



# Investment Outlook

December 2016



**S|E|B**



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and analysis available before November 23, 2016.

## US election outcome changes financial market conditions

**THIS YEAR HAS BEEN A MESSY ONE.** It began with an “oil crisis”, when oil prices collapsed. This was followed by the Brexit referendum in favour of British exit from the European Union, and most recently by an unexpectedly big Republican victory in the US election. Financial markets have reacted to the latter two events with a fairly restrained calm, after initially dramatic price movements. The crisis in the commodity sector, however, plagued the markets for a long time. This process made investors gradually more cautious, which partly explains why the Brexit vote and the US election did not result in a need for further caution in investors’ portfolios. Furthermore, neither the Brexit decision in the United Kingdom nor the election outcome in the United States was interpreted as detrimental to medium-term economic growth.

It is possible that 2016 will be the year when massive deflationary pressures from globalisation and extreme central bank policies reach a climax, and the year when fiscal policymakers re-enter the arena in earnest. In the short term, markets are signalling that they have increased faith in future economic growth and that inflation may slowly be on its way back.

In the aftermath of the US election, initial reactions interpreted the future as favourable to equities, but it is too early to say if this is simply a normalisation from an extreme situation or whether it is a development phase more in line with traditional cyclical patterns. This issue of *Investment Outlook* presents our views about this and about potential risks. We also explain how we think that you – as an investor – can put together your portfolio, and what your return expectations might be for various asset classes.

For a long time, parts of the technology sector have shown impressive growth and have been decoupled from the problems that have burdened many other industries. This has had a major impact on stock markets, where these companies have been among the winners. Will their show of strength continue? In this issue we present two theme articles related to the technological transformation of our society. The first is an analysis of several of the greatest successes of our age, including a handful of companies with headquarters on the US west coast whose products and services have changed the world. The second is an in-depth look at the business of semiconductors – the backbone of the digital revolution.

Wishing you enjoyable reading,

**FREDRIK ÖBERG**  
*Chief Investment Officer,  
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# Market view

## Summary

This autumn there have been signals of slightly stronger economic performance, combined with hopes of more fiscal stimulus and tax cuts in the US, which might add a little extra momentum to the economy. In recent years the real global growth rate has been around 3 per cent, but there are now signs that it may speed up somewhat. Hopefully this may also improve the potential for stronger corporate earnings growth. The latest quarterly report season exuded a bit of optimism for the first time in years. Central banks will remain very stimulative during 2017, although the US Federal Reserve will begin gradual key interest rate hikes from low levels.

On the minus side are rather lofty share price valuations, high global debt, worrisome signals of increasing protectionism and the potentially negative effects of rising inflation, interest rates and bond yields, as well as possible problems due to growing frictions in the European Union.

There are always risks and opportunities, and since this past summer we have chosen to maintain a somewhat cautious view of risk-taking, but we now foresee a trend towards accelerating growth rates and the possibility of stronger earnings performance in 2017. We are thus leaning towards slightly increasing the risk in our portfolios during the final weeks of 2016.

ASSET	WEIGHT	TACTICAL EXPECTATION (12-MONTH)	
		RETURN	RISK
EQUITIES			
Global	1 2 3 <b>4</b> 5 6 7	4.2%	11.7%
Emerging market (EM) equities	1 2 <b>3</b> 4 5 6 7	5.3%	12.5%
Swedish equities	1 2 3 <b>4</b> 5 6 7	9.0%	12.1%
FIXED INCOME			
Government bonds	<b>1</b> 2 3 4 5 6 7	-1.2%	2.6%
Corporate bonds, investment grade (IG)	1 2 <b>3</b> 4 5 6 7	1.4%	3.0%
Corporate bonds, high yield (HY)	1 2 3 4 <b>5</b> 6 7	3.8%	5.1%
Emerging market (EM) debt	1 2 <b>3</b> 4 5 6 7	5.5%	12.6%
ALTERNATIVE INVESTMENTS			
Hedge funds	1 2 3 <b>4</b> 5 6 7	N/A	N/A
Commodities	1 2 <b>3</b> 4 5 6 7	N/A	N/A
CURRENCIES			
CURRENCY PAIRS	FORECAST ON NOV 17, 2016	Q4 2016	Q1 2017
EUR/USD	1.07	1.06	1.04
EUR/SEK	9.84	9.75	9.65
USD/SEK	9.17	9.20	9.28

"Weight" shows how we currently view the asset type as part of a portfolio. These weights are changed continuously, based on our tactical market view, and may thus diverge from our long-term strategic view. Tactical expected return is based on the SEB House View as of November 17, 2016. Index/basis for estimates: Global equities – MSCI All Country World Index in local currencies. Emerging markets – MSCI EM TR in local currencies. Swedish equities – SIX Portfolio Return Index in SEK. Government bonds – OMRX T-bonds in SEK. Corporate bonds (IG and HY), IBOXX Investment Grade Index in USD and IBOXX High Yield Index in USD. EM debt – JP Morgan Emerging Markets Bond Index in local currencies. Hedge funds – HFRX Global Hedge Fund Index in USD.



**IN THE LAST ISSUE OF** *Investment Outlook* (published in September 2016), we advocated an unchanged, but somewhat cautious level of risk-taking – due, among other things, to sluggish economic growth and the somewhat high level of asset valuations. In Swedish krona terms, global equities were the winners during the intervening period, mainly due to a major depreciation in the krona.

We are sticking to our asset allocation, that is, a risk level just below neutral, but are considering the addition of a little more risk in our portfolios. The following is a review of the factors that will influence future developments.

**Central banks:** Continued low key interest rates and stimulative securities purchases, except in the United States, where there is still a risk of underestimating the Federal Reserve (Fed)'s planned interest rate hiking cycle.

**Growth and earnings:** During the coming period, there is potential for somewhat stronger economic growth and thus also stronger earnings in the corporate sector. This is already included in forecasts, but unlike the past few years there is a higher probability that they will materialise – it would be for the first time in many years.

**Valuations:** Compared to historical valuations, the currently prevailing level is high. In relation to valuations of government bonds, valuations of equities and corporate credits are more normal, provided that economic growth lasts. But if earnings decrease, the equation will change.

**Risk appetite:** After a weak 2015 and a messy 2016, “average investors” have again moved closer to their neutral position, after having maintained a clearly cautious position due to dramatic oil price movements in the first quarter.

**Expected returns:** As indicated in the table on the previous page, we continue to expect positive returns from most asset classes over the next 12 months. These expected returns are lower than the historical average, while risk is intact.

**Risks:** Valuation levels, high global debt, signals of increasing protectionism, the potentially negative effects of rising inflation, interest rates and bond yields, possible frictions within the EU, as well as a stronger US dollar and higher interest rates/yields that may again squeeze emerging market assets. Furthermore, the upturn has already lasted since 2009.

**Summary:** We find it appropriate to balance risks. This means being slightly underweighted in both Swedish and global equities and overweighted in credits with relatively short maturities in our fixed income sub-portfolios. In alternative assets, we have a broad diversification among various hedge fund strategies. Recently we have been considering a slight increase in risk.

## OUR PORTFOLIO MANAGEMENT - ASSET ALLOCATION

- Somewhat lower risk than neutral, slightly underweighted in equities and overweighted in credits and alternative investments.
- Considering an increase in risk, due to signals of somewhat stronger economic conditions.
- Positive forces: central banks, relative valuations, expected returns and potential increase in the economic growth rate.
- Negative forces: sluggish actual GDP and earnings growth, global debt, absolute valuations, Fed rate hikes and a period of strong performance behind us, as well as the risk of increased protectionism.

### GLOBAL EQUITIES

- Zero earnings growth in 2016, but a consensus forecast of a positive increase in 2017.
- Price/earnings ratio of 16 based on 12-month forward estimates.
- Continued slight overweighting in Europe thanks to attractive valuations.
- The US election may have changed the potential for the stock market.

### SWEDISH EQUITIES

- Major rotation to cyclical equities, but uncertainty about the strength and structure of economic growth ahead of 2017 is creating hesitation.
- More uniform valuations between sectors.
- A satisfactory quarterly report season.
- Expectation of rising corporate earnings in 2017 after a decrease in 2016.

### FIXED INCOME INVESTMENTS

- Sweden's Riksbank and the European Central Bank will continue their ultra-low key interest rates and stimulative purchases, while the Fed is ready for a rate hike.
- The US election outcome and promises of fiscal stimulus pushed up interest rates and bond yields from very low levels.
- Corporate credits with relatively short durations (interest rate risk) are our base holdings.

### ALTERNATIVE INVESTMENTS

- Hedge funds coped well with the volatility surrounding the US election.
- Increased volatility and rising interest rates/bond yields will create opportunities.
- Hedge funds are fulfilling their function in an uncertain world, creating stability in portfolios.
- We continue to advocate broad exposure among different strategies.



## Market view – macro

### Greater political uncertainty – more stable growth?

*The trend described in the September issue of Investment Outlook – growing political uncertainty and at the same time increasing economic stability – has become accentuated in recent months. It is no wild guess that this uncertainty (and news headlines) will continue to focus on political events. Aside from the uncertainty resulting from the US election outcome, major political choices await in Europe. During December, the people of Austria and Italy will make their voices heard. In 2017 there will be elections in the Netherlands, France and Italy. Meanwhile Brexit negotiations will begin. If the populist currents in major English-speaking countries spread to the European elections, the political map will change further, but at present we do not expect cataclysmic changes in major European countries.*

*The economic impact of the US election is not entirely foreseeable either. The short version is that Trump will probably pursue, and at least partly manage to push through, policies that will promote US economic growth by means of tax cuts and infrastructure investments. Many economists have called for a more expansionary fiscal policy, and it will provide increased hope for global growth. Offsetting this, however, are uncertainties about the financing of these measures in an already debt-burdened economy and risks surrounding global trade policy.*

*In the underlying economies, developments in recent months have also brought renewed hope about hitherto anaemic growth. Stronger purchasing managers' indices (PMIs) around the world, combined with decent corporate earnings reports, support forecasts of somewhat faster economic expansion next year. This acceleration will be driven by faster growth in the United States and in former emerging market (EM) problem countries, while others (mainly the euro zone and China) will experience stable growth. But there are still big questions about structurally slower growth ("secular stagnation") and a towering "debt mountain". It remains to be seen if continued stimulative monetary policy and more active fiscal policy will be sufficient to achieve faster growth – there are reasons for hope.*

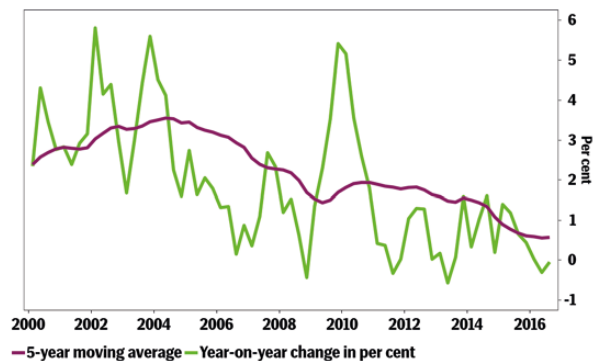
#### US – Clear focus on growth, but greater uncertainty with Trump at the helm

The impact of Donald Trump's unexpected presidential election victory is discussed on page 9. To summarise, we expect the US economy to continue on its current growth path next year, probably helped by more expansionary fiscal policy. Early this autumn several weak indicators caused concern, but those economic headwinds have calmed and business indicators have recouped their losses during the past month. We expect the economy to grow somewhat faster in 2017 than its underlying trend rate, which we estimate at 1.8 per cent. Unemployment will resume its gradual decline, reaching 4.5 per cent two years from now. An ever-tighter labour market will set the stage for faster pay increases, which will gradually take over as a driver of consumption as job growth decelerates. Rising pay levels are another reason why core inflation will be close to the Federal Reserve (Fed)'s 2 per cent target. With the economy approaching Fed labour market and inflation targets, the conditions for resuming key interest rate normalisation are in place. The next rate hike will occur in December, according to our forecasts.

#### Euro zone – Stable outlook, uncertain policies

The euro zone economic outlook has recently stabilised. Various forward-looking indicators, especially in manufacturing, are now pointing to some acceleration in GDP growth. Rising employment is driving consumption, while higher capacity utilisation is stimulating capital spending,

##### WEAK PRODUCTIVITY IS SLOWING US ECONOMIC GROWTH



Over the past five years, US corporate sector productivity has risen by an annual average of 0.5 per cent, compared to a 2 per cent average during the preceding 20 years. Low productivity growth contributes to low economic growth and could hamper future expansion by lowering capital spending.

although problems in parts of the banking sector are hampering this development. Several large euro zone countries will be holding elections over the next 12 months. Most indications are that populists and EU/euro-sceptical parties will pick up more support. Although we do not expect major shifts in political majorities, the elections will still require a lot of energy, thereby dimming the possibility of breakthroughs on key future-oriented EU issues. Fiscal policy support is increasingly being asked for, but a number of euro zone countries are still struggling with large budget deficits and debts. In general, the EU will adopt a gentler approach to enforcing its budget rules, and some German fiscal stimulus is likely. Overall, fiscal policy will be largely neutral or only slightly stimulative in 2016-2018.

## Japan – Stimulus supporting slow growth

New official stimulus measures in the past six months have offset growth headwinds generated by demographic and other factors. The working-age population is shrinking by some 1 per cent yearly: one reason why potential growth is around 0. Given the government's efforts to manage the situation through stimuli and steps to expand the labour force (boosting female participation and encouraging later retirement), we see no overall reason to change our Japanese GDP forecast. We expect annual growth rates of 0.5 per cent in 2016, 2017 and 2018; this is below consensus. The risk picture for both the growth and inflation outlook is balanced when weighing stimulus policies against demographic headwinds and deeply rooted deflationary impulses, after decades of muted price and growth paths.

