Marketing Material

December 2019

OUR 12-MONTH
ECONOMIC & MARKET OUTLOOK

DWS

Content

November 25, 2019

A good year lies ahead – and a weak decade

The investment prospects for next year aren't bad. But the next decade doesn't look anything like the past one.

> “We do not expect an economic or a market slump, though we can't completely rule it out either. We therefore enter the new year with cautious optimism.”

Stefan Kreuzkamp
Chief Investment Officer

A new year begins and also a new decade that will bring fresh uncertainties and challenges. One thing that looks certain is that the pace of change will increase in technology, in the economy and perhaps in politics, too. We believe technology will also be a prime mover of change in our industry, not only changing the way we work but also bringing a raft of additional regulatory changes. Our core business, responsible asset management, has been challenging in this past decade dominated by low inflation, quantitative easing, low bond yields and inflated asset prices. Now we have to ask ourselves what growth potential the world and its different regions may have over the next ten years, where interest rates, inflation and markets will head, and where, too, the world is heading socio-politically.

The uncertainties are great and we want to make clear that our expectation is that the conditions that have proven so favorable to financial assets in the past decade are unlikely to persist. In the next decade, we do not expect to be able to achieve as good returns as in the past one.

Here in the Quarterly CIO View, however, our focus is only on the next one to two years. The "only" is not intended to suggest that even this relatively near-term forecast is at all easy, though.

The past year is set to become one of the best for investors in a long time. We had not expected that but we were right to be concerned about how Brexit, the U.S.-China trade dispute and U.S. corporate earnings would play out. Corporate earnings are, in fact, beginning to look even worse than we predicted: and by year-end there could well be zero year-on-year growth for 2019 and consensus earnings estimates for 2020 are still being revised down further. The S&P 500's upward move by nearly a quarter since the beginning of the year[1] might therefore be due to three particular factors:

1. Fears of recession, which had been fanned by the inversion of the yield curve (between 2-year and 10-year U.S. government bonds) in August, subsided in late autumn.
2. Political fears have also eased a little as the year comes to a close with the risk of a disorderly Brexit declining and the U.S.-China trade dispute at least not looking likely to get worse.
3. The decisive factor, however, was probably the surprisingly loose U.S. Federal Reserve (the Fed). The Fed didn't just refrain from further interest-rate hikes, it cut rates. In addition, it announced in March that from September onwards it would not let its balance sheet shrink further. And in the wake of September's repo-market turmoil, it even injected fresh billions into the system. Other central banks, such as the European Central Bank (ECB), also became more expansionary.

[1] As of 11/19/19

Therefore cynics could easily say that their suspicions have been confirmed this year: an over-indebted world just can't take higher interest rates and the central banks are there again, ready and willing to bail out the global economy or capital markets should either begin to get the shakes. Given the strength of the U.S. dollar and very low U.S. government-bond yields, another cynical view might also be gaining ground: that the U.S. can live beyond its means and pile up as much debt as it wants. It just doesn't matter because America doesn't have to pay its way, it can always print the money it needs to meet its obligations. This argument, however, though it may work in the short term, looks highly questionable in the long run. And trust in the invincibility of the dollar and Treasuries looks all the more dubious given the current protectionist policies of the U.S. administration, which continues to break away from multilateral agreements. But predicting just when the dollar will begin to weaken as a result of deteriorating foreign policy and twin budget and trade deficits can be just as difficult an art as forecasting when the years of monetary expansion may produce inflation. Predicting one or the other can leave you looking foolish for a long time – before history finally vindicates you.

We are not predicting either dollar weakness or soaring inflation in 2020. Instead, we believe the central banks will keep the music the same and investors are likely to continue to dance to the loose money waltz. But not quite as quickly. In our view, markets won't do as well as in 2019. After all, investors have been dancing to the same tune for a very long time and are getting tired.

Next to easy money it is, however, global economic growth that might help to keep them on the dance floor. We expect growth to be at the same level in 2020 as in 2019 – 3.1%. But we expect returns to drop into the single-digit range in the next twelve months, a level similar to the one we expected a year ago for 2019. Since then, however, equities have become more expensive, after double-digit price increases despite flat earnings growth. And it is unlikely that central banks can come up with the same positive surprises again in 2020.

Politically, meanwhile, the picture is changing, and probably not for the better. The U.S.-Chinese trade dispute may not have become worse but little real progress has been made. The escalation of the protests in Hong Kong add further complexity. And however the UK election goes, Brexit, or its consequences, will remain on the table in 2020. The consequence of all these uncertainties on both sides of the Atlantic is a growing tendency for companies to put off investment plans. We doubt that states will compensate by implementing fiscal packages. We feel Germany, certainly, is unlikely to, nor do we see the investment gap being filled by China, whose overall economic growth we expect to fall below six percent.

Asia should remain the world's growth engine, and one of our preferred regions, in the coming year, both for equities and bonds. The hunt for bond yield should again drive investors deeper into emerging markets and corporate bonds. In the Eurozone, the ECB, a price-insensitive buyer, is back and should keep demand constantly high.

Given the continuing high level of risk we will incorporate some hedging in our portfolios in 2020, using for example longer-term U.S. government bonds or gold. Irrespective of the strategic asset allocation in our individual portfolios, we will more closely align investments to environmental, social and governance (ESG) criteria in 2020. Our early focus on this issue paid off in 2019, when environmental issues dominated the headlines worldwide. We will continue to expand our ESG efforts, as we cannot and will not ignore the "how" of generating returns.

Look at our forecasts to see our 12-month outlook in numbers.

December 4, 2019

Early signs of stabilization

Downside risks to global growth have shrunk in recent months. But we do not see much potential for an upside surprise either.

- In recent months, leading economic indicators stabilized.
- We remain somewhat hopeful that a truce in the trade war between China and the U.S. can be reached.
- Like the trade war, Brexit has mainly meant one thing frequently underestimated by economists: rolling uncertainty.

Johannes Müller
Head of Macro Research

So far, so good. In recent months, leading economic indicators have stabilized. That was a necessary condition in order to avoid a recession. In itself, we do not believe it will be enough to reverse the temporary slowdown we have been warning about for quite a while. Indeed, we have been forced to take many of our growth forecasts for both this year and the next down by another notch. For the Eurozone we see a growth in gross domestic product (GDP) of 1.1% in 2019 and 0.9% in 2020 which reflects a change of -0.1% and -0.2%, respectively. The cuts are even larger in the U.S., where we expect growth to slow to 1.6% in 2020, from our reduced forecast of 2.2% this year.

Nevertheless, we are cautiously optimistic. We think that the world economy should start to accelerate again in 2021, mainly thanks to several of the larger emerging markets recovering. That list includes India, Brazil and Russia, though not China. All these countries are frequently seen as stand-alone stories. Similarly, it has become fashionable to think about Brexit or Donald Trump's trade policies as reflecting unusual periods of turmoil in British or American politics. And of course, there is always much to be learned by carefully analyzing individual countries, whether the goal is to understand political or economic dynamics.

In the case of China, we think GDP growth will slow to 5.8% in 2020 and 5.6% in 2021. Lingering trade tensions are only one of the reasons. The bigger underlying cause is demographics. In 2021, 25 million Chinese will reach their retirement age. By contrast, only 15 million young people will enter China's workforce, reinforcing labor shortages that are already starting to loom in certain areas.[1] Nor is demographics China's only vulnerability. Household debt has risen quite dramatically and much faster than GDP. Adding China's transition to a more service-oriented economy we believe the country is unlikely to see a return to the double-digit growth rates of previous decades.

None of this is exactly new. China watchers have been fretting for well over a decade about whether the country could be challenged by demographics before per-capita income could reach rich-country levels. Nor is slower economic growth necessarily a bad sign, if lower rates prove sustainable. Looked at from Beijing's perspective, however, these remain the main economic-policy challenges that had already been lurking in the background when the trade conflict with the U.S. started. Alongside the unrest in Hong Kong, they also offer a reason why China might wish to defuse trade tensions. Plainly, it would allow China to focus on other policy challenges closer to home.

[1] DWS Investment GmbH, Macro Group, based on data from the State Statistics Bureau of China, November 2019

We remain somewhat hopeful that a truce in the trade war between China and the U.S. can be reached in the coming weeks. Partly, this is because we would expect both parties to have an interest in doing so. President Trump, after all, faces re-election in 2020. A trade truce would help sentiment. But, even if it materialized as we expected, such a truce looks unlikely to actually reverse the damage. This is partly because of Chinese history: during the 19th century, a weakened country was forced to sign unequal treaties with various colonial powers. Its leadership will likely be wary signing off on anything reminiscent of those 19th century trade concessions in the face of foreign pressure. Meanwhile, a weakened U.S. President facing impeachment might use further trade escalation to try to project strength in an election year. Thus, there remain risks that mutual misunderstandings, paired with brinkmanship, could cause further escalations. To see how such factors can override economic self-interest even in mature democracies, Brexit is a case in point.

Like the trade war, Brexit has mainly meant one thing frequently underestimated by economists: rolling uncertainty. As long as there appeared to be a firm date for the UK to leave the European Union (EU), companies could at least try to plan accordingly, if necessary by postponing investments. With every extension requested by the UK and granted by the EU, however, this has become increasingly hard. It also left businesses more and more unnerved. British politics, it would seem, has become so unpredictable that companies are unable to adjust in a timely fashion.

