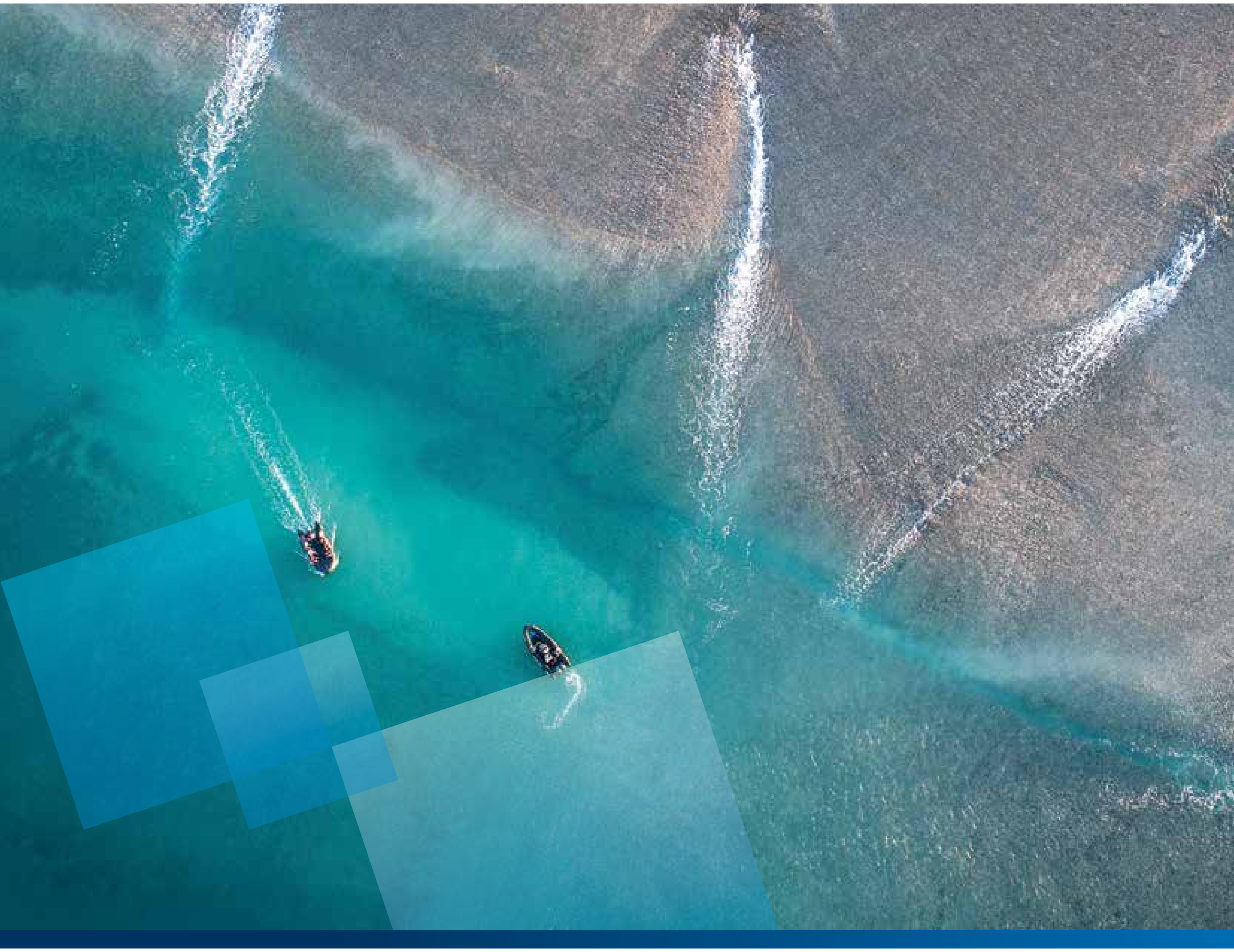
The Tide is High – But for How Long?

Long Term Scenarios 2018 - 2021



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Explanation of cover image:
Montgomery Reef is a reef off the Kimberley coast of Western Australia. The outward movement of the tide forms torrents of water, creating rivers that cut through the reef and hundreds of cascading waterfalls. These cascading waterfalls attract migratory wading birds, feeding turtles, manta rays, black tipped reef sharks and dugongs.

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Abbreviations

Central banks / economic institutions

BIS	Bank for International Settlements
BOE	Bank of England
BOJ	Bank of Japan
ECB	European Central Bank
Fed	Federal Reserve
IMF	International Monetary Fund
NBER	National Bureau of Economic Research
OECD	Organisation for Economic Co-operation and Development
PBoC	Peoples Bank of China

Countries and Regions

AU	Australia
BE	Belgium
BR	Brazil
CN	Peoples Republic of China
DE	Germany
EM	Emerging markets
ES	Spain
EU	European Union
FI	Finland
FR	France
GR	Greece
IE	Ireland
IN	India
IT	Italy
JP	Japan
KR	Republic of Korea
LU	Luxembourg
LV	Latvia
MX	Mexico
NL	Netherlands
NZ	New Zealand
RU	Russian Federation
SG	Singapore
UK	United Kingdom
US	United States

Eurozone countries include: Austria (1999), Belgium (1999), Cyprus (2008), Estonia (2011), Finland (1999), France (1999), Germany (1999), Greece (2001), Ireland (1999), Italy (1999), Latvia (2014), Lithuania (2015), Luxembourg (1999), Malta (2008), Netherlands (1999), Portugal (1999), Slovakia (2009), Slovenia (2007), Spain (1999).

OECD countries include: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

Currencies

CNY	Chinese renminbi (onshore)
CNH	Chinese renminbi (offshore)
EUR	Euro
GBP	British pound sterling
JPY	Japanese yen
USD	United States dollar

Miscellaneous

ABS	Asset Backed Securities
ABSPP	Asset Backed Securities Purchase Program
ACWI	All Country World Index
CSPP	Corporate Sector Purchase Program
DSAA	Dynamic Strategic Asset Allocation
EMD	Emerging Market Debt
ESG	Environmental Social and Governance
FTE	Full-Time Employees
FX	Foreign Exchange
GDP	Gross Domestic Product
J-REITs	Japanese Real Estate Investment Trusts
LTV	Loan-to-Value
NHG	Nationale Hypotheek Garantie
NFP	Non-Farm Payrolls
NSA	Non-Seasonally Adjusted
OPEC	Organization of the Petroleum Exporting Countries
REITs	Real Estate Investment Trusts
SA	Seasonally Adjusted
SDR	Special drawing rights

Chapter 1

Business Cycles: Rising and Receding Tides

1. Business Cycles: Rising and Receding Tides

Introduction

If you have followed the economic news headlines recently, you probably have noticed that the global economy is performing surprisingly well. Economic growth in almost all economic regions has picked up, business sentiment has improved and unemployment levels are decreasing.

The difference with the headlines approximately eight years ago could not be much larger. Then, the world experienced a recession due to distress in the financial system and imbalances in the economy. These kinds of fluctuations in the economy have occurred over and over again and are usually referred to as global business cycles. History has shown that periods of economic expansion are at some point followed by economic slowdowns. It's like the tides, they ebb and flow. So even though the economy is currently in a strong phase of the cycle, it would be foolish to believe that this growth can continue forever. That is why it is valuable to have a deeper look at historical business cycles, and to evaluate whether the current environment is and will remain sustainable.

Economic waves

Economic theory differentiates between different economic waves, based on the intervals in which they occur. Below is a list of the various economic cycles according to economic theory:

- The inventory cycle is a short cycle of about 40 months. The cyclical effect is caused by the accumulation and the reduction of inventories. If production exceeds demand, GDP increases and inventory levels rise. This incentivizes producers to scale back production, which lowers GDP even if demand remains constant. Normally the inventory cycle amplifies the existing economic cycle as inventories are increased in the expansion phase and production is reduced in the contraction phase.
- The fixed-investment cycle, commonly known as a business cycle, lasts somewhat longer, typically for about seven to 11 years.
- The building cycle, one of the longer term cycles, is a wave with a period of 15–25 years. The wave is related to demographic processes in particular, with immigrant flows and the changes in construction activity determining the cycle period.
- The Kondratiev cycle is the longest with a typical duration of 45-60 years, and is also called a super cycle. However, this theory is not accepted by most academic economists.

Macroeconomic conditions, investor sentiment and risk positioning tend to be related to the business cycle. Therefore, business cycle expectations are important when determining macroeconomic scenarios and when estimating expected returns. That is why the next sections focus on the business cycle in particular.

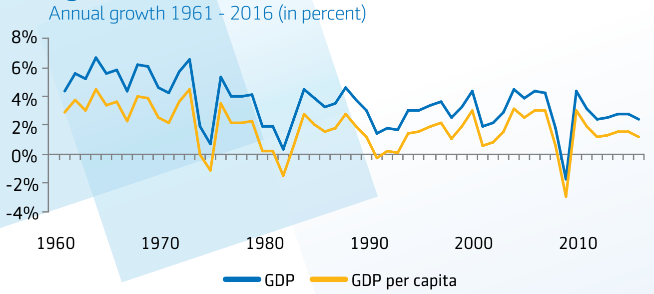
Business cycles: Rising and receding tides

The business cycle is the fluctuation in economic activity that an economy experiences over a period of time. A business cycle is basically defined in terms of two phases: expansion and recession. During expansions, the economy is growing in real terms, i.e. the economy grows more than the rate of inflation. Expansion is measured from the trough (or bottom) of the previous business cycle to the peak of the current cycle. In contrast, the economy is contracting and real GDP declines during the recession phase. Interestingly, there is no clear definition of a recession. However, it is commonly understood that a period of two or more quarters of negative real GDP growth constitutes a recession. Official institutions often use a broader definition, for instance, in the US, the National Bureau of Economic Research (NBER) officially determines whether or not a recession has occurred. The NBER does not define a recession in terms of two consecutive quarters of decline in real GDP, but rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production and wholesale-retail sales. As such, a series of variables has to be analyzed before a recession can be determined. That is why a recession can only be pinpointed in hindsight, since its identification and labeling requires analyzing quite a bit of data.

Global business cycles: A historical perspective

As mentioned, it is natural for any economy to experience periods of expansion and slowdown (see Figure 1.1). Between 1960 and 2016, the global average GDP growth was 3.5% and the per capital GDP growth was at 1.9%. Regardless of the on average positive growth (both per capita and nominal growth) cyclical movement with phases of expansion and contraction can be seen (see Figure 1.1).

Figure 1.1: World Economic Growth
Annual growth 1961 - 2016 (in percent)



Sources: *OECD, World Bank.*

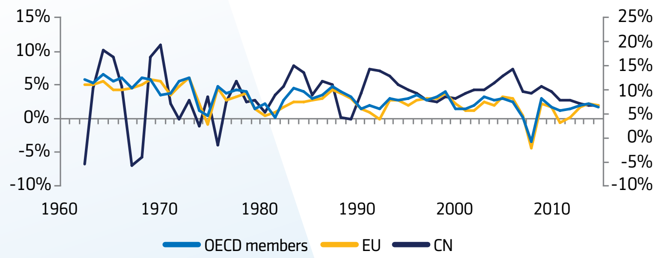
On several occasions world GDP per capita declined on a year-on-year basis; namely in 1975, 1991 and 2009:

- There were several causes of the 1975 global downturn such as the 1973 oil crisis and the fall of the Bretton Woods system. Also, the emergence of newly industrialized countries increased competition in the metal industry, triggering a steel crisis. The 1973–74 stock market crash made the recession evident.
- The recession in the early 1990s is often blamed on a policy error by the US Federal Reserve (Fed). Throughout 1989 and 1990, the US economy was weakening as a result of restrictive monetary policy enacted by the Fed. The stated policy of the Fed was to reduce inflation, a process which limited economic expansion and caused a global slowdown.
- The 2009 recession was the last time that global GDP per capita growth turned negative. The bursting of a real estate bubble in the US caused financial distress that spilled over to the real economy. Since the 1960s, no other global financial crisis had such a negative effect on economic growth. Given the impact of this crisis, it is often compared to the crisis of the early 1930s, which is known as the Great Depression – the worst crisis of the 20th century.

Another interesting observation that can be seen (Figure 1.1) is that global growth has been trending lower. Growth rates that occurred in the 1960s and 70s have not been repeated since. The structurally lower growth trend is due to less supportive demographic trends and lower productivity growth.

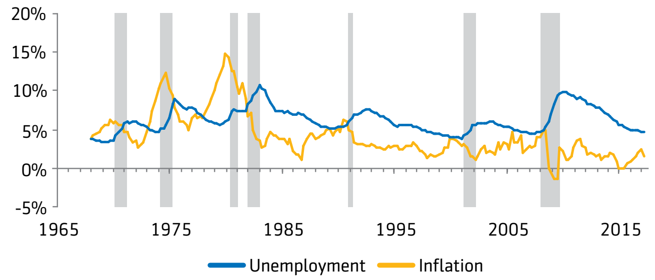
Figure 1.2 provides a more detailed picture with growth rates of the most influential economic regions. Clearly, Chinese economic development has been different from that of developed economies, both in terms of trend and volatility. Moreover, it is apparent that developed economies have moved in tandem. On average, developed economies grew by just over 3% on an annual basis since the beginning of the 1960s, whereas China managed to grow by more than 8% in that same period. In fact, the Chinese economy has now become so large that it is the main contributor to world growth.

Figure 1.2: Economic Growth
Annual growth 1961 - 2016 (in percent)



Note: *CN data are presented on right side axis.*
Sources: *OECD, World Bank.*

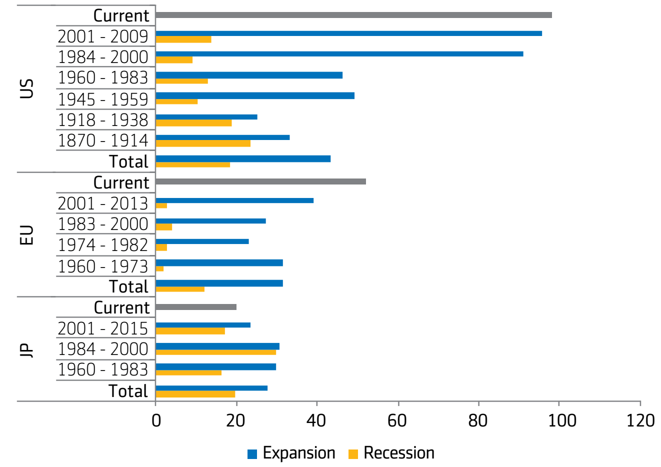
Figure 1.3: Macroeconomic Developments
US unemployment and inflation 1968 - 2017 (as percentage)



Note: *Shaded areas represent US recessions.*
Sources: *Bloomberg, US Bureau of Labor Statistics, NBER.*

Since 1967 a total of seven recessions occurred in the US (see Figure 1.3). As illustrated in Figure 1.3, there is no clear relationship between the lengths of the non-recessionary and recessionary periods, i.e. expansion periods do not have a typical set duration. The end of an expansion is always triggered by an event or a combination of events, e.g. a war, an oil price shock, monetary policy errors or imbalances in financial markets. Such events have the ability to negatively impact business and consumer sentiment. These events can slow down the real economy and cause an expansion period to tip over into a recession.

Figure 1.4: Expansions and Recessions
Average duration (in months)



Sources: *Aegon Asset Management, Federal Reserve Bank of St Louis, NBER, OECD.*

According to the NBER, the US economy has experienced 33 cycles since 1854. On average, the contraction took about 18 months, whilst the expansion periods lasted for almost 39 months. Hence, it seems that expansion periods tend to last longer than contraction periods in the US. Over time, we observe a general increase in the length of expansion periods and a decrease of the time spent in a recession. Nowadays business cycles tend to spend much more time in the expansion phase than in the contraction phase.

