

CIO | VIEW

March 2019

History stages a comeback

Investors should get used to more turbulent times



DEFENSIVE AS WELL AS OFFENSIVE

Was Christmas peace the catalyst? The worst December since 1931 was followed by the best January in U.S. stock markets since 1987. Blessed is the investor who reacted fast enough – or who didn't react at all. Trying to explain such short-term market turbulence macroeconomically does not get you very far. Market technicians are puzzled, too, as investors hardly differentiated between stocks, bonds or commodities in the big sell-off, when normally they tend to correlate negatively with each other. Even geographically, the market correction had its surprising aspects. U.S. equities were down more than European ones while emerging markets were surprisingly robust. So much for the U.S. as the stable anchor.

The lack of direction may be a signal of what to expect in the current investment year. We expect high volatility but only meager returns. The reasons can quickly be laid out: valuations leave little room for upward movement; economic growth is there but not dynamic; earnings expectations may need to be revised further down; and economic policy-making is increasingly delivering short-term, sham solutions. In this environment the central banks, too, are uncertain about the longer-term path. The U.S. Federal Reserve (the Fed) is not the only one to describe its attitude as one of "data dependency". This may please investors for now if it means the Fed is turning away from monetary tightening. But in the medium term it means greater uncertainty, making it more difficult to plan ahead.

All this suggests that investors should aim for broad diversification of their investments. They should be ready for everything and defensive as well as offensive in order to be able to participate in opportunities while being adequately hedged against risks. They should also have the courage to take profits in timely fashion should the markets become euphoric. For there are enough positive developments to be confident. Rather than a recession, we expect economic improvement in the course of the year. Labor markets are stable, and emerging markets offer more light than shade. And some might judge the fact that central banks have become more dovish as positive, too. The thing is not to miss the opportunities because of the risks.



Stefan Kreuzkamp
Chief Investment Officer

"We may have seen the best months of this year in stock markets. The picture is different for the economy, where we do expect improvements."

Important terms are explained in our glossary. All opinions and claims are based upon data on 3/14/19 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. DWS Investment GmbH

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HISTORY STAGES A COMEBACK

» Politics and policies have become increasingly uncertain. Investors should start getting used to more turbulent times. «

We are nearing the end of an era. And by that, we do not just mean the question of how much longer the current cycle can last. That question is addressed at length on the following pages. In this piece, we instead want to look at some seemingly distinct upcoming events, broadly subsumed under the category of political risk.

Brexit day is fast approaching. On March 29, the UK is scheduled to leave the European Union. Nobody quite knows how bad things might get in the absence of a withdrawal agreement of some sort getting passed by parliament in Westminster and the UK's European partners. Markets abhor this sort of uncertainty. For now, most investors are counting on something getting passed, if only an extension. That would certainly fit with the pattern so far of difficult decisions being avoided, especially on the British side.

Then, there are various electoral events, including Spain's snap parliamentary vote and elections to the European parliament from May 23-26 of this year. Based on past experience, plenty of investors appear ready to contemplate populist upsets, potentially with negative market consequences. Add ongoing trade conflicts between U.S. President Donald Trump and much of the rest of the world, and it is no wonder that investors are quickly learning to expect the unexpected. At times, markets gyrate between gloom and euphoria, depending on the latest presidential Tweet.

You will notice some common threads. In all these instances, investors tend to extrapolate from recent experiences. That is a very human reaction when faced with uncertainty. Often, a hefty dose of wishful thinking is added, along the following lines: "Well, there are presumably rational people on all sides. Voters and policymakers must know the harm they are likely to cause, not least to themselves. Surely, they will decide in ways that I would find sensible."

It was precisely this sort of thinking that led markets to underestimate the likelihood of the UK voting to leave the European Union in 2016. And yet, the Brexit vote was not all that unforeseeable based on the polling data. Nor was Trump's win in the Electoral College (despite losing in the popular vote). As we argued in our May 2018 Special on global trade,¹ China, rather than Brussels or Mexico, may have played an outsized role. In both instances, the distribution of the vote suggests a strong correlation between voting patterns and localized economic decline initially triggered by surging imports from China. This, in turn, may have contributed to anti-immigrant sentiment, whether or not migration had a material impact in any particular geographic area.

It is such often surprising patterns that we try to use to analyze and anticipate political risks. For decades, voting behavior has become less predictable, leaving plenty of scope for electoral surprises. In turn, such

surprises increase the likelihood of potentially damaging political accidents; the looming prospect of a hard, chaotic Brexit is just one vivid example. Electoral surprises, however, rarely come out of the blue. More often than not there are plenty of clues helping identify underlying patterns. On Brexit, such an approach highlights policy dilemmas well beyond the question of any "deal" or "no deal." On trade more broadly, it suggests that the backlash against globalization may prove quite more sustained. Resistance against free trade appears to have deeper causes than the idiosyncratic policy preferences of the current U.S. President.

Few of such patterns are universally valid, however. Simple narratives about populist revolts rarely travel as well as the one about China, Brexit and Trump described above. Partly, that is because of differences in political traditions and electoral systems which only careful analysis can reveal. As we describe in our outlook on the European elections,² populism from both the right and the left is not a new phenomenon in continental Europe. In many countries, the parties in question are decades-old. Some of them have already experienced several cycles of rapid electoral success, often followed by a swift collapse. Several had notable successes in the 2014 European elections. Both polling evidence and past experience suggest that outside Italy, the European elections of 2019 could actually prove fairly disappointing for yesteryear's populist winners. In part,

this is because insurgencies against the status quo do not necessarily need to be extreme, nor eurosceptic. This is most obvious in countries like Poland. Overall, polling currently suggests that socially liberal, broadly pro-European and pro-market forces might actually do quite well.

All of which points to some broader lessons. Twenty-seven years ago, the political economist Francis Fukuyama famously proclaimed the "End of History."³ By that, he meant that there was no longer any ideological alternative to free markets and liberal democracy. In many countries, that era ended in 2016, if not before. Plenty of alternatives are emerging, often with dazzling speed. Political uncertainty is not some temporary aberration. It is a hallmark of what we would label the "Return of History." Ideological conflict is back, and understanding this new reality is likely to become an increasingly critical ingredient for investment performance. Instead of thinking: "This could never happen!", start thinking: "What could happen next?" And keep in mind that not all political surprises need necessarily be negative.

HOW POPULISM CAN INCREASE UNCERTAINTY

Political uncertainty is not merely a temporary aberration. Across many major democracies, voters appear understandably angry with the status quo.



* Quantitative easing

¹ https://go.dws.com/cio-special_free-trade-under-attack

² <https://dws.com/insights/cio-view/emea-en/european-elections-2019>

³ Francis Fukuyama (1992) "The End of History and the Last Man," Free Press

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JUST A SOFT PATCH?

» We are trimming our global growth forecasts again –
but only very slightly. «



Johannes Müller
Head of Macro Research

IN A NUTSHELL

- _ We expect slightly slower growth in the Eurozone, China and the United States.
- _ This should partly be compensated for by stronger growth in some emerging markets.
- _ Politics remains a wild card, but this need not necessarily be negative.

A year ago, our outlook had the catchy if slightly unoriginal title "As good as it gets?". That proved about right as the year progressed, culminating in December's panic mood in financial markets. Even now, plenty of folks are using the dreaded "r" word. By contrast, we do not see any signs yet of a sustained global recession. In fact, I would almost be tempted to turn last year's motto on its head. There is a decent chance that the worst, in terms of growth downgrades, may already be behind us. For the world as a whole, we now forecast gross domestic product (GDP) to grow by 3.5% in 2019, compared to 3.6% three months ago. We forecast the same growth rate to be sustained in 2020. This reflects slightly slower momentum in the Eurozone, the United States and China partly compensated for by stronger growth in some emerging markets, notably India.

Following last year's fiscal stimulus, U.S. growth is moderating. Given how much unemployment has already fallen, we would judge this to be entirely healthy. To be sure, some downside risks have increased. Market turbulence at the end of last year led to a tightening of financial conditions, if only temporarily. Trade frictions continue to prove a drag both directly and indirectly by contributing to global weakness. China has borne the brunt of the trade conflict with the United States so far. The Chinese economy has slowed sharply, as demand for its exports has shrunk.

Employment has weakened, diminishing domestic consumer spending. China's government appears determined to soften the blow. We expect some stabilization by the summer, once the fiscal and monetary measures kick in. The flipside is that the fiscal deficit will probably be bigger than initially assumed, now forecasted at 4.2% of GDP in 2019 instead of 3.2%. Similarly, Japan is likely to experience a cyclical slowdown in 2019, due to lower external demand and weaker investments.

As for Europe, a confluence of factors dragged down growth in the second half of 2018. German carmakers' sales were hit by tighter fuel-emission standards. A summer drought left the Rhine unusually shallow, which had knock-on effects on a surprisingly wide range of sectors. In the longer term, both events should give pause for thought, and not just in Germany. As my colleagues from our environmental, social and governance (ESG) team argue, climate-change-related financial opportunities and risks are increasingly critical for understanding company and sector performance. The same, I would venture, will also be true for whole economies. Meanwhile, the Diesel-car saga is a reminder just how painful sudden technological changes can be for existing manufacturers. Within the next few months, however, the main effect should be German growth bouncing back.

Elsewhere in Europe, political uncertainties continue to weigh on senti-

ment. From Brexit and Italy to trade, these are not new risks but the cumulative effect has already proven noticeable. We have cut our growth forecast for the Eurozone to 1.3% for 2019 and forecast 1.4% for 2020. For the UK, we maintain our 2019 forecast of 1.5% and introduce 1.6% for 2020. This is because we anticipate some recovery after the main Brexit-related uncertainties begin to vanish. In particular, we still expect that a chaotic no-deal Brexit can be avoided. In light of all recent turmoil in Westminster, the probability of the UK remaining a member of the European Union for the foreseeable future has probably gone up, not least with the opposition Labour Party now supporting a second referendum.

