December 2018

Investment Outlook

Private Banking

SEB

Contents

Introduction

- Higher volatility is here to stay
- The economy is growing but is past its peak
- Greener growth creates both challenges and opportunities
- Digitisation is taking off in fast-growing economies

In the last *Investment Outlook* (September), we lowered our risk level to neutral for the first time in years. With the benefit of hindsight – that is, in light of plunging stock markets this autumn – at least in the short term we should have advocated further caution. At this writing, the best strategy for the year would have been to continue focusing on an aggressive allocation between asset classes for a Swedish investor, thanks to the weak krona. Within asset classes, an ultra-defensive strategy would have been the best. In other words, defensive shares are the winning category for 2018. Since it is difficult to say exactly when stock market reversals will occur, a reasonable conclusion is that **the average risk level in a portfolio should be kept lower today than earlier in the current economic cycle.** This also means that there will be further opportunities of a more tactical nature, when we will recommend temporary increases or decreases in portfolio risk.

Market signals indicate that we have reached a peak in the rate of increase in both economic growth and earnings. Corporate earnings are expected to keep rising, but more slowly during 2019 than in 2018. The same is true of GDP growth in 2019: still healthy, but not as strong as in 2018. It is harder to make predictions about 2020, but our main scenario is a **continued decent economic expansion,** although the risk of a deceleration will increase.

In the following pages, we will tell more about our market view in this tough-to-navigate terrain. Put simply, after October's stock market slide we again boosted the risk in our portfolios **from a neutral position to a slight overweight in equities.** This is primarily due to the combination of continued good growth and more attractive valuations, as well as clearly greater risk aversion among investors.

We are also providing you with additional reading in the form of two interesting theme articles on "Greener growth" and "Modern trends in East Asia". Airborne emissions and solid wastes must be reduced, energy efficiency improved and recycling increased, while a larger proportion of energy and materials must be based on renewable sources. Many companies are successfully selling products and solutions for a more sustainable society, and we see excellent investment opportunities. In the second theme article, we explore modern East Asia, with its fast-growing economies, exploding e-commerce and bright prospects for improved prosperity.

Starting with this issue, we are also transitioning to a completely digital publication, instead of a printed report. All related materials can be found on *seb.se/investmentoutlookreport*.
Feel free to provide feedback by e-mailing us at *PBInvestmentStrategyAdvisory@seb.se*.

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

Macro and other market drivers

The economy is growing but is past its peak

The following is a review of a number of important factors that justify our current moderately optimistic view of risk assets and how these factors may influence future developments.

The global economy is growing at a healthy pace but seems clearly past its peak this time around. Although strong late-cyclical forces suggest continued good demand – and we expect continued expansion and above-trend growth over the next two years – as often happens at the end of an economic expansion, it is not demand but the supply side of the economy that will limit growth. Because of an increasingly clear shortage of production resources, along with larger effects than we had anticipated from such political events as the trade war and Brexit (British withdrawal from the European Union), we are adjusting our global growth forecasts somewhat lower. We foresee a gradual slowdown in growth during the next couple of years. We are making these downward revisions especially for Western Europe – where Brexit negotiations have suppressed investment appetite more than expected – and for some major emerging market (EM) economies, where the trade war, rising interest rates and bond yields in the United States and elsewhere, along with various country-specific problems, have created headwinds. Underlying strengths make these downward revisions manageable, however.

Global unemployment at its lowest since the 1980s

Source:Macrobond

Historically low unemployment points to continued healthy private consumption, which is often a strong and long-lasting contributor to economic growth. But rising labour shortages have also caused wages and salaries to begin climbing. If this continues, there is an obvious risk that inflation will take off.

How long will growth continue?

The question that many analysta and investors are struggling with is how sustainable today's growth is, since we are late in the economic cycle and political turbulence is having an impact. The clearest indicator of cyclical performance is unemployment. In the 36 mainly affluent member countries of the Organisation for Economic Cooperation and Development (OECD), unemployment is now at its lowest since 1980. In the US, it has fallen to 1960s levels. This promises continued healthy demand in the economy, along with the buffers of savings many private individuals have built up because of the positive wealth effect we have enjoyed via asset price increases and low interest rates. Overall, this points to continued relatively high private consumption. But low unemployment usually also signals rising wages and inflation. We are undoubtedly in the midst of an accelerating wage and salary trend, and inflation has also climbed towards central bank targets, but we see a number of factors that should make pay increases modest. One is that other indicators suggest that labour shortages are not as big as actual unemployment figures tell us. Another is that such factors as globalisation, digitisation and automation will hold back pay demands, given the risk that jobs will disappear. In recent years, core inflation (excluding fluctuating energy and food prices) has been very stable in the OECD countries, also suggesting that inflation will remain under control, but if pay increases keep accelerating, inflation may pose a problem for economic growth.

This relatively benign inflation picture will give central banks a lot of manoeuvring room. Since inflation now looks set to remain at levels close to most central bank targets, and considering that we are late in the economic cycle, we will now see a movement towards monetary policy normalisation, after a period of large liquidity injections. The US Federal Reserve (Fed) has already taken various steps: a total of eight key interest rate hikes and a reduction in its bond holdings, thereby decreasing liquidity. It is natural for the Fed to set the pace among central banks, since the American economy is among those that are furthest along in the economic cycle. We also expect the Fed to continue on this path by hiking its key rate again in December, twice next year and once more in 2020. This will bring the US key rate up to 3.25 per cent, which is close to a neutral level. Both the European Central Bank (ECB) and Sweden's Riksbank have indicated they would like to start moving in the same direction, in the ECB's case by ending bond purchases at the close of 2018 and carrying out an initial rate hike next autumn. The Riksbank plans to keep reinvesting maturing bonds and coupons until mid-2019. After that, we expect the Swedish central bank to lower its repurchases and thereby withdraw liquidity. We expect the Riksbank to take action on its key interest rate earlier, with the first hike occurring in December 2018, followed by two hikes per year in 2019 and 2020, bringing the repo rate to 0.75 per cent.

Our main scenario is continued growth

From a market perspective we foresee a bright future, given where we are in the economic cycle. Continued healthy growth – with only a minor deceleration and no soaring inflation, interest rates or bond yields – remains our main scenario, but obviously there is no shortage of risks. Another common scenario would be for inflation to surge, which could generate a lot of stress among central banks and force them to carry out large, rapid interest rate hikes. This would obviously be unfavourable for economic growth, and thus also for earnings and share prices. We estimate the risk that this will happen in 2019-2020 at 20-25 per cent. On the other hand, it is possible that the scarcity of production resources, for example labour shortages, need not be so serious and that productivity might increase. Overall, this would lead to better growth for a longer period than in our forecast: a significantly more favourable scenario for stock markets. We are assigning this more positive scenario a probability of 15 per cent, but our main scenario should also provide support to asset prices for another while.

Valuations – today's pricing may persist

Price/earnings (P/E) ratios in the world's stock markets have fallen from the high levels they reached in early 2018 and today are about where they were in 2014-2015. The credit market has also been repriced, by means of higher compensation for those who invest in high yield (HY) corporate bonds, for example. This has been driven both by higher underlying government bond yields and a larger premium for corporate credit risk than before. This is completely normal in the latter phase of an economic cycle. It means that during the coming 12 months, we do not expect valuations to begin climbing again, but if the economic expansion proves more long-lasting than many observers believe, today's pricing may persist and stock market performance may keep pace with earnings generation.

Depressed risk appetite and positioning

This autumn's weak stock markets and corporate bond markets have depressed risk appetite and positioning further. This implies that investors have gradually adjusted their risk-taking downward since the peak early in 2018, but it does not mean that we are back at genuinely defensive levels like at the end of 2015. The process has now gone so far that increasingly cautious positioning will actually support future risk-taking, provided that the economic expansion is long-lasting.

Examples of risks

Leading indicators are gradually trending lower. Central banks are trying to normalise their key interest rates and phase out their expansionary asset purchases, which have lasted for many years. These are two obvious risks, pointing to weaker economic performance combined with rising interest rates and lower liquidity support. This might challenge both future corporate earnings generation and pricing of financial assets. An expanded trade war would also create problems, resulting in weaker growth via lower investment appetite and indirect effects. Geopolitical uncertainty and Brexit may create problems, along with the tendency for such weaknesses as the continued funding needs of Turkey and Italy to become more visible. In a long-term perspective, global debt build-up is also worrisome.

Conclusions

- Continued good global growth, but past its peak
- Diminishing central bank support
- More reasonable valuations
- More advantageous risk appetite and positioning
- Messy risk picture

The current situation is the opposite of 2017, when growth accelerated and valuations were challengingly high. Today growth is decelerating, but valuations and risk appetite are no longer as challenging. Overall, this provides conditions that are classically late-cyclical, but with a continued very limited risk of recession.

GDP forecasts for major markets, year-on-year percentage growth

Market	2017	2018	2019	2020	Comment
United States	2.2	3.1	2.6	1.9	Tax cuts will keep driving growth
Japan	1.7	1.1	1.0	1.0	Positive signs despite slow economy
Germany	2.2	1.9	1.8	1.7	Record-low unemployment = growth pains
China	6.9	6.6	6.3	6.1	Growth will decelerate as planned
United Kingdom	1.7	1.3	1.4	1.6	Brexit worries dominate the economy
Euro zone	2.4	2.1	1.9	1.8	Deceleration to more normal figures
Nordic countries	2.2	1.9	2.3	2.2	Resilient in a more uncertain world
Baltic countries	4.4	3.7	3.3	2.8	Still high in the euro zone growth table
OECD	2.5	2.5	2.1	2.0	Slower, but continued healthy growth
EM economies	4.7	4.9	4.8	4.8	Stable growth, but great divergence
World, PPP*	3.7	3.8	3.6	3.6	Decelerating, but above-trend growth

Source: OECD, IMF, SEB   * Purchasing Power Parities

Our view by asset class

Positive expected returns, but uncertainty increasing

We forecast continued positive returns for most asset classes over the next 12 months, except for certain traditional fixed income investments. These expected returns are below historical averages, while risk is unchanged. Equities are still at the top and government bonds at the bottom. This forecast depends on whether our optimistic outlook for a more prolonged expansion materialises. The late-cyclical phase is tricky when it comes to assessing expected returns and risks, since in the latter part of this phase investors must start taking the next recession into account. However, we believe it is too early to do so. Meanwhile, by definition this means forecasts are becoming less certain. A clear example of this is 2018, since the economy and earnings have been strong while risk appetite and returns have been weak.

Nordic equities

- Prioritise structural growth as cyclical support fades.
- Higher volatility, when monetary policy support decreases.
- A largely disappointing report period has passed.
- Weakness in an increasing number of end-customer segments.
- Energy costs are weighing heavily on many, but are benefiting some.

Global equities

- A more unclear stock market trend and increased volatility are a common late-cyclical pattern.
- Due to good underlying economic growth and reasonable valuations, we expect a positive stock market trend for the coming quarter.
- Earnings performance is still strong, especially in the US. Increased cost inflation pressure is being offset in most cases by higher prices and volume growth.
- Exaggerated worries about EM have pushed down valuations, creating a long-term buying opportunity.

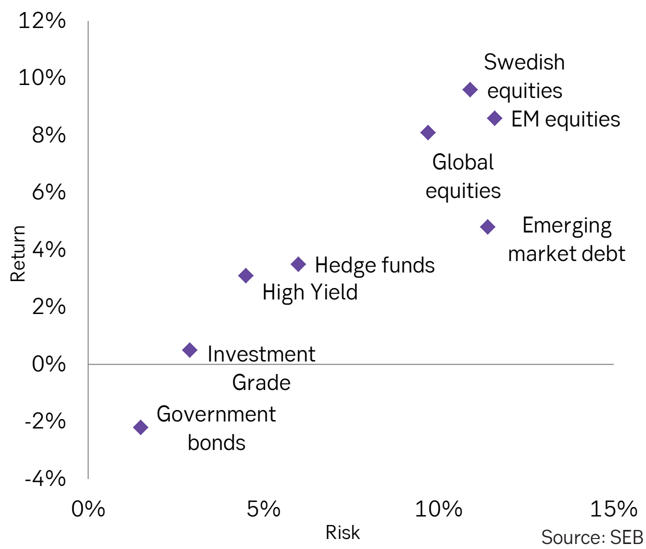
Fixed income investments

- Cautious monetary policy normalisation, that is, key interest rate hikes and decreased stimulus measures.
- Increasing probability of a December rate hike by Sweden's Riksbank.
- The ECB is ending bond purchases at the turn of the year and will start hiking interest rates in September 2019.
- Emerging markets will be under continued pressure from US interest rates/yields and the strong dollar.

Alternative investments

- Short-lived, powerful volatility will be a source of concern for hedge funds in the near future.
- Volatility struck particularly hard against equity hedge funds this autumn.
- Trend-following strategies have been hampered by long-term equity positions.
- Macro hedge funds are showing resilience.