Figure 1.4 compares the current US expansion phase to Europe and Japan showing us that the current 98 month US expansion, which is longer than the US average, is by far the longest in this comparison group. The European expansion phase which started after the European sovereign debt crisis that ended in 2013, is continuing for 52 months now. Whereas Japan's expansion phase which began at the end of 2015 is now 20 months running.

National events, global impact: The ripple effect

Current economic conditions are very different from those in the 1960s. In the 1960s, the US economy was by far the largest driver of the global business cycle. However since then, the move towards globalization has intensified and new economic powerhouses have emerged in the process. With that in mind, it is important to understand which countries and factors currently determine the global business cycle.

A. Size of the economy

The size of the economy, measured as total GDP, matters directly via the share in global GDP and indirectly, via the spill-over effects to other countries. To put it simply, a recession in Luxembourg is less likely to have a large impact on the global business cycle than a German recession. Figure 1.5 shows the breakdown of global GDP with the US economy as the largest, followed by China and Japan. If the EU would be viewed a single economy, it would be the second largest after the US. As such, these countries or regions have the greatest direct impact on global growth and the global business cycle.

Because the current global GDP breakdown is very different from the breakdown of 50 years ago, the countries that directly impact the global business cycle have changed. To illustrate, the Chinese economy now ranks as second largest, but in 1990 the Chinese economy was only the 12th largest economy in the world. As a result, China's impact on the global economy has increased quite significantly.

B. Economic openness

Because of economies were isolated in the past, most slowdowns on a national level could be contained to a single economy. Nowadays this is less likely since economies have more intensive cross-border trade and deep financial and monetary linkages – in essence we can speak of a global economy where lots of countries have a high level of economic openness. Economic openness is the degree to which non-domestic transactions such as global imports and exports of goods and services take place and the integration of international financial systems affect the size and growth of a national economy.

Industrialized economies tend to be open, which could explain the high degree of co-movement in business cycles that we referred to in Figure 1.2. Some emerging market countries have closed capital accounts and are therefore less sensitive to fluctuations in general external financing conditions.

Growth rates that occurred in the 1960s and 70s have not been repeated since.

From an international trade perspective, when a large importing country slows down, imports will decline which will concurrently have a negative effect on external demand, i.e. exports of the trading partners. Figure 1.6 gives an example of how national economies are linked by the trade channel. China is the largest importer in the world, followed by the United States and Germany. China's main importing partners are South Korea, Japan and the United States. The South Korean economy is dependent on Chinese economic activity via the international trade channel, as over 35% of its total exports are sent to China. Obviously, the Korean economy heavily depends on the developments of the Chinese economy.

C. Nature of the disturbances

The nature of disturbances – be they economic, man-made or natural disasters – also play an important role in determining what phase of a business cycle we are in. Disturbances in a major economy tend to have limited cross-border spill-over effects if they are primarily on a national level or if those disturbances are transmitted primarily through the trade channel.

The impact on the global economy tends to be large in case of a non-country specific disturbance that is truly global by nature. One could think of a shock in commodity prices or disturbances that affect global asset prices and/or confidence channels. The global financial crisis of 2008 is a perfect example of a financial disruption that had large negative effects on the global business cycle.

D. Effectiveness of stability enhancing measures

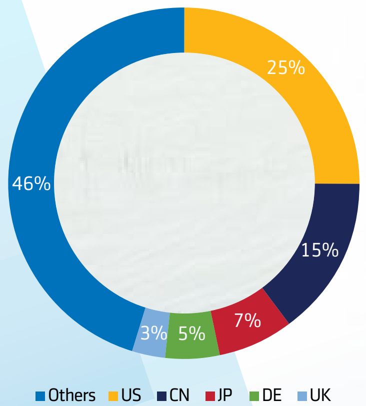
There are several measures that can enhance the stability of a global business cycle; for instance, greater political stability and continuity in policymaking may support economic stability and sustainability. In contrast, weaker political institutions may delay adequate policy changes in times of economic shocks. Moreover, the effectiveness of macroeconomic policy is important. Ideally, the monetary framework functions to keep inflation in an acceptable range that is optimal for economic growth.

The 2009 - 2019 cycle

The burning question is when will this current cycle end? US expansion is now 98 months long, but that does not mean that the cycle will end of old age at some distant point in the unforeseeable future. In fact, between 1991 and 2001 the US economy expanded 119 months before entering the dot com recession. Even though the current expansion phase has lasted longer than average, it only ranks fourth in the list of longest expansion phases, i.e. age is not the problem per se.

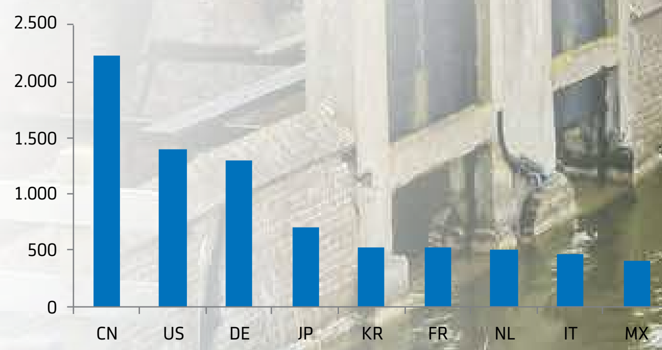
Nevertheless, our view is that in the future, the current US expansion phase will be referred to as the 2009-2019 cycle. We believe that the US economy will slow down in 2019; this will cause other regions to undergo an economic downturn which we label as a mild global recession.

Figure 1.5: Economic Powerhouses
Global GDP contribution per country (in percent)



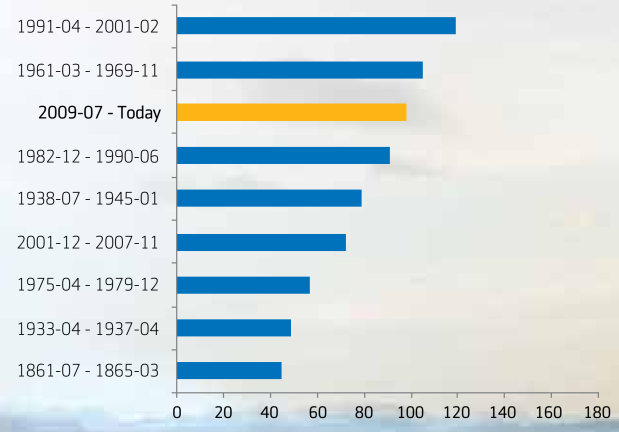
Sources: *Aegon Asset Management, World Bank.*

Figure 1.6: Global Trade
Imports per year - 2016 (in bn USD)



Sources: *Aegon Asset Management, World Bank.*

Figure 1.7: United States Expansions
Ten longest expansion periods (in months)



Sources: *Aegon Asset Management, Federal Reserve Bank of St Louis, NBER.*

Kings of Expansion

The US expansion period might be one of the longest in US history, but that does not mean that other economies have not had even longer runs. So you ask, which country is worthy of the title King of Expansion?

Let us first define what constitutes an expansion period. In this case, it makes most sense to stick with the theoretical definition, which counts the number of consecutive quarters of positive real GDP (SA) quarter-on-quarter growth not interrupted by more than one quarter of negative growth.

Interestingly, the search for a reliable dataset that contained historical GDP data for a large number of countries proved difficult. The OECD database provided the solution as it has data going back to 1960 for a large number of countries. Truth must be told that a sizable part of the dataset consists of estimated values, especially for data prior to 1990, which compromises the reliability of the data. Nevertheless, it seems that the OECD dataset is the only of its kind in terms of comparability and completeness.

The data reveals that Japan has experienced the longest non-recession period since the beginning of the 1960s. The nation experienced an impressive growth period without a recession of 132 quarters, i.e. between 1960 – the start of the dataset – and 1993. However, given that data prior to 1990 are less reliable, it is questionable whether this honor is truly accurate. The runner-up (and possibly the winner) is the Netherlands, which experienced 105 quarters of growth without a recession before the financial crisis ended that streak in 2009. And third place goes to Australia, with 104 quarters which began 1991.

The Australian winning streak continues with Q2 of 2017 reported as the 104th quarter of growth. From that perspective, Australia is the country which remained recession free the longest. Other countries that have not experienced a recession in the recent past include Poland (89 quarters) and India (84 quarters). It is interesting to note that only a handful of countries besides those mentioned above have not experienced a recession for the past 15 years including Israel, Korea, the Slovak Republic, Colombia and Indonesia.

Japan and the Netherlands certainly ranked highly in the past, but Australia definitely deserves some prize as an incentive for them to continue their winning streak. The Australian economy was able to take advantage of the strong developments of the Asian economies via commodity exports, plus net immigration which had favorable effects on economic growth. Should the Australian economy continue to grow for two more quarters – and forward looking indicators do point in that direction – it will take over the Dutch ranking.

Although the US economy might still rank first in terms of nominal GDP, the current expansion which is often referred to as a long expansion phase, does not rank among the longest expansion phases in the world. Rather, the Japanese, Dutch and Australians can claim the title of Kings of Expansion.

Normalizing Monetary Policy: The End of an Era

In the past, central banks conducted monetary policy through setting the interest rates. In case the central bank wanted to tighten monetary policy, interest rates were increased. In contrast, monetary policy was eased by lowering interest rates. Since the financial crisis, central banks have added another tool to their monetary policy toolbox: asset buying programs. Although controversial, asset buying programs have become an important component of the monetary policies of major central banks.

The sizes of central bank assets and balance sheets have ballooned in recent years. The size of the balance sheet of the BOJ has increased to about 500 trillion yen, about 93% of the country's GDP. The balance sheets of the Fed and the ECB have increased to about 23% and 28% of the GDP levels respectively.

To put things into perspective, let's have a closer look at the size of the ECB's balance sheet. The entire ECB balance sheet now stands at over 4.3 trillion euros. This is comparable to the annual GDP of Japan - the third biggest economy in the world, and approximately six times the size of the Dutch economy.

Both the ECB and BOJ are still continuing with asset purchases, so central bank holdings of assets and the size of balance sheets will keep rising for the time being. The Fed however, is no longer undertaking additional large-scale asset purchases.

Looking ahead, we expect central banks to gradually normalize monetary policy. This will consist of scaling down asset buying programs and increasing interest rates. Among the most important central banks, the Fed progressed the most when it comes to policy normalization. The asset buying program in the US was terminated in 2014, and interest rates have been increased. The Fed just announced a gradual reduction of the size of the balance sheet. This implies that only a part of maturing debt assets will be reinvested. By this, the size of the balance sheet is reduced in a controlled manner. Current market expectations are that the Fed will continue this process until the balance sheet hits around 2 to 2.5 trillion USD. A process that could take five to seven years, and is referred to as akin to "watching paint dry" by Fed Chair Janet Yellen.

We also expect an important announcement from the ECB: the tapering announcement. Currently, the ECB buys assets worth 60 billion euros per month until the end of this year. Given current macroeconomic conditions, the ECB now feels comfortable in reducing this extraordinary measure. We foresee that the tapering process includes an extension of the current program, however at a decreasing pace, and expect the program to fully end in the second half of 2018.

In Japan, inflation is well below the BOJ's target, and we expect central bank asset purchases to remain a key pillar of monetary policy for the foreseeable future.

Altogether, both the tapering in Europe and the balance sheet reduction in the US are actions that normalize monetary policy. We expect this to have an upward pressure on both interest levels in the US and Europe and spreads on European government and corporate bonds

Chapter 2

Global Macroeconomic Developments: The Tide is Changing

These are signs that the economy has entered the final stage of expansion.

2. The Tide is Changing

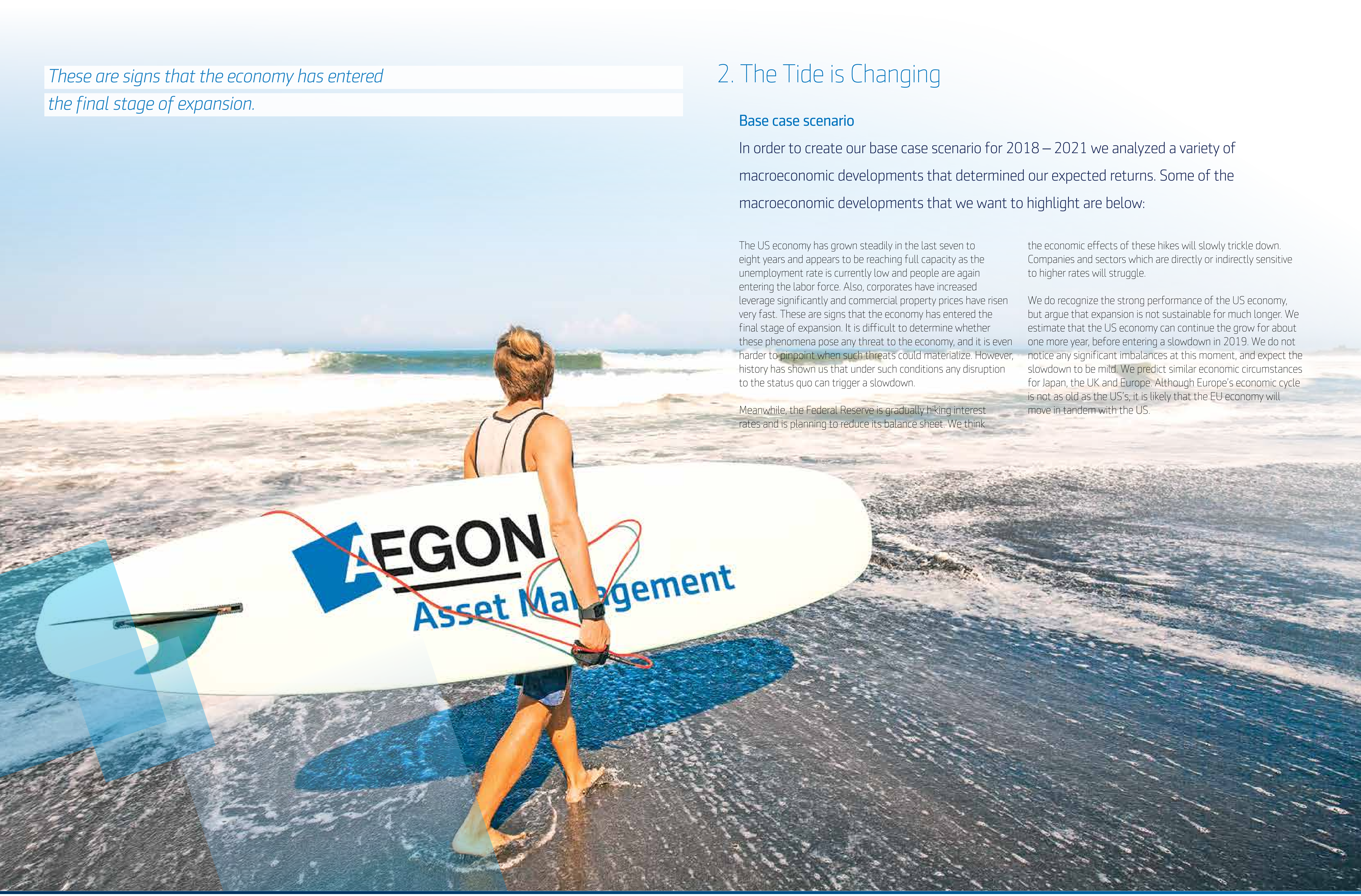
Base case scenario

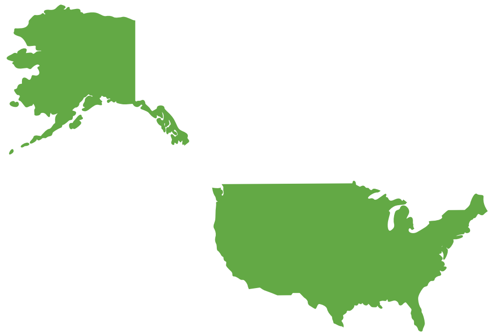
In order to create our base case scenario for 2018 – 2021 we analyzed a variety of macroeconomic developments that determined our expected returns. Some of the macroeconomic developments that we want to highlight are below:

The US economy has grown steadily in the last seven to eight years and appears to be reaching full capacity as the unemployment rate is currently low and people are again entering the labor force. Also, corporates have increased leverage significantly and commercial property prices have risen very fast. These are signs that the economy has entered the final stage of expansion. It is difficult to determine whether these phenomena pose any threat to the economy, and it is even harder to pinpoint when such threats could materialize. However, history has shown us that under such conditions any disruption to the status quo can trigger a slowdown.