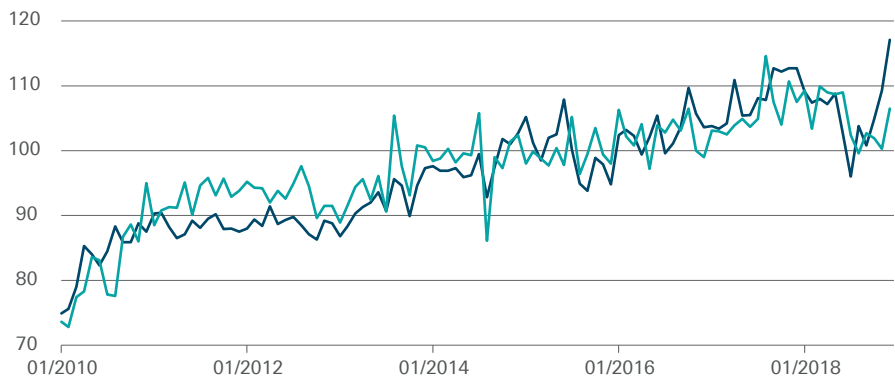
This hints at a broader theme worth highlighting at this juncture. As we argue elsewhere, the rise in political uncertainty reflects deeper socio-economic changes. It is not just a temporary aberration. By the same token, though, we may have reached a point where short-term sentiment has already become too negative on the political front. Recently, Brazil's new far-right president, Jair Bolsonaro, has introduced a pension reform that markets welcomed as surprisingly ambitious. On trade and perhaps on Brexit we could see some relief in coming months. And in Italy, last year's election winner, the populist Five-Star movement, has seen its electoral support evaporate, though mainly to the benefit of its rightwing coalition partner Lega.¹

¹ <https://www.bloomberg.com/opinion/articles/2019-02-26/italy-s-populist-insurgents-five-star-are-collapsing>

REBOUNDING FROM DIESEL SCANDALS

Last year, German car makers were hit hard by Europe's new Diesel emission regulations. Since then, orders have rebounded sharply.

index points



■ German motor-vehicle orders*

■ German motor-vehicle production**

* Germany Industrial Manufacture Orders of Motor Vehicles, Trailers & Semi-Trailers

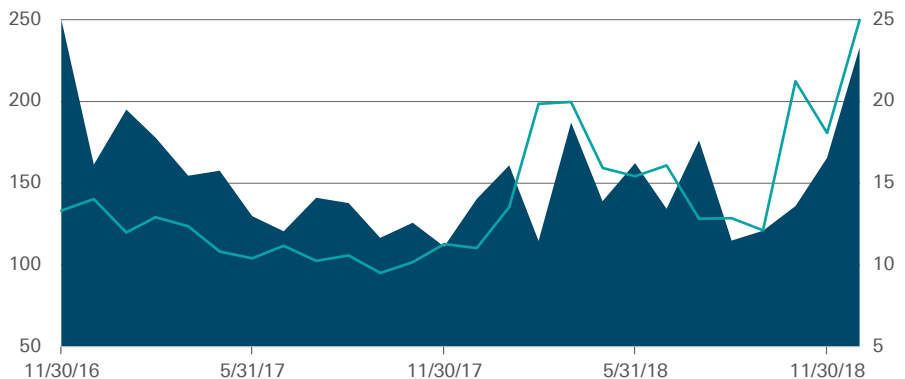
** Germany Industrial Production Manufacture of Vehicles

Sources: Bloomberg Finance L.P., Deutsche Bundesbank, German Federal Statistical Office, DWS Investment GmbH as of 2/27/19

POLITICS AS A SOURCE OF MARKET UNCERTAINTY

In recent years, U.S. economic-policy uncertainty has gone up significantly. This has had a direct impact on market volatility and financial conditions.

index points



■ News-based economic uncertainty*

■ VIX** (right axis)

* US News Based Economic Policy Uncertainty Index

** CBOE Volatility Index

Sources: Bloomberg Finance L.P., 'Measuring Economic Policy Uncertainty' by Scott Baker, Nicholas Bloom and Steven J. Davis at www.PolicyUncertainty.com, DWS Investment GmbH as of 02/2019

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FLAT YIELD CURVE – SO WHAT?

» Central banks turn dovish as they begin to share investor fears about the economy.
But the negativity may be overdone. «



Jörn Wasmund
Head of Fixed Income/Cash

IN A NUTSHELL

- Central banks' U-turn at the beginning of the year remains the dominant theme in the bond markets.
- Rising yields for shorter maturities are unlikely. Even for medium and longer maturities they are likely to be modest.
- An inversion of the U.S. yield curve is possible. But structural changes mean it might not be a sign of recession.

So much for the U.S. interest-rate cycle. What began tentatively at the end of 2015 and gained momentum at the end of 2016 may now have come to an end after nine minimal interest-rate hikes of 0.25 percentage points each, taking the federal-funds target corridor to 2.25 – 2.5%. On the basis of economic data, the Fed does not currently see any reason to raise interest rates further. Its view shifted late last year when the Fed Chairman began to suggest the Fed would be sensitive to signs of weaker growth – a stance confirmed when in January the Federal Open Market Committee (FOMC) stated that future-rate steps were "data-dependent." Market participants felt this confirmed their already more cautious view and further reduced their expectations. Meanwhile, the U.S. interest-rate market is pricing one interest-rate hike in the course of the year – our core scenario – with a probability of only 7%. However, bond investors are often quite volatile in this respect. On February 26, markets expected an interest-rate cut only with a probability of 17%; a week later this number dropped to 2.2%. This means investors and the Fed believe the most the U.S. economy can stand at present is a short-term interest rate of around 2.5%. That does not seem an awful lot for an economy that is poised to complete the longest upswing in its history this summer. That also has the lowest unemployment rate in almost 50 years and that is home to nine of the ten most valuable companies in the world. And, in addition, which might

grow by 2.5% in 2019. But it needs to run a budget deficit of around a trillion dollars in order to achieve this growth rate. It is therefore pushing up its record nominal debt further. Debtors' fear of interest-rate hikes is therefore only too understandable. American students, for example, now hold 1.5 trillion dollars of debt.¹

The counterargument is that there are good reasons against a return to the nominal interest rates of past decades. Economic cycles have become less and less characterized by capital expenditures (capex) and inventory cycles and are therefore less pronounced. In addition, potential growth is lower, and inflation tends not to pick up. For these reasons, we would also not interpret a possible (but in our view unlikely) inversion of the U.S. yield curve as a compelling signal of recession. The closely observed yield gap between 2-year and 10-year U.S. Treasuries melted to only 10 basis points (bps) at the end of 2018 and is not much higher now, at 19 bps. Even if we now consider the yield curve to be less meaningful than it was before the financial crisis, the market will continue to follow this indicator nervously. And it is not the only indicator that is wavering close to the danger zone. Even if investors are initially pleased about the lack of interest-rate hikes, the downside is more serious: potentially lower economic growth. With the yield curve oscillating around the zero line and growth averaging only around 2% over the past few years, the strength of the upswing remains constantly in

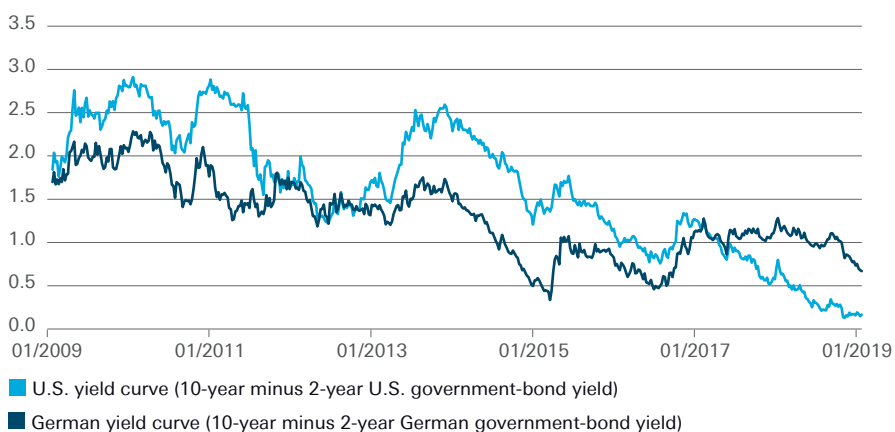
doubt. This also explains the criticism of the Fed's tightening on "autopilot" before its recent change of opinion.

This dichotomy – less risk of interest-rate hikes versus a bleak economic outlook – is the framework for our forecasts. We think the market is somewhat too pessimistic. We expect U.S. Treasury yields to rise slightly to 2.75, 3.00 and 3.20% for the 2-, 10- and 30-year maturities by March 2020. We have lowered our yield forecasts for Bunds to -0.40 (2 years), 0.30 (10 years) and 0.80% (30 years) to reflect the expected further delay in the first interest-rate hike by the European Central Bank (ECB) and lower growth expectations. For corporate bonds, the U.S. market looks attractive from a carry perspective, even though we do not expect any further spread narrowing. Euro corporate bonds continue to benefit from a lack of alternatives and solid corporate balance sheets. In emerging markets (EM) we continue to see investment opportunities. In EM we like corporate-bond issuers from Asia and occasionally South America; in government bonds we continue to regard stable issuers from Eastern Europe and certain higher-yielding issuers from Africa, for example, as attractive. But remember to be very picky in these regions, as they are very heterogeneous.

ABOUT TO INVERT? THE THRILLING U.S. YIELD CURVE

A yield curve below zero (inverted yield) is still seen by many as a harbinger of recession. However, we believe that the curve has become less meaningful.

percentage points

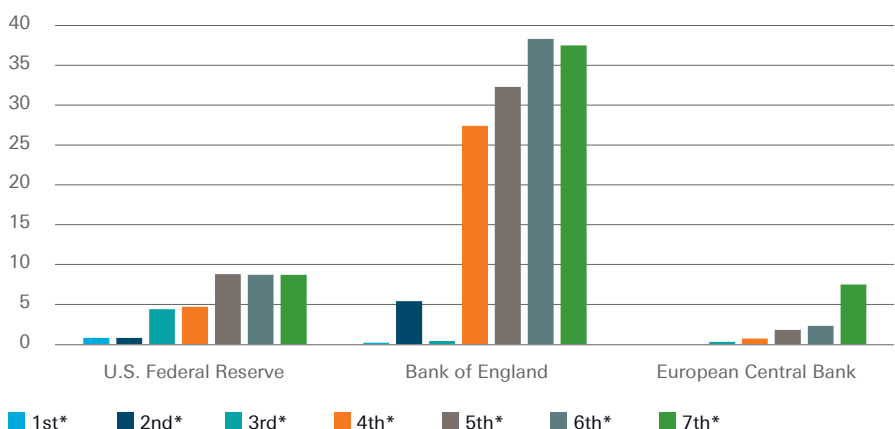


Sources: Thomson Reuters Datastream, DWS Investment GmbH as of 2/26/19

THE BRITS STAND OUT

While markets are quite optimistic that the Bank of England will raise rates this year, they are less confident about the ECB's and the Fed's future steps.

probability of a hike in %



* central-bank meeting in 2019 with a possible interest-rate decision
Sources: Bloomberg Finance L.P., DWS Investment GmbH as of 3/5/19

¹ Bloomberg – February 16, 2019; <https://www.bloomberg.com/news/articles/2019-02-16/u-s-student-debt-in-serious-delinquency-tops-166-billion>

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ZEN IN JAPAN

» We expect hardly any change in the main currency pairs. «

IN A NUTSHELL

- _ Overall, we expect the major currency pairs to end the 12-month period close to their current levels.
- _ We see the Japanese yen as an adequate hedge against macro-economic risks.
- _ We expect the Chinese yuan to be a little weaker, though not by much.