Return expectations, next 12 months



Source: SEB

Return expectations, %, next 12 months (SEK)

Equities	Return	Risk
Global equities	8.1	9.7
Emerging market equities (local currencies)	8.6	11.6
Swedish equities	9.6	10.9
Fixed income investments	**Return**	**Risk**
Government bonds	-2.2	1.5
Corporate bonds, investment grade (Europe IG)	0.5	2.9
Corporate bonds, high yield (Europe HY)	3.1	4.5
EM debt (local currencies)	4.8	11.4
Alternative investments	**Return**	**Risk**
Hedge funds	3.5	6.0

Source: SEB, forecasts as of November 14, 2018

Risk exposure and allocation

Lower risk level in late-cyclical phase

During 2018, the late-cyclical pattern has steadily gained ground, as we described several times this year in previous issues of *Investment Outlook*. Capital market volatility has increased as an effect of decelerating economic and earnings growth, while underlying inflation has risen. Consequently, central banks are trying to normalise their policies, that is, raise their key interest rates and phase out stimulus programmes (bond purchases). This is pushing down financial asset valuations, and investors are reducing the risk in their portfolios. This, too, is a form of normalisation.

In August, we reduced the risk in our portfolios to a neutral situation. It was the first time in years that we had such a modest risk level, and this decision was based on our analysis of the late-cyclical phase. After that, the market fell sharply during October, whereupon we again increased the risk in the portfolio to a moderate overweight. That is what we are recommending today.

The charts below show global stock markets in terms of local currencies since 1995 and volatility in the US stock market during the same period. What we expect during the coming quarter is that stock markets will recover from their significant slide this autumn. We also expect higher volatility than we have been accustomed to in recent years. This is consistent with the gradual reduction in our average risk level over the past 18 months. We still have a cautiously optimistic fundamental outlook, but uncertainty always increases in the latter part of an economic cycle, and 2018 has been a good example of this.

Conclusion – lower risk level in late-cyclical phase

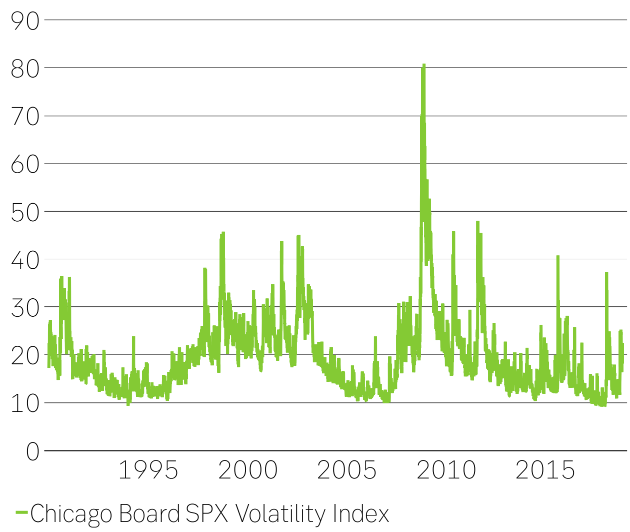
- We are in the latter part of the economic cycle, so the average risk level in our portfolios should be lower than before. It is reasonable to expect higher volatility. The market is still sensitive to disappointments and unquantifiable risks. We are prepared for risk appetite to fluctuate sharply.
- We still have a cautiously optimistic fundamental outlook, but uncertainty always increases in the latter part of an economic cycle, and 2018 has been a good example of this.

Stock markets are adapting to lower growth plus higher interest rates and yields

Source: Macrobond

The chart shows the returns on the MSCI All Country World equity index since 1995, calculated in local currencies.

Higher volatility at the end of an economic expansion



Source:Macrobond

The chart shows the implicit volatility (VIX) of the S&P 500 equity index in the United States. A higher figure means greater volatility.

Global equities

Earnings and valuations provide support

We are now in the late phase of an economic cycle, which is reflected in share price movements. Because of lower valuations and cautious positioning, combined with the fact that we do not expect corporate earnings to fall, we are still optimistic about the global stock market for the next quarter.

The difference between the past two years in the stock market is increasingly apparent. Nearly optimal conditions characterised 2017, with accelerating economic growth, low yields and interest rates and promises of expansionary monetary policy. Good growth has continued in 2018, but the trend is levelling off. Meanwhile, the US Federal Reserve is tightening its monetary policy, and other central banks are also shifting towards less stimulus. Increasing supply constraints also indicate more clearly that the economic upturn is nearing an end. The stock market has reacted logically, based on economic conditions. In 2017, we saw broad upturns with record-low volatility. In 2018, share prices diverged more widely in different market segments, while global share indices as a whole trended flat, but with higher volatility.

Continued volatility, but room for upturns

Will 2019 be the year when everything reverses and weaker conditions create longer-lasting problems for equities? We do not think so and instead expect 2019 to be similar to this year, which means continued volatility but with room for upturns. History shows that virtually every major stock market downturn in modern times has occurred in connection with a sharp economic slowdown (the exception is the Black Monday crash in 1987). As a rule, there has been a stock market downturn 3-9 months before the economic cycle has weakened, making share prices a leading indicator. Given our relatively optimistic view of growth for the next couple of years, with a prolonged late-cyclical phase, conditions are in place for a continued rise in share prices. However, volatility and differences between market segments will persist.

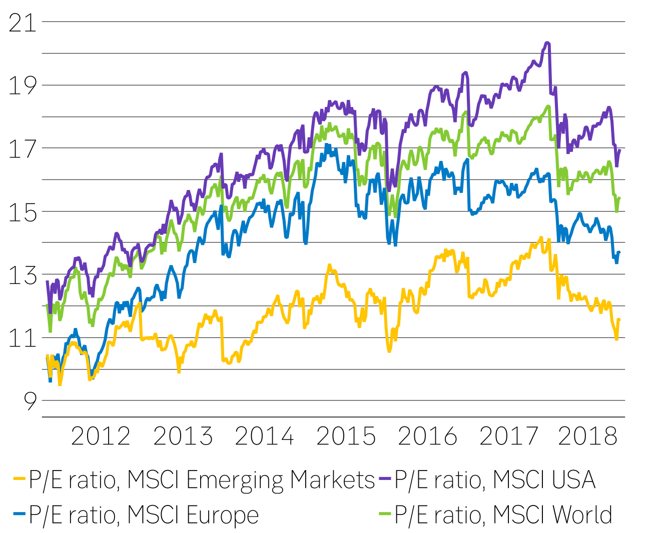
Our general outlook on the direction of the stock market assumes that our growth forecasts will mostly materialise. As a rule, late-cyclical rallies are driven by better than expected growth and earnings and/or prospects of a more extended levelling off in growth. We believe the second alternative is likely.

A look at this year's relatively weak stock market performance in relation to earnings growth indicates there is room for new upturns. Investors as a whole have clearly shifted to a more cautious portfolio positioning, reflected among other things in capital flows from emerging market (EM) countries to more stable markets such as the US and from cyclical sectors to pharmaceutical companies, for instance. Fund managers have lowered their growth expectations significantly, and the growth-oriented positions that dominated portfolios earlier in the year have been reduced. However, most portfolios are not built based on a negative outlook. The rotation we have seen is more a question of normalising risk after the optimistic picture last winter. As a result, both upside and downside surprises could affect share prices. Nonetheless, at present so-called bull/bear ratios, which reflect the short-term market mood, are depressed to such low levels for sentiment and expectations that share prices often turn upward.

Reasonable valuations

From a valuation perspective, equity investors are following a reasonable pattern given where we are in the economic cycle. Stock market performance this year, with earnings on the rise and share prices trending flat, has brought price/earnings (P/E) ratios down to reasonable levels. For the global index (MSCI World), this means a move from more than 17 in January to 15.5 today, based on 12-month forward earnings forecasts.

EM valuations have fallen to historical lows. US valuations are also down but remain historically high



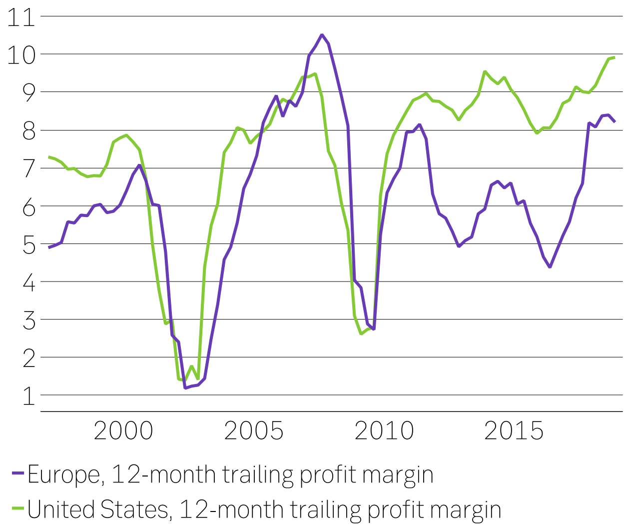
Source: Bloomberg/Macrobond

P/E ratio trends for the US, the world excluding emerging markets (EM), Europe and EM based on MSCI indexes show major valuation differences between regions.

If the consensus global earnings growth forecast of around 8-10 per cent for the next two years holds, valuations should not be an obstacle to periods of good share price performance. However, we have probably passed the valuation peak for this cycle, which should be interpreted as meaning we will see stock market performance in line with earnings growth.

Earnings growth in the US, where most companies have released their quarterly reports, still looks stable. Companies have delivered generally strong reports and do not indicate any major signs of concern. Sales growth is 8 per cent overall, a healthy figure that is consistent with our growth outlook. Earnings growth is 27 per cent, largely driven by tax cut effects, but underlying growth is impressive. In Europe, the picture looks weaker. The third quarter report season got off to a weak start there but has gradually improved. Earnings are in line with expectations, as are sales. However, the squeezed margins seen in the second quarter persist. Cost inflation in the form of wages, materials and energy is providing a headwind. Both in Europe and Asia, companies are expressing a certain degree of caution in their comments about the future, compared to the second quarter report season. US companies, with greater domestic exposure, are more upbeat about the future but also have concerns about cost increases, higher tariffs and a deceleration in some sectors, such as the auto industry. Most industrials also note a slowdown in Chinese manufacturing.

Profit margins are at historical highs in the US and Europe. US profit margins have surpassed those at the last cyclical peak, while Europe is not far behind



Source: Bloomberg/Macrobond

The chart shows profit margin trends at an aggregate level in the US and Europe, starting in 1997.

Continued earnings growth expected

At present, consensus forecasts indicate US earnings growth of just over 10 per cent for both 2019 and 2020. For Europe, the figures are nearly 10 and about 8 per cent for the next two years, respectively – a snapshot that offers hope of future stock market upturns.

Late in an economic cycle, the earnings scenario often becomes increasingly strained. Sales level off and order bookings decline, signalling a weak revenue trend going forward. Meanwhile, healthy profit margins are squeezed by rising costs, with resource shortages pushing up wages and the cost of materials and supplies. Profit margins in the US and Europe are now historically high, and in the US even somewhat higher than at the last cyclical peak.

However, as the next chart shows, they have been at this level for a while. European profit margins have certainly improved recently but are still somewhat below previous peaks. In the current report season, some companies have communicated concerns about order bookings and cost pressure. It is too soon to call this a trend, but we are probably moving in that direction. The focus will probably be on order bookings and margins going forward.

Earnings trump politics

The risk picture naturally includes political developments. The ongoing US-Chinese trade war has potential to disrupt the picture, especially if it escalates or if negative news coincides with other signals of stock market weakness. However, we do not expect the trade war or other political events to have the power to overshadow the earnings trend as a driver of stock market performance.

Rising interest rates and yields still not a threat

Low interest rates and yields have led many investors to seek out riskier assets such as credits and equities to meet their commitments and return requirements. However, after a lengthy period of rising interest rates and yields in the US as well as expectations of some increases in Europe going forward, the threat from the fixed income market could become an issue. For the moment, the most important question is probably at what level US bond yields will put the brakes on the stock market. The answer depends partly on the growth environment. Earnings growth naturally makes higher yields more acceptable to investors. But with yields on US 10-year Treasuries well over three per cent and only marginally lower yields on far shorter maturities, the US government securities market is now an alternative to equities for cautious investors.

As yet, we do not see any clear flow effects from these new yields, but the two major increases we have seen this year, in January/February and September/October, have coincided with the two stock market corrections that have occurred. The consensus among investors is that they will more seriously consider bonds as an alternative if (when) US 10-year yields climb above 3.5 per cent. If, for example, this happens at the same time as European yields are moving higher, headwinds in the stock market will probably be a reality. However, our forecasts suggest we will not be there for few more quarters.

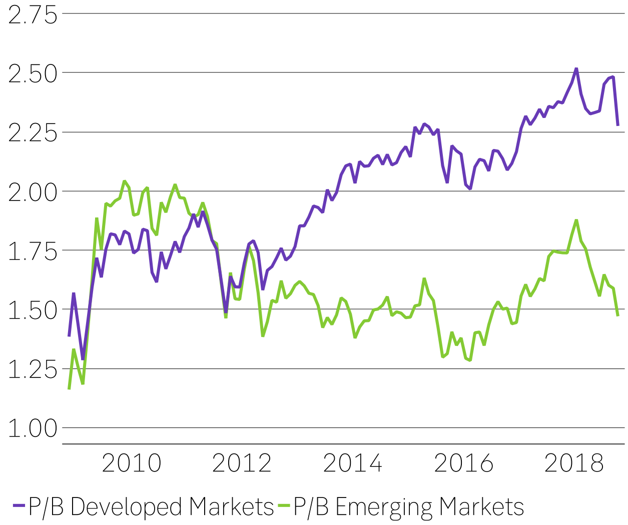
The relationship between emerging and developed markets merits attention

The relative trend in different market segments will probably be determined by their growth outlook. Over time, it is reasonable to assume that more stable sectors and regions will be increasingly attractive when investors adjust their holdings in view of future economic weakness. We have seen evidence of this in the stock market downturn that began in October. The preference has been for defensive investments, while cyclical sectors and unstable regions have taken a hit. This has created investment opportunities, for example, in some emerging market (EM) equities.

