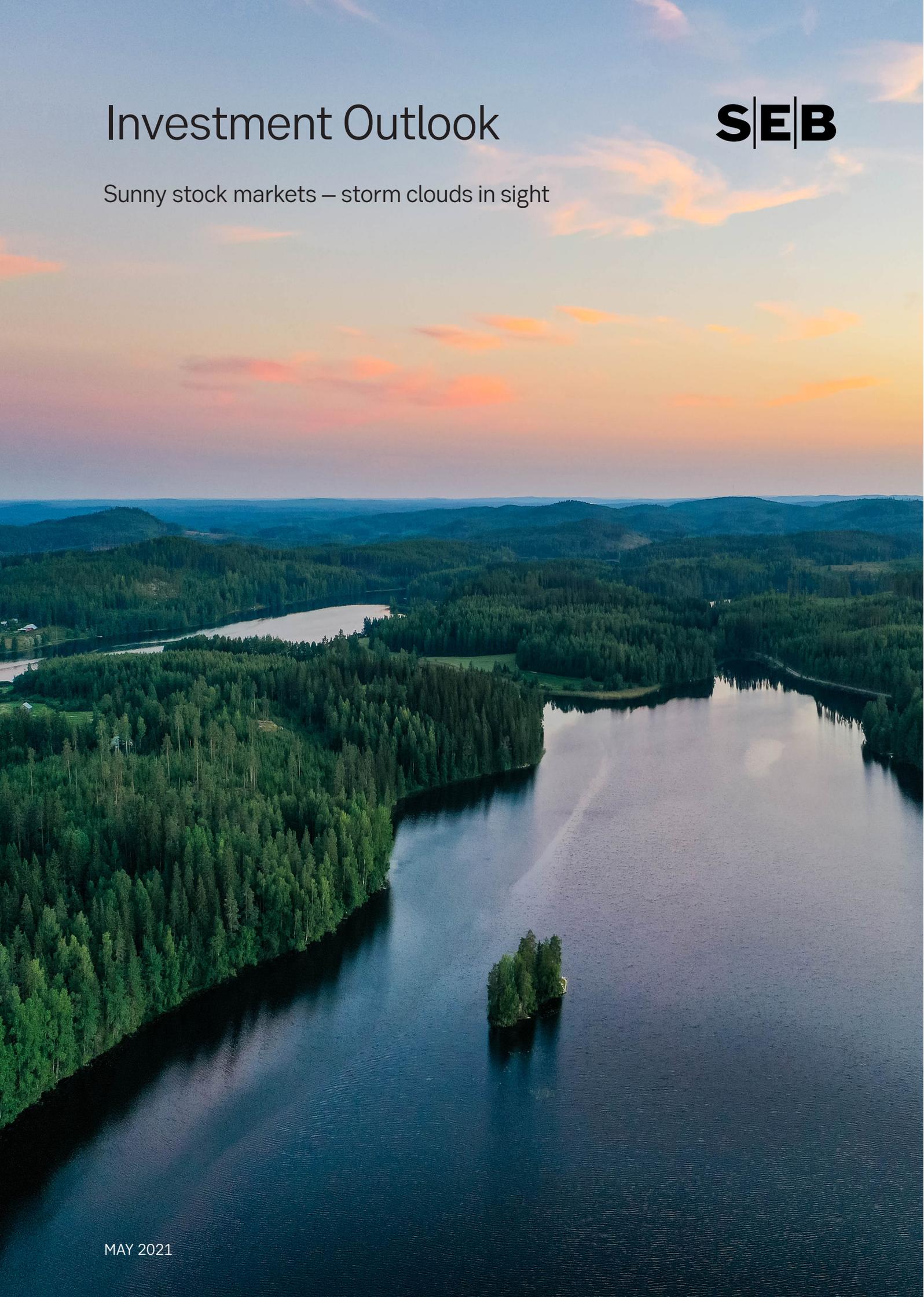


Investment Outlook



Sunny stock markets – storm clouds in sight



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Introduction

Welcome to this year's second *Investment Outlook*. COVID-19 is still affecting our everyday lives to a great extent. In many respects, the pandemic has proved harder to overcome than we had anticipated. The process of reopening our societies has been delayed. This has created a heavy and prolonged burden on the health care system. Parallel with the COVID-19 crisis, economic performance and earnings generation in the corporate sector have surpassed market forecasts during every quarter since the pandemic broke out just over a year ago. This has been in line with our hopes and forecasts, because since late spring 2020 we have chosen to overweight risk assets such as equities and corporate bonds in our portfolios.

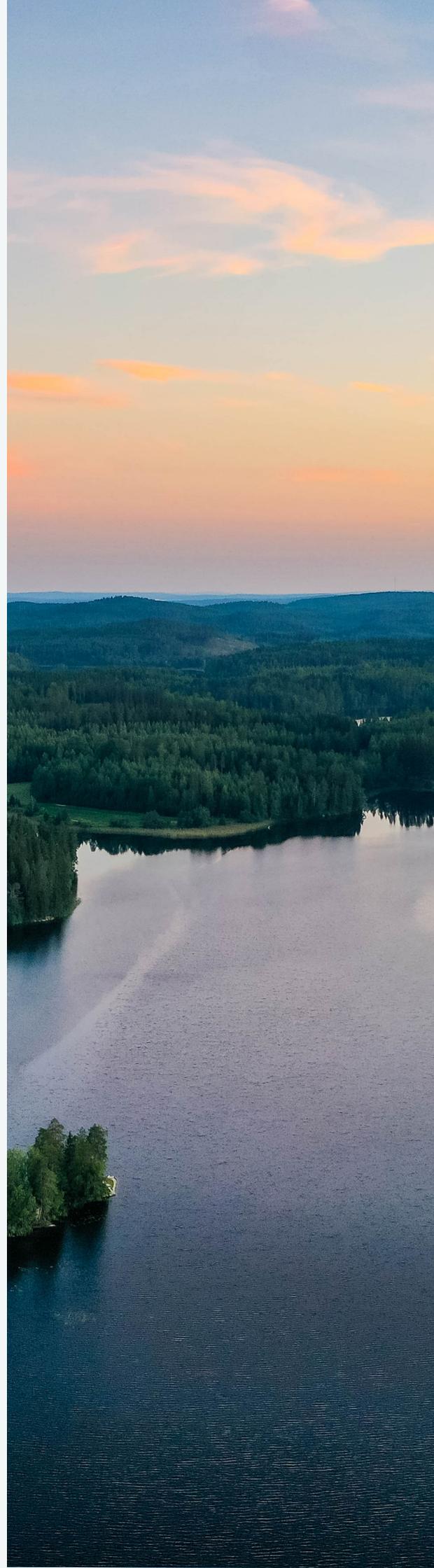
So far this year, stock markets have continued to climb at an impressive pace, but since valuations and average risk-taking have been driven up to historically high levels, upgrades in earnings and growth forecasts have been essential and have also been the main reason behind the continued upturns. To achieve the right stock market allocation, it has been important to follow developments related to inflation and bond yields. Stock market rotation has occurred in harmony with the movements of 10-year US Treasury yields. When they have climbed, money has flowed into cyclical sectors. When they have fallen, the flow has shifted towards growth companies.

The above relationships lead to a number of questions that we try to answer in this issue of *Investment Outlook*:

- Can high 2021 and 2022 growth figures become a reality, and can this occur in a low-inflation environment?
- Must growth and earnings forecasts continue to be adjusted higher in order for equities and corporate bonds to climb in value?
- Where are we in the economic cycle?
- Is the capital market in a bubble that is in danger of bursting?
- What does the balance between opportunities and risks look like?
- What combination of assets do we recommend, and how do our recommendations look within each asset class?

In addition to addressing these questions, we take an in-depth look at the health care sector, which has been in the public spotlight through the pandemic but has not received so much attention in stock markets, since investors have focused on growth stocks vs cyclical and low-valued stocks. Our second theme article deals with the gaming sector – a large and fast-growing industry in which a number of Swedish companies have been successful.

Wishing you enjoyable reading,
Fredrik Öberg, Chief Investment Officer
Investment Strategy



Market view, risk exposure and allocation

Is it enough if the impressive levels of economic growth and corporate earnings generation that are being forecast for 2021 and 2022 become a reality in order to ensure that stock markets keep climbing, or are further upside surprises necessary?

Let us begin our analysis with the positive driving forces. The recovery and normalisation have progressed far better than expected, given the highly problematic situation we found ourselves in during the spring of 2020. Since then, we have made successive upward revisions in growth forecasts for each quarter.

Early in May, our sister publication *Nordic Outlook* presented its latest economic forecast, noting that the surprising resilience of many economies to pandemic-related restrictions bodes well for their reopening. Increased consumption of goods has provided support to manufacturers, and the service sector can probably recover a lot of lost ground quickly once restrictions are lifted. Continued large monetary and fiscal stimulus programmes will provide additional fuel, but the expected rapid recovery also raises questions. The long-lasting low-inflation environment is being put to its biggest test in decades, but despite upside risks we expect it to survive. Another challenge is how economies and markets will react when fiscal stimulus decreases and central banks reduce their support, probably via reduced bond purchases. The forecast below represents a further upward adjustment compared to the one we made during the first quarter.

GDP growth forecasts, per cent

Market	2019	2020	2021	2022
World	2.8	-3.3	5.9	4.3
United States	2.2	-3.5	6.5	4.0
China	6.0	2.3	9.0	5.3
Japan	0.7	-4.8	2.8	1.8
Germany	0.6	-4.9	2.6	3.4
United Kingdom	1.4	-9.8	6.4	5.8
Sweden	1.4	-2.8	4.5	4.0
OECD	1.6	-4.8	4.8	3.8
Euro area	1.3	-6.6	3.3	4.6
Baltic countries	3.8	-2.1	2.7	4.2
Emerging markets	3.8	-2.1	5.9	4.3

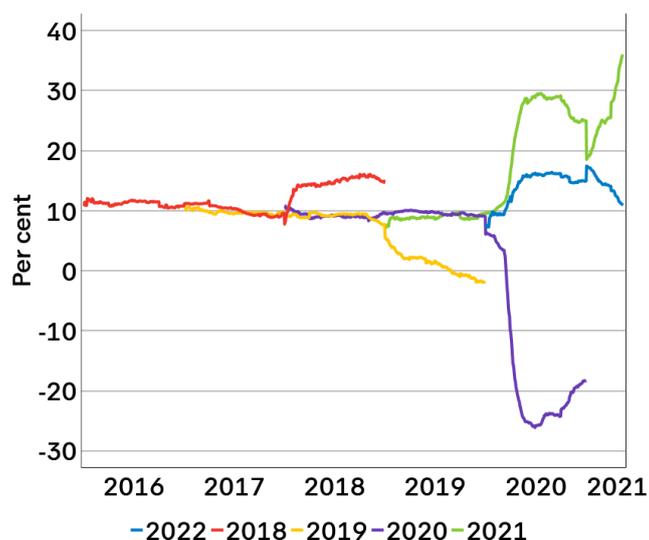
Source: SEB Nordic Outlook. The table shows forecasts of real economic growth in line with our main scenario.

A more detailed account of SEB's economic forecasts – and how a surprisingly good and a surprisingly bad outcome might look – can be found on page 27 in "International overview", which is an excerpt from the issue of the *Nordic Outlook* research report that was published on May 4, 2021.

Fantastic earnings growth expected during 2021-2022

In line with our highly positive economic growth forecast for the rest of 2021 and for 2022 – and taking into account the final figures from company reports during the past five quarters – it is hardly surprising that earnings estimates for this year and next have risen to historically very high levels. The global earnings growth forecast for 2021 is now 35 per cent, with

Historic and forecast global earnings growth



Source: Bloomberg

The chart shows how aggregate earnings estimates for the companies in the MSCI World equity index have been adjusted over time. For example, we see that forecasts for 2020 earnings growth started at around +10 per cent, then collapsed to -25 per cent, then ended up at -18 per cent. We also see that during 2021 and 2022, earnings are now expected to climb by 35 per cent and 11 per cent, respectively.

expectations of another 11 per cent increase next year. Looking back, 2020 ended up with an earnings decline of 18 per cent. If we combine these three years and calculate an average for the period, we end up with a yearly earnings increase of around 7 per cent, which is quite close to a historical average. Today's forecasts may seem unreasonable, but then it is important to remember that central bank and fiscal stimulus measures during 2020-2021 will end up totalling around 30 per cent of global GDP. The green curve in the chart below shows that our earnings estimate for the current year has been adjusted upward by over 10 percentage points since our previous *Investment Outlook*, February 2021. This is mainly due to very large adjustments in US growth. Add to this the restructuring and cost-cutting efforts implemented by the corporate sector, and the expected earnings increase of more than 50 per cent in 2021 and 2022 is not so remarkable.

At this writing, we are near the close of the report period for Q1 2021 earnings. Once again, companies are showing both significantly better sales growth and a stronger earnings trend than predicted. For example, major US growth companies have managed to beat market forecasts by a very wide margin. These companies are the heavyweights of the stock market; in some cases an individual company has a bigger market capitalisation than the entire Stockholm stock exchange. Despite such forecast-beating performances, stock market movements in late April and early May were small. Thus, the question arises whether investors have higher expectations than corporate analysts, or whether there are counterforces that are cooling risk appetite among investors.

Valuations/Positioning/Risk appetite

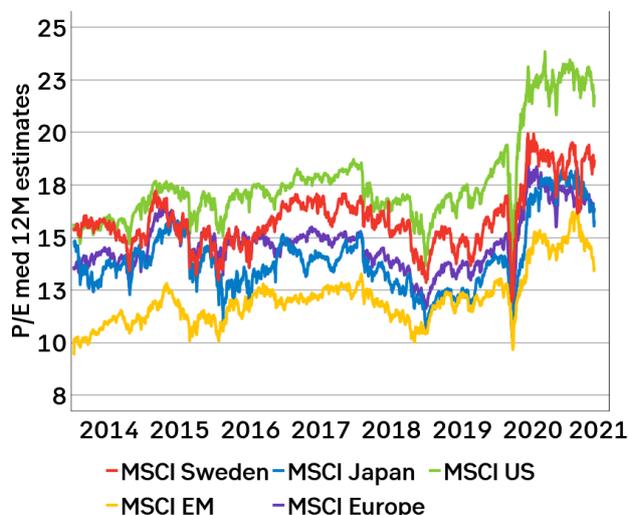
The recovery during this past year has been phenomenal in many ways, despite a continued struggle against the COVID-19

pandemic and delays in opening up our societies, and even though vaccinations have not occurred at the desired pace. Yet in economic terms, the period has been an overall success, with growth levels and earnings trends both clearly better than previously feared. This has served as rocket fuel for stock exchanges and credit markets, which have shown one of their strongest 12-month periods in history. The recovery is also one of the fastest and strongest after a major crisis, which included a stock market crash triggered by the outbreak of the pandemic. As a result, today we have valuations in the stock market, fixed income market and real estate market that are significantly above their historical average. The charts below illustrate this via price-to-earnings (PE) ratios and credit spreads – the difference between government bond and corporate bond yields. For further details, see the sections of *Investment Outlook* about each asset class.

One alternative way to measure how aggressive investors are in their portfolios is to study what we usually call positioning and risk appetite. Positioning is based on measuring average portfolio composition among investors. This is done, among other things, by means of large-scale surveys. These surveys show that as an investor community, we are holding a historically high proportion of equities and corporate bonds and a correspondingly low proportion of more cautious exposures such as liquidity and government bonds. This means that we have great faith in the future and expect to be compensated for our risk-taking via continued increases in value. From a historical perspective, the problem with such risk appetite is that when it reaches really high levels, few investors can imagine increasing their risk further. Then potential decreases at the same time as risks increase.