Economists trying to capture such factors tend to rely on sentiment indicators, while talking about "upside" and "downside" risks to their base case. And yet, as the economist Frank Knight pointed out almost 100 years ago, there is a big difference between risks of the sort that you can measure, quantify and prepare for, and uncertainty, reflecting the essential unpredictability of future events.[2] We think Brexit firmly belongs to the second category, as companies in the UK and elsewhere are increasingly realizing. After years of globalization and integrating supply chains, a country's disintegration from an area it has close economic ties with is novel and marks a structural break. Except that Brexit still has not happened! Tariffs, regulations, travel arrangements and all the rest of the rules governing relations between the UK and the EU remain the same in 2019 as they were before the 2016 referendum. So far, it has been the mere – if at times very credible – threat of further political chaos ahead that caused all the damage, including the sharp fluctuations in the value of the pound.

Which is more than enough. Imagine, for example, that you are the CEO of a British manufacturing company currently exporting mostly to EU markets. As such, you would have much riding on the UK's snap general election on December 12. Not that knowing this latest looming decision date makes your life any easier! If the British polls are right for a change, and Tories win a majority in the House of Commons, you know that Tory leader Boris Johnson's Brexit withdrawal deal is likely to pass. You don't have much of an idea, however, of what a Johnson Brexit might mean for your business. Johnson has gone out of his way to rule out a customs union, regulatory alignment with EU standards, and even an extension to the transition period beyond 2020, in case a quick trade deal with the EU can not be negotiated as promised. The above-mentioned UK business would probably hope that a victorious Johnson might change his mind, especially on regulatory alignment.

Meanwhile, the main opposition Labour party is promising to reverse four decades of shrinking the role of the state. Labour is planning to raise taxes and spending by amounts unprecedented in peacetime. In the past, these measures were rather unwelcome by markets. In this regard, the markets' best hope is that Labour currently looks very unlikely to win a majority on its own and would probably have to rely on smaller, pro-EU parties. Yet, the result of this could well be another EU referendum, another one on Scottish independence, and, potentially, yet another snap general election before very long.

A similar dynamic, we think, has been at work when it comes to trade more broadly. The economic harm from U.S. tariffs goes well beyond the obvious impact on the global economy via the higher prices, resulting in lower consumption and imports. Global industrial production has been declining since the beginning of 2018. Increasingly, it has been tracking the Global Economic Policy Uncertainty (GEPU) Index, a risk index compiled by several U.S. academics.[3] It measures uncertainty in the 20 most important economies by reflecting the relative number of articles containing risk terms. The global index is then weighted with the national GDP. Thus measured, uncertainty is currently at a peak.

2 Knight, Frank H., (1921). Risk, uncertainty and profit (1964 reprint). New York, Augustus M. Kelley
3 For details, see: https://www.policyuncertainty.com/global_monthly.html

Paradoxically, the peak in uncertainty – as measured by mentions in global media outlets – is also one of the reasons why we are cautiously optimistic. In the UK and elsewhere one can already make out early signs of reversion to a more moderate political mean, admittedly with many hiccups along the way. The latest extension of the Brexit deadline to the end of January 2020 has already prevented the UK chaotically stumbling out of the EU on October 31, 2019. At the UK's snap general election on December 12, we think that the most likely scenario is probably another hung parliament. A newly elected House of Commons would probably be even less inclined to pass a Brexit of any sort, without a second, confirmatory referendum. In such a referendum, we would find it quite plausible for the initial Brexit decision to be reversed, while the alternative might well turn out to be a lot softer than what the Tories have been promising. So, the end-result, after all the upheaval of recent years, might well be trading arrangements between the EU and the UK not all dissimilar from the current status of full EU membership.

Since 2016, we have already seen plenty of echoes of the same political and socio-economic processes that caused Brexit in other countries. With the benefit of hindsight, it might well turn out that the British political systems actually coped better with the resulting challenges than other places. The same could well prove true at the U.S. 2020 elections. On the Democratic side, we expect that the eventual nominee will not veer too far to the left. And, a re-elected President Trump would probably still be constrained by Democrats holding on to the House of Representatives. Until the results are in, though, we expect plenty of nervousness among businesses and markets every time, for example, one of the more left-wing candidates for the Democratic nomination does well in a primary contest or surges in opinion polls.

All of which might sound like a recipe for yet more rolling political uncertainty and more damage to business sentiment. Another way of viewing this uncertainty, however, is to acknowledge that since the end of the Cold War, business may have been lulled into a sense of complacency. Plainly, plenty of political changes are possible and need to be considered before making an investment decision. And if businesses increasingly plan for changes that once seemed unthinkable, that should make economies more resilient if and when some of those risks materialize.

Indeed, it may well be the latest chapter in a story that should be familiar to our readers. Since the end of the financial crisis a decade ago, a lot of economic indicators have been moving in slow motion, with the occasional periods of volatility in between. For many years, we have seen weak credit creation, weak company spending on capital expenditure, weak inflation, and so on, giving the current cycle unusual staying power. Increasingly, we are beginning to wonder whether something similar might be happening in politics. In the meantime, we expect monetary policy to remain on hold in both the Eurozone and the U.S., with no further interest-rate cuts by either the U.S. Federal Reserve (the Fed) or the European Central Bank (ECB). Of course, there remains plenty of uncertainty around that base case, too.

Remarkably, our thinking both on politics and on macroeconomics, has not changed all that much since August. Back then, our view that a No-Deal Brexit would be avoided and that no recession was looming seemed hopelessly optimistic to some of our colleagues. Since then, we have seen a few months of financial-market strength. Perhaps as a result, some have questioned whether we might now be too pessimistic. We would caution, however, that the risks have not vanished altogether.

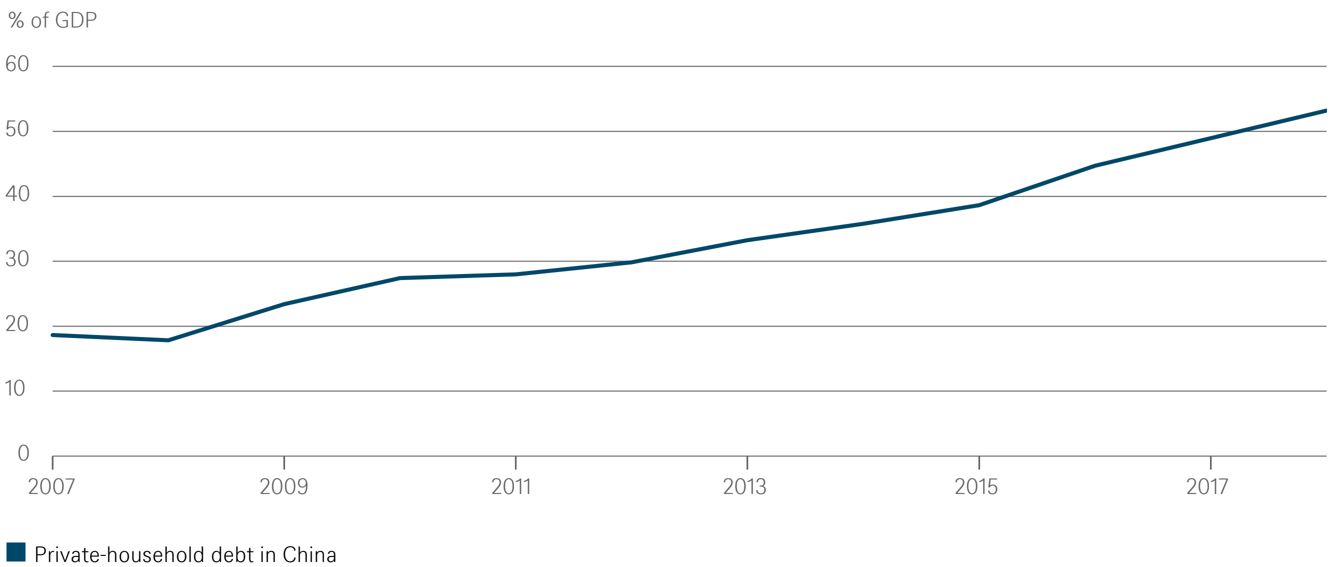
GLOBAL UNCERTAINTY

The uncertainty due to Brexit and the trade war drags down global industrial production.

Sources: Haver Analytics Inc., DWS Investment GmbH as of 10/30/19

CHINA'S PRIVATE- HOUSEHOLD DEBT

Debt of private households rose quite dramatically, almost tripling compared to 2008 numbers.



Sources: Bloomberg Finance L.P., DWS Investment GmbH as of 11/11/19

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December 9, 2019

You have to take risks if you want return

We expect little movement in bond yields. It's again in corporates and emerging markets that we look for potential returns.

_ We expect neither the Fed nor the ECB to cut or raise rates in 2020.

_ Euro corporate bonds and emerging-market bonds offer a good risk-return profile.

_ We also expect little movement in currencies. We think it's too early to call for a lasting resurrection of the euro.