Concerns about the length of the economic expansion, general risk aversion, the impact of the trade war on China and the effects of a rising USD and dollar-denominated interest rates and yields, together with a number of country-specific risks (Turkey, Argentina), have pushed EM shares down substantially. This is not unreasonable as such, but the magnitude has pushed valuations down to levels reminiscent of previous troughs. Valuation spreads against developed market (DM) equities are now the widest in many years. DM shares are valued at more than 14 times earnings for 2019 with a return on equity of almost 13 per cent, while EM shares are valued at 10.5 times earnings with similar profitability. The price/book ratio (share price divided by the book value of equity), a more sluggish metric, is 1.5 for EM versus 2.3 for DM shares. That means a discount of about 35 per cent for EM compared to DM shares, taking company profitability into account.

In the past, investors justified a large discount for EM stock markets because of their commodity dependence and greater cyclicality. This is still true to some extent, since the indirect effects of falling commodity prices have a negative impact on many of these countries' economies. However, valuations of commodity companies as a percentage of total valuations have been halved compared to ten years ago. Consequently, falling commodity prices have smaller direct effects than before. Instead, Chinese companies in the interface between the internet, technology and the consumer sector have grown in importance. Well-known examples include Alibaba, Tencent and Baidu, which have set the stage for a wave of start-ups with fast-growing, competitive and scalable business models. The gradual change in the sectoral structure of EM countries, where the role of internet-based companies with modern business models has kept expanding at the expense of quasi-state-owned commodity conglomerates, suggests that the valuation gap versus DM companies should gradually narrow. Adding in our generally optimistic growth picture, this suggests that EM equities are poised to become an excellent buying opportunity as soon as this picture stabilises. Cooling trade tensions between the US and China would be especially favourable.

Total equity as measured by the P/B ratio shows a clear upward valuation trend in developed markets compared to emerging markets



Source: Bloomberg/Macrobond

Over the past decade, the price/book or P/B ratio (share price/book value of equity) has risen in DM countries whereas EM countries have not seen the same upward valuation.

Nordic equities

Prioritising structural growth as central banks reduce stimulus

October was the stock market's worst month in more than three years, and while we believe many shares were treated rather harshly in conjunction with the latest report season, it did not provide much optimism about prospects for equities. We are now in a late phase of the economic cycle, which points to higher volatility and a relatively flat share price trend. In our view, companies exposed to structural growth trends, for instance, sustainability and digitisation, will be stock market winners going forward.

Nordic stock market performance in October, -7 per cent, made it the single worst month since August 2015. Third quarter corporate reports were viewed in an unusually critical light. Although many reports were on the low side of expectations – whether in terms of earnings, order bookings, communication about prospects or a combination of these – share prices in general reacted in a remarkably harsh way relative to the scale of surprises compared to official expectations.

One pattern clearly repeated from earlier report seasons this year, and also further reinforced, was the tendency to punish cyclical companies (in other words, major share price declines) for setbacks that could be interpreted as a sign that the economic cycle has peaked for them. Investors were also cautious about extrapolating positive information relating to the economic cycle.

In our view, it is difficult to view this as anything but a growing conviction among investors that the economic cycle has already peaked, or will soon do so.

Weakness in a growing number of end-customer segments

Communication from listed companies, in particular their recently published third quarter reports, indicates various weakened end-customer segments or sub-markets. The **passenger car industry** is one that stands out, and virtually every company with significant exposure to this market shows signs of weakness and deterioration, particularly in China and Europe.

Other consumer discretionary goods such as **leisure vehicles** and **white goods** also show an alarming trend.

The Swedish **construction sector**, led by residential building, has been greatly weakened for more than a year, and although sale prices of existing homes have been stable in 2018, it is difficult to see any signs of recovery for companies exposed to the new-build sector.

Prices for **industrial metals** and **steel** have also slumped from their highs earlier this year, putting pressure on producers and creating concern about prospects for the sector's sub-contractors as well.

Earlier this year, the historically highly volatile **electronics/technology** sector was one of the first to see a sharp downturn, reflected in falling semiconductor prices and slowing demand for sub-contractors in this sector. The semiconductor industry has historically seen quick, sharp movements. However, so far there are few signs that it will quickly stabilise.

It is not just companies in individual sectors that indicate flagging demand. Many emerging market countries have suffered sharp exchange rate fluctuations, and in some cases their underlying general economic trend is weak – for example, Turkey, Argentina, Brazil and South Africa. The same is true of industrial-related activities in China.

Energy costs put pressure on many, but benefit others

Two characteristics of the mature phase of a business cycle are flagging demand growth in a number of segments and the effects of insufficient capacity in many places, with the result being accelerating cost inflation.

Virtually all manufacturers now describe extensive problems with rising and accelerating costs for items including energy and oil-based materials such as plastic and various chemicals, US transport costs and labour costs in some segments, particularly in the US.

Higher energy costs, illustrated in the chart on the next page by the price of carbon dioxide emission rights, are a scourge for many companies but are not uniformly negative. Energy producers and their sub-contractors benefit greatly from high energy prices. The oil and gas industry stands out as one end-customer group for this sector that shows growth and improved performance – a total turnaround from the picture two years ago.

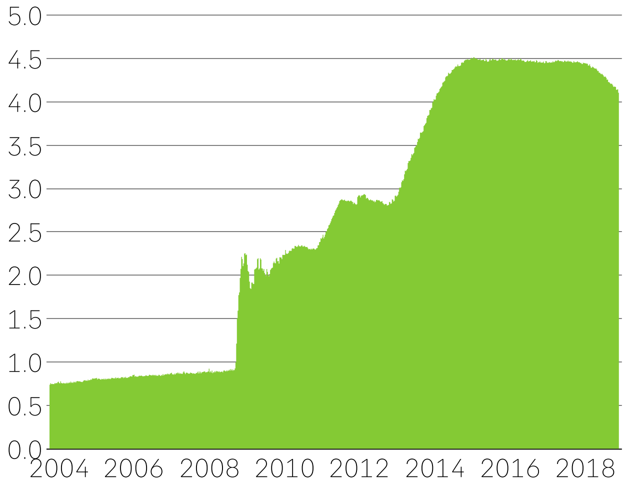
For society, one positive effect of more expensive energy is that the need for continued energy efficiency savings has once again become pertinent, stimulating demand for energy efficiency products and carbon dioxide-free energy sources.

Energy prices are climbing: CO_2 emission rights/ tonne, EUR

Source: Bloomberg

The chart shows a generic time series of the price trend for European emission rights in euros per tonne of carbon dioxide equivalents over the past five years.

The Fed has taken its foot off the gas pedal



Source: Bloomberg

The chart shows the US Federal Reserve's assets in trillions of dollars. For many years, large asset purchases provided extensive support for asset prices and risk appetite. The effects of normalisation are now visible.

It has been a very long time since the manufacturing sector has been as united as now in communicating its ambition to raise prices on a broad front. Naturally, it remains to be seen to what extent manufacturers will actually succeed in raising prices but they will probably speed up inflation to some extent, something we have not seen in a while. Whereas the manufacturing sector in general is adversely affected by inflation, **banks** are likely to embrace it, since they are still suffering from negative interest rates. Unfortunately, concerns about money-laundering scandals and the budget crisis in Italy have recently subdued investor enthusiasm for listed banks.

Prioritising structural growth when central banks reduce their stimulus

When companies and investors can no longer depend on a rising economic tide to lift all boats, companies exposed to structural growth markets once again become increasingly attractive. Examples of this are digitisation in manufacturing as well as in the retail sector and society in general. **Industrial digitisation** or **automation** is an especially well-represented segment in Nordic stock markets, and even strong performers have seen their share prices fall sharply since September, which has created some attractive buying opportunities.

Another trend that is already pronounced – but will hopefully gain further strength in the years ahead and could be powerful enough to transform society in the long term – is improved **sustainability and related products and solutions**. Today's economic model is not environmentally sustainable. Sooner or later, skyrocketing costs for health care and extreme weather will contribute to the development of incentive structures for more sustainable solutions.

The global sustainability trend is growing surprisingly slowly, but Europe is leading the way in many related areas such as energy efficiency, recycling, the handling and phase-out of plastic, the new generation of **biofuels** and **offshore wind power**. Hopefully, other regions will follow, and various Nordic companies will be able to take advantage of the solutions they have already developed for sale on a commercial scale. Read more in the theme article "Greener growth – challenges and opportunities" on page 16.

Higher volatility, the flipside of reduced monetary support

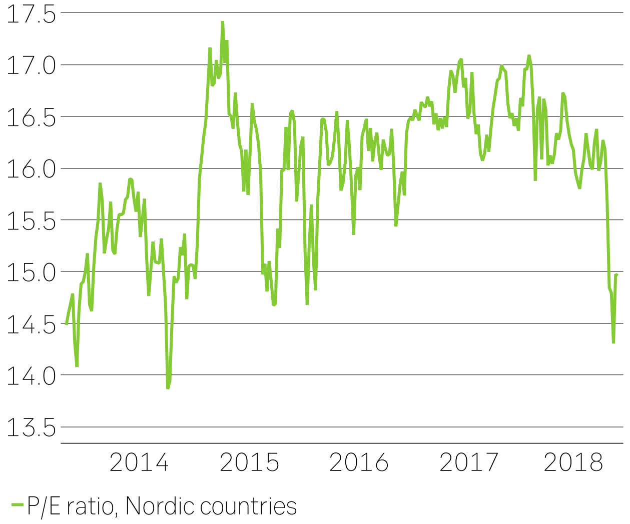
Over the past decade, massive central bank asset purchases following the 2008 financial crisis and the 2011/2012 euro crisis (see chart) not only contributed to historically low yields and interest rates and higher share valuations. This strong asset price support, which investors started taking for granted in the past 5-7 years, is also a crucial reason for the seemingly carefree, robust stock market that has likewise characterised much of this period. Any problems concerning the general economic trend, political risks and so on have been considered secondary to the stock market, which has been able to continuously rely on increased central bank support if real economic growth were to falter.

With accelerating inflation pressure, rising yields and interest rates – for example, in the US – and central banks hiking their key interest rates and shrinking their balance sheets (the Fed) or planning to stabilise their assets at a high level (the ECB and others in the EU), we may now be facing the first significant reversal in many years which new monetary stimulus measures cannot be expected to alleviate when the current economic boom comes to an end. The higher volatility we have seen this year in the stock market, including in the Nordic countries, is thus entirely rational. We believe this is a return to more normal financial market conditions and that the higher volatility we have seen will persist.

Major differences between Nordic stock markets

On the positive side, we can see that after the share price slide in October, Nordic share valuations are again close to a five-year low with a 12-month forward P/E ratio below 15.

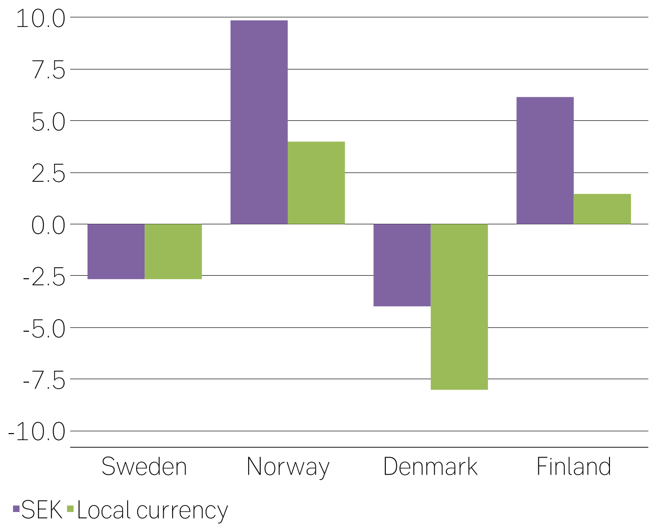
P/E ratios for Nordic equities near a five-year low



Source: Bloomberg

The chart shows the 12-month forward P/E ratio for the Nordic stock markets according to the VINX Nordic Equity Benchmark Index.

Major differences in stock market performance in the Nordic countries



Source: Bloomberg

The chart shows returns so far this year for the Nordic large cap index in Swedish kronor and relevant local currencies.

Our dividend yield forecast – in other words, average dividends – is 3.6 per cent for 2018, excluding share repurchases.

These valuations imply that investors would have an upside surprise if earnings actually grow at the rate we forecast today, around 15 per cent in 2019 and 12 per cent in 2020. Some degree of further downward revisions in these forecasts should be possible over the next few years without significantly affecting market sentiment or share prices.

Nordic stock market performance so far this year has not only been volatile but also relatively divergent, with strong returns for the Oslo exchange and a clearly positive trend for Helsinki, but with negative returns on the Copenhagen exchange. Meanwhile the Stockholm exchange has generated negligible returns despite a weaker krona which, all things being equal, should have had a buoyant effect during the year.

A strong performance for the energy- and oil-related industry explains the upturn in Oslo whereas Copenhagen was weighed down by banking scandals and concerns about price pressure and competition in the health care sector.

Summary

The stock market is in a late-cycle phase, with reduced central bank monetary support, accelerating cost inflation for industrials and flagging demand growth in a number of sectors. However, valuations have fallen to the lower end of the range for the past five years, which provides some support. We expect the Nordic stock market to trend flat for the next year, while the higher volatility we have seen this year looks set to continue. Still, there are numerous attractive stock market segments, since valuations have generally come down, while we foresee good structural growth for companies that offer solutions for improved sustainability or the digitisation of manufacturing, the retail sector and society as a whole.