Meanwhile, the Federal Reserve is gradually hiking interest rates and is planning to reduce its balance sheet. We think the economic effects of these hikes will slowly trickle down. Companies and sectors which are directly or indirectly sensitive to higher rates will struggle.

We do recognize the strong performance of the US economy, but argue that expansion is not sustainable for much longer. We estimate that the US economy can continue the grow for about one more year, before entering a slowdown in 2019. We do not notice any significant imbalances at this moment, and expect the slowdown to be mild. We predict similar economic circumstances for Japan, the UK and Europe. Although Europe's economic cycle is not as old as the US's, it is likely that the EU economy will move in tandem with the US.





United States:

Growth for now, slowdown in sight

We understand it might come as a surprise, forecasting a (mild) recession while the US economy is growing solidly. However, we argue that – at least to a certain extent – the current positive economic developments are triggering the next slowdown.

The structural story

Economic growth can be broken down into labor growth, capital accumulation and how productively these factors are being used. Recent growth in the US has been driven almost entirely by labor growth, while productivity growth has been close to zero and growth in capital per worker seems to have been stable at low levels. Our observations about the low levels of productivity and capital per worker growth are key to our forecasting. First of all, labor growth will decrease in the coming years as there are not enough people in the labor force to keep growing at around 2% per annum. As a result, monetary policy should become more restrictive as central banks will react on inflationary pressures caused by a tighter labor market. Second, productivity growth as measured by economic statistics is low, while at the same time there are very rapid developments in IT and telecommunications. Last year in our previous "Long Term Scenarios," we extensively wrote about the underlying drivers of productivity and our expectations. Using those assumptions we expect productivity growth to be a bit below historical averages, but higher than what we experienced in the last decade. Combining these assumptions on labor, capital and productivity, we therefore expect growth to decrease gradually.

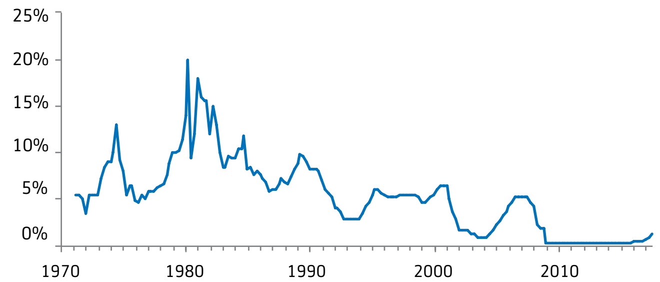
Recovery and strong momentum

During the financial crisis of 2008 the US economy experienced a severe slowdown. House prices dropped by more than 20%, consumer and business confidence hit historical lows, and unemployment levels increased significantly. Furthermore, the financial system proved unable to withstand the faltering economy. In response, the US government provided drastic bail-out measures in order to maintain a functioning financial system. Simultaneously, the Federal Reserve set interest rates to record low levels and a large asset buying program was implemented in an attempt to revive the economy.

The situation in the past

Since 2009, financial conditions have been very supportive in the US and globally. Historically low interest rates in combination with the asset buying program, set the scene for the most supportive financial conditions since the early 90s (see Figures 2.1 and 2.2). The low rates reduced banks' costs, which fed through to other market interest rates, such as bank prime lending rates and mortgage rates. This in turn lowered the cost of capital for firms as well as households, thus supporting investments and consumption.

Figure 2.1: Short Term Interest Rates United States
Federal Funds Target Rate - Upper Bound (in percent)

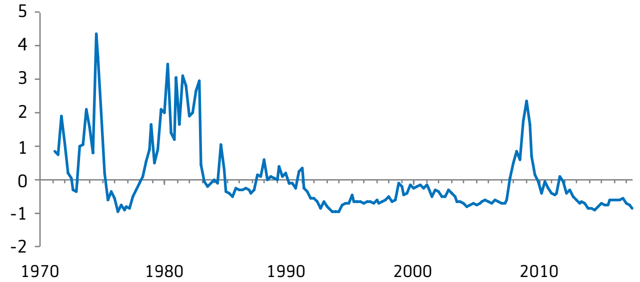


Sources: *Bloomberg, Federal Reserve.*

Despite all the supportive measures that would normally enhance growth, economic growth was positive but lower compared to previous cycles. One factor in this slower growth is that population growth is a lot lower than a decade ago. This translated into a growth rate which is 1% lower compared to the 1990s. We believe another factor is the financial crisis and its aftermath. The crisis brought to light how little capital banks actually had. Regulators forced banks to increase capital buffers, which slowed lending to the economy. In the US, banks were recapitalized during the crisis, but they still needed to raise additional capital in the years thereafter. Structurally this is a very positive move, but it did result in a slightly lower growth rate in the last couple of years. We were also faced with the misallocation of capital and labor before the financial crisis. Relatively low rates and too much optimism resulted in speculative behavior in many parts of the economy such as the property markets. Some people working in these sectors didn't have jobs that contributed to overall economic wellbeing, and as such did not contribute to productivity growth. It is therefore no surprise that productivity growth was lower during and after the financial crisis. These effects have diminished slowly over time and no longer hamper the US economy.

As mentioned, employment growth has driven US economic expansion. Figures 2.3 and 2.4, show that employment has increased with over 16 million jobs since the crisis, current employment levels exceed the pre-crisis level by about eight million jobs. Unemployment peaked at 10% in 2009 and is now at 4.4% - even lower than in 2006 and 2007. Also, broader elements of unemployment have improved, like the labor participation rate. Indeed, there still could be some hidden unemployment in the US economy, but our overall consensus is that the US economy is pretty close to full employment.

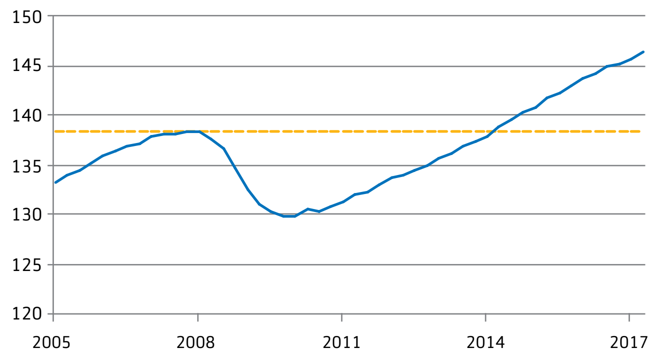
Figure 2.2: United States Financial Conditions
Index (average financial conditions = 0)



Note: *Positive values of the NFCI indicate financial conditions that are tighter than average, while negative values indicate financial conditions that are lower than average.*
Sources: *Bloomberg, Federal Reserve Bank of Chicago.*

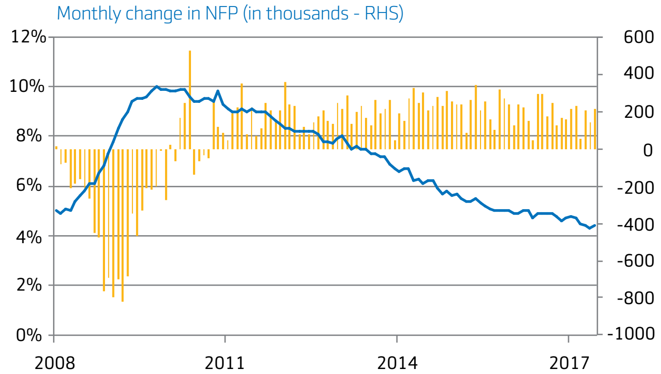
Normally, a low unemployment rate would lead to wage inflation as people start demanding higher wages or switch jobs. Low unemployment indicates that demand for labor is high and supply is low, which increases the negotiation power of employees and unions. This relationship between inflation and unemployment levels is described as the "Philips Curve."

Figure 2.3: Employment United States
Non-farm payrolls, SA (in millions)



Sources: *Aegon Asset Management, Bloomberg, US Bureau of Labor Statistics.*

Figure 2.4: United States Labor Market
Unemployment rate (in percent - LHS)
Monthly change in NFP (in thousands - RHS)



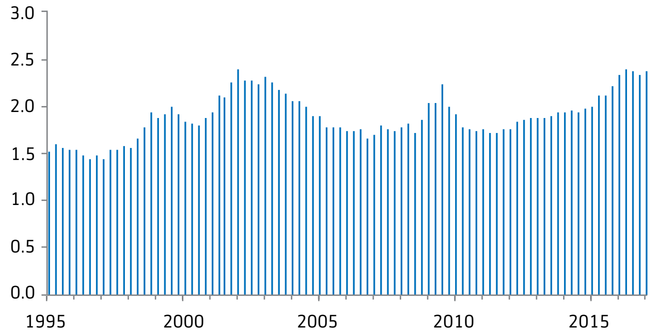
Sources: *Aegon Asset Management, Bloomberg, US Bureau of Labor Statistics.*

Eventually, wage rises would feed through into consumer prices and thus increase the inflation rate; something we currently see little sign of happening. Wage growth and inflation are slightly increasing, but remain moderately low. This poses a dilemma for the Fed, because they are unsure about the underlying reasons. If interest rates are increased too much, a slowdown could be triggered. In contrast, leaving monetary conditions too loose could cause an inflation spike.

One of the most sensitive sectors to higher interest rates is the property sector. Overall, residential property prices have not yet fully recovered from the crisis. Commercial property prices however tell a very different story (see Figure 2.7), especially offices in central locations which have tripled in price since 2009. Since rental yields on these commercial properties are very low, they are less attractive if interest rates were to be raised.

Figure 2.5: United States Investment Grade Gross Leverage

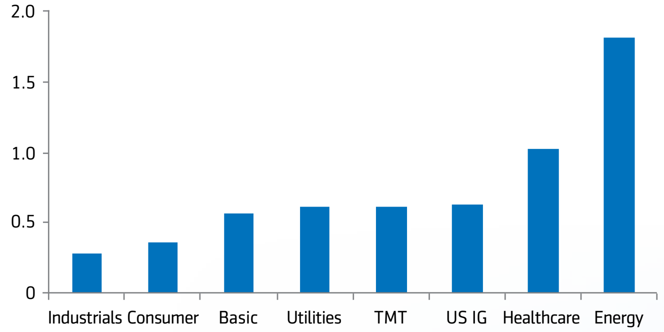
Leverage ratio



Sources: *Bloomberg, Citi Group, Morgan Stanley Research.*

Figure 2.6: Increase in Leverage per Sector

Leverage ratio increase for US IG corporates from trough in 2010 Q3



Sources: *Bloomberg, Citi Group, Morgan Stanley Research.*

The persistence of low inflation has caused the Federal Reserve to remain very cautious to tighten monetary policy. These low rates in combination with the benign economic environment have resulted in an increase in leverage in some sectors. As can be seen in Figure 2.5, the gross leverage of US investment grade companies has increased since 2012. In fact, the current levels are similar to the leverage levels that we have seen prior to the dot com bubble in 2000. Figure 2.6 shows that the increase in leverage has been widespread over sectors particularly affecting companies in the energy sector whose leverage has increased since 2010. Simultaneously, interest rate coverage has slowly decreased. Increasing interest rates and a worsening of economic conditions could decrease the ability to pay interest on the debt going forward.

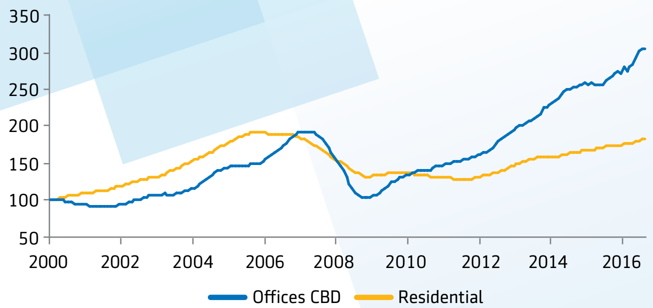
On the other hand, households in general have not assumed large amounts of debt as the previous crisis is still branded in their memories.

Many other financial assets are also dependent on the interest rate level. When interest rates fall, financial assets tend to rise; which in turn increases confidence and spending power and thus has the effect of stimulating economic growth. The Fed explicitly used this policy to accelerate the recovery after the crisis by lowering interest rates. However, when interest rates rise, the opposite happens: financial assets, confidence and spending power all decrease. This effect can be seen in listed equity prices where investors have been willing to accept relatively low yields (see Figure 2.8). If interest rates were to rise, we expect that they will demand a higher premium, resulting in low returns on equities consequently reducing confidence and lowering GDP growth.

The most unpredictable factor in the US economy is the political developments in Washington. When President Trump was elected, financial markets expected that he would lower taxes and reduce regulation. Equity markets and interest rates therefore began to rise. Because reforms have been difficult for the President to pass, expectations about further reforms are low and this can be witnessed by a decline in interest rates.

Figure 2.7: United States Property Prices

Index (2000 = 100)



Sources: *Bloomberg, Datastream, Real Capital Analytics.*

Figure 2.8: United States Real Estate Earnings Yield

Estimated earnings yield (in percent)

Source: *Bloomberg.*

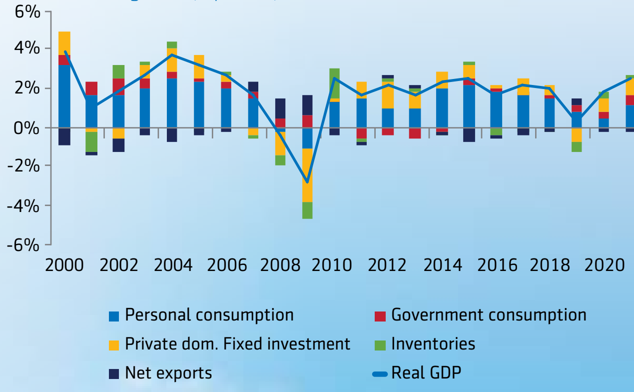
The future

We expect that the current pace of job creation will slow slightly to around 1 to 1.5% annually, due to a scarcity of skilled labor. We also expect productivity growth to recover to more normal levels of 1%. As such, our base case growth rate for 2018 is about 2%. The tight labor market results in wage inflation, translating into consumer price inflation. We estimate inflation to reach more than 2.5% by the end of 2018. The combination of positive economic developments and price inflation would set the stage for the Fed to continue the gradual path of normalizing interest rates and monetary conditions. In our base case, the policy rate will increase to 2.25% at the end of 2018, which is similar to the Fed's projections.

