a fantastic year with 50 per cent corporate earnings growth and impressive flows into the stock market, volatility was far higher than the average for 2012-2019. This is an indication that the years of extremely stable markets are behind us. The same volatility has not yet spread to the high-yield corporate bond market, where the environment so far has been calmer.

## Higher volatility in the US stock market



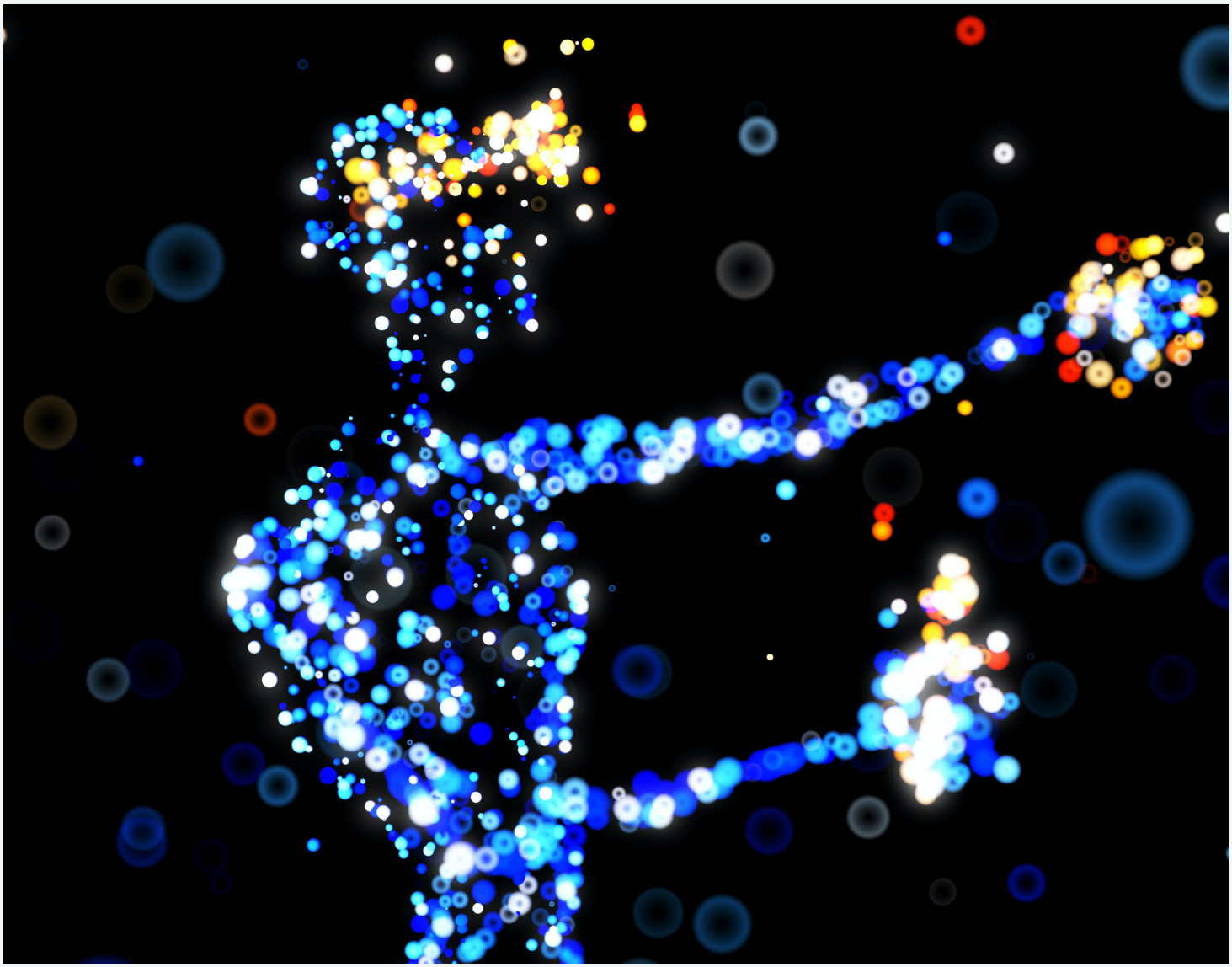

The VIX index measures S&P 500 Index volatility in real time through option market pricing. Average volatility in 2021 was higher than in any single year during the period 2012-2019, and in early 2022 volatility has continued along the same path.

**Conclusion**

It is impossible to give an exact answer to the question of how large an impact central banks will have on the capital market when they switch from pursuing a highly stimulative policy to hiking key interest rates and gradually reducing their balance sheets. The outcome will depend on how much and how quickly they hike rates as well as how much and how quickly they reduce their balance sheets. Obviously, the capital market will also be affected by economic growth, inflation and the corporate earnings trend during the same period. The answer will be determined by the net outcome of these factors, as well as how investors interpret them and a number of other factors (for example geopolitical challenges).

Despite all the uncertain variables, we can conclude that more restrictive monetary policy will have a negative impact on the capital market. There will thus be greater demands for the delivery of economic growth and corporate earnings. We can also conclude that tighter monetary policies will put pressure on the valuations of both financial and tangible assets. These correlations are the main reason why we have reduced the risk in our portfolios over the past six months.

It is reasonable to conclude that volatility will remain high. Investor risk appetite will also fluctuate substantially in response to the ability of central banks to navigate and continuously modify their plans based on market performance.



# Theme: The metaverse

## Interactivity and immersive experiences

The metaverse and Web 3.0 are two concepts that are still being defined, but they are expected to have an impact on individuals and companies in the years ahead. The metaverse is a network of three-dimensional (3D) virtual worlds in which individuals interact. Web 3.0, a broader concept, refers to the next generation of the internet. Over the past year, companies have launched strategies for operating in a 3D virtual world, where essentially anything in the physical world can have a digital twin.

In this theme article, we discuss how the development of hardware and software for virtual reality (VR) and augmented reality (AR) provides support for the development of the metaverse. We also discuss how concepts such as blockchains and non-fungible tokens (NFTs) can contribute to more decentralised structures, touching on areas that were previous *Investment Outlook* themes – such as 5G, the Internet of Things (IoT) and the video game industry.

The development of Web 3.0 includes technologies such as blockchain to register changes in ownership, facilitating transactions in digital goods between parties. This is expected to lead to a decentralisation of the internet, with sellers and buyers able to conclude agreements involving monetary transactions without using a third party, such as a bank.

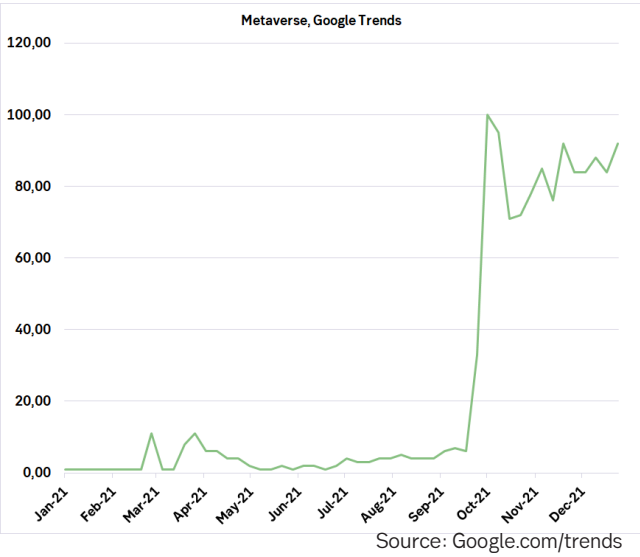
This development will also force companies to change their business strategies in order to be relevant online, which will affect communication between employees and the way they work in companies and other organisations. Just as the mobile internet and apps have affected how we interact today, the next step may significantly change the way we structure our work and leisure.

One industry at the forefront in developing the 3D virtual world is video gaming, a sector in which many Swedish companies have a strong position and may benefit from a digital future in which the physical world is integrated with the 3D virtual world – the metaverse.

**The metaverse – hype or major force for the future?**

The metaverse concept was introduced by science fiction writer Neal Stephenson, who coined the term in his 1992 novel *Snow Crash*. In the book, the main character uses a successor to the internet, which is a virtual world populated by avatars controlled by users – a virtual world beyond our universe.

## Google searches for "metaverse" have risen sharply




Source: Google.com/trends

The above chart shows how interest in the search term "metaverse" on Google has changed since the start of 2021 according to Google Trends, with an index value of 100 being the peak of search interest.

When Mark Zuckerberg announced last October that his company, Facebook, would change its name to Meta, the number of Google searches for "metaverse" skyrocketed. We also saw some uptick earlier in 2021, when online video game giant Roblox gained a stock market listing. This company provides a platform of online and console-based computer games in a virtual world where users, mostly children, create their own games, communicate with each other and can make purchases for their avatar.

One frequent explanation of why the expansion of three-dimensional virtual platforms will have an impact on our leisure and work is that they create a more immersive experience for users. Technological advances and the capability of different platforms to communicate with one another will determine whether an internet with a 3D virtual world will be created, one that increasingly interacts with the real world. There will probably be a number of platforms that offer 3D virtual experiences.