Fixed income investments

Stock market turmoil won't change CB picture yet

Recent stock market volatility and doubts about how long the economic expansion will last raise questions about the risks of central bank (CB) normalisation plans. If the stock market downturn doesn't get worse, we expect central banks to act as planned. Inflation has reverted to their target levels, enabling them to slowly raise key rates and reduce stimulus. We have chosen to have a limited interest rate risk. In the credit market, we prefer high yield over investment grade corporate bonds. Prospects for emerging market (EM) bonds are uncertain in the short term, but we see value in the longer term.

Government bond yields up slightly

Relatively good growth and near-target inflation will provide continued support for the US Federal Reserve (Fed)'s planned key interest rates. In our view, a December hike this year will be followed by further hikes in March and June 2019. The Fed will then take a break and see how the economy responds before raising rates once more in early 2020 to 3.25 per cent. The combination of continued Fed hikes and tax cuts will lead to larger budget deficits and help increase bond issuance volumes, which points to higher yields. Meanwhile, it is difficult to assess the forces that can restrain rising interest rates and yields. Continued worries about escalating trade conflicts, plus rising interest rates and yields that can create turmoil in the stock markets, may lead to a downturn in the fixed income market. We are now at levels that may create some valuation stress in the stock market – US investors can buy short-term Treasuries that yield about 2.9 per cent. However, this is solely for people investing in USD. For Swedish investors, the cost of currency hedges still eats up much of their return.

German interest rates and yields are being pushed down by weak economic data, worries about Italy's government finances and Brexit negotiations, which have created uncertainty about the European Central Bank (ECB)'s potential to normalise monetary policy. In our view, an end to the ECB's stimulative bond purchases together with interest rate hikes will lead to somewhat higher long-term yields in Germany over the next few years, but above all in peripheral EU countries, especially Italy. Our forecast is an initial hike in the ECB's key rate in September 2019, followed by a further two hikes in 2020.

Forecasts for 10-year government bond yields

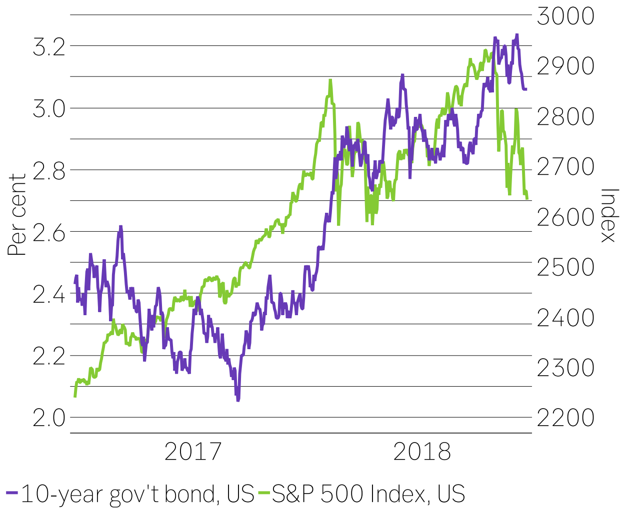
Market	Nov 23	Dec 2018	Dec 2019	Dec 2020
United States	3.08	3.20	3.60	3.50
Germany	0.34	0.50	1.00	1.30
Sweden	0.55	0.85	1.60	2.00

Source: SEB

Our main forecast is that the Riksbank will raise its key interest rate in December. However, our forecast indicates that the Swedish central bank is overestimating inflation over the next few months. As a result, a rate hike delay until February cannot be ruled out. In 2019 and 2020, we expect the repo rate to be raised twice a year, winding up at 0.75 per cent by the end of our forecast period, in line with the Riksbank's interest rate path.

Today returns on traditional investments such as government bonds are low or even negative, while upturns in government yields may further reduce total returns. Owning government bonds works well when interest rates and yields are falling, but when they are moving upward, conditions are worse for fixed income investments and especially those with long maturities. We thus prefer to continue holding short-maturity bonds, where an increase in long-term yields does not have as big an impact on bond prices.

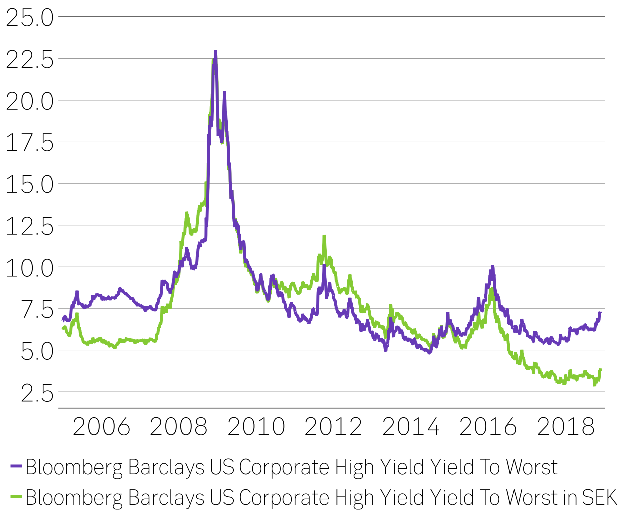
No steep decline for bond yields despite stock market slump



Source: Macrobond

It is interesting that this October, 10-year Treasury yields did not fall much when the stock market lost ground. In fact, 10-year yields ended up at 3.15, far higher than they were at the start of the month – before share prices started falling. We are sticking to our forecast of 10-year US Treasury yields at around 3.25 in mid-2019.

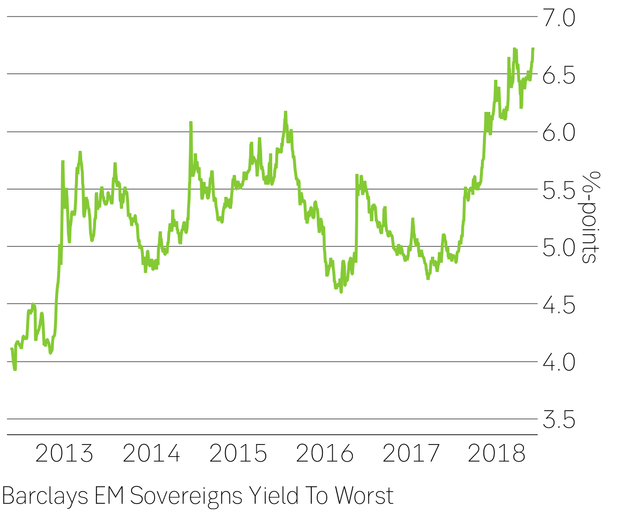
For SEK investors, returns are limited due to currency hedging costs



Source: Bloomberg/ Macrobond

"Yield to worst" shows the effective yield an investor receives if all bonds are called on the first day they can be redeemed by the issuer. After adjusting for currency hedging costs, return potential is limited. Given the spread today between US and Swedish yields, hedging costs are around 3 per cent.

Improved potential for emerging market debt



Source: Macrobond

With its attractive valuations and potential for higher running yields, emerging market debt appeals to investors.

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

The corporate credit market was also adversely affected by the market turbulence in October, though not as strongly as stock markets. Credit spreads (the yield gap between government and corporate bonds) widened but flows were somewhat controlled. To some extent, reduced central bank bond purchases and rising interest rates and yields are an uncertainty factor for investment grade bonds, which carry a higher interest rate risk than high yield bonds (corporate bonds with a higher credit risk) and are therefore substantially more sensitive to upturns in interest rates and yields.

The low interest rate environment and narrow credit spreads between government bonds and corporate credits also limit return potential for high yield bonds to some extent. Meanwhile this is a segment of the fixed income market that provides relatively good returns in absolute terms, though considerably lower than in the past three years.

Emerging market (EM) debt

Despite many EM countries' reduced vulnerability, for example with their lower inflation, at present we expect rising US interest rates and yields and a strong USD to have a negative impact on EM currencies.

The countries expected to suffer most from higher US interest rates and yields and indirectly from a stronger USD are Egypt, Argentina, Turkey and to some extent South Africa.

A strong USD means higher borrowing costs, since a number of EM countries have large loans in USD. In a market situation with accelerating growth, this is not necessarily a problem, but since we foresee a deceleration in global economic growth, the effects and uncertainty will be greater.

Nonetheless, we expect positive returns on EM debt over a 12-month horizon. Some EM countries have good growth, with higher yields than in more developed regions, but there will be great uncertainty over the next few months and prospects will depend on political and monetary policy developments in countries such as Brazil, Turkey and South Africa. Turkey is expected to remain under pressure; structural reforms and foreign capital will be needed to achieve stabilisation. In Latin America, the agreement between Argentina and the IMF together with a new trade agreement between the US, Canada and Mexico should strengthen the Argentine peso.

Greener growth

Challenges and opportunities

World economic development is not ecologically sustainable and must change dramatically in the future. The costs of this transformation will be huge, but the alternative is significantly more expensive. Fortunately, we are already seeing many solutions and products that will greatly improve sustainability. Many companies that sell these have the potential for robust structural growth in demand over the next decade, and we believe that there are many highly attractive investment opportunities among them.

World economic development is not sustainable

Rapid economic growth in emerging market countries, especially in Asia, means that several billion people are gradually being lifted out of poverty and that the potential market for Nordic listed companies will expand by a couple of billion new consumers. Unfortunately it also means that pressure on the environment is becoming more and more unsustainable, with major health problems among its direct consequences, along with higher sea levels, greater risk of extreme weather and their repercussions. That is not a sustainable development now that another 4 billion people wish to enjoy the material standard we Europeans have long been accustomed to – especially not if the energy sources, materials and technologies that have been dominant in recent decades will be used.

Air pollution and solid waste must diminish, not increase further. Energy efficiency must improve, recycling must expand sharply and a significantly higher percentage of energy and materials must be based on renewable sources.

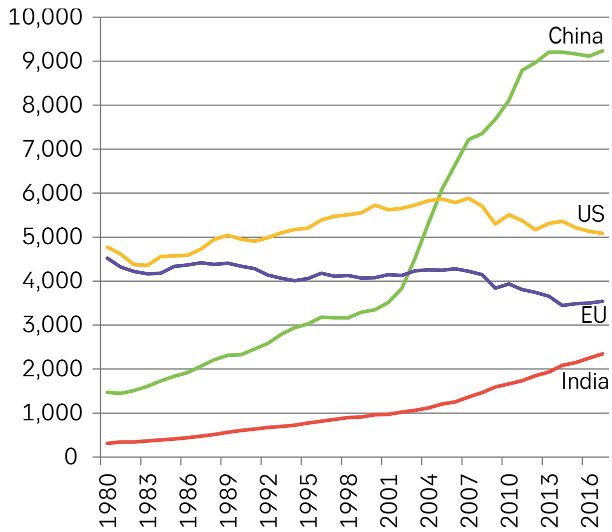
Two clear and disturbing examples

Two highly publicised examples of what is unsustainable about current economic growth are greenhouse gas emissions – with their accompanying health and climate impacts – and the plastic waste that is littering the world's seas.

Greenhouse gas emissions have been stable in the European Union and the United States in recent decades, but they have tripled in India and China in the past 20 years. China now produces more such emissions than the EU and US combined, while India is approaching EU emission levels. Yet per capita emissions in both China and India are still only a fraction of those in the US.

The global impact of this trend is clear in the form of both extreme weather events and health problems, especially in the major cities of India and China. In Beijing and Delhi during 2016, the average level of PM 2.5 (airborne particulate matter 2.5 micrometres or smaller in diameter, which poses a substantial health risk at high concentrations) was 10 and 20 times more than in New York, respectively.

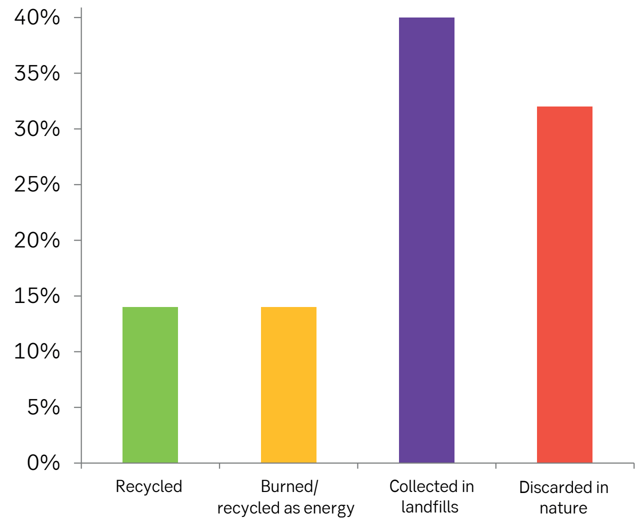
Unsustainable trend of greenhouse gas emissions



Source: BP, Bloomberg

The chart shows annual carbon dioxide emissions in millions of tonnes per year in China, the United States, the European Union and India between 1980 and 2017

Unsustainable global management of used plastic packaging



Source: The New Plastics Economy, World Economic Forum 2016

The chart shows how annual global production of plastic packaging, 78 million tonnes in 2013, is managed after being used.

According to the Bloomberg financial news service, airborne particles are now the sixth most common cause of death in the world, claiming 4 million victims per year. Particles in polluted air are inhaled and result in respiratory problems, lung cancer, cardiovascular diseases and infections.

Obviously the inhabitants of China and India, as well as other fast-growing and heavily populated countries, would like to achieve the same economic prosperity as we enjoy, but what would be the environmental consequences if their per capita carbon dioxide emissions increased to Western levels?