Jörn Wasmund
Head of Fixed Income/Cash

From a fixed-income investor's point of view, 2019 was much more exciting than expected. Exactly one year ago we were assuming the U.S. Federal Reserve (the Fed) would carry out another two rate hikes and that the European Central Bank (ECB) would shave a few basis points off its negative deposit rate. Things came out quite differently, and not just to our surprise. Fed Chairman Jerome Powell skipped the hikes and cut rates three times instead, and the ECB loosened policy meaningfully. The turnaround by the Fed proved explosive in financial markets. A little bit of defusing of political tension may have been a factor, too: the U.S.-Chinese trade dispute stopped getting worse. The results were clear: more bond- and equity-market bullishness, driven, more than anything, by loose monetary policy.

What ultimately drove the Fed to replace the two planned rises with three cuts is debatable. Was its decision influenced by the almost 20 percent decline of the stock market in the fourth quarter of 2018? Or by U.S. President Donald Trump's verbal attacks?

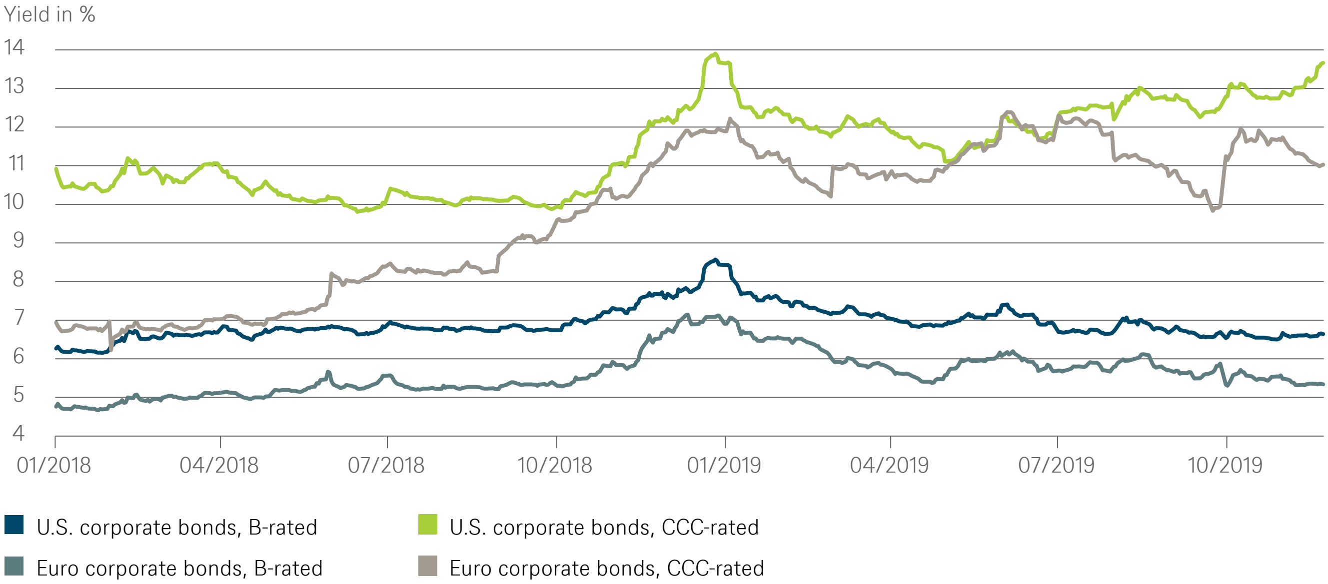
But after this dramatic and surprising year the question that remains is what may follow in 2020. Having taken what might be seen as a major pre-emptive step to ward off economic weakness, the Fed can now be more data-dependent. Given the economic developments we expect, this is likely to mean that interest rates remain static next year, in the U.S. and probably in Europe, too, though we certainly don't completely rule out moves up or down. A significant rise in U.S. inflation, which might be generated by (higher) tariffs on Chinese imports, would lead to a rise in rates. A rate cut or cuts could follow further signs of economic weakness. And the downside risks are there. Corporate leaders are nervous. If they hold back on capital investments and fiscal impetus fades, as we would expect, growth may suffer. The approaching election would not make the Fed hesitate. Contrary to popular opinion, it has acted in election years on a number of occasions in the past. However, the election campaign itself could be a cause of major market fluctuations. Wall Street is wary of Democrat Elizabeth Warren and might react nervously if her campaign for the party candidacy looks likely to succeed.

Overall, the low-interest world seems set to continue. The central banks will most probably continue to provide support through their renewed purchases of securities and we do not expect a recession, any further escalation in the U.S.-China trade dispute, or a hard Brexit. Nor do we expect yields on government bonds to return to their lows of 2019. Anyone wishing to generate a return in 2020 must be prepared to take a risk.

What may this mean in concrete terms for the individual regions and bond types? We expect little from government bonds. In Europe and Japan, we forecast total returns to be close to zero - after all, we should no longer expect bond prices to rise as they had in 2019. Even U.S. Treasuries appear to actually only be attractive for dollar investors. The emerging markets, where we believe total returns on government bonds could exceed five percent in dollar terms, are, however, becoming more interesting. They are benefiting from lower U.S. interest rates and the prospect that the dollar will not strengthen further. In addition, their central banks still have room for maneuver to support economies if necessary.

ALL CALM IN INVESTMENT GRADE, WHILE HIGH-YIELD BONDS ARE SHAKING

Euro and U.S. investment-grade corporate bonds have moved similarly – barely at all. In the high-yield segment, however, there have been some slick moves as investors differentiate more.



Sources: Refinitiv, DWS Investment GmbH as of 11/25/19

For corporate bonds, moderate economic growth and low inflation are beneficial. And TINA and FOMO are on their side: There Is No Alternative (TINA) to corporate bonds given low or even negative government-bond yields; and Fear Of Missing Out (FOMO) keeps investors coming in the hopes of yet another bond rally.

Risk-adjusted, we currently consider euro corporate bonds from investment-grade issuers to be particularly attractive. In addition, we see opportunities in other sub-segments, i.e. in the euro high-yield segment, as well as in the U.S. and emerging markets. Euro bonds should again be supported by the ECB's purchases, while in the U.S. the previous concerns about balance-sheet quality have not been substantiated. In any case, a broad slide by BBB bonds into the high-yield segment did not happen. What we see since the summer, however, is a widening gap between high-yield bonds with lower ratings (CCC, see chart) and those with better ratings. This is due not only to the disproportionately high representation of energy stocks in the U.S. high-yield segment, but also because bonds issued by companies in difficult sectors or with a difficult business model (e.g. classic retail) are being shunned more than in the past. We expect the spread between issuers to increase further.

In currencies we are sticking more or less to our previous forecasts, which have held up well thus far in 2019. We see the dollar/euro pairing as being in balance at 1.15 dollars per euro, even if momentum may gradually be shifting towards the euro. However, we believe it is too early to start looking for a sustainable and substantial euro recovery. We continue to see the yen as a good hedging instrument to consider for the market's more turbulent days.

We are aware that our yield forecasts sound unexciting. They do correspond, however, with our current economic and political outlook for 2020. We are well aware that the U.S. presidential election, Brexit or even political hot spots like Iran or Hong Kong may provide reasons for our core scenario not to happen. But the graph below shows that historically only in times of restrictive monetary policy or strongly rising inflation expectations have U.S. government bonds returned negative yields. We do not expect that to happen either.

NO FIXED RETURNS IN FIXED INCOME

Total annual returns on German and U.S. government bonds are seldom as boring as might be expected from fixed-income bonds.

Sources: Refinitiv, DWS Investment GmbH as of 11/25/19

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December 16, 2019

From TINA to FOMO

Increasingly, "fear of missing out" has joined "there is no alternative" as a key argument for equities.

_ Overall, we remain constructive on equities.

_ We expect growth of around 4–7% in earnings per share for most regions in 2020 and beyond.

_ However, there are good reasons to be vigilant, among them the upcoming U.S. elections in 2020.

Dr. Thomas Schüssler
Co-Head of Equities

Andre Köttner
Co-Head of Equities

What happens after a mid-cycle slow down? Once again, the most likely answer in the current extended cycle appears to be "yet another moderate upswing." In 2020, we expect about 5% in total returns for global equities. And lest that sounds disappointing, remember how pessimistic many investors were only three months ago and how strongly markets have performed in the last 12 months. For example, we expect Germany's Dax to reach 14,000 by December 2020. At Christmas time 2018, it was trading at just under 10,300 points.

Nor is the Dax all that unusual. Given its heavy weighting towards manufacturing, it just illustrates some of the trends we have seen in 2019 particularly well. While the global economy has avoided contraction, several industries have entered recessionary territory in 2019 with shrinking revenues and profits. These include the global auto industry, U.S. railways and global transportation, the energy sector as well as many European banks and semiconductors. The weakness was partly driven by sector- and company-specific factors. Car makers, for example, suffered from technological transition risks as manufacturers embarked on aggressive investment in electronic vehicles. Eurozone banks were hit by negative interest rates, while a lower oil price hurt fossil-energy companies. By far the biggest drag was persistent political uncertainty, notably due to trade tensions and Brexit.

