

# Investment Outlook



Positioning ahead of normalisation



SEPTEMBER 2021

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# Introduction

Welcome to this year's third *Investment Outlook*. So far, 2021 has offered many surprises. Among other things, we can be happy that the corporate sector has engineered a phenomenal earnings recovery, which is the main reason why stock market returns have been so strong. We have all longed for a more normal everyday life. With the help of COVID-19 vaccine rollouts, we will gradually see our wish fulfilled. This normalisation will continue and assume various forms. Central banks and governments are making plans for how they should act in the future, as we move from the recovery phase to a situation where all the extraordinary measures that have been put in place are no longer needed. Put simply, we are moving from the crisis and recovery phases towards an environment where the economic growth rate, earnings increases, interest rates, bond yields and asset valuations in the capital market must be adapted to a situation more similar to pre-pandemic conditions.

This summer, there has been a significant rotation in the stock market from cyclically driven and low-valued companies towards defensive, growth-oriented and so-called quality companies. This has been accompanied by falling long-term government bond yields and new stock market records. We are thus devoting much of this issue of *Investment Outlook* to presenting our views on issues such as:

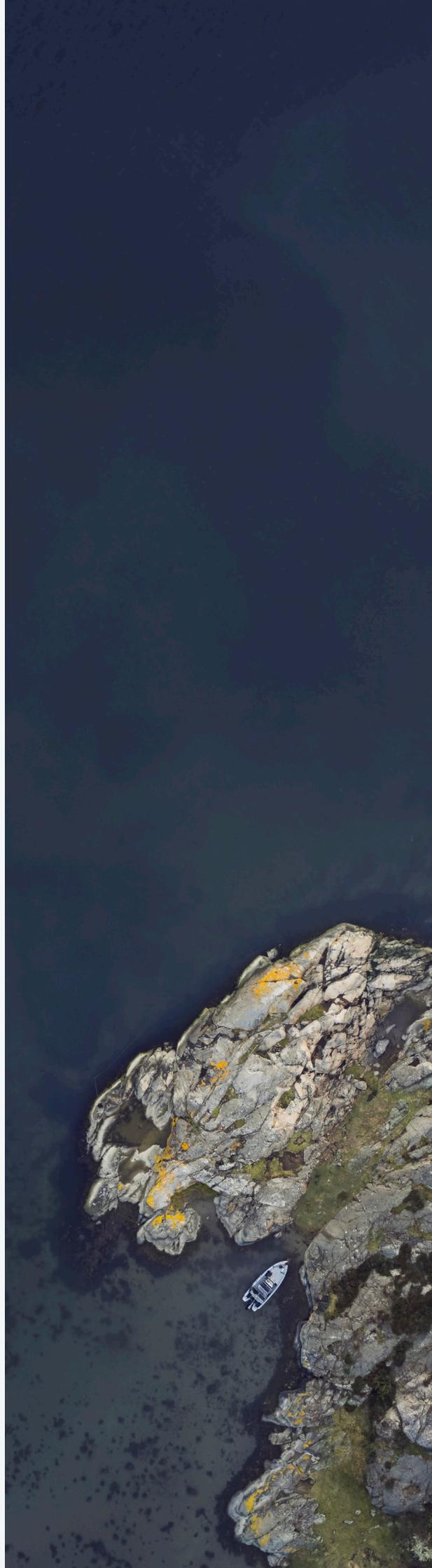
- How will economic growth and corporate earnings fare over the next couple of years?
- What will happen to the current high inflation rate, and what future interest rates and yields can we expect?
- How, and at what pace, do central banks plan to phase out their stimulus measures?
- Rising share prices and fixed income markets have driven up valuations and risk-taking among investors. What is a suitable portfolio structure, and how do we view risks and opportunities in each asset class?

We remain overweight in risk assets, which has paid off, but in August we implemented our first downward adjustment of risk. We simply chose to take some profits in our portfolios. However, the composition of our portfolios is still aggressive, and in this report we explain why.

As usual, it is also important to keep our eyes open and be receptive to long-term trends that are not linked to economic conditions. This issue includes three thought-provoking theme articles: "Green transition", "Where are yields headed?" and "From schoolbook to screen".

Wishing you enjoyable reading,

Fredrik Öberg, Chief Investment Officer  
Investment Strategy



# Market view, risk exposure and allocation

The capital market is adapting to new conditions as we move from the dramatic recovery phase to more normal growth and inflation, as well as expectations of a higher rate of corporate earnings increases than the long-term trend. We expect fiscal and monetary policy to move in the same direction, with stimulus measures slowly being dismantled. This will decrease market potential, but we still consider it positive. In this environment, we have chosen to reduce risk somewhat in our model portfolios.

The heading of our last issue of *Investment Outlook* (May 2021) was “Sunny stock markets – Storm clouds in sight”, and we wrote that to achieve the right allocation in the stock market, it has been important to follow inflation and yield trends. This association has continued to prevail, with one major surprise this summer being that 10-year government bond yields fell as much as they did. As a result of this fixed income market movement, stock market investments broadly shifted from cyclical and low-valued companies to highly valued “quality companies” in various sectors and to growth companies, and for the first time in years also to defensive companies – for example in the pharmaceutical sector.

This defensive movement occurred at the same time as we experienced another very strong quarterly report season, high inflation rates, strong economic growth and new stock exchange records. One question that naturally arises at this stage is whether investors are preparing for tougher times, or whether it is mainly a matter of consolidation and reallocation of their portfolios – the latter because we are leaving behind a

long period of enormous stimulus measures and extreme upward revisions of forecasts and are approaching a more stable situation: a normalisation.

## Growth rates and inflation will reach historically more normal levels

On our way out of the COVID-19 crisis, the economic picture will stabilise as we move from recovery to normalisation. The easing of restrictions has helped support growth in Europe, while US economic expansion looks set to decelerate more than expected as households face headwinds from fiscal policy changes and high inflation. According to our GDP forecast, the global economy will grow by 5.9 per cent this year in real terms and by 4.4 per cent in 2022, followed by slightly above-trend growth in 2023. The coronavirus continues to have an impact, but the risk picture is shifting more and more towards inflation issues, supply side constraints and central bank exit strategies. We expect the US Federal Reserve (Fed) to take the lead this autumn by announcing a reduction in its bond purchases, followed by an initial key interest rate hike in 2023. Healthy GDP growth, record-high sentiment indicators and continued stimulus measures suggest that the Swedish economy will be back at its historical growth trend by mid-2022.

A more detailed account of SEB's economic forecasts can be found in “International overview”, which is an excerpt from the *Nordic Outlook* research report that was published on August 31.

## Normalisation after record upturns in corporate earnings

Our Nordic and global equities sections examine both realised and expected corporate earnings trends. By way of summary, the last five quarterly report seasons have far exceeded market and analyst expectations. This is one very important reason behind the sharp upturns we have seen on the world's stock exchanges. At this writing, global corporate earnings in 2021 are expected to increase by 47 per cent. They are thus expected to end up around 20 per cent higher than 2019 earnings. After such a strong period, it is hardly surprising that the forecasts for the next two years end up in the 5-10 per cent range.

## GDP growth forecasts, per cent

Market	2020	2021	2022	2023
World	-3.4	5.9	4.4	3.4
United States	-3.4	6.0	4.2	2.1
China	2.3	8.6	5.6	5.4
Japan	-4.7	2.5	2.3	1.2
Sweden	-2.8	4.6	3.9	2.3
OECD	-4.7	5.1	4.0	2.3
Euro area	-6.4	4.6	4.3	2.5
Baltic countries	-2.1	4.8	4.3	3.4
Emerging markets	-2.2	6.5	4.8	4.3

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

These projections are in line with the corresponding forecasts for global economic growth. This means that earnings growth and GDP growth are expected to fall back to historically more normal levels. It also means that the extremely strong recovery in corporate margins will level out. If we also add the recovery in employment levels, it makes the efforts of governments, central banks, the corporate sector, the health care system, the research world and all the private individuals who have adapted to a very unusual, difficult situation look quite impressive.

**Valuations, positioning, risk appetite and central banks**

Forecasts of the global economic growth and the earnings generating power of the corporate sector do not provide all the information needed to decide how a portfolio should be structured. One way of presenting the conditions for risk-taking in the stock and corporate bond markets is through the following factor analysis:

**The global growth rate:** Very healthy level, but a downward pattern in 2022-2023.

**Inflation rate:** Defiantly high levels, with normalisation expected as early as 2022.

**Global earnings growth rate:** An enormous increase in 2021, while 2022 and 2023 are expected to be in line with the long-term trend (5-10 per cent yearly).

**Central banks and liquidity:** We are approaching the point when quantitative easing (QE) should slowly be dismantled. This implies a continued stimulative environment during our forecast period, but with diminishing strength. This is a process mainly connected to 2022, while planned cautious key interest rate hikes may begin to occur during 2023.

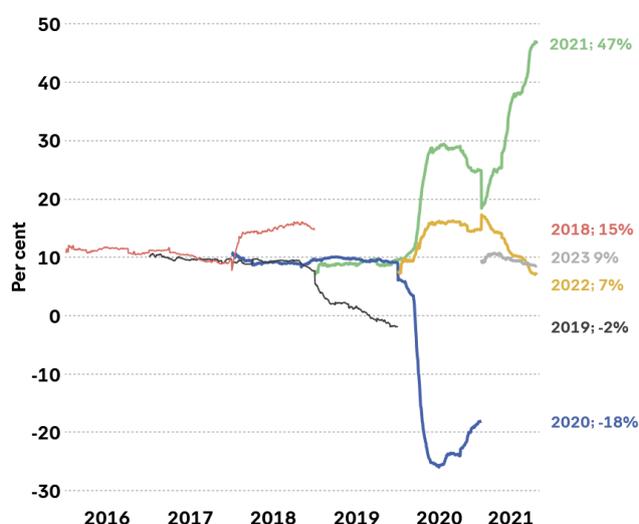
**Positioning/Risk appetite:** Inflows to both the stock market and the corporate bond market are expected to continue. Here it may be worth mentioning corporate share buy-backs. Risk appetite can now be summarised as follows: Investors have retained a high percentage of equities and corporate bonds in their portfolios, while recently choosing to reduce their risk connected to future cyclical downturns by increasing their defensive and growth-oriented holdings, plus “quality companies”. Overall risk appetite is lower than before the summer.

**Absolute valuations:** In a historical perspective, price to earnings (P/E) ratios of equities are high and yields on all types of bonds are low. This implies high prices, but the differences within each asset class are very wide. Over the past year, aggregate stock market pricing has slowly begun to fall from high levels. This means that forecast earnings have climbed faster than the stock market during the same period.

**Relative valuations:** If we compare equity valuations to risk-free interest rates, or if we use such methods as yields on outstanding corporate bonds compared to distributions by the same companies to shareholders, the picture looks more favourable. This so-called relative valuation level is especially resilient when the reference or alternative pays such low compensation that it practically becomes obsolete (TINA: There Is No Alternative). It is thus very important to have an overview of the long-term expected performance of government bond yields. This *Investment Outlook* includes a theme article on this topic entitled “Where are yields headed?”

The above chart clearly signals that we are moving from one phase to another, both in the real economy and capital market conditions. The strong recovery phase is beginning to fade and a more balanced situation is emerging. This phase can be described most simply with the word “normalisation” – a return to something more in line with the long-term historical trend.

**Earnings will keep increasing, despite their 2021 surge**



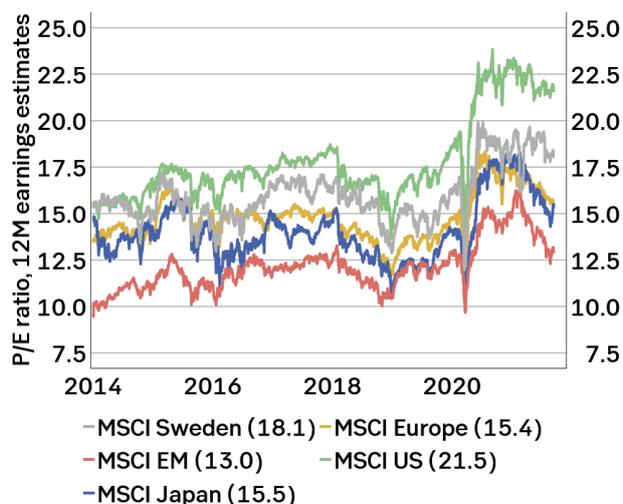
Source: Bloomberg

The chart shows how aggregate earnings estimates for the MSCI All Country World equity index have been adjusted over time. For example, forecasts for 2021 earnings started at around +18 per cent, then climbed constantly to the current +47 per cent. During 2022 and 2023, earnings are now expected to climb by 7 and 9 per cent, respectively.

In our view, we are not facing a recession. Instead we will have at least a few more years of global growth above or around the long-term trend. We also believe that the continued very low yield situation will continue to influence how investors manage risk in their portfolios. By this we mean that continued low underlying government bond yields will create increased risk tolerance, since it remains difficult to find low-risk assets with a reasonable return potential. We thus believe that investors are reluctant to make major downward adjustments in their equity and corporate bond portfolios, despite historically high pricing. In addition, they will continue to seek alternative investments, even if this means they will have to relinquish liquidity via longer lock-in periods (private equity, infrastructure investments, real estate, forests, etc.).

At the end of Q1 2021, risk appetite was at a peak and in harmony with risk-taking according to a positioning analysis. Today's risk appetite level is also in harmony but is at lower levels, even though share prices have reached record levels at this writing. This is due, among other things, to the rotation towards more defensive sectors and the flow into long-term government bonds.

### Slowly falling share price valuations



Source: Bloomberg

The chart shows how share prices divided by earnings forecasts for the coming 12 months (P/E ratios) have been driven higher during the past year. But this process has stopped recently and partly reversed, and we expect no further upward adjustments. There are also unusually wide gaps between regions, sectors and styles.

### Return expectations have been adjusted but remain positive

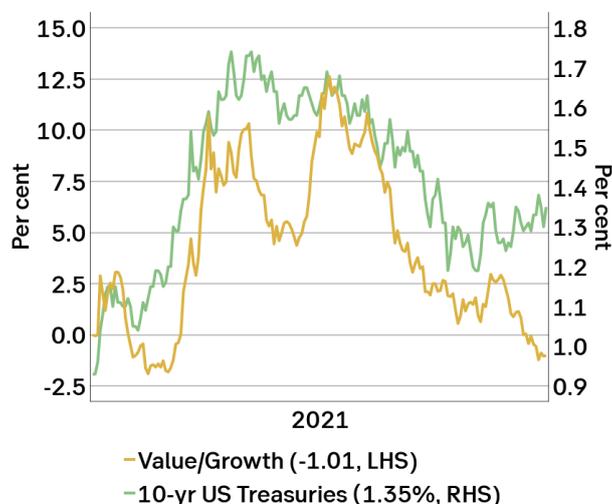
The effects of low bond yields on valuation levels – combined with continued positive earnings increases and continued stimulative central bank policies – are resulting in continued squeezing of credit spreads. The overall outcome is a 12-month period during which we expect positive returns on risk assets, but higher volatility than before the pandemic. If we study each asset class individually, this has already happened via dramatic flows between different types of equities. The estimated returns below are somewhat lower than in the May issue of *Investment Outlook*, mainly because we have left behind another period of healthy returns.

### Risks

The first category of risk factors is connected to the economic cycle. Our own forecast is a levelling out after a highly volatile period. It assumes, among other things, that inflation will fall back towards levels where central banks feel comfortable. In investor surveys, this risk category – which also includes any COVID-19 transmission – has been toned down even though vaccination rates vary greatly between different parts of the world. One major economy that many investors feel uncertain about is China, mainly due to recently enacted regulations governing the corporate sector (and further ones that may be enacted). Overall, we believe that global economic risks are at normal levels.

Should our global inflation forecast prove incorrect, this may have a major impact on risk appetite. If central banks need to revise their plans for a slow policy tightening and adopt a faster process, it would have a negative impact on global risk

### Yields interact with the stock market



Source: Bloomberg

The green curve in the chart shows 10-year US Treasury yields (RHS). The blue curve shows the MSCI World Value Index divided by the MSCI World Growth Index. When yields rise, low-valued companies provide higher returns, and when yields fall growth companies provide higher returns.

appetite and call today's valuations into question. In addition, latent concerns about the global debt level would be brought to the fore again.

The large budget deficits that governments have built up in recent years must be managed. One response that governments are looking into is to raise taxes, especially for those companies that have proven their skill at creating structures that ensure that total taxes collected from them is provocatively low. This is a well-known risk, but hardly fully discounted if a transformation were to take effect.

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

Equities	Return	Risk*
Advanced economies	7.2%	15.4%
Emerging markets (local currencies)	7.2%	15.3%
Sweden	7.9%	16.8%
Fixed income investments	Return	Risk*
Government bonds	-1.1%	1.4%
Corporate bonds, investment grade (Europe, IG)	-0.3%	7.2%
Corporate bonds, high yield (Europe/US 50/50, HY)	1.6%	11.1%
Emerging market debt (local currencies, EMD)	4.3%	8.2%
Alternative investments	Return	Risk*
Hedge funds	3.5%	6.0%

\* 24-month historical volatility Source: SEB forecasts, Sept 2021

Another parameter that is continuously gaining strength and is being priced by the capital market is linked to sustainability risks. Since such forces must gradually be strengthened, they may pose significant risks to some companies, but also the opposite – that completely new demand will emerge. Finally, the very difficult situation in Afghanistan shows that geopolitical risks are almost always present.

**Downgraded risk level, but still above neutral**

This summer saw a continued rise in stock markets and stable credit spreads, which benefited our portfolios since we were still overweight in both Swedish and foreign equities and in corporate bonds – primarily high yield – in our fixed income portfolios. At the same time, long-term yields fell and low-value and cyclical companies could not match the returns delivered by growth, defensive and so-called quality companies, which to some extent eroded our relative return. This type of defensive rotation – coinciding with new stock market records – is not typical, but it usually occurs at times when we are moving from one economic phase to another. During the summer, this style rotation was very strong, creating the conditions for a rotation back towards low-value and cyclical companies when investors have recalibrated their view of the future and the forces at work.

It is also clear from an evaluation of the table below that we are moving into a new phase. None of the factors have changed places, but they have generally weakened this year. One effect of this is that the risk situation has also changed, which is reasonable as we have moved from crisis to recovery to normalisation. As a response to this, in August we halved our overweight in equities, primarily by reducing our Swedish equity holdings in favour of fixed income investments. This does not mean that we have radically changed our strategy, but instead that we chose to realise part of the gains that had accumulated over the past year.

The composition of our current model portfolio is primarily overweight in global equities. In Swedish equities, we combine an overweight in cyclical and value companies in the large cap segment with holdings in small cap funds that are more growth-oriented. In global equities, we remain overweight in small and medium-sized value companies, as well as in growth companies. In fixed income investments, we are overweight in high yield bonds and have a short average duration (maturity) so as not to overexpose ourselves to rising yields. As usual, our alternative investments in hedge funds are well-diversified and have a relatively limited risk level, with little impact from the stock and bond markets. The overall outcome is that our total portfolios will continue to benefit from positive stock exchanges and credit markets, but our positioning is less aggressive than before.

Finally, rapid changes are continuing in the sustainability field. More and better information from and about companies is becoming available, making more sophisticated analysis possible. We at SEB as well as our partners are investing heavily in this field, which will permeate both existing products and services but also lead to extensive sustainable product development.

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**Positive factors**



- High global growth rate (forecast)
- Continued earnings increases (forecast)
- Monetary stimulus/Central banks
- Fiscal stimulus/Governments
- TINA/Relative valuations

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**Negative factors**



- Absolute valuation levels
- Aggressive positioning and high risk appetite
- High total debt

# Global equities

## Waiting for the winds to shift

Optimism still prevails on stock exchanges but as a more normal market climate returns, stimulus measures and economic growth are declining. After this year's soaring prices, reduced support is contributing to greater uncertainty and muted potential, yet healthy growth and continued low bond yields still suggest slightly positive market performance. Investors have also begun adjusting to the next phase, the upturn has broadened into more sectors and strong corporate earnings have lowered valuation levels.

Stock prices have continued to climb this summer, but with more sideways movement in recent weeks. The market upturn has changed shape during the year. From recovery-driven movement that rewarded cyclical companies, we have now seen both growth stocks and more defensive quality companies among the winners. It is consistent with earlier patterns that growth companies have taken over from cyclical ones, and this is natural given the decline in bond yields that we have seen. The worst speculative elements in the market have been subdued, and a return to more fundamental valuations is discernible. Valuations of major US growth companies have risen despite share price increases. Alphabet (Google) is valued at a price to earnings (P/E) ratio of 22 and Facebook marginally lower, which is very reasonable and perhaps surprising given surging share prices.