Higher central bank interest rates eventually translate into the economy via different channels. First of all, funding rates for corporates, consumers and the government will rise. As we mentioned previously, leverage has been increasing, especially within the corporate sector. Interest payments have however remained manageable due to the low rates, but once these rates start to rise, they will put pressure on corporate profitability.

Figure 2.9: United States GDP Composition

Real GDP growth (in percent)



Note: *2017-2021 data based on expectations.*
Sources: *Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.*

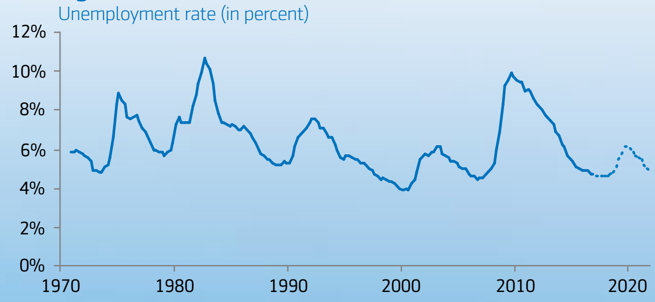
Secondly, higher interest rates will lead to a decline in asset values. Lower asset values will lead to a fall in confidence, a fall in spending power and a fall in the collateral value used to obtain loans. Commercial property prices are especially vulnerable as current rental yields are too low. Other financial assets, like listed equities, will also likely decline as investors will demand a higher risk premium. All these factors and effects will lead to a reversal of the "wealth effect," which was pursued by the Fed after the crisis.

It is important to note that none of these imbalances are similar in size to those preceding the financial crisis. We therefore only expect a minor slowdown of the US economy, and a short-lived recession at some point in the coming years. Our most likely scenario is that this will take place around 2019.

This shallow recession will reduce imbalances in the economy and will create the room for a recovery. In our base case GDP will grow with 1.8% and 2.6% in 2020 and 2021, respectively.

Figure 2.10: United States Labor Market

Unemployment rate (in percent)



Note: *2017-2021 data based on expectations.*
Sources: *Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.*

Europe:

One region, two stories

The European economy has performed surprisingly well since the onslaught of the crisis, especially in the last few quarters where the eurozone benefitted from the global cyclical upswing, supportive monetary conditions and lower political risks. Growth has exceeded potential, and there is sufficient spare capacity for future growth. However, there are large differences within the eurozone.

The positive surprise: A strong cyclical upswing

Let's start on a positive note. After years of struggling, eurozone GDP growth is above trend at about 2% per year. This positive upturn is also reflected in labor market developments: the participation rate increased and the unemployment level dropped to about 9% (from over 10% one year ago). Business sentiment is strong and forward looking indicators point towards a continuation of growth. Also, the economy has proven to be resilient to political unrest in the past quarters.

There are several factors at the root of this cyclical upswing, namely:

- Structural reforms that were implemented after the financial crisis have started to have more supportive effects. The creation of a European Banking Union, the recapitalization of the financial sector and reforms on a national level, e.g. labor market reforms.
- The era of restrictive fiscal policy is over in most eurozone countries. In the aftermath of the financial crisis most eurozone countries had to implement austerity measures. Given the current conditions, budget deficits are much smaller and fiscal policy is no longer restrictive.
- Europe overcame some political risk events, e.g. a series of national elections and the looming Brexit, without any negative consequences so far.
- The economies of Europe's main trading partners are performing well, and the eurozone benefits via strong exports.
- The very supportive stance of the European Central Bank (ECB) resulted in low borrowing costs for governments, businesses and consumers.

Altogether, these factors have set the stage for positive economic developments in the eurozone and these developments combined have triggered a strong cycle of increasing confidence, investment and spending.

The labor market has shown a strong recovery since the global financial crisis as eurozone unemployment levels decreased from over 12% at the height of the crisis to about 9%.

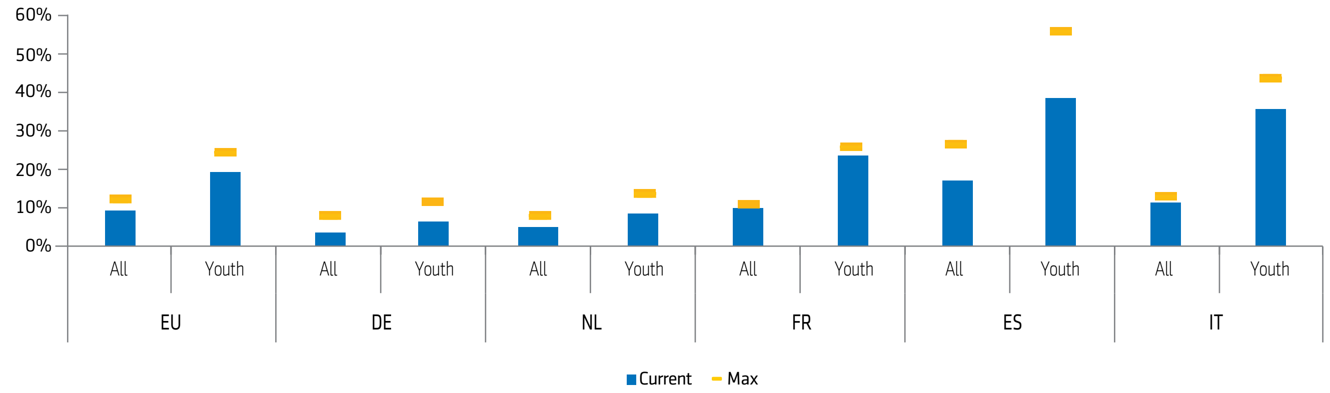
Risks are presents

However, we should not be overly optimistic. There are large differences within the eurozone that pose a threat to economic growth moving forward. Last year we addressed the same issue by showing the growing divergence of wealth levels between the core eurozone countries and the periphery countries, in particular Italy.

This year, we want to address the issue of structural differences within the eurozone from another angle, one that is probably even more illustrative than the wealth levels gap. The labor market has shown a strong recovery since the global financial crisis as eurozone unemployment levels decreased from over 12% at the height of the crisis to about 9% (see Figure 2.11). Job creation has been strong and the participation rate increased as a result. However, there are large differences between the levels of unemployment across European countries. On the one hand, there is a group of countries with low unemployment levels that are close to reaching full employment such as Germany and the Netherlands. While on the other hand, peripheral countries are still reporting high unemployment levels, such as Greece and Spain. These economies were hit hard during the financial crisis, and it is taking more time for them to fully recover from those blows. There is also a difference in the pace of recovery amongst eurozone countries. The gap between the horizontal bars and the columns in Figure 2.11 shows the improvement of the labor market since the financial crisis. In other words, the larger the gap, the more unemployment has decreased. Interestingly, both Spain and Italy both had high unemployment rates during the financial crisis, but Spain has managed a stronger labor market recovery. The large difference in employment levels between generations is also a factor. Youth unemployment is much higher than the national averages because it typically takes some time to find a job, those registered as unemployed, can actually be studying or taking time off. However, the current gap in a lot of eurozone countries is larger than normal and illustrates how difficult it is for young people to find a job. In summation, the economy is recovering from the crisis, but wealth and economic growth levels differ among countries and age groups.

These differences pose multiple threats to the stability of the eurozone and to the recovery going forward. They make it more difficult to set the optimal monetary policy for the eurozone as a whole, and economic hardship in countries hit hardest by the crisis could increase support for populist parties that question the benefits of the eurozone membership.

Figure 2.11: Eurozone Labor Market
Unemployment rate (in percent)



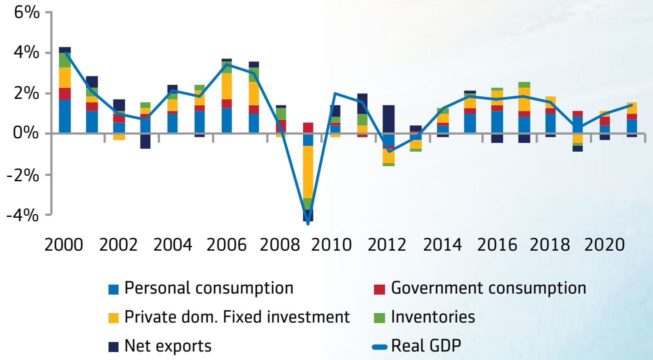
Note(s): Youth are under 25 years old. Max indicates the maximum unemployment rate since 2008.
Sources: Aegon Asset Management, Eurostat.

The eurozone outlook

Looking ahead to the next four years, our eurozone macroeconomic expectations show similarities to the US scenario. The buoyant eurozone expansion of 2017, with activity in most member states meeting or exceeding expectations, provides the setting for the GDP growth we expect for 2018. We foresee that the eurozone economy can grow by 1.5% next year. This is marginally lower than the 2% growth of 2017, but still exceeds the structural trend. The continuation of the economic momentum, in combination with a modest pickup in inflation, will provide comfort for the ECB to reduce it's extraordinary monetary policy. We foresee that the ECB will gradually scale down the asset buying program, which will be finalized during the second half of 2018, but expect financial conditions to remain very supportive for the time being. It seems unlikely that the eurozone will be able to withstand our predicted US slowdown. Like in the US, the slowdown will be mild and short lived. For the years 2020 to 2021, we expect the economy to recover and estimate economic growth to return to 1.3% at the end of our forecasting horizon.

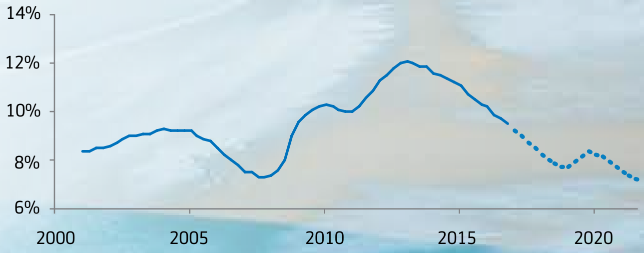
It is important to note that the recession we foresee in 2019 might cause a difficult situation for the ECB. The ECB has proven to be willing to use non-traditional policy tools to reach its objective of close to but just below 2% inflation. The economic slowdown will go hand-in-hand with lower inflation levels, towards 1%, and as such the objective of the ECB is put at risk. We argue that the ECB, after just having tapered the asset buying program, won't immediately reinstate the extraordinary measures. The absence of large dislocations in the economy will only cause a mild slowdown that does not require emergency policy. Also, the ECB will be less prone to reinstate these measures, as we do not expect the deflation risk to rise. We estimate the ECB will refrain from further policy tightening in 2019 in order to keep financial conditions very supportive, but do not expect another round of any form of asset buying program. Later, in 2021, we believe that the conditions will be favorable enough for the ECB to once again to cautiously tighten policy.

Figure 2.12: Eurozone GDP Composition
Real GDP growth (in percent)



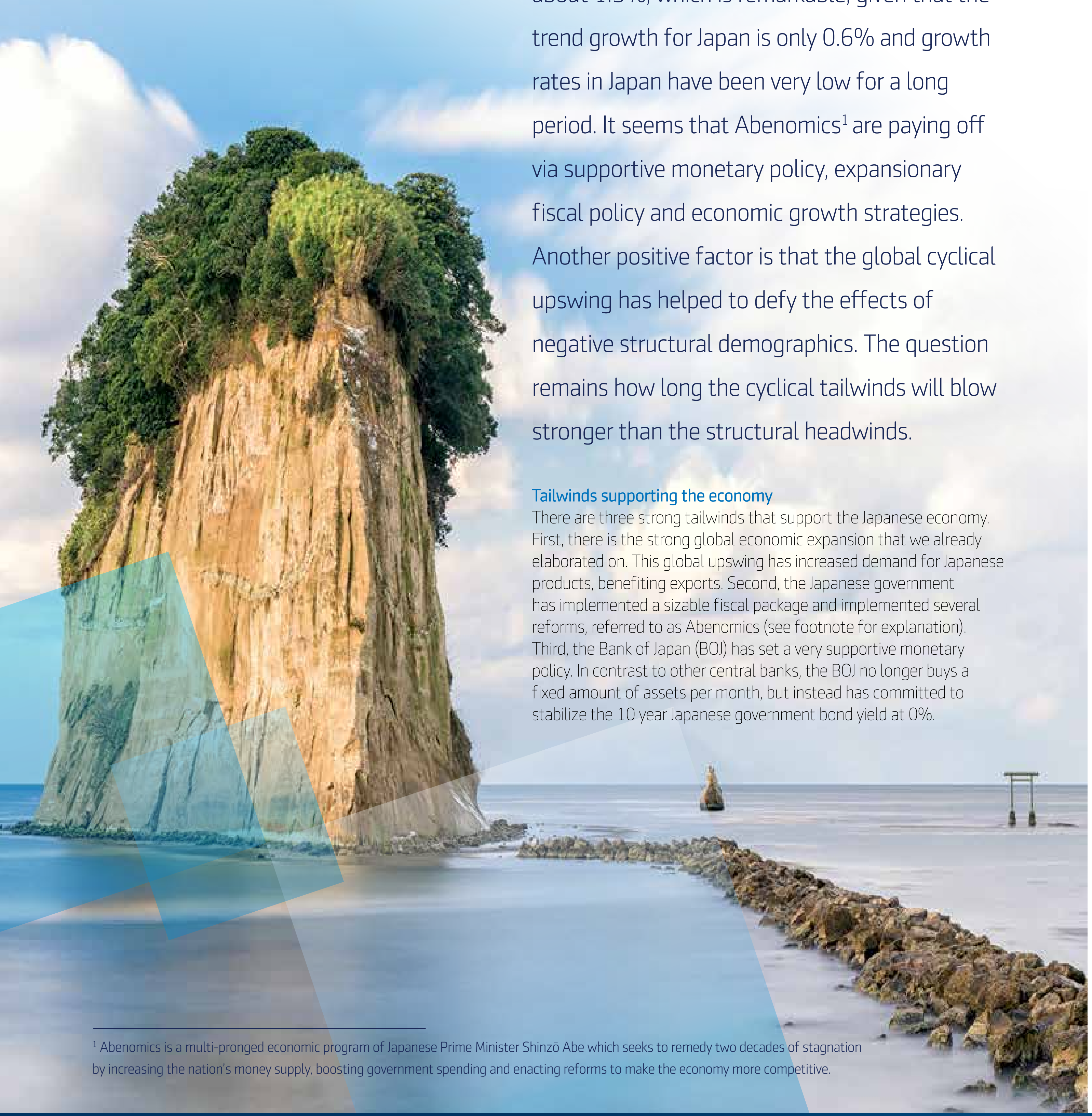
Note: *2017-2021 data based on expectations.*
Sources: *Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.*

Figure 2.13: Eurozone Labor Market
Unemployment rate (in percent)



Note: *2017-2021 data based on expectations.*
Sources: *Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.*

It seems unlikely that the eurozone will be able to withstand our predicted US slowdown.



Japan: The land of the rising sun and balance sheet

This year the Japanese economy will expand by about 1.3%, which is remarkable, given that the trend growth for Japan is only 0.6% and growth rates in Japan have been very low for a long period. It seems that Abenomics[1] are paying off via supportive monetary policy, expansionary fiscal policy and economic growth strategies. Another positive factor is that the global cyclical upswing has helped to defy the effects of negative structural demographics. The question remains how long the cyclical tailwinds will blow stronger than the structural headwinds.