First things first: in the euro-dollar currency pair, that is probably decisive for many of our readers, it currently looks like a draw. Our 12-month forecast therefore remains at 1.15 dollars per euro. Although the dollar may begin the game with the better cards while Europe holds a few weak ones (Brexit, Italy, European elections), the game could turn in the second half, i.e. from summer onwards. In the United States, the effects of the stimulus packages are fading, the twin deficit continues to rise, and the pressure on Trump is likely to be rising, while we expect economic activity to pick up in Europe. In addition, the prospects for a further widening of the interest-rate differential between the U.S. and Europe have narrowed thanks to a more dovish Fed.

Compared to these two politically volatile regions, Japan appears tranquil. We believe this could boost its traditional reputation as a safe haven this year. In order to hedge against the many known and yet unknown risks, we currently view using the yen vs. the euro as a good option. We expect it to rise to 123 yen per euro by March 2020. Another currency that we will be watching closely over the next twelve months is the yuan. Although so far this year it has risen against the dollar, we see it returning to around 7 Chinese yuan per dollar. We do not expect it to go beyond this threshold as in our view this would not be acceptable to the Beijing leadership on the 70th anniversary of the formation of the so-called People's Republic of China.

NOT WITHOUT MY PARTNER. JAPAN'S SHARES AND THE YEN

In capital markets, few correlations are as reliable as the one between Japan's currency and its equities, many of which rely heavily on exports.



* Topix

** J.P. Morgan Japan NEER Nominal – Trade Weighted Index

Sources: Thomson Reuters Datastream, DWS Investment GmbH as of 2/26/19

CLOSE TO FAIRLY VALUED

» Following the recent recovery in equity markets, we remain reasonably confident. «

Remember those panicky days of market turmoil, back in December? In our outlook for 2019, we presented a bullish scenario, with the S&P 500 at 2,850 points and the Dax at 11,800 by year-end. "The key is not to jettison convictions from one week to the next," we wrote, adding that investors should never overestimate their ability to correctly time markets. Since then, a massive recovery has taken the S&P within spitting distance of our once ambitious target. This has made our task of updating our forecasts for the coming 12 months a lot easier. We have left both our targets for the S&P 500 and the Dax unchanged. Adjustments to other indices are pretty minor, too. This reflects our view that throughout developed markets, valuations and volatility levels are back to levels we would describe as reasonably fair.

Why so cautious, you might ask? Why not, at least, pencil in a few extra points to take into account three more months of corporate earnings growth until March 2020? We agree that this would be technically correct, but it would cloud our key message: at this stage of the economic cycle, long-term investors should worry less about the last few digits of index targets and more about careful sector analysis and forensic stock selection.

Since we last wrote to you, neither corporate earnings nor the macroeconomic outlook have gotten fundamen-

tally better. The renewed giddiness we are seeing in markets appears mostly due to a changing outlook for monetary policy. Last year, the Fed was following a steady path of interest-rate hikes and shrinking its balance sheet. This year, the Fed has promised a more "flexible approach" for the future. Our base case now sees a further economic deceleration in 2020, with still no U.S. or global recession in sight. Like Fed policy, however, our forecasts are data-dependent. The scope for positive and negative surprises looks fairly evenly balanced, not least since parts of Europe are already experiencing a somewhat sharper slowdown.

Compared to the analyst consensus, profit expectations have fallen by approx. \$150bn for the MSCI AC World Index during the past three months.¹ This was mostly driven by reduced forecasts in cyclical sectors, which we had largely anticipated. We expect negative revisions to stabilize in the second half. The result should be modest 3%-5% aggregate earnings-per-share growth in 2019, mostly driven by financials; it looks achievable even without positive contributions from the technology and energy sector. Such growth should be enough to support our S&P 500 target. Include dividends, and we certainly see scope for returns in the mid-single digits over the coming 12 months in the United States and most other developed markets.



Thomas Schüßler
Co-Head of Equities



Andre Köttner
Co-Head of Equities

IN A NUTSHELL

- The economic cycle continues to mature, and we see little room for meaningful valuation expansion in most markets.
- This makes careful sector analysis and forensic stock selection all the more important.

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And it is easy to think of triggers that could send markets higher. Many of these, from Brexit to trade policy, are, however, quite binary with plenty of downside risks, too.

Lower earnings growth also means that investors will – and should – take a closer look at the quality of earnings. In particular, we have seen plenty of concerns about buybacks as key causes of both elevated leverage and earnings growth throughout this long cycle. For the S&P 500 as a whole, aggregate leverage levels (net debt / cash flow from operations) are indeed at a cyclical high, though much lower than in earlier cycles. A recent in-depth analysis of ours suggests cash flows for the whole index should remain sufficient to cover capital expenditure, dividends, share buybacks and even some slight delever-

aging. (The picture is actually quite similar for the Stoxx Europe 600.) But, due to abnormally low interest rates, the overall interest burden for corporate cash flow actually remains near historical lows².

So, what does this mean going forward? Well, it is worth noting that over the past five years U.S. companies with high buybacks have not outperformed the broader market³. This may indicate investors have already become more discriminating when assessing buybacks – just as corporate finance 101 suggests they should. (Tax benefits and signaling aside, a buyback does not change the value of a company's underlying assets. And if the buyback is debt-financed, it makes the remaining equity riskier.) For any given company or sector it depends, amongst other things,

on where profit margins and interest rates will head in the years to come as well as the maturity profile of its debt whether leverage will be sustainable.

Investors may rightly be fairly relaxed about elevated leverage in the utilities and real-estate sectors, known for its steady cash flows. By contrast, over-stretched balance sheets to finance expensive acquisitions can be worrying, especially if underpinned by very optimistic synergy assumptions. Some companies or sectors have strong and sustainable competitive advantages, allowing them to raise prices or reap efficiencies, compensating for slowing sales or rising wage pressure. Secular growth trends, such as digitalization, big data and self-driving cars can also help – though inevitably, they create losers as well as winners. Creative destruction of the sort recently experienced by makers of Diesel-driven cars are essential to the dynamic functioning of capitalism.

CLOSE TO FAIRLY VALUED

Our S&P 500 target for March 2020 assumes a valuation in line with average price-to-earnings multiples (trailing, over the previous twelve months) since 1960.

price-to-earnings ratio



Source: FactSet Research Systems Inc as of 2/22/19

All these questions are better analyzed at the company and sector level. Regionally, we prefer emerging markets, where we see structurally better earnings momentum and think that several recent headwinds will continue to fade. Sector wise, we prefer an overweight in global financials. U.S. banks should continue to return significant amounts of excess cash to shareholders⁴, while Asian insurances face continued structural growth in the underpenetrated health-care, property and casualty-insurance markets. Meanwhile, Eurozone banks have massively de-rated, now only making up 5% of the global financial sector, and could potentially benefit from new targeted lending arrangements by the ECB.

¹ Source: Bloomberg Finance L.P. as of 2/5/19

² Sources: DWS Investment GmbH, FactSet Research Systems Inc as of 2/5/19

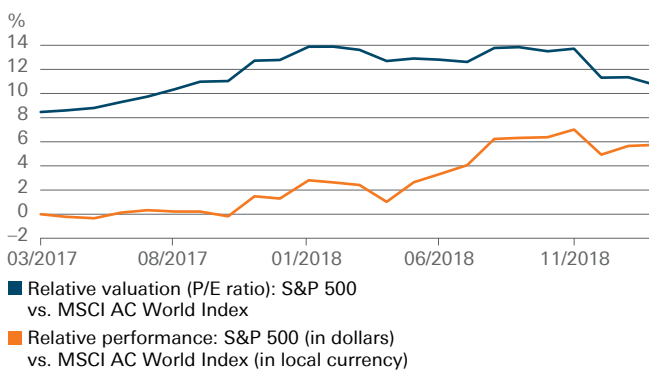
³ Source: Bloomberg Finance L.P. as of 2/5/19

⁴ Sources: DWS Investment GmbH, FactSet Research Systems Inc consensus estimates as of 2/5/19

VALUATIONS OVERVIEW

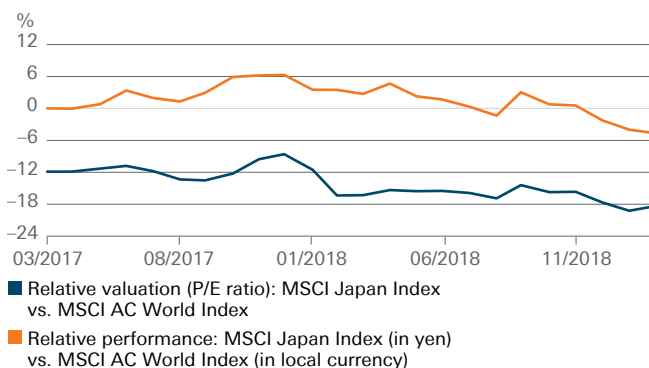
UNITED STATES: NEUTRAL (NEUTRAL)*

U.S. equities have had a strong run and are trading within spitting distance of our strategic target. A short pause might not be surprising. That said, U.S. economic growth remains solid, with still no recession in sight. Earnings expectations have fallen but look increasingly realistic. Valuations are roughly in line with historic norms. A key question remains how sustainable corporate profitability will prove in the long run.



JAPAN: NEUTRAL (NEUTRAL)*

Growth appears to be slowing down in Japan, partly due to lower external demand. Risks to growth also stem from the planned rise in value-added tax (VAT) in October 2019. Such VAT hikes have proven dicey in the past. That said, compared to the United States, valuations look even cheaper than usual in recent years. Earnings have been fairly resilient despite the global slowdown. Cost-cutting efforts should provide some additional support.

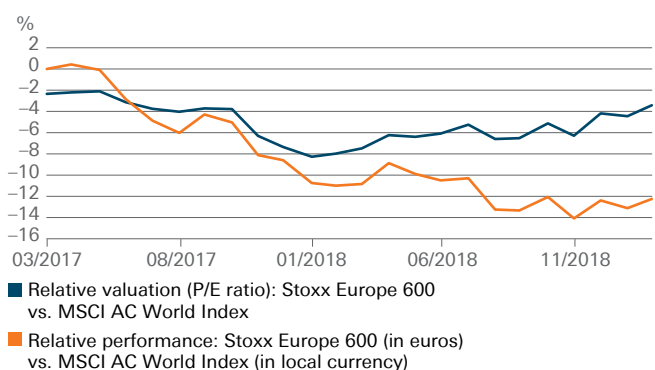


* Our assessment is relative to the MSCI AC World Index, the last quarter's view is shown in parentheses.