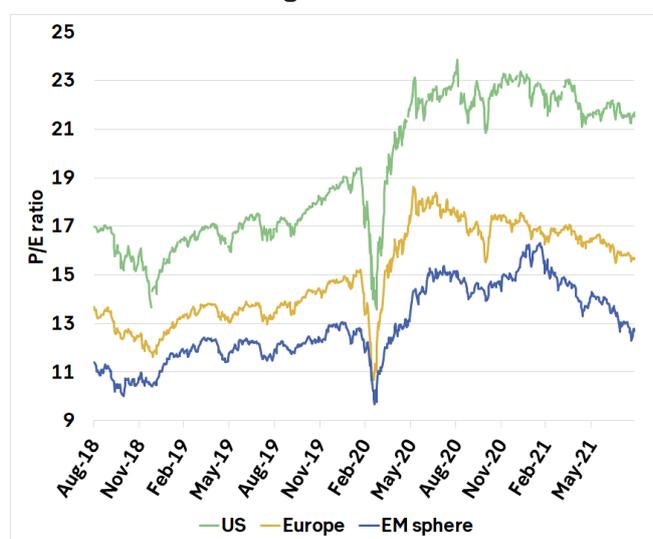
The broadening of the upturn should probably be viewed as a sign that investors are positioning themselves for the next phase – a shift from stimulus-driven recovery to a more normalised situation, with gradually slower growth. Another sign is that previously rising valuations have fallen somewhat. This may seem surprising given share price increases, but corporate earnings forecasts have actually risen even faster.

Earnings forecasts for 2021 have been revised sharply higher in the past year. Because of surprisingly strong economic growth and successful cost control by companies, these forecasts have climbed significantly: from +20 to +45 per cent globally. During the recovery phase, cyclically sensitive companies are leading earnings revisions, but technology and large digital platform companies are also contributing to them. Defensive companies are lagging in terms of earnings trends, which is natural in this phase of the economic cycle. Firms are generally reporting good potential for price hikes, which has offset continued logistics problems and component shortages. Earnings forecasts for 2022 have largely risen and are now at +7-8 per cent – highly reasonable given GDP growth forecasts. High transport prices and continued component shortages, worsened by the spread of the Delta variant in Asia, pose downside risks – especially for manufacturers.

Because of strong earnings forecasts, valuations measured as the P/E ratio for the coming 12 months, have been stable or have fallen slightly in recent quarters. Many observers have said that valuations are high, which is also true in a historical perspective. The current global P/E ratio is around 19, topped by US companies at just below 22, whereas valuations in Europe at 16 and emerging market companies at around 13 appear less stretched.

As we know, earnings can fluctuate, but even if we instead base our assessment on companies' more stable distributions to shareholders in the form of dividends and buy-backs, the picture is similar. Distributions by US companies are expected to be about 4 per cent (based on today's share prices) and are similar in Europe. Compared to the low or negative returns in

## Valuations have fallen the most in emerging markets but remain high in the US



Source: Bloomberg

The chart shows 12-month forward-looking P/E ratios for the MSCI US, MSCI Europe and MSCI Emerging Markets indices.

the fixed income market, equities are the natural asset to own, unless it is assumed that the stock market will decline so that shares can be bought more cheaply in the future. The above argument assumes that bond yields will remain low. It also probably requires a healthy corporate earnings trend in order to justify today's high P/E ratios. If we look at market capitalisation in relation to sales and book values, valuations are at peak levels, which is defensible as long as the current and expected margins, as well as the return on capital, are defensible.

The Beijing government is tightening regulations. Falling Chinese stock markets have stood out negatively this past quarter. They make up one third of an EM equity index and have contributed to the low relative valuations of EM firms. The main reason for the stock market slide is the introduction of stricter regulations on monopoly-like situations, minimum wages, deficient data security and how companies use customer data. One company directly affected by the government's crack-down was Ant Technology, whose IPO was suspended. Another is the newly listed Uber competitor Didi, whose Chinese apps were shut down due to deficient data security. The internet sector is generally the hardest hit. The legal structures of Chinese companies listed abroad, mainly on America's Nasdaq exchange, are also under scrutiny. The market's panic reaction is partly justified, since increased regulations will lead to higher compliance costs and the need to change business models. Some contraction in margins can thus be expected in the affected companies, even long-term. In the near term, share price movements appear to have been exaggerated, which is often the case when there is great uncertainty. Major digital platform companies have a strong market position, are growing fast and have enormous resources that will enable them to swallow higher costs. This makes their current valuations appear attractive. In response to market volatility, the Chinese government has increased its communication with the market in recent weeks to clarify the purpose of the regulations. This has had a certain calming effect. In addition, China's dependence on the private business sector and its high ambition level for capital markets should lead to measures that compensate for the tighter regulations.

It is abundantly clear that the Chinese government has a significant influence on companies through its policy decisions. In the long run, it thus may be attractive to invest in sectors that the Chinese government wants to promote rather than limit. These will include semiconductor fabrication, innovative biotech and pharmaceutical companies, the IT security field and companies that promote green transition.

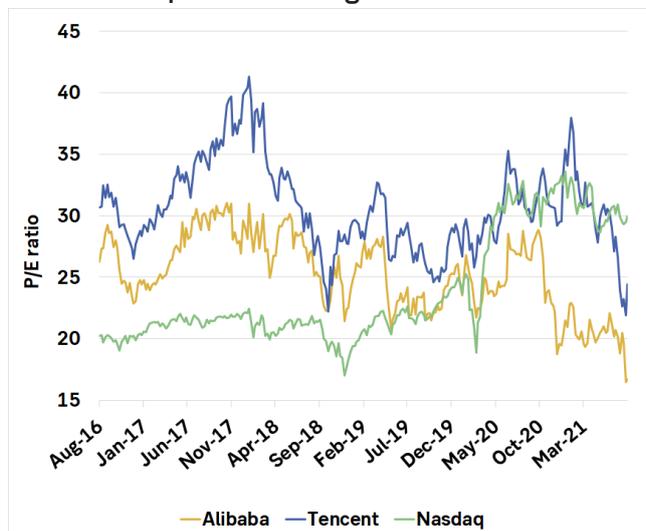
During the past quarter, stock markets climbed. Yet there is an underlying risk aversion in the market, as illustrated by China's stock market decline. Quality and growth factors have been prioritised, creating valuation gaps that are worth exploiting. Small cap shares have historically enjoyed better earnings growth than large caps and have thus been valued at a premium, but that gap has essentially been closed. Strong economic growth and record-low credit spreads are, however, an excellent environment for small companies whose share prices have fared badly over the past six months.

However, stock exchanges will face clearer headwinds in the future, which has been partly discounted at factor level (value, growth, quality, small cap/large cap) but not at aggregate level to the same extent. This limits upside potential and increases the risk of corrections, especially after this year's market upturn. Long-term bond yields are likely to rise in the future. If this increase is rapid and/or large, it will squeeze stock markets. Reduced monetary policy stimulus also risks adversely affecting the stock market mood.

Yet at least to some extent, investors have adapted to the new situation. We do not expect valuations to increase again, but P/E ratios will instead continue to fall slowly.

This should still allow minor stock market upturns, especially since earnings forecasts for 2022 appear cautious given our economic growth forecasts. But the uncertainties of normalisation are likely to create some volatility this autumn.

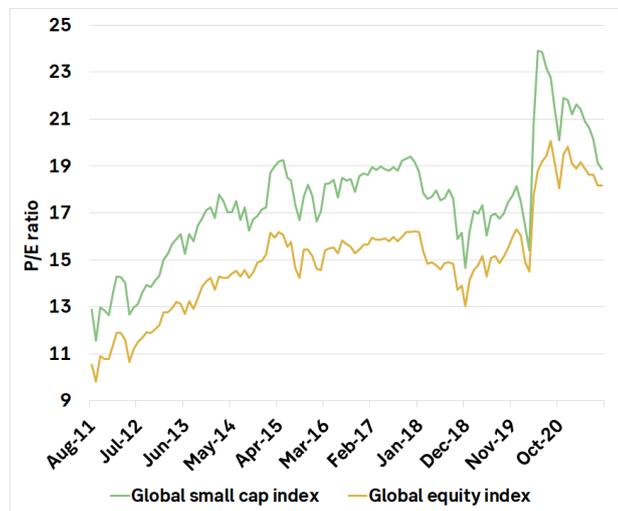
**Big price drops for Alibaba and Tencent, while Nasdaq remains at high levels**



Source: Bloomberg

The chart shows 12-month forward-looking P/E ratios for Alibaba and Tencent, compared to America's Nasdaq stock exchange.

**Small cap valuations have fallen compared to the overall market**



Source: Bloomberg

The chart shows 12-month forward-looking P/E ratios for the MSCI ACWI Small Cap and MSCI ACWI indices.

# Nordic equities

## Dizzying heights

So far this year, the Stockholm stock exchange has climbed more than 30 per cent including dividends, while the Nordic index is marginally lower. The upturn has continued during the summer despite concerns about the economy. It has been driven by industries and companies considered less sensitive to the business cycle and by a slower post-pandemic recovery.

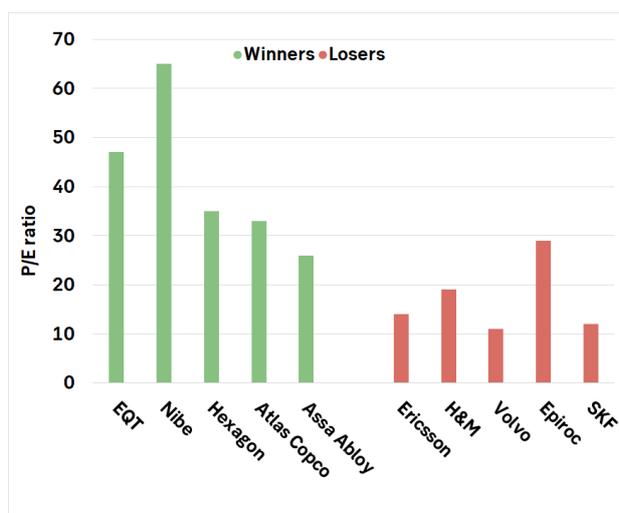
The index has seen a relatively stable climb all year long, but the upturn pattern has been quite different if we compare January-April to May-August. Over the past 3-4 months, valuations of companies with high net asset values (NAVs) – such as real estate companies, investment companies and companies with aggressive acquisition strategies – have skyrocketed.

Furthermore, many companies with relatively high valuation multiples, often those with operations regarded as relatively stable over an economic cycle and with better growth prospects than average, have seen valuations rise even further. It is worth noting that the five stocks, excluding investment companies, that have contributed the most to the Stockholm

index upturn over the past four months all have higher or much higher price/earnings (P/E) ratios than the exchange average. On the other hand, four of the five stocks that have held back index performance most are valued at lower earnings multiples than the exchange average.

This pattern of increasingly higher valuation multiples for stocks with already high valuations, and multiples that are unchanged or have even fallen for equities with lower valuations, is very reminiscent of the stock market's performance in 2020, whereas the upturn in valuations of investment and real estate companies is more of a new phenomenon.

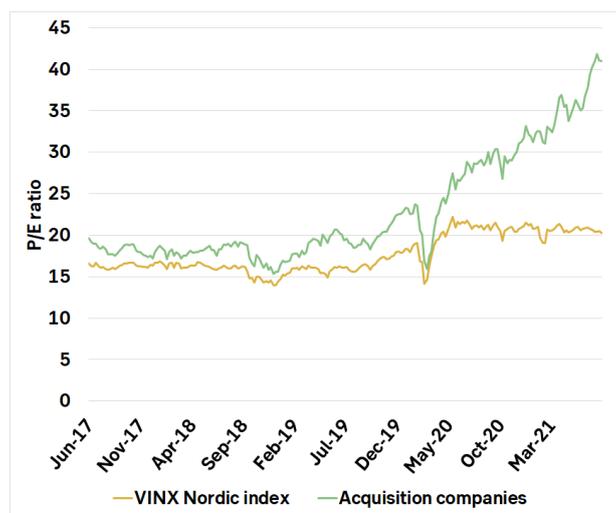
## Clear preference for equities with higher valuations



Source: SEB, Bloomberg

The chart shows the P/E ratio (consensus 2022F) for the five stocks, excluding investment companies, that have contributed the most to the Stockholm market upswing over the past four months and the five that have weighed down the index the most during the same period. It is worth noting that all of the winning equities are valued higher or much higher than the exchange average, whereas four of the five losing equities are valued lower or far lower than the exchange average.

## Acquisition companies are red-hot



Source: SEB, Bloomberg

The chart shows the P/E ratio, based on the 12-month forward consensus forecast, for eight Swedish companies (unweighted average) with clear acquisition growth strategies compared to the Nordic index. Aggressive acquisition growth has long been a strategy appreciated by investors, who have rewarded such “acquisition companies” with higher valuations than the stock market average, but for about the past year and especially over the past six months, this valuation premium has increased dramatically.

We think the trend for investment and real estate companies resembles a bubble, which can probably be corrected as quickly as it has developed. We also think the strong multiple expansion for companies with aggressive acquisition strategies reflects optimistic expectations that they will deliver high earnings growth going forward as well. High expectations increase the risk of disappointments. One common denominator for all of the companies that have driven the stock market upturn in the past quarter is probably their relative sensitivity to bond yields and interest rates, since capital rotation has been strongly driven by falling international market rates since April. Meanwhile it appears that cyclical equities – stock market losers in recent months – have already largely factored in a cyclical decline. How large will the slowdown be? We see a relatively attractive chance/risk ratio for investors taking cyclical risk and believe that the risk of sharply lower share prices is greater for recent stock market darlings, given their high valuation multiples, which may lead to these stocks being punished severely if companies do not deliver according to expectations.

**Forecasts, logistics and semiconductors**

One key theme this year, in the latest earnings report period and also over the past six months, is production disruptions and component shortages – especially electronic components or semiconductors. Most industrial companies have described their demand situation as good or very good. The biggest problem has instead been deliveries. Virtually every company has indicated it is affected by a transport capacity shortage, bottlenecks in logistics systems and delivery delays. It is apparently difficult to eliminate bottlenecks in the transport network, and the problems are likely to persist for the rest of the year. Capacity shortages at various transport terminals caused by the pandemic are one explanation for the problems, along with strong demand for many goods and low inventory levels. Accidents like the one that blocked the Suez Canal earlier this year exacerbated what was already a strained situation. Companies with major operations in countries such as India and Brazil, which saw a surge in COVID-19 transmission during the second quarter, have been affected to a particularly large extent by delivery problems.

Many companies are also suffering from a shortage of semiconductors (chips). Some underlying causes of this shortage have already been addressed, but new problems instead emerged during the third quarter. The high rate of infection in South East Asia, a region that had managed earlier COVID-19 waves quite well, has given a new dimension to these problems. A large quantity of chips, particularly for the automotive industry, are processed into finished components in South East Asia before being sent on to automakers. With factories there now forced to close down or cut staff to reduce the risk of infection, the component shortage has again worsened, which is expected to leave its mark on Q3 earnings reports.

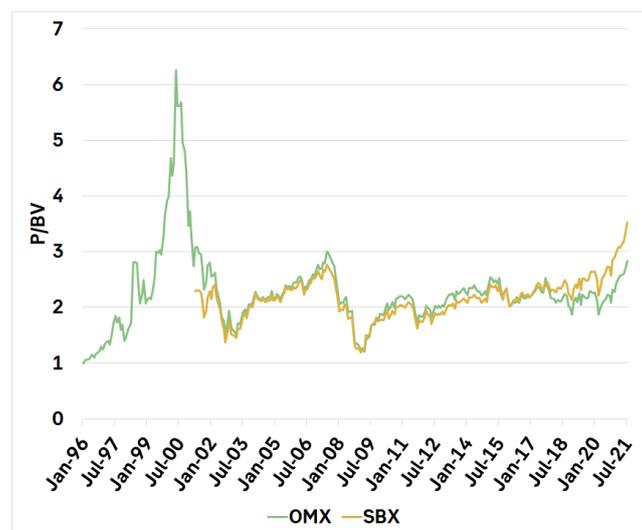
Despite these problems, quarterly reports generally made for pleasant reading, which is reflected in further upward-revised earnings forecasts before and after the publication of Q2 reports. In the past three months, earnings forecasts for Nordic listed companies have been revised upward by 10 per cent for 2021 and 7 per cent for 2022. These upward

revisions are significantly larger for the commodity sector and transport/shipping companies, but also for telecommunications equipment suppliers and pharmaceuticals. Overall, we now expect earnings growth of 61 per cent for listed companies in the Nordics this year. This not only compensates for the poor performance in 2020 but also means that earnings this year are expected to be 26 per cent higher than in 2019. Next year, we anticipate earnings growth of 4 per cent. Excluding the extremely volatile transport sector, where this year's earnings trend for one major Danish container shipping company has had a substantial impact on the earnings trend for all the Nordics, earnings growth is instead expected to be about 36 per cent this year and some 7 per cent in 2022.

**Thin air at high altitude**

Although earnings forecasts have been revised upward at a very reassuring rate over the past year and quarter, they have not managed to maintain the same fast pace in Sweden as the stock market upturn. This has pushed valuations to stretched levels. The P/E ratio for the broad OMX Stockholm Benchmark Index (SBX) is at a historically high 24 while the narrower OMXS30 index of the 30 most traded shares on the Stockholm exchange is somewhat less expensive with a P/E of 18 based on 12-month forecasts. For the Nordics overall, the P/E ratio is just over 20. However, it has often been easier historically to identify extreme stock market valuations as a whole, both high and low, based on shareholders' equity since this metric smooths out the effects of cyclical upturns and downturns on earnings.

**Thin air at dizzying heights for the Stockholm exchange**



Source: Bloomberg

The chart shows the book value of shareholders' equity for the Stockholm stock exchange based on the OMXS30 index of the 30 biggest companies and the broader Benchmark Index, with more than 100 companies. Stock market valuations as a whole have not been this high since the millennium bubble, while the 30 largest companies had somewhat higher valuations at the market peak in 2007.

Shareholders' equity for the broad SBX has not been this high since the IT (dotcom) bubble around the turn of the millennium. Looking at the OMXS30, where bank shares have a heavier weighting, the index was marginally higher than the current level at its peak in 2007 but otherwise has not been this high since the millennium bubble. Higher valuations than historically may be justified by lower bond yields, but this inevitably means that the market is more sensitive to downside surprises. Do the big differences between second quarter stock market winners and losers – and the big differences in valuations between various market segments – make it less relevant to look at stock market valuations as a whole?

### A bubble for companies with high net asset values?

Investment companies account for 10 per cent of the Stockholm stock exchange and are thus the second largest sector in the index; only the engineering sector is bigger. Real estate companies together weigh 7 per cent, which is more than twice that of the forestry, steel and metal industries, which have a combined weight on the Stockholm exchange of about 3 per cent.

One characteristic shared by both investment and real estate companies is that they hold large assets and, while there are exceptions, the net value of the assets they hold – that is, the market value of assets less liabilities – is a rough measure of what their share prices should be and usually are. There is sometimes uncertainty about asset values and in a few cases these companies have a business model that may cause their share price to deviate dramatically from their net asset value (NAV) for long periods. We think it unlikely that most of these companies would suddenly and almost simultaneously develop business models that would justify a completely different valuation than historically. Naturally, lower bond yields and interest rates affect return requirements for the equities and properties they hold, which raises their NAV, but that should not justify a dramatic change in the NAV discount/premium.

In recent months, investment and real estate companies have outperformed the stock market as a whole, not because investment companies' stock portfolios have done especially well or because reported NAVs for real estate companies have increased, but because the scale itself has shifted upward, in many cases dramatically. For real estate companies, an average NAV discount of 10 per cent in February was replaced by a premium of 25 per cent (we have excluded companies with extremely high premiums). For major investment companies, the premium/discount for their shares changed in a positive direction by 5-30 per cent in just three months. In some cases a historically nearly normal discount has been replaced by a historically abnormal premium. However, some cooling has been noted in recent weeks, and the situation could already be normalising again.