Tailwinds supporting the economy

There are three strong tailwinds that support the Japanese economy. First, there is the strong global economic expansion that we already elaborated on. This global upswing has increased demand for Japanese products, benefiting exports. Second, the Japanese government has implemented a sizable fiscal package and implemented several reforms, referred to as Abenomics (see footnote for explanation). Third, the Bank of Japan (BOJ) has set a very supportive monetary policy. In contrast to other central banks, the BOJ no longer buys a fixed amount of assets per month, but instead has committed to stabilize the 10 year Japanese government bond yield at 0%.

It seems that Abenomics are paying off via supportive monetary policy, expansionary fiscal policy and economic growth strategies.

This has resulted in very supportive and predictable financing conditions for the government, businesses and consumers. Because of this supportive monetary policy, the size of the balance sheet has increased to astonishing levels. The BOJ's balance sheet began expanding after Governor Haruhiko Kuroda launched unprecedented quantitative and qualitative easing in April 2013. Since then, the Bank of Japan has bought large amounts of equities and bonds and the balance sheet has crossed over the 500 trillion yen mark recently, approximately 93% of the country's GDP. At around 93%, the scale of the Japanese central bank's assets in proportion to GDP has no close match. In comparison the Federal Reserve held roughly 4.5 trillion USD in assets, which is equivalent to 23% of the US GDP, and although the ECB's balance sheet is larger than the BOJ's balance sheet, at about 4.2 trillion euros, the ECB only holds around 28% of eurozone GDP.

The inflation puzzle

Although growth rate of the economy exceeds the trend, there are no clear signs of price pressure in Japan. In fact, the risk of deflation is still present, despite the efforts of the government and central bank. One of the drivers of the very low inflation levels is actually the lack of wage growth. Typically, wage growth is an important factor that pressures the rate of inflation to rise. In Japan, wage growth has remained stagnant in the past years, which is remarkable given that the Japanese labor market is close to full employment (usually putting upward pressure on wages). Japanese unemployment levels rank among the lowest in the world with less than 3% of the labor force unemployed - a number so low that it is typically referred to as full employment.

The jobs to applicants ratio is another indicator of a strong labor market. Currently, there are 1.5 jobs per active applicant, which indicates a high demand and shortage of labor supply. Two factors could end this overheating of the labor market: a decline in the demand for workers, which seems unlikely in the near future, or an increase in the labor supply. It seems unlikely that the labor supply will increase because Japanese society is aging and immigration levels are low.

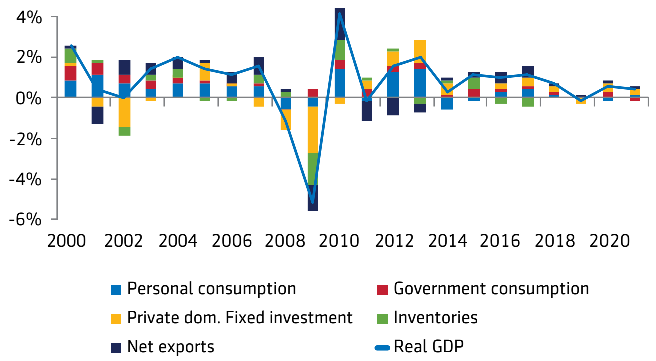
Another way to increase labor supply is by increasing the participation rate. One of the key pillars of Abenomics is to increase the female participation rate. In recent years the participation rate has risen, however not enough to take the pressure off the labor market.

The overheating of the labor market adds to the inflation puzzle, or more precisely the lack of an inflation puzzle. Generally, when demand for labor exceeds the supply of labor, employees have the power to negotiate higher wages, thus linking directly to higher inflation. One of the reasons why Japan is not experiencing this correlation is the fact that a large number of employees have temporary contracts with worse compensation standards than long-term contracts.

The future

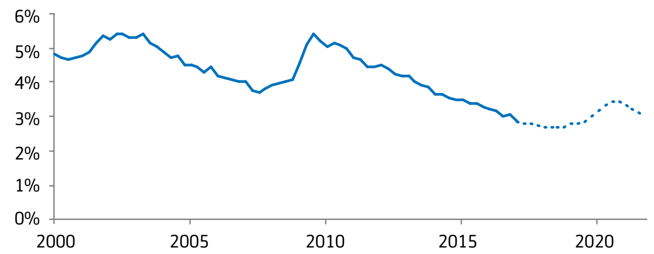
We expect the Japanese economy to grow by about 0.9% in 2018. This is somewhat lower than 2017, as the temporary effects of expansionary fiscal policy are not sustainable. In 2019, just like our estimate for the other major economic regions, the economy will slow down and enter a mild recession before recovering in 2020 and 2021.

Figure 2.14: Japanese GDP Composition
Real GDP growth (in percent)



Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

Figure 2.15: Japanese Labor Market
Unemployment rate (in percent)



Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

[1] Abenomics is a multi-pronged economic program of Japanese Prime Minister Shinzō Abe which seeks to remedy two decades of stagnation by increasing the nation's money supply, boosting government spending and enacting reforms to make the economy more competitive.

United Kingdom: Is it high or low tide?

Apart from slowing consumer demand, companies might postpone investments due to Brexit induced uncertainty.

The real economy has held up despite Brexit

Following the outcome of last year's referendum, the UK economy surprised both those that wanted to leave the EU and those that wanted to stay. GDP growth did not fall off a cliff but rather has shown a rate of 1.8% for 2016. We expect this to drift downwards to 1.5% in 2017.

Although consumer spending has been a crucial contributing factor, it is becoming clear that consumers are increasingly being squeezed. Several factors are leading us to believe that consumer spending is shrinking: a record low savings rate, a lack of wage growth and inflation.

The monetary policy dilemma

The Bank of England (BOE) cut its official interest rate by 0.25% shortly after the Brexit vote, and has held it at this level ever since. Although a few members expressed hawkish comments this summer, we expect the Monetary Policy Committee to hike rates once in November and to keep rates stable afterwards until the end of 2019. We predict one more rate hike before the end of 2021.

Obviously this implicitly reflects our expectations for inflation. After the recent spike to 2.7%, which is above its target of 2%, inflation is likely to settle closer to this target over the next few years. The main factors contributing to this, apart from muted wage growth, are stable energy prices and a stabilizing currency.

Another reason for the inaction of the BOE is their concern for the negative impact of the Brexit negotiations on the broader economy. This impact is already starting to show in surveys, for example. Apart from slowing consumer demand, companies might postpone investments due to Brexit induced uncertainty.

Westminster Politics

Prime Minister Theresa May's gamble of a snap election last June spectacularly backfired. Now heading a minority government she has lost both negotiating room and leverage. Still, we do not believe she will be replaced as a leader due to the overarching worry within her Tory party that a new general election will bring Labor, the opposition party, to power. Regarding the negotiations with the EU, we are particularly concerned about the risk of a "dirty" Brexit, whereby the UK and EU fail to reach any agreement before the deadline, if only because of the complexity involved. An obvious and likely solution is to extend the deadline. Still, we suspect that both the pound and UK government bonds will regularly feel the pain during these negotiations.

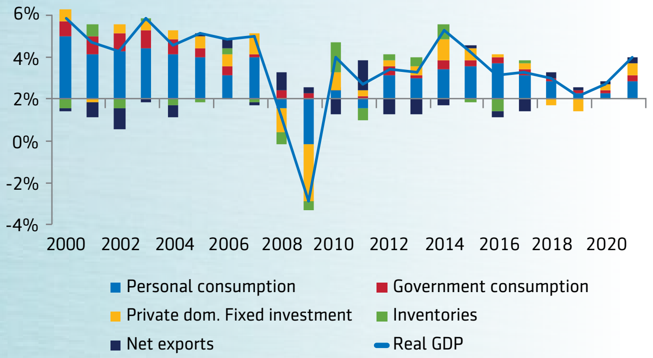
The big elephant in the room is the multiple deficit condition that the UK is suffering. This will not change following recent policy actions and more than likely will worsen in the next few years.

We need to monitor signs that suggest a closer coordination between fiscal and monetary policy. Still, with a commitment to arrange trade deals, it seems the UK is starting to confront its own version of the "Impossible Trinity": trying to manage the exchange rate, capital accounts, and interest rate. Economic theory and history suggest that balancing all three concurrently is too much to ask.

The future

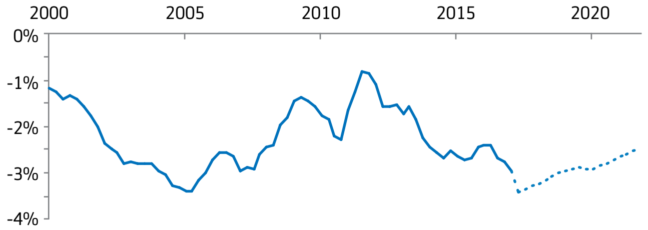
Based on our assumptions, we expect the UK economy to grow by 1% in 2018. This is lower than the US and eurozone, which is explained by the break Brexit puts on the possible growth. In line with the other regions, we foresee no growth in 2019 on the back of the mild global recession and believe that the UK economy will more than likely recover in 2020 and 2021.

Figure 2.16: UK GDP Composition
Real GDP growth (in percent)



Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

Figure 2.17: UK Trade Balance
(as percentage of GDP)



Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

China's Currencies

China is on the road to becoming the largest economy in the world, but regardless of this honor, its currency is often under debate both by governments and the financial world alike.

For a start, what is the difference (if any) between the renminbi and the yuan? It's very much like calling sterling the pound. Renminbi and sterling are the official names of the currencies, while the yuan and the pound are the units of that currency. In other words, just as you wouldn't say that an item cost "one sterling" but "one pound," you don't say that an item costs "one renminbi" but that it costs "one yuan." Incidentally, the renminbi, which has the foreign exchange code RMB, means "the people's currency" in Mandarin and was first issued in 1948 by the People's Bank of China (PBoC) as a unified currency for use in Chinese Communist controlled territories.

So what about CNY and CNH? They are both codes for the yuan but the CNY is the code for China's onshore currency, which can only be traded in mainland China, and CNH is the code for its offshore currency that is traded outside its borders. The key difference is that while the former is under the strict control of the PBoC, which regulates its movements, the latter is allowed to move more freely. The CNY is managed by setting a daily fixed rate against a basket of international currencies (mainly the USD) and allowing it to trade within a 2% band thereafter – commonly referred to as a managed float.

How has the renminbi performed historically versus the rest of the developed world currencies? Since the beginning of the 1980s until the mid 1990s, the renminbi strongly depreciated relative to the dollar, this undervaluation was a conscious policy of the Chinese government to keep Chinese products cheap and more attractive to foreign buyers.

The policy of undervaluing the renminbi was a contentious topic in international trade, where various groups in the US accused the Chinese authorities of artificially maintaining a cheap renminbi. A big change happened in 2005 when the CNY was revalued to 8.11/dollar and linked to a narrow trading band against the US dollar. In the period between 2005 and 2014 the CNY has reversed its previous depreciation and has become about 35% more expensive, a move which was welcomed by the international financial community. Since the beginning of 2014, the renminbi has once again been depreciating.

We believe that at this juncture, given the advancement of the Chinese economy, it is very important for Chinese authorities to transform the renminbi into a true international currency. As of October 2016, the IMF announced that the renminbi would be included in the special drawing rights (SDR) basket, a basket consisting of the world's most important and widely traded currencies. For many Chinese the inclusion of the renminbi in the SDR was a mark of China's importance in global trade and finance. The renminbi is the fifth currency in the SDR basket, next to the US dollar, the euro, the Japanese yen and the British pound sterling.

Hence, going forward as a base case we think the renminbi will continue its slow liberalization path. The PBoC will try to prevent excessive moves of the trade/reference basket-weighted renminbi while allowing it to trade somewhat freely within the official reference rate bandwidth.

The inclusion of the renminbi in SDR was part of the broader Chinese plan to liberalize its capital accounts. Several benefits come from having free(er) capital movement, namely greater monetary policy independence, more access to capital sources different than the traditional bank channel and a potential improvement in the allocation of capital and resources for China's households and firms. Having a freely-floating currency and open capital accounts might, however, lead to periods of instability for emerging market countries, as we have seen on several occasions in the past, for example, during the 1997 Asian financial crisis. External risks such as a continuing appreciation of the US dollar, in addition to political pressure or regulations leading to lower Chinese exports are factors which might slow down the democratization of the capital accounts of China. However, if the PBoC thinks such risks are receding, they might decide to move quickly to further liberalize inflows into onshore markets.

Emerging markets: Alike but not the same

Even though there are many differences between developed market economies, the contrasts amongst emerging market economies are much greater. Emerging markets on the whole are a category that consist of a very dissimilar group of countries, many with diverging paths of growth, economic development and political situations. In the past years, some emerging market countries have shown growth above developed market economies, improved economic stability and a rise of the middle class, whereas other countries have struggled with economic recessions, political instability and commodity price fluctuations.

It is very difficult to make an assessment of "emerging markets" as a whole. First of all, this category consists of a very diverse group of countries, which typically include China but also Nigeria and Venezuela - two examples on completely different tranjectories. Secondly, there is no common definition of what makes up an emerging market. For instance, Greece is an emerging market according to some equity index providers, like MSCI and FTSE, but it is not included in the Emerging Market Bond Index of JPMorgan. It is also not an emerging market according to the IMF. South Korea on the other hand, which has a high GDP level per capita, is still included in the emerging market index of MSCI, but is not by all other major providers. In recent years several acronyms have been developed to differentiate groups of emerging countries like the BRICS and the "next eleven." This is however still only a partial solution, as economic development has been very different within these groups. Our approach is therefore much more focused on an analysis per country.

China: Transforming a giant

The growth and change of the Chinese economy has been extraordinary. In 1990 the Chinese economy was the 12th largest economy in the world, whereas now the Chinese economy ranks as the second largest economy by nominal GDP, and first among the largest economies by purchasing power parity. In the past 30 years, the Chinese economy outpaced almost every other economy in the world, with annual growth rates averaging 10%. Growth of that magnitude is impressive, particularly for such a large economy.

Transformation is here

The main drivers of China's growth over the past few decades have included industrialization, urbanization and favorable demographic trends. Moreover, China's entry into the World Trade Organization in 2001 underpinned China's emergence as the largest exporter of manufactured goods and elevated its position in global trade.

The central government has played – and will continue to play – an important role in the economic development of China. Every five years, the Communist Party of China decides on social and economic policies which are documented in the so called "Five-Year Plans." These plans describe a series of social and economic development initiatives that function as a template for future policy.

In the past decades, the composition of the Chinese economy changed significantly, from one primarily dominated by agriculture, to one driven by manufacturing and industry. Looking at the 13th Five-Year plan (2015-2020), the government aims to continue the transformation to a more balanced economy, one that resembles western developed economic systems. The most important features of this transition are: i) the change from an investment-led economy to an economy that is mainly driven by middle-class consumption; ii) more focus on high quality services and value adding manufacturing instead of heavy industries and; iii) more liberal and accessible financial and currency markets.

Data confirm the transition of the economy; with consumption now accounting for more than 60% of GDP growth in the first half of 2017. Moreover, financial markets are opening up; the IMF has included the yuan in the IMF basket of reserve currencies and MSCI has added Chinese stock markets to their stock indices. These developments acknowledge the development of Chinese financial markets and confirm the role of China as a global power.

Hard landing

Some economists argue that the transition of the Chinese economy puts growth at risk, and that it is possible that the economy could experience a "hard landing" should growth come to an abrupt end. This could be caused by large imbalances in the economy that have built up over the past years.