## China – Fiscal policy softening slowdown

The stabilisation we have seen in the Chinese economy in recent quarters is proceeding as expected. The manufacturing and construction sectors as well as exports are still performing sluggishly, but this is offset by a stronger service sector and an upturn in home prices. We expect less monetary stimulus going forward, while reform efforts aimed at reducing industrial overcapacity are moving

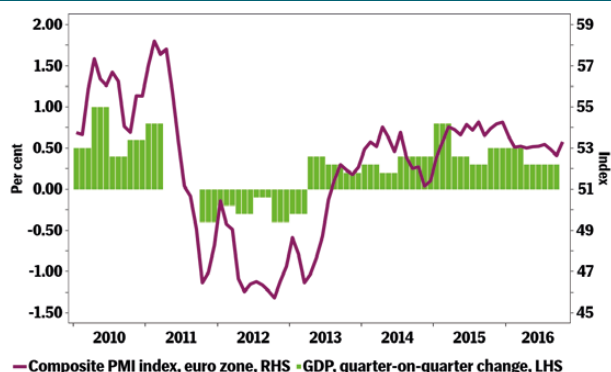
slowly. Together with the strong housing market, there is reason for concern about financial market bubbles. Recent political signals suggest that the focus of policy is moving from growth support to curbing asset bubbles. In the long term this is positive, but it will hardly promote short-term growth. Given a planned reshuffle of the political elite late in 2017, however, the government is likely to use fiscal policy to support economic growth, which we expect to continue decelerating at a controlled pace.

## Emerging markets (ex China) – Stable commodities, but Trump a concern

Donald Trump's election victory is boosting uncertainty about EM economies. The better US growth outlook will be offset by risks of trade barriers and a stronger dollar. India remains one of the fastest-growing countries; we expect GDP to accelerate gradually from 7.6 per cent in 2016 to 7.8 per cent in 2017 and 8.0 per cent in 2018. The national goods and services tax (GST) is an important reform measure. The tax may be ready for implementation on April 1, 2017 as planned, but due to obstacles in key reform areas like the labour market and land purchase laws, it will be difficult for India to reach its 8-10 per cent GDP growth target.

Commodity-dependent EM countries will benefit from more stable oil prices, which are higher than in the first quarter. Other commodities, especially industrial metals, have also seen a positive price trend, which will help sustain growth in countries such as Indonesia and various Latin American nations. Brazil has passed its worst GDP downturn. The turnaround is being driven by net exports and capital spending. Aside from structural problems, the budget deficit of 10 percent of GDP is the biggest near-term challenge. In Russia, the picture is similar. Because of rising commodity prices and improvements in the manufacturing sector, the worst of the recession is now past. Private consumption remains squeezed, while structural problems persist.

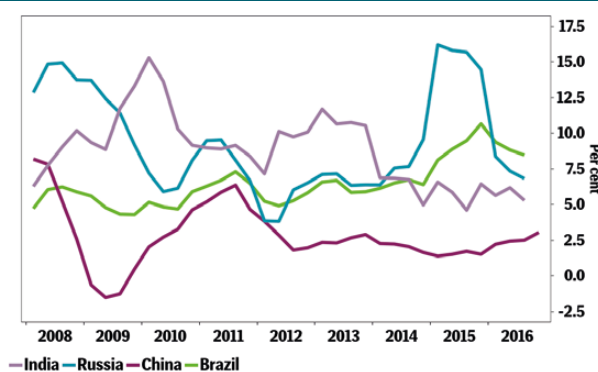
### EUROPEAN PURCHASING MANAGERS OPTIMISTIC



Source: Markit, Eurostat

Euro zone companies are signalling stable business conditions and a relatively optimistic view of the future. One underlying source of strength is an improvement in the manufacturing sector, which will mean broader-based economic growth.

### BRIGHTER INFLATION PICTURE IN THE BRIC COUNTRIES



Source: Macrobond

In China and India, inflation is at or below target (3 and 5 per cent, respectively). Brazil and Russia have struggled with high inflation that lowers growth via weaker consumption. In both countries inflation is falling sharply – a trend that will continue in 2017-2018, rekindling hopes of better domestic demand.

## Nordics (ex Sweden) – headwinds subsiding

In all Nordic countries excluding Sweden, we foresee room for accelerating economic expansion in 2017-2018, although growth figures will not be spectacular. The Danish economy will show the largest upturn. Rising employment and low inflation will result in relatively strong private consumption. A revision of the national accounts is also pointing to a stronger recovery than previously observed.

In Norway, we saw a clear economic rebound early in 2016. A stabilisation in energy prices helped the offshore oil and gas sector, which dominates the economy, while vigorous monetary and fiscal stimulus measures limited negative effects on other sectors. Despite this stimulus, the mainland economy (excluding oil and gas) has grown slowly but has been hampered by weather effects. We expect mainland growth to take off next year, driven by both consumption and capital spending, but due to continued contraction in oil sector-related investments, overall growth will rise only marginally in 2017.

Finnish economic growth is slowly improving from low levels. Stable household demand is accompanied by an improvement in manufacturing, but growth is being slowed by continued fiscal austerity, while low resource utilisation is holding back capital spending.

## Sweden – Rapid growth for another while

Despite disappointing first half 2016 growth, we are sticking to our forecast that the Swedish economy will grow at well above its long-term trend in 2017 as well. It will continue to be driven by domestic demand, with public sector consumption and housing investments making especially large contributions. Household consumption will slow somewhat, partly offset by more expansionary public sector investments and stronger exports due to the weak krona. Manufacturing sector indicators have improved this

autumn, and PMIs (purchasing managers' indices) show an upturn in optimism. A weaker krona, combined with higher electricity prices, will push up inflation to nearly 2 per cent in early 2017. Once these temporary effects fade, inflation will fall a bit. We expect continued low interest rates and central bank stimulus in 2017-2018.

## Conclusions from our macro analysis that we take into account in our asset management

- Demographic headwinds, low productivity growth plus large debts and imbalances will continue to slow global economic growth.
- Stimulative monetary policies are still helping to sustain growth but are not helping it to accelerate.
- After a weak first half of 2016, indicators are pointing to slight acceleration, which will help sustain corporate earnings.
- Continued good global demand by consumers.
- Emerging market economies are stabilising, largely thanks to modest upturns in commodity prices.
- The Chinese economy is also stabilising, with monetary policy being replaced by fiscal stimulus to ensure a controlled deceleration in growth.
- The election of Donald Trump and a Republican-dominated US Congress has raised market hopes of fiscal stimulus – driving growth, inflation, interest rates and bond yields higher.
- Stronger expectations of more fiscal stimulus and reflationary policies may redraw the map in terms of market conditions.
- The Fed will hike its key rate in December and twice yearly in 2017-2018. A strong dollar is likely.
- Political turbulence due to elections and the Brexit process may lead to volatile market performance in Europe.

GDP – YEAR-ON-YEAR PERCENTAGE CHANGE	2015	2016 (F)	2017 (F)	2018 (F)
United States	2.6	1.6	2.3	2.2
Japan	0.6	0.5	0.5	0.5
Germany	1.7	1.8	1.5	1.6
China	6.9	6.7	6.4	6.0
United Kingdom	2.2	2.1	1.4	1.7
Euro zone	2.0	1.8	1.6	1.6
Nordic countries	2.3	2.1	2.0	2.0
Sweden	4.1	3.7	2.8	2.3
Baltic countries	2.0	1.8	2.7	3.0
OECD	2.3	1.7	2.0	2.0
Emerging markets	3.9	4.2	4.7	4.8
The world (PPP)	3.1	3.1	3.5	3.6

Source: SEB Research & Strategy, *Nordic Outlook*, dated November 2016

\* PPP= Purchasing power parities; economies have been weighted to account for price differences.





# Theme – the US election

With Trump at the helm, more fiscal stimulus likely

*The unexpected US presidential election outcome raises many questions and creates unusually great uncertainty about future economic policies. The latest issue of SEB's quarterly report Nordic Outlook analyses these issues in depth. The following is a summary of what we believe to be the most important market-moving factors over the next few years.*

After the UK's Brexit referendum and Donald Trump's victory in the US presidential election, political conditions in the Western world have changed dramatically. In areas like global trade and security policy, there is great uncertainty. Completely new scenarios have suddenly opened up which may eventually have major negative economic effects. In Western Europe, we are facing several key elections of various kinds over the next year as voters in Austria and Italy, then in the Netherlands, France and Germany cast their ballots. If the winds from major English-speaking countries also blow across the Continent, the political map of the entire European Union may be redrawn.

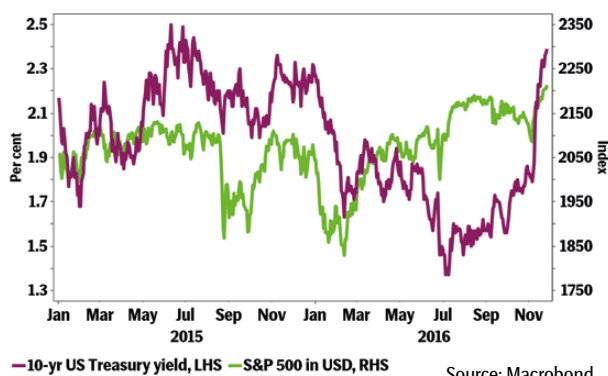
Yet financial market reactions after the Brexit vote, and so far since Trump's victory, have underscored that it may be tricky to draw quick, far-reaching negative economic conclusions from the election results. Because of Trump's recent shifts towards less disruptive positions on various issues, we know little about how his policies will actually be shaped. However, it appears increasingly likely that many of his more outrageous campaign messages will be toned down significantly, because of the built-in inertia of the political process in general and opposition to some of his proposals within his own Republican Party in particular. There is also a tendency among economists to overestimate the economic effects of political decisions, as revealed by the rhetoric surrounding the Brexit process (so far!)

Yet in a somewhat narrower economic policy perspective, we can be a little more optimistic about what changes may occur. With Republican majorities in both the Senate and House of Representatives, most indications are that US fiscal policy will move in a more expansionary direction. Important elements of such a policy are infrastructure investments and tax cuts for both businesses and households. The proposals that Trump presented in his election campaign total roughly 2-2½ per cent of GDP yearly, but they will probably be trimmed down by Congress, especially in light of the traditional Republican aversion to increased public debt. We expect the actual positive effect on GDP to be in the range of 0.5-1.0 per cent annually – thus serving as a significant contributor to growth but not a game-changer. Also offsetting the expansionary effect of these policies will be greater uncertainty in many areas, which may hamper economic activity. Nor can we rule out the possibility that rising federal budget deficits and national debt may push long-term bond yields higher. However, Trump's victory has contributed to a slight upward adjustment in our forecast of American GDP growth. We also see potential for somewhat higher interest rates and bond yields than would have been the case with different economic policies.

More expansionary fiscal policies are precisely what many economists (and central banks) have been calling for, now that monetary policy is having an ever-smaller impact and is incapable of lifting economic growth. We are also expecting fiscal stimulus measures in China, but mainly as compensation for a less stimulative monetary policy. In Europe there is of course a need for more stimulus measures, but putting it simply, the countries that need them most cannot afford them (due to large government debts) while those that can afford them (like Germany) neither need them nor regard them as politically appropriate.

It is possible that Trump's expansionary policies may have a larger positive impact than expected and that they may be emulated in other countries, which would benefit economic growth. But there will be lingering uncertainty about what policies will actually be implemented and their effects on other market-moving factors, at least for some months into next year.

## BIGGEST POST-ELECTION IMPACT WAS ON YIELDS



The conventional "truth" that falling bond yields = rising share prices and vice versa has not always proved correct in recent years. Trump's signals about fiscal stimulus measures point unambiguously towards bond yield upturns, which the market has discounted. For the stock market, the picture will be more mixed, especially due to the yield upturn as such. So far, however, positive effects have prevailed – in the form of slightly rising share prices.



# Global equities

## Earnings forecasts a positive signal

*After upswings during the summer, the global stock market took a wait-and-see approach ahead of the US presidential election. Macroeconomic statistics and corporate reports have shown stabilisation and are leaning in a positive direction. We see signs of better corporate earnings in most regions. Sectors that were previously depressed, such as oil and banking, are expected to contribute to growth. The general recovery in earnings is widening, which is positive. Nonetheless, we have taken a cautious position on equities due to political uncertainty, but we are prepared to increase risk if the political situation and/or economy improves.*

- Global equities are trading at a price/earnings ratio (P/E) of 16 (based on 12-month forecasts). After a difficult first half of 2016, earnings will turn upward.
- Earnings estimates are being revised upward in Europe for depressed banking shares and cyclicals. We continue to overweight European equities in our portfolios, since valuations are attractive.
- Due to strong performances for emerging market (EM) equities this year, valuations have become somewhat high. Donald Trump's policies pose short-term risks to EM countries. If he carries out his campaign promises, it will mean greater fiscal stimulus, a stronger USD and higher interest rates and yields. Historically, this implies weak performance for EM equities.
- Trump's victory may have changed stock market conditions, with clear sector rotations since the Republican election victory.

**GLOBAL EQUITIES ARE TRADING** at a price/earnings ratio of 16 (based on 12-month forecasts). The US market is slightly higher, with a P/E of 18.5, while the P/E for European companies is just below 16 and the Japanese stock market has a P/E of 15. US equities historically have higher valuations since the market has a different sectoral structure and profitability is higher. In general, the valuation gap between different regions has narrowed. Emerging markets have turned in the best stock market performance by far this year thanks to higher commodity prices. Earnings forecasts have been unchanged this year, so these markets have become more expensive. EM equities are now trading at a P/E of just below 13, the highest for six years.

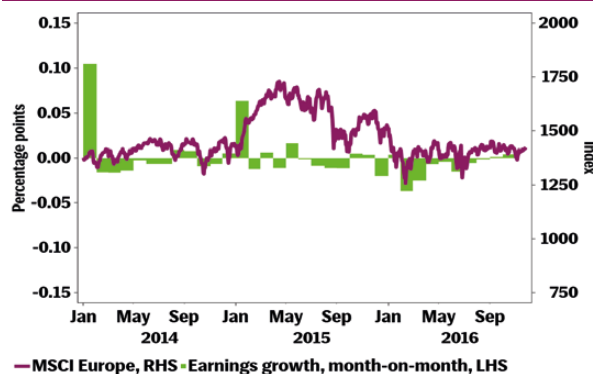
Global corporate earnings are expected to show zero growth in 2016. The consensus forecast for next year is 10 per cent growth. We believe global GDP will rise by more than 3 per cent next year, consistent with earnings growth of a couple of percentage points. Falling oil prices and record-low interest rates depressed profits for oil companies and banks earlier this year. Now interest rates, yields and oil prices have turned upward, which means earnings in these sectors will improve. Other commodity prices, such as for base metals, have also turned upward – boosted by Chinese demand and stable Western economies. This has had positive effects on cyclical companies, whose earnings appear to have bottomed out and are rebounding. In other

words, contribution from previously depressed sectors, supporting our forecast of decent earnings growth.