**Digital twins**

Creating a 3D world online that is integrated with physical reality requires sensors that measure analogue reality. With the help of VR and AR cameras, data can be translated via wireless and fibre networks, software and cloud services into 3D images and experiences.

Individuals can create a digital twin, their avatar, who interacts with others in 3D worlds. This digital experience can supplement or enhance the physical world.

These advances will also affect the way companies and other organisations work. Three-dimensional images can facilitate meetings, planning, collaboration and development through shared networks. As a result, companies can distribute, develop, simulate and test image-based information in real time wherever people are in the world. Work can also be carried out in parallel and not sequentially, which can increase productivity. Two examples of applications are simulating properties and cities before they are completed and developing new aircraft and other complex systems without the need for drawings. Such images can also be used in military operations, for training in a 3D world that corresponds to the mission location.

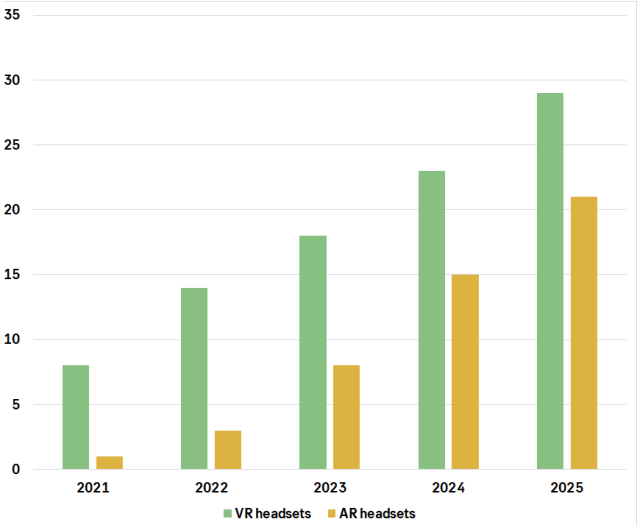
The Swedish telecom giant Ericsson has a broad portfolio of patents in the field known as the Internet of Things or IoT. Its two latest acquisitions, US-based companies Cradlepoint and Vonage, are part of its strategy to grow in the B2B market in order to support operators with services and develop integrated solutions in networks and communication. The company has not yet included the metaverse in its official strategy, but it is quite clear that Ericsson is working with 5G digital twin technology and AR to connect the physical to the digital world.

**Virtual and augmented reality**

The use of VR headsets and experience-enhancing AR headsets is expected to increase sharply as the metaverse develops. Oculus, a subsidiary of Meta (formerly Facebook), is the clear market leader in portable VR and AR devices.

According to International Data Corporation, 8 million VR and 1 million AR headsets were expected to be delivered in 2021. These numbers are expected to multiply in the years ahead. Apple, Samsung, Microsoft and Google also have ambitions to expand in this field.

## Rapid growth in VR and AR headsets




Source: eMarketer/International Data Corporation

The above chart shows the number of VR and AR headsets expected to be sold globally in the period 2021-25. A nearly threefold increase in VR headsets and an increase of about 2,000 per cent in AR headsets are expected in 2025 compared to 2021.

In mid-2021, the CEO of Unity Software and former head of Electronic Arts, John Riccitiello, predicted that AR and VR headsets will be as common in 2030 as game consoles are today. Unity develops software for hardware platforms and should have good insight into future launch plans.

**Investments and endeavours related to the metaverse**

When it released its third quarter 2021 earnings report, Meta announced that it would start publishing figures for its AR/VR operations under a separate unit, Facebook Reality Lab. This is because the company intends to invest significant resources in AR and VR products and services, which it believes is an important step for the next generation of online social experiences. This includes investments in hardware, software and content. These operations are expected to have a negative effect on the company's total earnings of USD 10 billion annually, which can be compared to Meta's quarterly operating profit of USD 10-12 billion. Obviously investments in the metaverse are important to the company. Meta/Facebook has also lured more than 100 engineers from AR competitor Microsoft in its drive to be at the cutting edge of this trend.

According to the investment bank Goldman Sachs, global investments in these technologies and systems may total between USD 100 billion and 1.3 trillion annually in the years ahead – including development, testing and technology integration as well as hardware and software for AR, VR and blockchains. As the wide range of this forecast suggests, these are rough estimates that are subject to great uncertainty, since not all companies have announced their strategies.

**Web 3.0**

The internet has evolved from initially being used mostly on desktop computers at home or in workplaces to increasingly being used today on people's mobile phones or other mobile devices anywhere in the world. This trend has also entailed a shift from local software and data processing to subscriptions for cloud services that provide continuously updated software and storage potential. Mobile internet and the development of apps have delivered large economies of scale to leading central platforms. Companies have grown with limited distribution costs. As the number of customer transactions rises with the expansion of new products or services, economies of scale and limited cost increases will benefit companies such as Facebook/Meta, Apple and Google.

Web 3.0 is the next step in the development of the internet – a 3D virtual world that includes the metaverse and features transactions carried out through blockchains. With blockchain technology, there is no need for a third party to verify a transaction. This can create a more decentralised internet with new platforms that anyone can participate in. It provides a structure featuring increased direct contact between creators, brands and end customers, without the need for intermediaries.

**Blockchains and NFTs**

The term blockchain refers to a distributed ledger or decentralised database that is stored in multiple copies, a so-called peer-to-peer network. Each event is stored by adding a block of data to the ledger. The technology can be used to register changes in ownership and creates the potential to register, certify and prove who owns an individual asset. Payment can be made using various cryptocurrencies, but also existing currencies.

Blockchains reduce the need for central players such as government authorities, financial institutions and major commercial platforms to ensure secure, reliable trading in goods. That is one reason why the development of the internet is expected to be increasingly decentralised.

Digital assets are made unique through blockchain technology, which creates opportunities for trading and ownership rights. Although a digital good can be copied any number of times, the chain of transactions proves who owns the original digital asset. Such an asset is called a non-fungible token (NFT) and is a digital certificate for a good that cannot be exchanged. Revenue from digital products for big brand companies today represents a very small share of the market. However, interest is starting to grow, and strong brands are launching new collections and products – both physical and digital – simultaneously. Network effects can generate broader interest in these collections as well as a stronger brand. Creators of art works and other attractive assets can also expand their market.

Strong brands can benefit from the advances on the internet. Even today, many companies – such as sportswear manufacturers Puma and Nike – generate an ever larger proportion of sales through their own websites. With fewer intermediaries, revenue and gross margin both increase even if volumes do not grow. Nike has acquired companies that build virtual products, not only to increase revenue but also enhance their brand among consumers who participate in the virtual world. Fashion giant Ralph Lauren is partnering with Roblox, an online video game and social media platform, to enhance its brand and create new revenue streams. Just as in the physical world, owners of digital goods may believe they derive a benefit from the asset, but interest can also be based on expectations that the asset may rise in value and generate a financial return.

**The gaming industry has a big lead in the metaverse**

Gaming has created groups of users whose participation also creates purpose and meaning apart from their actual gaming. The virtual world has been around for a number of years in gaming, which in recent years has seen an increase in VR use as the hardware has improved. AR has also become more popular, with Pokémon GO – released by US-based Niantic – opening the gaming world's eyes to the combination of physical and digital reality. Two companies at the forefront of this field are Roblox and Epic Games, the developer of Fortnite. They have taken giant steps with their virtual worlds, which attract millions of daily users. Computer game platforms can also provide other 3D experiences besides games, for example music concerts.

There is a continued high level of merger and acquisition activity in the gaming sector, with two major acquisitions recently announced. Take-Two Interactive has offered to pay Zynga shareholders USD 12.7 billion for the company, while Microsoft has presented an offer for Activision Blizzard valued at USD 69 billion. For Take-Two, one reason for buying Zynga is to strengthen its position in mobile gaming, the fastest growing segment in the interactive entertainment industry. Microsoft will also strengthen its position in the mobile gaming market through its acquisition of Activision Blizzard (if it goes through). Microsoft also states that the acquisition is a good fit with its strategy of integrating cloud services and content and will bring together people with similar interests. This will create a network effect by broadening these games and should also increase the number of customers who use Microsoft's game services, in turn attracting more developers and more users. The company also indicates that this is one building block of its metaverse strategy. Microsoft says that gaming has created groups of users where participation in the group also has a purpose other than gaming. The metaverse is another step in connecting these groups. Microsoft estimates that the number of users of console, computer and mobile games – and increasingly games via cloud services – will grow from 3 billion today to 4.5 billion by 2030.

Among Swedish game developers, a somewhat smaller company called Beyond Frames stands out as a potential acquisition candidate for metaverse creators. The company develops games for VR and AR and had its media breakthrough when Mark Zuckerberg used its game Down the Rabbit Hole to make a demo for Meta's VR headset Oculus Quest 2. This caused Beyond Frames' share price to surge.