The Chinese government has pledged to double the size of the economy between 2010 and 2020 and has been prepared to see non-financial sector debt rise rapidly in order to achieve its aim. This credit-fuelled growth strategy has been branded as dangerous, and it is questioned if such growth is sustainable in the long run. In fact, the IMF has warned that the Chinese government is putting too much priority on reaching a high growth level, and rather should be looking at the quality of economic output. Moreover, China has to deal with oversupply issues (in some industrial sectors), sharply increased house prices and an inefficient shadow lending system.

The Future

Although we are aware of factors that can put economic growth in China at risk, we do not anticipate a hard landing in our basis scenario but rather a gradual and controlled growth deceleration. In our basis scenario we understand that this transformation process needs to be taken into account as it will continue. Growth could go hand in hand with volatile periods, where economic and financial market data could surprise the markets. We argue that the transformation will have positive effects in the long run and will make the Chinese economy more robust. Specifically, our central forecast is that the Chinese economy will experience a further gradual moderation in growth over the next few years with annual growth rates declining to just below 6% by 2021.

India: Closing the gap?

In the decades preceding the 1990s the GDP per capita of India and China was very similar, but since then their fortunes diverged. Currently the GDP per capita is around five times higher in China than in India. There are many theories about why this extremely large difference in performance exists. Our view is that it is mainly due to the low investment rate, which has been a consequence of government policy.

Lagging behind

China has dedicated large amounts of funding for investment in infrastructure and manufacturing, while forgoing consumption. It has been able to do that due to a closed capital account and a managed exchange rate which resulted in China's strong competitive position. Actually, the policy of promoting exports and building manufacturing capabilities has been successfully pursued in different forms by the Asian tigers. China has also been more successful in acquiring intellectual property at a limited cost, due to various policies including the requirement for foreign companies to operate in joint ventures with local Chinese companies. India has not progressed along this path and as a result has not had a coherent strategy with which to build its capital base. As a result growth per capita has been significantly lower.

The future

The question is whether India will be able to change its economic model. Recent economic data suggest it has been successful and is showing signs of improvement. In 2016, the per capita growth rate in India has been similar to that of China. The Modi government is also pursuing new economic reforms. For instance they implemented a "Goods & Services Tax," which replaced the myriad of state and local taxes. This government is also planning on removing restrictions on foreign investment, deregulating energy prices and making it easier to setup new businesses. Some of these reforms have been implemented successfully, while several others face opposition by vested interest groups.

Overall, we expect that these reforms will result in decent growth going forward, however, we don't think India will succeed in copying China's success. The institutions in India simply lack the power to direct investment and to push through reforms.

Chapter 3

Our Positive and Negative Economic Scenarios

3. Our Positive and Negative Economic Scenarios

This year we believe that the basis scenario has a 60% chance of actually being realized.

In the previous chapter we presented our basis macroeconomic scenario. However, history has shown that forecasts only approximate reality at best. As such, we argue that it is foolish to only focus on our consensus forecast, so we also estimate positive and negative macroeconomic scenarios in order to be more accurate. This allows us to consider various possible market conditions and allows us to construct robust portfolios that are expected to perform well when our consensus view materializes and also gives us leeway in different market circumstances. This year we believe that the basis scenario has a 60% chance of actually being realized; the negative scenario has a 15% chance of occurring and the positive scenario is somewhat more realistic and has a 25% probability.

The negative scenario: The textbook central bank policy error

It might be counterintuitive, but our negative scenario growth estimates for 2018 and 2019 exceed our basis scenario expectations. In fact, in the next two years, growth is much higher than trend and the economy overheats.

The unemployment rate decreases even further as more jobs are being created, resulting in wage increases as employees can demand higher wages. Under these circumstances, it is likely to expect inflation to overshoot the targets of central banks; for 2019 we expect inflation to reach 2.6% in the eurozone and even 4.0% in the US. We foresee that central banks will be uncomfortable with these higher inflation levels and they will respond by tightening the monetary conditions at a fast pace. Specifically, we expect US central bank rates to reach 3.75% by the end of 2019, which is above the ultimate rate as indicated by the Fed at this moment. Similar to the Fed, we expect that the ECB and BOE will increase interest rates to counter high inflation. This fast and abrupt tightening of monetary conditions will reduce investments and cause consumer confidence to fall. Also, the combination of higher corporate leverage and increased interest rates will have a strong effect on the profitability of corporations which will in turn cause an economic recession in 2020, that will be much more severe than the recession we predict in our basis scenario.

Although central banks would try to avoid such a policy error, history has shown that inadequate monetary policy decisions have often been at the core of economic slowdowns. Given the experimental use of unconventional monetary policy in the past years, it is more difficult for central banks to assess the long term effects of their monetary policy decisions. The BIS has warned on several occasions that the risk of policy errors has increased, as central banks are struggling to adequately understand what drives inflation.

Under our negative scenario, most fixed income categories are still expected to yield positive returns. High yield investments are an exception, as these asset classes are expected to generate negative returns due to their more risky nature. In the equity space, we expect a negative average four year return.

The positive scenario: Productivity growth extends the cycle

Our positive scenario expects economic momentum to continue until the end of 2021 and does not foresee a recession during the forecasting period. In this scenario, we expect that growth will remain robust in all major regions. The average 2018 – 2021 projected growth rate is about 2.5% in the US, just below 2% in Europe and close to 1.3% in the United Kingdom and Japan. Also, inflation will increase but will remain at acceptable levels. This allows central banks to normalize monetary policy cautiously without imposing negative effects on the economy.

Economic growth will continue to be on an upward swing due to productivity gains. As mentioned before, previous economic growth was driven by labor growth as more people found jobs and labor market participation increased. In our basis scenario, we expect that economic growth levels will not be sustainable as we reach full employment and labor growth will no longer contribute significantly to overall growth levels. In our positive scenario, tight labor market conditions will spur innovation and the implementation of productivity enhancing measures. As a result, productivity growth revives and offsets the lower growth of the labor component. This productivity growth ensures that the economy can continue to grow for an extended period.

Continuation of economic expansion will have positive effects for risky asset classes. Investments in equity markets, commodities and real estate are expected to generate high single digit or even low double digit returns in the next four years. Given this scenario, the returns of most fixed income categories are less optimistic, with small positive returns. We even predict that government bond investments will generate negative returns, as these safe assets are expected to perform poorly in times of positive investment sentiment and a gradual tightening of global monetary conditions.

Chapter 4

Financial Markets and Expected Returns

Asset Class Categories

GB	Government Bonds
CB	Corporate Bonds
DM	Dutch Mortgages
ABS	Asset Backed Securities
EMD	Emerging Market Debt
DME	Developed Market Equities
EME	Emerging Market Equities
LRE	Listed Real Estate
COM	Commodities

We use our investment management expertise to help people achieve a lifetime of financial security.

4. Financial Markets and Expected Returns 2018 – 2021 per Asset Class[2]

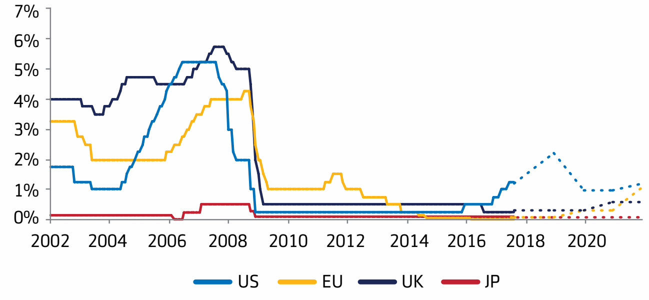
Government Bonds

GB

For the past 20 years, government bonds have experienced a bull market, meaning that prices of government bonds increased as yields declined. After the financial crisis, the government bond market experienced a further acceleration when central banks of most developed countries eased financial conditions. This was done via lowering interest rates and by implementing large scale asset buying programs. As a result, yields on government bonds hit record lows and in some cases even turned negative.

Generally speaking, we think we have seen the lowest yield levels (at least for now), but we don't expect them to increase significantly in the coming years. In the past quarters, the most important economic regions have posted above-trend economic growth. Recent data confirm a continued strengthening of global economic expansion, fuelled by the loose monetary conditions. However, economic expansion has not translated into stronger inflation dynamics, which has caused central banks to be cautious and to tighten monetary conditions. Nevertheless, despite the below target inflation levels, we expect the extraordinary policy measures to be scaled down, on the back of continued economic momentum, the absence of deflation fears and the risk of excessive asset price inflation.

Figure 4.1: Monetary Policy
Central bank policy rates (in percent)



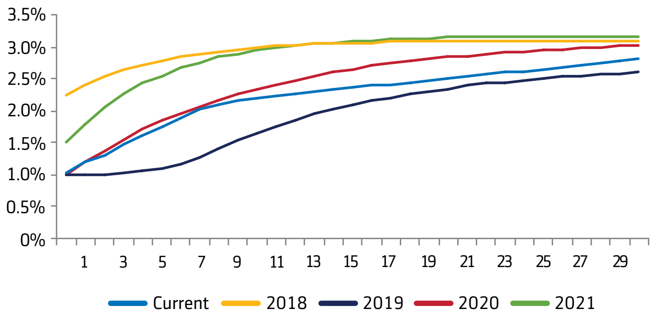
Note: *2017-2021 data based on expectations.*
Sources: *Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.*

In our base case, the Federal Reserve continues its gradual normalization process. Robust economic growth in the US and the gradual build-up of inflation pressures allows the Fed to increase the central bank rate to 2.25% by the end of 2018. Simultaneously, we expect the Fed to start reducing the balance sheet slowly. This normalization policy will be paused in 2019, as the mild recession that we forecast in our basis scenario does not allow for monetary tightening. In fact, we even anticipate the Federal Reserve to ease financial conditions by lowering the central bank rate to counter the economic slowdown. As we expect any recession to be short lived, the central bank rate will be increased again towards the end of 2021.

[2] These are for our base scenario

In Europe, current monetary policy is much different from the US. At this moment, the policy rate is at record low levels and a large scale asset buying program is still in place. Given our above trend expectations for eurozone growth, we argue that there is no longer a need for such extraordinary monetary support. We expect the ECB to start scaling down its monthly purchases during the course of 2018, the so-called tapering process, which we believe will be finalized during the second half of 2018. After the asset buying program has ended, the ECB can only increase interest rates marginally as the recession of 2019 does not allow for a continuation of the normalization process. The ECB has the reputation of being very cautious. The ECB needs to see stable and robust economic growth and persistency in inflation numbers before tightening monetary policy. As such we expect only a marginal tightening of financial conditions before the end of 2021, even though economic growth will return.

Figure 4.2: United States Sovereign Yield Curve
Nominal yields (in percent)



Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

The BOE faces a dilemma of its own. Where most central banks have to deal with below target inflation levels, inflation in the UK will exceed the BOE's inflation target. To a large extent, this is caused by post-Brexit weakness of the GBP. Although the initial effects of the sharp GBP depreciation after the Brexit are diminishing, it is likely that inflation will remain high for the time being. Simultaneously, the economy is showing signs of a slowdown, which is also related to uncertainty around Brexit. Hence, the BOE has an incentive to increase interest rates to support the GBP and counter inflation, but at the same time is uncomfortable to do so on the back of declining economic activity. We expect that economic growth will fall short of BOE expectations and therefore we believe that the BOE will keep the policy rate low before tightening conditions marginally as of 2020 .

The situation the Bank of Japan (BOJ) is in could not be much more different than the BOE's. In contrast to the UK, price pressure in Japan remains very weak, despite efforts of the BOJ and the Japanese government to increase inflation. Regular market interventions by the BOJ and the yield curve control policy that was implemented last year effectively sets the 10 year government yield at approximately 0%. This policy aims to support economic growth and restore inflation, but going forward, we do not expect the Bank of Japan to significantly change its policy.

Given our macroeconomic and monetary policy expectations, we foresee small negative returns for core eurozone bonds in the next four years. For the United States, the United Kingdom and Japan we forecast small positive returns.

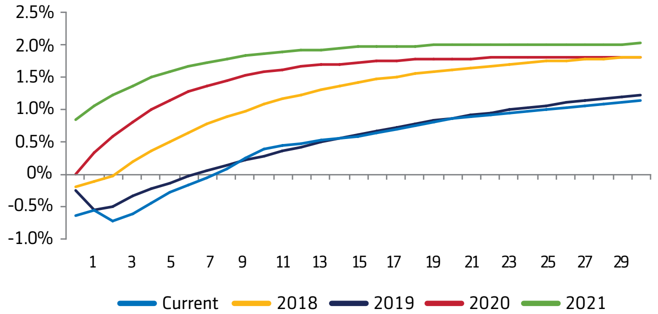
CB

Corporate Bonds

The European corporate bonds market has performed very well recently. In the past 12 months, the market was supported by improving corporate fundamentals, the corporate bond buying program of the ECB and the continuous search for yield. Both the spread on investment grade and high yield bonds tightened significantly.

Continuous strong performance of previous months has made corporate bonds rather expensive. The lowest point in yields before the financial crisis was around 6.5%, while they are

Figure 4.3: German Sovereign Yield Curve
Nominal yields (in percent)



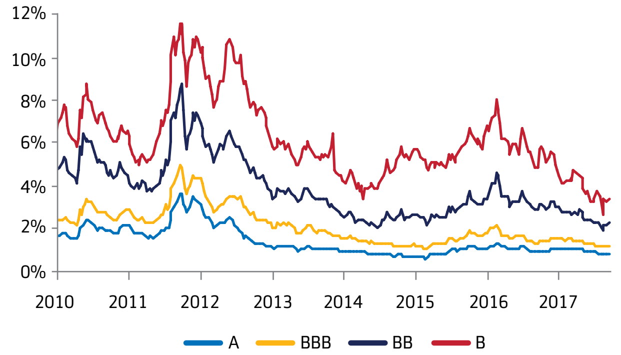
Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg, Thomson Reuters Datastream.

currently yielding on average around 3%. This lower average is largely a function of lower government rates, but also due to a low risk premium. The risk premium investors get, which is typically measured as the additional yield a corporate bond investor receives over a risk free government bond with a similar maturity, has decreased to pre-crisis levels. We argue that these extreme valuation levels are not sustainable, and expect spreads to widen, i.e. prices to decline, as the ECB scales back the asset buying program.

The footprint of the ECB's asset buying program can clearly be seen in the European corporate bonds market. The most obvious effect is the spread compression where (see Figure 4.4) spreads on almost all corporate bonds decreased since the initiation of the ECB's buying program. Specifically, the ECB has bought over 100 billion euros of corporate debt, which is rather significant for a market with a total value of 2 trillion euros. Also, the market grew in size, as lower yields made it more beneficial for companies to issue debt at lower rates. The newly issued bonds typically had longer maturities, which allowed firms to lock in the lower rates for a longer period. Lastly, a new investor base was attracted to the corporate bond market. Bond investors, in an attempt to avoid investing in government bonds with negative yields, moved up in the credit risk spectrum to high grade corporate bonds.

Similar developments have taken place in the US where relatively low yields have also incentivized companies to issue debt. Figure 4.5 clearly shows that leverage has increased while interest expenses have so far remained low, due to the low rates on corporate debt. However, a spike in funding rates can now more easily lead to problems.

Figure 4.4: European Corporate Bonds Spreads
Historical spreads per credit rating (in percent)

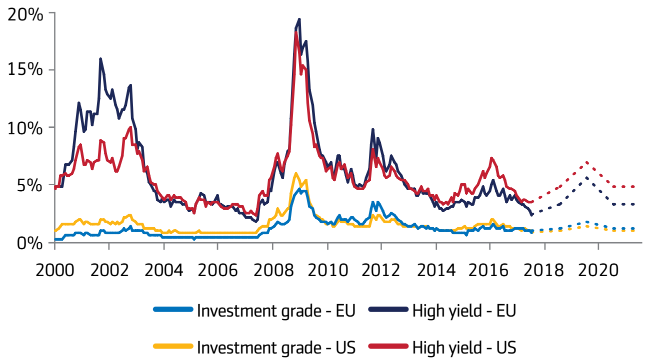


Source: Bloomberg.