### Positive signals in Europe after report period

European companies have suffered an earnings drought for nearly six years. Constant hopes of higher earnings have been met by disappointments and downward revisions in earnings forecasts. The reasons are weak economic growth and a banking system whose excesses have not been cleaned up since the financial crisis and subsequent euro crisis. In contrast to Europe, the US moved quickly and re-capitalised its banks after the financial crisis, which enabled the central bank to quickly channel liquidity through the banking system and spur credit growth. Europe chose a less radical path; as a result, the banking system is still dealing with confidence issues. Bank lending to the corporate sector only started growing this year, which should be seen as positive. At the start of the year, aggregate earnings were revised sharply downward, but since August earnings have levelled out, which we interpret as positive. Next year, analysts forecast overall earnings growth of 13 per cent for European companies (we take this figure with a pinch of salt but agree on the direction). Half of the earnings growth is expected to come from the financial and commodities sectors. However, the earnings base in these sectors is low due to earlier oil price declines and negative interest rates. Another positive sign from European corporate reports is

### POSITIVE SIGNALS IN EUROPE



— MSCI Europe, RHS - Earnings growth, month-on-month, LHS

Source: Bloomberg, Macrobond

European companies have had a rough time. Analysts have lowered their earnings forecasts month after month, with indications in the first quarter of 2016 that the bottom has been reached. In August, total estimates were revised upward for the first time in 15 months. The maroon line in the chart shows the MSCI Europe stock market index, which follows earnings forecasts well and thus should move upward if earnings are revised upwards.

that cyclical companies account for more positive surprises than traditional defensive ones. We may therefore enjoy broad support for an earnings recovery, something we have longed for in recent years but which has never become a reality. After the US election, hopes of aggressive fiscal policy have been buoyed. This has led to a rise in interest rates, yields and commodity prices. Cyclical sectors have pulled away from classic defensive sectors, and the technology sector has taken a beating. This sector rotation benefits Europe, which has a larger component of banks and industrials than the US. The playing field looks promising for earnings growth and thus a better European stock market.

### Higher risk in emerging markets

After the strong performance of EM stock exchanges this year, we are taking a wait-and-see approach at present. A US interest rate hike is likely in December, which could further strengthen the US dollar and thus have a negative effect on developing countries. There is also a risk that commodity prices will turn downward after substantial rises, especially since they are priced in an ever stronger USD. This could affect EM commodity exporters. Although commodity companies represent a shrinking component of EM indices, many of these economies are highly dependent on commodity prices, since everything from manufacturing subcontractors to banks and government budgets depends on the price trend. Trump has promised to raise trade barriers, which is also a negative factor. However, if the negative view towards free trade expressed during the US election campaign does not lead to actions and if greater fiscal stimulus measures are introduced, EM equities could well be the best to invest in, in which case the recent decline may be seen as a buying opportunity.

### Consequences of Trump's policy proposals

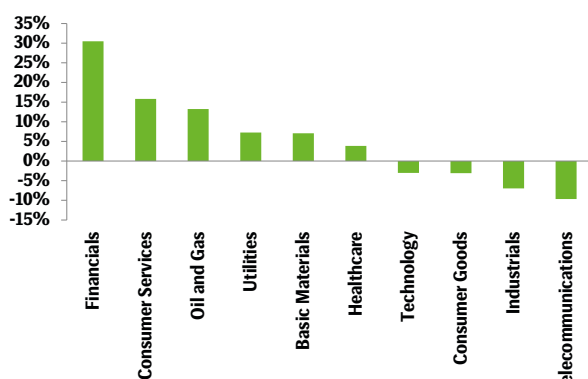
The US election outcome came as a surprise, clearly visible in market movements. Geographically, the big winner is the US stock market, whereas EM countries are the big losers. In the EM sphere, Latin America has fallen the most. As for currencies, the USD is the winner and the Mexican peso is the loser. Small US companies have

gained the most since they have greater domestic exposure and a large component of biotech stocks. The biotech sector was a loser earlier this year since there was great fear of price regulations following an expected Democratic (Hillary Clinton) victory. In response, the NASDAQ Biotechnology Index rose 9 per cent on the first trading day after the election. Infrastructure-related sectors such as construction, manufacturing and commodities have also turned in strong performances. The financial sector, led by banks, is a winner since Trump has promised less regulation in this sector. Interest rates have also risen, which is positive for profitability. The losing sectors are defensive and interest-rate-sensitive sectors such as real estate, consumer staples and public utilities. Shares of technology and Internet-related companies have been sold since Trump has used harsh rhetoric against giants such as Apple and Amazon. A large percentage of technology sector revenue comes from abroad, so trade barriers would have a negative effect, which may explain some of this decline. The sector has been beloved and over-owned, whereas under-owned sectors such as banking and manufacturing may now have better potential.

### Stabilisation in sight

The expected stock market decline following the election outcome failed to materialise. On the contrary, the market chose to believe in Trump's promised expansionary policies, and share prices rallied. Acceleration in the world's largest economy would be good news for corporate earnings growth globally, and thus bolster share prices. We greatly respect the fact that valuations have taken off, but are prepared to increase portfolio risk if we see signs that economic growth is speeding up. For Swedish investors, the US stock market has become rather expensive, since both share prices and the dollar have risen sharply. We are therefore more positive about Europe and Japan, which are cheaper and have better potential for increased earnings thanks to cheaper currencies, which are positive for the export sector, and rising interest rates, which are positive for the banking sector. In the long term, it is also difficult to ignore small-cap American companies, whose business climate benefits from expansionary Republican policies.

### CYCLICALS AND PHARMACEUTICALS ARE SURPRISE WINNERS



Source: Macrobond

Signs of improved earnings can be seen among cyclical companies, whereas companies in consumer staples and durables appear to have lost momentum. Cyclical sectors have pulled away from defensive sectors in terms of their pace of earnings growth over the past couple of months. Analysts expect that more than half of earnings growth among European companies in 2017 will come from higher earnings in the financial, energy and commodities sectors.

COUNTRY/ REGION	P/E RATIO (F)	EARNINGS GROWTH YTD IN %, LOCAL CURRENCY	EARNINGS GROWTH YTD IN %, SEK
Globally	16.0	5.2	14.8
United States	18.5	8.0	18.4
Europe	15.8	-4.0	2.5
Japan	15.0	-6.7	11.7
Emerging markets	12.8	8.5	19.0

Source: Bloomberg

The weak Swedish krona has benefited Swedish investors. A significant proportion of returns for Swedish investors comes from the krona's depreciation. The strongest market since the American presidential election is the US, where share prices and the currency have surged.

Text sources: JP Morgan/IBES/MSCI, Bloomberg, UBS European Equity Strategy, BCA Research



# Nordic equities

## Trump redraws the playing field

*After several years of only marginal changes in international conditions, the election of Donald Trump as the next president of the United States has the potential to significantly change the rules of the game for companies and shares on the Nordic stock exchanges. Political risk is undoubtedly elevated, which is rarely good for risk appetite. Meanwhile the potential for a positive change of direction after five years of feeble industrial activity is better than for many years, which is favourable for earnings growth. Offsetting this is a risk that stimulative monetary policy and low interest rates may already have passed their best-by date, although they will continue to provide support to stock markets for another while. Looking ahead, rising corporate profits and economic growth will probably mean less stock market support by central banks.*

- Potentially major changes for investors and companies lie ahead, with continued great uncertainty about the effects of President Trump's policies.
- Interest-rate sensitive shares and environmental technology are on the losers' list; pharmaceuticals, commodities and construction-related shares are among the winners.
- Favourable third quarter reports are already history.
- Liquidity support is in place, but for how long?

**THE AMERICAN PEOPLE'S CHOICE** of Donald Trump as their new president will potentially lead to a dramatic change in stock market conditions, not only in the US but also in the Nordic countries and the rest of the world. A number of important factors may have changed. A few years from now, November 2016 may be regarded as the start of a new chapter in financial market history, after several years characterised by extraordinary monetary stimulus. Enormous fiscal stimulus measures may now be launched in the world's largest economy, in a phase when the labour market has already achieved more or less full employment and the central bank has already embarked on a period of tighter monetary policy (though from an exceptionally stimulative level).

The impact on the stock market may be enormous. After several years of steadily falling interest rates and bond yields we are now seeing a sizeable upswing, driven by higher inflation expectations and real interest rates. For real estate companies and cyclically stable sectors with reliable and steady cash flow generation, the best period may already have passed. Meanwhile a number of heavy industries are seeing the dawn of new opportunities.

We are seeing reactions to this in the stock market, both in the Nordic countries and the US, where steel, mining and building materials can be found on the winners' lists. The US index of steel industry shares surged more than 14 per cent in three days after the election. In the Nordic countries, too, steel and mining have topped stock market charts since

election night. Meanwhile US building material manufacturers have gained 13 per cent. In the Nordic countries, all major suppliers of construction equipment such as Atlas Copco (based in Sweden), FLSmidth & Co (Denmark) and Metso (Finland) are found on winners' lists. Banks, life insurance companies and other financial institutions that depend on interest-related earnings, and that have suffered badly from recent negative market interest rates, stand out as stock market winners – especially in the US, where the bank share index gained 11 per cent in three days. US banks are also benefiting from decreased concerns about further regulation by the authorities, which might have been in the cards under a Democratic president. The direct impact on Nordic banks is not as obvious, but Nordic banks shares also found support from expected political changes (via interest rate, bond yield and inflation expectations), and the sector has gained about 2 percent since the US election.

At the other end of the spectrum, we are seeing how sectors that had benefited from low interest rates or whose shares have been especially appreciated for their stable earnings are now being rejected by investors. Tobacco shares are down 7-8 per cent in value both in the US and Sweden (Swedish Match) – in a generally rising stock market – making them one of the biggest losers since election night. For three years, Swedish Match had outperformed the stock market index in Sweden by more than 40 per cent, but since November 9 this gap has narrowed to 25 per cent.

Improved conditions for many cyclical sectors are reflected in higher commodity prices. Virtually all base metal shares have reacted positively to Trump's victory, since it raises hopes of large-scale metal-intensive infrastructure projects. Even before the election results were in, however, we had seen significant price increases for a number of key commodities, with an accelerating upswing in recent months – for example steel, coal and electricity. The sharp sector rotation from stable, defensive sectors to companies that benefit from higher commodity and energy prices which had been under way in the Nordic countries gained further momentum after the November 8 election in the US.



### Regulatory changes and new priorities?

Expectations of heavier demand from infrastructure projects and higher interest rates, bond yields and inflation are not alone in creating capital rotation in financial markets. With Donald Trump as president, regulations covering a range of industries are also predicted to be very different from what had been discounted in this autumn's share prices when Hillary Clinton was regarded as an almost certain winner.

Trump's embrace of fossil energy sources such as coal and natural gas, combined with his dismissal of the greenhouse effect as a myth, is causing great concern about the future environment for renewable energy in the US, and shares in this sector have been hit hard. This includes companies that have their head offices in the Nordic countries but generate large revenues in the US. The Danish-based wind power company Vestas has about 40 percent of its sales there.

The Republicans' general aversion to micromanagement by the authorities and their greater confidence in free market solutions are expected to result in substantially gentler treatment of the pharmaceutical industry than investors expected from Clinton. Pharmaceuticals and biotechnology thus stand out as among the few non-cyclical sectors on post-election winners' lists. In the US, the pharmaceuticals index rose nearly 5 per cent in the first three trading days after the election. Banks were also previously regarded as living under the threat of tougher regulation and have thus experienced a minor stock market relief rally. Of course globally active pharmaceutical companies listed in the Nordic countries also benefited. Shares of Novo Nordisk, Lundbeck and Genmab (all Danish-based) and Astra Zeneca (British-Swedish) have performed well.

### Defence industry another post-election winner

US defence shares initially surged by 7 per cent and two listed Nordic defence materiel manufacturers, Saab (Sweden) and Kongsberg Gruppen (Norway), also benefited from the election outcome. Meanwhile, Trump has declared that he will make substantially greater demands on other NATO members in order for them to count on US support. Only

countries that devote at least 2 per cent of GDP to defence spending deserve NATO protection. An already favourable environment for the European defence industry thus has potential to become even better in the future. Today only three European countries meet Trump's 2 per cent requirement; Nordic NATO members Denmark and Norway would have to boost their defence spending dramatically; Denmark would need to nearly double them.

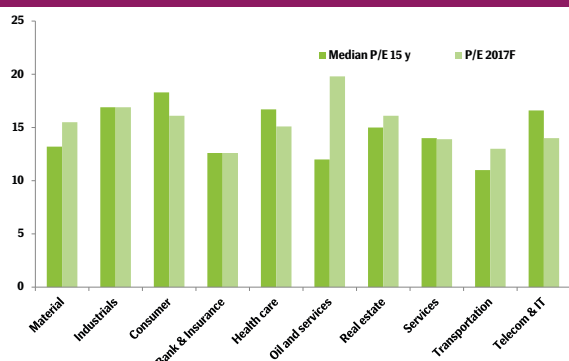
Last, but not least, we have seen concerns about possible new trade barriers or other international conflicts in some of the economic sectors with the largest international flows of goods. Above all, shares of consumer goods and shipping companies have been hurt, but US-based technology companies and automotive industry suppliers have also been affected. Before the elections, many people believed that Trump's threat of tariffs and quotas for other countries in general – and Mexico and China in particular – risked leading to a global trade war. There are hopes of a more pragmatic policy, but some of the sectors that outsource the most production to low-cost countries and/or are the most dependent on good relations between the US and other countries have been hit by an increased risk premium.

### Greater uncertainty is rarely good for equities

The US presidential election outcome greatly surprised financial analysts. Donald Trump was anything but a conventional presidential candidate. What policies he will actually push through is, and will remain, shrouded in considerable uncertainty for some time. The initial interpretation by financial markets was positive, at least for US and European companies. The Nordic equity index rose by one per cent the first day and has continued trending upward. Worries about international economic conflicts are apparent, however, in the performance of most emerging market (EM) currencies, especially the Mexican peso – which has weakened significantly since election night. The Swedish krona has also lost more ground against the dollar.

For the moment, Trump's promises of more stimulative fiscal policies and the Republicans' belief in free market forces are

### BIG VALUATION DIFFERENCES BETWEEN SECTORS



The chart shows the adjusted P/E ratio by sector in the Nordic countries based on our 2017 earnings forecasts, compared to median P/E for the past 15 years. The health care sector is valued at a smaller discount to the market average in the Nordic region and 10 per cent below its historical median. The consumer sector has suffered due to concerns about the negative implications of Trump's trade policies, but commodities/materials are 17 per cent above their historical median and marginally above the market average. The oil sector boasts a 65 per cent premium compared to the historical average and has the highest multiples of all sectors, based on our 2017 forecasts.