As the market focus shifted towards 2020, the mood turned more constructive on equities. On some hot political topics, markets have increasingly come around to our view that worst-case outcomes will be avoided. On Brexit, for example, we argued during the summer that a chaotic, "No-Deal" exit was fairly unlikely. That is still our thinking, despite the uncertain outcome of the UK snap general election in December.

Most importantly, the prospects of a de-escalation in the U.S.-Chinese trade conflict have probably improved, as President Trump switches into re-election mode. We would caution against strong calls this far ahead of Election Day on November 3, 2020. As a purely statistical matter, there is plenty of uncertainty under the Electoral-College system of picking a president. While the Electoral College favored Trump in 2016, for example, it also favored Democratic candidates in 2012 and 2004. We think that the most likely outcomes are either a Trump re-election or one of the more moderate Democratic candidates succeeding him. Both outcomes would probably have a limited impact on the U.S. equity market overall. Whoever wins might well be constrained by the opposing party retaining control of at least part of Congress. (Currently, Democrats control the House, while Republicans control the Senate.)

Rather than getting distracted by political noises, it might therefore be better to focus on economic fundamentals. In our view, healthy labor markets and continued growth in the "digital economy" should stabilize growth in the coming months. Pent-up demand from delayed investment decisions and easier year-on-year comparisons should modestly accelerate profits in the second half of 2020. In Europe, a resolution of the Brexit drama might also help. A longer-term trend is that companies are adapting to the digitalization of their business processes and the secular prospects of a low-growth economy.

Overall, we expect growth in earnings per share (EPS) to rebound to around 4-7% for most regions in 2020 and beyond. While our earnings-growth assumptions are below consensus (except for Japan), we forecast an acceleration relative to 2019. We assume little additional support from central banks in 2020, as both the U.S. Federal Reserve and the European Central Bank appear done in cutting interest rates for now. However, low interest rates should keep valuation multiples above historical levels. Dividends above bond yields add to the attractiveness of equities. As a result, our S&P 500 target of 3,200 for December 2020 assumes a rich 18.8x trailing price-to-earnings ratio. Receding recession risks have allowed us to lift the target multiples, in particular for the more cyclical markets, including Germany, Japan and some of the bigger emerging markets.

Of course, U.S. trade policy has the potential to move equity markets away from our central scenario in either direction. Our base case assumes no further tariff hikes. Changing expectations for the outcome of the U.S. election could re-introduce volatility to equities as early as in the first quarter of 2020, when the primaries for the Democratic nomination start. For now, the contest looks wide open, and we expect that whoever wins might well pivot towards the center for the general election in November. That said, we would expect clear downside for global equities in the (in our view unlikely) case of a policy shift towards left-wing populism among leading Democrats in the races of the White House and Congress.

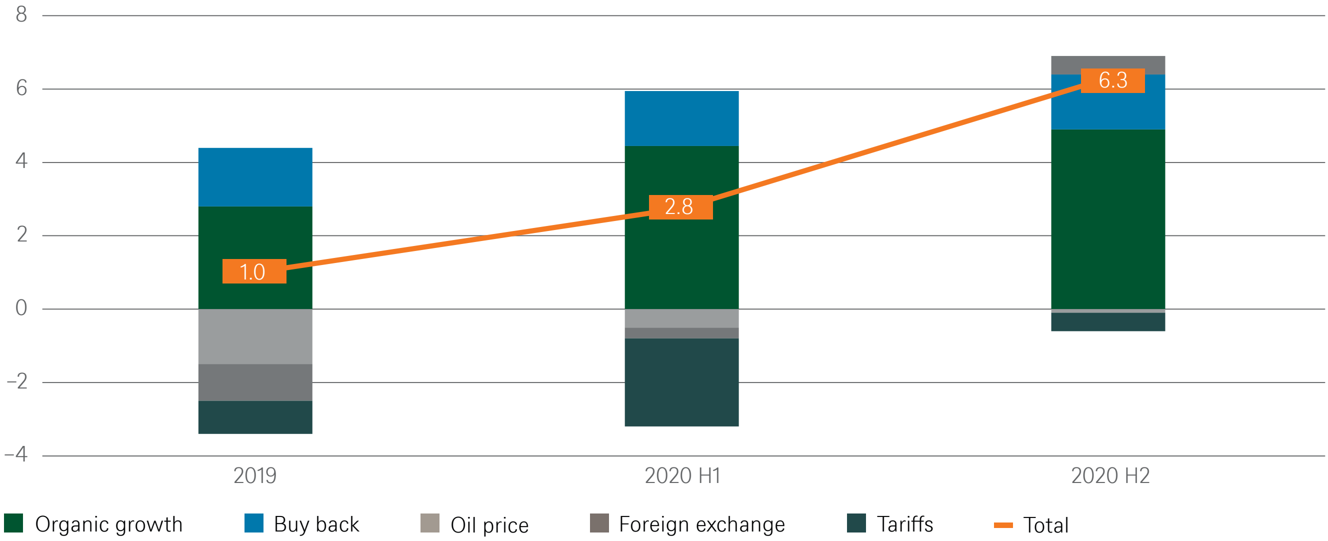
At this stage, we refrain from expressing a strong regional preference for 2020. Evidence of the global economy accelerating would probably boost non-U.S. markets the most. During the past three years, equity markets have mainly been driven by "growth" stocks, with little contribution from "value" stocks. We believe that the valuation spread between the two styles has peaked. In order to benefit from an improving economic environment, we prefer a balanced style positioning for 2020. "Value" outperformance would require a meaningful economic re-acceleration and rising interest rates, none of which is predicted in our base case. The balanced style view is also reflected in our recent upgrade of industrials ("value") to neutral, and our overweights in information technology ("growth") and financials ("value"). Other market segments we like include: U.S. media within communication; integrated oil within energy, U.S. banks within financials; beverages and tobacco within staples; medtech within health care.

Which takes us to one last message to end the year and this outlook with. 2020 might well prove another good year. Indeed, we might even raise our index targets, if the macroeconomic environment remains benign and interest rates stay low. However, 2020 might also mark the start of a difficult decade in equity markets. As we argued back in September, "there may be few alternatives to equities. However, that is no longer a sufficient reason to buy into every dip." Increasingly, "there is no alternative," or TINA, has been joined by "fear of missing out," or FOMO. Along with light investor positioning and other technical reasons, both TINA and FOMO augur well for the next few weeks and months and maybe even longer if the overall environment remains benign. There is no guarantee, however, that the good times will last. Put differently, markets may only be one bellicose trade-war tweet away from the next nerve-racking correction. How to best react will depend on longer-term economic fundamentals, unclouded by both TINA and FOMO.

ORGANIC PROFIT GROWTH LOOKS SET TO REBOUND IN 2020

After a difficult year, we expect growth in U.S. corporate profits to resume, especially, when the drag from tariffs should begin to diminish in the second half of 2020.

S&P 500: EPS-growth components; estimated year-on-year growth in %

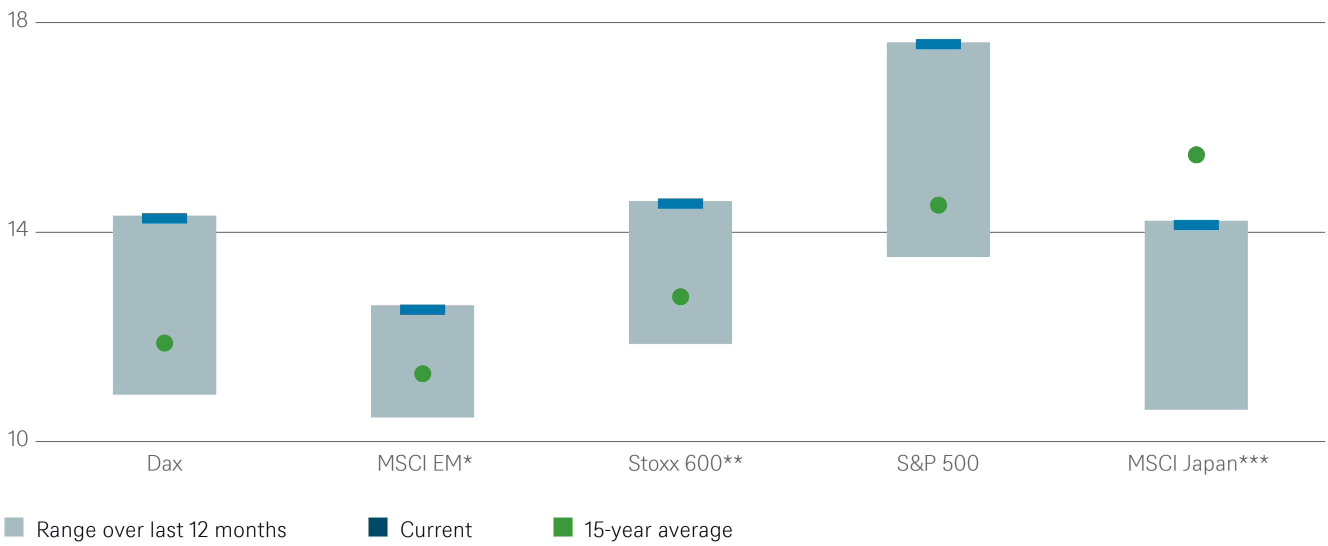


Sources: Bloomberg Finance L.P. , DWS Investment GmbH estimates as of 11/2019

EQUITY VALUATIONS LOOK JUSTIFIABLY ELEVATED

In most markets, current price-to-earnings ratios are above long-run averages. That partly reflects low interest rates and a lack of alternatives.