When we use risk appetite to study investors' willingness to take risks, we look at historical or realised returns for a

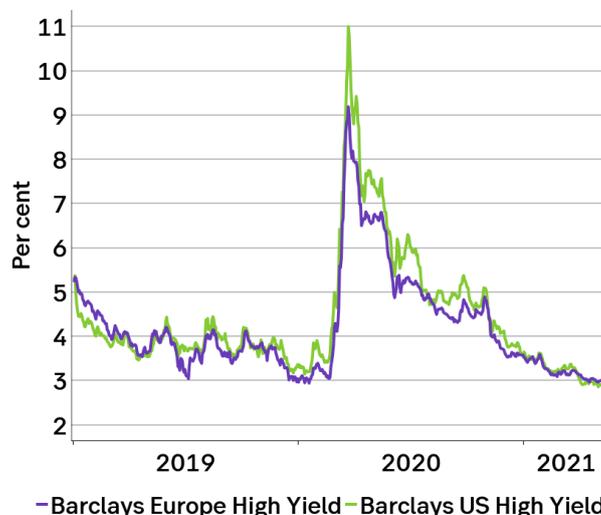
High valuations in the world's stock markets



Source: Bloomberg

The chart shows how share prices divided by earnings forecasts for the coming 12 months (PE ratios) have been driven higher during the past year. But this process has stopped recently, and we expect no further upward adjustment.

Yield spread for high yield (HY) corporate bonds



Source: Bloomberg

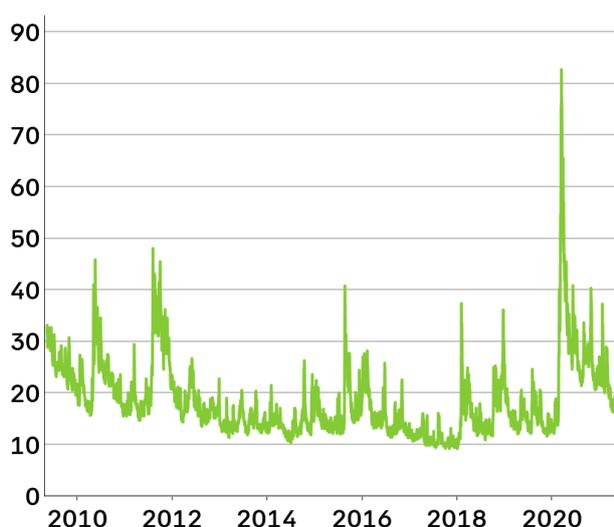
The chart shows yield spreads for European and US government bonds. A low level means high risk appetite, with investors requiring low compensation for any risks.

number of different assets in order to construct a risk appetite index. These can be constructed in many different ways, but in principle it is a matter of dividing the capital market into aggressive and defensive positions, then continuously measuring whether we as investors have been over- or under-compensated for bearing risk during a given period. One year ago, such an index was at a low point and in harmony with risk-taking according to a positioning analysis. Today's reading is also in harmony, but in the opposite way, with risk appetite at high levels.

Can the flow from defensive to aggressive risk-taking increase?

Which investors today can imagine buying additional equities and corporate bonds? In principle the answer is "all", but the percentage or number varies. One category of investors that is eager to buy more is companies themselves. Profitability is good and extensive share buy-backs have already been announced. There is also a significant number of fund and portfolio managers who invest according to volatility targets. By definition, this means that they increase the percentage of shares in their portfolio if volatility falls, but decrease it if volatility rises. Surveys of professional investors and private individuals do not indicate how overweight they are in relation to a normal situation, but our estimate is that most of them have significant overweighting. The chart below indicates the potential for a continued decline in volatility and increase in risk if everything goes as planned, and the opposite if risks begin to show up.

Implicit volatility in the US stock market



Source: Bloomberg

The chart shows the trend of implicit volatility – how the options market prices and estimates volatility in the broad S&P 500 equity index. Today's level of about 17 is normal in a long-term perspective, but remains above the low levels that prevailed most of the time between 2012 and 2019.

Risks

In an environment of high valuations and risk appetite, it is important to have a good idea of potential risks. The potential for losses is constantly present, while the potential for continued increases is more limited than it has been over the past year. Some risks are impossible to predict, with the pandemic itself as one good example. It is thus vital to maintain a reasonable level of risk and not have too short an investment perspective. At present, the economic outlook is good, but there are definitely risks and signs of "bubbles", or excessive valuations. However, overall pricing is still acceptable if the economic forecast proves correct and if inflation and bond yields do not skyrocket. This in itself would create risk aversion, since fixed income investments would become a competitor to equities – a reverse TINA (There Is No Alternative) effect. The prices of shares, other financial assets and real estate are also set on the basis of future cash flows recalculated to present value. The higher the discount rate, the lower the present value and vice versa.

Rising inflation would also pressure central banks to raise their key interest rates and phase out their quantitative easing at a faster pace than forecast.

Finally, the corporate sector is moving towards a future where taxation of their earnings is likely to increase because governments need to reduce their large budget deficits. Combined with a large need for green investments, this may dampen earnings growth for a number of sectors, but also benefit others.

Return expectations, %, next 12 months (SEK)

Equities	Return	Risk*
Advanced economies	8.8	16.2
Emerging markets (local currencies)	8.8	15.7
Sweden	9.0	18.7
Fixed income investments	Return	Risk
Government bonds	-0.6	1.5
Corporate bonds, investment grade (Europe, IG)	0.4	7.2
Corporate bonds, high yield (Europe/US 50/50, HY)	1.5	11.0
Emerging market debt (local currencies, EMD)	5.4	8.9
Alternative investments	Return	Risk
Hedge funds	3.5	6.0

* 24-month historical volatility

Source: SEB forecasts, May 2021

Continued positive return expectations

Despite elevated valuations, we expect positive returns over the next 12 months. The driving force is sharply rising earnings in an environment where we expect valuation multiples to be intact. This will result in the expected return and risk shown above during the next 12 months. The table indicates that we expect average volatility to fall. We also expect that, as usual, we will experience temporary risk spikes or profit-taking. Return expectations for equities are broadly in line with expected earnings growth in 2022.

Risk exposure and allocation

As already discussed, the grouping of factors affecting risk composition presented in the table below still applies when we give our recommendations for allocation and risk composition. Since the February issue of *Investment Outlook*, the growth and earnings factors have become stronger. The same applies to positioning and risk appetite, so these factors largely offset each other. The valuation parameter has been more constant, with PE ratios having largely remained flat or fallen slightly. In the fixed income market, the yield spread between government and corporate bonds has continued to narrow while the underlying government bond yield has increased. Total yield compensation is thus fairly unchanged there as well. Fiscal stimulus has strengthened and monetary policy is unchanged, but these are included in our growth forecasts.

When it comes to determining an appropriate risk level, it is a matter of not looking at what has happened, but of what will happen – making forecasts. Looking ahead towards late summer the situation may well have become less favourable, since we will probably see higher bond yields and less impressive sequential increases in economic growth and corporate earnings. Especially if this also coincides with continued high risk appetite and valuations, as well as a declining TINA effect (with higher bond yield expectations challenging the motto “there is no alternative” to risk exposure via equities and corporate bonds). Before that, however, we will try to reopen

our economies. This should provide an extra boost during the summer. But in the near term, the factors in the above table apply. This means we will continue to recommend risk-taking in the range of “slight underweight to clear overweight”. We have chosen to invest in the upper part of this range, with a clear overweight in both equities and corporate bonds. This is the same position we have maintained since last summer in terms of total risk exposure.

It usually takes time for market peaks to form. First the upward trend slows. Then the market sends out signals of concern, first via the corporate bond market and later via increased stock market volatility. So far we do not see any such tendencies, but we are following developments closely. It is also important not to confuse trend reversals with temporary profit-taking, or completely unpredictable events such as the COVID-19 outbreak.

Looking at the composition of our current model portfolio, we are overweight in both Swedish and global equities. In the Swedish portion, we combine an overweight in cyclical companies and value companies in the large cap segment with holdings in small cap funds. In global equities, we remain overweight in small and medium-sized value companies, as well as in growth companies. In equities, we are considering gradually increasing the proportion of defensive sectors during 2021 but have not yet implemented this. 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 are widely diversified and have a relatively limited risk level, with little impact from the stock and bond markets. Our total portfolios will benefit from positive stock exchanges and credit markets, where we are prepared to lower risk if necessary. Finally, we are continuing our efforts to make our portfolios more sustainable. During 2021 we at SEB Private Banking, like SEB’s fund companies, have adopted new and more aggressive sustainability policies as part of these efforts.

Positive factors



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

Negative factors



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

Global equities

Prices and earnings full steam ahead for another while

Massive stimulus measures have kept the world economy afloat while we await the reopening of economies. Companies have greatly surpassed earnings forecasts during the year since the pandemic broke out, despite a steadily rising profit outlook. Valuations, high commodity prices, component shortages and rising long-term bond yields are sources of concern, but it is still too early to slam on the brakes. When the growth rate levels out and persistently higher long-term bond yields are imminent, valuations may be challenged. We are approaching that point but are not quite there yet.

Like economic growth forecasts, corporate earnings expectations at the global level have gradually risen over the past 12 months. Last year's aggregate earnings certainly came in weak – down 18 per cent – but this was still clearly above forecasts from last spring. Upward revisions were then matched by corresponding downward revisions for 2021. But this spring, earnings forecasts for the current year have been adjusted upward again, back to a level of around 30 per cent on a global basis. Sharply higher profits are part of the picture in an economic recovery. Given these upgraded growth forecasts and massive stimulus measures, there is still room for positive surprises in the coming quarters, albeit not to the same extent. In 2022, however, profit expectations are at more normal levels, at +11 per cent globally.

Now that Q1 company reports are flowing in, the surprisingly strong picture from earlier report periods looks set to persist. Once again, companies are clearly surpassing expectations concerning profits, sales and especially order bookings. Negative factors such as high commodity and input goods prices, component shortages and logistical problems have been trumped by volume and price increases as well as successful cost controls. The five largest companies in the MSCI World Index, which account for about 12 per cent of market value – Apple, Microsoft, Amazon, Alphabet and Facebook – all delivered impressive reports with strong growth and high profitability. After just over half of Q1 reports had been published in the US, earnings surprised on the upside by 23 per cent and sales by 4 per cent. The fact that earnings forecasts

Big earnings surprises in the US, again



Source: Bloomberg

The chart shows sales and earnings among S&P 500 companies compared to market expectations. After more than half of these companies had published their reports, Q1 earnings provide upside surprises of more than 23 per cent.

Valuations have fallen but remain historically high



Source: Bloomberg

The chart shows price-to-earnings (PE) ratios for the MSCI All Country World Index of equities, which surged after their low point in early 2020 and have remained historically high.

have been significantly upgraded in recent months (which has also been reflected in share prices) probably explains the somewhat lukewarm stock market reaction so far.

It is natural for stock market valuations to be elevated ahead of a recovery, given the strong earnings that are included in forecasts. Powerful monetary and fiscal stimulus measures support that picture. Nor could anyone fail to notice that the TINA argument (“there is no alternative”) – with low interest rates/yields making traditional alternatives to equities unattractive – will persist as long as yields do not rise more than expected.

There is lively discussion about whether today’s historically high valuations are reasonable or not. Low interest rates and yields, as well as robust corporate earnings growth, undeniably provide support. We do not view today’s valuations as a catalyst for a negative stock market trend, but we note that these valuations still assume that the bright forecast picture for equities will persist. Rising share prices and valuations have also been accompanied by rising risk appetite and positioning among the investor community – a situation that may very well last for a while longer but may challenge new price upturns.

It is not often that fundamental conditions as unambiguous as those today fuel the stock market. Assuming no unpleasant surprises related to vaccination campaigns and the spread of COVID-19, there are many indications that this summer’s expected reopening of economies will drive new stock market upturns. This scenario is likely to benefit more cyclical listed shares in such sectors as industrials, financials and consumer durables as well as portions of emerging markets, Europe and Japan. Small cap stocks that have been getting their revenge on a global basis for the past year should now also benefit more from an economic recovery among relatively large companies, especially in the US stock market. European small and medium sized enterprises (SMEs) are more likely to be quality

and growth companies, which explains their fantastic performance compared to traditionally-oriented large corporations in Europe over the past five years.

Future earnings expectations and share prices go hand in hand. When economic forecasts are adjusted higher, this leads to upward-adjusted earnings as well as share price increases. As a rule, the power of an earnings trend is underestimated. The stock market is forward-looking and has discounted major earnings increases, as we have seen during the Q1 2021 report period, when earnings in excess of forecasts have in many cases been punished with short-term share price downturns. We can count on profit-taking, but the important thing is that the pace of earnings growth is intact and rising, something that we expect to continue for another quarter. After that, the pace of upward earnings revisions

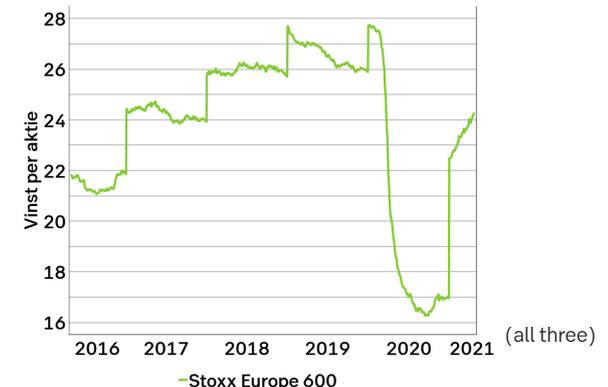
US and Chinese equity indices have outperformed European ones over the past five years



Source: Bloomberg

The chart shows the performance of European, American and Chinese stock market indices in common currency, including reinvestments. The performance of these indices reflects the earnings trend in each respective region.

Faster earnings rebound in US and China than in Europe



The above charts show 12-month earnings forecasts expressed as index units on the S&P 500 (top), CSI 300 (middle) and EuroSTOXX 600 (bottom) equity indices.

should slow down, which will be quite natural in a more mature phase of a recovery scenario.

During the second half of 2021, global stock markets should thus be especially sensitive to negative news, since upward revisions related to the economic cycle and earnings should level off, while bond yields are expected to rise as a result of higher inflation. We are not especially worried about general economic performance, but because of sharply rising stock markets over the past year as well as high valuations, there is a risk of occasionally sizeable corrections.

With stock markets balancing between a growth scenario that supports cyclical investments and a more subdued scenario that can provide renewed fuel for growth stocks, future winners might be companies that are more stable profit generators, such as the health care sector, which combines favourable demographic and technological trends with attractive valuations after a long period out of the spotlight. Strong underlying trends, driven by massive political initiatives, also continue to suggest companies with a focus on sustainability. During 2021, many sustainability-related companies have performed poorly, mainly as a result of earlier large share price increases and exaggerated valuations in many cases. However, the megatrend we are witnessing in the form of emission control measures is in its infancy, which means that the future is bright for companies in this cluster.

To summarise, we believe that current trends of a cyclical nature will persist in the near future, but that a more defensive focus on sectoral and company selection will be advisable as growth rates subside during the second half of 2021.

Cyclically sensitive equities have outperformed the stable health care sector this past year



Source: Bloomberg

The chart shows the performance of the MSCI World Small Cap Index, the MSCI World Index and the MSCI World Health Care Index in local currencies during the past 12 months.

Nordic equities

Euphoria or logical response to higher earnings forecasts?

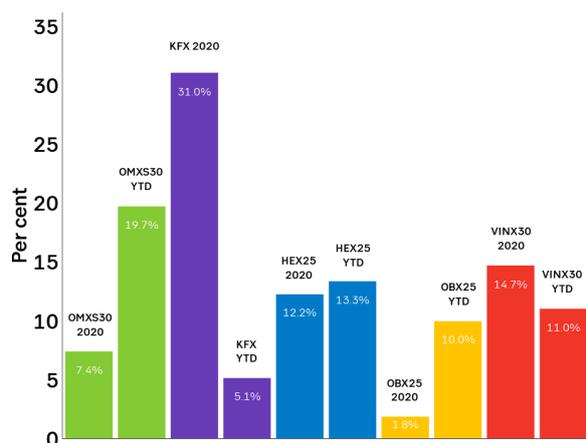
The Nordic stock markets delivered excellent returns in the first four months of 2021. A healthy dose of upward-revised earnings forecasts has fuelled the stock market, and many people now see light at the end of the coronavirus tunnel, which has further driven risk appetite. Sweden stands out with an upturn far exceeding that of most European stock markets.

From a historical perspective, valuations are high but vary greatly between sectors and companies. The outlook for the economy, inflation and the trend of interest rates and bond yields may be especially important this year. Robust growth continues to provide good prospects for cyclical companies, while the reopening of economies should be positive for many consumer-related companies. When growth occurs and some inflation creeps in, it is likely that the question of valuations will be more relevant. This is expected to be a hot topic during the second half of the year.