### PERSISTENTLY HIGHER ELECTRICITY PRICES



The chart shows the forward price of electricity on the Nordpool power exchange for each subsequent calendar year (the latest quote refers to 2017). After several years of falling prices, there was a turnaround early in 2016. More recently, the price increase has accelerated sharply.

predominant as the investor community tries to discount the new US political map in the stock and bond markets. Since Nordic stock markets are bursting with globally active companies and the domestic market of most major companies is insignificant, they are especially dependent on international free trade.

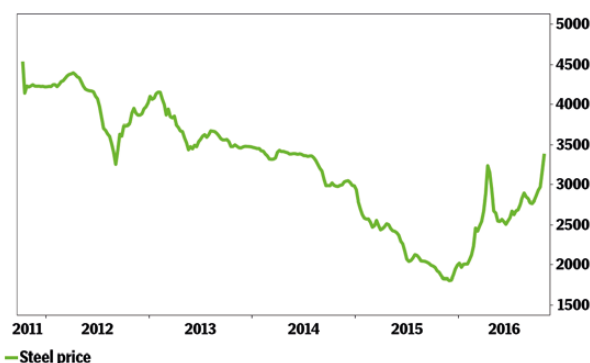
Financial market reactions are not uniform, however. Worries about possible conflicts and reduced free trade are thus apparent from both EM currency exchange rates and the share prices of sectors that are especially dependent on trade. The risk of international trade conflicts has increased, and such conflicts would not be good for the Nordic stock market. Many manufacturers and commodity producers that have been stock exchange winners so far since the election – based on hopes related to the positive aspects of Trump's policies – are also dependent on good trade relations. All else being equal, heightened worries about trade wars would adversely affect their shares.

It is reasonable for the market to fluctuate between hope and despair for a number of months, depending on different scenarios for Trump's economic policies. Donald Trump will be sworn in as president on January 20. At least until then, there is likely to be great uncertainty about what policies will be put in place.

#### Liquidity support, but how much longer?

Studies show that liquidity among institutional investors remained very good ahead of the US presidential election, which has probably helped reinforce positive interpretations of the outcome. In recent years, investors have become accustomed to the effect of any unpleasant surprises being mitigated by good liquidity and ultra-loose monetary policy. This situation will probably persist for another while. In both Europe (which includes the Nordic countries) and Japan, central banks are continuing their quantitative easing: printing new money mainly for the purchase of bonds. But a significant change in long-term inflation expectations would eventually bring an end to this unconventional monetary policy, and the support it has provided to share prices in recent years may then start to be reversed. We are not there yet, but this is a potentially significant negative aspect of the way Trump's policies may impact stock exchanges in 2017 – if his stimulus measures are successful.

#### STEEL PRICES SOAR ON SHANGHAI COMMODITY EXCHANGE



Source: Bloomberg  
The chart shows the spot price of hot-rolled steel plate in China. After several years of falling prices, there was a turnaround early in 2016. More recently, the price increase has accelerated sharply.

#### Favourable reports are already history

The third quarter reports of Nordic listed companies included far more positive than negative surprises, but Swedish telecom giant Ericsson's disastrous results pulled down the aggregated figures. On an aggregate basis, revisions of earnings forecasts for 2017 have been small, both in the Nordic region as a whole and in Sweden.

For companies listed on the OMX Stockholm exchange, we now expect earnings to decline by just under 1 per cent in 2016, but we foresee earnings growth of 10 per cent in 2017. In the Nordic region as a whole, we now expect earnings (in euros) to decline by nearly 5 per cent in 2016 but predict earnings growth of over 12 per cent in 2017. We expect the largest earnings increases in Norway, at 30 per cent, driven by an expected upturn in oil prices to an average of USD 55 per barrel. In Finland, we predict a 14 per cent earnings increase, driven by major improvements in the performance of several of the country's largest telecom, energy and manufacturing companies.

Because of the surprising US presidential election outcome, however, these earnings figures already seem like history. Investors have already shifted their focus to other factors besides the recently concluded report period.

#### Discounting a better future for cyclicals

The stock market as a whole is neither remarkably cheap nor expensive, based on our 2017 earnings forecasts, but these forecasts assume a clear improvement in earnings growth compared to the past 5-6 years. If we look at the market by sectors, several distinct patterns are visible. Cyclical sectors such as materials, oil and oil services and transport have higher valuations (based on our 2017 forecast) than the median for the past 15 years. Meanwhile health care and consumer companies are valued at lower multiples than the historical median. This situation reflects market expectations of better global industrial activity, not only in 2017 but also beyond, while there are fears that Nordic pharmaceutical companies will have poorer growth prospects than historically. The lower multiple for consumer companies is explained by a mixture of a marked slowdown in economic growth during the past two years and a change in the structure of the consumer goods sector. The Norwegian salmon farming sector and the Danish-based jewellery company Pandora, which have lower valuations, have increased their weight in the index.

We also note that earnings multiples have converged, since sectors that have historically had among the lowest stock market valuations (materials, oil and transport) are now trading at higher multiples, while sectors that have historically traded at relatively high multiples (health care, IT/telecoms and consumer goods) are now valued at lower multiples. Today it is difficult to argue strongly against the relative valuations we are seeing on a sectoral basis, given the fresh new energy being generated by hopes of better times for sectors such as commodities, due to Trump's expected fiscal stimulus policy.

# % Fixed income

## Continued low key interest rates ahead

*In the quest to spur inflation around the world, we have experienced ultra-loose monetary policy for a long period, but given today's low key interest rates the usefulness of further rate cuts is increasingly questionable. Even if central banks do not implement further rate cuts, we are still a long way from the first rate hike both in Sweden and elsewhere in Europe. In the United States, interest rates and yields are rising in anticipation of more active fiscal policy aimed at stimulating growth and raising inflation, so-called "Trumpflation".*

- Sweden's Riksbank has postponed its first rate hike and is prepared to extend its bond purchases.
- The European Central Bank (ECB) is expected to extend its quantitative easing (QE) programme.
- The US Federal Reserve (Fed) is aiming for a December rate hike.

### Government bonds (ex emerging markets)

As expected, Sweden's Riksbank kept its repo rate at -0.50 per cent at its latest policy meeting in October and did not make any changes in its bond purchase programme. The central bank lowered its rate path and postponed its first rate hike by six months until the second quarter of 2018. It also noted that it is prepared to extend its government bond purchases at the December 21 meeting and that such a decision would depend, among other factors, on the actions of other central banks and the inflation trend in the near term. Because of increased uncertainty after the US election, in the short term the Riksbank's monetary policy will be more dependent on what the ECB does. If we are correct in our view that the ECB will decide in December to extend its bond purchases, the Riksbank will most likely follow suit and continue to buy bonds for another six months. Our forecast is that the Riksbank will implement its first rate hike in December 2017 and that there will be two further hikes in 2018.

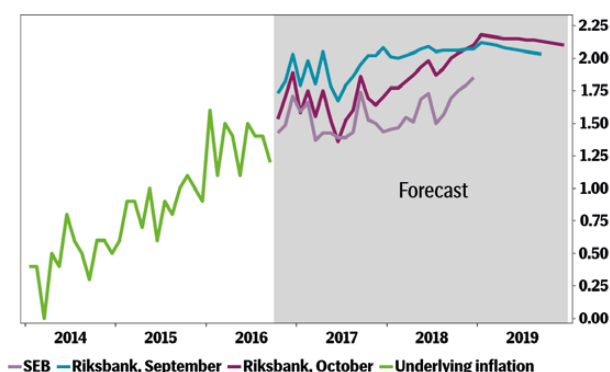
As for the **European Union**, there has been speculation that the ECB will taper its monthly bond purchases. However, we believe such talk is premature. The ECB stated firmly at its October policy meeting that there would be no sudden end to its bond buying and also dismissed rumours of discussions about a gradual phase-out. According to previous announcements, the ECB's current bond purchases will continue until late March 2017 or as long as necessary for inflation to be considered on a sustained path to the bank's 2 per cent target. We are keeping to our forecast that the ECB will extend its QE programme in December and continue its 80 billion euro monthly bond purchases for at least six more months – that is, beyond the previously announced end date of March 2017. The ECB says it has noted rising inflation expectations in the US, but at the same time argues that the Fed has progressed much further in its cycle and that the ECB must be certain that its inflation target can be achieved for a sustained period.

As expected, the **US** Federal Reserve kept its key interest rate unchanged in November. When the Fed hinted in September that it might raise the key rate before year-end, it lowered the number of expected rate hikes in 2017 from three to two, which is also SEB's main scenario. The Fed's ambition to raise the key rate in December has received further support from improved economic data, such as higher third quarter GDP growth than expected and a gradual rise in purchasing managers' indices (PMIs).

Long-term yields are now at far higher levels than before the US election, and the probability of a December interest rate hike is now more than 90 per cent. One important difference between reactions after the US presidential election and after the UK's Brexit vote is that increased risk appetite does not seem to depend on new stimulative measures by central banks. Instead, more active fiscal policies combined with higher inflation will enable central banks to slow the pace of their stimulative measures. Further ahead, more expansionary fiscal policies may lead to the Fed having to tighten its monetary policy faster than we have anticipated.

There are a number of explanations for the rise in interest rates and yields that we have seen since the US election outcome became known. Donald Trump has promised to lower taxes for both companies and individuals and to

### INFLATION NOT BACK ON TARGET UNTIL 2018



Source: Riksbank, SEB

Our inflation expectations for next year are in line with those of Sweden's Riksbank, although we believe the central bank is too optimistic about inflation in the longer term, when the effects of energy prices and krona exchange rates will disappear from year-on-year figures. It is worth noting that the Riksbank made a substantial downward revision in its inflation forecast for both 2017 and 2018 at its most recent policy meeting.

invest in infrastructure, which will be financed by borrowings. As a result, the supply of government securities would grow, while demand would be stimulated and inflation should increase. Trump has also been critical of Federal Reserve Chair Janet Yellen and the central bank's aggressive monetary stimulus. Yellen's term of office ends in February 2018, and it is highly likely that Trump will then appoint a chairperson with a less expansionary monetary policy agenda.

The Bank of Japan (BoJ)'s latest monetary policy, known as yield curve control, is aimed at stabilising ten-year government bond yields at around zero, and this tool seems to be working. Ten-year yields are still below zero despite higher long-term yields globally after the US election. In Japan's case, we expect the inflation target of 2 per cent to be reached in 2018 at the earliest.

## Emerging market (EM) debt

Due to growth stabilisation in China and lower deficits in problem countries such as Russia and Brazil, prospects for emerging market economies have brightened, while differences between various countries have evened out somewhat. Commodity countries see light on the horizon thanks to the stabilisation of oil and other commodity prices, while gradually stronger private consumption is driving growth in Asia as a result of countries gradually shifting from export- and investment-driven growth to consumer- and service-driven growth. EM economies are now being challenged by protectionist signals from the US, a stronger dollar and higher interest rates and yields around the world.

## Corporate bonds –

### Investment grade (IG) and high yield (HY)

Historically low yields are a challenge for most fixed income investments. This is especially problematic for government bonds, which in many cases have negative underlying interest rates and an almost non-existent credit risk contribution. In this environment, investors requiring a certain level of returns are forced to move further out on the risk scale, which means capital is being moved from government to corporate bonds. The credit risk on corporate bonds has fallen somewhat; in the US, support has come from stronger economic signals and rising oil prices (the energy sector accounts for about 15-20 per cent of the total US high yield bond market), while the European credit market continues to enjoy support from the ECB's bond purchasing programme, which includes corporate bonds. However, the effects of the ECB's purchases are not limited to investment grade corporate bonds (IG); they have also spread to high yield (HY), where sustained returns require a higher risk level. This spill-over effect is a stabilising factor for European HY compared to US HY bonds. Nor does the European HY segment have as large an exposure to the energy sector, which – depending on commodity price trends – may constitute a risk.

The credit risk in the investment grade segment has stabilised as a result of stronger economic data both in the US and Europe. However, sharp upward movements in government bond yields around the world recently have squeezed bond prices, given the interest rate risk for this type of credits. Since corporate credits are priced on the basis of government bond yields, this is positive in the long run, although any sustained increases in yields could have a negative effect.

ASSET TYPE	WEIGHT	TACTICAL EXPECTED YEARLY RETURN			RISK		
		SEK	EUR	USD	SEK	EUR	USD
Cash	1 2 3 4 5 6 7	-0.8 %	-0.7 %	0.7 %	0.2 %	0.2 %	0.2 %
Government bonds	1 2 3 4 5 6 7	-1.2 %	0.0 %	0.9 %	2.6 %	2.6 %	2.6 %
Investment grade (IG) corporate bonds	1 2 3 4 5 6 7	1.4 %	1.5 %	2.4 %	3.0 %	3.0 %	3.0 %
High yield (HY) corporate bonds	1 2 3 4 5 6 7	3.8 %	3.9 %	5.0 %	5.1 %	5.1 %	5.1 %
Emerging market debt*	1 2 3 4 5 6 7	5.5 %	5.5 %	5.5 %	12.6 %	12.6 %	12.6 %

"Weight" indicates how we currently view each asset type as part of a portfolio. Level 4 is a neutral stance. These weights change continuously depending on our tactical market outlook and may therefore differ from our long-term strategic outlook for the asset type.

\* Returns in local currencies.

Source: SEB





# Alternative investments

After a calm autumn, new conditions can be expected

*The autumn months turned out to be relatively calm for most hedge funds. Investors increasingly took a wait-and-see approach ahead of the US presidential election in November. Incoming economic data deviated marginally from expectations, and this combination of factors resulted in a rather trendless autumn with relatively low volatility levels. Together with the low interest rate environment, this meant that market conditions were far from optimal for hedge funds, although a number of hedge funds nonetheless managed to do a good job navigating this inhospitable terrain.*

- A wait-and-see approach dominated the markets.
- Return profiles varied among hedge funds.
- Changes in conditions are creating movements after Trump's victory.
- The rise in oil prices is slowing.