Sources: FactSet Research Systems Inc., DWS Investment GmbH as of 2/28/19

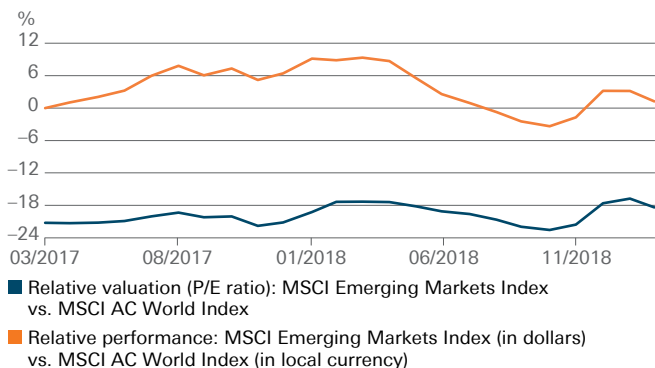
EUROPE: NEUTRAL (NEUTRAL)*

For the time being, European equities are likely to continue to trade at elevated discounts given disappointing economic data and political uncertainties. It is worth noting, though, that many European companies have reported surprisingly strong results in the fourth quarter. This highlights the fact that many Stoxx Europe 600 constituents are globally operating companies with strong market positions outside of Europe.



EMERGING MARKETS: OVERWEIGHT (NEUTRAL)*

Last year, emerging markets faced several headwinds which should now be fading. With U.S. monetary policy on hold, we expect no further dollar strength. The negative impact of falling profits among makers of semi-conductors, which severely impacted earnings in Taiwan and South Korea, should lapse soon. New structural reforms or stimulus programs in Brazil and China might also help. Of course, U.S. trade policy remains a risk.



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NO CYCLE CAN LAST FOREVER ...

» ... but nor do real-estate cycles simply die of old age. In our view, it is still too early to batten down the hatches. «



Mark G. Roberts
Head of Alternatives Real Estate

IN A NUTSHELL

- _ No cycle lasts forever. Both financial-market and economic risks have increased. However, we continue to see attractive opportunities.
- _ Moreover, the causal relationships between real-estate values and economic growth are more nuanced than many think.
- _ Our sector and market allocations seek to account for both late-cycle and structural factors.

Real-estate cycles do not simply die of old age. This is worth keeping in mind, 10 years into the current U.S.-led recovery. Since 2009, price and rent growth has varied widely across sectors, countries and cities. Moreover, many core real-estate investments are held for longer than a single cycle. But even if you just think about the causal relationships between real-estate values and economic growth, the picture appears to be much more nuanced than vague memories of the financial crisis might suggest.

The last downturn was unusual in several ways. For one thing, it was global. For another, real estate and the bursting of the U.S. housing bubble were clearly a central trigger. The relationship between real-estate prices and general business activity is rarely as clear-cut, even within any one national market. Like all investments, the value of real-estate assets in principle depends on two things. The first one is how much income (mostly rents) is expected to grow in real terms. The second is the inflation-adjusted or "real" interest rate investors use to discount those income streams. Economic growth, thanks to, for example, gains in productivity or employment, clearly tends to support income. But other factors matter, too, starting with local supply-and-demand dynamics. Moreover, real rates tend to fall during recessions and rise in times of growth. For real-estate prices, this can create a buffer even in times of economic gloom – as a look back at U.S. real-estate prices since the 1950s shows.

None of this suggests we should ignore the business cycle. But we believe it is only part of the equation. To be sure, the economic outlook in the U.S. and other major economies is more uncertain than it was a year ago. In our view, it remains too early to batten down the hatches. Trimming risk in anticipation of a future correction and proper global diversification, however, are increasingly essential. For example, real-estate performance across much of the Asia-Pacific region remains healthy on the back of strong capital markets and stable occupier fundamentals. Meanwhile, powerful structural forces, from demographics to e-commerce, are impacting real estate in ways that transcend the cycle. Both within the U.S. and globally, our sector and market allocations seek to account for both late-cycle and structural factors.

To illustrate the delicate interplay of structural and cyclical factors, look no further than the market for European logistics. This is a clear winner of the shift towards e-commerce at the expense of traditional retail stores. Rental growth in European logistics remains well above levels typically seen in the past. At the same time, however, the amount of space under construction continues to grow and has more than doubled over the past three years.¹ For now, demand continues to outstrip supply across much of the continent. The average European vacancy rate has fallen to just 4.1%² and in many markets continues to tick downwards. And as usual, even this aggregate picture can hide plenty of opportunities and risks, such as the

degree to which any particular location might be exposed to global trade tensions.

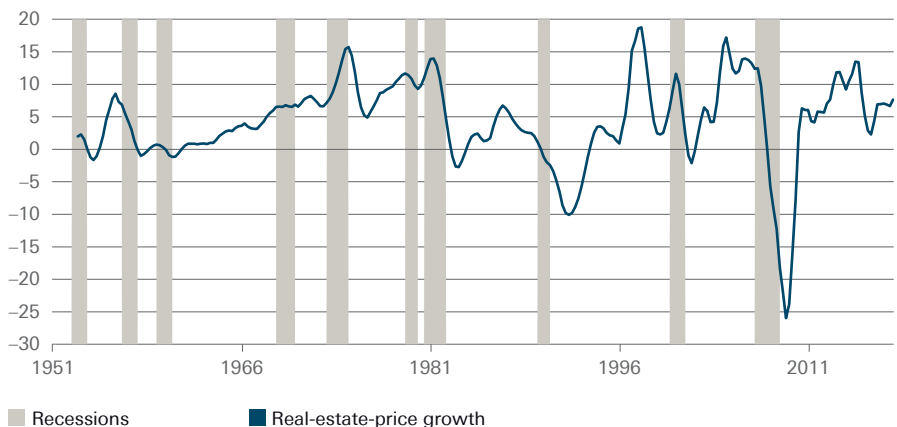
You can tell similar stories for other segments. Vacancy is down significantly, and most major cities are well positioned to see sustained rental growth. In part, this reflects population growth of cities due to internal migration from more rural areas. Low vacancy is creating opportunities to actively manage office, logistics and residential space. And even segments and countries that have been under pressure can present opportunities. As already mentioned, traditional retailers continue to suffer from changing shopping habits.

In the United Kingdom, uncertainty surrounding Brexit has dampened investor interest. As a result, the UK office and shopping-center markets look attractively priced, compared to the rest of Europe. In such areas, we see room for selective contrarian bets – although only with a forensic approach to assessing risks. Target returns should be set according to risk profile, while any move up the risk curve should be backed by solid fundamentals. Reducing exposure to assets and markets that are expected to underperform over the medium term also seems reasonable. So, to sum up, it is true that no cycle lasts forever, but we continue to see attractive opportunities.

REAL-ESTATE CYCLES DO NOT DIE OF OLD AGE

A look back at U.S. real-estate prices and major post-war recessions hints at causal relationships far more complicated than is widely appreciated.

year-over-year change in %, four-quarter moving average

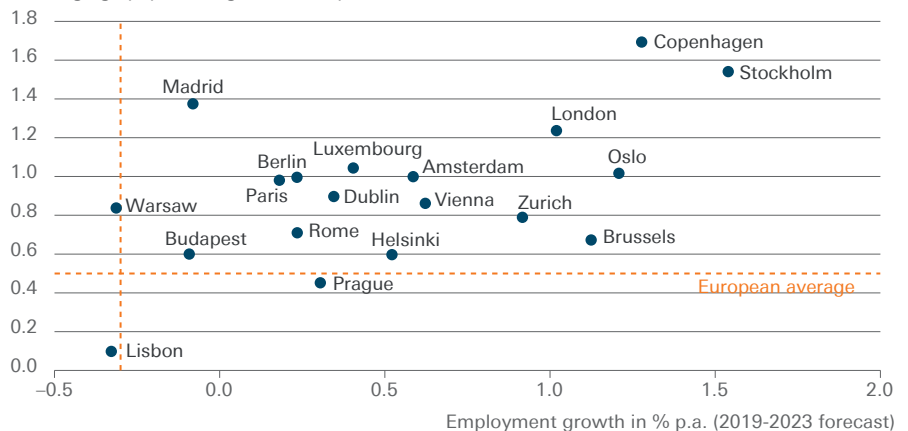


Sources: National Bureau of Economic Research (for recessions), Federal Reserve Board (for real-estate prices) as of 09/2018

IN EUROPE, FOCUS ON LONG-TERM FUNDAMENTALS

In many European cities, working-age populations and employment are likely to continue to grow over the next few years. This should support rental growth.

Working-age-population growth in % p.a. (2019-2023 forecast)



Quellen: Oxford Economics, DWS Investment GmbH; Stand: 02/2019

¹ Source: JLL as of 09/2018

² Source: PMA, JLL, Cushman & Wakefield as of 12/2018

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STRENGTH THROUGH LENGTH

» The turn of the year was stormy. Longer-term thinking may calm the nerves. «



Christian Hille
Head of Multi Asset

IN A NUTSHELL

- Unlucky investors may have lost multi-year returns in the space of a few weeks at the turn of the year. Fortunate ones might have earned the same.
- In times like these, keeping an eye on the long-term outlook helps the nerves.
- For our strategic asset allocation we have calculated expected returns and risks on a 10-year horizon. Investing becomes more challenging.

What a huge turn of the year this has been. In December, the fall in prices on virtually all the major capital markets which had begun in autumn, accelerated to the point that by the end of the year more investments were showing negative annual returns than ever before.¹ The MSCI World Index plunged by 13% within three weeks, with the foreseeable consequence that market participants competed with one another in proclaiming doom. The reality is that no one is unaffected by such a dramatic change in market sentiment, and in this environment we also questioned our forecasts and models very critically. Politically-driven risks and increasing signs since the autumn of a slowdown in world GDP growth, meant no comprehensive all-clear could be given – especially as market crashes always provoke fear of a self-reinforcing momentum. But swift crashes create two possibilities. There is the chance of a rapid recovery, as has happened early this year. Or a stock-market quake can have real impacts on the economy if the recovery is lacking, by worsening financing conditions or clouding sentiment among business leaders and households.

We admitted at the end of 2018 that a correction was overdue, but not to the extent and at the speed we have seen. In view of the rapid recovery in the markets, the same can now be said again. It took the MSCI World two

months to rise by almost 16%, thanks to the best January since 1987.² In an environment like this, the walk from celebrated hero to tragic loser is a short one. Those who returned to the office late after Christmas holidays already have run the risk of missing out on their annual performance target. That would make their next investment-committee meeting difficult.