Focus on plastic waste

Another discouraging example is the ongoing pollution of our planet by plastics, especially plastic wastes in the sea. It is understandable that plastic pollution in the sea has received particular attention. Plastic objects are highly visible, and a full 84 per cent of all litter on the beaches of Europe is made of plastic. The quantity of plastic in the world's seas has multiplied 20 times in the past 50 years and nearly doubled since 2000. At least 8 million additional tonnes of plastic litter end up in the world's seas each year. Assuming that current trends continue, the quantity of plastic litter in the oceans will be equivalent to one third of all fish by 2025. Meanwhile recycling of plastics today is remarkably low. Only a bit over 10 per cent of the world's yearly production of some 80 million tonnes of plastic packaging is recycled. In contrast, more than 70 per cent of all paper is recycled, while an estimated 75 per cent of all the aluminium produced in the past 100 years is still being used, in many cases after repeated recycling and remelting.

Products contributing to more sustainable development can lead to healthy growth

The above problem description unfortunately provides only a small glimpse of the extent of sustainability problems that the world will continue struggling with for a long time to come. Yet the purpose of this theme article is not to penetrate more deeply into these challenges and problems, but to explore the potential for more sustainable development that already exists today and the investment opportunities it will open up. Big problems require big changes, which also imply big business opportunities.

Fortunately, a wide range of more sustainable alternatives to conventional solutions and products are already available today. Many companies are earning good money selling them. We believe they represent a long-term winning concept, and we see attractive opportunities in various related sectors such as renewable fuels and energy, renewable biomaterials, energy efficiency improvements and recycling.

Climate-smart transport

Perhaps one of the most high-profile sustainable development trends is the electrification of the transport sector, especially cars, two-wheeled vehicles and local commercial delivery vehicles. How big a positive impact electrification will have, however, depends on how the electricity for these vehicles is generated, according to the International Council on Clean Transportation (ICCT). In Europe, an electric car is almost always preferable to a conventional diesel- or petrol-powered car, but in energy systems like Germany – with a large share of fossil fuel-generated power – the impact is rather small. Over its service life, a typical electric car in Germany is responsible for about 30 per cent less carbon dioxide emissions than a combustion engine. In countries with a larger share of carbon dioxide-free electricity production, the equation looks significantly better. A typical electric car in countries like Norway and France is responsible for about 70 per cent less carbon dioxide emissions over its service life than a car with a combustion engine that burns conventional fuel. But even assuming carbon dioxide-free electricity production, electric cars have an Achilles heel in the form of lithium batteries. Over the service life of the vehicle, they are responsible for as much carbon dioxide emissions as the car otherwise is. Yet in spite of this, electrification leads to a dramatic positive effect on emission levels, provided the right sources of power are used. Indirect exposure to the electricity infrastructure, electrification and electric power sectors is available in the Nordic countries, but investors must look outside of Nordic stock markets to find large profitable companies with direct exposure to the electrification trend.

Renewable diesel, or hydrotreated vegetable oil (HVO), is a very interesting complement to the electrification of the transport sector — in the short term mainly for heavy transport vehicles and passenger cars, but further ahead especially in aviation. There are globally leading companies in this field listed on Nordic stock exchanges.

Renewable fuels lower greenhouse gas emissions by 50-90 per cent (depending on the raw material) compared to conventional fuels. Unlike old-fashioned biodiesel, renewable diesel can be mixed with traditional fossil-based diesel at any desired concentration. For example, thanks to the use of renewable fuels from the Finnish oil refiner Neste (the world's biggest producer of renewable diesel), carbon dioxide emissions were reduced by 8.3 million tonnes in 2017, compared to the use of an equivalent quantity of conventional fuel. Also worth noting is that total greenhouse gas emissions over the life cycle of a passenger car are even lower for the most fuel-efficient diesel-powered car in the market today – if it operates on renewable diesel – than for an electric car that runs on electricity from the European countries with the least carbon dioxide-intensive electricity production. From the standpoint of carbon dioxide emissions, the advantage of using renewable diesel is obviously even bigger in countries with dirtier energy sources such as Germany, the US or China.

The advantages of renewable fuels are even more apparent in sectors where the electrification process is still very distant, such as aviation. Norway was recently the first in the world to require that all aviation fuel sold in the country should contain 0.5 per cent renewable fuel by 2020. There are plans to raise this in stages to 30 per cent by 2030.

The primary raw material for renewable diesel is waste from slaughterhouses and the food processing industry. This means it does not compete with food producers for agricultural land. The use of palm oil has been cut back sharply and should eventually be phased out completely.

The potential environmental advantages of waste-based biogas, especially in emerging market countries like India, are almost staggering, but development work in this field is moving slowly and is difficult to gain exposure to in the Nordic stock market.

Wind power

Energy supply is one of the biggest challenges for sustainable global economic development and growth. Sustainable electricity production is also critical to ensure that other climate-improvement initiatives – such as electrification of the vehicle sector – will be meaningful.

During its service life, a wind turbine from the Danish company Vestas generates 25-50 times the energy required to produce, transport and install it. Compared to a coal-powered generating plant with the equivalent capacity, a wind turbine only causes one hundredth as much carbon dioxide emissions over its service life. Wind power is a renewable alternative that is already commercially competitive with natural gas, coal and nuclear power. It is also one of the fast-growing sources of energy in the world, but this growth is occurring from a low level. By 2020 about 10 per cent of the world's electricity production will come from wind turbines. One of the factors limiting the potential of wind power is access to strategically located land with the right wind conditions. If we look out at the seas, however, the supply of windy locations is nearly endless.

Wind power at sea, still in its infancy

The expansion of offshore wind power is still in its infancy. Europe is leading this trend, with Denmark's Ørsted among important market players. But only 2 per cent of Europe's electricity comes from offshore wind turbines, compared to 9 per cent from land-based turbines. The International Energy Agency (IEA) expects the proportion of renewable power in Europe to increase from 39 per cent today to 55 per cent in 2030. This growth is expected to be relatively evenly divided between offshore wind power, solar power and land-based wind power, which implies that offshore wind power will experience by far the biggest percentage growth. Outside of Europe, the share of offshore wind power is hardly measureable, but China, the United States and Taiwan are among countries interested in investing in this source of electricity.

Solar energy, the fastest-growing renewable power source

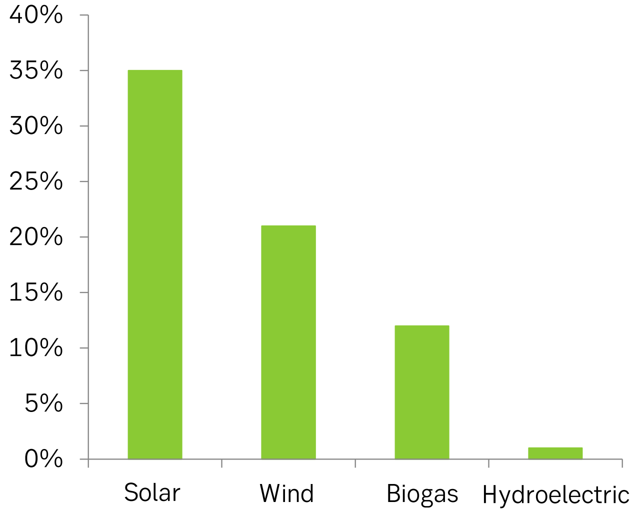
Globally, solar energy is the fastest-growing renewable power source. The IEA expects electricity production based on solar panels to quadruple between 2016 and 2025, becoming a more important part of the electricity supply system over time, but in 2016 it accounted for less than 1.5 per cent of the world's electricity production.

Many companies in the solar energy sector have unfortunately proved to be bad investments over the past decade, despite the sector's enormous marketing success, since this success has been driven largely by sharply declining unit prices. Despite major efficiency improvements, this has led to a weak profitability trend for manufacturers of solar panels and their components. Meanwhile rapidly falling unit prices obviously make solar energy more competitive, and there are business models that can manage these falling prices smoothly.

Improving energy efficiency

One good way of reducing the environmental impact of the world's large and growing energy needs is through more efficient use of the energy that is already being produced. Perhaps the most important difference between the IEA's main scenario for energy market development between now and 2040 and its theoretical, sustainable development scenario is that in its sustainable scenario, the world's total energy needs do not increase significantly, while new capacity equivalent to current consumption in China and India is added in the main scenario. According to the IEA, existing technology can bring about an emissions reduction equivalent to 40 per cent of what is needed to achieve the climate goals of the Intergovernmental Panel on Climate Change (IPCC). To achieve this, we will need sensible policies that provide households and businesses with the right incentive structures. Buildings, industrial facilities and the transport sector can be made dramatically more energy-efficient over the next few decades.

Solar and wind power are growing faster than hydroelectric



Source: IEA

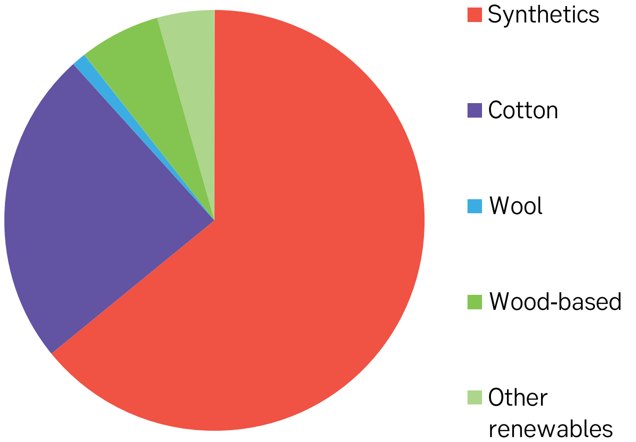
Yearly growth in electricity production by power source in the OECD countries, 1990-2017.

The biggest room for improved energy efficiency is found in emerging market countries, but in order to achieve these efficiency gains, it will be necessary to double global investments in energy efficiency improvements – now estimated at more than USD 200 billion per year – by 2025 and then double them again by 2040. In return, gigantic investments in new energy sources and power-generating capacity will become superfluous and need not be made. There are many companies listed on Nordic stock exchanges whose products contribute to improved energy efficiency. Given the right international political decisions, they may gain even more important competitive advantages and sales arguments in the future.

Renewable materials and energy from forests

Proposed EU legislation would largely prohibit single-use plastic items and introduce an internalisation of the costs of alternative items. This can be achieved through stricter recycling requirements, for example mandating that 90 per cent of all plastic bottles must be recycled by 2025. Companies that sell plastic products may also be forced to assume expanded responsibility, for example for how these items are handled after use, and to finance information campaigns about the environmental costs of their products (for example, moist wipes and fishing equipment). During the past year, a steady stream of major companies, including well-known international brands, have announced their ambition to phase out the use of various plastic items and packaging. We believe that this trend is promising, not only for the planet

Synthetic textile fibres 10 times more common than wood-based fibres



Source: Lenzing

The chart shows a breakdown of the global textile market by raw material type, with production totalling about 105 million tonnes per year.

but for companies that sell recycling solutions and for the use of wood fibre-based products for packaging and other single-use items.

Expanded use of renewable raw materials from forests, even for other uses besides packaging – for example wood-based textiles, chemicals, fuels and building materials – are potentially important in helping reduce the world's dependence on fossil-based materials. Sustainable land use, combined with manufacturers supplied from renewable energy sources, can offer renewable materials and fuels to replace the conventional fossil-based alternatives that are dominant today. Today we are already seeing a growing preference for renewable and recyclable packaging. The needs of the growing global middle class should be met with renewable material alternatives, in the form of virgin fibre as well as recycled fibre from sustainably managed forests, instead of plastics and other synthetic raw materials.

Renewable textiles

There is already heated debate about plastic packaging and single-use plastic items, but in the textile field there are also similar problems and business opportunities.

The sad and scary effects of large-scale pollution in the form of microplastics, which are difficult to see, have also received great media attention, but have not yet been addressed as vigorously by government authorities and other powerful organisations as plastic packaging, which is more visible. The California Legislature, however, recently debated a bill that would require warning labels on clothing made of polyester and other synthetic fibres, due to the microplastic fibres that they shed during machine washing.

Today nearly two thirds of all textile fibres come from fossil sources. In practice, this means clothing and other textiles made of plastic. Meanwhile just over a third of all fibres are based on renewable materials. An overwhelming majority of these renewable fibres consist of cotton, which alone accounts for nearly a quarter of total fibre production. Cotton farms are extremely water-intensive. It is a major challenge to increase cotton production further, and it is possible to argue that such a trend would not be desirable from an environmental perspective.

The volume of synthetic fibres is now more than 10 times as large as the volume of fibres based on cellulose from forests. In terms of weight, it is comparable with the total global market for paper pulp. If and when stronger public opinion against plastic textiles emerges, cellulose for textile fibres – which are already growing rapidly from a low level – may become a very important application for renewable forest-based fibres.

Efficient forestry: one part of solving climate problems

Wood and forests are also a climate-smart and very cost-competitive alternative for capturing atmospheric carbon dioxide in solid form on earth, thereby reducing climate change. Research at the Norwegian School of Economics in Bergen shows that about 28 per cent of the yearly reduction in atmospheric carbon dioxide emissions that IPCC believes necessary by 2050 in order to achieve the targets of the Paris Agreement can be accomplished through more efficient and sustainable forestry, combined with large-scale storage of carbon dioxide in the form of wood products that are protected from decaying (for example wooden buildings). In the course of one century, additional carbon dioxide can be absorbed yearly by planting new forests and replanting previously destroyed ones. This calculation excludes land being employed today in an economically efficient way for such uses as agriculture. The costs of absorbing carbon dioxide in wood and forests is estimated at less than half of the costs of various types of industrial carbon dioxide capture, such as carbon dioxide sequestering in old oilfields.