## Hedge funds – New US leadership is creating opportunities

Donald Trump's victory in the US presidential election came as a surprise. And while initial reactions in global financial markets were unexpectedly positive, this new leadership entails some degree of uncertainty. Sharp movements in a number of asset classes and clearer trends – combined with uncertainty about how much of today's expectations will be realised in the future – makes hedge funds attractive from two perspectives. First, movements in the equity and fixed income markets are producing long-awaited volatility, which – if handled correctly – is a source of returns. Second, uncertainty may cause investors to reduce their portfolio risk, which usually increases interest in investments that do not correlate with equities and credits.

### Equity long/short

Despite limited stock markets movements during the autumn, this strategy was able to deliver relatively good returns. In general, the equity long/short strategy benefits from stable, positive underlying stock markets with some degree of clarity in terms of the factors and sectors driving the market. From a stock market perspective, the initial response to Donald Trump's presidency has been positive, while his agenda has brought about significant rotations between sectors and markets. If that phenomenon persists for a while, it should be a good market for this strategy in the near term.

### Credit long/short

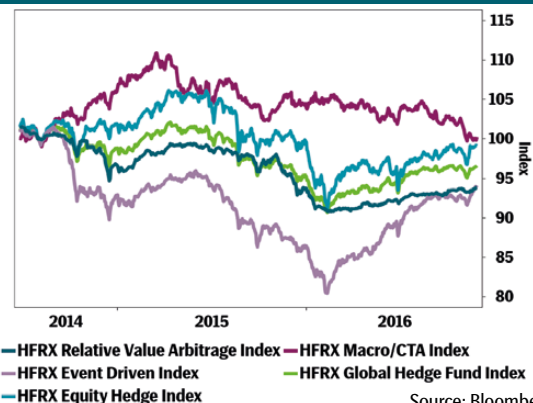
Apart from the credit market's difficulties early in 2016, this strategy has performed rather well. Rising oil prices have been a strong contributing factor in its recovery, and previously depressed companies in the energy sector have

seen the biggest gains. Promised tax cuts for US companies and continued monetary stimulus from the European Central Bank (ECB) are good fundamental signs for the credit market. However, this must be viewed in light of the rapid rise in long-term yields now starting to take effect, which may hit interest rate risk hard depending on an investor's position.

### Event-driven

The event-driven strategy has continued its strong performance in 2016, and once again all three sub-strategies – merger arbitrage, special situations and distressed credits – have turned in stable performances this autumn. The activity level in the corporate deals market remains high, and credits previously deemed to be associated with payment uncertainty continue to recover in line with the rise in commodity prices, while stock markets are showing strength. New conditions in the US, with more business-friendly economic policies, should further support the currently bright prospects.

### STRONG PERFORMANCE AFTER DIFFICULT START TO YEAR



Contrary to expectations, both the Brexit vote and the election of Donald Trump as US president have led to short-term positive trends for financial markets in general and also for hedge funds. Substantial market movements after the election, combined with some degree of uncertainty, may mean continued favourable conditions for hedge funds.

## Macro/CTA

For the trend-following CTA strategy, the autumn has been unusually difficult, driven mostly by long positions in bonds, which have made a negative contribution in line with rising long-term yields. In contrast, macro strategies with a fundamental focus on government bond yields and currencies have turned in a better performance. Sudden swings between sharp upturns and downturns are difficult for CTAs to handle, and there is increased risk if such a scenario materialises. As for macro funds, they have seen movements in both government bond yields and currencies, which could provide opportunities for good returns with the right positioning.

## Commodities – Oil output not yet balanced

At the September meeting in Algeria of the Organisation of the Petroleum Exporting Countries (OPEC), a number of major producers surprisingly agreed to consider reducing oil production. An OPEC committee will allocate production cuts among the members and report back at the oil cartel's next ministerial meeting on November 30. Any cut would be a change in OPEC's previous strategy of maintaining output in order to put pressure on US shale oil production. In our view, a cut would have a limited effect and would be aimed primarily at avoiding a new price collapse rather than spurring any significant price rise.

Many OPEC members want to see a production cut, but the challenge is that few want to be part of one. Saudi Arabia has continued to increase its production, since the country's budget situation requires this, while OPEC currently has an unplanned shortage of 2 million barrels a day. Despite the proposed production cut, it is difficult to foresee any sustained rise in oil prices, and achieving balance between production and consumption will apparently take longer than we previously thought.

### What factors make rapidly rising oil prices unlikely?

- Many countries are at maximum production and are in reality unwilling to cut output.
- Pushing up prices for a sustained period would give US shale oil producers an incentive to increase activity.
- There have been dramatic productivity gains in shale oil extraction. As a result, the break-even point for profitable production is falling. In 2015, oil prices needed to rise towards USD 60/barrel for the number of active drilling rigs to start rising; in 2016, that figure is USD 47/barrel. A higher price would lead to an increased number of active US rigs.
- With the embargo lifted, Iranian oil production has recovered much faster than previously forecast.
- Russia has set a new production record of about 11 million barrels a day but has indicated it would consider cutting output if OPEC goes first.
- Global stockpiles have started to fall but remain large.
- Thanks to expected looser regulation, the US oil and coal industry is a winner with Trump's victory. Better conditions are expected to benefit US oil production and thus have a dampening effect on oil price.

Daily global demand is growing by about 1.3 million barrels, and at current production levels there will eventually be a supply shortage. In the longer term, lower investment in exploration for new oil resources will affect supply. The output of a normal oil well declines by 6-9 per cent a year if no investments are made. Towards the second half of 2017, production and consumption should move closer to balance.

## Gold – first down, then up

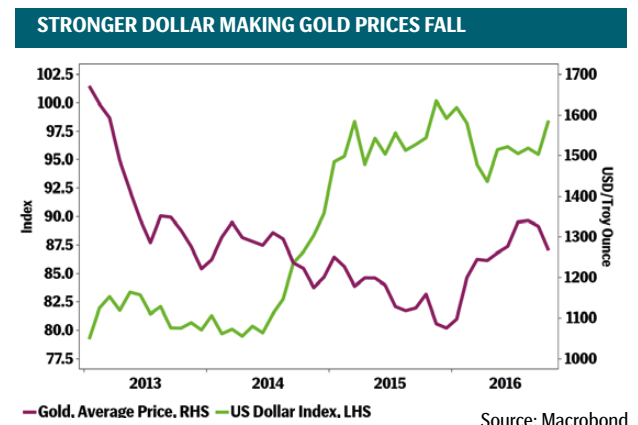
After an upturn of more than 30 per cent since reaching bottom in December 2016, gold prices fell during the summer and are currently around USD 1,200/ounce. We see various reasons why gold prices will continue to fall in the short term but also why they should rise in the longer term.

### Factors that may cause gold prices to keep falling:

- The dollar exchange rate: US dollar (USD) appreciation has pushed down gold prices, since gold is priced in dollars. In our view, the USD will continue to strengthen, thus putting further pressure on gold.
- Speculative positions in (and thus demand for) gold have declined.
- Central bank gold purchases: Since the spring, central banks have gradually reduced their purchases month by month.

### Factors that may push gold prices higher long-term:

- Global gold production is falling (low capital spending), which will reduce supply.
- A sharia (Islamic law) standard is expected to be adopted this winter, allowing Muslims to invest in gold in order to generate returns, which may significantly increase the demand for gold.



The dollar's recent appreciation has caused gold prices to fall, since gold is priced in dollar.



# Currencies

Politics will dominate over fundamentals

*This has been a year of political surprises. Growing populism in free-market economies, which have spurred the drive for globalisation more than other countries, is now hitting back. Donald Trump was elected US president after a campaign largely lacking policy specifics. In the United Kingdom, the High Court recently ruled that Parliament and not the government will determine the timing of when the UK will begin Brexit negotiations (triggering Article 50 of the Lisbon Treaty). Other European countries have a number of crucial elections next year – for instance in Germany, France and the Netherlands. All in all, this means increased uncertainty/volatility, a stronger USD, that the Swedish krona will lose ground against the USD but appreciate against the EUR and an end to the carry trade market we have seen (currency positions benefiting from interest rate differences), which should be negative for emerging market currencies, but positive for the Swedish krona.*

- **EUR** – Will fall, due to political uncertainty; less bond buying may provide marginal support.
- **USD** – Trump's inflation-driving policies will benefit the dollar.
- **JPY** – Weaker JPY, in line with expectations.
- **GBP** – Will fall against the krona from already low levels.
- **CHF** – Continued inflows due to growing (EU) political risks, but will fall slightly against the krona.
- **SEK** – Has fallen more than expected.
- **NOK** – EUR/NOK around 8.50 within 12 months.

This has been a year of great political surprises, and potentially powerful forces have been set in motion. So far in 2016, the market has chosen to focus on the positive aspects of Trump's presumed policies. As the marginal benefit of further monetary policy expansion decreases, fiscal expansion is welcome. This is also in line with what the International Monetary Fund (IMF) has recommended. There is still great uncertainty about Trump's policies. While the stock market has embraced the positive aspects, such as significant infrastructure investments, some of Trump's other pet ideas remain in the mix (for instance, tearing up trade agreements). EM currencies will probably continue downward, assuming higher interest rates, yields and global trade barriers. As for the currencies of advanced economies, it is difficult to identify a unifying theme; "Trumponomics" may certainly boost US economic growth, and expectations are that the Fed needs to act somewhat more hawkishly than previously forecast.

Political uncertainty in Europe due to Brexit and the German and French elections will drive the EUR/USD towards parity, and the USD/SEK pair will head towards 9.50. Trump has also announced that he intends to introduce a tax break for companies that repatriate capital held abroad. Although some of this money may already be USD-denominated, a "Homeland Investment Act II" (the first was in 2005) should benefit the USD. There is little to suggest the USD will depreciate despite its high valuation. Finally, we believe the Swedish krona is strongly undervalued.

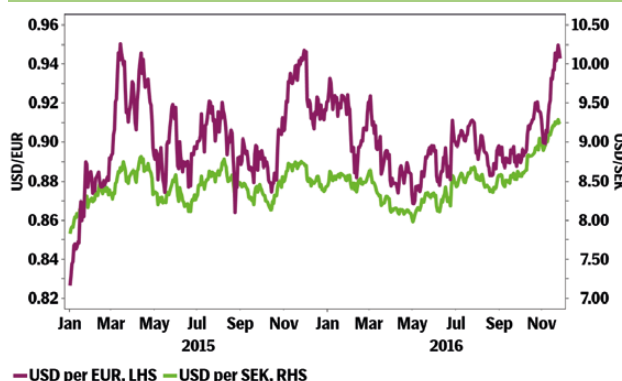
## EUR – lower due to political uncertainty

Major European challenges are in store for 2017. The rise of populism in addition to key elections creates clear challenges to political integration, which is what the common currency needs. Growing political risks are weakening the euro, and we believe the EUR/USD exchange rate could reach parity before mid-2017. The European Central Bank (ECB) is about to change its monetary policy outlook; it will probably signal a cutback in the pace of stimulative bond buying (quantitative easing) during the first half of 2017, which will only provide temporary support for the euro.

## USD – Trump victory positive for dollar

The Federal Reserve will raise its key interest rate in December, which the market has now (almost) completely factored in. During 2017-2018 it will tighten monetary policy further, but there will probably be only a small number of rate hikes. Higher USD key rates will help strengthen the dollar, but the critical factor for the future of the currency is to what extent Donald Trump will implement more expansionary fiscal policies. Many historical parallels can be drawn, with

### DOLLAR KEEPS CLIMBING DUE TO POLITICAL WORRIES



Source: Macrobond

Politics, including Brexit, elections in major European countries and the unexpected US election outcome have pushed up the dollar against the euro. The krona has weakened against the USD; we expect it to approach 9.50.

Reaganomics mentioned most frequently. The USD will not appreciate as much as during the first half of the 1980s, but we should probably expect it to trade against the krona at 9.50 or even a bit higher.

## GBP – Will fall from already low levels

The Brexit process has had a severe impact on the pound. We have not seen any clear signs yet of a sharp economic deceleration in real terms, but financial market players are already basing their actions on the expectation that the United Kingdom will leave the European Union without a favourable agreement. The country has both fiscal and current account deficits, and the pound is losing its status as a reserve currency. As long as most analysts expect a “hard Brexit”, it is difficult to see anything other than a further downside for the already-damaged pound. Expect the GBP/SEK exchange rate to fall towards 10.50 during 2017-2018.

## JPY – Weakening expected

Donald Trump's victory in the US presidential election has had a deep impact on global fixed income markets. If more expansionary US fiscal policy is allowed, rising long-term yields are a logical result, and no currency is more sensitive to such increases than the Japanese yen, given that the Bank of Japan has put a zero per cent cap on 10-year government bond yields. The USD/JPY currency pair is already trading close to 110, and it is reasonable to expect the yen to depreciate against the dollar in the near term. There should also be a weakening against the krona as Sweden's Riksbank gets ready to raise its key interest rate in 2017.

## CHF – Rising concerns bring inflows

Political risks in the EU are probably one reason why investors continue to move capital to Switzerland. The Swiss National Bank's strategy had been to defend the franc at

an exchange rate of 1.08 for the EUR/CHF pair, but recently it has apparently allowed the currency to strengthen a bit more (towards 1.07 per euro). As we have written earlier, the value of the Swiss currency is not as detrimental as its historically high exchange rate would indicate. Combined with the uncertain prospects that Europe is facing in 2017 (elections plus Brexit), there are few indications that the CHF will weaken significantly. However, we believe the EUR/SEK pair has greater downside potential, which should suggest some depreciation against the Swedish krona.

## SEK – Decline is greater than expected

The Riksbank's policies have succeeded, and the krona has weakened as a result of the ultra-low key interest rate and the risk of further monetary expansion. There are still major doubts as to whether these monetary policies will succeed in achieving the bank's 2 per cent inflation target. The krona is critical to these policies, and any appreciation will inevitably be met by new threats of further monetary easing. In our view, the krona has bottomed out against the euro and will slowly appreciate under controlled conditions back towards 9.50.

## NOK – Limited potential

The Norwegian central bank has signalled the end to this cycle of interest rate cuts. We also believe that oil prices will stabilise at around USD 50/barrel but gradually rise during 2017. Meanwhile, Norway continues to withdraw money from its sovereign wealth fund, and the central bank is buying nearly NOK 1 billion each day. Together with relatively high interest rates and rising oil prices, these factors make it difficult not to see further potential for the NOK in 2017. However, this appreciation will not happen quickly, but over time (12 months) the EUR/NOK currency rate should fall towards 8.50-8.70. The NOK/SEK rate has some upside in the short term but is trending flat at 1.07-1.11.