At the larger Swedish listed companies Embracer, Paradox Interactive and Stillfront, plans and investments for the metaverse are less clear, as are their efforts to integrate titles and games. When Embracer released its latest quarterly report, a game from its Vertigo Games studio was mentioned as being a true metaverse title. This may be a hint that Embracer is keeping its eyes on this trend and trying to find studios and titles that can ride the metaverse wave. However, this was the only time the word was mentioned before a question about the metaverse was asked by the audience. CEO Lars Wingefors was also clear that the company is investing primarily in content and titles that populate the metaverse rather than in actually creating the platform.

We can only speculate about how Paradox Interactive and Stillfront will approach the metaverse, but they are also two video game publishers that currently have no titles or game developers focusing on VR or AR development. For Paradox, young people who use Roblox's platform or play Fortnite today do not belong to the company's target group, which most likely means the company has not yet focused on the metaverse phenomenon. Today Stillfront has a broad range of mobile games in different genres. If its target group crosses over to metaverse platforms, its game developers and future investments can probably be expected to shift to these platforms.

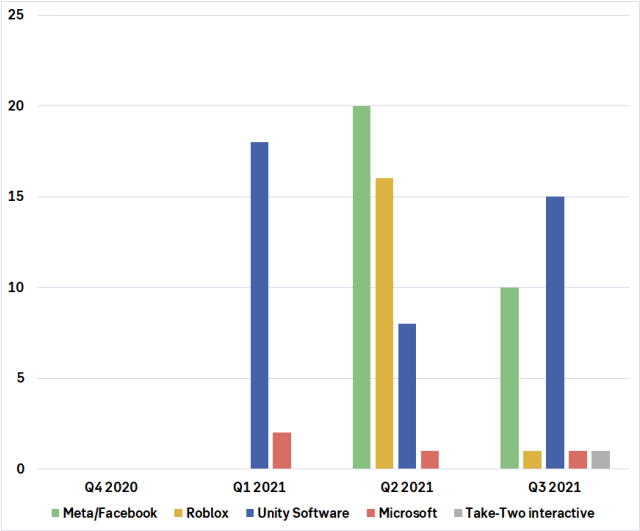
**Summary**

How we communicate and use the internet is continuously evolving. Technological advances and standardisation of communication, software and hardware will create changes. Online communication has shifted from text to images and videos. One expectation is that this will increasingly include 3D virtual experiences that supplement reality. Another factor impacting the internet is the development of such technologies as blockchain. This will create opportunities for individuals and companies, but will also require a change in company strategies. It remains to be seen whether the metaverse is a development that will take place on most platforms or whether it will create an entirely new infrastructure. The interoperability of various systems and platforms may determine how the metaverse develops. Whether the internet will become more decentralised, or whether major platform companies will continue to dominate it, is a question whose answer will become more apparent in the years ahead.

Video game companies are working at the forefront of virtual 3D experiences. They use their platform of members to offer game-related adventures. A consolidation through mergers is under way in the industry, with mid-sized companies acquiring smaller ones and market leaders aiming to further strengthen their position mostly in mobile gaming. Along with economies of scale, increased content, interactivity and the

creation of immersive experiences are buzzwords for these companies. To get some idea of which US companies have an exposure to the metaverse concept, we examined how many times the word was used in conjunction with the release of their quarterly earnings reports for the period Q4 2020 to Q3 2021. The company that was the earliest to use the word and mentioned it most often is San Francisco-based Unity Software. Roblox and Meta/Facebook also rank at the top of the list, which probably means that the metaverse is a large element of their strategy.

## Metaverse: an increasingly popular word among companies




Source: Bloomberg

The above chart shows how many times the word "metaverse" was used by business leaders in their quarterly earnings report presentations for the period Q4 2020 to Q3 2021.

## Theme: Emission rights

### In 2022 the price will finally make a difference

Since 2005 the EU has had a trading system for emission rights. Its purpose is to reduce greenhouse gas emissions, and it sets an emissions cap linked to the climate goals in the Paris Agreement. During 2021 the price of emission rights rose by more than 165 per cent, and we believe 2022 will be the first year that the price level of emission rights will begin to have a significant impact on industry.

Since 2005 the European Union has had a trading system for the emission rights known as European Union Allowances (EUAs). This European Union Emissions Trading Scheme (ETS) aims to reduce greenhouse gas emissions from factories and power plants. According to the Swedish Society for Nature Conservation, the factories and power plants included in the system together account for about 40 per cent of total EU carbon dioxide emissions. The ETS is based on setting an emission ceiling (or cap) linked to the climate goals stated in the 2015 Paris Agreement. For 2021, the emission cap was set at 1.5 billion tonnes. It will be lowered gradually in order to reduce emissions. The approved emission cap will then be divided among those included in the system, using EUAs. Each allowance confers the right to emit one tonne of carbon dioxide (or the equivalent amount of certain other greenhouse gases). EUAs can either be allocated for free or bought via an auction procedure.

During 2021 the price of one EUA rose from EUR 30 to EUR 80/tonne, or by more than 165 per cent. We expect an average price of EUR 100/tonne during 2022-2023 as the total emission cap is lowered. In addition to EUA price increases, steps will be taken in such areas as energy efficiency and renewable energy sources, all with the aim of reducing greenhouse gas emissions. Measures to improve energy efficiency are not always easy to identify, while investments in renewable sources – such as solar and wind power – are easier to see and evaluate. Solar energy systems can be installed quickly, whereas wind power systems require longer lead times. We believe that the European Union and the United Kingdom will need to triple the number of renewable energy facilities and that higher EUA prices will accelerate and facilitate this expansion, which is part of their purpose.

**A lost decade, with largely irrelevant EUA prices**

An artificial market system will always have shortcomings. When it was launched in 2005, the ETS began a three-year test phase for emission rights, with the aim of eliminating all shortcomings, but this proved impossible. The so-called Kyoto Period (countries that signed the 1997 Kyoto Protocol committed themselves to reducing greenhouse gas emissions by 5 per cent during 2008-2012 compared to 1990 levels) began in 2008. The price of emission rights was EUR 25/tonne during the first half of 2008. Then the global financial crisis struck. European industrial activity came to a virtual halt, and emissions fell sharply. But the issuance of EUAs continued without interruption, leading to a surplus equivalent to more than one year of emissions. Since there was no mechanism in the system for regulating this surplus, it lingered for several years. EU governments were busy dealing with the ongoing debt crisis. The price of one EUA averaged EUR 9.3/tonne for nearly a decade, from 2009 to 2018. It averaged only EUR 5.8/tonne in 2017. Because of these low prices, emission rights were of very limited relevance.

**A failure that had to be fixed twice**

The surplus of emission rights and their very low price were of course a failure for EU political leaders, who were well aware that the market was not working as intended. In 2014, "back loading" was thus implemented in an attempt to allocate the surplus over time. This did not have the desired effect either. The EU thus designed the Market Stability Reserve (MSR), which turned out to be a much better solution and had a major impact. MSR is a rules-based system that adds or subtracts emission rights to the market according to a mathematical calculation of the balance between supply and demand. MSR was launched in 2019 and the EUA price began to rise. The lost decade was over.

**Well-timed and urgent – the Green Deal**

Late in 2019 the European Commission adopted the European Green Deal, with the ambition that the EU would be carbon neutral by 2050, and including an intermediate goal of cutting emissions 55 per cent by 2030 compared to 1990. One important driver behind this ambition is that fulfilling it is now both financially feasible and technically possible. The price of sustainable energy production has fallen sharply, and it is now also possible to electrify the important transport sector.

More and more signs of urgency, especially all the worrisome reports about global warming, are other important factors. This is illustrated by the increased emission-lowering ambitions presented at last autumn's COP26 climate conference in Glasgow. These factors are probably also important drivers behind China's decision less than a year after the EU Green Deal to announce its own goal of emission neutrality by 2060.

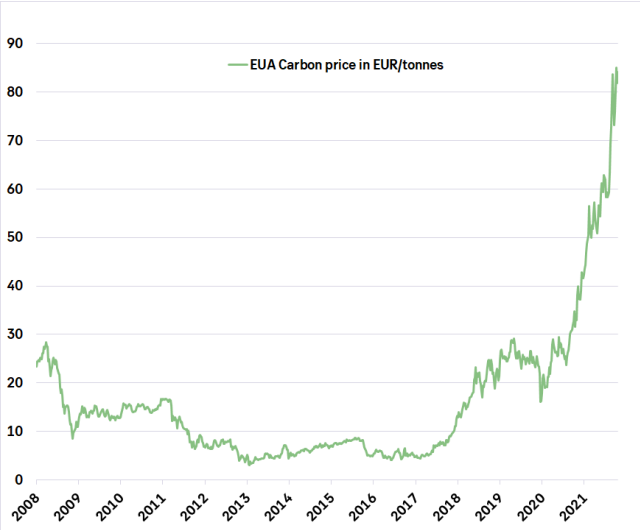
**An extreme price increase**

Last year saw an extreme increase in the price of emission rights – more than 165 per cent, from EUR 30 to EUR 80/tonne. The most important explanation was the tightening effect created by the MSR mechanism. Another key factor was significant inflows of capital from investment funds, and especially the surge in European natural gas prices, which helped to accelerate the upturn in the EUA price.