Composition of the Nordic stock exchanges

The stock market as a whole has been strong this year, and there has been great focus on returns for various categories in the region's equity indices, mostly for cyclical, defensive (quality), value and growth shares. The four Nordic stock markets differ a great deal in their composition of these categories, which means conditions are different on each exchange in terms of the current macroeconomic situation and valuations. Annual returns in local currencies over the past

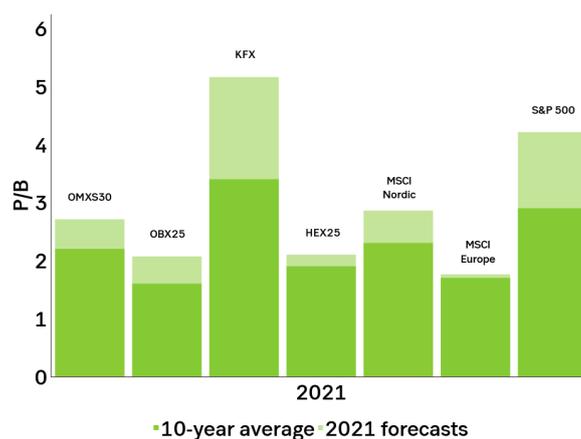
Strong but uneven Nordic stock market performance in 2021



Source: SEB, Bloomberg

The composition of the Nordic stock exchanges accounts for the major differences in performance. Performance was already strong last year, and except for the Copenhagen exchange it is even stronger so far this year (per cent return, including dividend, in local currency).

Valuations high from a historical perspective



Source: SEB, Bloomberg

The chart shows valuations of book equity for the Nordic stock exchanges compared to major international exchanges. Europe stands out with valuations that do not diverge significantly from their historical averages.

five years show major differences between years, although the overall difference is not particularly large. It is important to understand that these Nordic indices reflect the largest and most frequently traded equities and each include 20-30 companies, which gives great weight in some markets to a particular sector or heavy exposure to a single company. The clearest example of this is Denmark's KFX (OMX Copenhagen 20) index, which is dominated by the pharmaceutical company Novo Nordisk, with a weight of nearly 32 per cent. After that comes the transport company DSV Panalpina and the wind power company Vestas, with weights of 11 and 10 per cent respectively. The three largest companies thus account for more than 50 per cent of market capitalisation in the KFX index.

The sector breakdown for the four main Nordic stock exchanges gives an indication of their sensitivity to the business cycle, although we must always take into account exposure to specific companies and the fact that equity index components are subject to change. Companies are replaced or their weight is adjusted on a regular basis depending on their sales and market capitalisation, which means that new trends and new companies may change the focus of a country's index. One example is Sweden's OMXS30 index, which has changed greatly in just five years. Five years ago, banks and industrials were the two largest sectors in the index, each with about 27 per cent. Today industrials account for 35 per cent and banks 13 per cent. Valuations do not differ that much between countries except that Denmark stands out, from a European perspective, with its high stock market multiples. This is due to the large role of pharmaceuticals and the fact that the industrial and commodity sectors include companies with less cyclical characteristics than normal, which produces higher valuations. Norway stands out with its large energy

sector and many financials, whereas traditional industrials and IT have a low exposure in the index. Finland has a large commodity sector, mainly in the forest product industry, as well as a low percentage of consumer-related companies. Sweden is dominated by industrials but also has a large share of consumer-related companies. Normally, the Swedish stock market is the one that is most sensitive to economic cycles, followed by Norway (where oil prices are crucial) and Finland. Denmark is usually the least sensitive to economic cycles.

Nordic equity indices, year-on-year % change

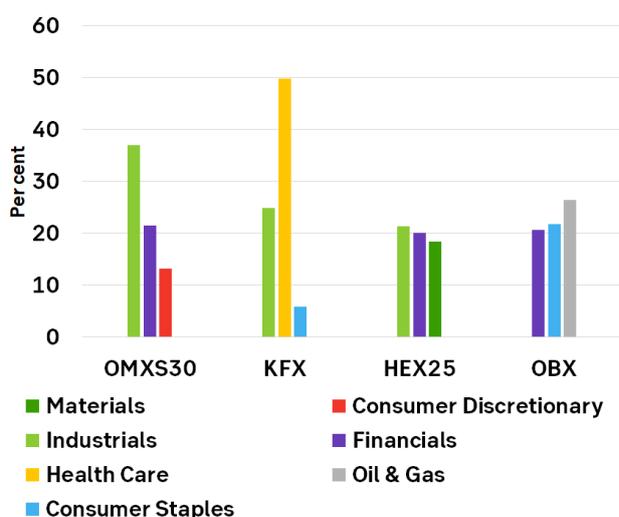
Index	2016	2017	2018	2019	2020	5-yr total
OMXS30, SE	9.4	7.7	-7.0	30.7	7.4	53.8
KFX, DK	-10.6	18.7	-10.8	30.2	31.0	61.3
HEX25, FI	14.6	10.5	-2.2	19.9	12.2	66.8
OBK, NO	14.5	20.2	-0.5	14.1	1.8	59.3

Source: Bloomberg

Style rotation has fizzled

We have written previously in *Investment Outlook* about the "expensive has become more expensive" trend. What has that looked like in the Nordic stock markets this year? First, a brief and greatly simplified description of the various styles and their characteristics: Growth shares have high near-term valuations, in the hope that earnings and market share will increase sharply over time. Value shares are often mature companies with a slow growth rate, frequently with high dividends and cautious valuations, such as shares in banks. Classic cyclical

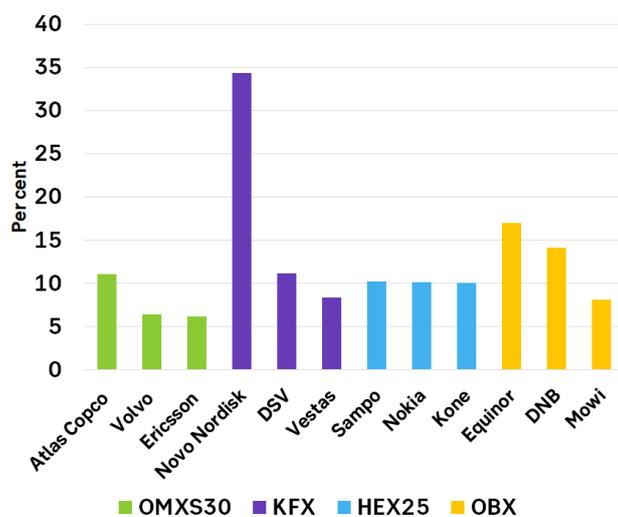
Big difference in sensitivity to the business cycle



Source: Bloomberg

The sector breakdown for the four Nordic stock exchanges provides an indication of their sensitivity to the business cycle. The Swedish exchange is traditionally cyclical with a large share of industrials, while pharmaceutical giant Novo Nordisk dominates the Danish exchange and the energy sector is key in Norway. In Finland, the forest industry is big, but financials also play a major role.

Local heavyweights represent a variety of sectors



Source: Bloomberg

The chart shows the biggest companies on the Nordic stock exchanges in terms of their index weight. Novo Nordisk in Denmark certainly stands out the most, while Finland's three companies with a heavy index weight are spread across more sectors. Swedish industrial giants are being challenged mainly by fast-growing gaming companies.

shares are commodities and industrials (which in some cases may end up in the value category), often with cautious valuations. Quality shares are usually companies that have a strong market position with good, stable earnings potential, often with high valuations.

During the first quarter of 2021, we saw some change in investment patterns as growth and inflation forecasts were revised upwards, leading to purchases of value and cyclical shares to the detriment of shares with higher valuations. Starting in mid-March, when US 10-year Treasury yields peaked, the 2020 winners – led by growth shares – took back control.

Sweden stands out amid the rotation

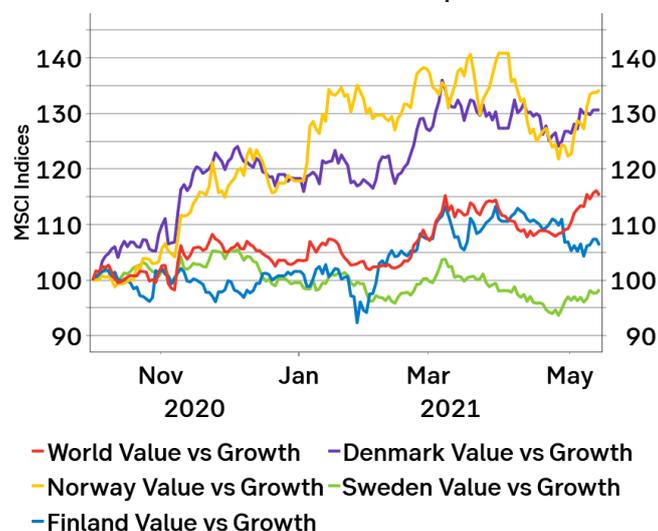
There has been a clear rotation this year in favour of value shares globally. This has occurred in virtually every market. However, Sweden is an anomaly, since growth shares have outperformed value shares – counter to the global trend – which means there has not been a rotation here. We see several possible reasons for this at both the sector and company level. The semiconductor shortage has generally hit Swedish industrials hard, since many have a relatively large exposure to the automotive industry. When AB Volvo announced in late March that it would stop truck production for 2-4 weeks during the second quarter due to a semiconductor component shortage, it worsened an already negative trend for a number of vehicle-related companies. Major fashion retailer H&M also lowered the value of the Swedish equity index in March due to China's boycott of the company. Yet value shares have delivered very good returns this year in Sweden, in fact by far the best in the Nordic region and high on the global list. Growth shares, mainly IT and gaming companies, have performed even better. Evolution Gaming stands out as the biggest driver of the growth share index. We still see good potential for value shares in 2021 based on sharply higher growth, rising inflation and yields (in controlled fashion): parameters that have historically benefited cyclical companies and value shares.

Reports have exceeded upward-revised forecasts

First quarter earnings reports so far have been robust. In many cases, investors that had clearly expected this chose to sell on the report date. Nonetheless, April as a whole delivered very good returns, with the stock markets in Denmark and Finland as the strongest performers. One figure that stands out in Sweden is April's 7.8 per cent increase in the index for small caps, which had lagged behind large caps early in the year. It still lags behind the OMXS30 by nearly 5 per cent, but it seems the chase is on. SEB's small cap barometer may provide support for this theory. It surged in May, which suggests that conditions for small caps are on the path to normalisation.

If we take a closer look at the Swedish stock market and use the SBX index (the OMX Stockholm Benchmark Index), 75 of

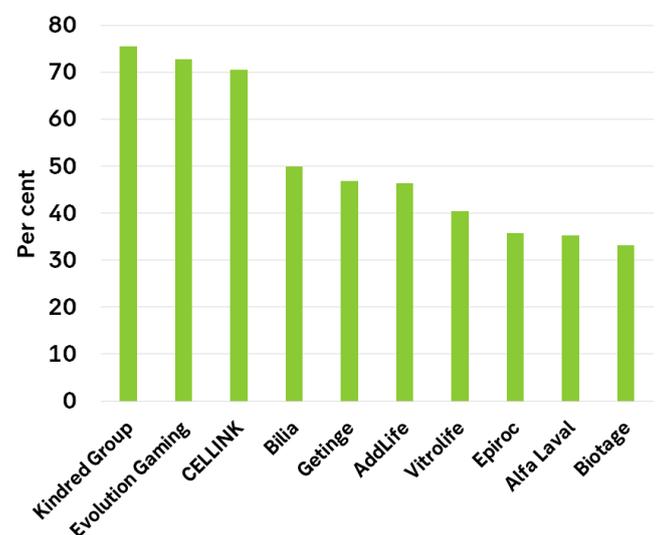
Clear rotation to value shares except in Sweden



Source: Bloomberg

This has mainly been driven by share price increases for Swedish gaming companies. In absolute terms, Swedish value shares have performed very strongly, especially in an international comparison.

Gaming companies are top performers



Source: Bloomberg

The chart shows the 10 companies with the strongest performance (in per cent) so far this year. The current report period has been very strong, and more than 70 per cent of companies have exceeded expectations.

its 96 companies have reported their Q1 results at this writing. More than 70 per cent have delivered earnings that exceeded market expectations, while 22 per cent reported worse results. As usual, companies have been good at keeping down costs, and in many cases margins are higher than expected. In general, there have been currency headwinds following a sharp appreciation in the Swedish krona, which will probably remain strong over the next quarter as well. In terms of sales, companies were more evenly divided, with 49 per cent reporting positive and 46 per cent negative figures and with many noting certain capacity shortages. It is clear that the next important step for earnings will be to increase total sales, a likely scenario since we now foresee strong growth

and reopening of economies, while order books are filling up at a steady pace. Analysts are continuing to upgrade earnings forecasts since the reports came out, which is normally the most important driver for share prices.

One clear trend is that companies are warning about higher prices for materials and logistics. Equally clear is that they say they will be able to fully offset this with higher prices and that they have already started the process. This is very interesting since the producer price index confirms that scenario, while inflation expectations among consumers are on the rise. The question is whether we will ultimately see higher final prices for consumers, and if so what that will mean for future interest rates and yields.

Fixed income investments

The fixed income market catches its breath

After a sharp upturn in yields early this year, the fixed income market is catching its breath for the time being. Assuming a gradual tapering of central bank bond purchases, we expect to see somewhat higher long-term yields later in the year. Nonetheless, yields will remain low from a historical perspective. Central banks are continuing to communicate that key interest rates will remain low for a long time, while yield spreads between government and corporate bonds are back at the low levels seen in early 2020. This means that absolute returns will remain at historically low levels.

Government bonds (excl. emerging markets)

Massive stimulus measures, expectations of a strong economic recovery in the United States and rising inflation caused US Treasury yields to rise significantly during the first quarter. This upturn has now come to somewhat of a standstill, and the fixed income market is catching its breath for the time being while awaiting the US Federal Reserve (Fed)'s next policy move. But there are reasons to expect a somewhat more stable yield trend, since the market has increasingly priced in strong growth, some inflation and less expansionary monetary policies. We believe the Fed will start preparing the world for a phase-out of its bond-buying this summer, which could trigger higher yields. However, if the Fed were to delay its tapering, in our view yields would continue to trade within a narrow range as investors await new announcements.

Return expectations, %, next 12 months (SEK)

Fixed income investments	Return	Risk*
Government bonds	-0.6	1.5
Corporate bonds, investment grade (Europe/US 50/50, IG)	0.4	7.2
Corporate bonds, high yield (Europe/US 50/50, HY)	1.5	11.0
Emerging market debt (local currencies, EMD)	5.4	8.9

* 24-month historical volatility

Source: SEB forecasts, May 2021

Government bond yield forecasts

10-year government bond yields	June 2021	Dec 2021	Dec 2022
US	1.80	2.00	2.40
Germany	-0.15	0.00	0.20
Sweden	0.40	0.50	0.70

Source: SEB forecasts, May 2021

Meanwhile, US inflation is expected to rise over the next few months, mostly due to base effects, but also higher energy prices – which could lead to unanticipated yield movements if inflation data deviate significantly from expectations.

Hiking key interest rates is a bigger step, which will require inflation to reach and probably also exceed the 2 per cent target over a period of time. Current communication from the Fed is that the first rate hike will come in late 2023. However, a growing number of Fed policymakers tend to talk about earlier rate hikes, which is why the market consensus is that there will be an interest rate hike as early as the end of 2022.

The European Central Bank (ECB) reacted to the yield upturn at its March policy meeting by accelerating its monthly securities purchases. If yields continue to rise significantly during the second half of 2021, the ECB is expected to react by stepping up the pace of its purchases and further increasing volume and/or duration.

Swedish long-term yields have risen as a result of higher US yields, and the upturn has been bigger than for most other European countries. Sweden's Riksbank will continue its bond purchases as planned until year-end, with subsequent purchases on the same scale as maturing bonds. That means the Riksbank will taper its bond buying somewhat earlier than the major central banks. The ECB is expected to continue buying at its current rate until at least the spring of 2022 and keep expanding its balance sheet throughout 2022. Given Sweden's low inflation forecast, the Riksbank's earlier tapering may seem illogical, but the limited supply of government bonds makes it difficult for the central bank to expand its balance sheet. Although it can buy more mortgage-backed bonds, the red-hot Swedish housing market has probably created an aversion to expanding these purchases. The Riksbank also continues to warn that an interest rate cut may be in store if inflation ends up well below target, despite increased optimism about economic growth and mounting concerns about rising home prices. However, our main forecast is that the repo rate will remain at zero until at least mid-2024.