Price-to-earnings ratio, based on 12-months-forward earnings



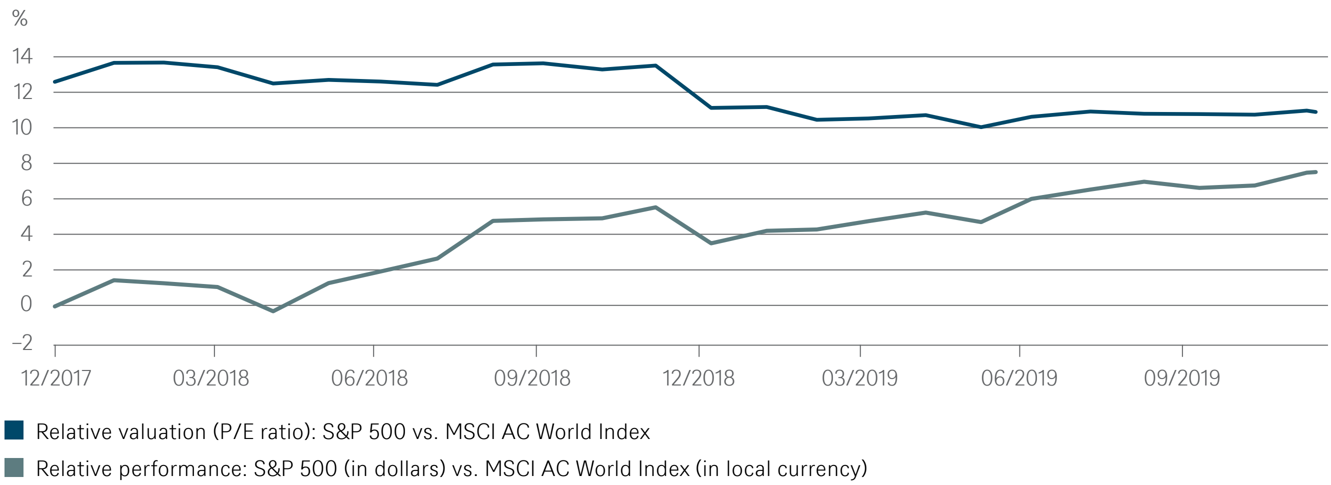
* MSCI Emerging Markets Index; ** Stoxx Europe 600; *** MSCI Japan Index
Sources: Bloomberg Finance L.P. as of 11/2019

All opinions and claims are based upon data on 11/27/19 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 does not intend to promote a particular outcome to the U.S. election due to take place in November 2020 or the UK election due to take place in December 2019. Readers should, of course, vote in the election as they personally see fit. DWS Investment GmbH

Valuations overview

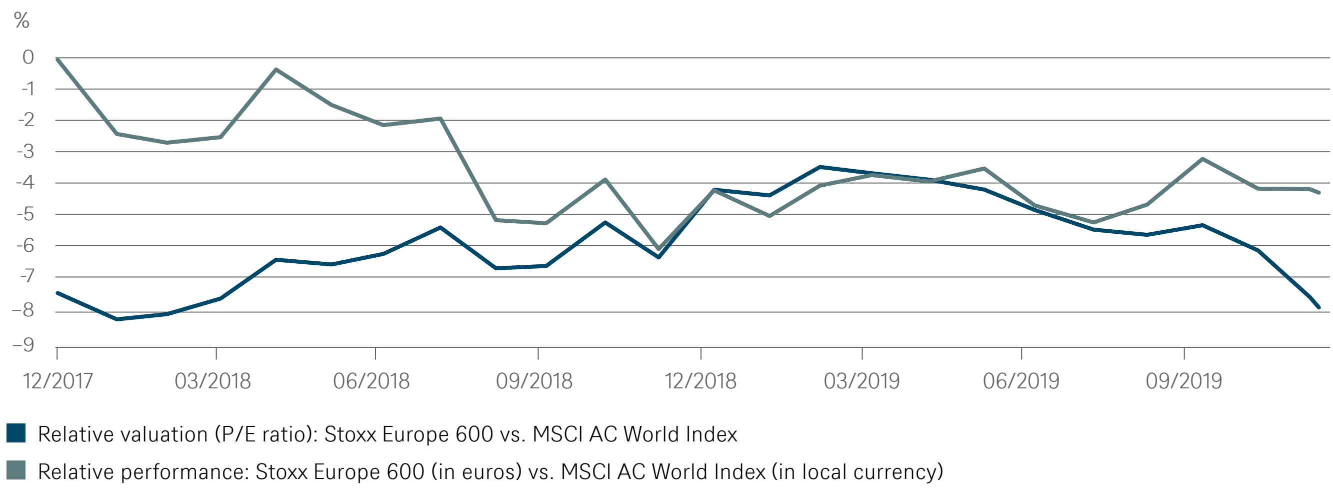
UNITED STATES: NEUTRAL (NEUTRAL)*

The U.S. economy continues to churn out pretty solid numbers. We are increasingly confident that the corporate sector will see a rebound in organic earnings growth in 2020. Buybacks should continue to be helpful as well. Politics remain a risk. Renewed trade tensions or further signs of one of the more left-wing Democratic candidates gaining traction could rattle markets. And, for the longer term, we are somewhat concerned about the quality of reported earnings this late in the business cycle.



EUROPE: NEUTRAL (NEUTRAL)*

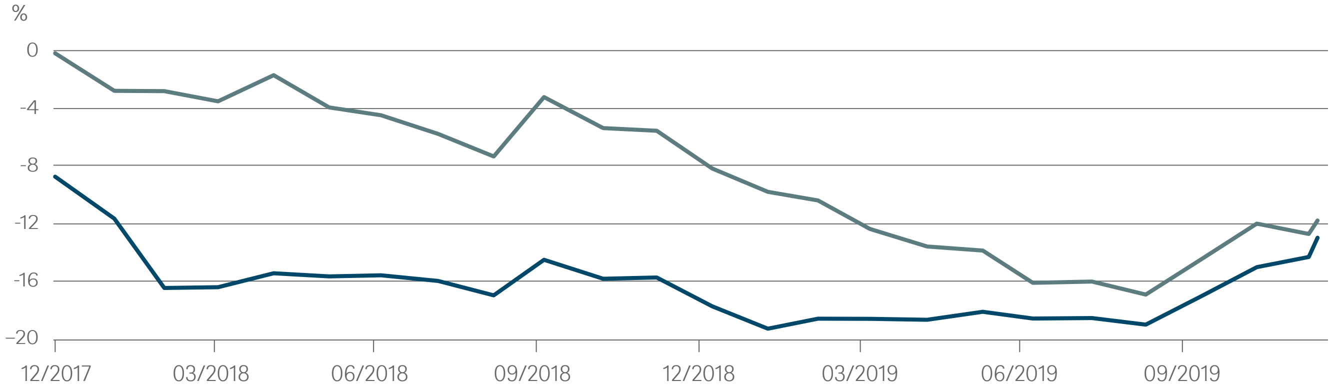
The economic backdrop in Europe appears to be stabilizing. In the third quarter, even trade-dependent Germany has narrowly avoided slipping into recession. Meanwhile, the snap election in the UK on December 12 might finally deliver some Brexit clarity. That said, we think that another hung parliament remains the most likely outcome. So it could still take a while for the Brexit saga to conclude and for pent-up investment demand in the UK and among its European partners to finally resume.



* 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 12/4/19

JAPAN: NEUTRAL (NEUTRAL)*

We think that Japanese equities remain fundamentally attractive, due to strong balance sheets, low leverage, improving returns and a stable political environment. Unfortunately, they still lack any obvious triggers for a re-rating over the next couple of months. That would probably require signs of an earnings recovery. In the meantime, trade tensions continue to take their toll and a mere truce in the conflict between the U.S. and China may not be sufficient to provide a sustained boost.