Biochemicals can greatly reduce greenhouse gas emissions

Nordic biochemical companies manufacture renewable speciality chemicals from wood that are more environmentally friendly alternatives to petrochemical products. Wood is the raw material for the extraction of speciality cellulose fibres, binding agent in the form of lignin and starch for the production of bioethanol. Examples of biochemical products are natural adhesives for building materials such as cement and plaster, biodegradable agricultural chemicals, bioplastics, pigments and vanillin.

Nano/microfibre cellulose, which has many potentially amazing applications, deserves special mention among biochemical products.

Many of these wood-based chemicals result in more than an 80 per cent reduction in greenhouse gas emissions compared to synthetic alternatives, but they have historically fought an uphill battle against petroleum-based chemicals due to their higher production costs. Levelling the playing field will probably require political initiatives, like those in the plastics field in Europe, in order to internalise the costs of pollution from petroleum-based products.

Recyling

A sharp increase in recycling of bio-based materials as well as metals and synthetic materials, plus optimised resource utilisation in the food processing industry, are all critical ingredients for a more sustainable society. The growth potential is already very good in this niche, and the above-mentioned proposals for European legislation on plastic recycling may have a major positive impact on demand for recycling and sorting solutions. Hopefully many other countries will follow suit. In the recycling field, too, there are globally leading companies listed on Nordic stock exchanges.

Transformative companies from the old world

The global economy needs to be transformed in a more sustainable direction, but not everything can or will happen overnight. A very interesting phenomenon from an investor perspective is companies that originated from an entirely different, non-renewable business but that have invested over a long period in innovative renewable technologies that result in a complete transformation of the company over time. There are several examples of such a strategy generating substantial shareholder value. Perhaps the most obvious example is Ørsted, formerly DONG (Danish Oil and Natural Gas), now the world's largest producer of offshore wind turbines and the company that has planned by far the most offshore wind power systems. Since its IPO in 2016, the company has sold off its oil-related operations and changed its name. Another example is Finnish-based Neste, a petroleum refiner that – after more than a decade of massive investments in renewable fuels and many years of major losses from these ventures – now generates a clear majority of its profits from renewable products. Other companies have not come as far yet but have announced similarly ambitious transformation plans for the future.

Summary

World economic development is not ecologically sustainable and must change dramatically in the future. The cost of this transformation will be huge, but the alternative is significantly more expensive. Fortunately, we are already seeing many solutions and products that will significantly improve sustainability. Many companies that sell such products have the potential for strong structural growth in demand over the next decade, and we believe that there are many very attractive investment opportunities among them.

Please contact your private banker to find out more about green investment ideas.

Modern trends in East Asia

Digitisation is taking off in fast-growing economies

The sun rises in the east, as do many modern trends nowadays. In this theme article, we focus on modern trends in East and Southeast Asia. Fast-growing economies, expanding e-commerce and bright prospects for ever greater prosperity characterise the region. Asia as a whole is home to about 60 per cent of the world's population, 40-45 per cent of the global economy and around 26 per cent of global stock market capitalisation. Almost one billion people in Asia have left poverty just since the turn of the millennium, and digitisation is speeding up this development.

Modern trends in East and Southeast Asia, a long-term theme to gradually invest in

Asia is a broad concept. Nearly 50 countries are situated on this continent, which stretches from the northeast coast of Russia to southern Indonesia and all the way west to the Mediterranean Sea. Some 4.5 billion people live in Asia, or 60 per cent of the world's population. There are major economic and cultural differences among Asian countries and economies, which is why we have chosen to focus on East and Southeast Asia in this theme article. East Asia is defined here as China, Japan, South Korea, Hong Kong and Taiwan. North Korea and Macau are excluded. Southeast Asia includes Indonesia, the Philippines, Vietnam, Thailand, Myanmar, Malaysia, Cambodia, Laos and Singapore.

The main reason for focusing on modern trends in fast-growing economies in East and Southeast Asia is to educate readers about important economic statistics, digital trends and some of the most prominent modern companies in each country.

The chart to the right provides a list of the countries and economies in question, their economic size, current yearly growth rate, gross domestic product (GDP) per capita and the extent to which the population lives in cities (urbanisation). Nearly 2.3 billion people live in the two regions, which have a nominal GDP totalling about 23 trillion dollars (2018 forecast). GDP growth is 5 per cent, and 50-60 per cent of people live in cities.

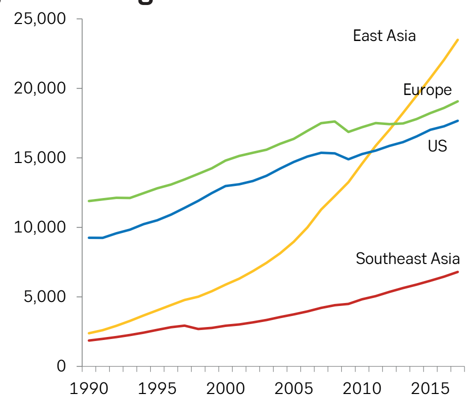
The chart shows GDP growth at purchasing power parities (PPP) for East Asia (excl. Japan) and Southeast Asia compared to Europe and the US, in order to highlight the strong growth. On a nominal basis, these two Asian regions together need to grow a further 20 per cent to reach GDP levels in Europe and the US, but adjusted for different price levels, the regions together have far surpassed them in growth. Economic activity here is growing by leaps and bounds. Over the past decade, East Asia's GDP (excl. Japan), with China accounting for 86 per cent of this, has more than doubled, while Southeast Asia has grown 60 per cent. Meanwhile Europe and the US have grown 8 and 15 per cent respectively. East Asian stock markets are currently in turmoil, but in the long term digital trends in these markets should offer attractive investment opportunities.

Key figures for East and Southeast Asia

Country/ economy	Population, M	Nom. GDP 2018, USD B	GDP growth 2018, %	GDP/ capita, USD K	Urbanisation, %
China	1,412	13,000	6.5	17	59
Japan	127	4,900	1.5	40	95
South Korea	52	1,600	2.5	37	83
Taiwan	24	610	2.5	50	78
Hong Kong	7	360	3.5	58	100
Indonesia	261	1,080	5.0	11	56
Philippines	106	330	6.3	8	44
Vietnam	95	240	6.8	7	35
Thailand	69	470	4.8	17	53
Myanmar	53	72	6.0	6	36
Malaysia	32	350	5.0	27	76
Cambodia	16	24	7.0	4	21
Laos	7	18	7.0	7	41
Singapore	6	330	3.0	98	100
East Asia	**1,622**	**20,470**	**4.8**	**20**	**63**
Southeast Asia	**645**	**2,914**	**5.1**	**12**	**49**
Total	**2,267**	**23,384**	**4.9**	**18**	**59**

Source: World Bank

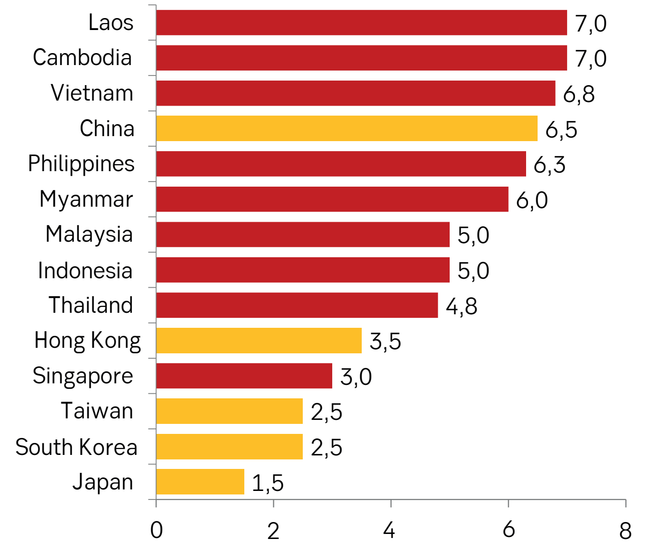
Strong economic growth in East & Southeast Asia



Source: World Bank, SEB, fixed exchange rates (2011)

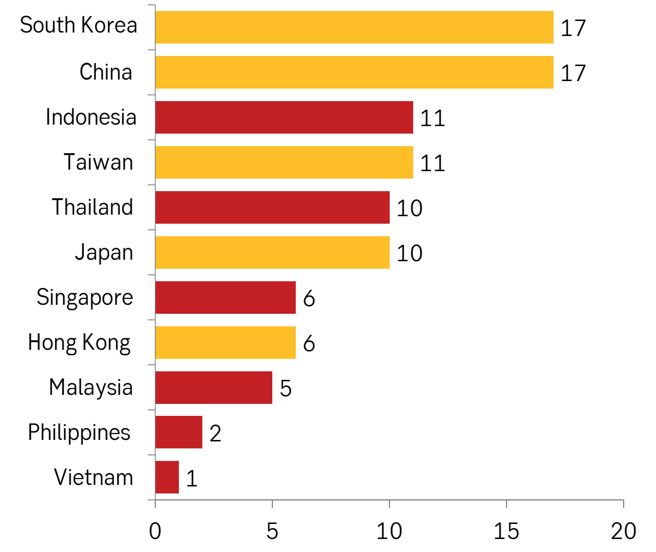
The chart shows purchasing power-adjusted GDP in USD billion since 1990.

Economic growth in East and Southeast Asia (%)



Source: World Bank, SEB

E-commerce as a percentage of total retail sales



Source: SEB, We Are Social, Statista, other databases

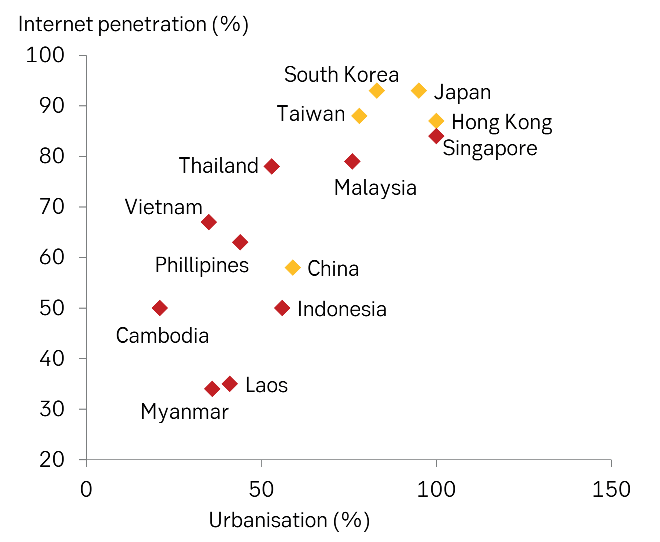
The above chart shows the rapid economic growth currently under way in almost all of East and Southeast Asia. The economies of ten of these countries and economies with a total population of more than 2 billion people have structural growth of more than 4 per cent. The rate in Thailand, Indonesia and Malaysia is around 5 per cent, and in China, Vietnam, Cambodia and Laos nearly 7 per cent.

The table below right shows how many people in each country have internet access, own a mobile phone, and use social media and computers, as well as how many hours a day they spend online and with social media. Interestingly, there is some correlation between a high level of prosperity and less time spent online – not the opposite.

Another conclusion is that internet penetration is higher the wealthier and more urbanised a country is (see table below right). In addition, higher mobile data speeds of more than 30 megabytes a second are found in wealthier countries, more than twice as fast as, for example, in Indonesia, the Philippines, Vietnam, Thailand and Malaysia.

The chart above right shows e-commerce as a percentage of total retail sales from 1 per cent in Vietnam all the way up to around 18 per cent in China and South Korea. It is worth noting that China and South Korea have the same percentage despite gigantic differences in population, digitisation (internet penetration) and wealth (GDP per capita). China thus accounts for half of global online sales. The country has a high population density, with 94 per cent of its people living in the eastern half, while labour costs are low and economies of scale large. Later we will discuss similar aspects, such as why the difference in online sales between the Philippines (2 per cent) and Indonesia (11 per cent) is so large, even though the Philippines has higher internet penetration and a greater percentage of people who use computers.

Urbanisation and internet penetration in symbiosis



Source: SEB, We Are Social, Statista, other databases

Conclusion: Many countries in East and Southeast Asia have bypassed the shopping mall culture, which promises high e-commerce growth. But the trends vary – we are still in an early phase of the digital era. E-commerce is the focus of our theme article, and in the following pages we will discuss digital and economic trends in selected countries.

Digital facts on East and Southeast Asia

Country/ economy	Internet penetration (%)	Mobile phone ownership (%)	Social media use (%)	Computer use (%)	Time spent online/ day
China	59	80	67	53	6h 30m
Japan	93	80	57	80	4h 12m
South Korea	93	84	84	71	5h 10m
Taiwan	88	79	80	67	7h 50m
Hong Kong	87	83	78	60	6h 40m
Indonesia	50	68	49	22	8h 50m
Philippines	63	58	63	38	9h 30m
Vietnam	67	73	57	43	6h 50m
Thailand	78	80	74	25	9h 40m
Myanmar	34	101	34		
Malaysia	79	68	75	41	8h 30m
Cambodia	50	181	43		
Laos	35	91	35		
Singapore	84	82	83	71	7h 10m
East Asia	**62**	**80**	**67**	**56**	**6h 20m**
Southeast Asia	**58**	**74**	**55**	**27**	**7h 40m**
Total	**61**	**78**	**64**	**48**	**6h 40m**

Weak stock market performance in 2018, but not all emerging economies are alike

This has been a very poor year to invest in East and Southeast Asia, with most stock markets losing value in 2018. The escalating economic conflict between the US and China is one major reason why the world's second largest economy (China) has seen a reversal in last year's fine performance. Factoring in a strong US dollar, due to higher inflation and Federal Reserve interest rate hikes as well as higher energy prices, there may be reason to be a bit cautious about investing in emerging economies.