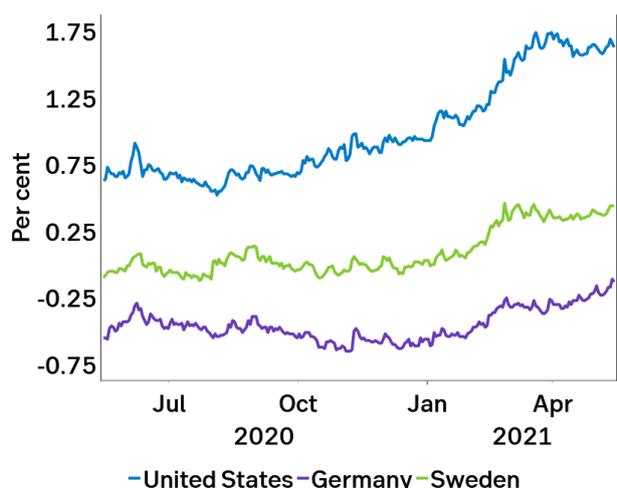
Since underlying interest rates in the bond market are now at record-low levels, total bond returns are largely linked to the yield trend, which may be hard to predict. To generate higher expected returns, investors must move further out on the risk scale towards corporate bonds with a somewhat high risk.

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

Favourable market conditions and the relatively strong corporate bond trend that began during the second quarter of 2020 persisted in early 2021. But high yield bonds, with their higher credit risk, had an advantage over investment grade bonds, which carry a higher interest rate risk. Although both categories have benefited from narrowing yield spreads to government bonds because of better economic conditions for companies, the high yield segment has been better compensated given its larger yield spread in a normal situation. Meanwhile, the upturn in government bond yields has had a greater negative impact on investment grade bonds, due to their longer durations and greater interest rate sensitivity.

Although falling sales as a result of COVID-19 led to a deterioration in earnings capacity in 2020, many companies were able to offset this with surprisingly rapid cost reductions. The current default rate is thus lower than had been feared earlier. The Moody's credit rating agency expects a global default rate below 4 per cent over the next twelve months, which is lower than the historical average. And with earnings set to improve in the year ahead, this will also have a positive impact on solvency, allowing companies to reduce debt and maintain their interest payments. Recently we have also seen an improve-

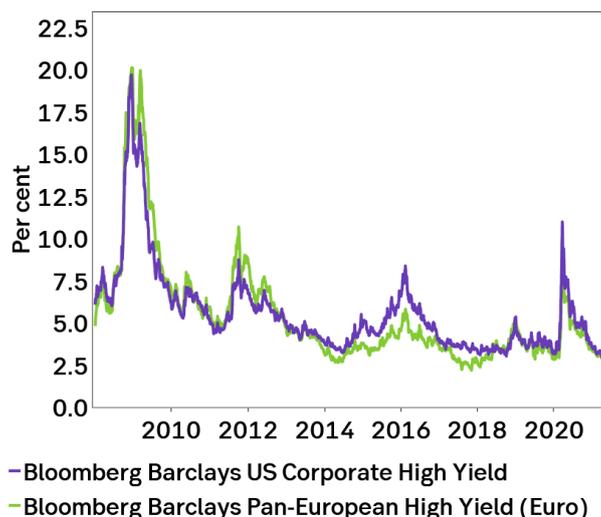
Higher US long-term yields, smaller movements in Europe



Source: Bloomberg/Macrobond

The increasingly bright outlook for future economic growth caused long-term yields to rise sharply, especially in the US, early in 2021. The Fed's tapering of its quantitative easing (QE) is expected to push US long-term yields up towards 2.40 per cent. We believe there is little likelihood that the Riksbank will raise its key interest rate before the ECB. In recent months the yield spread between German and Swedish bonds has narrowed, a trend that we believe may continue, assuming lower Swedish inflation.

Corporate bond market will be strong and stable



Source: Bloomberg/Macrobond

The corporate bond market is also affected by increased confidence in an economic recovery. The yield spread, which is supposed to compensate investors for the higher risk of corporate bonds compared to government bonds, has narrowed further – given 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 more stable going forward.

ment in corporate bond ratings, mainly in the US, with more companies promoted to the investment grade category from high yield than vice versa.

We continue to have a positive view of corporate bonds, especially in the high yield segment, given higher underlying interest rates combined with improved economic conditions for these companies. One downside risk in our bright picture is that current pricing is based on a positive market outlook, so there is not much room for disappointment. A fairly rapid rise in nominal and real yields might lead to a shift in monetary policy and downward pressure on risk assets.

Emerging market debt (EMD)

The trend has remained sluggish for most emerging markets in recent months, although it now looks better. The expected upturn in global economic activity and trade will benefit these economies, which have a relatively high level of dependence on other countries. Rising commodity prices and a weaker US dollar are further factors that will tend to favour emerging markets for another while. Most EM countries, especially in Latin America and Russia, are major commodity exporters and benefit from rising commodity prices. Many countries also have loans denominated in dollars, so their debt indirectly decreases when the dollar weakens. On the other hand, the rapid upturn in US Treasury yields has had an offsetting negative effect, which greatly contributed to the cautious trend in emerging markets early this year. In the slightly longer term, Joe Biden's move into the White House should also be seen as a positive factor for emerging markets, since he is less protectionist than Donald Trump and more open to global trade, which may indirectly help to drive economic activity in the future.

Yields in emerging markets are still higher in absolute terms than in advanced economies – which means relatively good running yields in stable markets. The technical picture is also somewhat positive since default rates for companies in emerging markets, like those in developed markets, have not been as high as was feared in 2020 and early 2021. A number of emerging markets have the potential for further economic stimulus measures, which may boost weakened EM currencies.

Theme: The health care sector

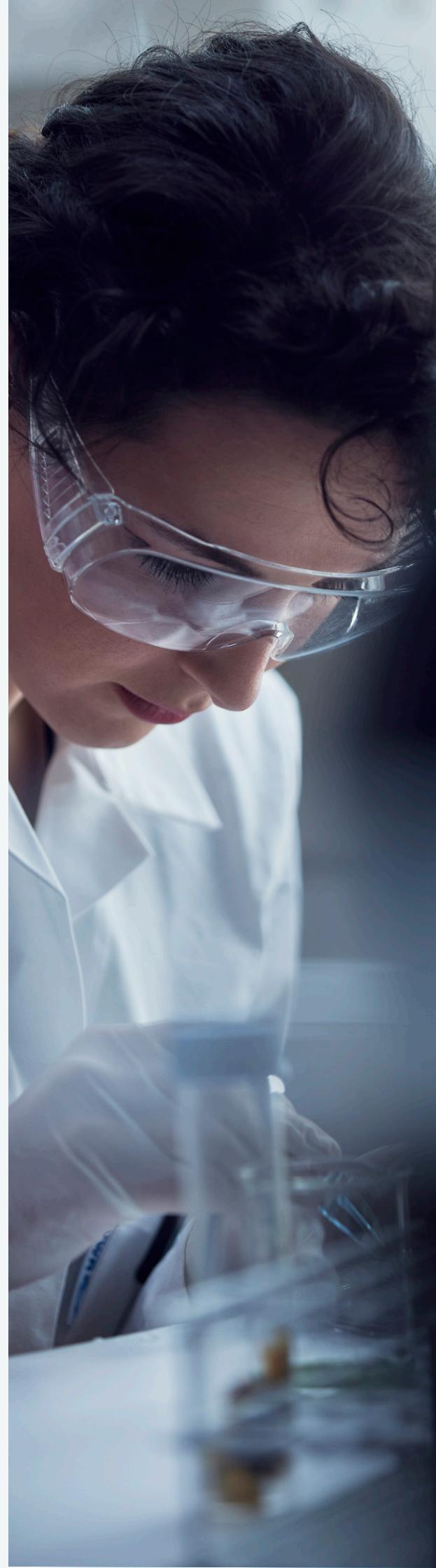
Trends will ensure healthy growth

The health care sector plays a fundamental role in society, which has become quite apparent during the COVID-19 pandemic. The sector is well underpinned by both demographic and cultural trends but is also driven by exponential advances in technology and innovation. Genes are being mapped and modified, population data are being digitised and studied, and doctors can now even perform surgery remotely.

In 2020 the general public developed a passionate interest in immunology and infectious diseases. Concepts such as antibodies, T-cells, herd immunity, cytokine storm and spike protein have suddenly become part of everyone's vocabulary, and the average person wants to know the difference between an mRNA vaccine (like those made by Pfizer/BioNTech and Moderna) and an adenoviral vector-based vaccine (AstraZeneca, Johnson & Johnson and Sputnik V).

The pandemic has brought many personal tragedies and a great number of negative events, but it has also produced some positive things. We have gained new respect for good hygiene and ventilation. The digitisation of society has accelerated, with a focus on problem-solving. In record time, the pharmaceutical industry has shown it could rise to the challenge of developing not just one, but several good COVID-19 vaccines. Researchers have collaborated globally in an incredibly dynamic way. The time from discovery to use has never been so short.

The new messenger RNA, or mRNA, technology will probably give us a number of new effective vaccines in the years ahead. The strength of this technology is that it simplifies the process dramatically by allowing the body's own cellular machinery to do most of the work. RNA also quickly breaks down in the body, which reduces the risk of side effects.



Proteins are the body's work horses. They are used to build muscles and organs and also manage most of the body's chemical functions. Proteins – together with water, fats, sugars and a few minerals – are what build a living creature. The construction blueprint comes from DNA, which is found in our genes. To produce proteins, the body must first read the DNA, which is done with the help of an intermediary – RNA. This process controls which parts of DNA are employed to create different types of cells in the body. For example, a cell in the eye must express, or turn on, other genes and make different proteins than those in the big toe.

An mRNA vaccine provides RNA with the blueprint for the virus protein to the body's cells, after which they start to make the virus protein. Other cells in the body – immune system cells – will then detect this foreign protein and render it harmless with the help of antibodies or T-cells. Training immune system cells is exactly what the vaccine is intended to do.

Having the body make its own vaccine is an efficient solution. The fact that mRNA breaks down so quickly has been an obstacle in the development of other drugs, but this is an advantage for vaccinations since the substance does not need to be stored in the body. Moreover, it is “simply” a matter of changing the RNA sequence and, presto, you have a new vaccine. Pfizer, BioNtech and Moderna, aside from producing second-generation COVID-19 vaccines, will also tackle influenza, respiratory syncytial virus (RSV), cytomegalovirus and even cancer. In the long term, perhaps we can finally cure the common cold, which is caused by other members of the coronavirus family.

Yet the development of mRNA vaccines is just one of many revolutionary technological advances now under way. The productive alliance of Big Data, artificial intelligence (AI) and biotechnology is revolutionising the development of drugs. However, one of the greatest discoveries in this area went relatively unnoticed in 2020.

DeepMind, a British-based AI company acquired by Google in 2014, has managed to overcome one of the greatest challenges in the biological world – predicting the three-dimensional

structure of a protein based on its amino acid sequence. Scientists have tried to solve this problem since the 1970s, and the solution will fundamentally change biochemistry. For the first time we can predict what the end product, the protein, will look like based on a genetic DNA sequence – this 3-D structure determines the protein's function. It will be possible to use this knowledge in all kinds of research contexts: for pharmaceuticals, materials technology, plant breeding etc. Complex biological relationships and molecules can be simulated, thus accelerating the development of drugs. The programme that DeepMind used, AlphaFold, is based on an AI network, a solution worthy of a Nobel Prize.

Quantum computing is another revolutionary field of information technology (IT) that will find its first applications in biological contexts. There are many examples of collaborations between leading IT and pharmaceutical companies. IBM is installing its first commercial quantum computer, Quantum System One, at the Cleveland Clinic in the US. The two organisations have established a ten-year partnership to prepare for the next pandemic and create diagnostics and treatments using the quantum computer, AI, cloud technology/storage and robot-based chemistry. The Swiss pharmaceutical company Roche has launched a partnership with British-based Cambridge Quantum Computing for research on Alzheimer's disease, while Google and Germany's Boehringer Ingelheim will collaborate on a Quantum Lab for pharmaceutical research. AstraZeneca is partnering with Nvidia and the University of Florida, using neural networks to develop new compounds (the MegaMolBART drug discovery model).

Speaking of Nobel Prizes, Emmanuelle Charpentier and Jennifer Doudna won their well-deserved 2020 prize in chemistry for the CRISPR-Cas9 gene-editing tool. The tool has a wide range of applications, since people can now cut and paste DNA with great precision. It is used in basic research as well as to develop new forms of treatment. A multitude of start-ups have been founded on the basis of this technology (Crisper, Editas, Intellia etc.). Another field that has developed at lightning speed is cell-based therapies (CART cells, NK cells, stem cells). Cells can be removed from the body, treated in various ways – for

Health care among the best US sectors for more than 40 years (numbers in %, USD)

	1980-89	1990-99	2000-09	2010-20	2021 YTD
S&P 500 Index	227	316	-24	190	12
S&P 500 Healthcare	355	350	11	228	9
S&P 500 IT	71	1148	-54	335	4
S&P 500 Energy	162	132	102	6	42
S&P 500 Financials	173	323	-40	164	29
S&P 500 Industrials	185	264	-11	183	19
S&P 500 Consumer Staples	564	234	32	136	5
S&P 500 Consumer Discretionary	287	320	-21	320	5
S&P 500 Utilities	115	37	11	108	6
S&P 500 Materials	164	105	25	93	22
S&P 500 Communication	132	223	-64	58	14

Source: Bloomberg

example, with a gene-editing tool – and then replaced after being modified in order to hopefully cure a cancer or perhaps correct a genetic defect. Gilead, Novartis and Bristol Myers Squibb have all launched cell-based therapies in the past 24 months.

In previous issues of *Investment Outlook*, we have reported on such megatrends as ageing populations and health tech. The United Nations predicts that the number of people over 80 will triple between 2019 and 2050. People are indeed living longer, but so-called diseases of affluence are also steadily on the rise. This has become increasingly apparent during the pandemic, with obesity being one of the greatest risk factors for severe COVID-19. The World Health Organisation (WHO) believes that overweight and obesity can no longer be categorised as a problem only for high-income countries but now affect low- and middle-income countries to a growing extent. More people in the world today are obese than starving, and obesity may cause diabetes, cardiovascular disease, cancer and damaged knees and hips. The Danish-based pharmaceutical company Novo Nordisk is well placed for this demographic trend, given its leading position in insulin products and effective new drugs to treat obesity.

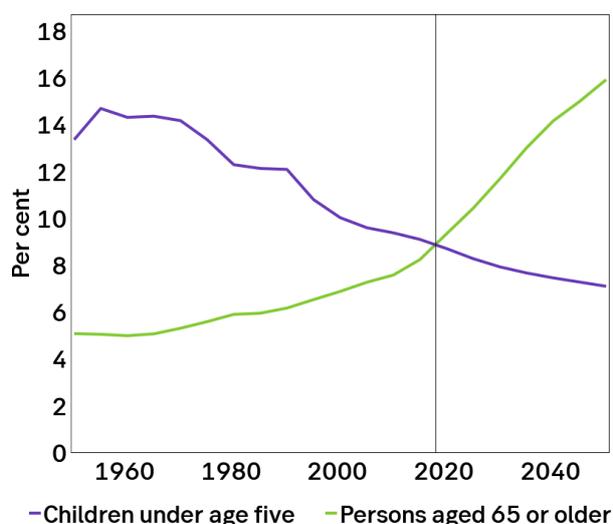
Innovations are driving improvements in efficiency

The older we get, the more money we spend on health care. An average 80-year-old pays four times as much as a 40-year-old. However, there is growing awareness among consumers of the long-term effects of our modern lifestyle. We are generally less accepting than previous generations of letting the diseases of ageing prevent us from leading an active life.