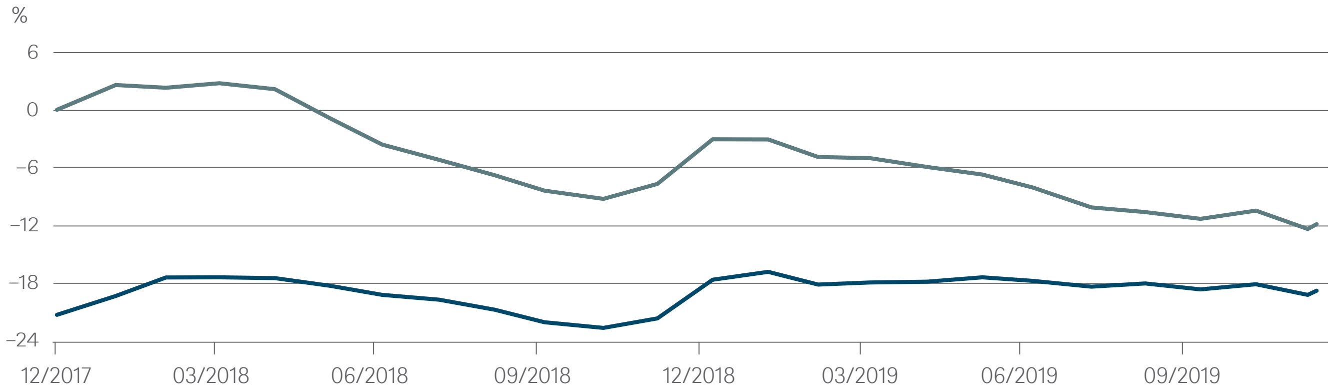


Relative valuation (P/E ratio): MSCI Japan Index vs. MSCI AC World Index

Relative performance: MSCI Japan Index (in yen) vs. MSCI AC World Index (in local currency)

EMERGING MARKETS: NEUTRAL (NEUTRAL)*

Emerging markets have underperformed developed markets in the year to date. That is one of the reasons why we think that emerging-market equities should deliver pretty solid returns in 2020, compared to industrialized countries. However, differentiation at the country level remains key, not the least in light of idiosyncratic political risks and opportunities. With the U.S. Federal Reserve likely to remain on hold, moreover, the tailwind from lower U.S. interest rates might start to fade.



Relative valuation (P/E ratio): MSCI Emerging Markets Index vs. MSCI AC World Index

Relative performance: MSCI Emerging Markets Index (in dollars) vs. MSCI AC World Index (in local currency)

* 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 12/4/19

December 17, 2019

The modern apartment renter

Understanding and appealing to the modern apartment renter in the U.S.

_ Demand for apartments has been robust following the bursting of the housing bubble a decade ago.
_ Apartment investors devote a significant amount of time and resources to determine what unit features and community amenities are most desirable to current and prospective tenants.
_ These factors can help us forecast the long-term performance of an apartment property.

Mark G. Roberts
Head of Alternatives Real Estate

The U.S. apartment sector has long been a favored asset class among institutional investors, buoyed by strong household formation, strained affordability for home buying and structural changes including the capping of federal housing-tax benefits. We are constructive on the U.S. apartment sector and favor markets with strong population growth such as Phoenix and Austin.

Apartment investors devote a significant amount of time and resources to help determine what unit features and community amenities are most desirable to current and prospective tenants, how renters are finding their apartments and their top considerations for moving into those apartments. This information is vital to the long-term performance of an apartment property, helping to forecast the sustainability of rental demand and thus cash flow, over the investment time horizon.

During the current real-estate cycle, the industry has seen a substantial amount of new supply delivered by apartment developers, with even more units either currently under construction or in the planning stages. These developers have been responding to the robust demand for renting apartments that followed the bursting of the housing bubble a decade ago. While strong renter demand has driven solid apartment performance, communities that are built with the needs and wants of modern apartment renters in mind tend to experience more stable cash flow and occupancy, buoyed by higher levels of leasing activity and better retention ratios. This knowledge that is driving performance ranges from basic apartment and community features like flooring, countertops, appliances, pet areas and building design to premium amenities such as rooftop pools, smart thermostats, soundproof walls, and walk-in closets; furthermore it is important to understand desired neighborhood amenities (i.e. retail, restaurants, etc.) and overall location (i.e. proximity to highly-rated schools, employment centers, public transit, etc.).

It is also essential for investors to understand how demographic trends and technological advances are affecting apartment demand. The modern renter spans multiple generations, so the features and amenities in an apartment community should cater to those generations that will be primarily driving demand; understanding the target renter profile for a given area should make a property more resilient over time.

The three main age cohorts, as defined by the Pew Research Center, which make up the current renter population in the United States include: Baby Boomers (born 1946-1964), Millennials (born 1981-1997) and Generation Z (born after 1998)[1]. Generation X (born 1965-1980) is primarily considered a homeowner cohort and therefore not considered in scope for this analysis.

Apartment properties should therefore provide spaces that cater to the target generations, with interior finishes/features that appeal to those age cohorts. Not only is the Baby-Boomer generation large in and of itself, but the American population is aging as whole. According to U.S. Census data, the 65-and-older set is set to expand faster than any other age cohort between 2010 and 2050, almost doubling in size compared to 32.2% growth for those 18 to 44 and 35.1% growth for those under 18.[2] Baby Boomers are not like their parents who, as they advanced in age, primarily lived in senior-living facilities. Nearly one-third of all urban rental applications are submitted by people over age 60[3] , with Freddie Mac projecting that over five million Baby Boomers expect to rent their next home.[4] Those who choose to downsize from their homes and rent apartments want to interact in a multigenerational setting with people of all ages.

Given the age differential, the preferences of Baby-Boomer and Millennial renters are surprisingly very similar. Both renter cohorts are drawn to high-quality finishes, large spaces, best-in-class amenities, and walkability of the surrounding area. More space means that family and friends can visit, greater walkability means faster access to high-end retail and restaurants, and larger kitchens mean opportunities for at-home entertaining. Additionally, both groups desire an abundance of shared social spaces at a property. These shared spaces help foster a strong sense of community and belonging, thereby creating the desired extension of their apartment homes. Baby-Boomer renters in particular expect much more in the way of planned social activities. With many of them retired or working part-time, they are looking for structure during day-to-day life, so property managers need to consider movie nights, cooking classes and bocce leagues.

By understanding target-renter preferences in a given market and designing/renovating a property to incorporate that intelligence, apartment investors are expecting to generate rent premiums relative to that asset's competitive set. Higher rents will drive net operating income higher, helping to deliver more stable income returns for investors and create long-term upside potential for property values. Exhibit 1 shows the average monthly rent premium that both renter cohorts are willing to pay, according to Greystar's proprietary database, for their top unit amenity choices. Exhibit 2 then shows the average monthly rent premium associated with their top community amenity choices. Some examples of unit amenities that create value for both renters and landlords include floor-to-ceiling windows, hardwood-like floors and bedroom balconies; for community amenities, that list includes secured community access, rooftop amenity space and a pool. It is important to note that these monthly rent premiums are averages across the nation. These premiums could vary depending on geographic location and product type.

Apartment investors that take an innovative and proactive approach to meeting this challenge will see that effort translate into a true competitive advantage, one that could potentially lead to outperformance of their assets through higher rents and more stable occupancy.

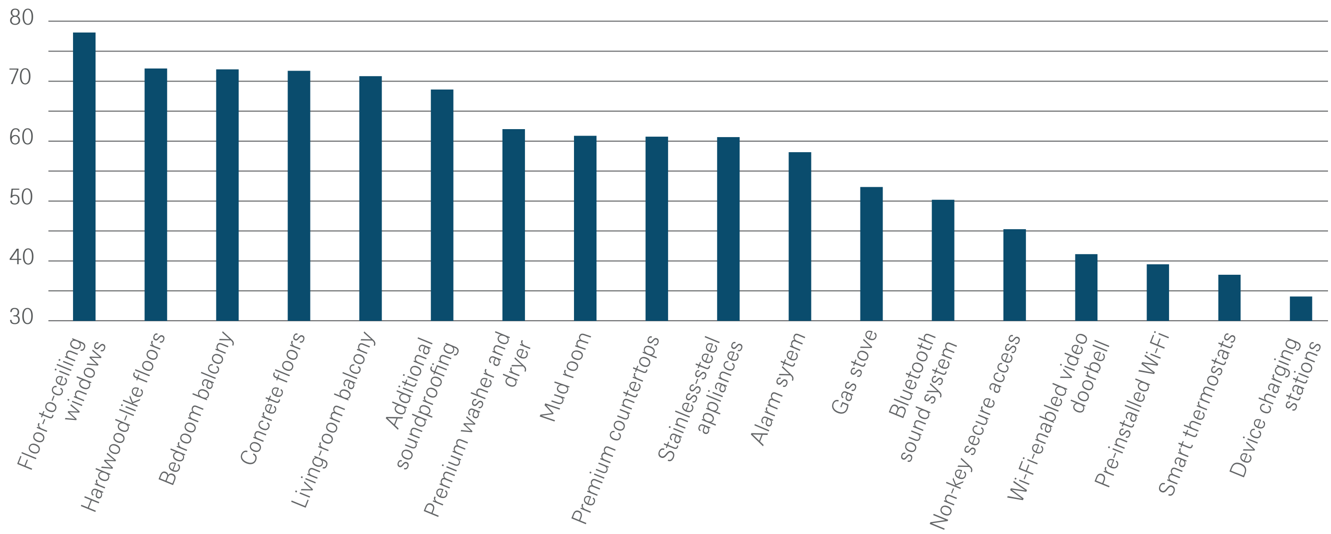
We have published a more detailed paper on this topic, Understanding and Appealing to the Modern Renter (link: https://image.insights.dws.com/lib/fe8b1372756d037477/m/8/50751c90-626c-46ac-98db-fda31609b510.pdf), October 2019.

1 Pew Research Center. Data as of December 2018.
2 US Census Bureau. Data as of 2018.
3 TenantCloud. Data as of January 2018.
4 Freddie Mac; GfK Public Affairs and Corporate Communications. Data as of 2016.