Natural gas is a far cleaner fossil fuel than coal, which emits 2-3 times as much carbon dioxide per unit of energy produced. The purpose of emission rights is to ensure that the cleanest alternative is also the most cost-competitive. The total cost of fuel is affected both by the cost of fuel commodities (such as coal or natural gas) and the cost of emissions, which is affected by the cost of EUAs and the degree of emissions per unit of energy produced. When pricing of fuels such as natural gas and coal reverts to more normal levels, more carbon-intensive coal will be less economical, since the cost of EUAs will be higher. When the price of cleaner alternatives like natural gas soars, the use of coal becomes relatively more attractive – contrary to the purpose of EUAs. The price of an EUA must therefore be raised in order to restore the relative economic advantage of natural gas.

At present, natural gas prices are very high. Although they will probably remain high during 2022, they will eventually fall back to more normal levels. There is also a risk that the short-term EUA price will fall, though temporarily. The battle between coal and natural gas will not be the main price-setter for emission rights over the next few years. The biggest impact will undoubtedly come from the yearly lowering of the emission cap, pushing up the price of EUAs and eventually forcing everyone to reduce emissions, but a price struggle in the energy sector is far from sufficient to achieve emission targets.

## The EUA price has surged in recent years




Source: Macrobond

Because the price of emission rights (EUAs) was low for many years, there was little pressure on factories and other EUA users. As the EU has imposed relatively aggressive reductions in its emission cap – in keeping with its ambitious timetable – EUA prices have soared in the past couple of years. Eventually this trend will force emission-intensive energy users to make the desired transition to greater sustainability.

### 2022 – the year when EUA prices will have an impact

Last year the price of emission rights reached a whole new level, and 2022 will be the first year when the price level begins to work as the "invisible hand" of the carbon dioxide market and have a significant impact on emissions. Within the EU, the price of emission rights affects all major industrial activities, as well as the energy sector. More than 40 per cent of all emissions in the EU are covered. Generally speaking, the actions taken this year will probably include improving energy efficiency, restructuring industrial processes and accelerating the expansion of renewable energy supplies. Measures to improve energy efficiency may be both large and small, with varying lead times. Industrial processes take a long time to change, with typical lead times of 5-10 years. What we will most likely see is an accelerating pace of renewable energy development projects.

### The EU's ambitious energy transition

The EU's energy transition is all about electrifying the energy system away from fossil-fuel energy sources, or in some cases using fossil energy in combination with carbon capture and storage. Current and expected electricity consumption in the EU and the UK points to large future power generation needs. At present, most electricity is generated using fossil energy sources, which will gradually be phased out and replaced by renewable sources. A rough estimate indicates that the EU and the UK need to build new non-emitting power plants that can supply 6,700 TWh of electricity yearly by 2050. This represents more than a tripling of today's production and means investing in new plants with a price tag of about EUR 1 billion per year, equivalent to 1.5-2 per cent of GDP. Annual renewable energy production growth in the EU and the UK during 2018-20 was about 70 TWh/year and looks set to total about 85 TWh/year by 2025. This growth rate must be tripled in order for the region to achieve its zero emission target by 2050. Whether it will triple remains to be seen, but our assessment is that we will see much stronger renewable energy expansion in the coming years both in the EU and the UK. The EU is laying the groundwork for a dramatic expansion of sustainable energy.

Replacing all the fossil fuel-based energy being used today in all parts of the economy with renewable energy is the key to the energy transition plan. One challenge of renewable energy was previously its high production cost, combined with the relatively low market price of energy – that is, high production costs and low compensation.

The cost of producing solar energy, for example, has fallen sharply in recent years worldwide and is expected to continue falling. In the EU, this cost declined to EUR 36/MWh last year and is expected to fall to EUR 23/MWh by 2030. Meanwhile the average energy price has climbed from EUR 39/MWh in Germany during 2009-2018 to the current EUR 170/MWh, largely due to extremely high natural gas prices. When these prices normalise, probably within a year or two, the price of energy will fall to the EUR 70-100/MWh range, but it will still be well above the historical average.

Because the cost of production has fallen and compensation has risen, solar energy plants on an industrial scale have become highly profitable. There will thus probably be very strong growth in solar energy installations in the future. The same applies to wind power.

### What is a reasonable cost for carbon dioxide emissions?

There are various ways to make theoretical estimates of what carbon dioxide emissions actually cost today, based on a forecast of their future impact and costs. Classical economic theory dictates that if an economic activity has a negative external impact, the solution is to tax that activity in proportion to the damage it causes. What will be the cost in the year 2100 of the damage caused by emitting one tonne of carbon dioxide today? If we assume that USD 500/tonne is a fair estimate, we can establish a present value of that cost. The present value that we calculate will depend on what interest rate we assume during the intervening period. Because of falling real interest rates (interest rates minus inflation) during the past decade, this theoretical value – which ended up at around USD 50/tonne a number of years ago, is instead now at USD 100-200/tonne, based on a real interest rate of 1.25-2 per cent.

Another way to estimate the value is to calculate the cost of the energy transition, compared to the emissions. According to our estimates, the cost turns out to be EUR 250 billion per year – or a total of EUR 7 trillion – to enable the EU and the UK to reach net zero emissions by 2050. If their emissions decrease linearly from today's level to zero in 2050, the sum of emissions will be around 50 billion tonnes. Dividing EUR 7 trillion by 50 billion, we end up with a cost of EUR 140/tonne. If we should

choose, for example, to impose this amount as a carbon tax on all emissions, it would cover the costs of achieving net zero emissions. This would provide an indication of the theoretical value of EUAs.

The EU's tougher emission targets call for a 50 per cent reduction in carbon dioxide emissions by 2030 for the affected sectors, or an annual reduction of 7 per cent. Although this plan is sensible in theory, it will be problematic in reality. It calls for a rapid rate of emission reduction, and most industrial emission reductions require very long lead times. As the coercive mechanism in the Emissions Trading Scheme reduces the issuance of emission rights, this suggests that demand will increase and the EUA price will thus rise.

The purpose of EUAs is to ensure that emission reduction measures are profitable and are thus implemented, but also to ensure that clean alternatives make more financial sense than dirty ones. Today the EU economy is 80 per cent fossil fuel-based. Because the EU's political ambition is to achieve a rapid energy transition, emission rights will be a vital element of efforts to drive change in the right direction and at the right speed.

There are a number of uncertainties about the future price of EUAs, since they are affected by political decisions as well as turbulent energy prices and largely unpredictable demand. Several factors – ranging from strong political pressure to falling supply due to the coercive ETS mechanism and heavy demand due to long lead times for replacement investments – thus suggest that the price of emission rights will rise over time. Most forecasters foresee higher EUA prices ahead. Our assessment is that a level of at least EUR 100/tonne during the coming year is not only reasonable, but can serve as something of a cautious forecast.

# International overview

*Excerpt from the Nordic Outlook research report. For the full report, see seb.se/nordicoutlookreport.*

## Recovery faces threats from virus spread and inflation

The recovery is being challenged by high inflation, rapid virus spread and mounting geopolitical risks. Central banks are speeding up their rate hikes and the Fed's plans to trim its balance sheet are shaking up stock and fixed income markets. But there is increased hope of improvements once the latest COVID-19 wave has passed. Growth will regain momentum as supply side disturbances ease and inflation gradually falls. Large household savings buffers also suggest rising consumption when restrictions ease.

Uncertainty about the forecasting environment has recently intensified, for a number of reasons. The geopolitical situation has become increasingly tense and central banks are under pressure from inflation, which has again surprised on the upside, while the rapid spread of the Omicron variant means that the pandemic is retaining its grip on society. Although most countries are trying to design restrictions that are gentle to the economy, GDP growth will inevitably slow in the near term. Official and self-imposed restrictions are inhibiting demand, while the spread of COVID-19 is now so pervasive that absences due to illness are also hurting the supply side. Absences lower potential production and create other problems such as reduced health care capacity. They also help prolong inflationary bottleneck problems in various fields, especially transport.

**Increased hopes of improvements on the horizon**

But at the same time, there are also positive aspects to the tsunami-like spread of Omicron. There are increasingly clear signs that its symptoms are milder. Once the wave has passed, we may be in a more favourable situation relatively soon. Hopes of greater natural immunity, a high vaccination level and access to new vaccines and drugs which greatly alleviate the symptoms of COVID-19 have led normally cautious health organisations to talk about an end to the pandemic as early as mid-2022. Our GDP growth forecasts remain relatively stable, despite the changed playing field. Higher energy prices, which undermine household purchasing power, and the effects of the Omicron wave early this year are contributing to a downward adjustment in our 2022 GDP growth forecast by about a quarter of a percentage point – both for the global economy and the mainly affluent OECD countries – but for 2023 we have made a marginal upward adjustment of a tenth of a point, due to higher growth in emerging market (EM) economies. At the same time, the inflation surge contrasts with the stability of GDP growth. We have again raised our inflation forecasts, including both higher peaks and more lengthy processes. Some of the theme articles in the February issue of *Nordic Outlook* analyse the energy market and its interaction with the general inflation environment, as well as how monetary policymakers will manage growing challenges. These articles are can be found in the full issue, which is available online at seb.se/nordicoutlookreport.