New health tech devices are revolutionising the health care experience, and many of these devices have been given a big boost during the pandemic. Health tech includes innovations and devices aimed at increasing the efficiency and productivity of health care and facilitating the development of new medicines and treatments. Materials development, miniaturisation and digitisation are driving the development of new products in health tech and analysis. For example, Twist Bioscience has developed a silicon chip on which DNA can be artificially manufactured quickly and accurately. The company also has an alliance with Microsoft and Illumina to advance DNA-based digital data storage. Guardant Health has developed a blood-based test for screening cancer, which may prove to be a major testing breakthrough. Another example of a health tech innovation is sensors. They can measure the blood sugar of diabetics in real time, with the data transmitted by mobile phone using Bluetooth technology. Insulin doses can then be regulated more optimally, and the system can warn patients and save their lives if they fall into a diabetic coma. US-based Dexcom has the leading sensor in the market, while the smaller companies Insulet and Tandem Therapeutics have developed small portable systems to simulate the body's natural insulin regulation like an artificial pancreas.

With increased access to sensors, there has been explosive growth in the amount of medical data available, and with that growth come stringent IT security requirements. Companies like the US-based Veeva provide secure cloud storage capacity. As we know, the pandemic has accelerated the development of IT services. One of the most visible of these services is online doctors, with KRY being a Swedish example. Teladoc is a global giant that has recently faced competition from Amazon.

Elderly now outnumber small children



Source: UN, "World Population Prospects", April 2020

As early as 2017, the number of persons aged 65 or older surpassed the number of children under the age of five, and the elderly account for a rapidly growing percentage of the total population.

Pharmaceutical companies are often criticised for making too much money from human diseases, but it should be kept in mind that only pharmaceutical companies can take new original medicines from concept to market and that this is an expensive process. According to the Tufts Center for the Study of Drug Development, development costs an average of USD 2.6 billion if all failures along the way are factored in and takes about ten years. All the new techniques needed, all the clinical trials that must be performed, all the complex manufacturing facilities that need to be built and all the regulatory requirements that must be complied with cost a great deal of money. The drug development period also eats up part of the time the product is patent-protected, which is about 20 years.

In terms of regulatory compliance, the pharmaceutical industry is probably the best in the world. Every aspect of production and research must be quality-assured and cross-checked. One positive side effect is that the sector is very ESG-friendly, that is, compliant with good environment, social and governance practices. In general, the sector has not had major problems related to the environment or working conditions, and the purpose of the sector's products is to save lives. The areas where there is room for improvement are management-level gender equality, diversity and drug pricing. However, the drug pricing issue is usually resolved once the patent expires, which averages about ten years after the product is launched.

Many attractive sub-sectors

From an investment perspective, we can study the pharmaceutical sector through the widely used MSCI World Health Care Index, for example. Along with pharmaceuticals (37 per cent), the index includes companies in biotechnology (13 per cent), health care equipment (30 per cent), health care technology (2 per cent) and health care services (18 per cent, including insurance companies, subcontractors and hospitals). Like pharmaceutical companies, biotech companies also develop drugs.

The dividing line between pharmaceuticals and biotech companies is quite blurry, and the two are becoming increasingly similar. The original definition of a biotech company was that it carries out research and development on protein-based drugs, which have large molecules that must be genetically engineered and then injected by syringe, whereas pharmaceutical companies make small chemical compounds that can be administered in pill form. Nowadays, however, pharmaceutical companies make both kinds of products.

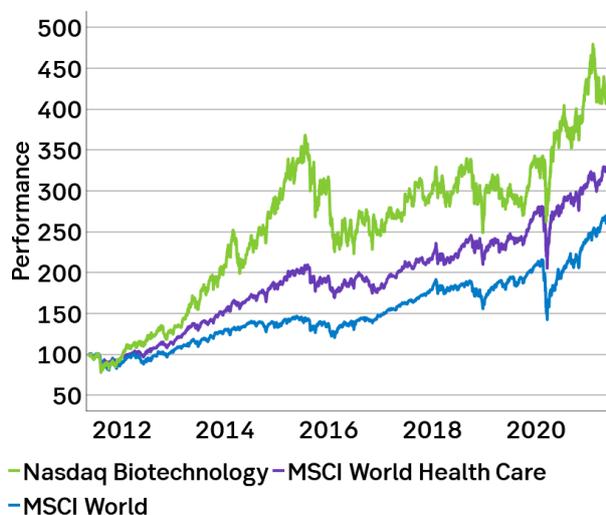
In Sweden, biotech companies are often cited as examples of companies that have no revenue or earnings. However, it should be noted that the industry is much more mature in the US, where many biotech companies are profitable and some are as big as the largest pharmaceutical companies. Smaller companies are often candidates for acquisition as they near commercialisation. Acquisitions are part of the large companies' business model. Along with having a high share of in-house research, large companies usually put 30-50 per cent of their cash flow into dividends and share buybacks and the rest into acquisitions.

The odds against success in drug development are brutal. A drug that has just completed the first phase of development (called Phase 1, which primarily involves studying side effects from clinical trials) has only a 10 per cent chance of making it to market. Some 90 per cent of products fail on account of side effects or inefficacy in treating a disease. To improve the odds, investors should wait until the drug has undergone more clinical trials. Yet even in Phase 3, some 30-40 per cent of drugs fail, and even after a drug has been approved it may fail commercially. Diversification of company risk is thus crucial, and the expression "don't put all your eggs in one basket" is highly appropriate, especially in the biotech sector.

We have mentioned many technological advances and trends that we consider worth investing in. In terms of valuations, pharmaceutical companies, large biotech firms and health service companies are attractive and cheaply valued, while valuations of health tech and IT companies have surged during the pandemic.

Stock markets in general have got off to a good start in 2021, except in some emerging markets. The new COVID-19 vaccines have raised hopes that the pandemic will end soon and that the world's economies will gradually be able to reopen. However, highly expansionary US monetary policy has contributed to rising bond yields globally, so the biotech sector has been volatile – especially smaller companies. This should be seen in light of certain overheating tendencies we saw in late 2020, which was an extremely strong year for small health care companies. Shares of the large companies move less, both upward and downward, and are cheap in both relative and absolute terms. This has been somewhat overlooked in the reopening rally that has been under way since Pfizer/BioNtech announced its surprisingly good vaccine data in November 2020.

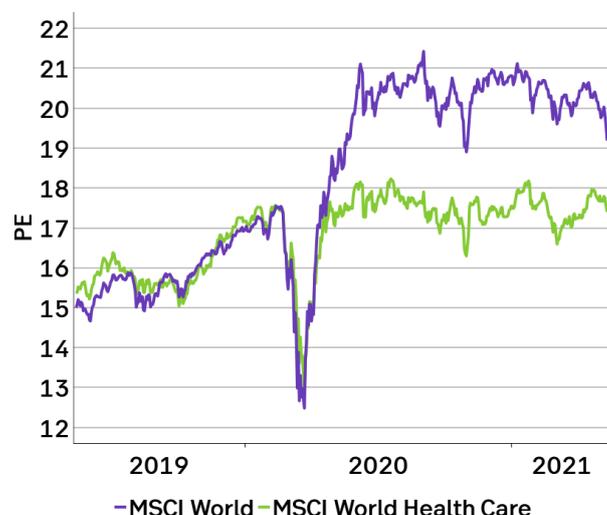
Share price performance in the health care sector



Source: Macrobond

The MSCI World Health Care Index has performed better than the MSCI World Index over the past decade. American biotech companies have done even better in the stock market, though with larger share price fluctuations along the way.

Price-to-earnings ratios in the health care sector



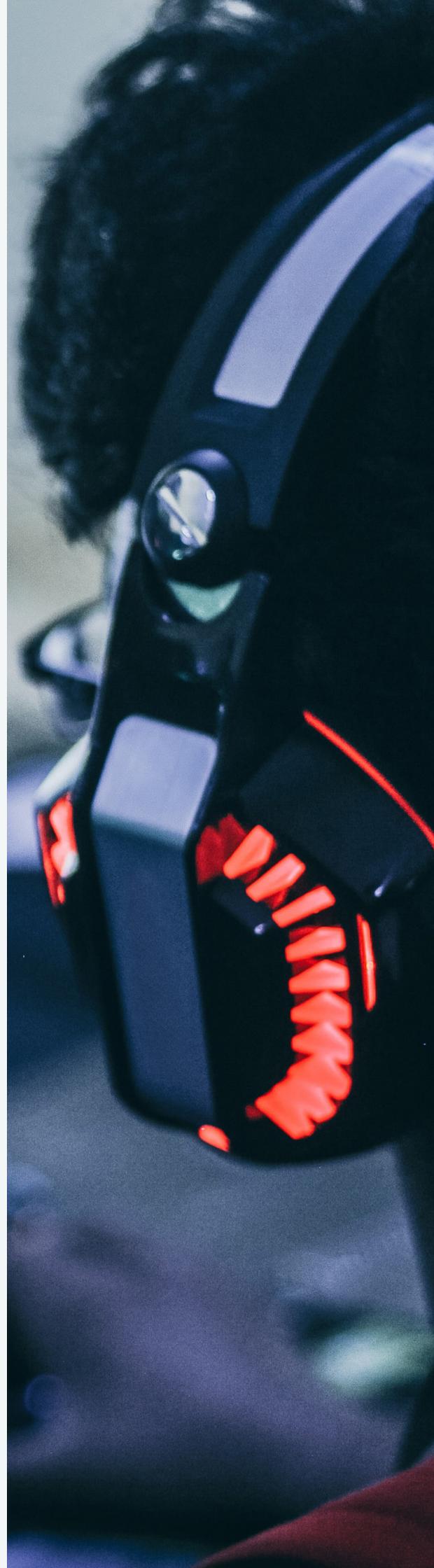
Source: Macrobond

Price-to-earnings ratios for health care companies have recently lagged behind the rest of the stock market. From a valuation standpoint, the sector looks attractive.

Theme: Gaming

The Nordic gaming prodigies

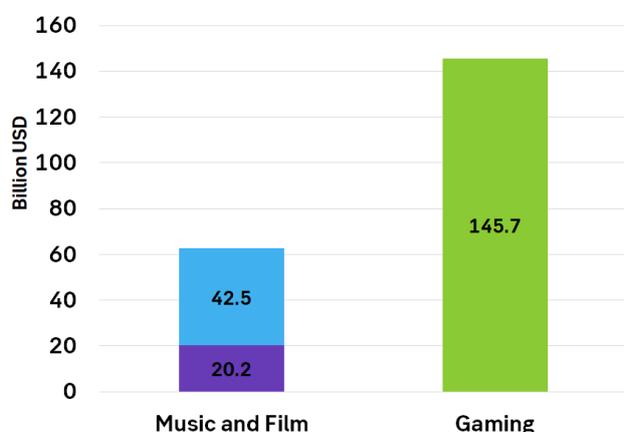
The Nordic countries, and Sweden in particular, have a history of creating successful companies in many sectors. Over the past 20 years, a new industry has developed, creating such sensations as Minecraft, Battlefield, Payday and Candy Crush Saga. Today the Swedish gaming industry has sales of about 25 billion kronor – as large as Sweden’s exports of iron ore or paper pulp. If we add one-off revenues, their sales are almost as much as the two combined.



These Swedish business successes have helped to create a new basic industry, which today consists of 435 companies with more than 9,000 employees in all. Tech giants such as Google, Amazon and Facebook have shown a growing interest in the gaming industry and have invested in obtaining access to these revenues through acquisitions or by starting their own gaming divisions. Successful Swedish companies such as Embracer, Stillfront and Paradox are proving to be winners in both the gaming industry and the stock market, which makes them targets for even bigger players that want to grow in the world's most popular entertainment sector.

The gaming industry has historically been associated with “nerds” and young people. But in the past 20 years, the industry has grown up, with global sales now twice those of the film and music industries combined. In 2012 the gaming industry had sales of SEK 480 billion. Today, nearly nine years later, sales are around SEK 1.35 trillion, with average annual growth of 12 per cent. Perhaps one of the strongest drivers, as in so many other fields, is digitisation. Because billions of people today carry a potential gaming device in their pocket in the form of a smartphone, gaming has reached a broader audience. Thanks to application platforms available through people's smartphones, gaming is rarely more than a click away. Meanwhile the console game market (Nintendo, Microsoft and Sony) has seen sales nearly double, with game consoles having taken over as one of the few surviving multimedia devices, alongside smart TVs. The computer game market has also grown as a result of platform-specific video game bestsellers and growing interest in game streaming and e-sports. In terms of users, gaming is one of the world's biggest leisure activities, with more than 3.1 billion people playing some form of digital game, according to DFC Intelligence, which means that nearly 40 per cent of the world's population can be considered potential consumers.

Gaming has grown into the biggest form of entertainment



Source: Statista, SEB

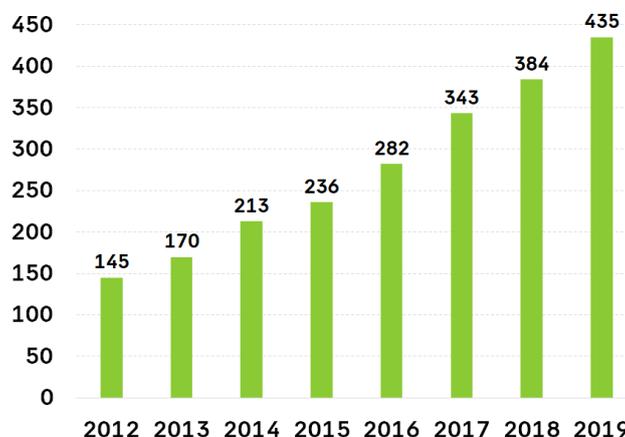
In 2019, before the COVID-19 pandemic, the gaming industry was already worth more than twice as much as the film and music industries. Gaming has quietly grown into the world's largest form of entertainment.

Game developers, publishers and distributors

For consumers, the gaming industry is usually divided into hardware and software. Hardware is the platform used to play the game (console, PC, mobile phone) and software is the actual game. We have chosen not to take a closer look at hardware production, which comprises a small number of gigantic companies, and will instead focus on software. The software segment can be broken down into developers, publishers and distributors, and large companies may be involved in one or more aspects. The Swedish-based company Paradox is an example of a gaming company that is a developer, through its Paradox Development Studio, and a publisher of its own games as well as those developed by others. US-based Microsoft is a company that has integrated all three aspects, while also distributing games through its Microsoft Store.

A game developer, as the term suggests, develops games. Like films, they come in different “sizes”, where the biggest titles may have thousands of people working for a number of years with a multi-billion kronor budget, while the smallest titles may be developed by a single person without any big budget and take just a few weeks to reach consumers. Over time,

Big increase in the number of Swedish gaming companies



Source: Swedish Games Industry

Sweden has seen explosive growth in the number of new companies in the gaming sector. In 2019 alone, there were 51 new start-ups, a 13 per cent increase from the previous year.

game development has become more streamlined thanks to new technology and faster access to the market via Big Tech's application platforms. This trend is one factor contributing to the abundance of start-ups. In Sweden, the number of gaming companies has tripled in just seven years, and the trend looks set to continue. The majority of these new companies are game developers.

In many cases, a publisher acts as a financier to game developers, either externally or internally, as in the case of Paradox. The publisher funds the development of the game and usually helps pay for licences, translation services, layout, graphic

elements, marketing and production of the game. About 83 per cent of game sales today take place digitally, which has decreased the risks associated with the printing process and physical distribution. Since a publisher assumes all or a large share of the financial risk in game development, producers, project managers and well-developed digital infrastructure are used to monitor development and mitigate problems that could delay a game’s release or impair its quality during development. We find many of the biggest companies, which are often also publicly traded, in this market segment. Size is important to a producer; just as for a film company or an investor, having more titles is a way to spread risk. Size can also provide economies of scale and in many cases a lower total cost per title.

Distributors have historically been electronics chains and dedicated game retailers, but over the past ten years these have largely been replaced by digital channels, with tech giants like Apple being a stand-out. It is lucrative to be a digital distributor but, as with publishers, scale is needed. Building up market share as a sales channel is work that takes time and a great deal of money. A distributor’s share of revenue is about 30 per cent of the sale price; in return the distributor handles game downloads, updates and returns. Since 2020, Apple and Epic Games have been involved in a bitter battle over their distribution agreement. Apple claims that Epic Games breached this agreement by allowing in-app game sales without users having to go through its App Store. It is understandable that Apple wants to protect its margins, but the company risks generating ill will, and many other operators have taken the opportunity to lower their distribution costs to improve their own public image.