RENT PREMIUM FOR TOP UNIT AMENITIES

Floor-to-ceiling windows and hardwood-like floors command the most rent premium, whereas smart thermostats and device charging stations generate the least rent premium.

average monthly rent premium in dollars*

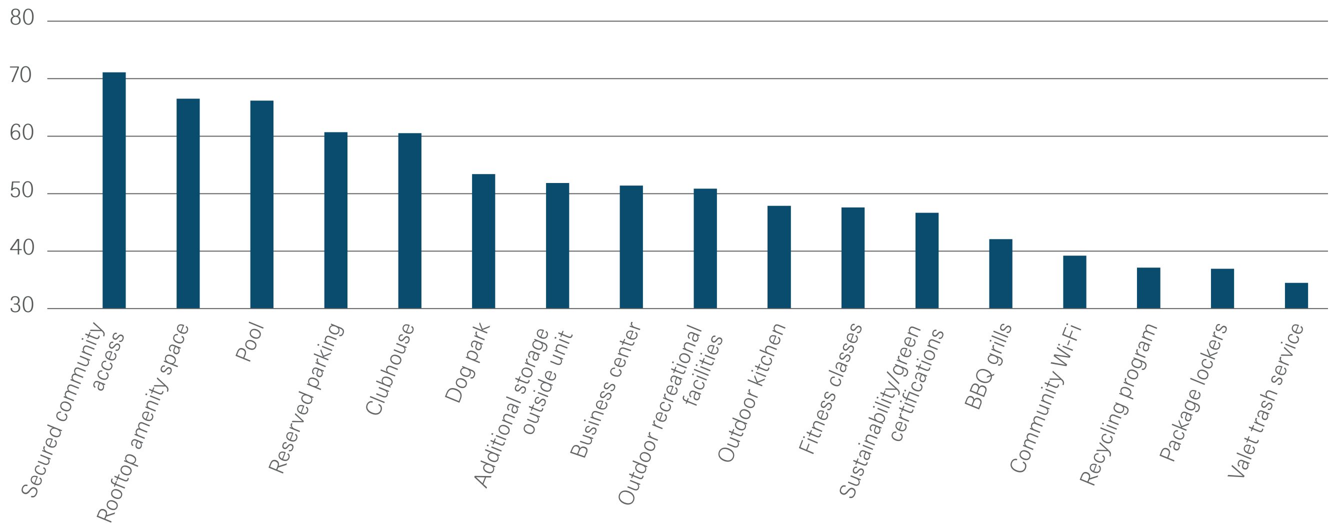


* Average monthly rent premium for top unit amenities of baby boomers and millennials (in U.S. dollar)
Sources: Greystar, RREEF Management L.L.C. as of 03/2019

RENT PREMIUM FOR TOP COMMUNITY AMENTIES

Secured access, rooftop space and pool are the amenities that command the highest rent premiums

average monthly rent premium in dollars*



* Average monthly rent premium Baby Boomers and Millennials are willing to pay for top community amenities (in U.S. dollars)
Sources: Greystar, RREEF Management L.L.C. as of 03/2019

December 12, 2019

2020 can't be expected to keep up with 2019

2019 has been exceptional for investors thanks to receding recession fears and generous central banks. 2020 is unlikely to be as good.

- 2019 gave us plenty of new bond-yield lows as the central banks proved generous again.
- We believe economic growth will slow in 2020 but do not expect a recession.
- Overall the ground seems prepared for another good investment year but given valuation and risk levels, we currently favor a balanced mix of regions, styles and sectors.

Christian Hille
Head of Multi Asset

It was, on the face of it, the year of negativity. Never, before 2019, had so many bonds displayed negative yields – their market value rose to 17 trillion U.S. dollars in the summer. Never before had German government bonds yielded so little: the yield on 10-year maturities dropped to minus 0.714% in the summer. In Switzerland, yields for the same 10-year duration dropped still lower, to minus 1.12% – another record. Also in the summer high-yield bonds offered negative yields for the first time. In the U.S., government-bond yields did not move into negative territory but the yield curve inverted (thus turned negative) for a short time, so that the long end temporarily paid less than the short end. Some market participants saw this as a harbinger of recession. The negative signs wherever the eye could see seemed to suggest a terrible year for investments. But it wasn't. Not at all.

Instead there were positive returns wherever you looked. Developed-market equities; emerging-market equities; bonds, whether developed or emerging; gold; oil; real estate: all of these asset classes delivered a positive total return in 2019. Meanwhile there were few losers: some commodities, for example, or 2-year German government bonds. And it is by no means the case that 2019 merely retrieved what had been lost in the final quarter of 2018. As the first chart shows, the 2-year returns for most asset classes are also impressive. Above all, U.S. assets did particularly well, and especially the technology sector. But countries in which cyclical industries play a major role, such as Germany or Japan, and emerging markets saw less healthy equity returns. As the year draws to a close, the year-to-date[1] total return so far is more than 20% for equities and over 5% for bonds. Of course, as happened last year, Santa may take away rather than give. But it seems unlikely that any losses would be big enough to change the story for the year significantly.

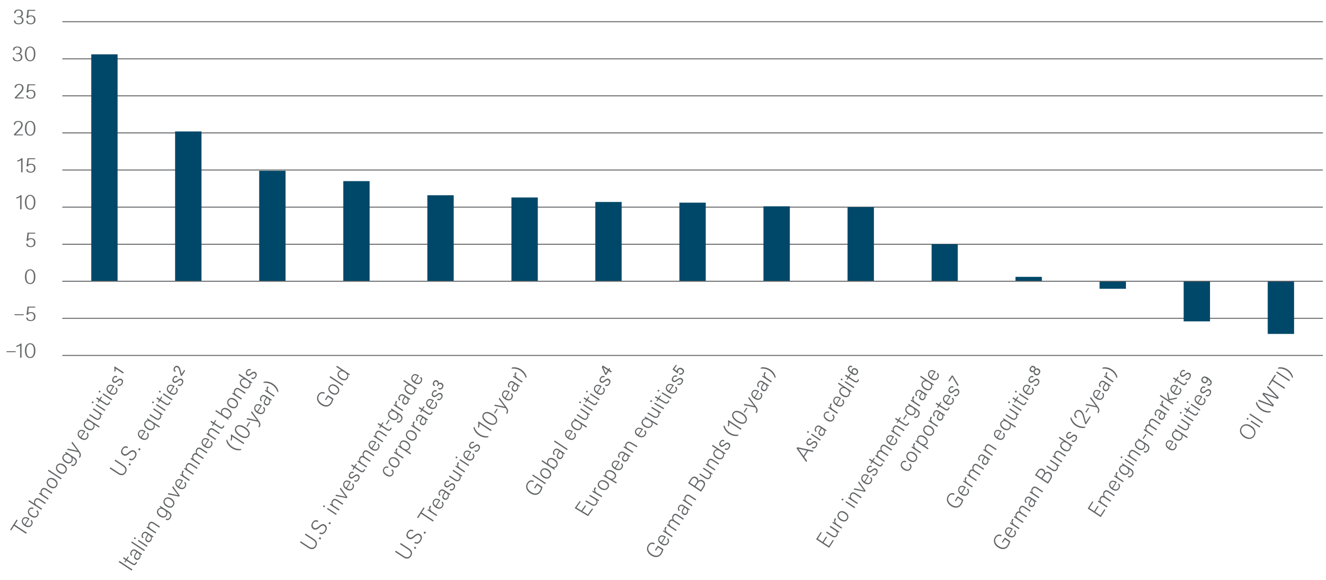
Can the already record-breaking investment cycle continue into 2020? That is very much open to question, as it should be in financial markets. Global economic growth is again likely to be weak and inflation more subdued than deflation-fearing policy-makers would like. However, our central message remains that a global recession will probably be avoided in 2020. The accommodative monetary policy of the major central banks will remain crucial, even though further interest-rate cuts or other unconventional measures do not currently seem likely.

[1] As of December 5.

NOT JUST ONE BUT TWO STRONG INVESTMENT YEARS

Despite a weak end to 2018, most asset classes delivered strong 2-year results, especially in the U.S.

Total return 1/1/18 - 12/4/19 in %



[1] MSCI AC World Information Technology Index; [2] S&P 500; [3] FTSE USBIG Corporate Index; [4] MSCI AC World Index; [5] Euro Stoxx 50; [6] J.P. Morgan Asia Credit Index; [7] iBoxx Euro Corporate Index; [8] Dax; [9] MSCI Emerging Markets Index;
Source: Refinitiv as of 12/5/19

This suggests a bond-market environment that should continue to be characterized by low government-bond yields and unusually tight spreads on corporate bonds. But "low for longer" is going to replace "even lower for longer." We do not expect further significant declines in yields, but rather broad sideways movement at low levels. In these circumstances spread assets (that is investments with yield premiums) are likely to remain in high demand due to their better carry. A broadly diversified allocation of emerging-market bonds remains our favored choice over corporate bonds from developed markets because of their better yields. A substantial upward move in yields seems unlikely. An increase in risk, in a scenario where global growth slows further, the U.S.-China trade conflict -escalates or Brexit goes badly, could mean that high-quality government bonds retest their late-summer-2019 yield lows. This makes investment in these bonds essential to balance risks in a multi-asset portfolio.