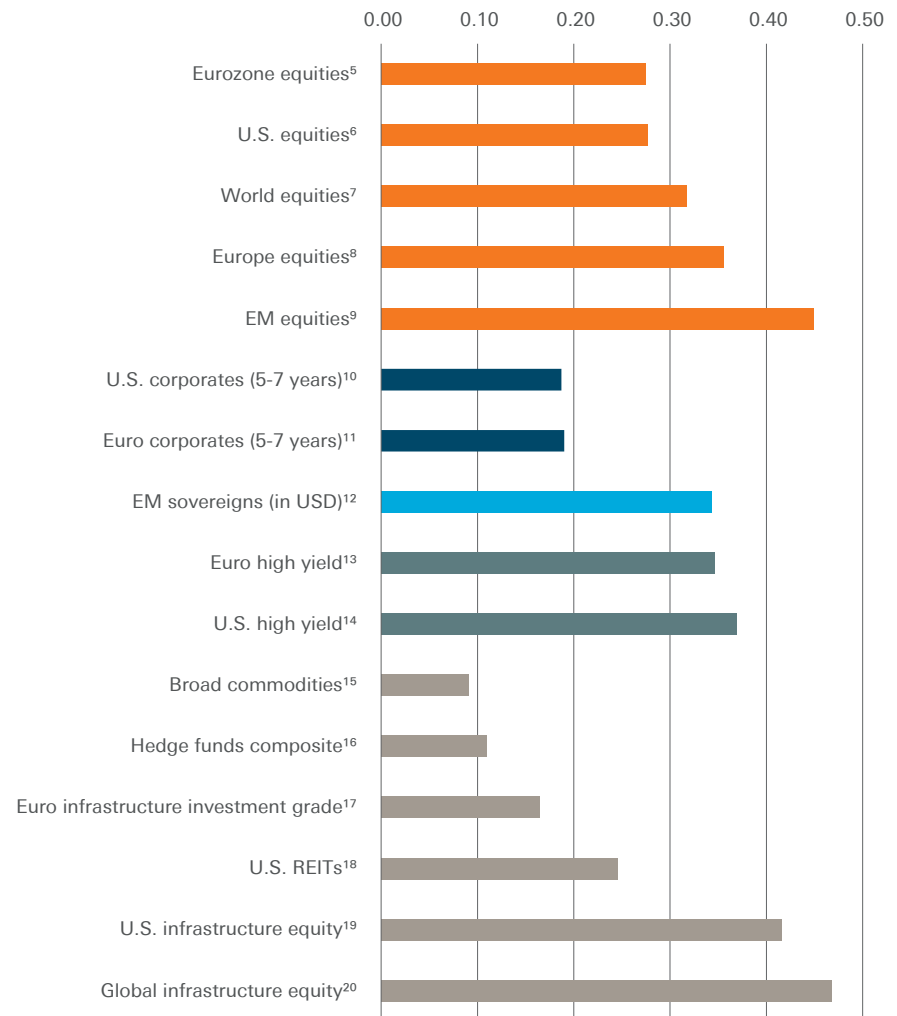
But the worries are quickly put into perspective if you keep an eye on the long term. And that brings us to a crucial issue for multi-asset management: the long term, and thus strategic asset allocation, to which we recently devoted a larger report, the "Multi-Asset Long View."³ In it we deal with three essential points: 1) Why one should plan not just for the coming year but also for a ten-year period. 2) What returns and risks we expect for the individual asset classes. And, 3) how we believe the capital-market environment in the coming years will differ from the past ten years.

The need for longer-term investment strategies reflects the longer investment horizons for many investor groups. Moreover, we believe sensible models can only be created over longer periods of time, which allow investment prices to approach their fundamental value independently of short-term iterations. With the help of these models, we aim to put together portfolios with their target return and target risk optimally matched. Sloppily allocated investments typically won't achieve

the desired results. The results of our return and volatility estimates are shown in the graph in which we have condensed both parameters into one key figure, the Sharpe ratio. It measures the forecasted excess return⁴ per risk unit. The relatively low dispersion of the results shows that the theoretical postulate that higher risks should be rewarded with higher returns applies. But there are also remarkable differences. For example, emerging-market equities look much more attractive than commodities. But, of course, other parameters such as liquidity and correlations also flow into portfolio construction. In our opinion, investors will have to adjust to lower yields and higher volatility in coming years, as investing in the past decade was almost too good to be true. The extent to which markets have become accustomed to the asset-price-inflating blessings of central banks was demonstrated not least by the stock markets' U-turn at the end of last year. The subsequent recovery is partly based on the much more dovish tones of Fed Chair Jerome Powell. Of course stock markets are likely to learn to get by again without help from central banks. Therefore, investors with reasonable expectations and prudent strategies should not be disappointed. With expected low-single-digit target returns the focus should be on risk minimization through a portfolio with optimal allocation over the longer term.

FORECASTED SHARPE RATIOS FOR VARIOUS ASSET CLASSES

The relatively low dispersion of results shows that higher risks are likely to be rewarded with higher returns. But there are also remarkable differences.



⁵ MSCI EMU Index; ⁶ MSCI USA Index; ⁷ MSCI World Index; ⁸ MSCI Europe Index; ⁹ MSCI Emerging Markets Index; ¹⁰ Bloomberg Barclays U.S. Corporate 5-7 Years Index; ¹¹ Bloomberg Barclays Euro Aggregate Corporate 5-7 Years Index; ¹² Bloomberg Barclays Emerging Markets Sovereign USD Index; ¹³ Bloomberg Barclays Pan-European High Yield (Euro) Index; ¹⁴ Bloomberg Barclays US High Yield Index; ¹⁵ Bloomberg Commodity Index; ¹⁶ Hedge Fund Research HFRI Fund Weighted Composite Index; ¹⁷ iBoxx EUR Infrastructure Index; ¹⁸ FTSE NAREIT All Equity REITs Total Return Index; ¹⁹ Dow Jones Brookfield Americas Infrastructure Index; ²⁰ Dow Jones Brookfield Global Infrastructure Index

Sources: Bloomberg Finance L.P., DWS Investment GmbH as of 12/31/18

¹ According to statistics from Jim Reid of Deutsche Bank dating back to 1901.

² Source: Bloomberg Finance L.P. as of 2/20/19

³ <https://dws.com/insights/global-research-institute/long-view/>

⁴ As derived by subtracting money-market rates from the respective asset-class returns

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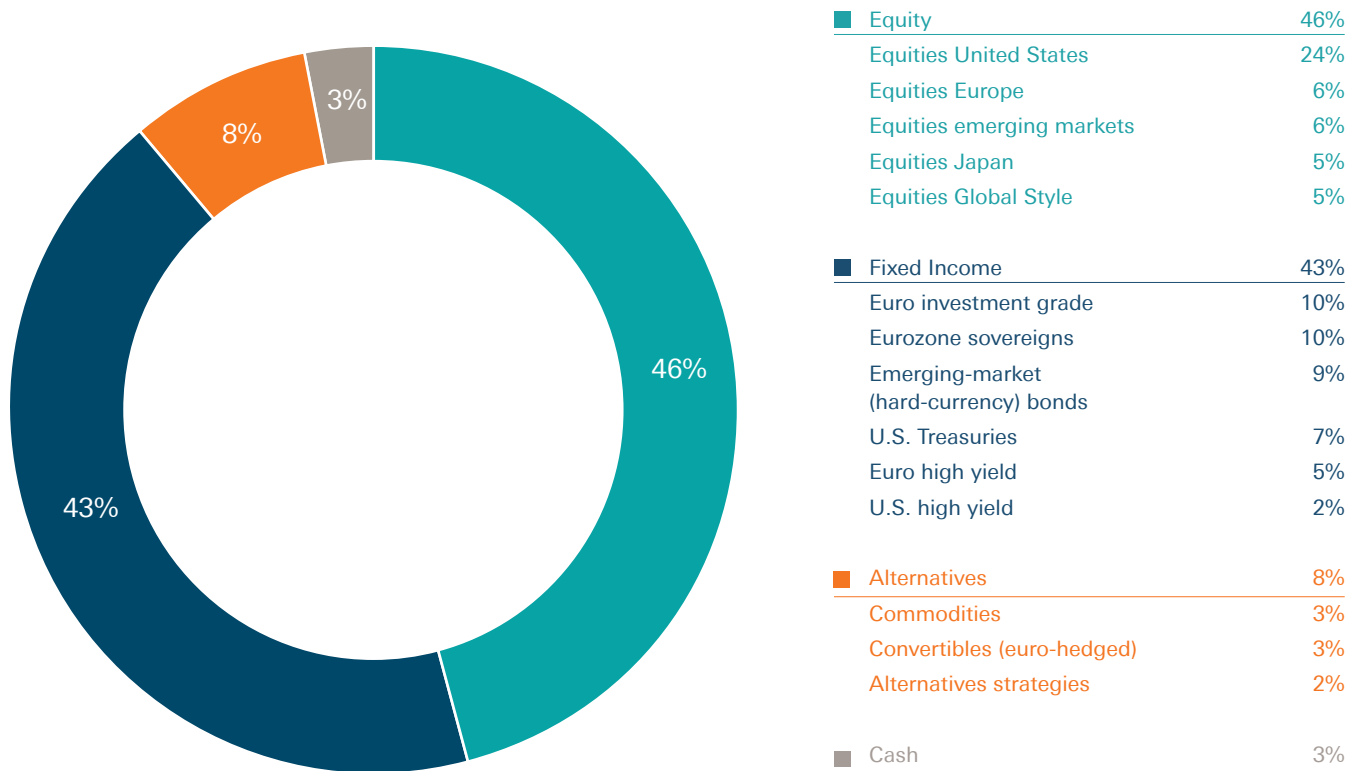
TAKING CHIPS OFF THE TABLE

» We're not bearish but pursue a barbell strategy to protect any gains. «

After the strong rally, we expect range-bound trading with high volatility. It may be time to take some chips off the table and reduce equity exposure. Expecting a stabilizing economy later this year and flexible central banks means we are not outright

bearish, however. Outside equities we are looking for carry in the form of high-yield bonds, with a preference for euro-denominated bonds. We are reducing investment-grade bonds and pursuing a barbell strategy by increasing high-quality sovereign-bond positions in the Eurozone,

while staying with our preferred segment: emerging-market hard-currency bonds. In commodities, we take profits in gold and oil. We stay with our pronounced dollar exposure and add yen exposure for potential diversification benefits.



Source: Multi Asset Group, DWS Investment GmbH as of 2/26/19

The chart shows how we would currently design a balanced, euro-denominated portfolio for a European investor taking global exposure. This allocation may not be suitable for all investors and can be changed at any time without notice. Alternative investments involve various risks and are not necessarily suitable for all clients or for every portfolio.