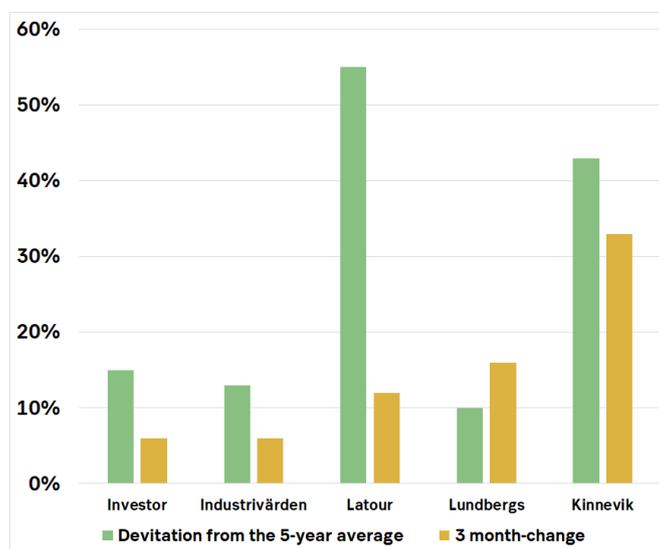
Another way to value real estate companies is earnings-based multiples, but they do not capture differences in the type of property or geographic location in the same way that net asset value does. Yet the same strong upturn in valuations is also apparent here. In a short period, the valuation of these

### Valuation bubble for real estate shares



The chart shows the average (unweighted) valuation of the ten largest real estate companies on the Stockholm stock exchange. Total enterprise value (EV, or market capitalisation plus net debt) divided by earnings before interest, tax, depreciation and amortisation (EBITDA) is based on 12-month consensus forecasts. Before the pandemic, somewhat of a bubble had formed in the sector. The recovery for real estate companies was initially hesitant due to concerns about reduced use of offices, stores and hotels. We think it is still too soon to determine whether the long-term effects on the demand for premises, increased online shopping and more extensive remote working constitute potential threats.

### Investment companies are popular



Source: SEB, Bloomberg

The chart shows the decrease in NAV discount/increase in NAV premium over the past three months for the five largest investment companies on the Stockholm stock exchange, and how much lower the discount/higher the premium was in mid-August compared to the average for each share over the past five years. Even earlier this year, the investment companies had somewhat higher valuations than historically, but the upward revaluation during the past few months has been significant. Some cooling since mid-August can already be seen, and perhaps a normalisation of valuations is already under way.

companies has been revised from 28 times expected earnings before interest, tax, depreciation and amortisation (EBITDA) on real estate operations 12 months forward on a debt-free basis to more than 33 times. Only at the market peak, just before the pandemic struck, did real estate companies have higher valuations.

We fear a bubble, and while a bubble can certainly get much bigger before it deflates, we consider the chance/risk ratio in these two sectors to be clearly unattractive at current levels.

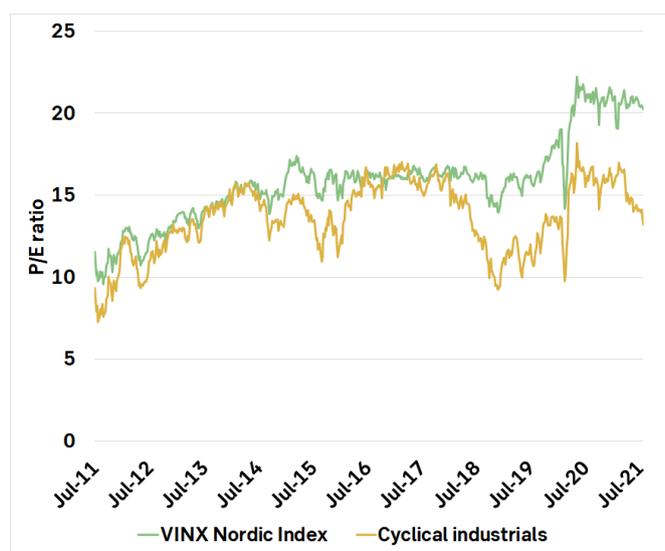
### Cyclical industrials rejected again

The industrial (or engineering) sector is clearly divided into an A team and a B team, with companies on the A team characterised by somewhat lower historical earnings volatility, often higher profitability and/or growth but above all significantly higher P/E ratios. Share prices for these companies have consistently been pushed higher in recent months.

The B team comprises companies that have historically had higher earnings volatility, and often even losses in periods of economic crisis such as the 2008-2009 recession. However, they are distinguished above all by their low P/E ratios, which have also fallen further in recent months. We see the same pattern among companies in the commodity sector and some producers of consumer durables. We can group commodity producers with industrial companies on the B team and simply call them “cyclical industrials”.

These cyclical industrials are generally more sensitive to cyclical fluctuations, especially in the global industrial sector.

### Investors do not tolerate cyclical risk



Source: SEB, Bloomberg

The chart shows the P/E ratio based on 12-month consensus forecasts for ten highly cyclical Swedish, Norwegian and Finnish companies (unweighted average) in the metal and forest industries, heavy industry and consumer goods manufacturing, compared to the Nordic index. Valuations of many companies in heavy cyclical industrials – in contrast to the stock market in general – have not been noticeably affected by lower yields/return requirements over the past decade. Concerns about the durability and strength of the industrial sector recovery have pushed valuations down substantially over the past four months, and the discount compared to the stock market in general has noticeably increased.

It may thus seem quite rational that investors have rejected them in recent months, since the post-pandemic recovery has slowed. The first reason for this was the withdrawal of stimulus measures in China, combined with administrative measures to cool down what is perceived there as an overheated industrial sector. The second reason was the accelerating spread of the Delta variant of COVID-19 in large parts of the world.

However, unlike most other listed companies, valuations of cyclical industrials were not pushed higher before the pandemic. After their recent downturn, an already historically large discount has become even larger, with the unweighted average of ten Nordic cyclical industrials now valued at a P/E ratio of 13 based on the 12-month consensus forecast, compared to the VINX Nordic index with a P/E ratio of just over 20. In other words, investors already seem to have factored in a further slowdown in economic growth.

### A new investment cycle under way?

Very low valuations for cyclical industrial stocks in relative terms are their greatest attraction and the main reason why we have a positive outlook for them, despite signs of weaker industrial activity in the near term. We also find it interesting that the deceleration we are now seeing appears to be largely due to pandemic-related disruptions and delivery problems. Many companies indicate that demand is strong or very strong but are unable to deliver at the pace desired by customers, which is certainly an abnormal situation in our part of the world. What will an economic slowdown with these characteristics look like? There is reason to suspect a different course of events than in a more “normal” economic cycle. A speedy improvement once the effects of the pandemic have subsided, much less a new investment-driven expansion, has probably not been factored into valuations of cyclical industrial equities today.

However, there are some indications that we are at the start of a new wave of heavy investments in some industrial segments for the first time since the so-called commodities super-cycle came to an end in 2007-08. There are a number of drivers that may now coincide:

- Massive investments in green infrastructure (renewable energy and related transmission/distribution)
- Other new, more environmentally-friendly technology (for example green hydrogen, fossil-free steel and electric cars)
- Digitisation infrastructure (for example 5G telecommunications networks, broadband and semiconductors)
- The mining and metallurgy sector (electrification and the transition to cleaner energy are metal-intensive)
- Ships (record-high profitability in the industry, an ageing fleet, more stringent emissions requirements and a decade of low investment)
- Transport infrastructure (for example America’s infrastructure package)

Above all, a massive wave of investments in green infrastructure and environmentally-friendly technology could affect entire national economies. This will be necessary if the greenhouse gas emission goals set by political leaders are to be achieved, but so far the practical conditions that are required – for example permit processes – have not lived up to their high political ambitions.

The field where we are already seeing the fastest progress is infrastructure for digitisation, with investments in new semiconductor production capacity increasing from an already high level, while the roll-out of 5G telecommunications infrastructure is accelerating even further. With two of the world's leading telecom infrastructure providers based in the Nordic countries, this may have a much greater positive effect on the stock market than has so far been the case.

The mining industry is almost by definition not sustainable, but the transition to a less carbon-intensive economy will be metal-intensive. We need more metals in order to phase out fossil fuels and still maintain a high standard of living. The greatest growth in demand will be for the metals used inside batteries, but much larger volumes of copper are also needed for everything from power transmission networks to electric motors and other electric infrastructure. It is already clear that copper is on its way to being the “new oil”, which is reflected in its growing political importance. China, a major importer, is trying to keep prices down by selling its strategic reserves while Chile, the biggest exporter, is increasing its government's share of revenue from copper production at the expense of mining companies (and, in the long term, buyers). Large mining companies around the world have been very restrained in their investments over the past decade and remain cautious, especially about opening new mines. Despite high metal prices, there are still no signs of a significant near-term increase in investments, but the combination of pent-up

investment needs and a possible boost in demand stemming from the transition to a less carbon-intensive economy could lead to a major boost in mining industry investments as well. The Nordic region is something of a global hub for mining-related engineering companies, and this sector is well represented in the stock market.

### **New wave of dividends this autumn**

A number of the major listed companies are expected to supplement their usual yearly spring dividend with another pay-out this autumn. This applies especially to banks, which will see an easing of restrictions on dividend payments in the fourth quarter after authorities had banned or limited their dividends for about 18 months. However, it is not just banks that are paying additional dividends. This summer, Volvo paid an extra dividend of more than SEK 19 billion. In October, Electrolux will pay out SEK 6.5 billion. Hennes & Mauritz (H&M) may also resume dividend payments this year.

### **Summary**

We find the valuations of many stock market winners in last quarter's yield-driven upturn frightfully high. Real estate and investment companies stand out as somewhat of a bubble. Valuations of acquisition-intensive companies have doubled in two years, which probably means that any disappointments will be punished severely. Stock market valuations are high as a whole but are supported by a combination of ultra-low bond yields and interest rates, high earnings growth and upward-revised earnings forecasts. Cyclical industrials stand out with their low valuations in a stock market that otherwise has high valuations. We do not see any catalyst for positive revaluations in the short term, but in a somewhat longer-term scenario there is room for even more upside surprises.

# Fixed income investments

## Virus worries overshadow inflation worries

The fixed income market has recently been dominated by the downturn in bond yields, mainly long-term, which started in June and accelerated in July. Given relatively healthy risk appetite in the market otherwise, the downturn was probably due to a combination of positioning in the long-term fixed income market and the spread of the Delta variant. Uncertainty about COVID-19 is expected to persist during the autumn, which is one reason why we only foresee minor upturns in long-term yields during the rest of the year.

We believe the US Federal Reserve (Fed)'s potential tapering of its bond purchases will provide limited upward movement for US bond yields, while the European Central Bank (ECB)'s upward-revised inflation target will keep yields in check in the euro area. High yield corporate bonds performed relatively well in June, before weakening somewhat in July. Yield spreads between government and corporate bonds are now back at the lows seen in early 2020. All in all, this means that absolute returns in the fixed income market are still at historically low levels.

### Government bonds (excl. emerging markets)

Global yields, led by the US, have fallen dramatically since late May. The market's growth concerns have gradually intensified due to reduced fiscal stimulus measures, for example in

the US, and the continued spread of COVID-19, while expectations of a Fed rate hike have receded. Another explanation for the sharp movements in the fixed income market is positioning, since the market was clearly positioned for rising yields and steeper yield curves during the first two quarters of the year and weak liquidity during the summer months.

The discussion about tapering (phasing out) the Fed's monthly bond purchases from today's USD 120 billion/month gained momentum at the July policy meeting. We believe the US central bank will present a clearer plan at its September 21–22 meeting. The Fed has downplayed the risks of the Delta variant but needs to see a few more months of rapid job growth to meet the criterion of "substantial further progress" towards its targets. It has also pledged to announce any policy change well in advance. In December, we believe it will begin to lower purchases by SEK 15 billion per policy meeting, which means they will end during Q3 2022. After the last tapering period, the Fed waited over a year to hike its key interest rate. We believe it will move faster this time, delivering the first hike in Q1 2023. The Fed's full employment requirement should have been met by then. Its requirement of inflation on target and "on track to moderately exceed 2 per cent for some time" has already been fulfilled, in the view of some Fed policymakers.

During the summer, the ECB announced that its new inflation target would now be 2 per cent, compared to the previous target of "below, but close to 2 per cent". At the same time the euro area central bank noted that inflation will be allowed to exceed its target for a period without resulting in any policy

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

Fixed income investments	Return	Risk*
Government bonds	-1.1 %	1.4 %
Corporate bonds, investment grade (Europe/US 50/50, IG)	-0.3 %	7.2 %
Corporate bonds, high yield (Europe/US 50/50, HY)	1.6 %	11.1%
Emerging market debt (local currencies, EMD)	4.3 %	8.2 %

\* 24-month historical volatility

Source: SEB forecasts, September 2021

measures. The market interpreted this as meaning that a future interest rate hike is further away than previously expected, which pushed yields down somewhat. The ECB's message in July was that there would be no rate hike before inflation reaches 2 per cent and remains there in the medium term. Core inflation must also reach a level in line with its inflation target. Both our forecast and the ECB's latest suggest core inflation will remain just below 1.5 per cent both in 2022 and 2023. As a result, in this cycle too, the ECB will lag behind its peers in hiking interest rates. During our forecast period, the ECB's refi and deposit rates will remain unchanged at 0 and -0.5 per cent respectively. As for ECB bond purchases, some steps are being taken. We believe the Pandemic Emergency Purchase Programme (PEPP) will be extended until mid-2022 and that purchases will gradually shrink starting this autumn.

Sweden's Riksbank continues to signal an unchanged repo rate throughout our forecast period (until Q2 2024). However, there are signs that the bank is slowly moving towards a slight tightening policy, and it is less likely there will be a rate cut or increased bond purchases. Somewhat higher inflation expectations lead us to believe that within six months the Riksbank will signal rate hikes at the end of its forecast horizon. Bond purchases will continue as planned this year. The Riksbank estimates that its 2022 purchases will be roughly equivalent to the volume of maturing bonds. By ending net purchases in late 2021, the Riksbank will be slightly ahead of the ECB and the Fed, but this should be seen in light of the difficulty of continu-

ing purchases when it already owns 50 per cent of government bonds outstanding. We believe the Riksbank will then buy bonds more slowly than its holdings mature.

### Government bond yield forecasts

10-year government bond yields	Sep 2021	Dec 2021	Dec 2022	Dec 2023
US	1.32	1.50	2.00	2.20
Germany	-0.36	-0.35	-0.10	0.20
Sweden	0.20	0.20	0.35	0.65

Source: SEB forecasts, September 2021

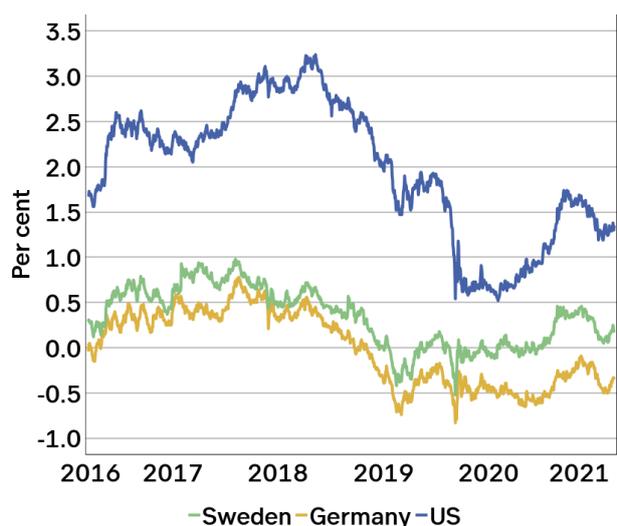
### Corporate bonds – investment grade (IG) and high yield (HY)

Corporate bonds with a higher risk (high yield) performed relatively well in June before slipping a bit in July. While the underlying yield trend made a positive contribution throughout the period, the signals were more mixed for the macro and micro situation. The spread of the Delta variant together with bottlenecks in the industrial sector created uncertainty about future growth forecasts and lockdowns. Meanwhile corporate earnings reports once again delivered upside surprises, resulting in a growing number of credit rating upgrades together with falling default rate forecasts. With stronger earnings in the year ahead, this will also have a positive impact on debt since it allows companies to reduce their debt burden and meet interest payments. Continued stimulus measures in both Europe and the US will provide attractive funding levels for companies.

The past few months have also been favourable for corporate bonds with lower risk (investment grade). However, the steep decline in yields during the summer was the greatest contributing factor, given longer maturities and greater interest rate sensitivity.

Despite weaker momentum in the underlying economy going forward, in our view the conditions for corporate bonds remain favourable. Their credit quality has steadily improved as earnings have improved in recent quarters. This has also resulted in a lower leverage and a default rated and improved capacity to pay interest expenses, given the refinancing of debt at attractive interest rates. Although valuations are high, since credit spreads against government bonds are historically narrow, we consider this justified in light of the favourable factors outlined above. But at the same time, we are monitoring the situation closely. Given our forecast of somewhat higher bond yields in the year ahead, HY will have an advantage over IG bonds, whose prices are more adversely affected by this. With yields squeezed across the scale, it is not unlikely that we will see a shift of capital from IG to HY bond in search of higher returns, which is another factor that supports HY bonds.

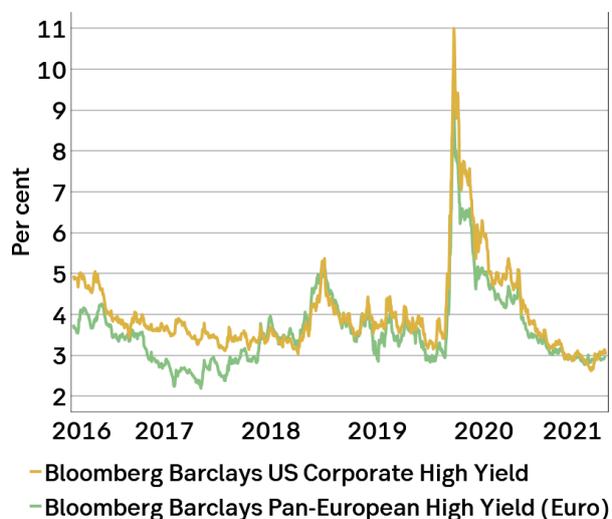
### Clear decline in long-term government bond yields



Source: Bloomberg/Macrobond

Long-term government bond yields fell sharply during the summer. We believe the Fed's tapering of bond purchases, which is expected to start in December, will put some pressure on long-term yields although the Fed will try to temper expectations of a key interest rate hike. The ECB's new inflation target, together with its inflation forecast, sets the bar high for a rate hike. It will also continue its bond purchases, which will keep yields in check in the euro area.

## The corporate bond market will be stable going forward



Source: Bloomberg/Macrobond

The credit spread – that is, the difference between the yields on corporate versus government bonds – widened in July, but has narrowed again partly due to the reduced default risk, but also because many companies have been able to refinance their debt at attractive interest rates. We believe the trend will be flatter going forward.

## Emerging market debt (EMD)

Emerging market risk assets are currently encountering significant headwinds, which are driven by a number of factors. The spread of COVID-19 in many countries in this category has been much harder to combat than in advanced economies, due to greater difficulties in practicing social distancing but also due to limited vaccination opportunities. Meanwhile, the spread of the Delta variant is making the situation even more difficult. It hits countries with lower vaccination rates harder, since they are forced to take tougher measures to slow the spread. Moreover, the decelerating economic recovery in China has had an adverse impact on other emerging markets. Unlike many other countries, China has chosen less stimulative monetary and fiscal policies, which is now limiting growth potential. The trend of US bond yields and the dollar has also had a negative effect. Dollar appreciation in recent months has had a direct negative impact, while the Fed's anticipated tapering of its bond purchases implies higher future interest rates and yields, which could potentially further weigh down EM debt.

The above factors may continue to hamper emerging markets in the short term. However, in the medium term, there is reason to have a more positive view of conditions in the EM sphere. Strong trade balances combined with the improved earning capacity of companies should provide support for EM debt as the global economy and domestic economies reopen.

**Theme:** Green transition

# The big shift

Despite massive challenges to people's health and the economy, 2020 was a great year of progress for environmental and climate policies, and the trend has continued this year. Important steps towards increased environmental sustainability have been taken in all of the world's major economies this past year, which will have huge consequences for economic growth for a long time. We are at the start of a long period of enormous investments to transform the economy and phase out the use of fossil fuels.



Renewable energy and related energy storage solutions play a critical role in this transition, which obviously includes much more – for example recycling, energy efficiency improvements, electrification of transport and industry, green hydrogen and sustainable food production. The transition will create business opportunities for companies that drive and embrace the trend as well as investment opportunities in financial markets. We think listed companies in the environmental technology sector offer unusually good growth prospects over the next few years. With steep share price declines so far this year, valuations have also become far more attractive than in January while the outlook has improved further in important respects.

### **The green transition is accelerating**

Last year, many of the world's major economies launched new, more ambitious emissions targets and green stimulus packages, particularly the European Union, China, the United Kingdom, Canada, Japan and South Korea, whose green stimulus package is by far the largest per capita according to BloombergNEF (BNEF). Now that the United States has also joined the group of countries that aim to achieve zero net carbon emissions by 2050, countries accounting for more than 60 per cent of the world's carbon dioxide emissions and an overwhelming majority of global GDP have this kind of goal (though with some variation in end dates and definitions).