CURRENCY PAIR	EXCHANGE RATE				CHANGE IN EXCHANGE RATE, %	
	Now*	Q4 2016	Q1 2017	Q2 2017	Q4 2016	Q1 2017
EUR/USD	1.07	1.06	1.04	1.03	-1.2	-3.1
EUR/SEK	9.84	9.75	9.65	9.60	-0.9	-1.9
EUR/NOK	9.08	9.10	9.00	8.80	0.2	-0.9
USD/SEK	9.17	9.20	9.28	9.32	0.4	1.2
USD/NOK	8.46	8.58	8.65	8.54	1.5	2.3
EUR/CHF	1.07	1.09	1.09	1.10	1.5	1.5
CHF/SEK	9.16	8.94	8.85	8.73	-2.4	-3.4
EUR/JPY	117	114	114	115	-2.1	-2.1
GBP/USD	1.25	1.20	1.17	1.18	-3.4	-6.3
GBP/SEK	11.43	11.08	10.84	11.03	-3.1	-5.1

\* Currency forecasts were made by SEB Trading Strategy as of November 17, 2016.  
Please ask for a copy of our latest forecasts.



# Theme – Digital innovation

A strong software platform – the road to success

*Silicon Valley is home to several of the world's largest listed companies. Local firms like Apple, Google, Facebook, Netflix and Uber (which is privately held) have revolutionised our lives in many ways. Digitally based products and services are being developed constantly, accounting for a steadily growing percentage of the world economy. Digitisation will continue for a long time to come, and companies with business models connected to software for communications and services have especially good growth prospects, in our view.*

- The US is the world's digital engine, especially Silicon Valley.
- Apple and Google are the world's two largest listed companies; the information technology (IT) sector holds all five top positions.
- Apple went from hippie to superstar, Google's Stanford nerds became search titans, Facebook's Mark Zuckerberg became a social media giant, while Seattle-based Amazon focused on e-commerce and is now a global leader.
- The digital economy affects our lifestyle as well as the inflation rate.
- About 22 per cent of the world economy is digitally based, and the percentage is growing.
- A strong software platform is the road to success.
- IT sector earnings have outclassed other sectors.

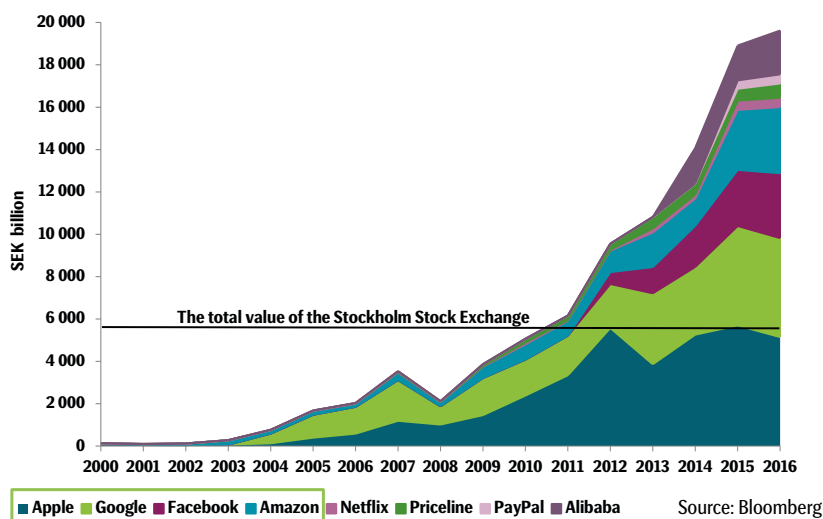
**THERE IS A CHANCE THAT YOU ARE READING** this issue of *Investment Outlook* on your phone while riding an Uber taxi, listening to music from Spotify or Apple, soon after searching on Google to find your way to that wonderful restaurant. Information that is easily accessible by phone, computer or tablet has revolutionised our way of acquiring knowledge, communicating and experiencing entertainment. This theme article is all about companies that are changing our lives, with business models that have

created disruptive innovation in many industries – pioneering companies that have significantly improved services and seized the initiative from earlier market leaders.

## An amazing ride over the past 20 years

Companies with head offices mainly in Silicon Valley, the globally renowned centre of technology south of San Francisco, dominate the international digital arena and are now the world's largest in market capitalisation. Only five years ago, energy companies dominated the list of the world's 10 most valuable companies. IT companies were in the periphery, with only two included (Apple and Microsoft). But IT companies now occupy all five top spots on the list. The ranking is as follows: Apple, Google (under its corporate name, Alphabet), Microsoft, Amazon and Facebook. Of these, Seattle-based Microsoft is the only company that held a dominant position in the mid-90s, while Apple was close to bankruptcy (before Steve Jobs was rehired as CEO), Amazon was newly established and neither Google nor Facebook had yet been born. This means that four of the world's five largest listed companies today were essentially non-existent 20 years ago. The explosion in the use of personal computers and the Internet during the 1990s and smart phones in the 2000s has made their incredible growth possible.

## MARKET CAPITALISATION OF GLOBAL IT GIANTS HAS SOARED



The chart shows how the market capitalisation of major IT companies has changed since 2000, in billions of Swedish kronor. To clearly understand how large these companies are, we also show the total market capitalisation of the OMX Stockholm exchange. The growth of these IT companies has been explosive.

### Apple – from Silicon Valley hippie to global superstar

Telling Steve Jobs' and Apple's success story is a must when discussing Silicon Valley. Sadly, Jobs himself died of cancer in 2011, but his life's work is still very much alive. Jobs' ability to predict the demand for personal computers was one sign of his genius. Apple Computers was started in the Jobs family garage in 1976 by Jobs and his friend Steve Wozniak, and its first years were almost euphoric: a journey marked by the success of the revolutionary Apple II and Macintosh PCs. But in the mid-1980s, Jobs was fired from the company he had co-founded, and over the next decade Apple's earnings fell dramatically. Its focus on quality and innovation disappeared. The number of product models multiplied. But Steve Jobs' comeback as CEO in the 1990s provided much-needed fuel (the company was close to bankruptcy) for Apple's innovations. His unique business acumen and innovative brilliance rejuvenated Apple, whose products soon included the iMac, iPod, iPhone, iTunes and various operating systems. Apple's market capitalisation is now about USD 593 billion, or almost as much as the value of all the companies on the Stockholm exchange.

### Google – from Stanford engineers to search titans

The world's second largest listed company today is Alphabet, whose main business is Google – the name we will use for the sake of simplicity. Larry Page and Sergey Brin met at Stanford University in 1995. Two years later they started Google.com, which focused on improving Internet search using keywords, which was then in its infancy. With complex, superior and highly user-friendly software, they managed to outmanoeuvre several larger search companies and made the word "google" a synonym for searching on the Internet. Google's search engine and associated advertisements, maps, email service, video player (YouTube), web browsers and in recent years also computers, phones and TV electronics have turned it into a gigantic software company, which now also has growth potential from sales direct to consumers. Google's market cap is only a few per cent lower than Apple's. The company seems to have major potential to continue capitalising on the enormous Internet market, which is constantly growing in size.

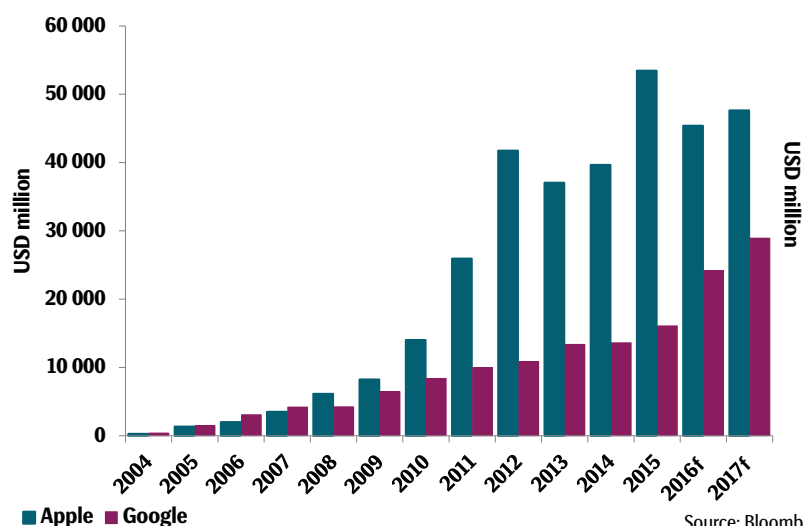
### Facebook – from Harvard nerd to social media giant

Facebook was founded by Mark Zuckerberg and his college friends in the early 2000s as a communications site at Harvard University, where they studied. After scoring major successes, the company moved relatively soon from the Boston area to Palo Alto (Silicon Valley) and later expanded greatly with the help of various investors and industry-savvy people who guided Zuckerberg's phenomenal programming talent. Today Facebook has 1.8 billion active monthly users and is by far the biggest communications tool in the world. This means that active users represent 24 per cent of the global population. Facebook has revolutionised our way of communicating and sharing information worldwide. It owns Instagram, a photo library which has enabled Facebook to broaden its skill set and also compete in photo sharing. Virtual reality (VR) is one of the company's big future-oriented segments. For those who have not tested their video headset, it is high time. Facebook's earnings growth is strong and its market cap is close to USD 350 billion – just over half the Stockholm exchange's valuation and more than five times higher than right after its initial public offering (IPO) in 2012.

### Amazon – from Wall Street to the Internet

Amazon is the world's largest Internet retailer ("e-tailer"), with nearly 100,000 employees. Founder and CEO Jeff Bezos quit a highly paid Wall Street job in the mid-1990s and moved to Seattle to invest all his capital (plus loans from his parents) in e-commerce. At first, book selling was the primary segment, but after a while Amazon broadened its product range (it is mainly an intermediary) to electronics of all kinds, music, toys and art. Amazon sells practically anything and is now America's largest retailer in terms of market capitalisation. Over the past ten years, revenue has risen 12-fold and the company's annual growth rate has constantly exceeded 20 percent. Amazon is also the world's largest player in "digital cloud" services, in which data from businesses and consumers are stored on Amazon's servers for a fee. The company has a third of the world digital cloud market, and growth is strong. This segment accounts for only one tenth of revenue, but a larger percentage of earnings. Amazon's market cap is currently more than USD 370 billion.

#### STRONG EARNINGS GROWTH AT APPLE AND GOOGLE – ESPECIALLY THE PAST FIVE YEARS



Source: Bloomberg

The chart illustrates the surge in earnings at Apple and Google since 2004. Apple's explosive earnings growth accelerated sharply in 2011, while Google expanded more gradually.

## The digital economy affects our lifestyle as well as the inflation rate

The digital economy has evolved from information-sharing and electronic products into a fundamental element of our lifestyle. Mobile phones have out-competed landlines, enabling us to share information in exceptional ways. Services that used to be physically distributed can be offered in completely digital formats, without any margin or shipping cost. One digital music distribution method (Swedish-based Spotify) has changed the music industry and squeezed the market for CDs. Apple, too, is fuelling innovation in the music industry with its digital player services. Movies, series, TV shows and sports are being delivered via the Internet to innumerable television screens today, as Netflix has gradually improved the video industry over the past 15 years. Google has almost killed the physical search industry (Yellow Pages etc.) and is well on its way to strangling newspaper advertising. Facebook has created an outstanding social communication channel; instead of phoning each other, many people today prefer to write messages on Facebook.

As the digital economy has marched aggressively into the engineering industry, the financial sector, the consumer sector, the service sector, etc., this has usually led to much more efficient and user-friendly services or products. The cost of information, distribution, communication and various types of processes has been completely eliminated, creating deflationary pressure. A free call on Skype (invented in Estonia) is not included in our way of measuring a country's economy (GDP), whereas this service was previously part of GDP via voice telephone line charges. When we read the news on the Internet instead of buying a newspaper, this creates similar deflationary pressure. Today's distribution costs are zero for a very large number of services. This will continue to affect inflation. Another aspect is increased productivity, with manufacturing productivity rising and benefiting from faster exchanges of information in many of its processes. It is hard to measure exactly how much digitisation has affected inflation in the past decade, but it has definitely done so and will continue to have a downward effect.

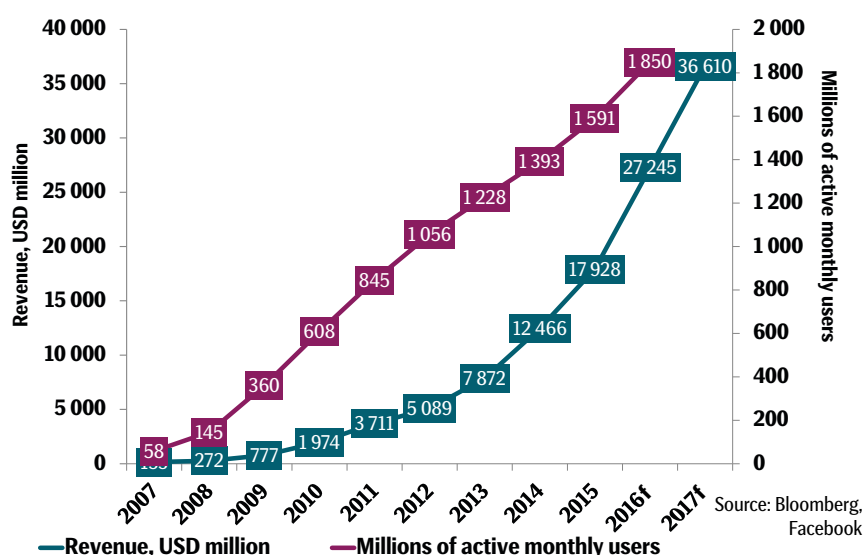
## 22 per cent of the world economy is digitally based

Innovation experts claim that about 22 per cent of global GDP is related to the digital economy, a share that is constantly growing and improving productivity. The digital economy is calculated by including all products and services based on a significant digital component. More traditional metrics point to a share of just over 5 per cent, but this only refers to sectors entirely dedicated to digital products and services. We believe, however, that a better way to see how digitisation affects growth is to include all sectors and look at which parts are greatly influenced by digital technology. According to this new approach, the US economy is the most digitised in the world, with about 33 per cent of GDP being affected, compared to China's relatively low 10 per cent. Nearly 60 per cent of the US financial sector is digitised, according to this metric, making it the most digitised, with the communications sector close behind. This greatly increases the importance of building and maintaining a modern, robust digital platform for long-term growth – without such a platform it is essentially impossible to compete with those who have one.