**GDP growth forecasts, per cent**

| Market | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| World | -3.3 | 5.8 | 4.1 | 3.6 |
| United States | -3.4 | 5.6 | 3.5 | 2.1 |
| China | 2.2 | 8.1 | 5.2 | 5.4 |
| Japan | -4.6 | 2.0 | 3.2 | 1.2 |
| Sweden | -2.9 | 4.9 | 3.0 | 2.7 |
| OECD | -4.6 | 5.2 | 3.7 | 2.4 |
| Euro area | -6.4 | 5.3 | 4.0 | 2.9 |
| Baltic countries | -1.7 | 5.6 | 3.8 | 3.4 |
| Emerging markets | -2.1 | 6.4 | 4.5 | 4.5 |

Source: SEB Nordic Outlook. The table shows forecasts of real economic growth in line with our main scenario.

Although inflation is likely to fall significantly late in 2022, it is clear that most central banks are now preparing to respond to perceived threats of a lasting decline in purchasing power and inflation expectations that lose touch with their targets. Unemployment in many countries has now also fallen close to pre-pandemic levels. Although labour market bottleneck problems are likely to ease as the effects of the pandemic fade, we are probably not very far from a situation of normal resource utilisation.

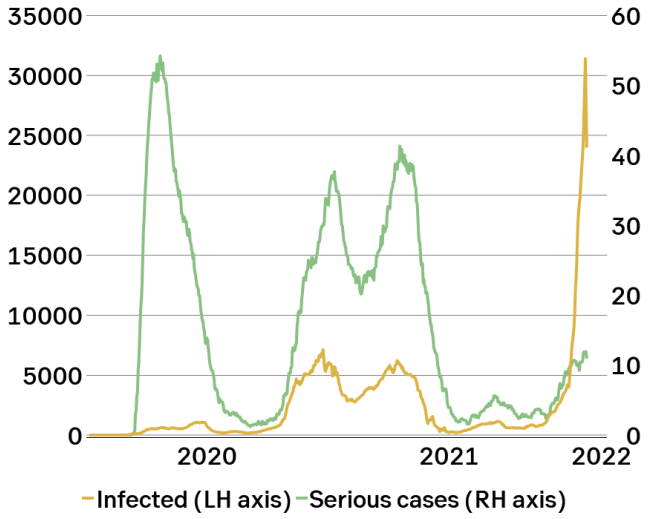
**Central banks are speeding up their policy normalisation**
Central banks are speeding up their policy normalisation, both with regard to their balance sheets and key interest rates. We have adjusted many of our key interest rate forecasts. In the United States, the Federal Reserve (Fed) is expected to begin hiking its key rate in March and then move in gradual steps towards a 2.00 per cent rate by the end of 2023. The central banks in the United Kingdom and Norway will also implement repeated rate hikes to levels close to that of the Fed. Late in 2023, we believe the European Central Bank (ECB) and Sweden's Riksbank will begin moving towards more normal key rates. We now expect a Swedish repo rate of 0.50 per cent by end-2023.

After largely treading water last autumn, long-term bond yields have risen clearly in early 2022 in response to expectations of faster rate hikes, especially by the Fed. The market seems focused on a relatively short hiking cycle. This has limited the upturn, but recently the prospect of Fed balance sheet reductions as soon as late 2022 has contributed to higher long-term yields. Our view is that long-term yields will slowly keep moving higher and that 10-year Treasury yields will reach 2.50 per cent by end- 2023. We expect the spread between US and German government bonds to be fairly constant at around 200 basis points. This implies that the German 10-year yield will climb to 0.50 per cent in 2023 due to reduced ECB bond-buying and an expected rate hike. Swedish and Norwegian long-term yields are expected to follow ECB yields upward, with relatively small changes in spreads.

**A strong dollar for another while**
So far, the dollar has not enjoyed much support from the Fed's more aggressive plans, but we now expect the EUR/USD exchange rate to fall to around 1.10 as short-term US interest rates start rising. Further ahead, however, we believe that weak US fundamentals – such as a negative net international position – will make themselves felt. In 2023, EUR/USD will climb above 1.20. The big difference in inflation environments is one reason why our long-term equilibrium estimate has increased to 1.25-1.28. The Swedish krona recently depreciated significantly as earlier favourable capital flows have dried up. Headwinds will intensify in the short term, and we expect the EUR/SEK rate to reach 10.50 this spring. After that, low valuations will prevail and we expect EUR/SEK of 9.70 by the end of 2023.

**Omicron wave has changed the playing field**
The explosive spread of Omicron is creating new challenges for forecasters as restrictions are reintroduced. Meanwhile it seems increasingly clear that Omicron is less severe than earlier COVID-19 strains. This follows previous patterns, with each new virus wave leading to milder illnesses and thus fewer deaths and a smaller health care burden (see chart). But the situation varies between continents; the difference compared to earlier variants, for example, still seems to be greater in Western Europe than in North America.

**New COVID-19 variants more contagious but milder**




Source: WHO, Macrobond, SEB

The chart shows that the Omicron variant leads to substantially milder illnesses at the aggregate level. The ratio between the number of people infected per week and the number of intensive care admissions per million inhabitants has now reversed, which is why restrictions are being eased.

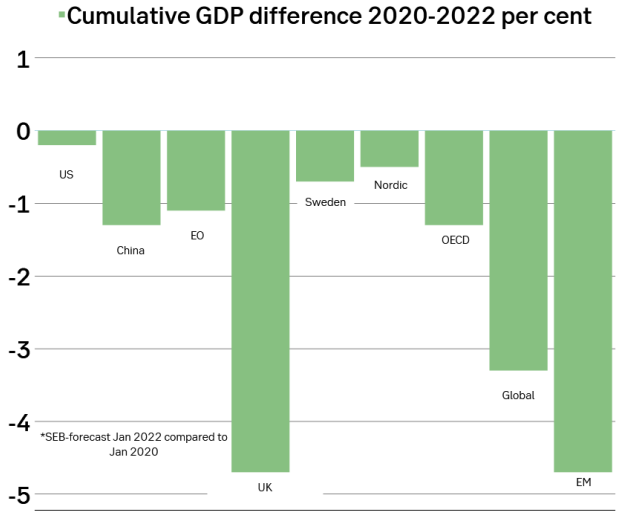
The nature of the Omicron wave has also rapidly changed the way the authorities are battling COVID-19. The variant spreads so fast that it is not meaningful to try to stop it by using previous strategies. For example, vaccine passports – which only a month or so ago were viewed as a vital tool for keeping society functioning – do not work as planned when the effectiveness of vaccines against Omicron is so weak. But in the short term, restrictions can be justified by the fact that they help reduce pressure on health care providers. Together with generally high absences due to illness, restrictions are one factor behind a slowdown in economic activity early in 2022. Once again, the service sector is hardest hit by social distancing and limited opening hours.

**The end of the pandemic is discernible on the horizon**
The experiences of countries that were hit early by Omicron, such as South Africa and the UK, indicate a very rapid peak and decline. The current wave in Europe seems likely to culminate within a few weeks. Although we cannot be certain that the trend towards milder virus variants will continue, previously cautious medical experts seem to be signalling that this is probable. In addition, the situation will improve due to increased natural immunity and access to new vaccines and other drugs that can mitigate the progression of COVID-19. In such an environment, it will be very hard for public authorities to justify and gain acceptance for sweeping restrictions in the future. We are already seeing restrictions being relaxed even in countries with continued large-scale virus transmission. In light of this, it is natural to base our main forecast on the assumption that the impact of COVID-19 on the economy will ease in the near future and that significant new disruptions to growth can be avoided in Europe and North America.

**Can China stick to its strict COVID policy?**
But there are still uncertainties in the longer term. On paper, China has abandoned its zero-tolerance policy and has instead shifted responsibility to local authorities, which are tasked with quickly – within a few weeks – limiting local COVID-19 outbreaks. The example of Xi'an illustrates the problems of this strategy. After authorities failed to quickly halt the virus, 13 million of the city's inhabitants were quarantined for several weeks. We see a risk of recurring lockdowns in various places, contributing to disruptions in global production and supply chains. The infection pattern of the Omicron variant elsewhere in the world raises the question of whether China will be forced to change its strategy more fundamentally.

**Slow recovery for the EM economies**
We expect emerging market (EM) economies to achieve GDP growth of 6.4 per cent in 2021, the highest since 2007. Partly due to the recent surge in COVID-19 transmission, we have lowered our 2022 EM forecast by 0.3 percentage points to 4.5 per cent. In 2023, GDP will continue growing at the same rate, which is also in line with the average since 1980. Given the major slowdown compared to the underlying 2020 trend, the recovery remains slower in EM economies than in more developed countries. Fewer opportunities to stimulate their economies, combined with lower vaccination rates, are important reasons. Big countries such as India and Brazil will play a major role in keeping the gap between actual growth and the pre-pandemic trend wide.