Given such a large-scale transformation and with target dates set in the distant future, even intermediate targets such as the EU's more stringent climate goals for 2030 and China's new five-year plan are in practice probably just as important in the near term. The EU aims to reduce emissions by 55 per cent (counting from 1990) by 2030 instead of its previous target of 40 per cent, and China's new five-year plan for 2021–2025 is described as the opening shot for the country's significantly higher environmental ambitions. The US has repeated promises from President Joe Biden's election campaign to achieve 100 per cent carbon-free electricity by 2035, a major step for a country that gets 60 per cent of its power today from fossil fuels. All of these environmental policy declarations have already left their mark in financial markets. A survey of European fund managers early this year showed that the most likely and extensive long-term change they saw ahead after the 2020 pandemic year was increased investments in green energy and related infrastructure. A full 64 per cent of respondents identified this as the most likely structural economic change after 2020.

The business world is not standing on the sidelines waiting for new regulations, but is instead helping to drive the trend. Amid the first intensive phase of the pandemic in the spring of 2020, there were numerous appeals for change, both in Sweden and internationally, with business leaders and trade associations calling for decision makers to use the crisis to rebuild society better, in other words make it more environmentally sustainable. Companies have also significantly raised their climate change ambitions over the past year. For example, in the Nordic countries, efforts include Volvo's announced plans to only produce electric cars by 2030, LKAB's and H2 Green Steel's investments in fossil fuel-free steel production, Neste's new biorefinery in Rotterdam, a consortium of Danish companies

including A.P. Møller-Mærsk and DSV that will build an offshore wind farm with related production of green hydrogen for synthetic fuels, and Boliden's move, among others, to improve the efficiency (both environmental and financial) of its zinc smelter outside the Norwegian town of Odda. In conjunction with its 2020 year-end report, fashion retailer Hennes & Mauritz (H&M) announced that the company will increase the share of recycled textile fibre it uses to 30 per cent in 2025, from 2 per cent in 2019, and use 100 per cent recyclable or sustainably produced textiles by 2030.

Taking a look at global developments, we note that the influx of companies to the Science Based Targets initiative (SBTi) – a world-wide partnership enabling private companies to set science-based emissions reduction targets – accelerated in 2020. The number of firms with science-based targets (and affiliated with SBTi) has increased 150 per cent since November 2019 to 1,696 today. According to BNEF, the number of companies among the 400 largest in the world that have pledged to reduce their net carbon emissions to zero by a specific date (for example 2050) has increased tenfold in just over two years. The business world's focus on environmental issues has probably never been greater than today, which will have consequences for a long time. The trend is clear.

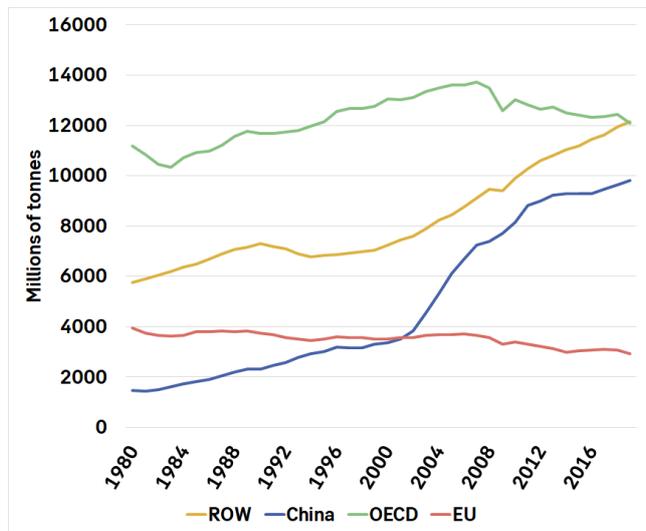
### **The climate crisis – an issue that unites countries in an era of international disputes**

At a time of serious disputes between China, the US and other nations around the world that have adopted more nationalistic agendas, environmental and climate issues are suddenly an area that unites countries that are adversaries on other issues. While Chinese and US diplomats clashed on international and security matters at the Alaska climate summit in March, US climate envoy John Kerry and his Chinese counterpart, Xie Zhenhua, agreed on the urgency of advancing the green transition in both countries and that these issues should not be sidelined by other disputes. While the US refused to export COVID-19 vaccines to Europe even though they could not be used in the US, there is deeper mutual understanding between the EU and the US on climate and environmental issues than in a very long time. It will be very exciting to see whether this agreement continues beyond the COP 26 climate change conference in Scotland this autumn.

### **Many environment-related news reports also expected this year**

This year, a number of important steps are expected to be taken to transform climate ambitions into reality. For example, the European Union has begun preparatory work on a "carbon border adjustment mechanism" for the import of goods produced outside the union. This will allow a more restrictive allocation of emission rights to emission-intensive sectors subject to global competition, for example steel and metallurgy, and at the same time help in practice to export the EU's environmental policies to countries that want to trade with it. The EU is a key export destination for many companies, and for some a carbon border tax will mean that for the first time they will be forced to pay for such emissions.

**Measures to reduce emissions are needed right now**



Source: Bloomberg

The chart shows annual carbon dioxide emissions in millions of tonnes for a number of geographic areas: China, the OECD countries, the EU and the rest of the world (ROW), which excludes China and the OECD.

One problem with the EU emission rights system is, and has been, that companies subject to international competition cannot be forced to pay for their carbon emissions in the same way that the energy sector does, since this would likely lead to production instead moving outside the EU and then potentially to countries with no emission standards. Tough EU emission restrictions thus risk increasing global emissions as well as reducing employment and hurting the EU economy unless the international playing field can be levelled, which is the aim of the carbon border tax. The tax may have a major impact on energy-intensive sectors such as the steel and metal industries and provide comparative advantages to companies that have come furthest in their transition work and have the lowest environmental impact from their production.

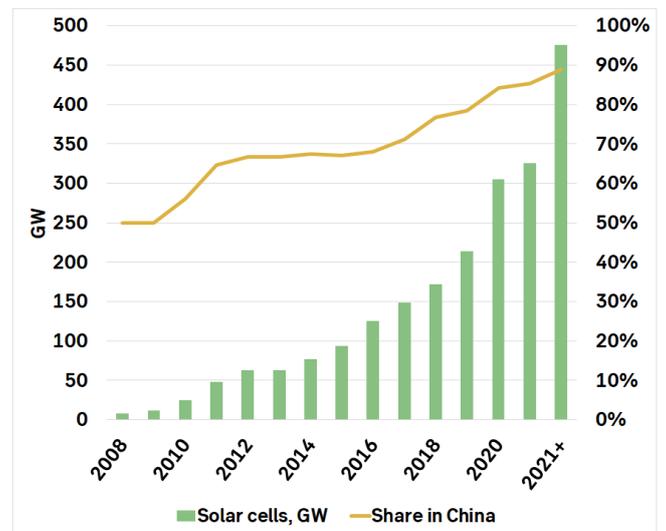
In China, a national market for emission rights – by far the largest in the world – was created in 2021. At first only energy producers are included, and the price has initially been only around one tenth of EU market prices, but the system will gradually expand and prices must increase significantly in order to achieve the desired effect. Once the system is fully implemented, the introduction of carbon emission prices in China will mean that the proportion of global emissions that carry a price will increase to 23 per cent. Pilot regional emission trading schemes are already up and running in parts of China. There may well be some connection between the EU’s plans for a carbon border tax and China’s significantly higher environmental ambitions, especially since the US intends to follow the EU’s example. Given China’s extensive coal use, the country’s industries risk suffering major competitive disadvantages if/when the country’s trading partners start to put a price on emissions caused by the goods they import from there.

**China’s higher green ambitions are of paramount importance**

China alone accounts for 30 per cent of the world’s carbon dioxide emissions today, more than twice as much as the US and nearly three times as much as Europe. The country also accounts for more than 60 per cent of the increase in emissions since 2000, although China has reduced its carbon intensity (emissions relative to GDP) by 40 per cent since 2000, which is on a par with the EU and only surpassed by the United Kingdom. But one dollar of GDP in China still produces twice as much emissions as in the US and more than seven times the level in Sweden, according to the Emission Database for Global Atmospheric Research (EDGAR). China’s enormous weight in global emission terms makes the country an invaluable addition to the group of economies that have promised to achieve net zero carbon emissions, in its case by 2060.

Given China’s extensive use of coal, for both power generation and manufacturing, the country’s emissions are produced to a dominant degree by these two sectors. Together they account for 80 per cent of emissions, compared to about 55 per cent for the EU. The transition in these sectors will therefore be most important to the country’s ability to deliver the

**China is driving global expansion in solar cells**



Source: BNEF

The chart shows global production capacity of silicon-based solar cells in gigawatts (GW) and China’s share of this capacity.

promised emission reduction. Transforming the energy sector is also relatively inexpensive even today given the good competitiveness of solar, wind and hydropower. This will be to China’s benefit since it has already invested heavily in production capacity, especially for solar cells, and today has a globally dominant position in the industry. At the end of 2020, 82 per cent of the world’s production capacity of silicon-based solar cells was located in China. Assuming the country carries out its expansion plans, that figure will increase to 89 per cent. This means the rest of the world will be reliant on solar cell

deliveries from China, a situation further complicated by the fact that roughly half of the capacity for producing silica for solar cells is in Xinjiang province. In the US, there is talk of a possible ban on silica imports from Xinjiang.

In China, the lead-times between setting new goals and their implementation are often short. In 2020, the country set a record in installing new onshore wind power generation capacity, and in 2021 a new record is expected in solar cell installations and offshore wind power. Just after President Xi Jinping announced the country's increased ambitions in late September 2020, a significant increase in renewable energy investments was noted. The year got off to a slow start due to COVID-19 but ended on an exceptionally strong note in terms of solar cell and wind turbine installations. Goldman Sachs predicts that China's annual investments in technology that reduces carbon dioxide emissions will double over the next decade to more than USD 300 billion in 2031. By far the largest share, about USD 100 billion a year in 2021 and 2022, is for renewable energy, but since the lowest hanging fruits are picked first, the pace of growth – starting from a low level – will be far higher in other areas such as energy storage, hydrogen technology and electric vehicles.

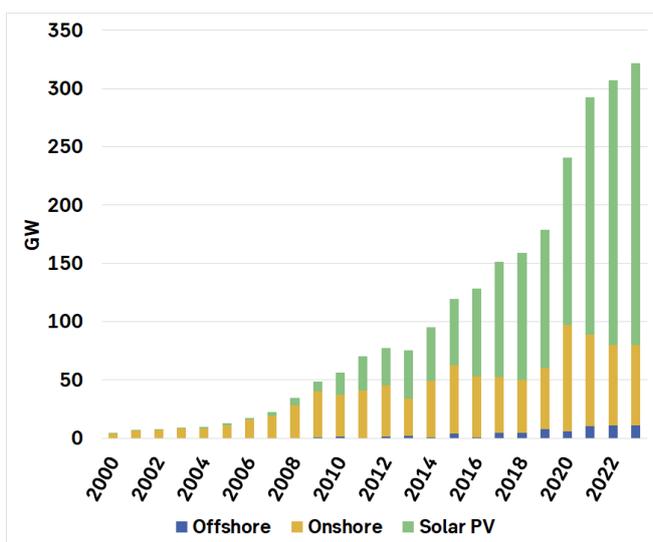
**Renewable energy is crucial**

Renewable energy plays an absolutely crucial role in the transition to a low-carbon economy. Gigantic investments in renew-

able energy sources are also critical to enable other segments in this transition to deliver the environmental improvements expected of them, for example electrification of transport and manufacturing, as well as green hydrogen for everything from green steel to propellants to artificial fertilisers.

Goldman Sachs expects that by 2050 the EU's Green Deal, including its support for green hydrogen, will lead to EUR 10 trillion in investments (both privately and publicly funded), mainly in the energy sector but also in energy efficiency improvements and subsidies for electrifying the region's transport sector. The bulk of these will be investments in renewable energy, followed by energy efficiency improvements and energy storage, mainly financed by private funds. Goldman Sachs calculates that the EU's new goal of a 55 per cent reduction in carbon emissions during 1990-2030 will require the share of renewable electricity production to increase from 40 per cent in 2019 to 65 per cent in 2030. There will also be significant demand for electricity for green hydrogen production, for energy efficiency measures in the European heating market (replacing gas- and oil-fired boilers with heat pumps) and for electrification of the transport sector. The investment management firm believes the EU energy sector must therefore accelerate its pace of annual investments by 140 per cent overall and by 220 per cent if we only consider renewable energy production and related network infrastructure.

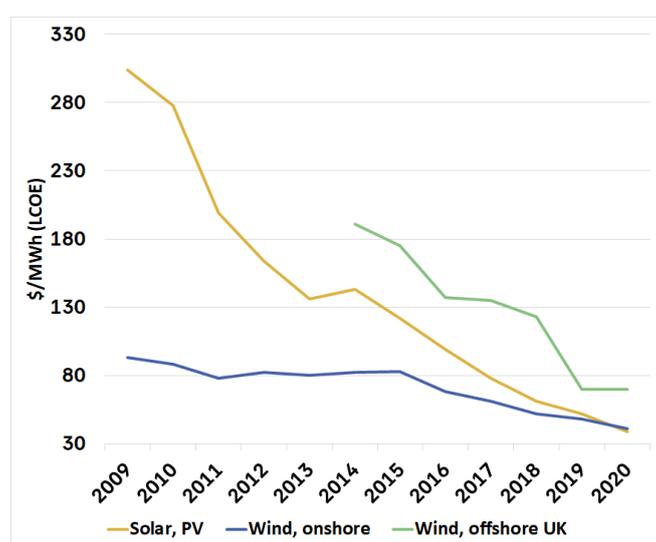
**Solar and wind power shows strong global growth**



Source: BNEF

The chart shows annual installations of new power generation capacity for onshore wind power, offshore wind power and solar cells (photovoltaics or PV), calculated in GW, as well as BNEF's forecasts for 2021-2023.

**Plummeting costs for solar and wind power**



Source: BNEF

The chart shows global average total cost for producing electricity from solar cells and from onshore and offshore wind power. Global prices are given for solar cells (photovoltaic = PV) and onshore wind power, whereas offshore wind power refers to the United Kingdom. During a period of 11 years, the cost of solar cells fell by 87 per cent and the cost of onshore wind power by 56 per cent, making them the most cost-effective power sources in many countries. In much of the EU, total costs for wind and solar power today are lower than variable operating costs for coal-fired power, which is accelerating the transition.

### Green steel is red-hot in Sweden

Many spectacular large-scale industrial projects with a green focus have been launched in the past year or so, including a number connected in one way or another to the use of green hydrogen. Power generation facilities with related electrolyzers and chemical factories are planned in Australia and Saudi Arabia, costing USD 16 billion by 2028 and USD 7 billion by 2025 respectively. The plan is that they will export solar and wind power in the form of green ammonia, which is easy to transport and can be used both in the chemical industry and as propellants or recycled back into green hydrogen. In Sweden too, major investments are under way, and it looks as if Norrland (northern Sweden) may become a global centre for green steel within a few years.

Steel is one of the most polluting industries, accounting for about 7 per cent of all carbon dioxide emissions globally, and one that is relatively difficult to make fossil-free. A number of steel companies, mainly in Europe, have worked with various projects for many years to reduce emissions and the use of coal and coke, but progress is too slow. The project that has probably advanced the furthest among traditional steel companies in producing fossil-free steel is HYBRIT, a Swedish joint venture between steelmaker SSAB, iron mining company LKAB and power generator Vattenfall. This work has been under way since 2016, but commercial volumes of fossil-free steel

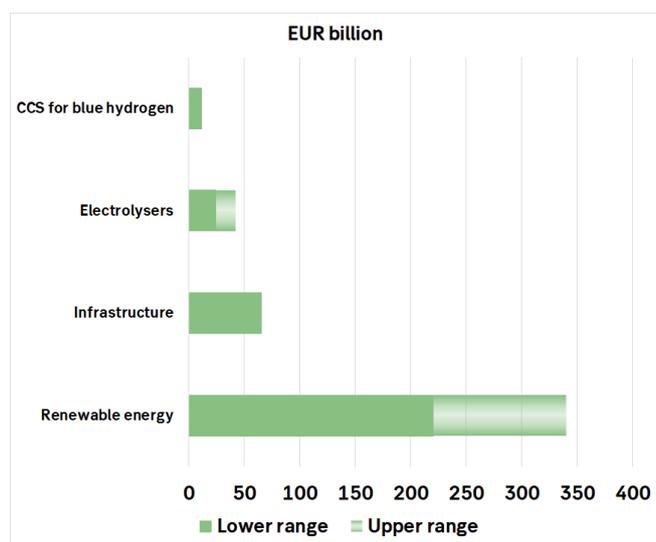
are expected to be delivered in 2026 at the earliest. The plant will cost around SEK 10 billion and produce 1.3 million tonnes of direct reduced iron, also called sponge iron, using hydrogen. Meanwhile, SSAB has noted there is great demand from customers for fossil-free steel and customers are willing to pay a significant premium for this.

In 2021, two major new ventures in this field were also announced. LKAB, which aside from its collaboration with SSAB in HYBRIT wants to capture a larger share of the value chain, recently disclosed its intention to invest a total of SEK 10-20 billion annually for 15-20 years in its own production of sponge iron for the steel industry, among other moves. This project will likewise take a relatively long time, with the company's first sponge iron plant ready for production in 2029. One company planning to make much faster progress has also come on the scene, the newly launched H2 Green Steel (with the same founder as the Northvolt battery plant). H2GS will invest SEK 25 billion in a brand-new steelworks outside Boden in northern Sweden and expects to deliver (nearly) fossil-free steel as early as 2024.

### Electric cars defied the crisis but require significant infrastructure investments

The automotive market, not surprisingly, was hit very hard by the pandemic. However, electric car sales weathered the crisis

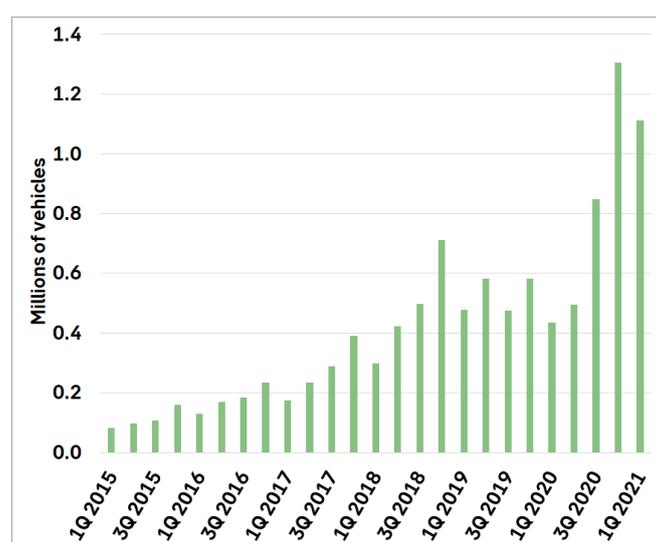
### Green hydrogen requires enormous investments



Source: The EU Hydrogen Strategy, July 2020

The chart shows expected investments by category to achieve the EU's hydrogen production target for 2030. The greatest need for investment is in renewable energy sources, but the need for investment in related infrastructure is also greater than that for the production facilities themselves (electrolysers).

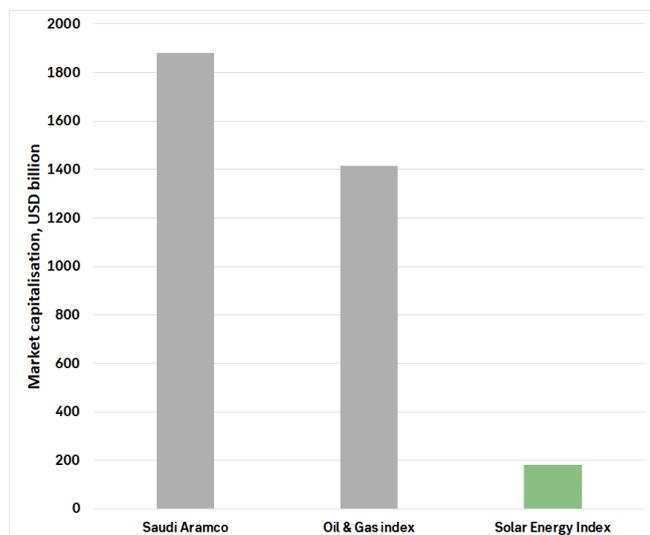
### Electric cars defied the 2020 crisis



Source: BNEF

The chart shows global sales of electric cars (BEV, PHEV and FCEV) by quarter for the period 2015 to Q1 2021. The market share of electric passenger vehicles increased sharply, especially in Europe and Asia.