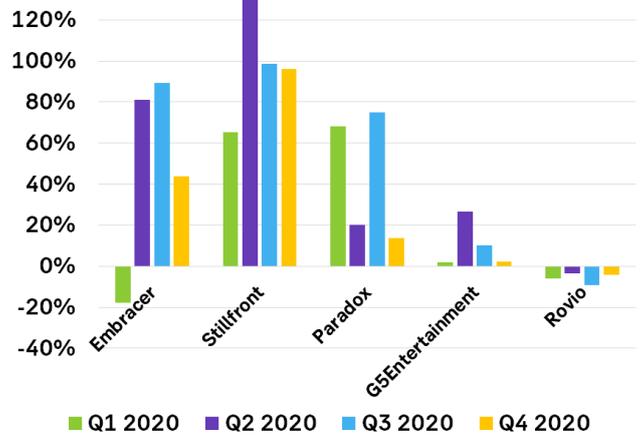
Swedish gaming companies are mainly game developers and/or publishers. The three largest are Embracer, Stillfront and Paradox, which today are all primarily publishers but have their origins in game development. Embracer and Stillfront stand out with their aggressive growth strategy of acquiring game developers, while Paradox has historically been more cautious and has had a larger element of organic growth.

A more detailed look at the figures

There are many small unlisted companies, but these are difficult to analyse for natural reasons, given the scarcity of data. Among the companies that have issued quarterly reports during the past two years:

- Embracer had average organic sales growth of about 50 per cent in 2020 in its gaming operations.
- G5 Entertainment reported 15 per cent organic growth in dollars.
- Paradox increased its sales by 37 per cent, excluding acquisitions.
- Stillfront, which doubled its revenue, said it had stable organic growth across the company in 2020.
- Rovio had negative sales growth.

Strong sales growth in 2020



Source: Quarterly earnings reports

The chart above shows the quarterly percentage change in sales compared to the same period of the previous year.

Organic growth is affected by the number of game launches, successes in the game portfolio and market growth. Another driver is how much companies spend on acquiring new customers, which may vary from quarter to quarter. According to the analytics firm Newzoo, the global gaming industry grew by 20 per cent in 2020.

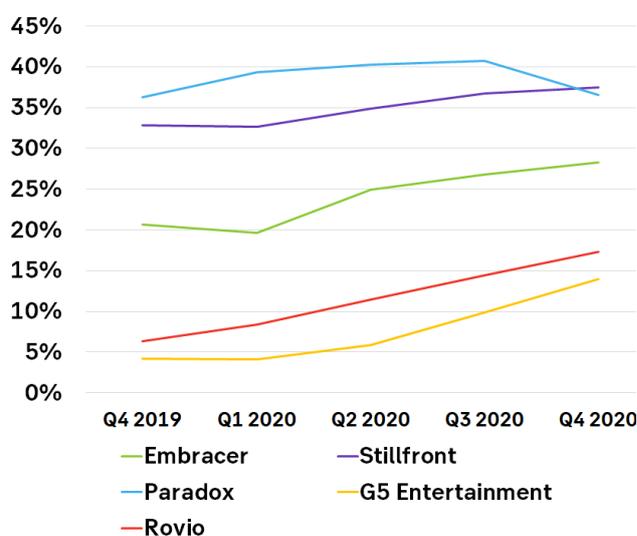
Stillfront and Embracer had the highest reported sales growth, but Paradox also showed rapid growth. G5 Entertainment and Rovio, however, reported lower growth. Along with differences in organic growth, acquisitions had a major impact. Funds for acquisitions were raised through shares issued either to acquired companies or to new and existing shareholders. Growth was weaker in the fourth quarter of 2020 compared to the second and third quarter for all five companies except Rovio, which saw slightly negative growth. One reason for the lower reported growth is an increasingly strong krona relative to the US dollar, causing the value of exports to fall when companies report their figures in kronor. The number of new games completed may also have an effect in the short term.

Companies have generally reported that the pandemic has accelerated a pre-existing change in consumer behaviour and has also had a positive impact on market growth. One short-term uncertainty highlighted by operators is the change in Apple’s user policy for the next update of its iOS mobile operating system. This update may affect all app providers, but perhaps especially companies with business models funded by in-game advertising as part of free mobile games and revenue from external advertisers. Some companies have announced that 2021 growth may be affected by a tough 2020 comparative period – since the pandemic may have had a positive impact on gaming activity, with an increased influx of new players.

There was a positive trend in both operating margins and earnings for these companies in 2020, except for Paradox, whose costs were adversely affected by higher write-offs for recently launched games and game launches during the fourth quarter.

The chart below shows that the operating margin trend during 2020 was best for the companies that grew the least, Rovio and G5 Entertainment. The reason for this is that they probably invested smaller resources to increase growth, which in turn led to lower costs. This indicates that profitability may grow when investment in growth slows or stabilises.

Higher operating margins for most companies



Source: Quarterly earnings reports

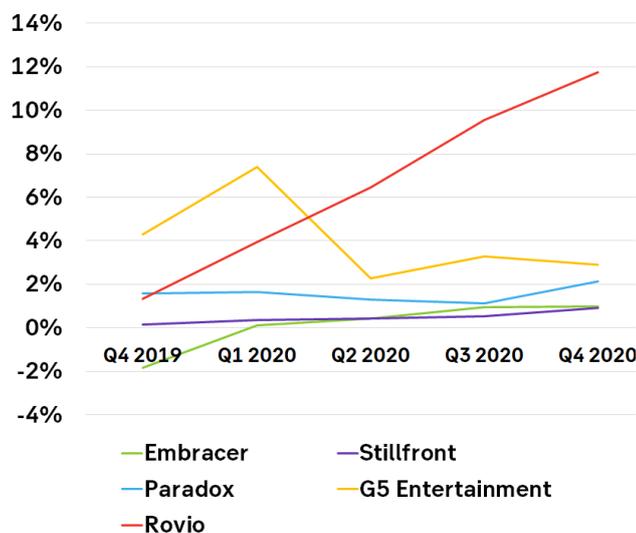
The above chart shows the operating margin based on 12-month rolling revenue and operating profit, adjusted for one-off effects

One distinctive feature of the gaming sector is that companies often recognise their development costs as investments in intangible assets in the balance sheet, rather than as an expense in the income statement, until the games are launched and start generating revenue. Our figures below are based on quarterly cash flow after investments in fixed and intangible assets and product development of future games, but before investments in acquisitions. We divided this cash flow by the company's valuation at the end of each quarter. The chart shows dividend yield, in other words what the companies could pay out in dividends without affecting solvency. The levels are generally low due to high development costs (in order to generate future revenue) and rising share prices during the year. The exception is Rovio, which has a high cash flow because the company reduced its investments in acquiring new customers in 2020.

Monetisation and business models

Revenue streams and monetisation strategies may vary from company to company. The traditional model is that a gaming company finances development, markets and launches a game and generates revenue after the launch, which is similar to the

Cash flow as a percentage of enterprise value



Source: Quarterly earnings reports

The above chart shows cash flow on a rolling 12-month basis after investments in fixed assets and game development as a percentage of the company's enterprise value at the end of each quarter, apart from the fourth quarter, which is based on current market value.

way a film company makes money. If a company manages to produce a big hit, there is potential for sequels and licensing revenue for films, TV series, toys, clothing and more. Paradox has been successful at building its games as platforms, for which minor updates can be developed and sold to existing customers. This extends the economic life of the games, something Paradox refers to as long-life games. Game add-ons are called downloadable content (DLC) and are often priced in the range of 10-50 per cent of the game's launch price. This strategy is not unusual for gaming companies but is something that Paradox has taken to the limit, so that a game can continue to be relevant ten or more years after launch.

Earnings look somewhat different for mobile games compared to traditional console and PC games. The most common model here is often "free-to-play", in which players can download and play the game at no cost. After the download, earnings are generated through in-game advertising or by providing an in-app store in which the player is offered the chance to buy various in-game advantages or can simply pay to play the game with no advertising. Since the model entails very little commitment from the consumer, it is a matter of keeping the player engaged through constant feedback and gradually increasing the level of difficulty. As a result, the player becomes more engaged for longer periods and is persuaded to spend more time (or money) to advance in the game. This model often requires continuous development of the game over time and more and more content so that the player continues to generate revenue.

Another alternative is to take the same path as film-streaming services, with the player instead subscribing to the game, which makes for less volatile earnings over time. This format is often used for online gaming or mobile gaming, where new content is continuously developed over time.

These models can naturally be combined to achieve an even more customised solution for the game on offer – a price at launch together with a subscription, free-to-play with DLC, or why not a launch price plus a shop where players can buy in-game advantages?

Strategies for generating revenue have changed over time and also vary geographically. For example, players in the West put money into mobile games more than players in Asia. On the other hand, players in Asia spend more money when they buy something in-game, compared to players in the West (Mobvista). Like many others, game developers and distributors are devoting more and more resources to analysing their customers' behaviour in order to refine their revenue models and increase earnings.

Acquisitions, the future and Big Tech's entry

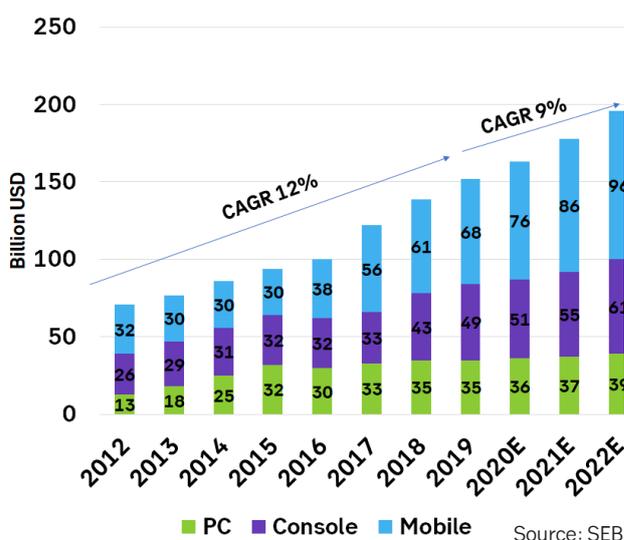
The Nordic countries, and Sweden in particular, have a history of creating many successful gaming companies, with the result being a number of major acquisitions. The biggest deal to date is Activision Blizzard's purchase of King, creators of Candy Crush, for about SEK 50 billion in 2016. When Microsoft bought Mojang, creators of Minecraft, for SEK 18 billion in 2014, some people were sceptical about the acquisition. But since Minecraft had 130 million average monthly players in 2020 (Business of Apps), we understand the potential of monetising a strong brand and the large number of players. Both Mojang and King still have operations in Sweden, and most acquired companies have maintained their presence in the country. Sweden is an exciting incubator for the gaming

industry, with about ten companies dating from the 1990s still in existence here, but more than half of all gaming companies were started in the past five years.

In the Swedish market, shares of companies such as Embracer and Stillfront are priced at a premium because of their ambitious acquisition strategies. In 2019, 46 investments and acquisitions worth SEK 4.5 billion were carried out in the Swedish gaming market, and the figure for 2020 was SEK 14 billion (Swedish Games Industry). This trend will quite likely continue for as long as companies' shares are priced higher because of their investments. Through a combination of acquisitions and organic growth, these companies can obtain a larger share of the international gaming market, possibly making them targets for even bigger market players. The tech giants have followed the gaming market for a number of years, with Amazon, Google, Apple and Facebook among those trying to set up operations in the market.

Amazon already owns Twitch (game streaming), and Amazon Prime's product range has been expanded to attract gamers. Amazon also has a gaming studio, but no big hits to show for it. Google launched Stadia, a cloud gaming service, as recently as 2019, but it was reported in February this year that Google is closing the two gaming studios that were started to support the service. Apple launched Apple Arcade in 2019 as a way to break into the gaming market; the service is intended to offer game developers and publishers access to the company's infrastructure and user base, while gamers get access to loads of games at a fixed monthly subscription fee. Facebook launched Facebook Gaming in 2018 in an effort to penetrate the market; it offers a news feed, game streaming and game playing. The company already owns Oculus, which makes virtual reality (VR) headsets, mainly for gaming. Big Tech has had mixed success in gaming, but it is showing continued interest, which will probably keep growing as fast as the gaming industry.

Continued high growth rate in the gaming sector



The gaming industry has grown at an annual rate of 12 per cent and is expected to have an annual growth rate of 9 per cent from 2020 to 2022, reaching a value of nearly USD 200 billion in 2022.

When we see industry forecasts and analyses, there is no doubt that the future is bright for gaming companies. The COVID-19 pandemic, which has challenged many traditional industries and business models, has served as a catalyst for the gaming industry, and 2020 ended up being a record year. Future winners may well be found in the Nordic region – especially Sweden – but investors should be prepared for high valuation multiples and a focus on growth instead of dividend capacity.

International overview

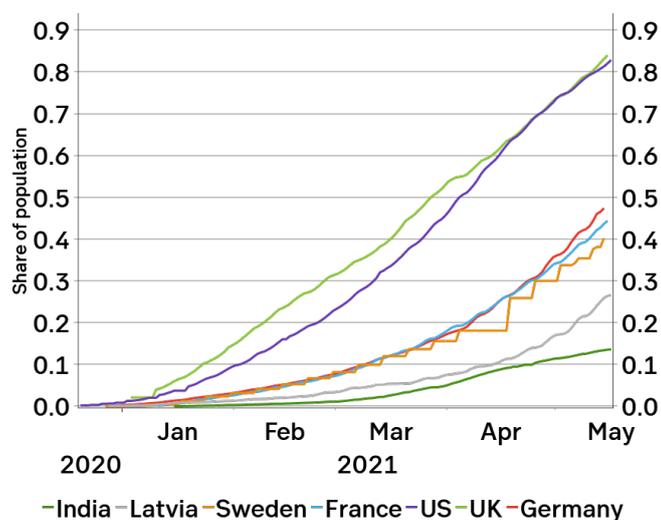
Excerpt from the *Nordic Outlook* research report.
You will find the full report at seb.se/nordicoutlookreport.

The outlook has improved with surprising resilience to new restrictions and the US assuming a leadership role. How consumers use the savings they built up during the crisis will determine the next phase. Our main scenario is a balanced global recovery in 2021-2022, but the US will surpass its previous GDP trend by next year, putting the low-inflation environment to the test in a sensitive situation of mounting debt and relatively high stock market valuations.

The past few months have been dominated by continued high levels of COVID-19 transmission worldwide, with increased pressure on health care systems and high death rates as a consequence. As the third wave swept across Europe, new decisions were made to resume restrictions and lockdowns, but the tendency for economies to become more resilient to restrictions has also been confirmed and strengthened. In general, a strategy of designing restrictions in ways that enable working life to continue appears to have been successful. Combined with greater demand for consumer goods, this has sustained industrial production in particular. Other economic sectors have also found new ways to maintain their activity level, even in an environment of ongoing restrictions. Economic forecasts have thus shifted in a positive direction recently. The first quarter of 2021 was not as weak as had been feared, thus outweighing the negative consequences of the extended pandemic for Q2. The latest signals also indicate that easing of restrictions is imminent in major Western European economies.

Vaccinations will not solve everything. We are now rapidly approaching the point where the vaccination process will determine economic performance. One question is whether hoping for an almost complete normalisation of the economic environment is too ambitious. It cannot be ruled out that for various reasons such as new virus mutations, resistance to vaccination in segments of the population in some countries or slow vaccination campaigns in poor countries, COVID-19 will continue to hamper economic activity and international mobility for a long time to come. Differences in the pace of vaccinations will also play a role. The European Union continues to lag behind the United States and the United Kingdom. This will affect the economic outlook this summer and thus be very important for those sectors and countries which are dependent on travel and tourism, for example. Yet the big

Vaccinated, selected countries, per capita



Source: Our world in data, Macrobond, SEB

picture is that well-functioning vaccines have been developed at an impressive pace and that vaccination processes largely appear to be working as planned. As a result, differences in the pace of vaccinations will also have a relatively small and transitory impact on activity in advanced economies. Poor countries are generally lagging behind, but there are clear signs of growing awareness that reasonable vaccine distribution will be important in order to avoid future setbacks. As vaccine production rapidly increases, distribution efforts are thus likely to intensify.