SUN AND RAIN

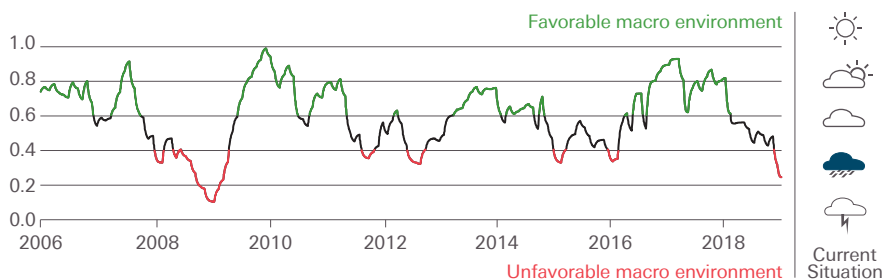
» Indicators show a mixed picture. «

After all three DWS indicators showed a clearly negative market environment in the fourth quarter of 2018, investors' appetite for risk has improved significantly since the beginning of January. The reasons for this were the much more dovish tones from central banks and a possible settlement of the U.S.-China trade conflict. As a result, the risk indicator has risen to a high, positive level similar to that of mid-2017. Economic data has, however, developed in a markedly different way. The macro indicator has deteriorated further since the beginning of the year and is therefore even more negative. The main drivers for this were a further decline in consumer confidence and a deterioration in global trade data. In addition, the surprise indicator has also been showing mostly negative surprises. In the first quarter of this year, analysts' expectations suffered particular disappointment in the United States. In Europe and Asia, on the other hand, there were both negative and positive surprises.

All in all, the picture is mixed. Investor sentiment and risk appetite have improved sharply in 2019. This has driven equity markets up. But macroeconomic data has not confirmed the positive picture. If the market is to remain supported in the future, the fundamental data will have to follow suit.

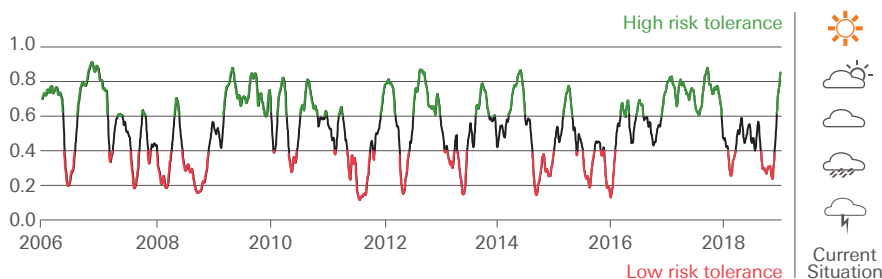
MACRO INDICATOR

Condenses a wide range of economic data



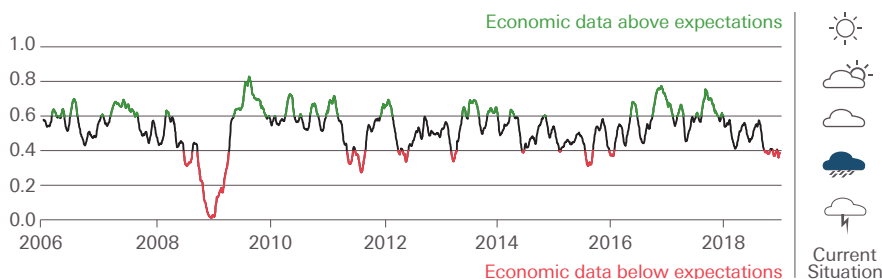
RISK INDICATOR

Reflects investors' current level of risk tolerance in financial markets



SURPRISE INDICATOR

Tracks economic data relative to consensus expectations



Source: DWS Investment GmbH as of 2/25/19

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CLIMATE-CHANGE RISKS

» Improving climate-related disclosure has emerged as a critical priority. «



Petra Pflaum
CIO for Responsible Investments

IN A NUTSHELL

- _ Investors still lack broadly comparable information on companies' climate-related financial opportunities and risks.
- _ It is already possible to assess some risks and opportunities.
- _ However, we need additional disclosure from companies on their exposure to various climate-change risks.

Of the major environmental, social and governance (ESG) issues, climate change has become one of, if not the most important area for investors, companies and financial regulators as well as a growing number of youth movements around the world. The importance of examining climate-related investment risk can be seen in the decline in the index value of coal-related companies over the past decade. Similarly, we have seen significant declines in share prices and investment write-offs from European utility companies. Both partly reflect the disruptive impact of increasingly cost-effective renewable technologies, such as wind power.

One of the challenges is that investors lack broadly comparable information on companies' climate-related financial opportunities and risks. Several initiatives are already underway, including one chaired by the Bank of England Governor Mark Carney¹ and a consultation by the European Union². However, it is not necessary to wait for "perfect" disclosures from companies to assess some of the risks and opportunities.

To take one example, 3.6 billion people worldwide are already living in potential water-scarce areas at least one month per year. By 2050, this could increase to 4.8–5.7 billion. More than 20% of today's global GDP is already produced in water-scarce regions. This could rise to 45% by 2050³. The sectors most exposed to substantive water risks are consumer staples, utilities, energy and mining.

Key data to assess climate-change risk on water availability in the food and beverage industry should include exposure to water-stressed regions, water-use intensity, spending on water conservation and the existence of water reduction and re-use targets. A special challenge comes from the still low visibility of water use in a companies' supply chains, particularly related to agriculture. Investment opportunities may exist in the industrial sector related to water stress, for instance companies involved in technologies related to water desalination or efficient-water use.

Another example concerns automotives, a sector in which information on the low-carbon transition risk is comparatively plentiful for regulatory reasons. Electric-vehicle penetration should continue to be an important emission-reduction priority. Thus, regulation for stronger corporate average-fleet emissions standards is likely to continue to strengthen, increasing the fuel economy of automotive companies' new vehicles. However, heavy investments into the electrification of future cars may mean higher spending on research and development as well as capital expenditures which could dilute company earnings. Monitoring all factors affecting a company's average-fleet fuel economy should provide a good idea of the sustainability of business models.

Finally, the global industrial sector continues to be very exposed to the opportunity side of climate change. Clean technologies include wind,

solar, water efficiency and electric vehicles as well as heating, ventilation and air conditioning. And, as already mentioned, the capital-goods sector is very exposed to the water theme. When it comes to water stress, agriculture accounts for 70% of the world's total freshwater withdrawal mostly through irrigation, but some 60% of this is wasted due to leaky irrigation systems and the cultivation of crops that are too thirsty for the environment in which they grow.⁴ Smart farming can help to minimize the application of fertilizers and pesticides. The use of site-specific weather forecasts, yield projections and probability maps for diseases can also help increase productivity. The capital-goods sector is also in a good position to profit from the trend towards energy efficiency. Technologies such as smart meters are being deployed in homes and offices to improve efficiencies in the areas of heat, noise and light as well as security.

Looking across the sectors, we recognize that we need additional disclosure from companies on their exposure to various climate-change risks. This is why we use our shareholder influence⁵ to encourage companies to improve their disclosure, to reduce carbon emissions and to improve resilience to physical climate change.

COAL IN DECLINE

Share prices of coal miners and related businesses have fallen sharply. This partly reflects tighter regulation and advances in renewable technologies.



■ Leading global coal stocks*

* Bloomberg World Coal Index
Source: Bloomberg Finance L.P. as of 2/26/19

A LOST DECADE

European utilities have had a dreadful decade in stock markets, partly as a result of changing policies and growing concerns about climate change.



■ European utilities*

* Stoxx Europe 600 Utilities Index
Source: Bloomberg Finance L.P. as of 2/26/19

¹ Source: The Financial Times Ltd as of 6/28/17

² https://ec.europa.eu/info/consultations/finance-2019-non-financial-reporting-guidelines_en

³ Source: The United Nations World Water Development Report 2018 as of 3/19/18

⁴ Source: The United Nations World Water Development Report 2018 as of 3/19/18

⁵ Influence is exercised via proxy voting, public appearances at Annual General Meetings and shareholder engagement

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MACRO | Some more growth ahead

GDP growth (in %, year-on-year)

| Region | 2019F | | 2020F |
|----------------|-------|---|-------|
| United States | 2.6 | ↘ | 2.1 |
| Eurozone | 1.3 | ↗ | 1.4 |
| United Kingdom | 1.5 | ↗ | 1.6 |
| Japan | 0.7 | ↘ | 0.6 |
| China | 6.0 | → | 6.0 |
| World | 3.5 | → | 3.5 |

Fiscal deficit (in % of GDP)

| Region | 2019F | | 2020F |
|----------------|-------|---|-------|
| United States | 4.4 | ↘ | 4.3 |
| Eurozone | 0.8 | ↘ | 0.7 |
| United Kingdom | 1.8 | ↘ | 1.4 |
| Japan | 3.1 | ↘ | 2.4 |
| China | 4.2 | ↘ | 3.8 |

Consumer price inflation (in %, year-on-year)

| Region | 2019F | | 2020F |
|----------------------------|-------|---|-------|
| United States ¹ | 2.1 | → | 2.1 |
| Eurozone | 1.4 | ↗ | 1.7 |
| United Kingdom | 1.8 | ↗ | 2.1 |
| Japan | 0.9 | ↗ | 1.7 |
| China | 1.5 | ↗ | 1.8 |

Current-account balance (in % of GDP)

| Region | 2019F | | 2020F |
|----------------|-------|---|-------|
| United States | -2.8 | ↗ | -2.7 |
| Eurozone | 2.9 | → | 2.9 |
| United Kingdom | -3.5 | ↗ | -3.2 |
| Japan | 3.8 | ↗ | 4.1 |
| China | 0.6 | ↘ | 0.2 |

Benchmark rates (in %)

| Region | Current* | | Mar 2020F |
|----------------|-----------|---|-----------|
| United States | 2.25–2.50 | ↗ | 2.50-2.75 |
| Eurozone | 0.00 | → | 0.00 |
| United Kingdom | 0.75 | ↗ | 1.00 |
| Japan | 0.00 | → | 0.00 |
| China | 4.35 | ↘ | 4.10 |

Commodities (in dollars)

| | Current* | | Mar 2020F |
|-----------------|----------|---|-----------|
| Crude oil (WTI) | 57.2 | ↗ | 60 |
| Gold | 1,313 | → | 1,275 |
| Copper (LME) | 6,509 | → | 6,400 |

* Source: Bloomberg Finance L.P. as of 2/28/19

¹ core rate, personal consumption expenditure Dec/Dec in % (no average as for the other figures)

F refers to our forecasts as of 2/21/19

WTI = West Texas Intermediate

LME = London Metal Exchange

Legend applies to this and the following page

- Equity indices, exchange rates and alternative investments: The arrows signal whether we expect to see an upward trend ↗, a sideways trend → or a downward trend ↘.
- Fixed Income: For sovereign bonds, ↗ denotes rising yields, → unchanged yields and ↘ falling yields. For corporates, securitized/specialties and emerging-market bonds, the arrows depict the option-adjusted spread over U.S. Treasuries. ↗ depicts a rising spread, → a sideways trend and ↘ a falling spread.
- The arrows' colors illustrate the return opportunities for long-only investors: ↗ ↗ positive return potential for long-only investors. → limited return opportunity as well as downside risk. ↘ ↘ negative return potential for long-only investors.