### Is the stock market already discounting the transition?



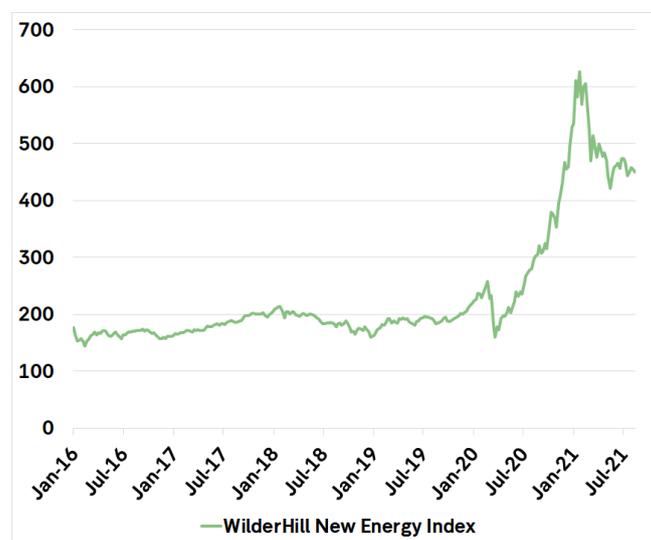
Source: Bloomberg

The global solar energy sector – including 50 listed companies around the world that have operations in solar cell production, components and materials, solar energy production, project development and other segments – has a total market capitalisation of USD 182 billion. In comparison, the 20 largest oil companies listed in the US have a market capitalisation of more than USD 1.416 trillion dollars, while the world’s largest oil company, Saudi Aramco, alone has a market capitalisation of USD 1.88 trillion dollars. Has the stock market really discounted the transition now under way when these relative differences persist? Some analysts believe the solar energy sector, after an upturn of 185 per cent in two years, resembles a bubble, but we do not share that view. How will the market capitalisation of the solar energy and oil sectors compare in 10, 20 and 30 years?

surprisingly well and more than doubled during the fourth quarter of 2020 compared to the year-earlier period. Electric car sales in 2020 exceeded BNEF’s May 2020 forecast by 80 per cent. Electric cars have long been predicted to have a bright future, but 2020 appears to have been somewhat of a breakout year, and forecasters now predict a rapid acceleration going forward. Important markets such as China are believed to be very near a turning point, achieving critical mass and triggering a positive spiral, while regulations in the EU and probably soon in the US too will further drive this trend. A total of 3.1 million electric cars were sold in 2020 if we include battery-electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs) and fuel cell electric vehicles (FCEVs), of which 2.1 million were battery-electric vehicles. Morgan Stanley estimates that in 2030 battery-electric vehicle sales alone will reach 28.7 million, which corresponds to annual growth of 30 per cent, while Goldman Sachs predicts a somewhat lower 26.4 million and BNEF predicts 26 million electric cars, 19 million of them battery-electric vehicles, which means average annual growth of 25 per cent.

Such exceptional growth will fuel the need for both battery metals (today mainly lithium, nickel and cobalt, but many other alternatives are being assessed) and copper for everything

### Sharp price correction for environmental technology sector



Source: Bloomberg

The chart shows the WilderHill New Energy Index of 125 companies from 25 countries around the world with a focus on technology that produces low or no carbon dioxide emissions, for example renewable energy , electric vehicles, hydrogen and related operations. Nordic companies in the index include Vestas, Ørsted, Eolus Vind, Novozymes, Nibe, Power-Cell, NEL and Scatec. Last year was the best ever for the index, with an upturn of more than 140 per cent, but so far this year the index is down 20 per cent.

from electric motors to charging cables to power grids. For example, Morgan Stanley estimates that the number of chargers in the US needs to increase about eight times by 2030 for the electric car penetration they foresee in their main scenario. The power grid must also be adapted to these changes, for example with batteries or other energy storage solutions that can provide increased power during periods when many vehicles are being charged at the same time. Potentially, with a smarter system, vehicle batteries can also be used as a flexible power source by charging when there is excess power and possibly also discharging when there is a power shortage and the vehicle will not be used soon.

The combination of large-scale investments in power networks for transmitting electricity from offshore wind power plants and other adaptations, charging infrastructure for electric vehicles and electrification of the transport sector – an electric car contains 3-4 times more copper than a car with a combustion engine – is expected to contribute to strong copper demand for many years going forward. It takes about eight years to build a new copper mine, but an already developed project in the right geographic location will certainly take less time. Despite high prices for many metals including copper, large mining companies have exercised great restraint for more than ten years in

investing in major new projects. However, direct material costs for an electric car are far too small a share of the total cost for expensive metals to be a serious obstacle to the transition.

### **The transition will take time and has only just begun**

The current stock market situation for environmental technology companies is reminiscent of IT/internet/mobile phone companies in the late 1990s. For many investors, it is clear that we are at the beginning of a big shift that will lead to massive growth in various industries and companies, but finding the winners is still a challenge. In many cases, the biggest winners from the explosive growth in mobile internet and related commerce were not even listed when optimism peaked in early 2000.

Expectations more than twenty years ago that the new technology would change people's lives and society have already come true. At that time, this writer discussed the potential for everything from e-commerce to ultrafast broadband and how convenient it would be if we could pay for a parking space using a mobile phone, for example. Today this is part of everyday life in Sweden and elsewhere, but the impact on the stock market has not at all been what investors had then discounted. The future of then-prominent Swedish internet consultants Framtidsfabriken and Icon Medialab turned out to be much shorter and bleaker than was speculated on the stock market. Telecom operators were unable to profit at all from the added value they contributed to society, which was generally acknowledged when the formerly state-owned telecom operator Telia first listed its shares. Infrastructure providers such as Ericsson and Nokia were considered by many to be the most obvious winners in the anticipated IT trend, but in reality their shares stand out as two of the absolutely worst investments in major Nordic companies since January 2000. The fact is that of the really big winners on the stock market internationally – companies in the FANG+ index – only three were even listed at that time: Amazon, Apple and Nvidia. While these stocks have occasionally experienced turbulence, their performance since January 2000 has been outstanding, with share prices rising between 43 and 216 times.

Many of the biggest winners in the 2020s from the transition to more environmentally sustainable economic growth are probably not even listed yet, and some stocks that now appear to be clear winners from this trend will not live up to expectations at all. However, this transition has only just begun and will have an enormous impact on the entire business world over the next 20 years. Interest in green stocks will probably swing back and forth in the years ahead, but we remain convinced that many of the winning stocks over the next decade will be environmental technology companies.

### **The most promising industries, companies and stocks**

Even today, it is fairly easy to identify many of the most critical components in the transition to a low-carbon economy, for example electrification of the transport sector, renewable energy and related infrastructure, hydrogen technology and fuel cells, energy efficiency improvements, recycling, carbon capture and the capture of other emissions, water treatment

and desalination, biomaterials and energy, more sustainable food and probiotics. Technology consultancies that help with everything from social adaptation to infrastructure protection to the design of new, more sustainable vehicles and factories should also benefit financially from this transition, even in a relatively early phase.

Investors have noted that the transport sector is undergoing rapid electrification and have in some cases sent share prices for companies in this value chain to stratospheric levels, both those that have shown commercial success and those that are far less mature. Expectations are high, which means companies have a lot to live up to if they are to be good long-term investments given current prices. This is true of both automotive manufacturers and sub-suppliers of critical components such as batteries and some commodities, as well as many companies specialising in charging stations. Established automakers that are expected to handle the transition well have also seen share prices surge recently, for example Volkswagen.

Another favourite segment among investors is hydrogen technology and fuel cells. Here too, expectations are often elevated, and most companies have a long way to go to achieve commercial success and profitability.

Although there are probably numerous future winners among producers of electric cars, automotive batteries, charging stations, fuel cells and hydrogen technology, we think investors need to be selective. In many cases the risk is high given current valuations, even after share prices for many of them have fallen by half or more since their peaks earlier this year. It is easier to find stocks that still have attractive valuations in other parts of the value chain. One area that we think is still attractive is companies that will benefit from electrification, for example suppliers of cables and other related electrical technology for everything from power transmission from offshore wind power parks to charging stations. We see good growth prospects in electrification, which is often not reflected in more stretched valuations than for the stock market as a whole.

Renewable energy plays a key role and will require the biggest investments, which are also crucial in making other aspects of the transition worthwhile. The industry is well represented on stock exchanges, and valuations (P/E ratios) have fallen by half from their peaks earlier this year. It is fairly clear that investors expect extreme pressure on margins in some more basic product segments going forward, since some companies are valued at a P/E ratio of around 5. On average, the solar energy index is now valued at a P/E ratio of 27 based on 12-month earnings forecasts, exactly in line with the Nasdaq 100 and only about three points higher than Stockholm's Benchmark Index, though in all likelihood growth prospects should be significantly better than for the average company on the Stockholm stock exchange.

Biomaterials and biofuels as well as some companies with operations in hydrogen technology, carbon capture and storage (CCS), environmental technology investments and energy efficiency improvements are other segments that should benefit from the green trend. However, in many cases their shares are still valued at earnings multiples that are hardly impressive.

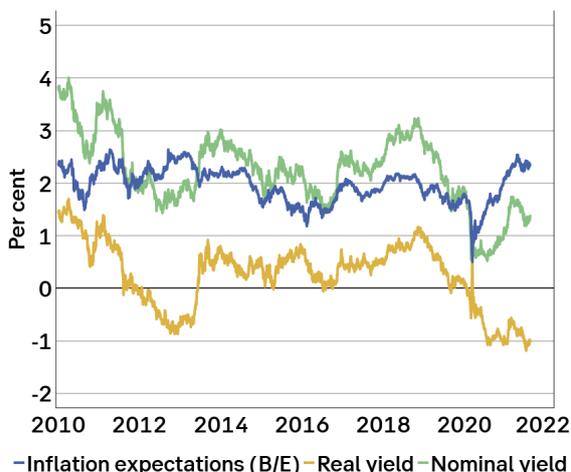
## Theme: Long-term yields

# Where are yields headed?

This theme article focuses mainly on the long-term – and in many cases natural – drivers of government bond yields. Our ambition is to identify a reasonable normal level for 10-year US Treasury yields. We conclude that the forces pushing down yields remain stronger than those working in the opposite direction. Global structural trends, including demographics, economic inequality and debt, will create low-yield environments for a long time to come – even assuming economic growth close to normal and inflation of 2 per cent. The article ends with the assessment that the long-term equilibrium level for nominal 10-year US Treasuries is expected to be 2.25 per cent  $\pm$ 0.75 points (1.50-3.00 per cent depending on the cyclical situation), with downside risks.



### Record-low real US Treasury yields

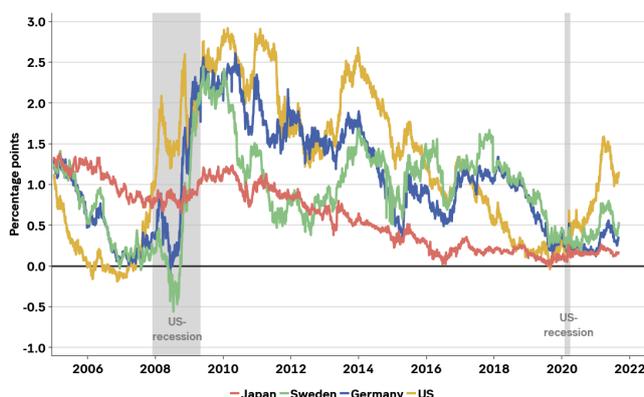


Source: U.S. Department of Treasury, Macrobond, SEB

The chart shows real yields on 10-year Treasuries (yellow), nominal yields (green) and break-even inflation expectations (blue). Inflation expectations have recently climbed faster than nominal yields, making real yields negative.

The big decline in bond yields during late spring and summer 2021 has raised many questions – and has occasionally created concerns. The fall in nominal 10-year US Treasury yields – at most by 0.6 percentage points to 1.20 per cent – has also contributed to flatter yield curves in various countries. Real 10-year Treasury yields (inflation-adjusted nominal yields) reached a new record low of -1.20 per cent in August. Since

### Flatter yield curve during summer



Source: U.S. Department of Treasury, Macrobond, SEB

The chart shows yield curves (10-year minus 2-year government bond yields) in Japan (red), Sweden (green), Germany (blue) and the US (yellow). Long-term bonds normally pay higher returns than short-term ones. This summer the gap between 10-year and 2-year yields shrank worldwide.

inflation expectations have been fairly stable in the past three months, real yields have fallen. The key question is: Is there a dark message about the future embedded in falling yields and continued sharply negative real global yields?

### Monetary policy in the back seat

Since the 2007-2008 global financial crisis, central banks around the world have used various monetary policy tools – including lower key interest rates and asset purchases – to support economic activity and achieve inflation targets. But monetary policy is also a direct effect of, and an adaptation to, a long-term and sustainable decline in the so-called equilibrium (neutral) interest rate: the rate that makes monetary policy neither stimulative nor tightening. Key interest rates must therefore follow the neutral rate downward; if the key rate remains unchanged, monetary policy will automatically tighten over time.

### What is an equilibrium interest rate?

An equilibrium interest rate is the price of money at which the supply of savings is equivalent to market demand for capital. The equilibrium interest rate is based on the neutral interest rate, which is not directly observable. The neutral interest rate is usually calculated in real terms (adjusted for inflation). The neutral interest rate must be equivalent to a level that applies when the economy is in balance (full employment and price stability). In addition, investors and borrowers may add various risk premiums to achieve a price of money that balances capital supply and demand. This theme article tries to identify the long-term nominal equilibrium interest rate – in this case for 10-year US Treasury securities – based on estimates of changes in supply and demand for capital and possible risk premiums.

The decline in neutral interest rates is a global phenomenon. It reflects such structural factors as ageing populations and a declining productivity growth trend. Additional cyclical headwinds – which have also required an adjustment in monetary policies in a more expansionary direction – are exemplified by the COVID-19 pandemic (2020-2021), the euro debt crisis (2010-2012) and the global financial crisis (2007-2008).

### Short-term developments in 2021

The fall in government bond yields during the summer of 2021 can, among other things, be linked to investors who seem to have reconsidered their view of “reflation trades”: positions benefiting from environments of high economic growth and rising inflation. Such positioning was widespread in the market early in 2021, supported by expectations of continued stimulus measures and the reopening of economies. At the same time, inflation concerns and risk premiums rose due to pandemic-related imbalances in supply and demand, for example in goods and labour markets.

### Falling interest rates are natural



Source: New York Fed

The neutral interest rate has trended downward for decades. This has pushed down interest rates generally, since central bank key rates need to follow suit. Key rates will otherwise stimulate the economy if they are lower than the neutral rate, and vice versa.

However, market worries about economic growth and inflation decreased due to increased concerns that the impact of US fiscal and monetary stimulus had peaked, as well as accelerating COVID-19 transmission – especially in emerging market economies – and forecasts that some elements of the surprisingly big surge in inflation were temporary. Overall, this contributed to an unwinding of market positioning for rising yields. This also strengthened the long-term decline in yields.

### Falling yields are nothing new

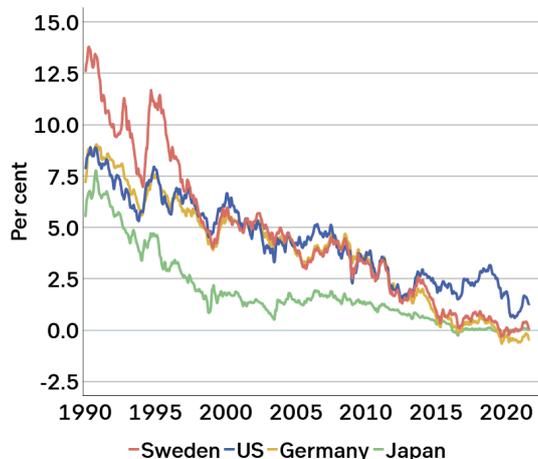
In the short term, the fixed income market continues to be governed by expectations about economic conditions, monetary policies and changes in market positioning. Yet the big picture is that global government bond yields have trended downward for at least 30 years. Although central bank monetary policy has contributed to this decline, it is clear that in the background there are structural, sustainable and thus permanent forces that will continue to influence the medium- and long-term trend of yields on government securities.

An initial explanation for the decline in long-term yields is that lower inflation risk premiums were established after central banks introduced inflation targets during the 1990s. Earlier unfavourable inflation patterns from the 1970s and 1980s have ceased, and inflation has become more predictable. Other reasons for remarkably stable core inflation in the mainly affluent OECD countries over the past two decades are the globalisation of goods and services production and growing international trade in consumer goods.

### Demographics are driving up savings

It is not news that ageing populations in economies around the world have generally contributed to strong downward pressure on interest rates, due to significantly higher savings. Populations age rapidly as birth rates decline and life expectancy increases. When a growing global savings surplus has

### Long-term yields have fallen for decades



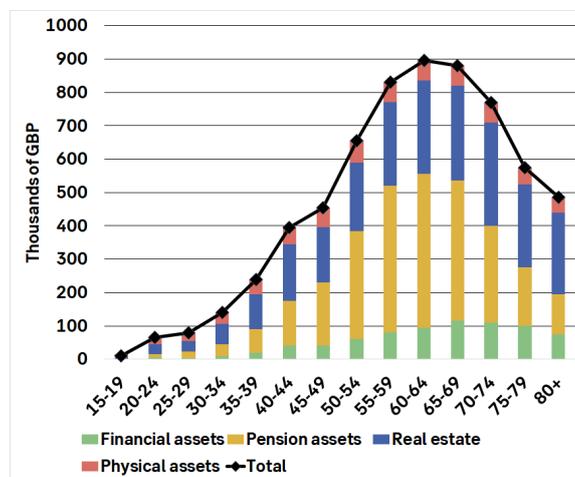
Source: U.S. Department of Treasury, Macrobond, SEB

Long-term government bond yields have fallen for various structural reasons. Some of these are still in effect, thus making major yield increases unlikely.

coincided with lower demand for capital due to slow productivity growth and a weak investment cycle, this has pushed down interest rates to levels that create a better balance between savings and investments.

The US neutral interest rate has fallen from about 5 per cent 50 years ago to essentially 0 per cent today. We see similar trends in other countries as well. This is, to say the least, a dramatic development that has had major consequences for central banks' manoeuvring room in using key interest rate as a tool to influence the economy and inflation. It has contributed to the emergence of unconventional monetary policies, such as central bank asset purchases (quantitative easing or QE policies).

### We are richest in middle age



Source: Bank of England

The chart shows wealth in thousands of British pounds. The colours indicate how this wealth is distributed. According to a British study, people's assets are at their highest in middle age. This demographic distribution affects the interest rate via the need for saving.

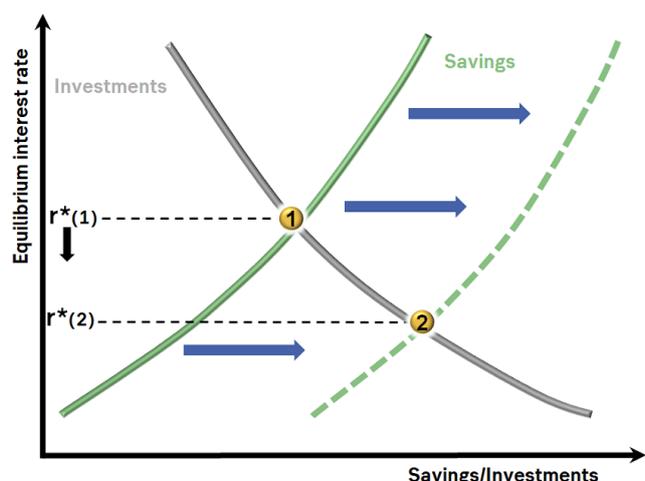
One often overlooked factor is that changes in demographic patterns also have consequences for how the population as a whole seeks an optimal level and allocation of its asset portfolios. This affects financial markets. Before retirement age, people are expected to increase their savings according to the “life cycle hypothesis”, a long-dominant theory that explains household consumption and saving behaviours – in other words, how much should be consumed today and in the future. In theory, people are assumed to make decisions about consumption and saving today that maximise the benefits of consumption over their entire life cycle.

Pensioners are expected to reduce their savings and increase their consumption, which pushes up interest rates. Now that entire populations are ageing around the world, there is – all else being equal – an increased need for saving. Meanwhile, older households tend to spend their savings relatively slowly. Because of the increase in net savings for the entire population, the equilibrium interest rate is being squeezed. In addition, older people are expected to own a larger share of safe assets (such as government securities) than risky assets (such as equities and corporate bonds). This also maintains demand for such investment products as government securities and pushes down bond yields. Because yields are historically low, this contributes in turn to increased savings to offset lower yields and maintain future returns.

**Retirement age and economic inequality**

Demographic trends suggest that downward pressure on interest rates will persist for many years to come – unless the retirement age is raised. Some countries have taken steps

**Savings and investments determine the equilibrium interest rate**



Source: SEB

The equilibrium interest rate depends on the ratio between savings and investments in the economy. For example, if savings (the supply of capital) increases, the equilibrium interest rate (the price of capital) decreases.

to adapt their retirement age to higher life expectancy, but it is both an unpopular decision and a very slow process. As a result, we also expect central bank manoeuvring room for key interest rates to remain limited. If central banks introduce so-called e-currencies, negative interest rates can theoretically be used to a greater extent, but this is instead likely to raise the risk of increased savings (see the theme article in *Nordic Outlook*, September 2021).