A greater focus on the inflation outlook. Although there are still various uncertainties related to the pandemic, the focus of attention is now shifting towards more traditional macro-economic issues. This applies especially to the consequences of the massive economic stimulus measures that have been implemented. Our forecast indicates that in 2022, American GDP will surpass the trend growth rate that prevailed before the COVID-19 crisis. Above all, the strength of the US economy raises questions about inflation risks and the appropriate policy mix in the future. In a theme article on page 25 of *Nordic Outlook*, we analyse the US inflation situation in various time perspectives. The low-inflation environment is being put to its biggest test in decades, but despite upside risks our main conclusion is that it will last.

A continued important role for fiscal policymakers. Long-term behavioural changes due to the crisis remain interesting. It has been popular to draw far-reaching conclusions about how different the "post-coronavirus world" will be. Some sectors will probably suffer a permanent downturn, but we will probably also see vigorous rebounds in many fields due to a strong desire to return to normal life. In general, households have also increased their savings during the crisis. This will provide a buffer when stimulus is gradually withdrawn over time. But savings and wealth are unevenly distributed, creating both short- and long-term risks. Public sector debt is rising sharply in many countries, especially the US. But as long as central banks are prepared to help, we see no big risks that major tightening will become necessary in the next couple of years. Countries with strong public finances have room to continue fiscal stimulus, thereby easing pressure on central banks. One risk is that in the future, prudent fiscal policies in Europe may contribute to larger cyclical differences compared to the US, thereby reviving discussion about global imbalances.

Goldilocks scenario under some pressure. Our forecast implies that a balanced recovery will begin during the second half of 2021. Most indications are that economic expansion over the next couple of years can occur without widespread bottleneck problems on the supply side. But financial markets are now clearly focusing on more long-term issues. Our relatively optimistic inflation scenario leads us to believe that the US Federal Reserve will hold off on key interest rate hikes until 2023, yet we have raised our forecast for 10-year US Treasury yields. We are forecasting yields of around 2.40 per cent in late 2022, compared to 1.70 in the previous *Nordic Outlook*. Because of wider gaps between US and Western European growth rates, we are now starting to move towards expectations of more normal central bank behaviour, with the Fed – despite its new, more dovish strategy – initiating the normalisation of its monetary policy well before the European Central Bank. This means that the US dollar will probably appreciate in the long term, after some headwinds over the next six months. After the EUR/USD exchange rate climbs to 1.24 this summer, we believe it will fall to 1.13 by the end of 2022. The stock market has continued to benefit from upside earnings surprises. We believe share prices may enjoy additional support as economic growth accelerates this autumn. But in a more mature cyclical phase, slow growth and an uncertain yield outlook will challenge relatively high valuations.

Biden's roaring start is having a clear impact

Now that the Biden administration has spent just over 100 days in the White House, we have seen a number of initiatives with the potential to affect both the United States and the outside world. Aside from its large stimulus packages, the administration's proposals for various tax increases are concrete examples. As for corporate taxation, the US has now taken the initiative to set a global minimum in order to reduce tendencies towards unfair tax competition. This matter will be discussed at the Group of 20 (G20) meeting on July 9-10. Joe Biden has also proposed higher capital gains and income taxes for the wealthiest. The White House is thereby also following the recent International Monetary Fund (IMF) proposal to introduce greater progressiveness in income tax tables and impose a temporary "solidarity tax" linked to the pandemic.

The pandemic has widened economic gaps in the US, which has affected public discourse on taxation. This is also reinforcing a long-term global trend of wider gaps being caused by exceptional monetary policies, and it may thus conceivably mark the beginning of a new international trend. In the near term, some of the tax increases that are now being planned will have a rather minor negative impact on demand, since the households that will be affected are unlikely to change their consumption behaviour significantly. In contrast, low income earners can look forward to tax cuts, including larger deductions for families with children. However, Biden's promises to tax only those who earn the most – the top 1-2 per cent – may place obstacles in the way of a transition to a more European-type welfare system. Capital gains taxes are meanwhile challenged by the risk of vanishing tax bases. It is also risky to launch plans for tax hikes before the recovery is on solid ground. But in a longer perspective, it will probably be of interest to seek new sources of funding, among other things for more climate-related investments.

Biden's decision to bring the US back into the Paris Agreement has increased the probability that the world can meet the 1.5-degree climate target. The White House climate summit on April 22-23 provided further support, including a surprising promise that the US would halve its climate emissions by 2030. This indicates that the Biden administration would like the US to play a leading role on climate issues, but its pledges must be translated into concrete actions. China did not come up with any new climate goals: its pledge of climate neutrality by 2060 will thus remain a benchmark in the future. There are now hopes that even more ambitious goals and concrete action plans can be unveiled at the UN climate summit (COP26) in Glasgow this coming November. In any event, recent progress indicates that climate-related measures will become increasingly important for the economic outlook and financial market pricing. In a theme article on page 16 of *Nordic Outlook*, we call special attention to the consequences and conditions for transforming the global energy system.

"Strategic autonomy" – a new form of protectionism.

Global trade has recovered faster than expected, with goods trading expected to increase by 8 per cent in 2021 after falling by 5 per cent in 2020. The relatively rapid recovery of the manufacturing sector, driven by high demand for goods,

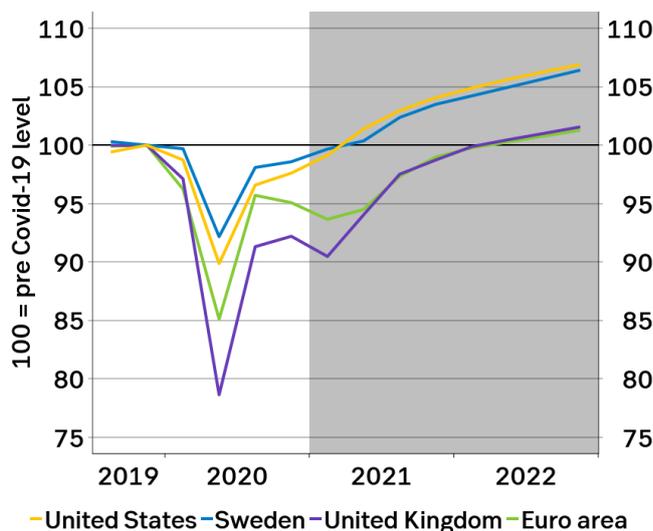
has contributed to this. During the COVID-19 crisis, there has been a clear tendency to refrain from new trade barriers and tariffs, which has also supported international trade. But another kind of protectionist trend is emerging instead. In the theme article “Strategic autonomy” (page 13 in *Nordic Outlook*), we discuss how political decisions increasingly seem to be moving towards trying to block exports of goods that are deemed critical from an economic, security and health standpoint. Governments thus want to assume greater control over value chains that supply such goods as pharmaceuticals, semiconductors, car batteries and rare earth metals. In February, President Biden initiated a comprehensive review of US company supply chains. China's latest five-year plan expresses similar ambitions. Brussels, too, is moving in this direction with regard to manufacturing, digitisation, trade and security. The forces of globalisation remain strong but are now being challenged by ambitions linked to strategic autonomy.

GDP forecasts, year-on-year percentage change

Market	2019	2020	2021	2022
World	2.8	-3.3	5.9	4.3
United States	2.2	-3.5	6.5	4.0
China	6.0	2.3	9.0	5.3
Japan	0.7	-4.8	2.8	1.8
Germany	0.6	-4.9	2.6	3.4
United Kingdom	1.4	-9.8	6.4	5.8
Sweden	1.4	-2.8	4.5	4.0
OECD	1.6	-4.8	4.8	3.8
Euro area	1.3	-6.6	3.3	4.6
Baltic countries	3.8	-2.1	2.7	4.2
Emerging markets	3.8	-2.1	5.9	4.3

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

Recovery at different speeds



Source: SEB Nordic Outlook

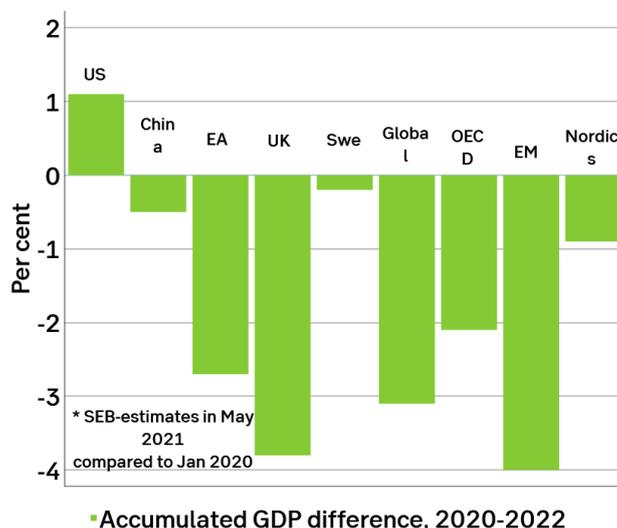
The US pulls ahead of Western Europe

Despite disappointments caused by the protracted course of the pandemic, we have gradually adjusted our GDP growth forecasts higher this spring. We now foresee global GDP growth of 5.9 per cent in 2021, compared to 5.0 per cent in the last *Nordic Outlook* and 5.5 per cent in our early April update. Our 2022 forecast of 4.3 per cent has been stable, however. The dominant change concerns the US, whose economy has recently been unexpectedly strong despite continued COVID-19 transmission. Our forecast is now that American GDP will grow by 6.5 per cent this year and by 4.0 per cent in 2022. In our last *Nordic Outlook*, the corresponding figures were 4.5 and 3.6 per cent. It is clear that US lockdowns have been less extensive than in Europe, as illustrated by higher mobility levels. To some extent, forecasters have probably also re-evaluated the effects of the Biden administration's first stimulus package, which is equivalent to more than 8 per cent of GDP during 2021. US stimulus packages rely largely on direct payments to households, which have a faster economic impact via strong recovery in household consumption.

Greater clarity in a chaotic forecasting environment. No wonder there have been major revisions to forecasts in the past year. Aside from the pandemic itself – which is constantly taking unexpected paths, including recurrent waves of infections – lockdown strategies and stimulus measures have been very difficult to predict, and the behaviour of households and businesses has been hard to assess.

The response of households and businesses to all of this has also varied between different phases of the pandemic in ways that have been difficult to forecast. One way to illustrate how we now view the overall impact of the COVID-19 crisis is to compare our current forecast for 2020-22 with the one we presented in January 2020, just before the pandemic broke out. At that time, our perspective did not extend

Varying effects of the pandemic on GDP



Source: SEB Nordic Outlook

through 2022, but in our calculation we used our own trend growth projections and the International Monetary Fund (IMF) forecast at that time. Since the pre-pandemic economy was in a fairly normal cyclical situation, with GDP forecasts close to trend, the divergences in the chart below can be interpreted as a rough preliminary assessment of the GDP gap for 2022.

American GDP will surpass its previous trend by 2022. The US stands out here, with overall GDP growth that is actually 1 per cent higher than in our pre-crisis forecast. In other words, we now expect a higher GDP level in 2022. From a demand perspective this is not so strange, given the Fed's key interest rate cuts and changes in strategy, as well as the massive stimulus packages implemented since then not least by the Biden administration. But this requires a more detailed supply side analysis. Early in the crisis, our main scenario was that it would take many years before we caught up with the old GDP trend. Today we believe we will surpass it as early as 2022. The time lag for major Western European economies is illustrated by the gaps in the euro area (nearly 3 per cent) and the UK (nearly 4 per cent). The relative resilience of the Nordic economies is indicated by a much narrower gap: in Sweden only 0.2 per cent.

Structural changes may also affect growth gaps. Generally speaking, the gap is far narrower for advanced economies (-2.1 per cent) than for the emerging market sphere (-4 per cent). This can be explained by larger potential for launching economic stimulus measures, but also by a faster vaccination process. However, the differences between the largest EM countries are very wide. It currently looks as if China's fight against the pandemic will be so successful that its negative gap will be only 0.5 per cent. This is a stark contrast with the situation in India, where we now predict that the economy will be 11 per cent smaller in 2022 than in our pre-crisis forecast. Some smaller EM economies are showing even worse figures, for example the Philippines, where we estimate a gap of 17 per cent. Although the size of these gaps may generally indicate room for above-trend growth after our forecast period, they must be supplemented with other data. For example, if the gaps are large and long-lasting enough, it may be hard to avoid permanent damage – which actually means that the

gaps are smaller than they appear. In addition, country-specific events must be taken into account, for example whether the impact of Brexit is larger than expected, or to what extent political tensions in India and Russia have worsened their outlook.

Mixed outlook for EM economies

Partly due to strong economic performance this past winter, we have made an upward adjustment in our forecast of GDP growth in the emerging market sphere despite widespread COVID-19, especially in India and Latin America. For 2021 as a whole, we expect GDP to increase by 6.8 per cent, which would be the highest such figure in more than a decade. In light of the record-breaking GDP decline in 2020, it is still a rather modest upturn. In 2022, EM growth will slow to 4.8 per cent – not far above the long-term trend. Among the reasons why EM economies will have difficulty recovering lost ground are their modest stimulus measures, poorer access to vaccines and time lags in the actual spread of COVID-19. There are various reasons for the major differences between regions. China has weathered the pandemic well and is providing support for large portions of Asia, but economic recovery will be weaker in Latin America and Africa – partly because of less access to vaccines. Other factors also contribute to the divergence. This past year, rising commodity prices have benefited some EM economies, for example due to rising investments. Meanwhile EM economies that are highly dependent on income from tourism and business travel are vulnerable.

Reasonable global vaccine distribution is important. Statistics on vaccine purchases show that a majority of the population in the EM sphere and in poor developing economies will not have access to vaccines until 2022. In these countries, restrictions will be periodically imposed in order to reduce COVID-19 transmission, but the authorities will probably avoid widespread national lockdowns, relying instead on local restrictions in order to ease the economic impact. But the slow pace of vaccinations has the potential to become a global problem as well. This applies not only to the humanitarian aspects. Unless COVID-19 is suppressed on a broad front, the risk of new international transmission waves will persist and mobility between different continents will remain limited. But a realisation of the importance of reasonable vaccine distribution seems to be gaining ground. As vaccine production rapidly rises, there will probably be increased deliveries from the US and Western Europe to poorer countries.

Mass vaccinations change the risk situation

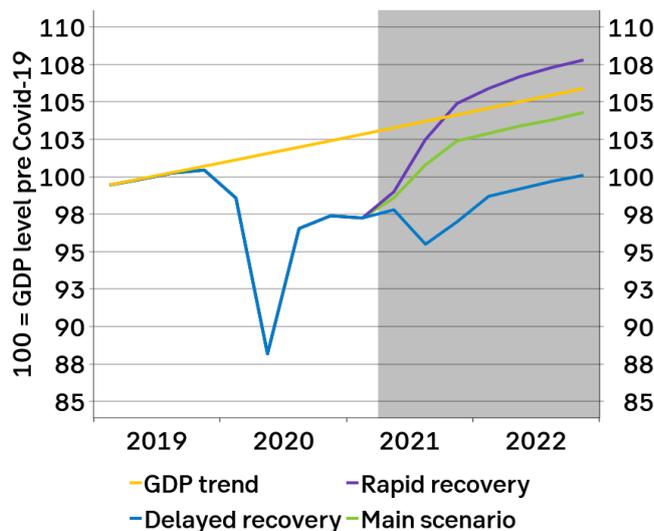
As we enter a period of vaccinations for broad population segments, the risk situation is changing. On the downside, there is a risk that we will overestimate the impact of mass vaccinations. For some time, researchers have warned that hopes of normalisation are too ambitious. Vaccine-resistant mutations and new waves of infection, due to the slow pace of vaccinations in poor countries, may contribute to disap-

GDP growth, BRIC countries and EM sphere

Year-on-year % change	2019	2020	2021	2022
Brazil	1.4	-4.1	3.3	2.7
Russia	2.0	-3.1	3.8	2.9
India	4.8	-7.1	10.1	7.2
China	6.0	2.3	9.0	5.3
Emerging markets, total	3.8	-2.1	6.8	4.8

Source: SEB

Various scenarios



Source: SEB Nordic Outlook

pointments. If despair about normalisation becomes widespread, we may see a new wave of bankruptcies and financial stress. Looking ahead, downside risks are mainly linked to rising inflation and inflation expectations, which present central banks – especially the Fed – with the dilemma of either tightening their policies or accepting runaway inflation expectations and losing touch with inflation targets.