As we expect the ECB to scale down the asset buying program, we also expect the tailwind that the corporate bond market is currently experiencing to disappear. In fact, we foresee some marginal spread widening for the end of 2018 as a result of the end of the ECB buying program. Later in 2019, the recession we foresee, will cause even more spread widening. The economic recovery in 2020 will result in a spread decline, however not to levels that we are currently experiencing with an active ECB. Although the ECB is not active in the high yield corporate bond market, the market shows many similarities with the high-grade market. The spread developments are plotted in Figure 4.6.

Our view for European Investment Grade corporate bonds is neutral, whereas our view for High Yield investments is slightly negative. We expect that yields are not sufficient to make up for expected spread changes, up/downgrade effects, defaults and currency effects for US and European High Yield investments.

Figure 4.6: Credit Spreads Corporate Bond Markets
(in percent)



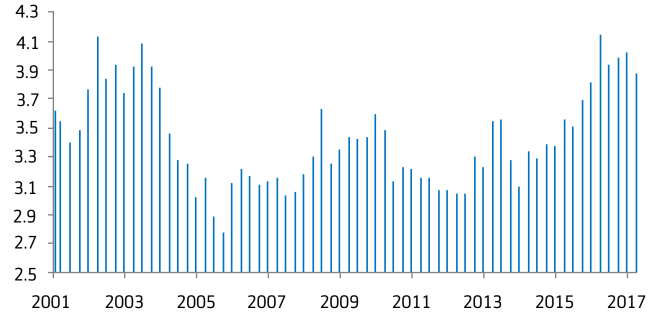
Note: 2017-2021 data based on expectations.
Sources: Aegon Asset Management, Bloomberg.

DM

Dutch Mortgages

Dutch Mortgages really stand out in this year's analysis. Within the fixed income space, Dutch Mortgages are among a short list of categories that are expected to generate positive returns over the next four years.

Figure 4.5: Leverage US High Yield Companies
Net leverage ratio

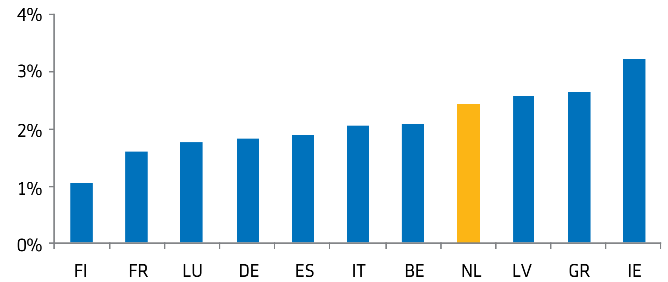


Sources: Morgan Stanley, Bloomberg, Capital IQ, Citigroup Index LLC.

Dutch Mortgages still offer an attractive spread, and we expect this spread to compress in the coming years. This compression is supported by two drivers, namely relatively high interest rates and improved credit standards.

Dutch mortgage rates are relatively high when compared to other European countries, for example rates in Finland and Germany are much lower. The ratio between the amount borrowed and the value of the property, the Loan-to-Value (LTV) is relatively high in the Netherlands. However, the maximum amount that can be borrowed has been structurally lowered over the past few years. Two main risk mitigating drivers for mortgage providers are the Nationale Hypotheek Garantie (NHG) guarantee, which pays a large percentage of the difference between the foreclosure value and the outstanding mortgage debt, and the fact that new mortgage loans need to be fully amortized in order to be eligible for interest payment tax deductions.

Figure 4.7: Mortgage Rates Per Country
Average mortgage rates with comparable maturities (in percent)



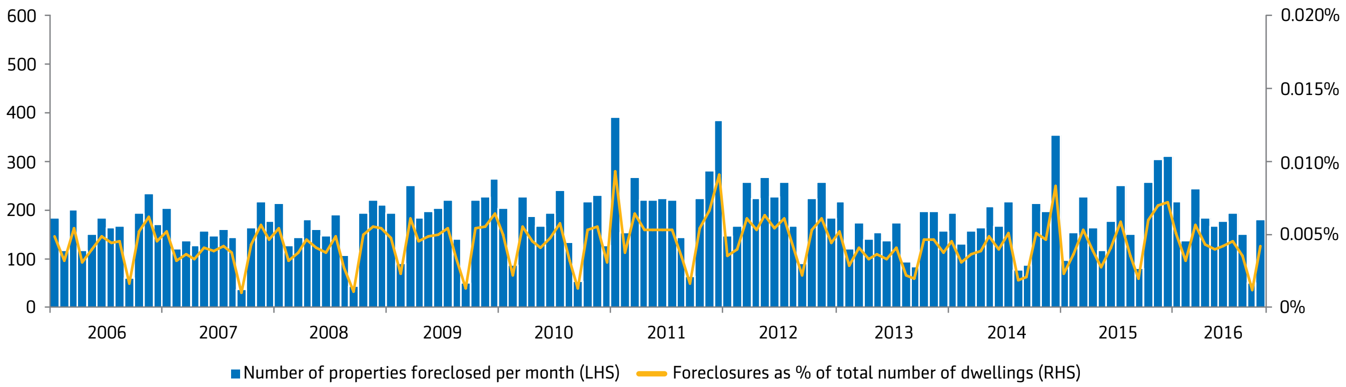
Source: ECB.

Second, research by the ECB shows that credit standards have been improving in the past quarters. Pressure from the competition and the improved risk perception are at the core of the eased standards. We expect that these factors are here to stay, which could cause a further convergence of Dutch mortgage rates towards levels congruent to other eurozone countries.

Another important aspect of our positive view on Dutch Mortgages lies in the limited negative effect of defaults. As Figure 4.8 shows, the Dutch mortgage market has remained relatively robust in times of recessions. We expect that the situation to remain unchanged and that the effect of defaults will remain marginal.

possible reduction of the asset buying program, which has caused volatility in some fixed income markets. The ABS market has sailed through this volatility virtually untouched, with neither new issuance nor secondary markets being affected by the ECB rumors. There are a few reasons that explain why the ABS market has been relatively calm. Most importantly, the footprint of the ECB in the ABS market is relatively small. About three years after the launch of the program, the Asset Backed Securities Purchase Program (ABSPP) has only €24bn in holdings, which is only a fraction of the total size of the ECB's balance sheet. Moreover, the ABSPP program is experiencing net negative monthly purchases, i.e. current ABSPP holdings are amortizing faster than new monthly additions. The net negative monthly purchases highlight that the market has been very

Figure 4.8: Dutch Mortgage Market



Sources: *Aegon Asset Management, CBS, Kadaster.*

ABS European ABS

We believe that European ABS investments have three interesting features that differentiate the asset class from other fixed income categories.

First, ABS investments have diversification effects that cannot be found in other fixed income investments. A typical multi-asset portfolio consists of two types of risks: risks related to governments, i.e. via government bond investments, and risks related to companies, i.e. via corporate bond or equity investments. Most ABS investments have exposure to consumer risk, in fact, the bulk of European ABS consists of exposure to mortgages, auto loans, credit card receivables and student loans. As such, investing in ABS creates the opportunity to diversify your risk factors in a multi-asset portfolio.

Second, another feature that stands out is the low duration of most ABS investments. Typically, ABS investments have a low interest rate sensitivity. As we expect the interest rates to increase, the low sensitivity results in a limited negative impact of the increasing interest rates in comparison to other fixed income categories.

Third, the ABS market has been relatively insensitive to the uncertainty surrounding monetary policy decisions. In the past months, market participants have been focusing on the

strong, thus making us comfortable that the market will not have problems digesting the expected tapering activities of the ECB.

Another interesting point has to do with how Brexit has been affecting the ABS market. We expect a modest spread widening on UK buy-to-let investments as we expect Brexit uncertainty to have a negative impact on the housing market in London. The UK market comprises just over 5% of the benchmark, and as such these Brexit effects will have limited ramifications on the asset class. That said, we do foresee some spread tightening in other regions, which can offset the UK effects.

Although we see the benefits of the characteristics mentioned above, we argue that ABS valuations are expensive. Spreads are very low, and we expect these low spread levels to not be sustainable, especially with the economic slowdown in 2019 that we are forecasting.

Consequently, for the next four years we expect an average annual return of -0.1%.

EMD Emerging Market Debt

Investor sentiment towards Emerging Market Debt (EMD) has been volatile, especially after the election of President Trump, as investors feared that he would implement protectionist policies and the stronger dollar has negatively influenced sentiment.

Both factors have now largely reversed. To date, the US administration has not implemented any major protectionist measures, but rather has been consumed with other foreign and domestic issues. The dollar has also depreciated as the prospects of higher US growth are now lower.

Historically, a strong dollar is negative for emerging market's balance sheets as they typically issue large amounts in USD denominated securities. Hence, in case of USD appreciation, the debt level in local currency terms will increase. Issuance of these securities has doubled since the financial crisis to 1.2 trillion USD. As a percentage of GDP this issuance has remained fairly stable due to strong economic growth. It is still much less compared to the levels preceding the Asian financial crisis and its composition has changed from shorter term bank debt to longer term debt securities. Overall, we are therefore less concerned about a general funding crisis in emerging markets as several emerging markets have built up significant international reserves, which can be used to alleviate any funding issues.

We therefore expect that country specific developments, instead of any systemic events, will determine the near future of EMD markets.

Spreads on EMD have contracted, but compared to other credit asset classes they still offer some value. Overall we think that risks are balanced, which results in a neutral position on EMD.

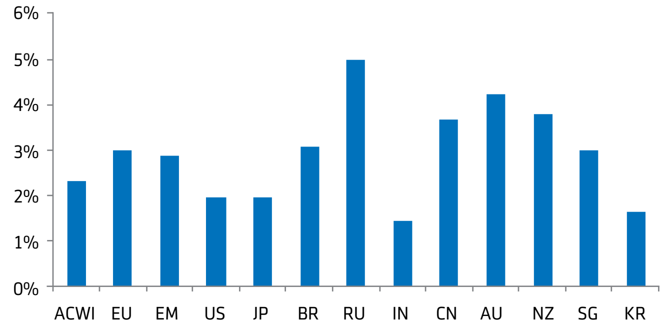
Developed Market Equities DME

Equities are an important asset class in a typical multi-asset portfolio. Even though historical returns are volatile, the risk-return profile is attractive for investors with a long investment horizon.

Global equity markets continued to perform in 2016 and equity markets rose strongly after Trump was elected in November last year. Hopes of tax reforms and an improved business climate supported US equities and international equity markets. While various markets kept on rallying, a stronger euro put a hold on European based companies.

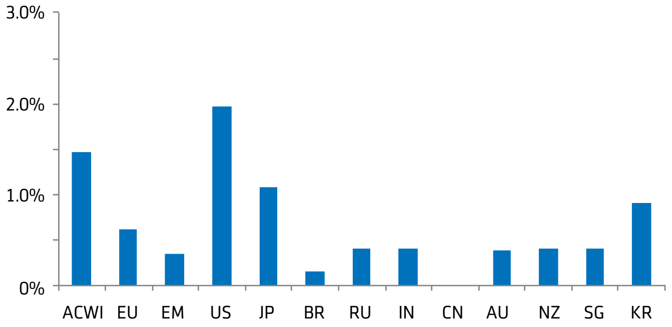
It is difficult to predict the short term equity returns, as investor sentiment is a key driver of short term returns. However,

Figure 4.9: Dividend Yield
(in percent)



Sources: *Aegon Asset Management, Bloomberg.*

Figure 4.10: Share Buyback Yield
(in percent)



Sources: *Aegon Asset Management, Bloomberg.*

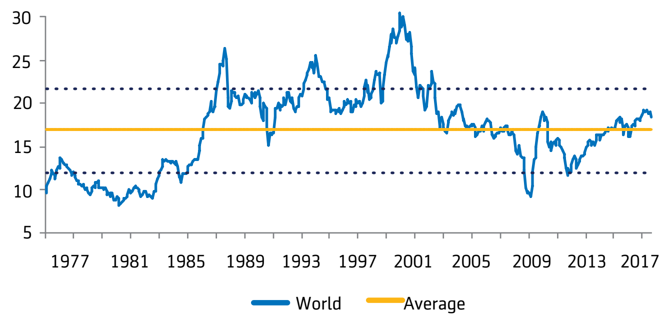
when applying a somewhat longer horizon, thorough analysis can provide interesting insights and a more reliable forecast.

Typically, the return on equity market investments can be broken down into various components: dividend returns, buyback activities, the inflation and interest rate differentials. The majority of all companies pay dividends to their shareholders (commonly referred to as dividend yield). Paying dividends is one method for companies to distribute capital to their shareholders and typically ranges between 2 and 3%. An international comparison shows that equity markets in Russia, Australia and New Zealand have the highest dividend yield. The Indian, Japanese and South Korean markets have the lowest dividend yields as these countries are not known for their dividend culture. We foresee that investors in global equity markets will receive a dividend yield of 2.3% annually in the next years. In addition, we expect dividends to continue to grow in the future, thereby adding an estimated 1.7% to equity returns.

The second building block of equity returns comes via the share buyback activities of companies. A share repurchase is a program by which a company buys back its own shares from investors, thus reducing the number of outstanding shares. In the US, the return contribution of share buybacks is high. We expect share buybacks to add 1.8% to the total equity returns for our forecasting period.

Rerating can have positive and negative effects on the total return of equity markets. For the 2018-2021 period, we expect rerating to have a negative effect because equity markets are relatively expensive at this moment. As can be seen in Figure 4.11 the valuation of world equities has increased in the past years and this implies that investors need to pay a higher earnings multiple. We expect that this is not sustainable in the coming four years and expect valuation to revert back to the lower historical averages. As such, we estimate rerating to have a negative return contribution of about 2.6%.

Figure 4.11: Valuation Global Equity Markets
Historical valuations (P/E ratio)

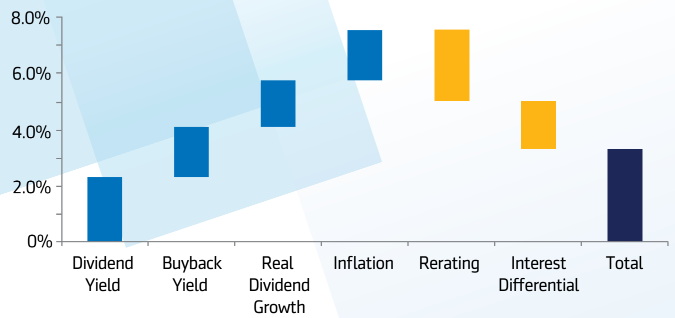


Note: *Dotted lines are +/- 1 standard deviation.*
Sources: *Aegon Asset Management, Thomson Reuters Datastream.*

The final components of the return on equity markets investments are inflation and interest rate differential which are linked to our macroeconomic expectations. We expect an average global inflation rate of about 1.8% for the next four years. We also estimate the interest rate differential to have a contribution of -1.7%, as interest rates in local equity markets are often higher than our eurozone rate expectations.

To summarize, we anticipate world equities (hedged to EUR) to generate an average annual return of 3.3% for the next four years (see Figure 4.12). Specifically, local returns are at 5.4% for European equity markets and 3.6% for US markets. The return difference is mainly due to the rerating effects, as we argue that the valuation correction in the US will have a larger effect in comparison to Europe.