In recent decades, inequality has also increased in many economies. This also contributes to increased savings. Households with solid finances tend to have both a lower propensity to consume and a higher willingness to accumulate assets. This means that despite the rising net wealth of households, the impact on growth has been shrinking while savings have increased. In order to increase households' incentives to reduce savings, lower interest rates and yields are needed – all else being equal.

Meanwhile savings surpluses and lower interest rates stimulate households with poorer finances to increase their debt. Higher debt today means that room for future consumption is already being utilised, which may lead to increased future savings before reaching retirement age. This also entails asymmetric risks for the economy and financial stability and limits central banks' scope for raising interest rates. It makes very slow normalisation processes necessary, while pushing down yields and interest rates.

**QE policies – temporary or permanent?**

There are also other factors that help keep yields and interest rates down. Because of extensive central bank QE programmes (purchases of securities), since the global financial crisis of 2007-2008 – and in Japan's case since 2001 – private and public demand for capital has largely been met by central bank monetary expansion. This has helped to hold back interest rate hikes by reducing crowding-out effects. Such effects arise when governments borrow large sums of money, thereby leaving less room for the private sector and making it both harder and more expensive to borrow money for investments.

We estimate that central banks as a whole have increased their assets by USD 20 trillion over the past 13 years. This is equivalent to 23 per cent of global GDP (2019). Various studies show that expanding the balance sheet by 1 per cent of GDP helps push down long-term yields by roughly 5-7 basis points. For global long-term yields, this is equivalent to 120-160 basis points (the effect varies over time). Most indications are that central banks will retain much of their holdings of securities for a long time, especially in order to help finance public and private climate investments. Central banks can thereby contribute to climate transition efforts.

According to studies by the International Monetary Fund (IMF), pandemics have been shown to exert long-term downward pressure on the neutral interest rate. Wars, on the other hand, tend to push up interest rates as devastated countries

are rebuilt. The strong global fiscal policy response, a generally lower mortality rate and the fact that COVID-19 has mainly affected older portions of the population suggest that downward pressure on interest rates will not be as extensive. Instead, the ongoing climate change crisis can be compared to the effects of war. This may lead to upward pressure on interest rates.

### Equilibrium yield for 10-year US Treasuries

In order to estimate the long-term equilibrium yield level of 10-year US Treasury securities – and establish a benchmark over an economic cycle – three different building blocks are needed: (1) identify the forces that affect saving and investment and thus neutral interest rates, (2) inflation and (3) term premiums to identify the equilibrium level.

The US neutral interest rate, which is around 0.5 per cent today, is expected to remain in the 0-0.5 per cent range over the next couple of years. If anything, the neutral interest rate may fall further for the above-stated reasons. Global demographics and the life cycle hypothesis will continue to generate savings surpluses and demand for fixed income investments. This will squeeze yields. Our conclusion is that most central banks will retain the majority of their policy-related securities portfolios. One wild card is that after a time lag, we can expect a productivity boost. Economists sometimes speak of a J-curve effect for investments too. The pandemic has accelerated digitisation and automation trends. The US economy is now showing cautious steps towards higher productivity, which may stimulate demand for capital. This could push up yields and interest rates. At present, however, we believe that the forces that create savings surpluses are stronger than those that boost the demand for capital.

The inflation risk premium, which today is about 2.4 per cent (10-year break-even), has fluctuated between 1.5 and 2 per cent over the past 25 years. The pandemic-related inflation surge in 2021 is believed to be temporary. There is reason to believe that the disinflationary forces of recent decades will remain in place when the pandemic loosens its grip on economies. Globalisation, digitisation, automation and robotisation suggest continued muted underlying inflationary pressures ahead. A reasonable inflation risk premium should thus be 1-2 per cent (but closer to 1 per cent) in keeping with historical trends.

The term premium, which today is around 0 per cent, was negative during 2019-2020, which may seem strange. Logically speaking, an investor should be compensated – or at least not pay – for uncertainty about the returns provided by long-term investments. Possible explanations are a) reduced volatility in interest rates, especially short-term rates, due to the increased predictability of key interest rates, b) reduced volatility in inflation rates, c) large-scale QE programmes, d) regulations that compel the purchase of safe, liquid assets, and e) equity investors wishing to own fixed-income securities with long maturities as hedges against falling stock markets. A reasonable term premium may thus be 0-0.5 per cent.

Based on the above reasoning, a neutral interest rate would end up at around 0-0.5 per cent. It should be possible to set the inflation risk premium at 1.5-2.0 per cent and the term premium at 0-0.5 per cent. Taken together, these three estimates indicate that the benchmark level for a nominal 10-year US Treasury yield should fall in the range of 1.5-3.0 per cent, with 2.25 per cent as the midpoint. If anything, this theme article suggests that the estimate may end up below 2.25 per cent. If we assume that 2 per cent inflation targets are achieved, this equilibrium metric would result in a real return of 0.25 per cent over time.

### Epilogue: A world of low yields

To summarise, global demographic trends and preferences for increased savings (to deal financially with longer life expectancies), increased economic inequality, higher private and public sector debt and long-lasting central bank securities purchases are forces that will keep the equilibrium interest rate at historically low levels – or push it down further. One key conclusion is that ageing populations, given unchanged retirement ages, need to maintain a larger stock of assets. The key question for the equilibrium interest rate will thus be whether the demand for capital may increase to such levels that yields and interest rates will rise. Large-scale climate transition investments may be such one wild card. A productivity boost may also increase the willingness of businesses to invest, increasing the demand for capital.

Continued globalisation and corporate cost-cutting, as well as the Fourth Industrial Revolution – increased digitisation and automation – will help to keep inflation risk premiums down in the future, despite the concerns that exist today in various parts of the market. Bond yields will both rise and fall in the future, but the benchmark for a nominal 10-year US Treasury yield should end up around 2.25 per cent. This is a yield that will make record-high public and private sector debts manageable, while seemingly stretched asset valuations can still be defended.

Theme: Digital education

## From schoolbook to screen

When the percentage of well-educated people in a country increases, its economic productivity tends to do the same. Tax revenue spent on education is thus an investment in the country's future, its economic well-being and competitiveness. In the latter part of the 20th century, the world changed significantly in terms of technology and economic drivers, which requires new methods and technologies.

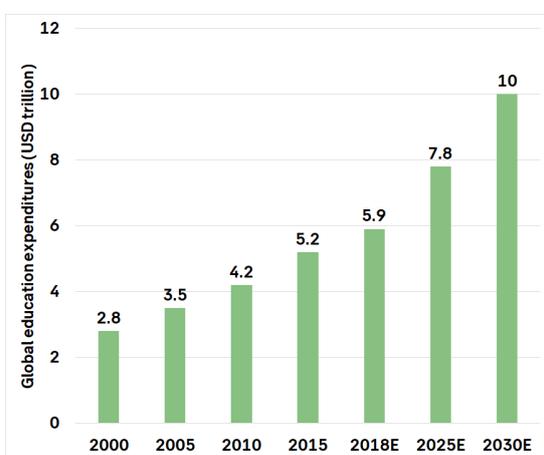
Over the past year, most countries have been forced to impose lockdowns due to the COVID-19 pandemic. This has had enormous consequences for both students and teachers. Education technology or EdTech, a multifaceted and controversial sector comprising digital education solutions, has played a vital role in schools during closures and at the same time enables increased efficiency and more equal education opportunities globally.



The demand for digital education solutions has increased significantly. The pandemic has served as a catalyst for a trend in which the previously paper-based education sector has essentially been forced to embrace a digital, online format.

Educational needs are also affected by demographic and cultural trends. In more developed parts of the world, the labour market is imposing increasingly high standards, and in emerging market countries population growth and increased prosperity have led to more and more people desiring an education. The research firm HoloniQ predicts that the number of students around the world will increase by more than 2 billion over the next 30 years. Education expenditures are also expected to rise globally from USD 6.2 trillion in 2020 to 7.8 trillion in 2025 and 10 trillion in 2030, which in that case would make education as large as the health care sector.

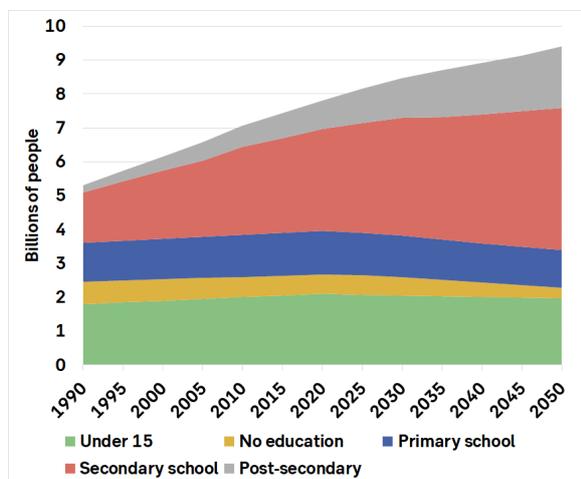
### More money will be spent on education



Source: HoloniQ Smart Estimates (Januari 2019)

As the population grows, greater prosperity and higher labour market standards will increase education expenditures globally.

### Two billion more students in 2050



Source: Wittgenstein Centre for Demography and Global Human Capital,

The demand for education looks set to increase, and it is predicted the world will have two billion more students in 2050.

Technological advances enable smarter, more efficient, more individualised instruction, which at the same time is not bound geographically – it can be made available globally. As new solutions come on the market, the level of ambition is rising.

### Welcome to your classroom Zoom

The digitisation trend addresses a number of global problems in society. According to UNICEF, the United Nations children’s agency, a full 61.6 per cent of the world’s students have been affected by COVID-related school closures. In late September 2020, more than one billion students had been affected by the closure of school premises and 224 million children had been forced to stay home from school.

While the pandemic has brought many misfortunes, it has also highlighted the potential of technology in education, especially from a social sustainability perspective. Digital instruction is not necessarily limited by geographic or socioeconomic factors but can instead be provided to almost anyone, anywhere and at any time. This can be done, for example, through digital classrooms using video services such as Zoom, Microsoft Teams or Google Meet.

In the long term, digitisation may produce many environmental benefits, since the education sector is still very much paper-based. Schoolbooks and other physical materials may soon be just a memory. Furthermore, there may be a reduced need for school premises and for travel to and from school in the future, which may also produce environmental benefits.

Despite the many potential advantages, critical readers will probably ask themselves important questions such as: What will students who have no computer or internet access do? What environmental impact can a change in consumption have through the use of other raw materials? How much of an effect does a higher degree of social distancing have on students’ mental health? Answers and solutions to these questions will hopefully be found over time.

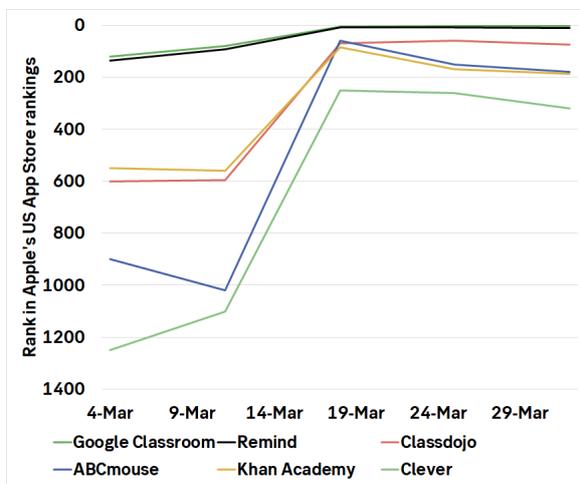
### Problem solving, at different levels

If instruction is provided in a format not limited by geographic factors or students’ socioeconomic situation, access to education can increase significantly. One prominent company with this focus is India-based BYJU’S, which provides digital instruction in English and regional Indian languages and has one of the world’s highest EdTech valuations. BYJU’S offers its services as a “freemium” concept, which means some services are free of charge, and users can then pay for more advanced functions. This enables students from weaker socioeconomic backgrounds to get a basic education.

However, students learn at different speeds and often in different ways – visually, contextually or by listening. With individualised learning, students can often perform better in school. The US-based company Chegg offers a range of such services, including computer technology-based methods for individual study plans, personalised online learning and rental of digital textbooks.

Moreover, teaching today is largely test-oriented and memory-based. Performance may be adversely affected by a fear of tests instead of reflecting the student’s genuine interest in learning – numerous studies emphasise the negative effect that a test-based education system has on students’ mental well-being. To keep students motivated, the instruction format can also cover other skills inside and outside the classroom, which may reveal undiscovered interests and strengths. One company specialising in this is the Norwegian-based Kahoot, which provides a game-based learning platform with multiple choice questions and contests. It is predicted that new instruction technology could create a more dynamic and positive learning environment, which has been shown to increase student attendance, participation and engagement.

**Mobile apps hint at the pandemic’s impact**



Source: App Annie, GSV Ventures (2020)

The downloading of mobile apps for digital education increased dramatically when the pandemic broke out. The Google Classroom app reached its highest ranking ever (2) in Apple’s US App Store, and the average ranking for popular education apps increased from about 500 to 121 in March 2020.

**Three of many different models**

These are just three of the many different business models that could contribute in various ways to progress in achieving the United Nations Sustainable Development Goals. For example, Goal 4, “Ensure inclusive and equitable quality education”, promotes the pursuit of free or reasonably priced education for all students around the world. In line with the UN’s Goal 10, “Reduce inequality within and among countries”, digital education can also lead to increased equality by allowing students’ personal interests to determine their own education to a greater extent and thereby ensuring that more people are given the chance to realise their full potential.

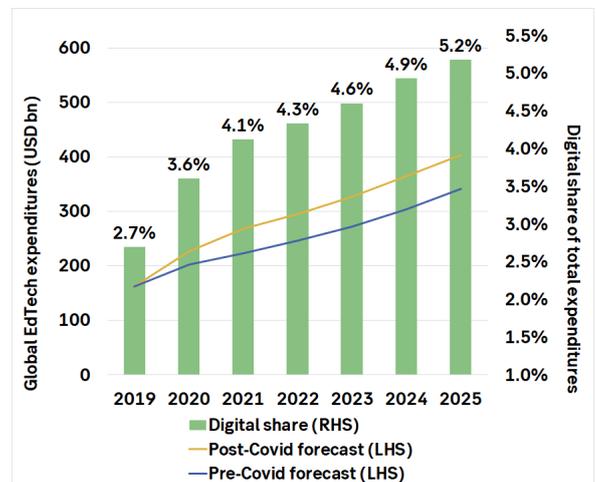
Access to education can also be seen as one of the most important factors in developing a broad population that is willing to work, and thus in improving economic productivity in a society. As a result, achieving the UN’s Sustainable Development Goal 4 also spurs progress towards Goals 8 and 9, “Promote inclusive and sustainable economic growth, employment and decent work” and “Build resilient infrastructure, promote sustainable industrialisation and foster innovation”.

**Digitisation is falling behind**

Among the technologies that EdTech companies are primarily seen to invest in are various kinds of augmented reality (AR), virtual reality (VR) and artificial intelligence (AI). The education market is broader than that. The research firm HolonIQ divides its market classification into ten sub-segments that cover far more areas and provides a good overview (see next page).

Students (at least in developed parts of the world) are certainly no strangers to online instruction or individualised software, but digital investments today actually account for less than 4 per cent of total education expenditures globally. The fact that digitisation has fallen behind should imply major growth and business opportunities in the long term for companies with value-creating digital solutions.

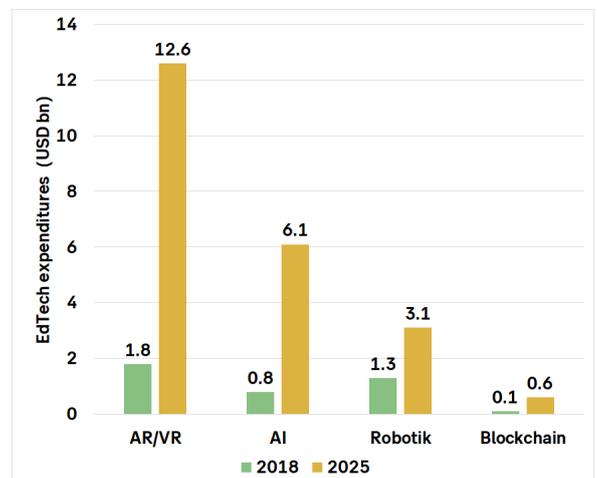
**The pandemic is accelerating digital education expenditures**



Source: HolonIQ (2020)

Forecasts of digital expenditures in the education sector were revised upward significantly after the outbreak of the pandemic. Digital expenditures as a share of total expenditures are predicted to increase sharply compared to today’s low levels.

**Investments in different technologies**



Source: HolonIQ (2020)

There are many areas where digital education solutions can be used, and companies are investing in a number of different technological solutions for educational purposes. There is great hope for the future of augmented/virtual reality and artificial intelligence.

**A market overview of the development of different kinds of solutions**

Knowledge & content management	Operators that drive the development, for example, of curricula, open knowledge banks and tools that can read and simplify large quantities of data in different languages and in different media.
Education management	Comprehensive solutions and digital architecture in which students, teachers, parents and administrators can follow the student's development and together design an optimal education. This also includes technology that integrates digital resources in the classroom, so-called smart classrooms, and platforms that make it easier to apply to different education institutions and for education funding.
Traditional models	From preschool to primary and secondary school to university. These companies drive education operations in a more traditional way.
New delivery models	Have you heard of MOOCs (massive open online courses), OPMs (online programme managers) or Bootcamp 2.0? They all constitute new models that involve some form of online education.
Experiencing learning	This category includes operators that provide robot solutions, artificial intelligence, virtual reality (VR) and simulation to support the learning process.
International education	Language tests and exchange services are important from a global perspective, and there are a number of solutions in this segment driving their development.
Learning support	These companies are focused mainly on learning tools, for example summaries and synchronised digital instructions, but also on test preparation tools.
Assessment & verification	Assessment and feedback are a key component of the education process. This segment includes tools that automate and support such aspects.
Workforce & talent	During the hiring process, we are often asked questions about our skills and education in different areas. This segment of the education sector is focused on solutions that certify knowledge and provide employers and jobseekers with better transparency on knowledge.
Skills & jobs	Another sub-segment that focuses on jobs, internships and mentor systems.

Source: HolonIQ

**A complex interplay between the public and private sector**

But if the potential is now so great, why is the education sector not digitised to a greater extent? Educational theory is offered for many different age and knowledge levels, with global, national, local and personal programmes simultaneously working together and competing with one another. In many cases, this makes cross-segment collaboration and innovation more difficult.

There is an intricate interplay between providers, clients and users of digital education tools. It is extremely difficult to implement new solutions broadly and systematically, since there are great differences between countries and regions. More

specifically, socioeconomic and cultural differences between geographic areas may also give rise to different conditions, which may affect everything from economic opportunities to curricula to regulatory requirements.

This, in turn, may cause a number of problems for companies that provide digital education services – users and providers are often forced to change their concepts. For example, Swedish-based Sensavis, which offers digital learning tools, was forced to reconfigure its business model four times between 2013 and 2018. The complexity is in adapting private sector operations to public sector service models and in meeting continuously changing social requirements. This dynamic makes it difficult to develop a durable business model.

At the same time, it may be worth noting that the interplay between the public and private sector in many cases has worked very well, and many large companies have provided support to the education sector during the pandemic. For example, in April 2020, Google donated 4,000 laptop computers and 100,000 mobile hotspots to students outside California’s metropolitan areas to enable remote learning.

**What will be the future role of teachers?**

One can also question the amount of time needed to implement digital instruction technology in practice. A digitised education sector with an element of AI-based instruction may, of course, alleviate the teacher shortage, but that also gives rise to a number of ethical and social dilemmas.

From a long-term perspective, AI technology, robots and digital tools may gradually bring about a significant change in the teaching profession, or even compete with teachers. AI and other technical tools can provide optimised, individualised instruction, at a potentially lower cost. But the consequences of tasks being taken over by robots is a research field that has generated great controversy. Many people argue that the phenomenon may trigger the growth of social problems and mental illness, mainly due to the risk of unemployment.

Although rapid advances are being made, we are nonetheless far from achieving the cognitive, emotional element that human instruction can provide, for example in the form of emotional intelligence and empathy. A higher degree of digitisation in the education sector thus does not mean the end of human instruction. It is more likely that the role of technology in the medium term will instead be to facilitate, assist and improve efficiency.

**Chinese market dominance...**

EdTech is an exciting stock market niche that is dominated today by companies in China and the US. Valuations are far higher than for the stock market in general, and the risk level of these companies may also be considered higher than average. Along with the complexity mentioned earlier, this is also largely due to their relative immaturity and great uncertainty about future winners.