## What does the future look like?

Humans are constantly changing. Old services are being replaced by new ones, and trends are changing direction. This is how things look in all economic sectors globally, and participating in such changes is necessary. The world's largest taxi company (Uber) owns no cars, the world's largest media service (Facebook) creates no content of its own, the world's largest lodgings company (Airbnb) owns no hotel rooms and the fastest growing film and series broadcaster (Netflix) neither builds nor owns physical distribution networks. The list goes on; one of the world's largest retailers (China's Alibaba) owns no inventories and the world's two biggest companies by market capitalisation (Apple and Google), which deliver and sell software applications to their customers, do not primarily build these themselves. A lot has certainly happened in the past ten years, and more will happen. Our assessment is that health care is one sector that will change and improve significantly in the future, since its digital platform has been substandard so far. The sharing economy will gradu-

### 1.8 BILLION ACTIVE MONTHLY FACEBOOK USERS ENSURE CONTINUED GROWTH



The chart illustrates the relationship between the number of active monthly Facebook users and the company's revenue in millions of dollars. Revenue has climbed especially fast during the past three years. Consensus forecasts for 2016 and 2017 predict continued revenue growth.

ally increase in importance. One example of the sharing economy is car ownership; there is already a strong trend in big cities towards renting cars by the hour rather than owning them. Consumers are increasingly using the Internet to order clothing, electronics and even food, which in reality are handled by distributors whose digital ordering platforms replace bricks-and-mortar shops. Home appliances and other equipment will have digital features that indicate when something inside them needs to be replenished or replaced.

### A strong software platform – the road to success

The market players that master software and programme their ideas in the most commercially viable ways will be the winners in the battle for consumers' money. Facebook is a company that has actually built an amazing information network that includes communications, opinions, photos, news and videos. This also means that the company has a strong platform for advertising. Amazon has developed an efficient platform for Internet commerce and Uber a platform for taxis, while Google is a pure, fast-footed software company.

However, pure IT companies are not the only ones that invest heavily in the digital world. Now that Silicon Valley-based Tesla has spent billions of dollars to revolutionise the automobile industry with its electric cars, big tradi-

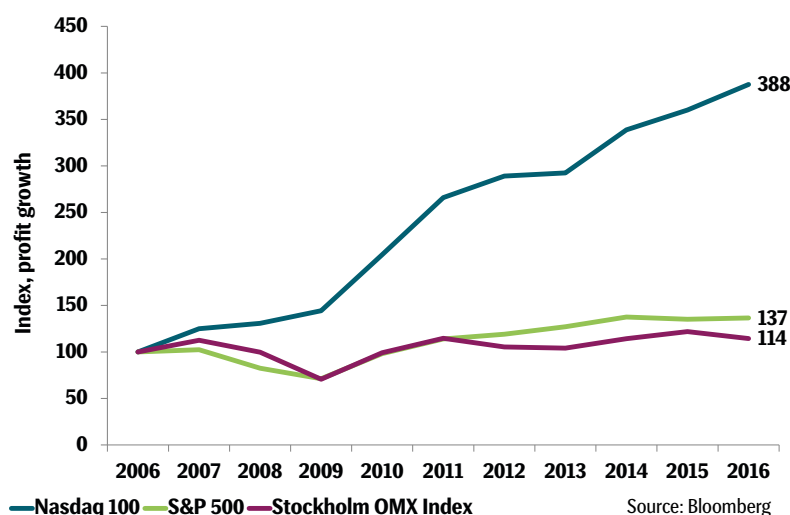
tional auto manufacturers like Ford and BMW have been shaken to the core and have also intensified their focus on electric cars. The banking sector competes on the basis of who has the best digital platform, while many other industries are facing major changes. Our assessment is that the most successful companies are very likely to also be the ones with the best digital platforms.

### Nasdaq 100 earnings trend is unmatched

In recent years the Nasdaq 100 – an index with a large number of IT/digital companies – has outclassed the much broader S&P 500 equity index as well as the Swedish stock exchange. The earnings of Nasdaq 100 companies have increased by over 288 per cent since 2007, while S&P 500 corporate earnings have risen by 37 per cent and Swedish companies (in this context) by only 14 per cent. The chart below shows these trends using an index. In our opinion, there is very good potential for earnings in the IT sector to continue growing, since there is strong demand for new digital platforms and apps; both businesses and consumers are adopting new technologies at breakneck speed.

The trend towards digitisation is strong and will remain robust for a long time, but individual companies must constantly maintain their competitiveness – otherwise they risk falling behind. This also applies to the corporate giants described in this theme article.

### IT COMPANY GROWTH IS IN A CLASS OF ITS OWN



The chart illustrates the annual earnings growth in local currencies of the IT-based Nasdaq 100 index (of which about 60 per cent consists of IT companies) and the broad S&P 500 equity index in the United States, as well as all companies listed on the OMX Stockholm exchange. IT companies have obviously expanded more strongly than other sectors and stock markets.



# Theme – Semiconductors

## The backbone of digitisation

*Technological advances will be a major driver in how companies change over the next decade.*

*What technological changes will affect companies most?*

*Words such as digitisation, smart, intelligent, autonomous, connected and wireless are used frequently today. Going forward, they will be increasingly paired with everyday words such as car, house, industry or production, and this combination provides answers to the question above. More concrete things such as robots, artificial intelligence (AI) and virtual reality (VR)/augmented reality (AR) are probably also other answers to this question. Let us look more closely at one industry that can be expected to benefit greatly from this trend and which delivers the fundamental building blocks for all forms of digitisation.*

- Digitisation has only just begun.
- Everything will be connected and smart.
- Small but critical components constitute the backbone of the digital society.
- A cyclical industry with extraordinary downward price pressure and rapid advances.
- Normal absolute valuations, attractive relative valuations.

The digitisation of both the manufacturing and service sectors as well as our cars and homes, and the use of robots and droids are just a few examples of strong trends that are already affecting – but above all are expected to dramatically affect – companies, people and society over the next twenty years. Some of these changes will take longer or will have a less dramatic impact than many people think, while others will have a greater impact or take place faster.

Yet no matter which of the above expected trends we look at, they all have at least one thing in common: they will require more and better digital components in machinery, equipment, cars and homes. For example, in order to reduce waste in manufacturing by producing perfect machinery and components from the beginning, more data transmission and sensors are needed. In order for cars to be self-driving or at least assist the driver and thus dramatically reduce the risk of accidents, more and better sensors, memories and processors are needed. To enable us to remotely lock, control and monitor homes and other properties as well as all of their equipment, instruments and doors, they need to be able to communicate. In order for games and other entertainment media to take the step into the VR environment, ultra-high performance screens and enormous data storage capacity are needed. In short, in order to make all these things possible, we need to cram even more and better semiconductor components into all of our homes, cars, machinery and devices.

### SEMICONDUCTOR SHARES VOLATILE BUT HAVE PROVIDED GOOD GROWTH OVER TIME



Source: Bloomberg

The chart shows the Philadelphia stock exchange's PHLX Semiconductor Index since 1996. If not for the exceptional bubble valuations of 1999/2000, the index would have set a series of record prices over the past couple of years and days. However, the price rise in recent years has primarily been driven by an improved earnings outlook. In the market's consensus forecast for 2017, the Philadelphia Semiconductor Index is valued at a lower P/E ratio, 15.6, than Stockholm's OMX30 equity index, at 15.7

### Three waves of technological advances

Applied Materials, one of the world's largest producers of equipment for making semiconductor components, describes the technological advances over the past 20 years and in the next 20 years as three partly overlapping waves. The first wave was driven by PCs connected to the Internet, the second by mobile phones and social media, the third by artificial intelligence and visual computing. We are still in the second wave – that is, mobile phones remain the main driving force for the semiconductor industry, but the third wave has already begun and will eventually take over.

Artificial intelligence refers to both computers and robots, which threaten to eventually take over a significant proportion of today's jobs as well as significantly more important and numerous short-term steps along this path. For instance, self-driving cars are a long-term objective, but in the short term the path to achieving this will proceed via steadily improving and more reliable driver assistance systems for safety, navigation and parking. Intel and Nvidia are two companies which believe that the value of the semiconductor components needed for a largely or completely autonomous car will climb to 5,000-10,000 dollars per vehicle in 2020-2025 from today's 350 dollars (hybrid electric cars have twice the average component content, and luxury cars today may already include thousands of dollars worth of semiconductors).

Visual computing refers both to computers that see and can analyse what they see (for instance, in a car) and all variants of VR and AR. While virtual reality will probably be used primarily in entertainment (games and videos), augmented reality will be of greater value for commercial applications. One example is a mobile app that combines a computer model with the current reality that the camera is aimed at, and that shows what a machine, engine or building should look like and indicates precisely what needs to be repaired, step by step. Another example is the popular game Pokémon

Go, which is based on augmented reality and inserts imaginary animals into the real environment.

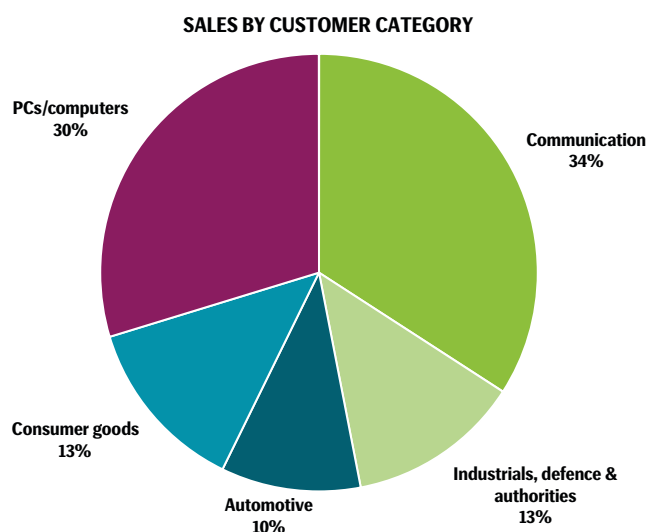
Both AR and VR will be very important to the semiconductor industry. General Electric CEO Jeffrey Immelt expects AR to save manufacturers billions of USD by means of productivity improvements, while Facebook founder Mark Zuckerberg is investing heavily in VR. According to Nvidia, the leading maker of premium-segment graphics processing units, only 1 per cent of all PCs in use today are powerful enough to deliver the best VR experience (if, contrary to expectation, someone were to try). VR and AR both require powerful processors, a lot of memory and advanced displays.

### All roads lead to...

Rome? No, they lead to Silicon Valley. If there is a hub in the new digitised economy from which all trends originate, it must be Silicon Valley in California, where almost all the big companies that define the latest trends, such as Apple, Google/Alphabet and Facebook, have their head offices. Although a miniscule share of value added in the IT sector today consists of silicon – the actual material that makes up semiconductors – the nickname for this technological and venture capital centre underlines the key role that semiconductors play in all digitisation.

When Neil Armstrong took his first steps on the moon in 1969, probably not many of the people watching him on TV thought about how this would never have been possible without the technological achievements represented by Fairchild Semiconductor's silicon-based integrated circuits. Similarly, relatively few of the people who think about how the development of mobile phones has changed our lives and society over the past 20 years also reflect on the improvements that this required in the building blocks of these phones – semiconductor components – especially if we ignore the most visible of these components such as the screen, fingerprint sensor and camera module. Yet

## COMPUTERS AND COMMUNICATION DOMINATE GLOBAL SEMICONDUCTOR INDUSTRY



Source: WSTS

The chart shows global semiconductor industry sales by customer category in 2015. Over time, the pie chart has undergone dramatic changes, but in recent years those changes have been small. Many people in the industry expect vehicles to increase their share over the next decade. But note that all markets and segments that will be "digitised" will need more semiconductors in the future.

all these advances would have been impossible without the incredibly rapid improvements that took place in the semiconductor industry, which are often summed up in “Moore’s law,” named after Intel’s former CEO and founder, Gordon Moore. Moore predicted that the number of transistors in an integrated circuit would double every two years. Combined with reduced size and improvements in transistors, for a long period the capacity of such circuits actually doubled every 18 months.

Moore’s forecast was fairly accurate for 50 years after he published his observation, and while the pace has slowed, the semiconductor industry is still characterised by exceptionally rapid productivity improvements. Without the industry’s exponential growth and efficiency improvements over the past 50 years, the world would be completely different today. However, this journey is not yet at an end; semiconductor components will play a key role in many of the structural changes we foresee in the business sector over the next decade.

### Balanced market trends

Not all segments of the semiconductor industry are growing. The personal computer (PC) industry is struggling with major problems. These challenges can be illustrated by the question Apple CEO Tim Cook asked in conjunction with a product launch last year: “Why would you buy a PC anymore?” Apparently not many people do, although there are signs of stabilisation in the near term after many years of falling sales. An increasingly important and rapidly growing share of the component market for the PCs/computers segment, illustrated in the pie chart on page 26, today goes to data centres for cloud services, offsetting the decline in PCs. Companies such as Google, Amazon, Facebook, Apple and Microsoft are all making big investments in server farms and often buy customised processors and other components directly from semiconductor producers.

The semiconductor market for phones and tablets is also relatively mature today, although there are major changes under way in this segment. In other words, only certain sub-markets in the two big segments of the pie are growing today, and hopes for the future are based primarily on the three smaller segments – consumer goods, manufacturing and vehicles.

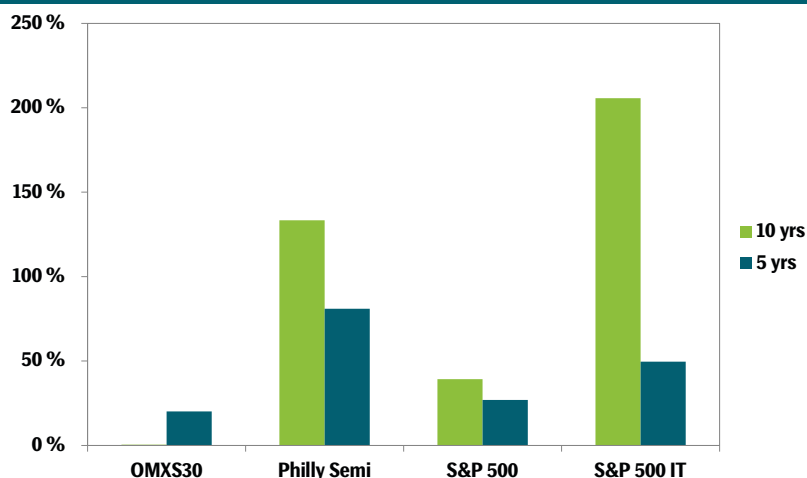
Shifts have characterised the semiconductor industry before. At first, the defence and space industries were the most important customers, but according to World Semiconductor Trade Statistics (WSTS), they now represent less than 1 per cent of total industry sales. The rise and fall of the PC has also affected the industry, as has the global proliferation of mobile phones. The automotive market still accounts for only about 10 per cent of the total market, but now that, as BMW puts it, you “need a supercomputer in the car... and outside the car you need a high performance cloud system,” this segment is set to experience substantial growth going forward.