## Varying effects of the pandemic on GDP




Source: Macrobond, SEB

The chart shows the different between SEB's forecast of GDP growth in 2020-2022 compared to the corresponding forecast just before the outbreak of the pandemic. The emerging market (EM) countries lag well behind the mainly affluent 38-country Organisation for Economic Cooperation and Development (OECD), with the United States having largely reverted to its old growth trend.

**Higher global key rates pose challenges**
Higher energy prices and disruptions in global production and transport systems are also affecting EM economies. Although oil-producing countries benefit from high energy prices in terms of growth as well as government finances, the effect is not unequivocally positive. These countries also suffer when higher energy prices accelerate inflation, and many central banks have been forced to tighten monetary policy significantly. One key issue this year will be how the EM economies react to rising global key rates, especially US ones. If global inflation actually falls according to our main forecast and gradual US rate hikes do not interrupt the global recovery, we see good prospects of healthy risk appetite for EM financial assets. But one risk is that inflation will persist in the EM sphere, since higher prices – especially for food – often lead to compensation demands since household financial margins are much smaller than in richer economies.

## GDP growth, BRIC countries and EM sphere

| Year-on-year % change | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| China | 2.3 | 8.1 | 5.2 | 5.4 |
| India | -7.1 | 8.6 | 6.1 | 6.2 |
| Brazil | -3.9 | 4.8 | 0.9 | 2.2 |
| Russia | -2.7 | 4.3 | 2.8 | 2.0 |
| Emerging markets, total | -2.1 | 6.4 | 4.5 | 4.5 |

Source: SEB

**Risk outlook: Focus on inflation and geopolitics**
Downside risks in our forecast continue to be primarily connected to the inflation shock and failures related to central bank exit strategies. If we ended up with a clear wage-price spiral, central banks would have to tighten their policies and might cause plunging share and home prices. If they did not act, inflation expectations would instead soar and completely lose touch with inflation targets. Escalating security policy tensions between Russia and nearby European countries should also be weighed into our risk analysis – especially relations with Germany, the Nordics and the Baltics. At the same time, experience indicates that it takes an exceptional turn of events for this type of tensions to affect economic activity over an extended period.

## Various scenarios for the OECD countries

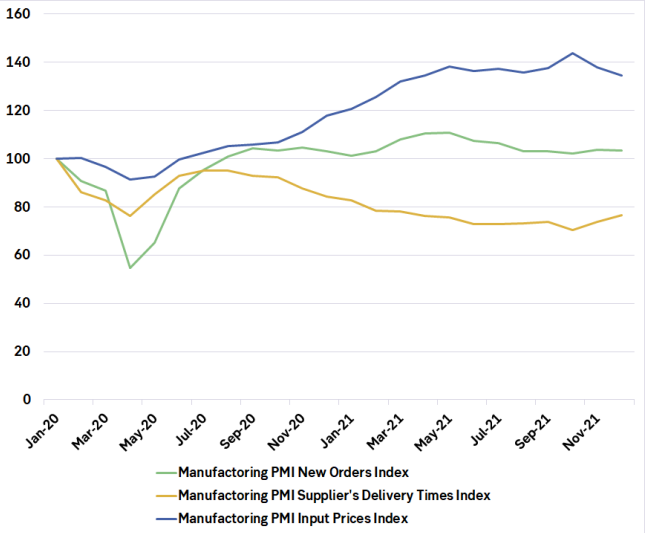
| GDP growth, per cent | 2021 | 2022 | 2023 |
|---|---|---|---|
| Main scenario | 5.2 | 3.7 | 2.4 |
| Negative scenario | | 1.4 | 1.8 |
| Positive scenario | | 5.0 | 3.0 |

Source: SEB

**Potential for high consumption if the pandemic eases**
A combination of pent-up consumption needs and large household savings buffers will create continued upside potential. To some extent, the dramatic Omicron wave has helped increase the likelihood of such a development. A robust increase in consumption may also lead to a positive spiral with broad-based capital spending, but the tighter labour market situation underscores the importance of a positive labour supply trend in the future. Also necessary will be a high level of investment activity that actually leads to clear improvements in productivity. Otherwise, a consumption boom would relatively quickly cause setbacks in the form of obvious overheating problems. We still believe that the downside risks dominate.

**Global value chains will slowly improve**
Goods-producing companies are still suffering from supply side bottlenecks, although there are some indications that they are easing. Shipping costs have fallen slightly but remain historically high. Key ports on the US west coast are now open 24 hours a day, reducing bottlenecks and queues in the flow of goods. China is also trying to keep its ports on the South China Sea open despite virus outbreaks and the threat of restrictions. Pressure should also ease as the world puts Christmas, New Year and Chinese New Year behind it.

## Early signs of recovery in global value chains



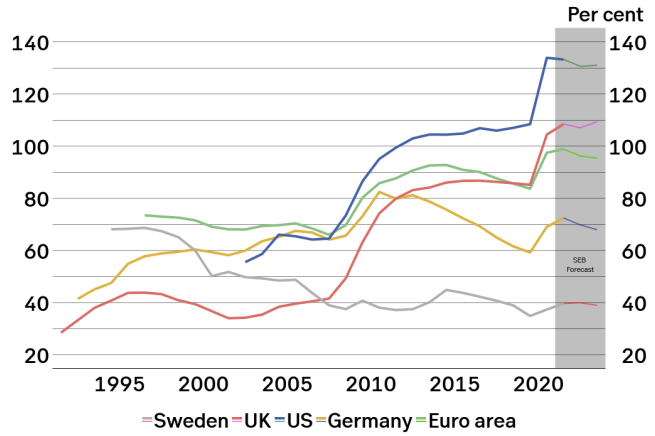

Source: IHS Markit, Macrobond, SEB

New indications of shorter delivery times and lower input prices may signify an improvement for over-extended value chains.

But the global logistics system risks new setbacks attributable to virus-related disruptions in China and other countries that may limit port capacity and lead to general labour shortages and export restrictions due to a deteriorating security policy situation. In addition, inventory levels around the world are low and there are still shortages of critical sub-components such as semiconductors. In order to lower shipping costs in the longer term, there is a need for a continued rotation towards more service consumption, as well as investments in infrastructure and digitisation of the transport sector. The theme article "Halts in production" in the November 2021 issue of *Nordic Outlook* described the serious situation in manufacturing. We are sticking to its conclusion that these problems will culminate during Q1 2022 and that the situation will then normalise during the second half.

**Phasing out fiscal generosity**
Following record-breaking fiscal stimulus measures early in the pandemic, recurring COVID-19 waves have resulted in new programmes being launched time after time. Today new measures are also being added to ease the impact of rising energy prices. Our calculations indicate that in the 38 OECD countries, the fiscal stimulus impulse – defined as the change in the cyclically adjusted budget balance – added up to 5 per cent of GDP in 2020 and 0.5 per cent in 2021. Public sector debt as a share of GDP rose sharply in 2020 but levelled off in 2021 as economies began to recover.

## Stabilisation at high levels




Source: IMF, Macrobond, SEB

Powerful stimulus measures in recent years have increased government debt levels, but they now look set to stabilise or fall slightly as a percentage of GDP, due to less expansionary fiscal policies and healthy economic growth.

Fiscal policy as a whole will inevitably tighten in 2022 and 2023 as pandemic relief measures are phased out. But meanwhile we are also seeing examples of various kinds of programmes to restart economies. They include both traditional demand stimulus and programmes that are structural in nature, some of them focusing on climate transition and digitisation. The European Union's Next Generation EU programme, which has begun its roll-out, will total 5-6 per cent of GDP. On paper it will be front-loaded, but funding will depend on how successful countries are with implementation. In the US, fiscal stimulus will decrease faster than expected. Last year's infrastructure package totalled over USD 1 trillion, but not all of this was new money, and the roll-out of such projects will be slow. President Joe Biden's Build Back Better (BBB) agenda has run into major problems and seems to have been stopped by internal conflicts within the Democratic Party. Although a smaller BBB package is still likely this year, net fiscal tightening will be greater than we previously expected. Meanwhile the Fumio Kishida government is continuing the Japanese tradition of broad stimulus packages. Overall, the OECD countries will carry out fiscal tightening equivalent to 2 per cent of GDP per year in 2022 and 2023. There are wide differences between countries, and it is logical that those which applied the greatest stimulus in 2020-2021 will now slam on the brakes hardest.

Swedish government finances continue to surprise on the upside. Recent proposals to compensate households for high energy costs are expected to be followed by further relief measures before the September 2022 election. In the long run, there is probably considerable scope to help sustain the recovery, given the budget surplus and public sector debt that is below the "debt anchor". Fiscal policy rules are also likely to be eased during the 2022-2026 parliamentary term.