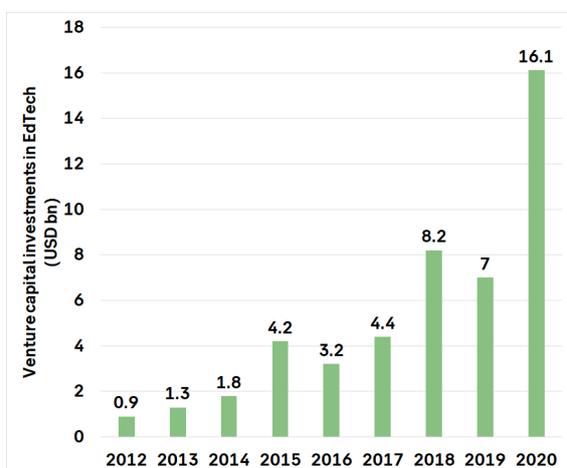
The digital education sector’s geographic heavyweight, China, cannot be ignored. The country is growing rapidly. It was also the world’s only major economy to show positive growth during the pandemic year 2020. There is a growing middle class among its population of about 1.4 billion as well as a strong historical culture that emphasises the importance of education. Yet while the country has some 180 million students, only 40-50 million participate actively in online instruction at present.

In China, the world’s largest education market, there is a clear focus on domestic investments and an abundance of start-ups, which in 2020 constituted more than 60 per cent of global venture capital (VC) investments in the sector. In early 2021, EdTech was one of China’s hottest investment themes, and in 2020 more than USD 10 billion in VC investments were raised from corporations such as Alibaba, Tencent and SoftBank.

**...but a difficult year on the stock market**

While US education companies have had a relatively calm year, the major Chinese companies, like the Chinese stock market in general, have had a turbulent 2021. Education, however, has been hit harder than most other sectors. This is

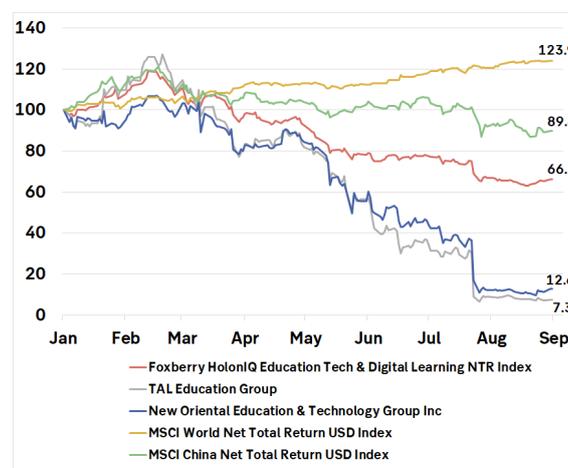
**USD 16.1 billion in VC investments in 2020**



Source: HolonIQ

After a calm 2019, 2020 was a new record year for venture capital investments in EdTech. China dominates, followed by the US.

**Chinese tightening led to sharply lower share prices**



Source: Bloomberg

A strong start to the year was followed by numerous rumours during the spring about tightening moves by Chinese authorities. This hit Chinese EdTech companies hard and apparently affected other geographic areas to some extent. In July, the tightening was made official, and share prices fell further.

mainly due to drastic cuts by the Chinese government, which were concentrated on private education alternatives for elementary school, among other segments. The government's explicit goals are mainly to cut costs for parents with primary school-age children and reduce students' academic workload.

In March, companies that provide private education alternatives were prohibited from marketing their services via state-owned media. Bans were also instituted on for-profit preschool operations and online education after 9 p.m.

New regulations are expected to enter into force soon, to be rolled out in a continuous process across the country. These will continue to restrict the ability of private-sector companies to provide services and make a profit. For example, there is talk of prohibiting private instruction in schools and other academic entities, private education on weekends and extra-curricular classes up to Grade 9. Another potential change is to prevent companies from registering abroad and thereby circumventing existing regulations for listing their shares.

Given the lack of details and further explanations of the new regulations, it is difficult today to determine their long-term effects. However, investors were quick to sell off shares in Chinese education companies. For example, share prices for industry giants TAL Education and New Oriental Education have both fallen about 90 per cent this year. Although prices have stabilised somewhat recently, they have not recovered despite the Chinese government's efforts to calm the market.

### **Conclusion**

Based on forecasts and analyses, there is no doubt that the future is bright for digital education. COVID-19 continues to accelerate what was already a strong trend, and the digital education sector is continuing to set new records. We see a number of potential advantages from a sustainability perspective, which may constitute important future drivers.

At the same time, investors should critically analyse why the development of digital education has been so slow to date. Many new companies with innovative business models continue to navigate across borders and through tricky regulatory waters, where political winds can quickly shift and visibility is poor. It remains to be seen when the fog will lift – but it may be worth the wait for investors.

# International overview

Excerpt from the *Nordic Outlook* research report.

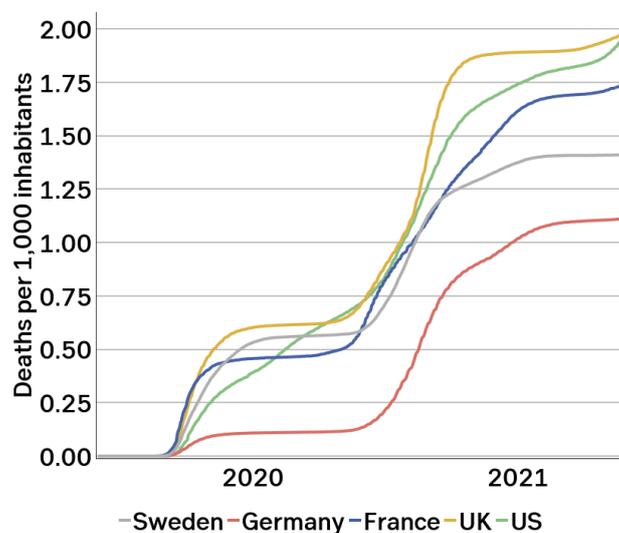
You will find the full report at [seb.se/nordicoutlookreport](http://seb.se/nordicoutlookreport).

Western European economies have recovered surprisingly fast as restrictions have been eased. We have raised our GDP forecasts, although higher COVID-19 transmission is now hampering growth a bit. New lockdowns in Asia are creating global disruptions, for example via inflation-driving bottlenecks. The US is maintaining its leading position in the recovery. Despite upside risks, we expect inflation to fall in 2022 – enabling the Fed to postpone rate hikes until 2023, when unemployment falls below pre-pandemic levels.

Developments in recent months have changed the economic outlook in somewhat contradictory ways. Due to the easing of COVID-19 restrictions, the recovery in the second quarter of 2021 was stronger than expected in Europe. The labour market situation has also improved unexpectedly fast in many places. New forecasts from the International Monetary Fund (IMF) and the European Central Bank (ECB), among others, show a pattern of closing the accounts early on the consequences of the pandemic. GDP forecasts have been adjusted upward. By the end of 2022, economies will largely have reverted to the resource utilisation that prevailed before the pandemic broke out. This becomes especially clear now that we have extended our horizon by another year. Forecasts for 2023 are calm, with minor changes in the labour market and GDP growth close to the long-term trend. But in the past few weeks, new risks have also emerged as virus transmission has again increased. Although renewed restrictions in Europe will be milder than earlier ones, when combined with more cautious behaviours they are among factors that will hamper parts of the economy for quite some time. New lockdowns in Asia, including at vital ports, are also creating disruptions in global transport systems.

**Unexpectedly strong inflation impulse.** High inflation has also raised questions about whether the upturn is only temporary or whether we are underestimating the consequences of extreme economic stimulus. In the United States, core inflation is now around 5 per cent, the highest level recorded since the early 1990s. Although price-raising supply shocks look set to be more long-lasting than previously expected, our conclusion is still that inflation will decline early in 2022. Yet the combination of an unexpectedly rapid downturn in unemployment and high inflation numbers raises questions about the appropriate times for withdrawing stimulus. A rapid, synchronised upturn in home prices is accentuating the negative side effects of ultra-loose monetary policy.

Number of deaths per 1,000 inhabitants



Source: WHO, Macrobond, SEB

**The market is relaxed about the threat of inflation.** Despite high inflation figures, bond yields have fallen quite sharply in an environment of muted risk appetite. Concerns about renewed virus transmission have contributed to this. But it also seems as if cautious signals from central banks – especially the US Federal Reserve – are causing the market to start sensing impending policy mistakes. It is also clear that the market is not particularly worried about inflation. Although inflation expectations have rebounded since their downturns in 2019 and 2020, they instead indicate an overwhelming likelihood that inflation will end up below central bank targets within a few years.

**Exaggerated expectations about vaccines.** The consequences of the pandemic thus continue to affect the forecast situation. Although easing of restrictions has helped push GDP growth higher – in some cases more than expected – hopes that COVID-19 vaccines would ensure a return to normal conditions have proved exaggerated as more infectious coronavirus mutations, especially the Delta variant, have appeared. Israel provides the clearest example that new waves of transmission can come, in spite of a very high vaccination rate. We can also see similar patterns in Western Europe, while setbacks in the US are also due to a slower pace of vaccinations – partly as a result of vaccine resistance. In many emerging market (EM) economies and in poor countries, low vaccination rates are still a problem despite increased global vaccine production. To some extent this is because countries that were successful in suppressing transmission early in the pandemic seem to have underestimated the importance of vaccinating their populations. Delayed vaccination campaigns in these countries also increase the risk of the emergence of new vaccine-resistant virus variants. Further ahead, this would also threaten countries with high vaccination levels.

**Gentler lockdown strategies in Europe.** Although COVID-19 transmission is now increasing, we are not seeing a corresponding upturn in severe illnesses or deaths. Since vaccinated people suffer milder symptoms, and the average age of those now being infected is lower than before, decision makers have greater scope to weigh the precautionary aspects of COVID-19 policy against the growing need for normalisation. This is reflected in greater restraint in imposing new restrictions. One way is to limit restrictions to unvaccinated groups. In France, for example, vaccine passes are required to enter restaurants, bars and various events, which has led to protests. The trend towards milder kinds of restrictions is likely to continue. But meanwhile, because new mutations may lead to recurring waves of transmission, the virus will affect the economy and society for longer than we had previously expected.

**But a more stable forecasting environment.** Our revisions since the last *Nordic Outlook* are generally small, unlike the sharp fluctuations we saw earlier in the pandemic. Despite new COVID-19 waves, we thus seem to have entered a more stable forecasting environment. We now expect global GDP growth of 5.9 per cent this year and 4.4 per cent in 2022: unchanged in 2021 and a marginal upward adjustment of one tenth of a point in 2022 compared to our May forecast. A strong Q2 has contributed to 2021 upgrades for the euro area and Sweden, among other places, but we are making a somewhat more cautious estimate for the US compared to both our May forecast and the consensus for this year. Consumption is now slowing somewhat after an earlier boom, with purchasing power being squeezed by the withdrawal of stimulus measures and high inflation. We have also slightly downgraded projected GDP growth for our EM sphere in 2021, mainly due to new lockdowns.

**Supply side restrictions are increasingly important.** Although we generally make slightly more cautious assessments than consensus, it is clear that economies will return to their pre-pandemic trend sooner than expected. This means it is now

**GDP growth forecasts, per cent**

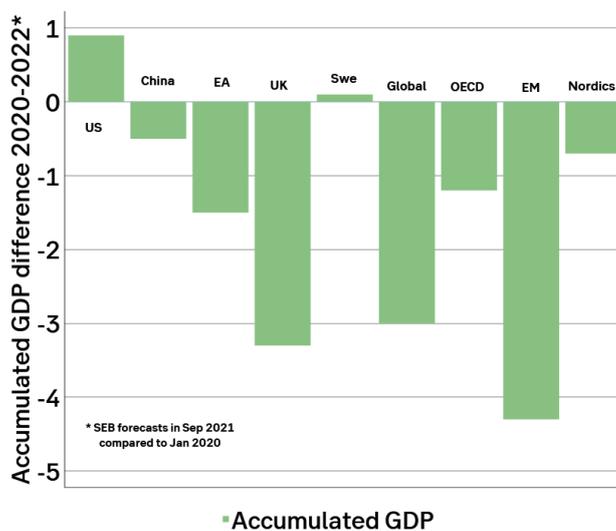
Market	2020	2021	2022	2023
World	-3.4	5.9	4.4	3.4
United States	-3.4	6.0	4.2	2.1
China	2.3	8.6	5.6	5.4
Japan	-4.7	2.5	2.3	1.2
Sweden	-2.8	4.6	3.9	2.3
OECD	-4.7	5.1	4.0	2.3
Euro area	-6.4	4.6	4.3	2.5
Baltic countries	-2.1	4.8	4.3	3.4
Emerging markets	-2.2	6.5	4.8	4.3

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

increasingly important to analyse the supply side of the economy, especially as we now extend our forecast horizon to the end of 2023. In the last *Nordic Outlook*, we tried to illustrate the response of various economies to the crisis by comparing our current forecast for 2020-22 with the one we presented in late January 2020, just before the pandemic broke out. Since the pre-pandemic economy was in a fairly normal cyclical situation with GDP forecasts close to trend, we also concluded that the divergences in the chart below can be interpreted as a rough preliminary assessment of the GDP gap for 2022.

**Some convergence between the US and Western Europe ahead.** Differences between various parts of the world economy have narrowed somewhat, compared to our May report,

**Varying effects of the pandemic on GDP**



Source: Macrobond, SEB

but the US still stands out with overall GDP growth slightly above our pre-crisis forecast. In other words, we now expect a higher GDP level there in 2022. This reflects strong demand pressure due to Fed interest rate cuts and massive fiscal stimulus programmes. Major Western European economies continue to show sizeable gaps, although they have narrowed slightly. The relative resilience of the Nordic economies is clearly visible. This gap analysis is the basis for our view that in 2023, GDP growth in Western Europe will again be above trend. But given the uncertainty of forecasting so far in the future, we interpret this relatively cautiously, especially for the United Kingdom, where the consequences of Brexit (withdrawal from the European Union) imply especially great uncertainty about the size of the available labour supply.

**New risk situation less related to pandemic.** Even though vaccinations have not lived up to all the high expectations, we are now still entering a phase where the risk situation is changing. Resistant mutations and renewed transmission waves due to the slow pace of vaccinations in poor countries may still contribute to disappointments. But inflation and failures linked to central bank exit strategies are starting to play a larger role among downside risks. If inflation and inflation expectations actually soar, central banks – especially the Fed – could face the dilemma of either tightening economies in ways that would trigger dramatic downturns in share and housing prices or else accepting higher inflation expectations and losing touch with their inflation targets. The drama surrounding the Taliban's rapid takeover of Afghanistan is raising the geopolitical risk level. For example, stability in surrounding regions would be threatened if an escalating humanitarian disaster leads to large refugee flows. Looking ahead, we cannot rule out scenarios that contribute to rising tensions between China and the US. But experience tells us that special circumstances are required before crises of this kind have a more lasting impact on economic growth.

**Various scenarios for the OECD countries**

GDP growth, per cent	2021	2022	2023
Main scenario	5.1	4.0	2.3
Negative scenario	4.1	1.2	1.9
Positive scenario	5.7	6.9	2.8

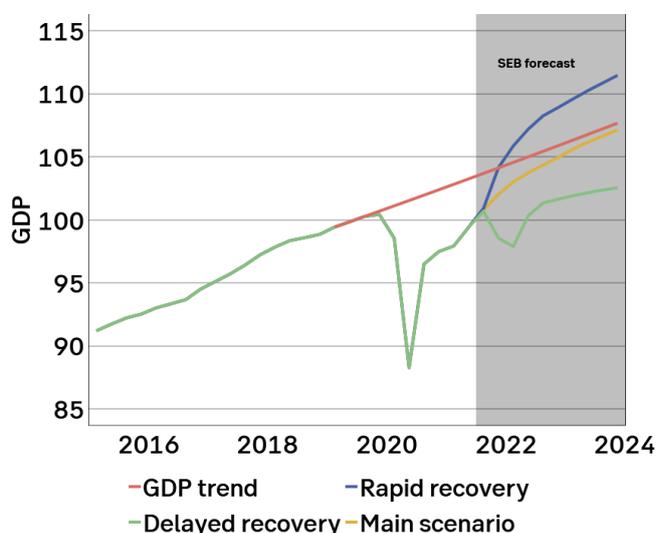
Source: SEB

**Strong consumption combined with a productivity surge.**

Better growth than in our main forecast mainly assumes that we have underestimated the power of economic stimulus measures. A combination of pent-up consumption needs and a high household savings level represents major potential. A robust increase in consumption may also lead to an upward spiral that triggers broad-based capital spending. Vigorous recovery would reduce the risks of permanent exclusion of workers who were squeezed out during the pandemic and who can now be quickly mobilised. This would also reduce the burden on public finances and alleviate future vulnerability. To ensure that such a scenario would not lead to clear long-term overheating tendencies, relatively favourable labour supply and productivity trends are also required. In our assessment, the risk situation is now quite symmetrical.

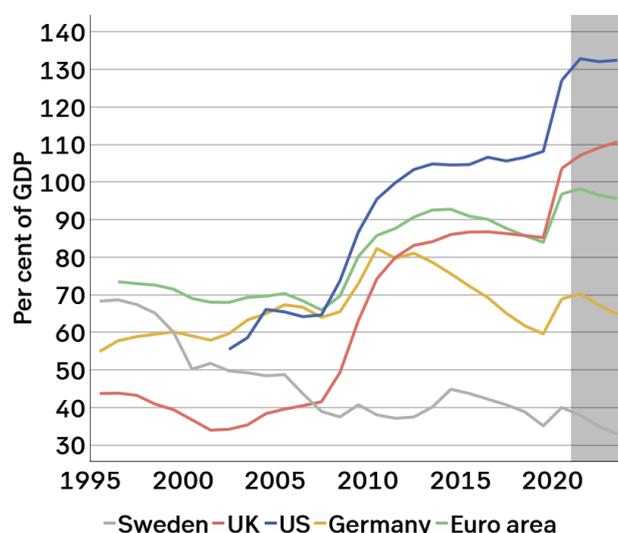
**Slow fiscal policy normalisation.** Recurring waves of infection are one reason why new stimulus packages continue to be unveiled. But even if crisis responses are extended, the burden on public finances eases as needs decrease. Instead, the focus is increasingly on helping sustain the recovery by supplementing traditional stimulus measures with investments in infrastructure, the environment and digitisation. Examples include the Biden administration's USD 1 trillion infrastructure package and attempts to enact another USD 3.5 trillion package. Although the latter package will be fully funded, it is front-loaded, which

Various scenarios, GDP in OECD (index 2019 = 100)



Source: SEB Nordic Outlook

Stabilisation at high levels



Source: IMF, Macrobond, SEB

will have some positive growth effects. The EU is now rolling out its Next Generation EU package, which includes annual investments of about 1 per cent of GDP for 5-6 years.

Most countries have focused hard on supporting their economies despite different situations at the outset. The US enjoys a high degree of flexibility thanks to the role of the dollar as a reserve currency. In Europe there is a fairly broad consensus on not repeating the mistake of imposing austerity too soon after the 2007-2008 global financial crisis. In Sweden, the government recently announced that its September budget bill for 2022 will include SEK 74 billion in added spending; well above the 40 billion that would be consistent with a stricter interpretation of the fiscal policy framework. Overall, fiscal policy in the mainly affluent countries of the Organisation for Economic Cooperation and Development (OECD) looks set to be somewhat expansionary also this year after a uniquely large stimulus injection equivalent to 5 per cent of GDP in 2020. Smaller crisis responses are this year being offset by more aggressive growth initiatives. We also foresee significant spending in 2022 and 2023. If we measure the fiscal impulse as a change in cyclically-adjusted general government balances, there will be a tightening of around 3 per cent of GDP in 2022 and of around 1.5 per cent of GDP in 2023 in the OECD countries as a whole.

**The price of extreme weather.** There is an increasing focus on the interaction between climate transition and traditional fiscal stimulus. Extreme weather events this summer – including torrential rains and heat waves – combined with publication of the new report of the United Nations Intergovernmental Panel on Climate Change (IPCC) have created a renewed sense of urgency in discussing climate change and the need for action. Our theme article in *Nordic Outlook* entitled “Extreme weather” discussed whether this will strengthen the resolve of political leaders at the Glasgow climate conference in early November. This is possible – even probable – but not self-evident. According to the IPCC, we need to invest USD 3.5 trillion per year in climate transition efforts to meet the 1.5 degree target. Today’s investments are nowhere near these levels. This summer’s events have also highlighted other major investment needs. Both restoration after natural disasters and adaptation measures to ensure that countries, cities and people are more resilient to future disasters will also require major spending. The question is whether there will be enough money for everything, or whether long-term climate transition measures risk postponement due to other needs that are perceived as more acute.