Figure 4.12: Equity Return Breakdown
ACWI, nominal returns hedged to EUR 2018-2021 (in percent)



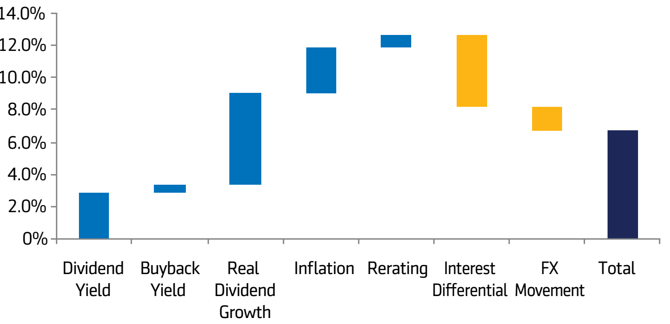
Note: *Average annual returns for 2018-2021.*
Sources: *Aegon Asset Management, Bloomberg.*

Emerging Market Equities

EME

The returns for emerging markets are calculated in a similar manner as developed market equities. Although the components are the same, the return attribution for these components differs from developed market equities. Firstly, the effect of dividend yield and buyback yield is much lower in emerging markets. To compare, the combined effect in emerging markets is 3.3%, whilst for US equity markets this effect is 4.4%. The dividend growth component is much higher in emerging markets since emerging market stocks have more potential to increase

Figure 4.13: Equity Return Breakdown
Emerging markets, nominal returns non-hedged to EUR 2018-2021 (in percent)



Note: *Average annual returns for 2018-2021.*
Sources: *Aegon Asset Management, Bloomberg.*

dividends in the future on the back of economic growth and corporate developments. Also the inflation rate component tends to be higher for emerging market equities. In our basis scenario, we expect inflation in emerging markets to be 2.9%. Our consensus expects a rerating effect of -0.8%, which is less negative than for the developed markets because of the valuations, which are less stretched than valuations of developed markets.

Listed Real Estate

LRE

Global listed real estate has lagged behind equity markets during 2017, posting a total return of -1.8% for the period January to mid September while world equities posted +1.9%. The real estate index was largely dragged down by the US (-7.8%) and to some extent by Japan (-7.3%), which constitutes a smaller part of the market. The Japanese Real Estate Investment Trusts (REIT) market was impacted by outflows triggered by government scrutiny of Japanese dividend distribution funds, which represent 30% of the J-REIT market. In the US, weak fundamentals and sentiment on retail continued to have an impact in 2017 while the dollar weakened.

Europe however proved resilient with a total return of +5.7%. In Europe, euro concerns were overly dramatic, leading to a reversal of an oversold situation.

Emerging markets proved supportive to overall performance and Chinese residential development companies clearly blew away all other markets with an overall +110% performance so far this year. Chinese local governments started to implement measures to restrict residential price increases in the second half of 2016 but this did not stop local developers from consolidating market share with accelerating sales providing a basis for a three year earnings upcycle.

Besides these specific drivers, overall real estate fundamentals remained supportive. Global GDP growth has been accelerating and will continue to support modest office, retail, industrial and residential demand. Meanwhile supply remained restricted largely due to discipline in lending by banks. With supply and demand largely in check, it has mostly been structural changes like the rise of e-commerce that impacted markets (negative for retail/ positive for logistics). The key potential fundamental risk going forward might be a more sluggish investment market following Chinese curbs on outward investment flows which actually have been propping up prime office markets worldwide and open up the potential for rate increases.

Based on the above and our projections of interest rate movements, overall valuation of the sector seems fair. The listed real estate sector is trading at a 10% discount to underlying Net Asset Value reflecting a modest cushion in case real estate values decline. The earnings yield stands at 6.2% with growth expected to be at mid-single digit numbers per annum in the next years. Dividend which is at 3.6% is therefore well covered and expected to grow at a decent pace. We anticipate that the sector will remain susceptible to sudden interest rate fluctuations, but would fare relatively good in the medium term as growth would offset potential interest rate led rerating.

Following the initiatives like impact investing and increased issuance of 'green bonds' in the broader financial sector, we believe that Environmental Social and Governance (ESG) issues will also become increasingly relevant for the listed real estate segment of the market. Indeed, responsible investing in real estate, especially in the environmental field, does make a difference as the build environment is responsible for 40% of global consumption of raw materials, 80% of electricity consumption and at least 30% of global CO2 emissions.[3] More efficient use of these resources could make a big difference in the environment. Meanwhile, various agencies like Global Real Estate Sustainability Benchmark (GRESB) have developed benchmarking techniques that offer investors a good indication how successful a company has integrated ESG factors in their processes.

Commodities

COM

After a few years of relatively stable prices, commodities prices fell sharply during 2014 and 2015. This decline was mainly due to moderate economic growth, the appreciation of the dollar and a change in market dynamics. After some level of recovery in the first half of 2016, the commodity benchmark has been stable. Similarly, oil, which is the most important commodity in the index, has stabilized at a level around 40-50 USD per barrel.

In recent years, the dynamics of the oil market have changed, especially on the supply side. Since 2011, shale oil production has risen sharply, especially in the United States. This rise reached a peak in 2015, when the US produced about 10 million barrels a day, about 4 million more than before the shale revolution. In early 2016, oil prices dropped below 30 USD per barrel, a price far below break-even prices for shale oil producers which hovers around 50-60 USD per barrel. This price drop caused the shale boom to ease a bit.

OPEC controls about one-third of global oil production, which is around 90 million barrels per day. In December 2016, OPEC agreed to limit production at 32.5 million barrels per day, with 11 non-OPEC oil producing countries joining the deal, including Russia. However, this agreement has not been able to meaningfully support the price of oil, as oil inventory levels are still above normal levels. Besides that, the shale producers act as a dampening force on any oil price rise. As soon as the price rises above break-even levels, shale production increases, consequently supply rises, thus putting an upward limit on the price.

Our expected economic growth has a mixed effect on commodity prices. In our baseline scenario, we expect strong economic growth for the 2018, and thus increased demand for commodities and higher prices as a result. In the next three years, demand growth will fade as economic growth slows down. Since most of the commodity index is traded in dollars, depreciation of the dollar makes commodity prices cheaper in local currency terms. This in turn has a positive effect on commodity prices, since investing in commodities is typically not done by trading actual hard commodities but rather by transacting with financial derivatives. Investing in this manner involves a number of technical aspects, such as the so-called roll-yield of futures contracts. Combining the return components brings us to an expected return of 2.6% on average over the next four years.

[3] These numbers have been taken from the Global Real Estate Sustainability Benchmark website.

Table 4.1: Expected Returns 2018 - 2021 (Basic Scenario)	
Asset class	**Exp. return**
Emerging market equities	8.1%
Private equity	3.7%
World equities	3.4%
Listed Real Estate	3.1%
Commodities	2.6%
Emerging market government bonds	2.0%
Hedge funds	1.1%
Dutch Mortgages	1.0%
EUR High Yield corporate bonds	0.1%
European ABS	-0.1%
USD High Yield corporate bonds	-0.3%
USD Inv. Grade corporate bonds	-0.6%
EUR Inv. Grade corporate bonds	-0.9%
Core Eurozone government bonds	-1.3%

Source: *Aegon Asset Management.*

Shooting stars from the Far East

We all know Apple, Google and Facebook. We buy their products, we use their services and we read newspaper stories about the tremendous growth these companies experience. Sometimes, we even invest in their stocks. Interestingly, the Chinese counterparts of these US giants are probably unknown to many people. Although we might use their products on a daily basis, we don't usually think of these companies as interesting investments. Given that MSCI, one of the world's leading equity index providers, unveiled plans to gradually add mainland Chinese shares to its benchmark emerging markets index, Chinese shares can be seen more often in investment portfolios. We highlight three Chinese whales whose tide is high with a combined weight of 10% in the MSCI Emerging Market Index.

Alibaba.com

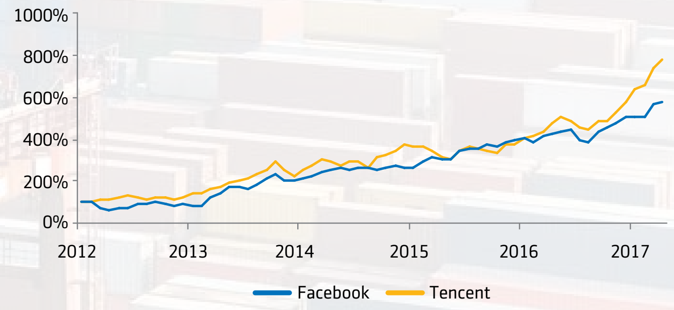
Alibaba is the largest Asian company with a market cap of $440 billion and has a weight in the MSCI Emerging Market Index of almost 4%. It is an e-commerce company that provides sales services not only to consumers, but also to businesses. Alibaba can be seen as the largest retailer in the world after it surpassed Walmart in 2016. It dominates the Chinese online commerce market with a whopping 80% market share. It recorded sales of over $18 billion on Chinese Singles' Day, easily surpassing the $3 billion generated from online sales during Cyber Monday in the US. Orders on Single's Day were coming in at a rate of 175,000 per second!

Baidu offers a variety of services, including an online search engine as well as the global mapping service Baidu Maps. The company can be seen as the Chinese version of Google. The average equity return since its IPO has been a stellar 32% per year. The company is still ten times smaller than Google but has grown twice as fast over the past decade. Baidu is currently the eighth biggest holding in the MSCI Emerging Market Index with an index weight of almost 1.2%. Self-driving AI technology is one of the key development areas of Baidu, where it cooperates with multiple carmakers and technology companies. It is expected to generate significant profits by 2020.

Tencent 腾讯

Tencent is one of the fastest growing global companies of the past decade and currently has the largest weight within the MSCI EM Index with 4.6%. Tencent is comparable to Facebook, but it also offers a music service and an online gaming platform. The stock price has increased 400 times (!) since its IPO. Its market capitalization is around $390 billion and is comparable in size to its US brother Facebook. Tencent has been actively investing in numerous companies and start-ups, creating a huge portfolio of investment and subsidiaries that range across multiple industries and areas.

Box 1: Equity Returns of Technology Stocks
Index (2012=100)



Sources: *Aegon Asset Management, Bloomberg.*

Chapter 5

Asset Allocation and our Forecasts

5. Asset Allocation and our Forecasts

The asset allocation of a large range of Aegon Asset Management funds and mandates is periodically adjusted and aligned with our market views and expected returns. The outcome of our long term scenario is an important driver of these allocations. The benchmark functions as the starting point of our analysis. Within the restrictions of the mandates, we overweight the asset classes with relatively positive risk-return expectations and underweight the asset classes that have worse risk-return characteristics. These deviations from the neutral allocation are presented in Figure 5.1.

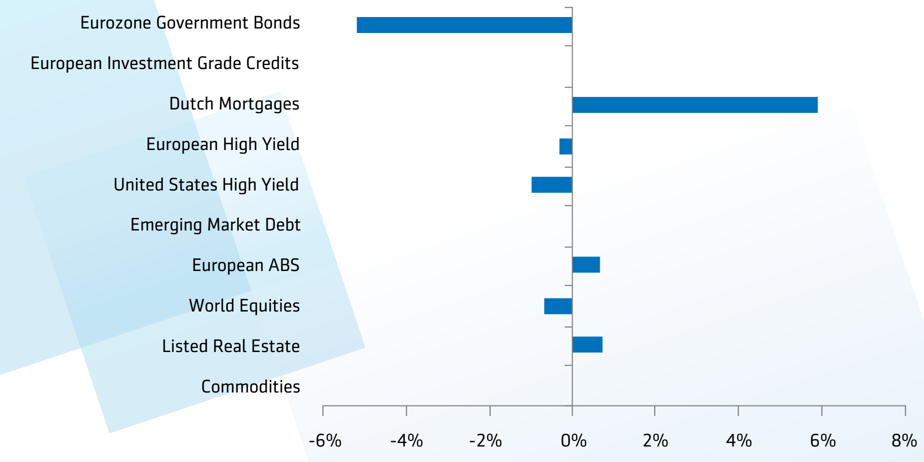
For the Fixed Income categories, we have a significant underweight in core eurozone bonds and an overweight in mortgages. Moreover, we have a small overweight for Asset Backed Securities. There is no deviation from the European Investment Grade credits and Emerging Market Debt benchmark weight. We are relatively pessimistic about the performance of High Yield investments, and have implemented small underweights for European High Yield and US High Yield accordingly.

Within the Equity categories, we have a small underweight in Equities versus an overweight in Listed Real Estate investments. Comparing the allocation to last year's allocation, we have reduced the risk marginally. Also, the overall duration of the fund has increased, mainly due to the smaller underweight in core eurozone bonds.

The allocation presented in Figure 5.1 is the result of our Dynamic Strategic Asset Allocation (DSAA) process. This process combines our expected returns, volatilities and correlations of a large range of asset classes in order to determine the optimal allocation. For this process, not only the basis scenario is considered, but also our negative and positive scenarios are included to ensure robust portfolios that can weather a wide range of market conditions.

With the presented asset allocation, we expect to generate better returns than the neutral allocation. However, given our forecasts, this outperformance is expected to be small.

Figure 5.1: Asset Allocation 2017
Deviations from the benchmark weights (in percent)



Note: Based on model portfolio (SAF Fixed Income 65% - SAF Equity 35%).
Source: Aegon Asset Management.

Table 5.1: Macroeconomic Expectations 2018-2021

GDP growth	Eurozone	US	UK	Japan	China
2018	1.5%	2.0%	1.0%	0.7%	5.9%
2019	0.2%	0.3%	1.5%	-0.2%	5.6%
2020	0.9%	1.8%	0.2%	0.6%	5.6%
2021	1.3%	2.6%	0.8%	0.4%	5.7%
Inflation	**Eurozone**	**US**	**UK**	**Japan**	
2018	1.6%	2.6%	2.3%	0.9%	
2019	1.0%	1.9%	2.4%	0.8%	
2020	1.6%	1.6%	1.8%	0.6%	
2021	1.9%	2.2%	2.0%	0.7%	
Central bank rates	**Eurozone**	**US**	**UK**		
2018	0.00%	2.25%	0.25%		
2019	0.25%	1.00%	0.25%		
2020	0.25%	1.00%	0.50%		
2021	1.00%	1.25%	0.50%		

Note: Forecasts on base scenario per end of year, real GDP growth, eurozone refi rate and Fed rate upper bound.
Source: Aegon Asset Management.

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About Aegon Asset Management

Aegon Asset Management is a global, active investment manager. Aegon Asset Management uses its investment management expertise to help people achieve a lifetime of financial security, with a focus on excellence, trust and partnership. Institutional and private investors worldwide entrust Aegon Asset Management to manage approximately €309 billion on their behalf.

Positioned for success in its chosen markets (Continental Europe, North America, the UK and Asia), Aegon Asset Management's specialist teams provide high-quality investment solutions across asset classes. Its clients benefit from the extensive international research capabilities and in-depth local knowledge of Aegon Asset Management as well as Kames Capital, its UK investment team, and TKP Investments, its fiduciary management investment team in the Netherlands.

Through the Aegon Group our heritage stretches back to 1844, meaning we understand the importance of long-term relationships, robust risk management and sustainable outperformance. A long and successful history of partnership with our proprietary insurance accounts has enabled us to establish experienced investment teams, a solid asset base and proven long-term track records.

For more information, visit www.aegonassetmanagement.com

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