## Fiscal stimulus impulse

Change in structural budget balance, per cent of GDP. Positive figures = stimulus effect, and vice versa

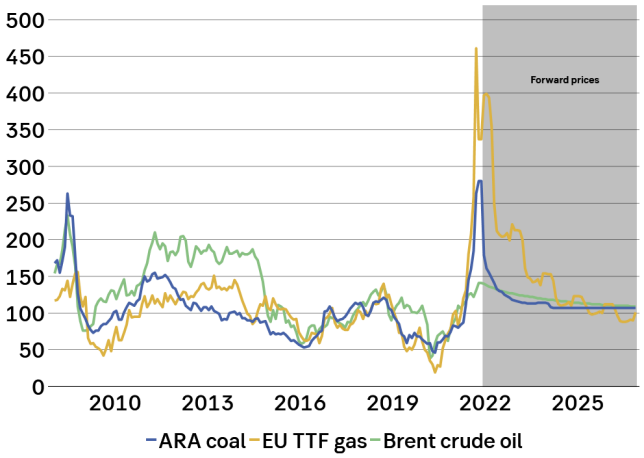
| Market | 2020 | 2021 | 2022 | 2023 | Total |
|---|---|---|---|---|---|
| United States | 6.5 | -1.0 | -3.0 | -1.0 | 1.5 |
| Japan | 4.5 | -2.0 | 1.5 | -2.5 | 1.5 |
| Euro area | 3.5 | 0.5 | -1.5 | -0.5 | 2.0 |
| United Kingdom | 6.0 | 1.5 | -4.0 | -2.5 | 1.0 |
| Sweden | 1.5 | 0.0 | -1.0 | 0.0 | 0.5 |
| OECD countries | 5.0 | 0.5 | -2.0 | -2.0 | 1.5 |

Source: Organisation for Economic Cooperation and Development (OECD), SEB

### A problematic energy transition

After earlier extreme movements – with coal three times dearer and natural gas five times dearer than normal levels – prices have fallen slightly. Yet it is clear that the road to normalisation is a long one. Energy prices remain important to our forecast environment. Although the market now indicates falling energy prices in 2022, we expect the price of natural gas to average EUR 40-60/MWh, which is two to three times higher than normal. Oil prices will also be high in the near term, occasionally above USD 90/barrel (Brent), and will then fall to USD 65-70 during the

## Coal, natural gas, crude oil vs normal




Source: Bloomberg, SEB

After extreme upturns in 2021, we are now seeing a trend towards falling prices for coal, natural gas and crude oil. But the decline will be slow, and average prices during 2022 will be far above the averages of recent years.

second half of 2022. This scenario assumes that the tense situation along the Russian-Ukrainian border will not escalate into an armed conflict. A Russian invasion might have almost incalculable consequences for energy prices.

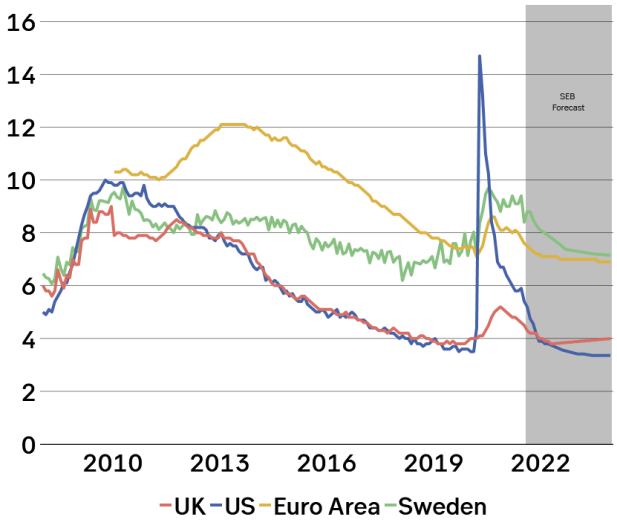
**Emission pricing is starting to bite**
The basic reason why energy prices remain inflated and volatile is that the global energy transition is a difficult balancing act. Fossil-free energy sources must be phased in at least as fast as fossil fuels are phased out, and such a balance has not been achieved today. When energy demand rose due to the rapid recovery, supply was not elastic enough. In 2021, the price of carbon dioxide emissions also rose from EUR 30 to EUR 80 per tonne, and in 2022 the average price is expected to be EUR 100/t. This will actually be the first time we reach levels that will have a real impact on the market. This development will accelerate the energy transition but put further upward pressure on prices in the near future.

**Weakened equilibrium mechanisms**
In the past, price increases have triggered new investments that have relatively quickly improved the balance in the energy market and normalised prices. During the current transition process, both financiers and fossil fuel producers are cautious. They are demanding even higher prices and shorter repayment periods before making fossil fuel investments. The main solution is to try to restore balance to the energy transition by means of both energy efficiency measures and rapid expansion of fossil-free energy sources. This applies especially to those European Union countries that today are totally dependent on imported energy, not least Russian gas.

**Early labour market bottlenecks**
Unemployment in many countries has already fallen close to pre-crisis levels, creating major headaches for both forecasters and economic policymakers. The US recorded a jobless rate of 3.9 per cent in December, compared to 3.5 per cent in late 2019. A historically large percentage of businesses with recruitment problems is exacerbating this situation. This is especially true in the euro area, where unemployment is already back at exactly its pre-pandemic level. In the euro area and Sweden wages and salaries have not reacted to the tight labour market situation, but in the US and UK pay increases have clearly accelerated. In the US this is happening even though the number of jobs is 3.6 million lower than before the pandemic. In the UK, Brexit is playing a major role since many sectors have long been dependent on labour from EU countries.

**Some disappointments related to labour supply**
We still have reasons to believe that bottleneck problems may ease when the pandemic loosens its grip. Labour force participation has a way to go before reaching pre-pandemic levels, which indicates that labour supply may increase as life becomes more normal. This is especially true if hopes that we will really discern a more definitive end to the pandemic are realised. As for the US, however, we have lowered our expectations because the expiration of federal unemployment benefits and the reopening of schools have not yet had a significant impact on labour supply. For example, rising wealth due to higher share and home prices may be one reason why older people who left the labour market are choosing not to return. Although there is some potential for both increased labour supply and a further decline in unemployment, our overall assessment is that we are close to normal resource utilisation in the labour market. This means future opportunities for above-trend GDP growth will mainly depend on improved productivity.

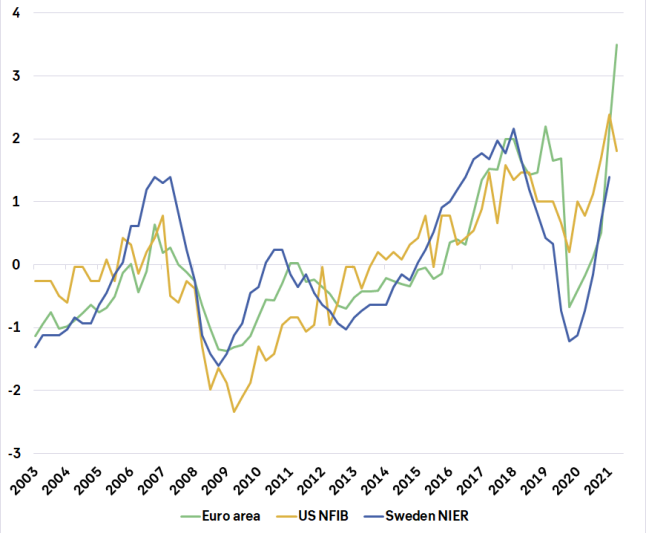
## Unemployment back at close to pre-pandemic levels




Source: Statistics Sweden, Eurostat, BLS, ONS, Macrobond, SEB

After rising early in the COVID-19 pandemic, unemployment has fallen surprisingly fast. This may lead to a risk of wage pressure that causes rising inflation.

## Widespread recruitment problems

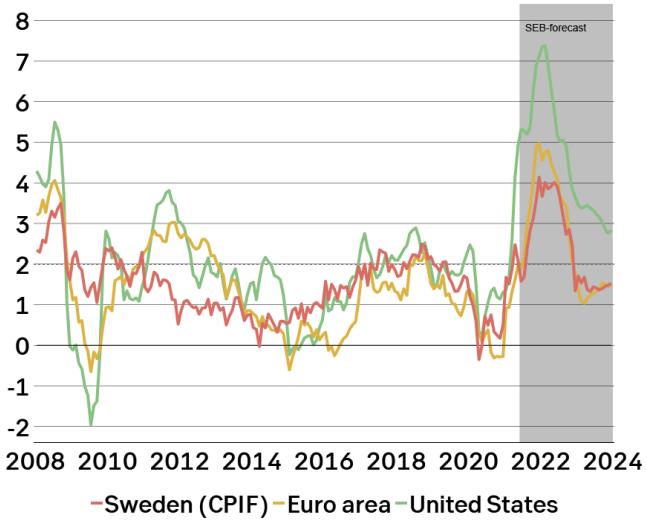



Source: Macrobond, SEB

Business surveys reveal rapidly growing problems in recruiting new employees with the right training. Aside from their impact on inflation, labour shortages lower economic growth potential, bringing us back to the situation that prevailed before the pandemic.

**Inflation is more persistent than expected**
Inflation has continued to surprise on the upside. This is mainly true of Europe – where CPI inflation is around 5 per cent in the euro area as well as in the UK and Norway and just over 4 per cent in Sweden. Energy prices are still the main driver, but we also see increasing secondary effects, especially in the US. With energy prices about to peak, headline inflation will start falling this spring, but rising international prices for processed goods will blunt the CPI decline. Some signs of easing related to shipping and production problems were discernible late in 2021, but the Omicron wave is likely to create new problems and China's COVID-19 policy will increase the risk of recurring disruptions.