In many parts of the world, economies have reached the late stage of a traditional cycle, which is reflected in numerous economic indicators. In East and Southeast Asia, historically low unemployment figures can now be seen, though only in a few smaller countries and economies. Historically, low unemployment is a warning sign of a cyclical peak (and an imminent stock market downturn). However, structural growth, with a subsequent long-term rise in prosperity, is to a large degree a driver in emerging economies – while other factors can disrupt economic development to a greater extent since stabilising and defensive forces are not as strong. Emerging economies have historically been hampered by weaker banking systems, less developed political systems and central banks, volatile currencies and a greater dependence on commodities.

But not all emerging economies are alike, and to an increasing extent consumption and digitisation are driving companies in these economies. Let us therefore discuss what is happening in selected countries: first China, then Japan, South Korea, Indonesia, the Philippines, Vietnam, Thailand, Malaysia and finally Singapore.

China – the dragon is growing larger, with Meituan Dianping revolutionising the service sector

Over the past year, we have written about the economic miracle that has brought enormous prosperity gains to China's population over the last 40 years. The country is experiencing robust economic expansion and is the single largest contributor to global growth. GDP may nearly double by 2030, even with growth gradually slowing (down to 3 per cent).

"The shift in consumer behaviour to new digital services overshadows that of most Western countries... China accounts for half of global e-commerce."

Since 2010, services and consumption have grown faster than capital investments in China for the first time since the late 1990s. This appears to be the start of a decade-long explosion in consumption. China's annual GDP per capita (PPP) is about USD 17,000 or roughly 25 per cent of the US level, having climbed from 4 per cent of American GDP in 1990. GDP per capita is twice this high in major cities on the country's east coast. There continues to be major growth potential. Internet penetration is only around 59 per cent, far lower than in most of the world's rich countries. This rate should increase to around 80 per cent. The shift in consumer behaviour to new digital services overshadows that of most Western countries. Chinese consumers are fast at adopting new products and services.

We have written previously about companies such as Alibaba, an e-commerce pioneer and still a giant, as well as the game company Tencent, which also operates the world's second largest social network, WeChat – and is the world's biggest everyday online tool since this platform has linked thousands of companies with more than one billion people. The search engine company Baidu, the automotive marketplace platform Autohome and the digital services provider Baozun have also been discussed.

In the past two years, the number of initial public offerings (IPOs) for Chinese digital consumer-based companies has grown sharply. Just in recent months, giants such as Meituan Dianping and Xiaomi have launched IPOs, each with a valuation of about USD 50 billion.

Meituan Dianping is a young but rapidly growing service company that links up virtually every service a consumer could need. It is popularly called the Alibaba of services – quite correctly, since it offers a unique app with which consumers can find virtually any kind of service, including food deliveries, hotel bookings, flights, restaurant reservations, taxis, haircut appointments, babysitting, cleaning, cinema tickets, bike sharing and much more. Meituan Dianping has about 350 million monthly active users.

Xiaomi's objective is to manufacture everything from phones, computers and watches to air filters and vacuum cleaners. However, its smartphones are the jewel in the crown, although other products are expected to represent an ever larger share of sales in the long term.

Earlier this year, the fast-growing e-commerce firm Pinduoduo, the digital video company iQiyi and the modern health care services platform Ping An Good Doctor implemented IPOs with market capitalisations of USD 24, 13 and 7 billion dollars respectively. The country's digital economy is buzzing. One consequence of this is a wave of IPOs, and more are probably on the way. Alibaba's subsidiary Ant Financial Services Group has good potential to become one of the world's ten largest financial service companies once it is listed, with a projected valuation of around USD 150 billion. Other IPO candidates are Lufax, Didi Chuxing, Toutiao and Tencent Music Group. These companies are expected to reach valuations of between USD 25 and 60 billion. The Chinese digital service sector will most likely grow in both number and market capitalisation in the long term.

Japan – SoftBank a digital force in a conservative society; economic growth like in the West

Japan is the world's third largest economy, after the US and China. However, its emergence as a prosperous country has not come in the past two decades, when annual growth has been an anaemic 1 per cent. A shrinking population and tougher competition in the region, especially from China, are two of the main reasons why the Japanese economy is growing slowly, but Japan's GDP per capita has increased annually both over the past five and ten years at the same pace as in Europe and the US, at 0.6 and 1.4 per cent respectively. The Japanese economy is highly competitive in a number of high-tech industries such as automotive electronics, robots, printed circuit boards, sensors, and various phone and other critical electronic components. It is easy for people who have been to Japan to be impressed by this very modern society.

Some 95 per cent of Japan's 127 million people live in cities and 93 per cent are connected to the internet. These levels are high from an international perspective, if not the highest. Comparing Japan to South Korea, we see two countries with GDP per capita (PPP) of about USD 40,000, where about 90 per cent of people have internet access and 80 per cent use mobile phones – yet only 57 per cent of Japanese are active on social media while 84 per cent of South Koreans are. Furthermore, about 10 per cent of retail sales are online in Japan, compared to around 17 per cent in South Korea (and China). The Japanese spend "only" about 4 hours a day online, whereas South Koreans spend 5 hours and the Chinese 6.5 hours. Japan looks somewhat conservative, based on these comparative digital figures.

Japan's biggest digital company is called SoftBank. It is the country's second largest company overall, after the automotive giant Toyota. Sony, Keyence, Nintendo, Canon, Fanuc, Hitachi, Panasonic and Toshiba are other big digital companies. Many are no doubt recognisable for different reasons. SoftBank has had the strongest expansion over the past decade. Its recipe for growth includes a 27 per cent holding in the Chinese giant Alibaba, a 43 per cent holding in Yahoo Japan, the acquisition of the formerly UK-owned chip maker ARM, and holdings in the ride-sharing platforms Uber and Didi Chuxing and online marketplaces Tokopedia (Indonesia) and SnapDeal (India) – but also telecom operations in Japan and the US (Sprint).

Japanese e-commerce accounts for about 10 per cent of total retail sales in the country. The two biggest players are Amazon and Rakuten, each with 15-20 per cent of the market, followed by Yahoo Japan (owned by SoftBank).

South Korea – a hyperdigital society, from Samsung Electronics to Naver

Some 93 per cent of South Korea's more than 50 million people are connected to the internet, while 84 per cent use mobile phones and the same percentage are active on social media (the highest in all of East and Southeast Asia). About 18 per cent of retail sales are digital, that is, online. The average speed of mobile digital devices is more than 40 megabytes per second, which is high from a global perspective. South Korea – with a population five times that of Sweden – is also very advanced in terms of digitisation.

The largest online retailer is Gmarket (owned by eBay), followed by 11street (owned by SK Telecom), Lotte and Naver. The market is dynamic, broad, modern and competitive. The logistics industry has attracted major investments recently, since a new generation of logistics companies are coming on the market and can offer good returns with bright growth prospects.

One cannot discuss digital South Korea without mentioning Samsung Electronics, the world's largest manufacturer of mobile phones and TVs as well as a major producer of batteries, hard drives, chips, semiconductors, memory cards, tablets and network equipment.

Naver Corp. is also exciting since this search engine giant has about 70 per cent of the country's search market. The reason the US-based Alphabet's Google is not particularly large in this market is that Naver is far more user-friendly and offers more content to consumers. Overall growth in South Korea's hypermodern economy is 2-3 per cent and prospects for its continued digitisation are very bright.

Indonesia – Southeast Asia's heavyweight

With about 260 million people, Indonesia has the world's fourth largest population. The country accounts for nearly 40 per cent of Southeast Asia both in terms of population and the economy. About 30 million people live in the metropolitan region of Jakarta, the capital. The country's economy is growing at about 5 per cent yearly, while half of the people have a bank account and an internet connection. Nearly 70 per cent own a mobile phone, but many phones are "dumb" – in other words, older and cheaper, many of them without an internet connection. It is also notable that the number of people active in social media platforms is now sharply on the rise, at 30 per cent.

Like people in the West, Indonesians use US digital tools. When they search for information online, they use Google, which carries more than four times the monthly traffic of the second most frequently used digital tool, Facebook. Then come Blogspot, YouTube, the Japanese-based Line and the Indonesian news website Detik. WhatsApp and Instagram are also popular. In addition, about 15 per cent of the population post videos digitally online (a high proportion compared to the rest of Southeast Asia).

"Furthermore, online sales account for about 11 per cent of total retail sales, the same as in Sweden."

More than 135 million people in Indonesia use Facebook – in other words, half of the population. The annual growth rate in the number of users is about 20 per cent. Furthermore, e-commerce accounts for about 11 per cent of total retail sales, the same as in Sweden. Growth in this market is currently more than 20 per cent annually. There is good growth in both social media and online retail sales, which has been the case for many years.

The two largest digital marketplaces – both with more than 100 million monthly active users – are the e-commerce company Lazada (founded by German-based Rocket Internet) and the locally-based advertising platform Tokopedia. China's Alibaba Group is a major shareholder in Lazada and has a smaller holding in Tokopedia. Other e-commerce companies are the Indonesian-based Blibli, Shopee (from Singapore) and JD (from China). Bukalapak is the second largest advertising platform.

There is also Go-Jek, Indonesia's first digital billion-dollar start-up. It operates a ride-hailing platform, which has also been expanded to provide food deliveries, payments and various day-to-day services.

All in all, Indonesia is a heavyweight in Southeast Asia. The use of search engines and social media is closely linked to US suppliers, while online retail sales are characterised by keen competition between Indonesian and mostly Chinese market players. The growth rate is high, both in the overall economy and the digitisation of society.

The Philippines – large, but hard to reach

About 106 million people live in the Philippines, making it the second most populous country in Southeast Asia. The country's economy is worth about USD 330 billion a year – in other words, as large as Singapore's. Annual GDP per capital (PPP) is about USD 8,000. About 60 per cent of people are connected to the internet, mostly via mobile phones. Nearly everyone with an internet connection has signed up on various social media platforms, primarily Facebook. Another characteristic of the Philippines is that the data speed for mobile phones is more than three times faster than for landline internet connections. This is remarkable and the reason is that the country is a large archipelago, so it is more profitable to build wireless networks. Nearly all mobile phones are cash-based – in other words, users do not have payment plans. It is also interesting that computer-based internet use is falling by about 15 per cent annually, whereas internet use with smartphones is growing by about 30 per cent.

The largest social media platforms are Facebook, YouTube, Twitter, Google+, Instagram, Skype and LinkedIn. All except Skype were developed in the US. Many people who live on faraway islands use Facebook for voice calls.

In the Philippines, e-commerce accounts for less than 2 per cent of total retail sales. The reason for this is limited access, since roads are of poor quality, which again is a function of the country being a far-flung archipelago.

Although online retail sales in the Philippines are low, they are expected to grow rapidly (right now by about 20 per cent), since urban areas are expanding fast. In the Philippines too, the Chinese-owned Lazada is a dominant digital player, with a market share of 80-90 per cent. Shopee is the second largest. In third place is the fashion website Zalora, while Metrodeal, Globe Online Shop, eBay and Carousell complete the list of the seven biggest market players.

Looking for new digital companies in the Philippines, there is an abundance of new names and favourable analyses with strong confidence in the future. The society is changing rapidly and the economy is growing, but e-commerce certainly faces some challenges that have to be overcome.

Vietnam – young population, strong growth in prosperity

About 95 million people live in Vietnam, the third most populous country in Southeast Asia after Indonesia and the Philippines. However, the economy is the sixth largest in the region, with a value of about USD 240 billion per year, since Thailand, Malaysia and Singapore have far higher income per capita. For example, Singapore has a population of just 6 million but an economy that is almost 40 per cent larger than Vietnam's at about USD 330 billion per year. However, people in Vietnam have much more education and are far healthier than 30 years ago. The country's economy has seen strong growth,

"A number of foreign consumer- and manufacturing-based companies are currently making significant investments in the country."

currently around 7 per cent. Growth in the manufacturing sector alone is 13 per cent, because large multinationals see Vietnam as a cost-effective manufacturing country. It has a young population, divided fairly evenly among the agriculture, manufacturing and service sectors.

Vietnam has low income per capita; only a third of people live in urban areas and the same share work in agriculture. Nonetheless, internet penetration is nearly 70 per cent. About 25 per cent more people have internet access today than just one year ago. About 73 per cent have a mobile phone that makes an internet connection possible. Of the 70 per cent who have internet access, about 60 per cent are active on social media.

Vietnam is a young country; the average age is about 30. Internet speeds are increasing rapidly and the economy is growing. Here too, US-based giants Google, Facebook and YouTube are the biggest internet tools in terms of traffic. Next come the Vietnamese news website VNexpress and the versatile online platform Zing.

E-commerce in Vietnam is still very low (1 per cent of total retail sales) but compared to other countries still fairly competitive. The four biggest online players – Shopee, Tiki, Lazada and The Goi Didong – each have market shares of 18-20 per cent.