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EQUITIES | Further upside looks limited

| | Current* | | Mar 2020F | | | | |
|-----------------------------------|----------|---|-----------|--------------------------------------|--------------------------|------------|----------------|
| | | | Forecast | Total return (expected) ¹ | Expected earnings growth | P/E impact | Dividend yield |
| United States (S&P 500) | 2,784 | ↗ | 2,850 | 4.5% | 5% | -3% | 2.1% |
| Europe (Stoxx Europe 600) | 373 | → | 370 | 3.0% | 5% | -6% | 3.8% |
| Eurozone (Euro Stoxx 50) | 3,298 | → | 3,250 | 2.5% | 6% | -7% | 4.0% |
| Germany (Dax) ² | 11,516 | → | 11,800 | 2.5% | 5% | -6% | 3.5% |
| United Kingdom (FTSE 100) | 7,075 | ↗ | 7,120 | 5.4% | 2% | -2% | 4.8% |
| Switzerland (Swiss Market Index) | 9,389 | → | 9,200 | 1.5% | 10% | -12% | 3.5% |
| Japan (MSCI Japan Index) | 962 | ↗ | 980 | 4.3% | 1% | 0% | 2.5% |
| MSCI Emerging Markets Index (USD) | 1,051 | ↗ | 1,110 | 8.6% | 5% | 1% | 3.0% |
| MSCI AC Asia ex Japan Index (USD) | 653 | ↗ | 680 | 6.7% | 5% | -1% | 2.6% |

* Sources: Bloomberg Finance L.P., FactSet Research Systems Inc. as of 2/28/19

¹ Expected total return includes interest, dividends and capital gains where applicable

² Total-return index (includes dividends)

FIXED INCOME | Is the Fed already done?

United States

| | Current* | | Mar 2020F |
|--|----------|---|-----------|
| U.S. Treasuries (10-year) | 2.72% | ↗ | 3.00% |
| U.S. municipal bonds | 79% | ↗ | 85% |
| U.S. investment-grade corporates | 114 bp | → | 115 bp |
| U.S. high-yield corporates | 379 bp | ↗ | 440 bp |
| Securitized: mortgage-backed securities ¹ | 86 bp | ↗ | 95 bp |

Europe

| | Current* | | Mar 2020F |
|---|----------|---|-----------|
| German Bunds (10-year) | 0.18% | ↗ | 0.30% |
| UK Gilts (10-year) | 1.30% | ↗ | 1.50% |
| Euro investment-grade corporates ² | 144 bp | ↘ | 135 bp |
| Euro high-yield corporates ² | 399 bp | ↗ | 430 bp |
| Securitized: covered bonds ² | 57 bp | ↘ | 50 bp |
| Italy (10-year) ² | 257 bp | ↗ | 320 bp |

* Source: Bloomberg Finance L.P. as of 2/28/19

¹ Current-coupon spread vs. 7-year U.S. Treasuries

² Spread over German Bunds

F refers to our forecasts as of 2/21/19

bp = basispoints

Asia-Pacific

| | Current* | | Mar 2020F |
|-------------------------------------|----------|---|-----------|
| Japanese government bonds (10-year) | -0.02% | ↗ | 0.20% |
| Asia credit | 265 bp | → | 265 bp |

Global

| | Current* | | Mar 2020F |
|----------------------------|----------|---|-----------|
| Emerging-market sovereigns | 339 bp | → | 350 bp |
| Emerging-market credit | 322 bp | → | 335 bp |

Currencies

| | Current* | | Mar 2020F |
|-------------|----------|---|-----------|
| EUR vs. USD | 1.14 | → | 1.15 |
| USD vs. JPY | 111 | → | 107 |
| EUR vs. GBP | 0.86 | ↗ | 0.90 |
| GBP vs. USD | 1.33 | → | 1.28 |
| USD vs. CNY | 6.69 | ↗ | 7.00 |

PERFORMANCE | Overview

Performance over the past 5 years (12-month periods)

| | 02/14 – 02/15 | 02/15 – 02/16 | 02/16 – 02/17 | 02/17 – 02/18 | 02/18 – 02/19 |
|--|---------------|---------------|---------------|---------------|---------------|
| Bloomberg Barclays Emerging Markets Sovereign USD Index | 4.7% | 1.8% | 11.1% | 3.2% | 3.1% |
| Bloomberg Barclays Euro Aggregate Corporate 5-7 Year Index | 9.4% | –1.0% | 5.3% | 1.7% | 1.1% |
| Bloomberg Barclays Pan-European High Yield (Euro) Index | 6.6% | –3.8% | 13.0% | 4.7% | 0.4% |
| Bloomberg Barclays U.S. Corporate 5-7 Years Index | 4.9% | 0.7% | 5.5% | 1.5% | 4.1% |
| Bloomberg Commodity Index | –22.8% | –26.6% | 15.5% | 0.5% | –7.7% |
| Bloomberg World Coal Index | 21.9% | –32.0% | 15.7% | 24.3% | –21.4% |
| Cboe VIX Index | –4.7% | 54.0% | –37.1% | 53.6% | –25.5% |
| DAX | 17.6% | –16.7% | 24.6% | 5.1% | –7.4% |
| Dow Jones Brookfield Americas Infrastructure Index | 12.8% | –20.3% | 23.4% | –5.3% | 8.8% |
| Dow Jones Brookfield Global Infrastructure Index | 8.7% | –15.9% | 13.9% | 1.1% | 7.1% |
| Euro Stoxx 50 | 14.3% | –18.2% | 12.7% | 3.6% | –4.1% |
| FTSE 100 | 2.0% | –12.2% | 19.1% | –0.4% | –2.2% |
| FTSE NAREIT All Equity REITS Total Return Index | 17.6% | –7.6% | 13.6% | –9.7% | 14.7% |
| Hedge Fund Research HFRI Fund Weighted Composite Index | 1.5% | –3.7% | 10.6% | 6.8% | –0.6% |
| iBoxx EUR Infrastructure Index | 9.6% | –1.1% | 4.1% | 1.7% | 0.9% |
| J.P. Morgan Japan NEER Nominal - Trade Weighted Index | –9.1% | 12.2% | 1.5% | –1.3% | 0.3% |
| MSCI AC Asia ex Japan Index | 8.8% | –22.3% | 23.5% | 29.1% | –10.3% |
| MSCI AC World Index | 5.4% | –14.1% | 19.6% | 16.6% | –2.8% |
| MSCI Emerging Market Index | 2.5% | –25.2% | 26.5% | 27.6% | –12.1% |
| MSCI EMU Index | 15.0% | –15.2% | 13.9% | 7.6% | –5.1% |
| MSCI Europe | 16.0% | –15.8% | 11.3% | 2.2% | –1.7% |
| MSCI Japan Index | 25.4% | –16.3% | 17.0% | 14.1% | –8.2% |
| MSCI USA | 13.0% | –8.9% | 22.7% | 14.8% | 2.8% |
| MSCI World Index | 5.8% | –12.7% | 18.8% | 15.2% | –1.5% |
| S&P 500 | 13.2% | –8.2% | 22.3% | 14.8% | 2.6% |
| Stoxx Europe 600 | 16.0% | –14.9% | 10.9% | 2.5% | –1.8% |
| Stoxx Europe 600 Utilities | 17.2% | –11.2% | 4.3% | 2.0% | 19.8% |
| Swiss Market Index | 6.4% | –13.0% | 9.0% | 4.2% | 5.4% |
| Topix | 25.8% | –14.8% | 18.3% | 15.2% | –9.1% |

» PERFORMANCE «

Performance over the past 5 years (12-month periods)

| | 02/14 – 02/15 | 02/15 – 02/16 | 02/16 – 02/17 | 02/17 – 02/18 | 02/18 – 02/19 |
|---|---------------|---------------|---------------|---------------|---------------|
| Asia credit | 7.8% | 2.8% | 6.6% | 2.0% | 3.5% |
| Emerging-market credit | 3.7% | –0.2% | 13.4% | 3.9% | 3.4% |
| Emerging-market sovereigns | 6.9% | 1.1% | 12.1% | 4.4% | 3.1% |
| Euro high-yield corporates | 6.8% | –4.5% | 14.1% | 3.9% | 0.9% |
| Euro investment-grade corporates | 7.8% | –1.2% | 4.3% | 1.5% | 0.8% |
| German Bunds (10-year) | 11.7% | 3.4% | 0.6% | –3.0% | 5.0% |
| Italy (10-year) | 18.6% | 2.2% | –2.5% | 4.0% | –1.9% |
| Japanese government bonds (10-year) | 3.2% | 4.0% | –1.0% | 0.3% | 1.2% |
| Securitized: covered bonds | 6.8% | 1.0% | 0.8% | –0.2% | 1.3% |
| Securitized: mortgage-backed securities | 4.8% | 2.5% | 0.4% | 0.2% | 3.6% |
| U.S. high-yield corporates | 2.8% | –8.3% | 21.8% | 4.2% | 4.3% |
| U.S. investment-grade corporates | 6.5% | –1.2% | 5.7% | 2.1% | 2.7% |
| U.S. Treasuries (10-year) | 7.0% | 4.7% | –2.9% | –1.3% | 4.5% |
| UK Gilts (10-year) | 9.4% | 6.0% | 3.9% | –1.9% | 3.7% |

Source: Bloomberg Finance L.P. as of 3/11/19

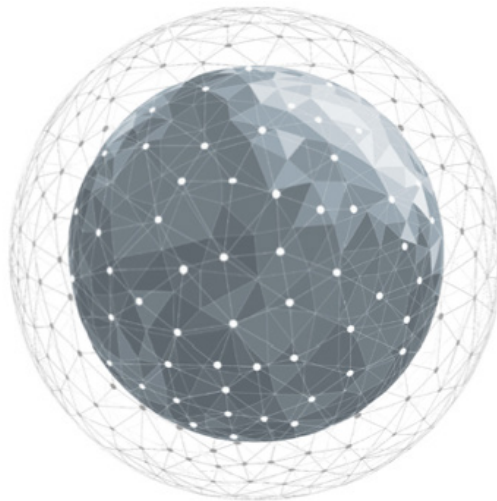
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prepares our global investment outlook: the CIO View.