## High inflation during most of 2022

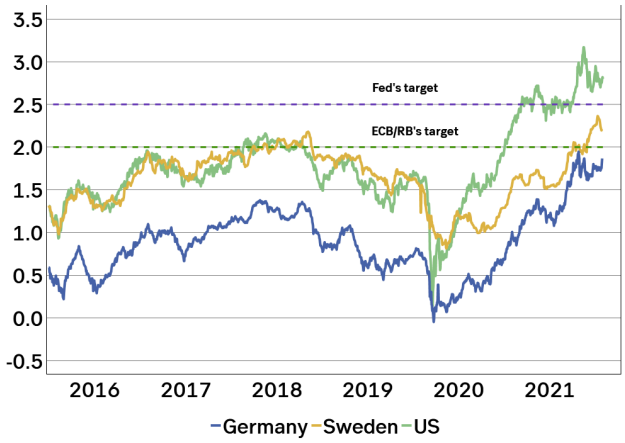



Source: Macrobond, SEB

In Europe, the unexpectedly sharp upturn in inflation is mainly being driven by soaring energy prices. In the United States, the upturn is more broad-based. Now that energy prices are expected to culminate while year-earlier figures become higher, inflation will fall. But it will remain high during 2022, especially in the US.

**Greater risks, but inflation will probably fall**
The inflation impulse will be both stronger and more persistent, and this will increase long-term risks as well. Average CPI for the second half of 2021 and the first half of 2022 is expected to be above 6 per cent in the US and nearly 4 per cent in the euro area. This will affect household purchasing power to the extent that inflation will not just be a problem for central banks. Incumbent governments will also run political risks in some countries. We still believe inflation will fall sharply by late 2022, mainly driven by base effects from energy prices. So far, the upturn in core inflation has been very moderate in both the euro area and Sweden. We expect to see clearer secondary effects in the future, but the overall impact on core inflation will probably be limited.

## Higher inflation expectations, but not alarmist




Source: Macrobond, SEB

Inflation expectations for the next five years have climbed sharply, driven by higher near-term inflation, but the upturn has recently levelled off.

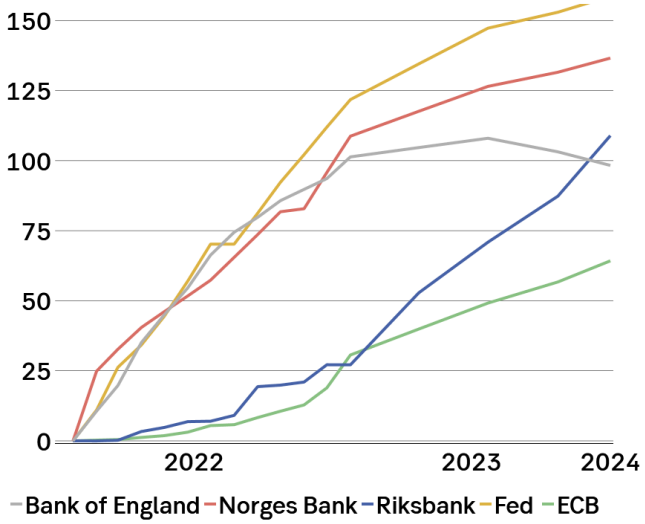
Long-term inflation expectations, and wage formation will determine medium-term inflation trends, but market pricing does not generally indicate any major inflation worries. Although expectations have shifted somewhat during the pandemic, they have been fairly stable in recent months in such key countries as the US and Germany. The above chart shows inflation expectations for the next five years; the average is driven up by high short-term inflation, but expectations a few years ahead are close to central bank targets.

**Moderate pay hikes in Germany and the Nordics**
Wage and salary growth is expected to remain higher in the US and the UK than in the euro area and the Nordic region during our forecast period. In the US, however, we expect upward pressure on wages to gradually ease as the pandemic loosens its grip, partly because unemployment benefits have returned to their normal low level, and as households spend part of the buffers built up during the pandemic. In the UK, pay hikes have slowed somewhat from a very rapid pace but are at levels that the Bank of England will likely consider troublingly high. In the euro area and the Nordic region, tighter labour markets will probably also put some upward pressure on wages and salaries. But future pay agreements in Germany and the Nordic countries are unlikely to be affected especially much by temporarily high inflation. We expect the next Swedish wage round, aimed at achieving collective bargaining contracts taking effect in spring 2023, to result in somewhat faster pay increases. But this will be more a matter of the Riksbank inflation target regaining its role as an anchor for negotiations, after a period marked by mistrust of the bank's ability to achieve its target.

**New monetary policy conditions**
High inflation and tighter labour markets have quickly forced central banks to change their monetary exit policy plans. It is now important to achieve smooth interaction between key rate hikes and various quantitative tightening (QT) programmes in order to avoid killing the recovery or causing asset prices to fall in ways that would jeopardise financial stability. Central banks need to get some idea of how expansionary their monetary policies actually are, and at what key rates and balance sheet levels these policies will be contractionary. For example, there is great uncertainty today about how interest-sensitive economies are and how quickly fiscal policymakers will shift in a contractionary direction. The Fed's rapid monetary shift and its thoughts on balance sheet policy, as well as the Bank of England's exit strategy, are expected to help guide other central banks as they move towards less expansionary policies (see the theme article "Monetary exit policy").

**A brief hiking cycle**
Market pricing indicates a relatively short hiking cycle, with key interest rates peaking at levels that are still low in real terms. One interpretation is that the interest rate sensitivity of the economy is perceived as so high that more overtly aggressive interest rate policies would probably lead to genuine economic setbacks. A somewhat different interpretation is that higher key interest rates will be both unnecessary and unlikely, given the market's rather relaxed long-term view of inflation.

**Front-loaded rate hike expectations**




Source: Macrobond, SEB

The market is expecting fairly rapid, large key interest rate hikes in the US, the UK and Norway, while the euro area and Sweden will lag behind. Monetary policy normalisation is welcome, as long as it does not have a major impact on economic growth.

**ECB and Riksbank will hike key rates in 2023**
Our forecast implies that the Fed will hike its key rate a little more than the market is currently pricing in. We expect four hikes this year and three in 2023 to a level of 2.00 per cent. The balance sheet will also be allowed to shrink starting next autumn, which will also put upward pressure on long-term bond yields of up to 15 basis points per year. The ECB wants to implement a smooth phase-out of its Pandemic Emergency Purchase Programme (PEPP) and will buy another EUR 500 billion worth of government securities in 2022, mainly to reduce the risk of wider yield spreads between euro area countries. The ECB will hike its refi rate once in the second half of 2023. Meanwhile the ECB will reinvest the proceeds of maturing securities. Its securities portfolio will thus remain basically unchanged during 2023. The Riksbank will hike its repo rate twice in 2023 – an exit policy preceded by reductions in its securities portfolio both this year and in 2023. Our forecasts for the ECB and Riksbank are more dovish than market expectations. Norges Bank will continue on its current path, hiking its key rate gradually to 1.75 per cent by the end of 2023. Our overall conclusion is that global monetary policy will begin to move in a gradually less expansionary direction only in Q2 2022.

**Central bank key interest rates, per cent**

| | Jan 20, 2022 | Jun 2022 | Dec 2022 | Dec 2023 |
|---|---|---|---|---|
| Federal Reserve (Fed) | 0.25 | 0.75 | 1.25 | 2.00 |
| ECB (refi rate) | 0.00 | 0.00 | 0.00 | 0.25 |
| Bank of England (BoE) | 0.10 | 0.75 | 1.00 | 1.50 |
| Riksbank (Sweden) | 0.00 | 0.00 | 0.00 | 0.50 |
| Norges Bank (Norway) | 0.50 | 1.00 | 1.50 | 1.75 |

Source: Central banks, SEB

# Contact information

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## Contributors to this issue of *Investment Outlook*


**Fredrik Öberg**
Chief Investment Officer
Asset Management
fredrik.oberg@seb.se

**Kai Svensson**
Portfolio Manager
Asset Management
kai.svensson@seb.se

**Johan Hagbarth**
Economist
Investments
johan.hagbarth@seb.se

**Bjarne Schieldrop**
Commodities Analyst
Trading Strategy
bjarne.schieldrop@seb.no

**Jonas Evaldsson**
Economist
Investments
jonas.evaldsson@seb.se

**Henrik Larsson**
Portfolio Manager
Asset Management
henrik.y.larsson@seb.se

**Stefan Cederberg**
Equity Analyst
Investments
stefan.cederberg@seb.se

**Esbjörn Lundevall**
Equity Analyst
Investments
esbjorn.lundevall@seb.se

**Sofia Magnér**
Investment Communication Manager
Investments
sofia.magner@seb.se

**Cecilia Kohonen**
Investment Communication Manager
Investments
cecilia.kohonen@seb.se





Investment Strategy
SEB
SE-106 40 Stockholm, Sweden