Most people do not live in cities, so population density is lower than in other countries. Nor has the country come as far in terms of prosperity, and it is still a cash-based society. But Vietnam's total retail sales are the fastest growing in East Asia, since prosperity is on the rise as the economy strengthens. The number of physical shops is very low relative to the large population, compared to most countries in the region – which is why there has been sharp growth in the number of shops. This is certainly a totally different reality than in the West. Vietnam has not come very far in its drive to prosperity but is currently making rapid progress. Digital market players have good experience from other markets, which is why they have positioned themselves to provide products to a population of 100 million people over the long term. E-commerce will probably grow by about 30 per cent annually over the next few years, from a very low base.

All in all, Vietnam offers great opportunity in the long term. A number of foreign consumer- and manufacturing-based companies are currently making significant investments in the country. Most people have mobile phones and internet access, but e-commerce is still waiting for a major explosion – it will probably be a little while before this happens.

Thailand – the economy and digitisation are buzzing

About 70 million people live in Thailand, a popular holiday destination with the fourth largest population in Southeast Asia. GDP is about USD 470 billion yearly, the second highest in the region, while GDP per capita (PPP) is about USD

17,000, in third place. The share of the population living in poverty has fallen from more than 40 per cent at the turn of the millennium to around 8 per cent today. Meanwhile GDP has increased by 300 per cent in those 18 years. Overall, Thai society has taken a giant leap forward in recent decades.

About 80 per cent of the people have access to the internet, a much higher share than the 55 per cent who live in urban areas. Three fourths of Thais are active on social media platforms, almost the same as the percentage of adults with smartphones. About 70 per cent of all data traffic on websites comes from mobile phones. US digital platforms are most commonly used – in other words, the "usual suspects" Google, Facebook and YouTube. The Thai forum platform Pantip is the fourth most frequently used in the country, with people discussing every topic under the sun and sharing videos or information with one another. There is also Sanook ("fun" in Thai), the country's largest domestic internet portal, which in 20 years has grown into a marketplace for consumers but also for e-commerce, games and news. The company is now owned by the Chinese giant Tencent, and two years ago the company changed its name to Tencent. The Chinese parent company also operates the music platform JOOX, which has more than 20 million active users (Sanook has more than 30 million).

The most popular apps are the Japanese-based Line, Facebook, Instagram, K-Mobile Banking, JOOX Music (Tencent), Lazada (Alibaba), Twitter and Whoscall (South Korean-owned Naver).

Growth in Thai e-commerce is currently about 20 per cent yearly. The market is the second (or third) largest in Southeast Asia. Internet penetration is about 3-4 per cent of total retail sales, a share that is growing rapidly and expected to reach about 10 per cent within five years.

The real giant in Thailand is Lazada (largely owned by Alibaba), which operates a market platform for companies to reach consumers. It is the dominant platform in the country, with nearly half of e-commerce. Other platforms are Shopee, which operates across Southeast Asia, 11street (a South Korean company), JIB (Thai, with a focus on electronics) and Tarad (Thai). There are other companies, but Lazada is by far the biggest market player. The Chinese-based JD.com is expanding in the country. Thailand continues to develop its logistics capabilities, which include ten or so significant market players.

All in all, Thailand looks set to be a very exciting growth country for modern retailers. The market is still in its infancy, but digital behaviour, for example social media, is widespread. Both domestic and foreign online retailers appear prepared to battle for market share for many years ahead. The foreign companies in this case too are mostly Chinese.

Malaysia – good growth potential for e-commerce

Next up is Malaysia, home to about 32 million people. The country's economy is worth about USD 350 billion yearly and is the third largest in Southeast Asia. The economy has seen average annual growth of 5-6 per cent since 2010. GDP per capita is about USD 27,000 (PPP) – nearly 60 per cent higher than in Thailand.

Almost 80 per cent of the population, 25 million people, are connected to the internet and virtually all of them are active on social media. Urbanisation in many countries around the world is usually around the same level as their internet penetration, and that is also the case in Malaysia (nearly 80 per cent).

As in most Southeast Asian countries, in Malaysia the US information giants have taken charge of people's everyday entertainment and communication. Facebook, Google, YouTube, WhatsApp, Instagram and Yahoo are all leading platforms frequently used in the country, followed by WeChat, Twitter, Skype, Line and LinkedIn.

E-commerce accounts for about 5 per cent of total retail sales, and the market in 2018 is valued at about USD 3.1 billion (forecast), 31 per cent higher than in 2017. Nearly half of the country's people have purchased physical goods online in the past year. What is holding back e-commerce is the necessary infrastructure, which continues to improve, but it takes time to build up an effective network.

Lazada has nearly 50 per cent of e-commerce, followed by 11Street, Shopee, the Malaysian-based Lelong and Zalora.

The taxi platform Grab, well-known in Asia, was founded in Malaysia by two students. After studying at Harvard University, they came up with the idea for Grab by analysing the inefficient taxi market in the capital of Kuala Lumpur. Grab now has operations in almost 170 cities in eight countries and is expanding into areas such as food deliveries, digital payments and insurance. Earlier this year, Grab acquired US-based Uber's Southeast Asian operations.

"The taxi platform Grab, well-known in Asia, was founded in Malaysia by two students"

All in all, Malaysia is an exciting market for most digital companies, with a relatively large population, and per capita income is about the same as in Shanghai, for example. Internet penetration of retail sales will probably grow rapidly for a long time going forward.

Singapore – a wealthy small island, but despite good conditions e-commerce growth is relatively slow

Singapore is by far the wealthiest country in the region per capita. While only about 6 million people live on this tiny island, its economy is worth about USD 330 billion yearly (2018f) – in other words, as big as Malaysia's yet with less than one fifth of the population.

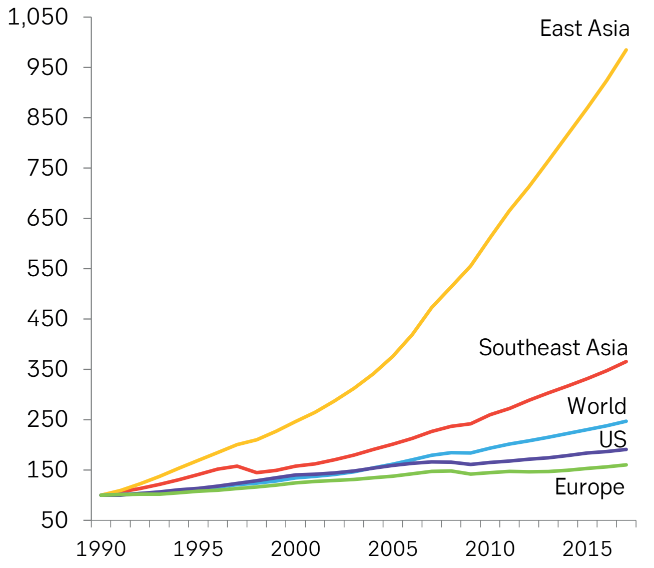
Virtually all adults are connected to the internet – in other words, about 85 per cent of the population. Nearly as many are active on social media and own a smartphone. Two factors really distinguish Singapore – a full 40 per cent of people own a tablet, and wireless internet speed is a high 54 megabytes per second.

Singapore is like the rest of Southeast Asia when it comes to social media, since mostly US apps are used. Another factor that distinguishes the country is that ride-hailing apps such as Grab and Uber rank much higher in terms of monthly active users. This is probably because the country is a city, and for natural reasons taxi transport is more widespread in cities.

E-commerce is growing at about 10 per cent yearly and accounts for about 6 per cent of total retail sales. High wages in the country, a cultural love of shops (for example in Orchard Road) and a relatively small addressable market probably explain why e-commerce is not bigger. It is surprising that the market share of online retailing is not higher, but e-commerce as a percentage of total retail sales in Hong Kong is just as small. Perhaps it is a question of time before digital behaviour gains a more solid footing in these urbanised economies too.

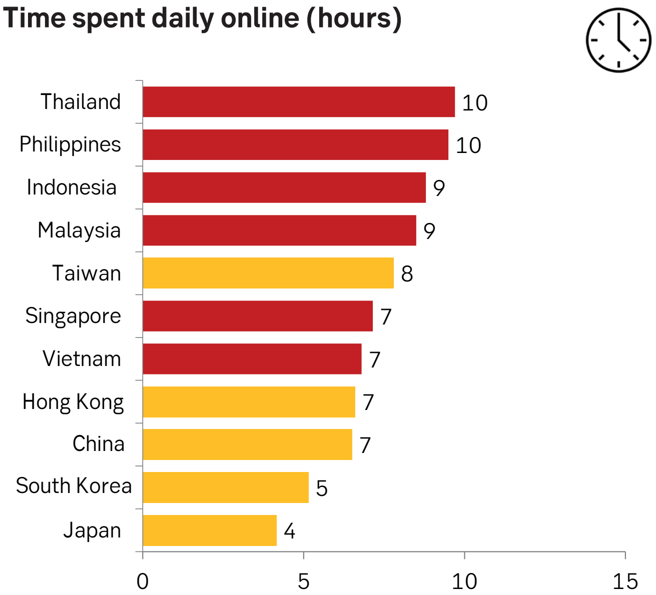
The largest e-commerce platform is Qoo10 (Singapore-based), which generates more than 30 per cent of the market's monthly visitor statistics. The company focuses on apparel, especially for women. Next comes Lazada, with 24 per cent of the market, trailed by players such as Shopee, Ezbuy, Redmart and a handful of others. The consumer-based advertising market (similar to Sweden's Blocket) is dominated by Carousell, while eBay is a marginal player.

Indexed GDP growth (PPP) since 1990



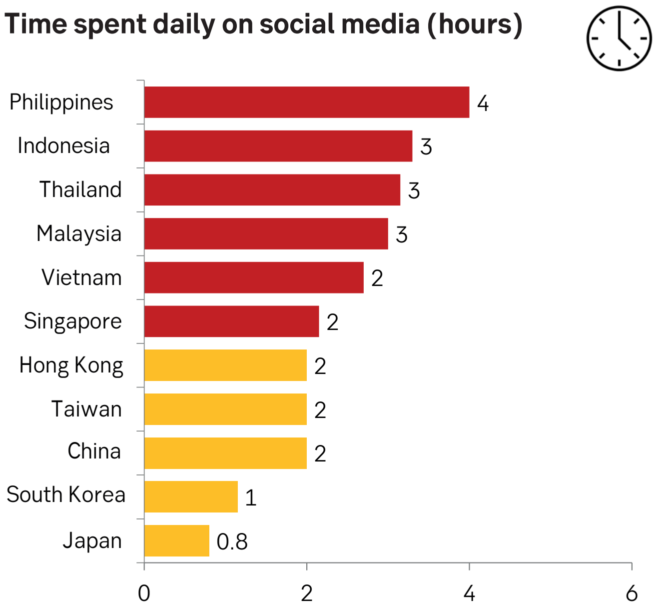
Källa: World Bank, SEB

Time spent daily online (hours)



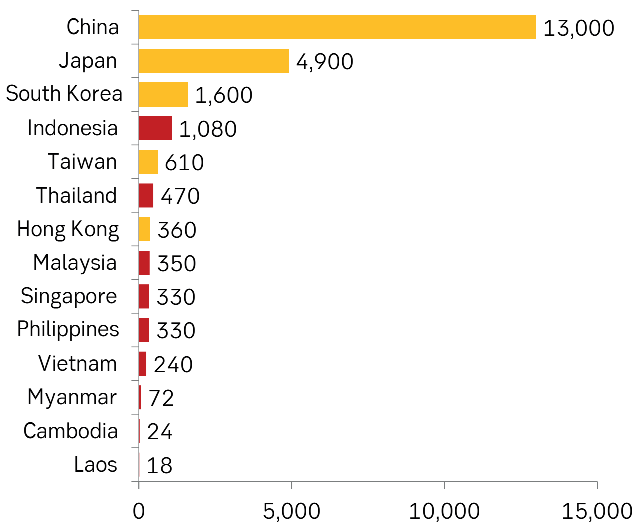
Source: We Are Social, SEB

Time spent daily on social media (hours)



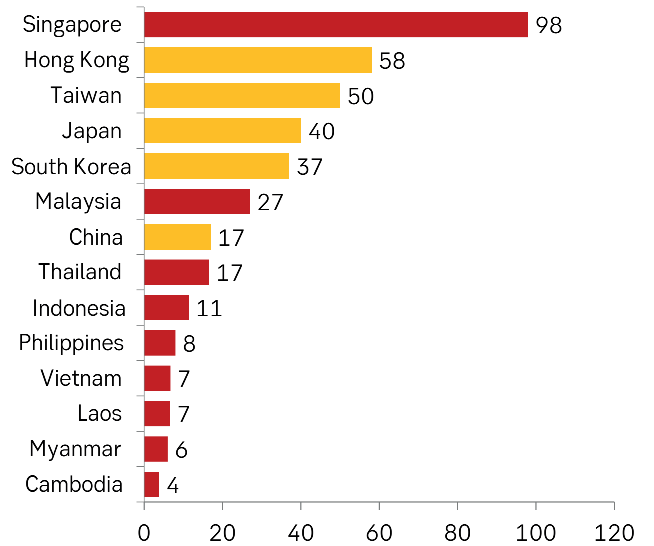
Source: Trading Economics, World Bank, SEB

Nominal GDP 2018f (USD billion)



Source: We Are Social, SEB

GDP per capita, purchasing power parity (USD thousand)



Source: Trading Economics, World Bank, SEB

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