Ketchup effect may lead to strong consumption. The main possible source of faster growth than in our main forecast is that we may have underestimated the power of economic stimulus measures. A combination of pent-up consumption needs and highly elevated household savings creates major potential. Unlike the situation after the global financial crisis, there is no general need for balance sheet consolidation in the household sector. On the contrary, rising stock market and home prices mean that wealth effects may also fuel higher consumption. A robust increase in consumption may also lead to a positive spiral that triggers a wide range of capital spending. Our positive scenario implies that GDP will surpass its pre-pandemic trend some time in 2022. A robust recovery would reduce the risks of permanent exclusion from the labour market for workers who lost their jobs during the pandemic, and they can be quickly mobilised. It would also reduce the burden on public sector finances and thereby alleviate future vulnerability. But at the same time, such a scenario would also raise questions about how stable the low-inflation environment actually is and whether central

Various scenarios for the OECD countries

GDP growth, per cent	2020	2021	2022
Main scenario	-4.8	4.9	3.7
Negative scenario	-4.8	1.8	2.7
Positive scenario	-4.8	6.0	6.0

Source: SEB

banks need to adopt appropriate exit strategies more quickly. Hence, a rapid recovery may be marginally negative for stock markets if it has a substantial impact on inflation. We believe that the probability of our positive scenario is now slightly higher than for our negative one.

Broad upturns in commodity prices

We have raised our 2021 oil price forecast by USD 8 to USD 67 per barrel (Brent crude) compared to the February issue of *Nordic Outlook*. This represents an increase of as much as 56 per cent compared to the average for 2020. In 2022, we expect the average price to fall to USD 62. The 2021 price increase will be driven by stronger global demand, as well as production restrictions. Investments in new capacity have been held back during the pandemic, while the surprising discipline of oil-producing countries has contributed to rapidly falling inventory levels. This makes it easier for OPEC+ (OPEC plus Russia and several other non-OPEC producers) to control oil prices, while the influence of the US energy sector is shrinking. The subsequent oil price downturn is related to the aggressive spread of COVID-19 in India, Latin America and elsewhere as well as Iran's re-entry in the world markets as an important oil producer.

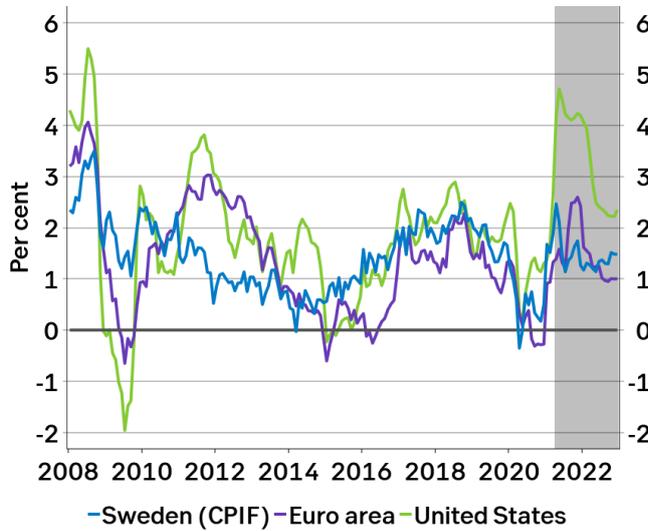
Commodity prices in general have increased over the past six months and are expected to keep climbing as global growth strengthens and broadens. The relative resilience of the manufacturing sector to the pandemic and China's quick recovery, as well as demand for such products as electric cars, has pushed metal prices higher. Future price increases are expected to be more muted, for example because households will steer their consumption increasingly towards services. More extensive production disruptions in global manufacturing also pose a downside risk to commodity prices. Climate-related disruptions in food production, as well as strong demand from China in the aftermath of swine flu, have raised food prices this past year. These effects are expected to be transitory.

Inflation in different time perspectives

How inflation reacts to the prevailing experimental environment, with its large stimulus measures, will be crucial to the entire forecast situation. The rapid US economic recovery raises new questions, which are discussed in a theme article on page 25 of *Nordic Outlook*. During the past quarter, new worries about a supply side-driven inflation have been fuelled by major increases in shipping prices between Asia and the West, as well as shortages of semiconductors. Price increases for many commodities are also higher than for a long time. Among the apparent reasons are a combination of production problems due to lockdowns and strong demand for electronics. Historically, however, this type of price increases has had a weak correlation with consumer prices. Producer prices for consumer goods are still near zero, year-on-year. Only when they start to rise will CPI be strongly affected.

Rapidly rising inflation in the near term. However, various factors are now clearly contributing to higher US inflation. Important inflation components that have been severely depressed during the COVID-19 crisis will probably normalise in the near future. We expect the contribution to core inflation of

Energy prices will lift CPI inflation

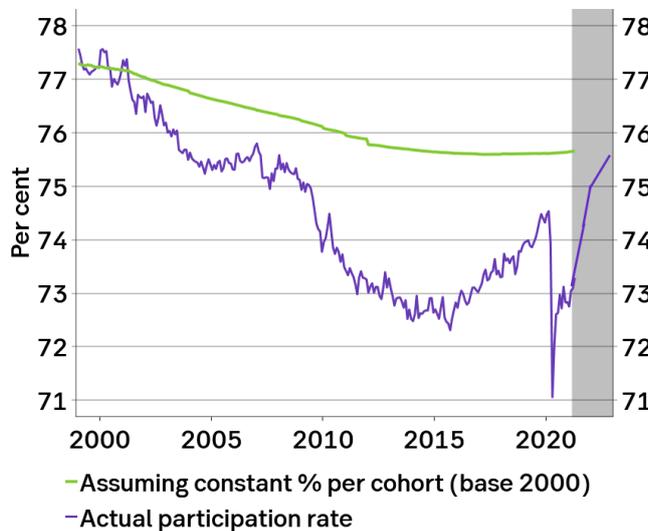


Source: Macrobond; SEB

travel and tourism, as well as the important rent component, to total one full percentage point and thus be instrumental in pushing up core CPI to 2.7 per cent as early as July, followed by CPI of around 2.5 until spring 2022. Although there will be a sharp increase in total consumption, amounting to 11 per cent in 2021 and 2022, we do not believe that this in itself is enough to generate a lasting inflation upturn. One reason is that the shift from consumption of goods to services will also lead to more subdued inflation, through a normalisation in the overblown goods price increases that we are now seeing.

US unemployment will fall to 3.6 per cent. In order for inflation to shift permanently higher, the rate of pay increases must also accelerate, but wages and salaries have been insensitive to changes in unemployment for a long time. This was especially clear before the pandemic, when US unem-

US: Room for higher labour force participation

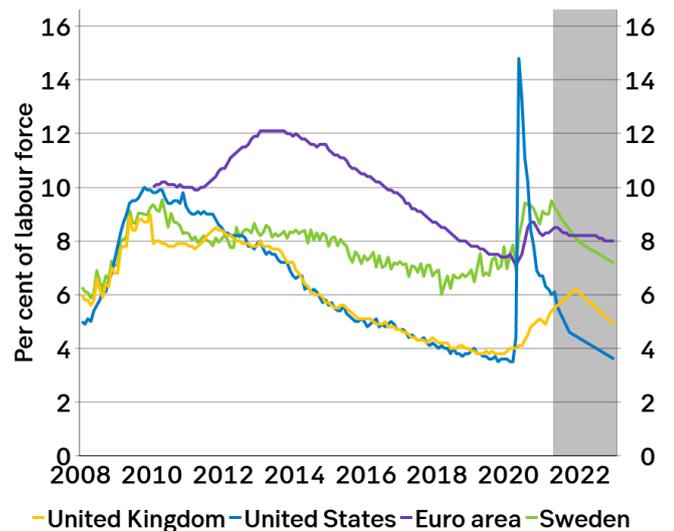


Source: Macrobond; SEB

ployment fell to a 50-year low of around 3.5 per cent without any significant wage acceleration. Our forecast is that US unemployment will continue downward from the current 6 per cent to about 3.5 per cent towards the end of 2022. Experience from 2018-19 tells us that no clear wage acceleration is likely during our forecast period. Yet even now, there are signs of bottleneck tendencies. For example, the percentage of small businesses having trouble filling vacancies is larger than ever. Yet these problems are probably attributable largely to the pandemic, for example due to lack of mobility because of closed schools or fear of infection. Looking ahead, our forecast is based on increased labour force mobilisation and a resumption of the rising participation trend that was interrupted by the outbreak of the pandemic. We are assuming that by the end of 2022, labour force participation for ages 15-64 will have risen to 75.5 per cent. This is still a bit lower than the level around 2000, but we should also take into account certain demographic headwinds since then.

Rising average working hours and productivity will slow job growth. While our GDP growth forecast for the US implies that the economy will already have surpassed its pre-crisis level by 2022, the number of people with jobs will take much longer to recover lost ground. One explanation for this is that average working hours will probably rise as sectors open up after long lockdowns and have pent-up needs. Some jobs that disappeared during the pandemic will take a long time to return, while others are probably gone forever. This is a logical consequence of structural changes and investments in automation and digitisation, for example due to reduced business travel and increased e-commerce. We also expect these changes to lead to some acceleration in productivity growth.

Multi-speed downturn in unemployment



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

Does the Phillips curve have a trick knee? There are certain upside risks in our inflation forecast, however. The Phillips curve, which shows the association between unemployment and price and wage formation, seems to have become flatter

than before. Yet there is probably a critical level of unemployment where wages will accelerate more dramatically. If we have underestimated the effectiveness of fiscal stimulus measures, and/or the above supply side assumptions prove too optimistic, unemployment may fall significantly further than we and the Fed have predicted. At that point we will enter uncharted territory and may encounter a critical level of unemployment where the Phillips curve suddenly becomes steeper. Nor is it certain that the Phillips curve is particularly stable. It is possible that the Fed's acceptance of higher inflation may cause expectations to rise so much that pay levels will accelerate faster than the unemployment rate itself indicates.

Change of regime may spread to Europe. The discussion so far has been focused on the US, since cyclically driven inflation seems far away in Western Europe. On the other hand, for a long time we have seen a large co-variation in major features of inflation. Large shifts in the inflation environment have often occurred quite synchronously. If US fiscal policy experiments should lead to overheating symptoms and soaring inflation expectations, with or without acceptance by the Fed, it is possible that we might face such a regime change that could also affect Western Europe. This might be due to the fact that it will be politically attractive in Western Europe to try to copy an experiment that is credited with reducing unemployment to exceptionally low levels. However, such a development would also be associated with major risks that have the potential to cause dramatic re-pricing in financial markets.

Economic policymakers face new challenges

Now that we are about to leave the acute phase of the COVID-19 crisis, economic policy conditions will also be changing. Some stimulus programmes will now be extended for another while, but crisis responses will now be replaced by recovery policy, and after that the task will be to design well-balanced exit strategies. We have recently highlighted changes in the structural balance of the general government sector as an established and appropriate way of comparing the active fiscal policy measures in different countries. In the last *Nordic Outlook*, we stated that stimulus measures would not be as large as early summaries of these programmes indicated. The total stimulus injection in the advanced (OECD) economies – 5 per cent of GDP – is nevertheless exceptional.

Net stimulus again this year, but tightening in 2022. The big picture is that this year, advanced economies will mainly match their historically large 2020 stimulus measures. In the US, economic policy will be slightly more expansionary thanks to the very large package that was launched earlier this year. In the euro area, crisis responses have been extended on a scale equivalent to last year's programmes. Sweden's relatively cautious crisis response in 2020 will be surpassed this year, which means that a net stimulus effect can also be recorded in 2021. In 2022, tightening is inevitable and is likely to be most evident in the US, where it is expected to be equivalent to 3.5 per cent of GDP. But the final impact of such

tightening on consumption and GDP will be softened because households are expected to use some of the income that they saved during earlier pandemic-related lockdowns.

Fiscal stimulus impulse

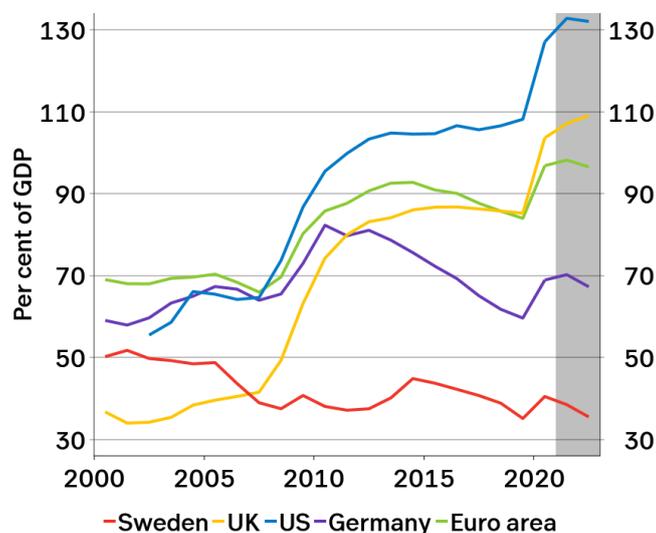
Change in structural budget deficit, per cent of GDP. Plus signs mean a stimulus effect, negative the opposite.

	2020	2021	2022	2020-2022
OECD	5.0	0.0	-2.5	2.5
United States	5.5	0.5	-3.5	2.5
Japan	5.5	-2.5	-1.5	1.5
Euro area	3.0	0.5	-1.5	2.0
United Kingdom	7.0	-1.5	-3.0	2.5
Sweden	2.0	1.0	-1.0	2.0

Source: OECD, SEB

Focus on structural programmes ahead. In the long term, there are arguments for continued expansionary fiscal policies, and some deviations from the current framework are likely. Policymakers may emphasise the importance of structural measures that will improve the supply side of the economy, as well as the need for green investments that will help improve sustainability. In the United States, the Biden administration's next package will focus on investments in infrastructure, the environment and digitisation, but also on measures aimed at strengthening human capital, such as spending on education and an expansion of child care. The package that the EU approved last year, Next Generation EU (NGEU), has a similar focus.

Debt will level out



Source: Macrobond; SEB

Increased monetary policy divergence

Central banks are thus likely to receive some help from fiscal policymakers again this year, which is a welcome development considering their own limited room for manoeuvre. Central bank assets have grown by a historic USD 10 trillion (11 per cent of global GDP) since the beginning of 2020. In 2021, we estimate that these assets will grow by another USD 3 trillion as part of existing quantitative easing (QE) programmes. Meanwhile most central banks are expected to keep their key interest rates unchanged both this year and next. Norway is among the exceptions, among other things due to rising home prices; late in 2021 Norges Bank will hike its key rate, and in 2022 two further hikes will bring the rate to 0.75 per cent.

No Fed rate hikes in 2022. Increased inflation risks, including higher inflation expectations, will be a challenge mainly for the Fed. But the US central bank's new policy framework – with its “average inflation targeting” and increased focus on employment will give it room to hold off on policy adjustments. Our forecast is that as early as June or July, the Fed will start preparing the market for tapering of its securities purchases. In October, it will begin to lower its monthly purchases, currently USD 120 billion, by USD 10 billion per month. Meanwhile the American labour market situation will continue to improve. We expect the Fed's adjustment to be completed by the autumn of 2022. Unless the headwinds facing fiscal policymakers are too strong next year, an initial key rate hike may occur in 2023.

For the ECB and the Riksbank, rate hikes are distant. After a temporary inflation upturn this spring, the euro zone and Sweden will continue to experience uncomfortably low inflation. The ECB has signalled flexibility about adjusting its monetary policy if, for example, bond yields rise too much. The Riksbank and the ECB will keep their key interest rates unchanged during our forecast period. The Riksbank will continue its QE programme as planned. Swedish inflation is expected to fall below 1 per cent this summer, which may trigger expectations of a return to negative key rates. But stable inflation expectations and sharply rising home prices are expected to close the door to such a step.

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