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GLOSSARY

» Here we explain central terms from the CIO | VIEW «

A **balance sheet** summarizes a company's assets, liabilities and shareholder equity.

The **Bank of England (BoE)** is the central bank of the United Kingdom.

In finance, a **barbell strategy** means avoiding assets with an average risk-reward profile. A common example of this would be to invest in long- and short-duration bonds but not in intermediate-duration bonds.

One **basis point** equals 1/100 of a percentage point.

The **Bloomberg Barclays Emerging Markets Sovereign USD Index** measures the performance of USD-denominated government bonds from more than 60 emerging markets.

The **Bloomberg Barclays Euro Aggregate Corporate Index** captures the performance of euro-denominated corporate bonds issued by investment-grade-rated entities. Only bonds with a maturity between five and up to seven years.

The **Bloomberg Barclays Pan-European High Yield (Euro) Index** measures the return of non-investment grade corporate bonds issued in a European currencies.

The **Bloomberg Barclays U.S. Corporate 5-7 Years Index** captures the performance of USD-denominated corporate bonds issued by investment-grade-rated entities. Only bonds with a maturity between five and up to seven years.

The **Bloomberg Barclays U.S. Corporate High Yield Index** measures the dollar-denominated, high yield, fixed-rate corporate bond market.

The **Bloomberg Commodity Index (BCOM)** traces 23 commodities and reflects commodity futures price movements.

The **Bloomberg World Coal Index** is a capitalisation-weighted index that captures the performance of 31 leading coal stocks globally.

Brexit is a combination of the words "Britain" and "Exit" and describes the exit of the United Kingdom of the European Union.

Bunds is a commonly used term for bonds issued by the German federal government with a maturity of 10 years.

Capital expenditure (Capex) are funds used by a company to acquire or upgrade physical assets such as property, industrial buildings or equipment.

Carry is a strategy in which an investor sells a certain currency with a relatively low interest rate and then buys another, higher-yielding currency.

The **CBOE Volatility Index (Vix)** is a trademarked ticker symbol for the Chicago Board Options Exchange Market Volatility Index. It is a popular measure of the volatility of the S&P 500 as implied in the short term option prices on the index.

The **Chinese yuan (CNY)** is legal tender on the Chinese mainland and the unit of account of the currency, Renminbi (RMB).

Consumer staples is a sector of the economy selling essential products.

Contrarian investing is an investment strategy that is characterized by positioning oneself in the opposite direction of prevailing sentiment.

A **corporate bond** is a bond issued by a corporation in order finance their business.

Correlation is a measure of how closely two variables move together over time.

Covered bonds are securities similar to asset-backed securities (ABS) which are covered with public-sector or mortgages loans and remain on the issuer's balance sheet.

The **Dax** is a blue-chip stock-market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange.

Diversification refers to the dispersal of investments across asset types, geographies and so on with the aim of reducing risk or boosting risk-adjusted returns.

The **Dow Jones Brookfield Global Infrastructure Composite Index** measures the stock performance of pure-play infrastructure companies (defined as those deriving 70% of their cash flows from infrastructure business lines) worldwide.

The **Dow Jones Brookfield Global Infrastructure Index** measures the performance of pure-play infrastructure companies domiciled globally.

The **Electoral College** is the body which elects the President and the Vice President of the United States. It is composed of electors from each state equal to that state's representation in Congress.

Emerging markets (EM) are economies not yet fully developed in terms of, amongst others, market efficiency and liquidity.

The **euro (EUR)** is the common currency of states participating in the Economic and Monetary Union and is the second most held reserve currency in the world after the dollar.

The **Euro Stoxx 50** is an index that tracks the performance of blue-chip stocks in the Eurozone.

The **European Central Bank (ECB)** is the central bank for the Eurozone.

The **European Union (EU)** is a political and economic union of 28 member states located primarily in Europe.

The **Eurozone** is formed of 19 European Union member states that have adopted the euro as their common currency and sole legal tender.

The **federal funds rate** is the interest rate, set by the Fed, at which banks lend money to each other, usually on an overnight basis.

The **Federal Open Market Committee (FOMC)** is the committee that oversees the open-market operations (purchases and sales of securities that are intended to steer interest rates and market liquidity) of the U.S. Federal Reserve.

The **financial crisis** refers to the period of market turmoil that started in 2007 and worsened sharply in 2008 with the collapse of Lehman Brothers.

Fiscal policy describes government spending policies that influence macroeconomic conditions. Through fiscal policy, the government attempts to improve unemployment rates, control inflation, stabilize business cycles and influence interest rates in an effort to control the economy.

The **Five Star Movement** is a populist political party in Italy. It is led by the popular comedian and blogger Beppe Grillo, who was also among its founders in 2009. It is considered anti-establishment, environmentalist, anti-globalist and Eurosceptic.

The **FTSE 100** is an index that tracks the performance of the 100 major companies trading on the London Stock Exchange.

The **FTSE NAREIT All Equity REITS Total Return Index** measures the performance of U.S. equity REITs.

Gilts are bonds that are issued by the British Government.

Government (sovereign) debts/bonds are debt/bonds issued and owed by a central government.

The **gross domestic product (GDP)** is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

Hard-currency bonds (debt) are bonds (debt) issued in a historically stable currency such as the U.S. dollar or the euro.

A **hedge** is an investment to reduce the risk of adverse price movements

in an asset.

The **HFRI Weighted Composite Index** is a global, equal-weighted index of over 1,400 single-manager hedge funds that report to HFR Database.

High-yield bonds are issued by below-investment-grade-rated issuers and usually offer a relatively high yield.

The **iBoxx EUR Infrastructure Index** includes euro-denominated corporate bonds with infrastructure exposure.

Inflation is the rate at which the general level of prices for goods and services is rising and, subsequently, purchasing power is falling.

Investment grade (IG) refers to a credit rating from a rating agency that indicates that a bond has a relatively low risk of default.

The **Japanese yen (JPY)** is the official currency of Japan.

The **J.P. Morgan Japan NEER Nominal – Trade Weighted Index** measures the nominal effective exchange rate of the Japanese yen using a trade-weighted average of the yen's bilateral exchange rates.

The **Labour Party** is a center-left political party and one of the three biggest parties in the United Kingdom.

The **Lega** (formerly "Lega Nord") is a right-wing populist party in Italy. It was founded in 1991 through the merger of various parties. It is considered anti-globalist and Eurosceptic.

Monetary policy focuses on controlling the supply of money with the ulterior motive of price stability, reducing unemployment, boosting growth, etc. (depending on the central bank's mandate).

» GLOSSARY «

A **monetary-policy tightening cycle** is a period of time during which a central bank raises interest rates with the aim of slowing GDP growth or inflation.

A **mortgage-backed security (MBS)** is a special type of asset-backed security where the holder receives interest and redemption payments from pooled mortgage debtors, secured by the underlying mortgages.

The **MSCI AC World Index** captures large- and mid-cap companies across 23 developed- and 24 emerging-market countries.

The **MSCI AC Asia ex Japan Index** captures large- and mid-cap representation across 2 of 3 developed-market countries (excluding Japan) and 8 emerging-market countries in Asia.

The **MSCI Emerging Markets Index** captures large- and mid-cap representation across 23 emerging-market countries.

The **MSCI EMU (European Economic and Monetary Union) Index** measures the performance of the large- and mid-cap segments of 10 developed markets in Europe.

The **MSCI Europe Index** is designed to measure the performance of the large- and mid-cap segments of 15 developed markets in Europe.

The **MSCI Japan Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese market.

The **MSCI USA Index** is designed to measure the performance of the large- and mid-cap segments of the U.S. market.

The **MSCI World Index** tracks the performance of mid- and large-cap stocks

in 23 developed countries around the world.

Municipal bonds (Munis) are debt securities issued by a state, municipality or country.

In economics, a **nominal** value is not adjusted for inflation; a real value is.

The **pound sterling (GBP)**, or simply the pound, is the official currency of the United Kingdom and its territories.

The **price-to-earnings (P/E) ratio** compares a company's current share price to its earnings per share.

Quantitative easing (QE) is an unconventional monetary-policy tool, in which a central bank conducts broad-based asset purchases.

In economics, a **real** value is adjusted for inflation.

A **recession** is, technically, when an economy contracts for two successive quarters but is often used in a looser way to indicate declining output.

The **S&P 500** is an index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

The **Sharpe ratio** puts an asset's excess return (the return above the risk-free rate) in relation to the asset's risk as measured by its standard deviation.

Sovereign bonds are bonds issued by governments.

The **spread** is the difference between the quoted rates of return on two different investments, usually of different credit quality.

The **Stoxx Europe 600** is an index representing the performance of 600

listed companies across 18 European countries.

The **Stoxx Europe 600 Utilities index** captures all utility companies within the Stoxx Europe 600 which covers 18 European countries.

The **Swiss Market Index (SMI)** is Switzerland's most important equity index, consisting of the 20 largest and most liquid large- and mid-cap stocks.

The **Topix (Tokyo Stock Price Index)** captures all companies (almost 2000) of the First Section of the Tokyo Stock Exchange.

Treasuries are fixed-interest U.S. government debt securities with different maturities: Treasury bills (1 year maximum), Treasury notes (2 to 10 years), Treasury bonds (20 to 30 years) and Treasury Inflation Protected Securities (TIPS) (5, 10 and 30 years).

A **twin deficit** is a simultaneous fiscal and current-account deficit.

The **U.S. dollar (USD)** is the official currency of the United States and its overseas territories.

The **U.S. Federal Reserve**, often referred to as "the Fed", is the central bank of the United States.

The **US News Based Economic Policy Uncertainty Index** captures the frequency of newspaper articles that contain a trio of terms pertaining to the economy (E), policy (P) and uncertainty (U).

A **value-added tax (VAT)** is a consumption tax that is collected based on the incremental value added in each stage of production (as opposed to a sales tax where only the final consumer is taxed).

» GLOSSARY «

Volatility is the degree of variation of a trading-price series over time. It can be used as a measure of an asset's risk.

Yield is the income return on an investment referring to the interest or dividends received from a security and is usually expressed annually as a percentage based on the investment's cost, its current market value or its face value.

A **yield curve** shows the annualized yields of fixed-income securities across different contract periods as a curve. When it is inverted, bonds with longer maturities have lower yields than those with shorter maturities.

A **yield-curve inversion** is when the yields on bonds with shorter duration are higher than the yields on bonds that have a longer duration.

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DWS Investment GmbH as of 3/14/2019

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