### Heavy downward price pressure, higher earnings

We foresee strong driving forces for continued volume growth in semiconductor components around the world, but this is not a new phenomenon. Volume growth has always been the smallest of the semiconductor industry’s problems; it has been exponential, with 10 per cent annual growth from 1985 to 2010 according to the Semiconductor Industry Association (SIA). Since then, the pace of growth has decelerated somewhat, but sales of integrated circuits today exceed 20 billion a month, twice the level of a decade ago and a tenfold increase in about 30 years.

The industry is characterised not just by rapid volume growth but also by brutal downward price pressure. Sales of integrated circuits in August this year increased by 12 per cent, but the average price per circuit fell by about 10 per cent compared to a year earlier, so sales value

### STRONG EARNINGS GROWTH EXPECTED FOR SEMICONDUCTOR COMPANIES



Source: Bloomberg

The chart shows expected earnings growth in 2006-2016 and 2011-2016 based on the consensus 2016 forecast for the aggregate of companies in Stockholm’s OMXS30 Index, the Philadelphia Semiconductor Index, the S&P 500 Index and all IT companies included in the S&P 500 Index. The IT sector and the semiconductor industry outperform the US stock market generally as well as the companies on the Stockholm stock exchange. If we also adjust for currencies (the depreciated Swedish krona), their outperformance against the Stockholm exchange is even greater.

increased by only 1 per cent. The trend towards growing volume and rapidly falling prices is especially clear in the memory product sub-market, where the price of NAND memories (flash memories) has fallen by an average of 24 per cent per megabit annually since 2008, while the number of megabits has increased by 61 per cent annually.

Despite these large volume increases in the semiconductor industry, the value of sales in billions of dollars has grown far more modestly over the past decade. According to WSTS, global semiconductor sales totalled 335 billion dollars in 2015, a 47 per cent increase in 10 years or growth of less than 4 per cent annually.

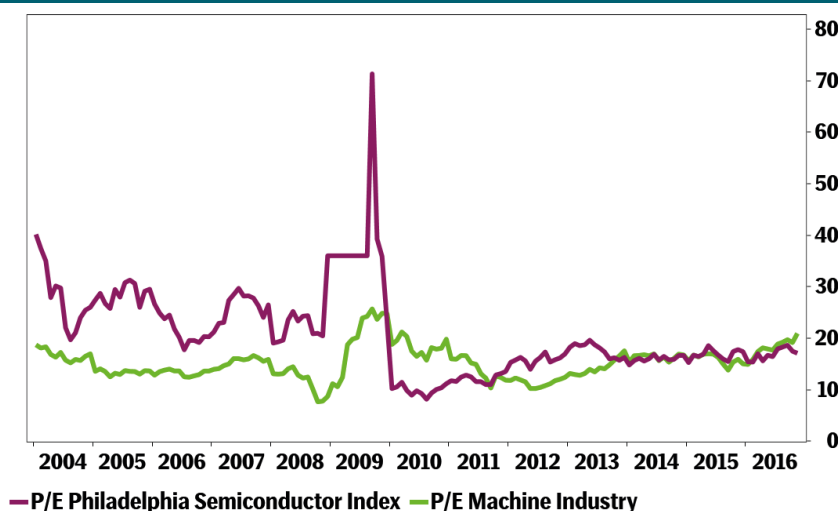
The industry's ability to handle the price squeeze is surprisingly good, thanks especially to large economies of scale and the rapidly shrinking size and greater density of integrated circuit patterns. Trying to drive sales volume by means of dramatic price cuts, thus reaping economies of scale, is a well-tested strategy in the industry. If we look at the 30 leading semiconductor companies on the NASDAQ stock exchange – the ones included in the Philadelphia PHLX Semiconductor Index – net earnings in dollars are expected to be 71 per cent higher this year than in 2011 and 120 per cent higher than in 2006. In comparison, earnings for the S&P 500 companies in the US have climbed by 26 per cent in dollars since 2011, while the 30 largest Swedish companies are expected to increase their earnings by 20 per cent in kronor, and the IT sector as a whole (US-based IT companies included in the S&P 500 Index) has increased its earnings by 47 per cent in dollars. For European companies in the same sector, earnings actually fell during the same period.

### A cyclical industry, growing now and in the long term

The semiconductor industry is characterised by reasonably good historical growth and probably has a good volume outlook, but above all it is extremely cyclical. Over the past 30 years, annual growth has exceeded 40 per cent on no fewer than seven occasions (quarterly, on a rolling 12-month basis): most recently in 2010, but also in 2004 and 2000. For about a year, from the summer of 2015 until the end of the first half of 2016, growth was negative (due to larger price declines than volume increases). Negative growth was also noted in 2011/2012, 2008/2009 and 2001. To understand this volatility, we believe that a good comparison is to regard semiconductor companies as producers of input goods for the IT and electronics industries in the same way that steelworks, mining companies and pulp manufacturers – classic Swedish industries also characterised by strong cyclical swings – are producers of input goods for the machinery and paper industries, respectively.

Over time, large earnings swings probably justify some valuation discount against more stable sectors, but at the moment the stock market is putting a premium on cyclicity. Despite five difficult years for cyclical industries and relatively faint signals of any immediate improvement, these are hot sectors in the stock market. This is true of semiconductors, steel and other metals, oil and industrials (except for cyclical consumer industries such as cars), which are all among this year's winners on the Nordic stock exchanges and internationally. Of course, sooner or later, the earnings trend in these industries must improve too, in order to prevent share prices from falling again.

SEMICONDUCTORS AT A DISCOUNT COMPARED TO MACHINERY INDEX



The chart shows the historical P/E ratio (based on forecasts for the next calendar year) for the Philadelphia PHLX Semiconductor Index compared to shares of machinery companies in the S&P 500 Index. This year's rally has driven up valuations in all cyclical sectors, but not as much for semiconductors as for the machinery industry, for instance.

Source: Bloomberg



We note that the earnings outlook for the semiconductor industry has improved significantly in the past year, according to consensus forecasts, in clear contrast to the machinery industry. According to the Semiconductor Industry Association (SIA), market growth has rebounded, turning positive in July this year. Over the past 20 years it has often taken 1-3 years for growth in the industry to move from trough to peak. If this pattern is repeated, it would mean accelerating market growth for another 6-30 months.

### Improved earnings forecast

As indicated in the chart below, the earnings outlook for the semiconductor companies in the Philadelphia Semiconductor Index (SOX) clearly improved over the past year, whereas a similar improvement has not yet occurred in the machinery industry (machinery companies in the S&P 500 Index), which is similarly cyclical. Valuation multiples for semiconductor companies have therefore not expanded as sharply as in other cyclical sectors, and compared to the machinery industry, shares are now priced at a slight discount. Historically, semiconductor shares are usually valued at a premium compared to the machinery industry. Even if we compare them to the broad S&P 500 Index, semiconductor companies are valued today – and have been valued for the past three years – at a slight discount (based on their P/E ratio). Before the financial crisis, SOX was valued at a premium against the S&P 500.

If we look instead at a slow-moving multiple such as equity capital valuations, semiconductor companies are valued at a 16 per cent premium above their historical average over the past 15 years, whereas the machinery industry is valued at a 25 per cent premium, the S&P 500 at an 8 per cent premium and the OMXS30 at a 2 per cent premium.

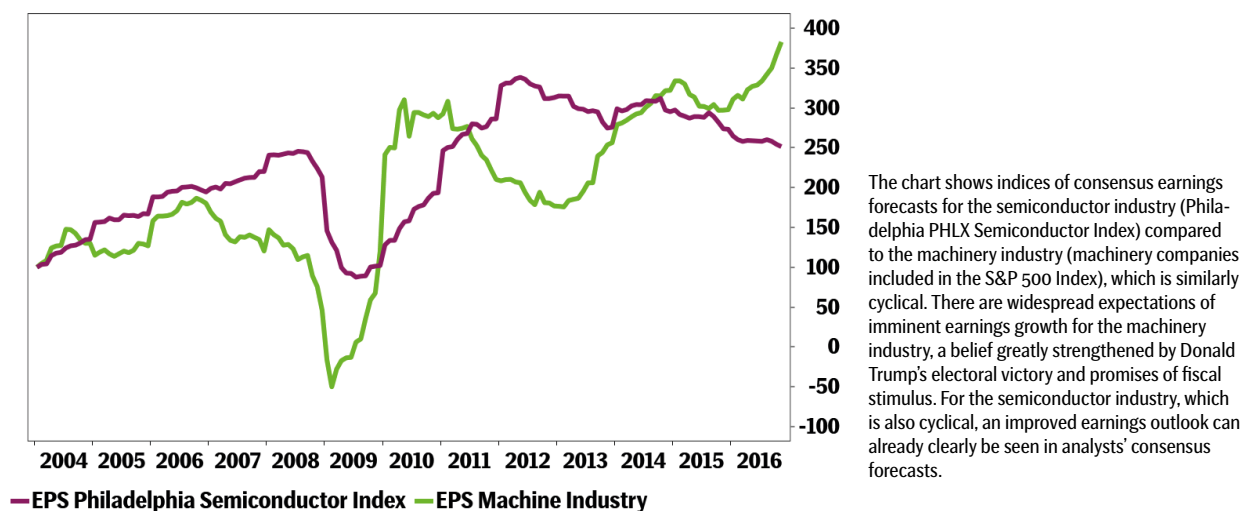
### A highly dynamic, fragmented industry

Ever since its infancy in the 1960s, the semiconductor industry has undergone rapid change, not just in terms of products and methods but also the companies themselves. New companies appear quickly and can grow at extraordinary speed, while established market leaders can move just as quickly from earning billions to fading away. Of course each company is unique, but we can roughly divide the semiconductor industry into segments:

- Integrated semiconductor manufacturers such as Intel, Micron Technology and Texas Instruments.
- Chip design companies without their own fabrication such as Qualcomm, AMD, Nvidia and the Swedish company Fingerprint Cards.
- Contract manufacturers of semiconductors such as TSMC, Global Foundries and UMC.
- Suppliers of equipment or materials to semiconductor makers such as Applied Materials and Lam Research.

It is also relevant to divide the companies into different broad categories such as memories, logic and analog circuits. In-house or contract manufacturing of semiconductor components is highly capital-intensive and depends on large-scale production. It is so capital-intensive that even a giant corporation like IBM recently decided to abandon its integrated business model and sell its two factories to Global Foundries, while also paying that company 1.5 billion dollars in cash for taking over the facilities. IBM said it was not large enough to achieve competitive unit prices and that the coming switch to 14 and 10 nanometre process technology would require too much capital. IBM will continue to develop new semiconductor components in-house but will outsource production to Global Foundries.

### IMPROVED EARNINGS FORECAST FOR THE SEMICONDUCTOR INDUSTRY



For chip design companies, too, there are very large economies of scale. Product development is often very costly. But once a solution has been developed, the added cost of producing one more unit or one million more units is essentially limited to material and production costs. The biggest companies with this business model, such as Nvidia and Qualcomm, have gross margins of 50-60 per cent. Because of rapid technological advances, new products also quickly become obsolete. Companies that do not keep up are outcompeted. This is reflected in the rapidly changing list of the most successful companies in the industry.

### Rapid changes in leadership

The combination of economies of scale and rapid technological advances also contributes to restructuring deals in the industry, especially in a year like 2016, when the market has rebounded after a period of weakness and interest rates and yields are at record lows.

The speed of change in the industry's leadership is reflected in how much the index of the 30 leading semiconductor companies traded on the NYSE or NASDAQ – those included in the Philadelphia PHLX Semiconductor Index (SOX) – has changed over the past five years. In the table below, we compare changes in the SOX with Sweden's OMXS30 index of the 30 most liquid shares on the Stockholm stock exchange (Atlas Copco A and B shares are both included, which means there are 29 companies). Since 2011, only two companies have been dropped from the OMXS30 (Scania and MTG) and replaced by two new ones (Kinnevik and Fingerprint Cards). But 12 companies have left SOX, 14 have been added and 15 were added before being dropped, or have been involved in more

extensive changes (for instance, being added, dropped and then added again). Only 12 of the 30 SOX companies have been part of the index throughout the five-year period. In our view, the rapid change in the index's composition reflects a high degree of dynamics in the industry.

The table below shows the dynamics of the SOX index compared to the OMXS30 index for the past five years, as well as the performance of each index and the best and worst performing shares over that period. There is also a wide variation in the size of companies in the SOX, since the largest (Intel and TSMC) are more than twice as large as AstraZeneca, the largest company in the OMXS30, while the smallest (Silicon Motion) is only half as large as the OMXS30's SSAB.

### Summary

Semiconductors are a critical component for digitisation and will continue to grow sharply in volume going forward. However, due to heavy downward price pressure and rapid technological advances, the industry is very cyclical, usually in line with fluctuations in the general economic trend. After a weak period, the sector has now recovered and is showing growth again, which may mean that we are facing 1-2 years of good growth. The leading semiconductor companies, those included in the Philadelphia Semiconductor Index (SOX), have outperformed the stock market in earnings growth over the past ten years. Better growth for the sector in the near term would suggest this trend will continue for a while. Valuations in absolute terms are higher than the historical average, but in relative terms, SOX companies are being valued at a discount to the stock market and other cyclical industries, which is fairly unusual.

PHILADELPHIA SEMICONDUCTOR INDEX (SOX) AND OMXS30, 2011-2016	SOX	OMXS30
New companies	14	2
Companies dropped	12	2
In and out/out and in/in and out multiple times	15	0
Companies in the index for the full period	12	27
Total number of companies in the index today	30	29
Best-performing company	510%	273%
Average performance	117%	55%
Worst-performing company	-94%	-42%
Market cap, largest company, USD bn	168	78
Market cap, smallest company, USD bn	1.6	2.9

Source: Bloomberg

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