**Downward adjustment in EM growth forecast.** Generally lower vaccination levels in emerging market (EM) economies, especially in the poorest countries, are now creating vulnerability. New virus transmission waves have lowered consumer confidence and the willingness of businesses to invest. Except for India, the downward adjustments in our GDP forecasts are largest among Asian countries that were best in stopping the initial stage of the pandemic. China will likely maintain its zero tolerance policy for COVID-19 transmission, but new lockdowns will probably be geographically limited and thus have little impact on domestic growth. Yet disruptions to global supply

chains will still be significant, for example when ports close. In Latin America and Russia, however, GDP growth has surprised on the upside – partly because the authorities are reluctant to impose restrictions and have accepted higher transmission figures to avoid throttling economic activity. But upgraded forecasts for these countries have not fully offset downward revisions, especially in China and India. We have thus lowered our growth forecast for the EM sphere from 6.8 to 6.5 per cent in 2021. We are maintaining our forecast of 4.8 per cent in 2022 and expect a slowdown to 4.3 per cent in 2023.

**Resilient to higher interest rates.** Inflation has also risen markedly among EM economies, and some central banks have hiked their key rates. As long as the global economy continues to recover and inflation does not keep rising, a gradual upturn in global interest rates is not a problem for the majority of EM economies. But if we were to see sharply rising inflation and market interest rates – for example driven by overly expan-

#### GDP growth, BRIC countries and EM sphere

Year-on-year % change	2021	2022	2023
Brazil	8.6	5.6	5.4
Russia	8.9	6.3	4.9
India	5.3	2.5	2.2
China	4.3	2.9	2.0
Emerging markets, total	6.5	4.8	4.3

Source: IMF, SEB

sionary USD fiscal policy – there would be major consequences. EM currencies would then face strong downward pressure, forcing interest rate hikes that would lead to a slowdown in growth.

**Oil prices will fall slightly.** We are sticking to our oil price forecast from the last *Nordic Outlook* in May. The growth in demand for oil and other energy sources looks set to be somewhat lower than we previously thought, due to the increasing COVID-19 transmission. However, OPEC+ oil producers are likely to compensate for this, continuing to limit their output in order to maintain a price in the range of USD 65-75 per barrel in 2021. A normalisation of the global economy, especially travel and transport, will help sustain demand. But meanwhile, investments and research on alternative energy sources as well as ambitions to lower demand. Overall, we expect the average oil price to fall to USD 62.5/barrel in 2022 due to a need among oil-producing countries, especially Russia, to increase sales and a relatively limited increase in demand.

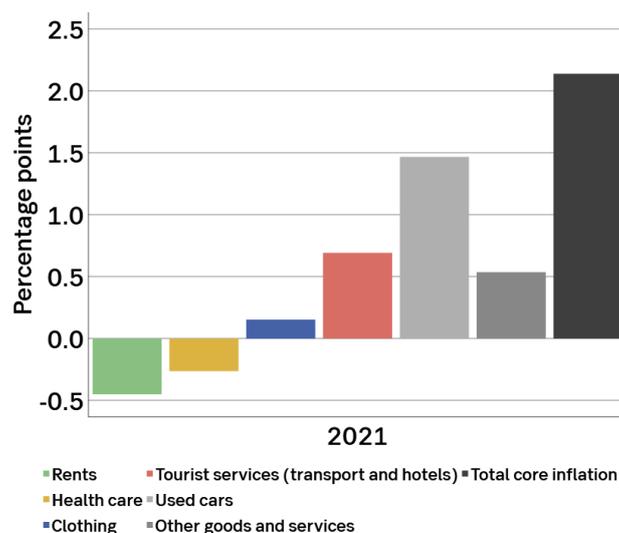
**Artificially rapid downturn in unemployment.** Unemployment has continued to surprise on the downside. In the US it fell to a low 5.4 per cent in July. In the euro area the latest figure is 7.7 per cent: only half a percentage point above pre-pandemic figures. In addition, the percentage of companies having difficulty recruiting suitable employees has risen to historically high levels. Against this background, it is natural to ask whether economies can actually grow much faster than trend over

the next couple of years. However, we can identify various temporary factors behind the strained supply side situation. In the US, for example, the supply of work is hampered by closed schools and difficulties in commuting to jobs, while temporarily expanded unemployment benefits reduce incentives to work. In the euro area, certain crisis responses are holding down labour force participation. Unemployment is thus likely to climb somewhat this autumn as participation normalises.

**The productivity trend is hard to interpret.** Crisis responses related to the pandemic also create various problems in interpreting economic statistics. This is especially true of wage and productivity trends, which are mainly complicated by difficulties in measuring how many hours of work are actually performed. Despite this uncertainty, we can still see signs of an upturn in labour productivity, for example in the US. This has raised hopes that the crisis will help unleash the potential created by digitisation processes over a long period, sometimes called the Fourth Industrial Revolution. If we actually achieve such an upward shift in the productivity trend, this would be highly favourable for the medium-term growth and share price outlook. Such technology shifts often also generate worries about persistently higher unemployment when certain kinds of jobs disappear, but history shows that such adverse effects are short-lived. Technological leaps that boost the economy's production potential tend to generate higher demand in various fields rather quickly.

**Inflation problems in various time perspectives.** Recent developments have raised the question of how serious the inflation threat actually is. US inflation now exceeds 5 per cent – the highest since the early 1990s. In a theme article in *Nordic Outlook*, we discuss various aspects of the inflation process. We are maintaining our view that the US inflation upturn is largely driven by temporary pandemic-related factors. For example, used car auction prices are up 50 per cent, largely because car hire companies quickly need to restore sharply reduced fleets. Rising tourism service prices are now also making a major con-

### Used cars and tourist services are driving up US inflation



Source: BLS, Macrobond, SEB

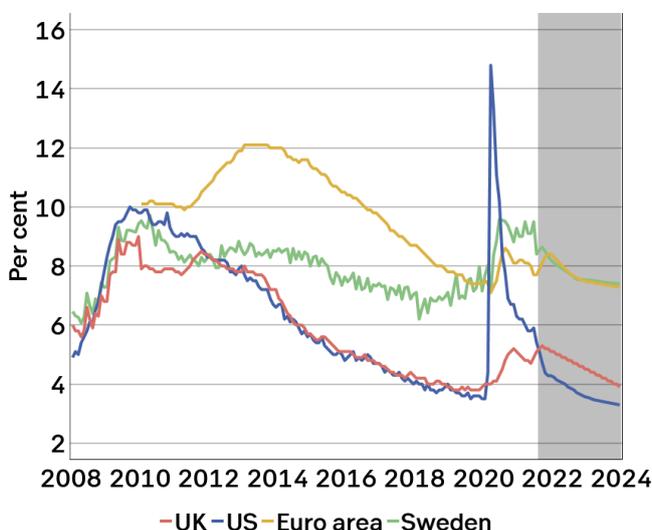
tribution to CPI inflation due to base effects as prices normalise from very depressed 2020 levels. Western Europe's CPI upturn is not as dramatic, especially in Sweden. We see several reasons for this. The consumption upturn has not been as strong as in the US, partly due to the design of stimulus measures. The used car market also works differently, making a price explosion along US lines very unlikely.

**Temporary impulse, despite longer-lasting disruptions.** It is highly probable that these price surges linked to reopening the economy are temporary and that inflation will thus fall in 2022. But disruptions to production and transport will be clearly longer-lasting than expected. This is largely connected to renewed virus transmission and new lockdowns in Asia, especially port closures, which contribute to higher freight rates. We can see that producer prices on more highly processed consumer goods have also begun to rise. To some extent, elevated commodity prices are also contributing to CPI inflation, but with the exception of oil and food, their impact is likely to be small.

**New tests of the puzzling Phillips curve.** Since we now appear to be living with high US CPI inflation, it is especially important to also analyse how the long-term inflation environment may be affected. In order for inflation to shift permanently higher, a regime change in the rate of pay increases is also required. Because we believe that today's bottleneck signals in the labour market are temporary, the matter will be decided in the future. In general, wages have long been insensitive to changes in the jobless rate. Record-low US unemployment just before the crisis, for example, generated only minor increases in the pace of wage and salary growth. Unemployment in the US is expected to fall to 3.3 per cent at the end of our forecast period, slightly below its pre-pandemic level. We will thus once again test what the Phillips curve – the association between the labour market and price and wage formation – looks like.

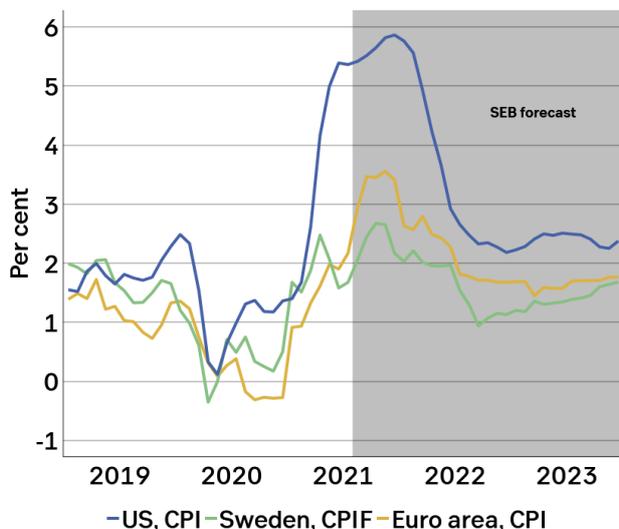
Will structural forces change wage formation? Some structural factors may suggest slightly higher pay increases this time. Concerns about growing economic gaps have attracted greater

### Unemployment is falling in different speeds



Source: SCB, BLS, ONS, Eurostat, Macrobond, SEB

## Inflation will fall (year-on-year percentage change)



Source: SCB, BLS, Eurostat, SEB

attention in the political discourse. Higher minimum wages may, for example, lead to more broad-based pay hikes. The period of high inflation may also cause the Phillips curve to shift upward via rising inflation expectations. But so far, no strong signs of this are visible. Market pricing for CPI inflation has rebounded after the declines in 2019 and 2020, but it is not at alarming levels either in Europe or the US. Due to lower international mobility, combined with higher pay levels in certain emerging market economies, the wage-restraining power of globalisation may diminish over time, but it is still hard to believe this would change the picture in any decisive way.

**Is monetary stimulus playing with the fire of inflation?** The current inflation surge has also revived the belief that exceptional monetary expansion can itself generate inflation. We estimate that in 2020 and 2021, central bank assets will grow by USD 12.5 trillion. Since the financial crisis, the increase has been USD 20 trillion. Assuming a monetary multiplier of about 4, we end up with a USD 80 trillion total expansion of lending in the banking system (92 per cent of global GDP in 2019). A rough estimate shows that central bank purchases of securities have driven down global long-term bond yields by 120-160 basis points.

**No monetary shortcuts to inflation.** Yet we are sticking to our view that there are no “monetary shortcuts” to CPI inflation – decoupled from demand pressures on goods, services or labour. We now see how monetary expansion is pushing up prices of assets such as equities and residential property. To some extent, this also increases general demand in the economy, but this “wealth channel” is weakened by uneven distribution of assets. However, the inflation risks of monetary expansion are often played down, since it is assumed that central banks can withdraw stimulus measures rather quickly if inflation targets are fundamentally threatened. But if we begin to suspect that central bank independence is threatened by national governments prioritising other economic policy goals, our conclusion might change. We find it difficult to foresee such a develop-

ment, though, especially in advanced economies. The changes in monetary policy frameworks that we have seen, especially in the US, should instead be interpreted as an attempt to draw conclusions from previous difficulties in actually achieving central bank inflation targets.

**Synchronised home price upturn.** During the pandemic, the home price upturn has been unusually synchronised. Prices have risen in a full 90 per cent of advanced economies. In some countries the annual increase has been higher than for decades. Rising home prices even in the initial stages of the pandemic – despite plunging GDP and rising unemployment – also diverge from the pattern in previous crises. Both monetary and fiscal policy makers responded unusually fast, creating an environment of exceptionally low mortgage rates and good income growth. Underlying household balance sheets were also in much better shape than during the financial crisis, for example. Since the financial system was in good condition at the outbreak of the crisis, it was possible to avoid the kind of credit crunch that often prolongs and deepens economic downturns. There was also a shift in preferences towards larger living spaces, due to increased remote work and fewer opportunities for travel.

**Stabilisation at a high level.** In itself, the rapid home price upturn during the pandemic creates potential for downshifts when the situation normalises in various ways. In Norway and Sweden, price increases have slowed markedly in recent months, although it is hard to determine how much of this is due to seasonal summer effects. SEB's Housing Price Indicator fell sharply in August but remains above its historical average. Although the labour market is gradually returning to more normal conditions, various surveys indicate that we are facing significant changes in preferences, for example with regard to remote work. Meanwhile interest rates will remain very low for the foreseeable future. As long as uncertainty about the pandemic persists, decision makers are also very reluctant to risk a sharp decline in the housing market that would damage household balance sheets and thereby hamper consumption. Our overall assessment is thus that a sharp downward price correction is not very likely. After a slight decline or levelling off in the near future, we forecast that home prices will continue to rise, though at a much slower pace than we have seen in the past year.

**More expensive housing creates political tensions.** The long-term policy response is hard to assess, though. Higher home prices have also put upward pressure on rents, worsening the problem of growing economic gaps. Highly educated people, who often own their homes, have generally found it easier to work remotely. Employees in relatively low-paid service sectors, however, have been hurt by both uncertain job prospects and rising rents. It is worth noting that home prices have also surged in countries with a high percentage of rental housing that previously saw more sedate price increases. A typical example is Germany, where this has led to political tensions. In Berlin, there will now be a referendum on expanding the potential to expropriate properties to increase the supply of rent-controlled flats. The European Commission is now also trying to put pressure on the Netherlands to change its highly favourable tax rules for owner-occupied housing by linking this

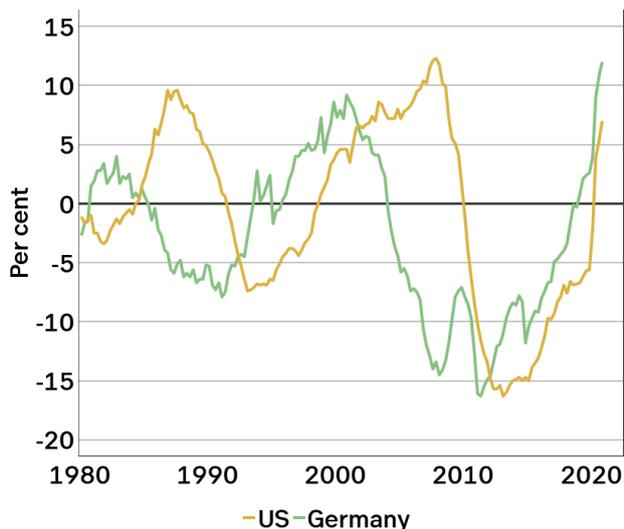
issue to the country's access to the EU's new recovery plan. In Sweden, regulations related to rent-setting are a latently sensitive political issue. This became abundantly clear during the various rounds of the government crisis early this summer.

Central banks are also showing signs of being affected by the debate on how monetary policy contributes to increased economic inequalities. High home prices create difficulties for first-time buyers, reduce labour market mobility and increase the risk of financial instability. When it recently approved its new monetary policy strategy, the European Central Bank (ECB) announced that housing costs in particular should be better reflected in HICP inflation (the Harmonised Index of Consumer Prices). This might be a step towards eventually taking greater account of home prices in monetary policy decisions. Norges Bank has a tradition of keeping an eye on the home price trend, and this is once again being factored into its plan to begin key interest rate hikes in Norway this autumn – far

**Difficult monetary policy trade-offs.** The inflation surge due to pandemic-related imbalances in goods and labour markets around the world has also surprised central banks. The main signals are still that these inflationary impulses should be viewed as temporary, but there is increased uncertainty and disagreement in the central bank world about the duration of these imbalances and the elevated inflation level. Recently, for example, the Fed, the Bank of England and Norges Bank have strongly signalled that they are prepared to take small, predictable steps to begin normalising monetary policy.

The Fed and the ECB are now moving at a different pace in their efforts to normalise monetary policy. This is logical, since inflation risks are greater in the US than in the euro area. In December, the Fed is expected to initiate a tapering of its monthly securities purchases, USD 120 billion per month. In September 2022 this process should be completed, opening the way for a Fed interest rate hike in Q1 2023. By the end of 2023, the key rate will be 0.75 per cent. The ECB, on the other hand, will not raise key rates during our forecast period, in keeping with its

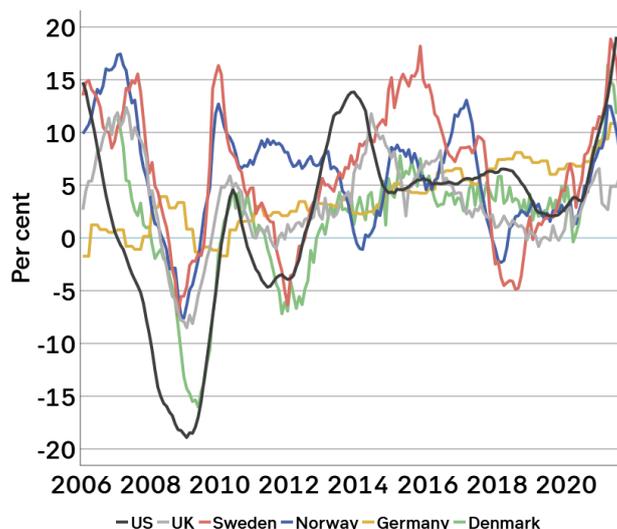
**The credit gap is growing**



Source: BIS, Macrobond; SEB

ahead of comparable countries. Sweden's Riksbank has moved in the opposite direction since 2014, after the government decided to give the Financial Supervisory Authority (FSA) the main responsibility for macro-prudential supervision and after criticism from labour and employer organisations. The recent report of the Riksbank Commission of Inquiry also actually proposes giving the central bank less room to take home price trends into account. Further ahead, however, it cannot be ruled out that Swedish authorities may change their minds. The drawbacks of extremely low interest rates that drive up home prices – combined with principal repayment requirements and quantitative regulations – are becoming increasingly clear, especially because they create very high thresholds for young people to establish a presence in the housing market.

**Synchronised home price upturn**



Source: SEB Nordic Outlook

new policy strategy. It will end the Pandemic Emergency Purchase Programme (PEPP) and replace it with a new, flexible QE programme in 2022. We expect the Bank of England to hike its key rate by 15 bps in a cautious first step as early as May 2022, in response to rising resource utilisation. It will then follow this up with two further hikes during 2023, reaching 0.75 per cent by year-end like the Fed.

**Nordic central banks are choosing different paths forward.**

The Riksbank will end securities purchases at the turn of the year and keep its key rate at zero in 2021-23. Norges Bank will raise its key rate in September from the current 0 per cent

and reach 1.50 per cent by the end of 2023. Danish capital flows will put appreciation pressure on the krone. We expect Danmarks Nationalbank to cut its key rate by another 10 bps to -0.60 per cent in 2022.

**E-currencies on the way.** Central banks are now under pressure to create a new type of money – driven by the need for new technology for fast, efficient payments. Meanwhile the central banks want to continue controlling access to government-sanctioned money and monetary policy, but they still want to be able to meet competition from crypto assets. If improperly designed, e-currencies can jeopardise economic and financial stability.

**Long-term yields will rise moderately.** Global long-term yields fell this summer on worries about data, COVID-19 and more uncertain prospects as stimulus measures fade. US Treasury yields will rise moderately this autumn as the Fed prepares to taper its bond purchases starting in late 2021, followed by cautious interest rate hikes in 2023, while the euro zone is held back by a high bar for rate hikes and by extended asset pur-

chases. Ten-year US yields will rise to 1.50 per cent at the end of 2021 and a bit above 2 per cent at the end of 2023, while German yields will be below zero this year and slightly above at the end of our forecast period. Overly aggressive expectations of the Riksbank rate hikes and low bond supply suggest a certain narrowing of the long-term yield spread against Germany, but Swedish 10-year government bond yields will remain around 45 basis points above equivalent German bonds.

**Stronger USD.** An environment of large liquidity surpluses and zero interest rates favours currencies whose central banks take the lead in monetary tightening. The EUR/USD rate will fall to 1.16 at the end of 2021, bottoming out at 1.13 by the end of 2022. The Swedish krona's potential is limited by a persistent zero key interest rate and structural outflows. The EUR/SEK rate will be 10.10 at the end of 2021 and 9.80 at the end of 2023. Planned key rate hikes have not provided the expected support for the Norwegian krone, but the EUR/NOK rate will move gradually lower and will be just below 10.00 at the end of our forecast period.

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