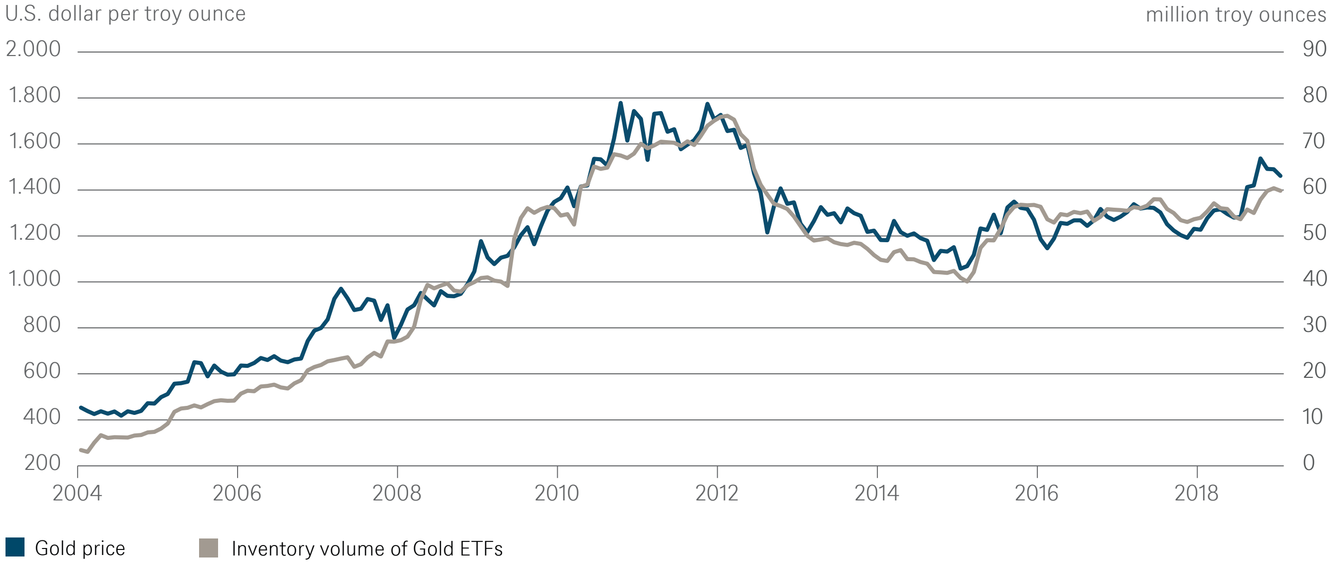
In the investment environment described above, the overall conditions for equity investments still appear promising, although Brexit and the U.S.-China trade dispute continue to hang over capital markets like two swords of Damocles. And yet the fears are less intense than they were. Declining recession risks, favorable financial conditions and a restrained mood and positioning by market participants have already done their part to fuel the year-end rally. Expected mid-single-digit percentage dividend yields in 2020 – more than bonds can offer – suggest further equity return potential. At the valuation levels achieved, however, the exceptional returns of 2019 are unlikely to be repeatable. In the medium term, highs in equities and low bond yields suggest lower earnings expectations. In this market environment we favor strategic investments in some riskier assets across different asset classes, taking account of the potentially higher returns associated with them. In other words, given the general political and economic picture, we believe it makes sense not to be positioned too defensively. We currently favor a broad, global exposure to equities, with a balanced mix of regions, styles and sectors.

Among alternative investments, commodities could benefit from a more stable economic environment and a U.S. dollar that in our view is no longer likely to be ascending. In case the economic environment should not stabilize, gold in particular appears to be a useful portfolio building block given low inflation expectations. ETF providers, like some central banks, have been heavy buyers of physical gold: as our second chart shows, there has been a strong correlation between the gold price and ETF gold holdings.

Foreign currency investments remain interesting from a portfolio perspective. While we continue to maintain our strategic preference for the U.S. dollar, we like the Japanese yen as a risk-reducing addition to multi-asset strategies in 2020, especially given the possibility of a surge in volatility in capital markets resulting from increased valuations.

GOLD'S GOLDEN YEAR

Hard to say who is in the driving seat, but the relationship between ETF gold holdings and the gold price is clear.



Source: Refinitiv as of 2/2/19

Despite the overall quite promising picture, some developments in this record-long cycle should be monitored vigilantly. Even aside from the trade dispute, China remains a topic of concern in markets, with unrest in Hong Kong and record debt levels that face easing economic growth rates. In the U.S., meanwhile, we note the decline in U.S. corporate earnings, according to National Accounts (NIPA) data. In other countries the electoral successes of populist parties are a preoccupation. And, last but not least, huge changes are taking place in institutional investment behavior, as a result of the persistence of the low, or even negative, interest-rate environment. One aspect of this is uncertainty as to how investors who have been obliged to move into riskier and more illiquid investment segments by the search for returns are likely to behave in periods of market turbulence. Finally, we are also concerned about what we see as too optimistic assumptions for fiscal packages especially in Europe and the prospect of more unpredictable U.S. foreign policy when a president on the campaign trail is also facing the threat of impeachment. We keep all these risks in mind. But our core scenario is that they will not escalate and we therefore maintain a cautiously positive outlook for the 2020 investment year.

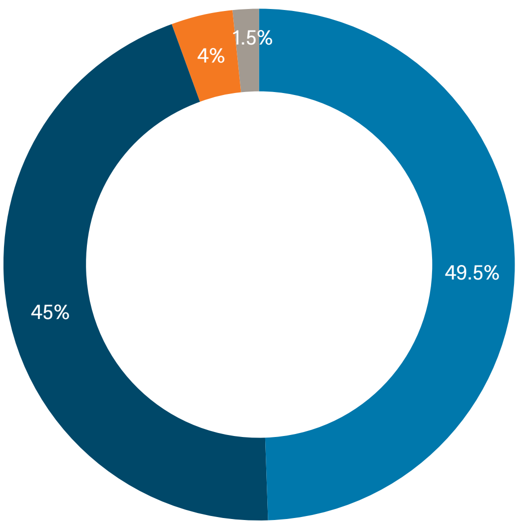
Moderately aggressive

Trade dispute and recession fears peaked in the summer. The market's confidence increased afterwards – and ours too.

MULTI-ASSET ALLOCATION FOR EUROPEAN INVESTORS

Compared to the previous quarter, we have become somewhat more optimistic and favor a higher equity ratio at the expense of, mostly, sovereign and convertible bonds. The fact that the U.S.-China trade dispute, Brexit and recession concerns have not threatened to escalate further contributed to our greater optimism; the monetary easing by central banks did the rest.

However, the valuation levels that have now been reached make major market fluctuations more likely. A higher equity ratio should therefore be accompanied by an increase in so-called portfolio stabilizers in the form of gold and longer duration. Staying on the sidelines is not an option in our view given that interest rates are sometimes even negative.

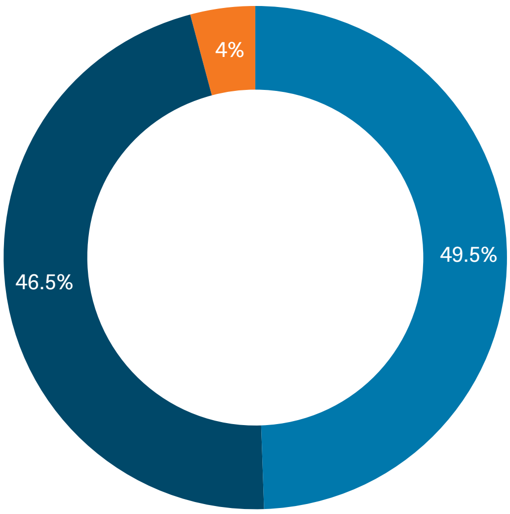


Equities	49.5%
Equities United States	27%
Equities Europe	8.5%
Equities emerging markets	5.5%
Equities Global Style	5%
Equities Japan	3.5%
Fixed Income	45%
Euro investment grade	15%
Eurozone sovereigns	10%
Emerging-market (hard-currency) bonds	7.5%
U.S. Treasuries	7%
Euro high yield	3.5%
U.S. high yield	2%
Alternatives	4%
Commodities	4%
Cash	1.5%

The chart shows how we would currently design a balanced, euro-denominated portfolio for an 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. Source: Multi Asset Group, DWS Investment GmbH as of 12/2/19

MULTI-ASSET ALLOCATION FOR ASIAN INVESTORS

Compared to the previous quarter, we have become somewhat more optimistic and favor a higher equity and commodity ratio, mostly at the expense of U.S. Treasuries. The fact that the U.S.-China trade dispute, Brexit and recession concerns have not threatened to escalate further contributed to our greater optimism; the monetary easing by central banks did the rest. However, the valuation levels that have now been reached make major market fluctuations more likely. A higher equity ratio should therefore be accompanied by an increase in so-called portfolio stabilizers in the form of gold and longer duration. Staying on the sidelines is not an option in our view given that interest rates are sometimes even negative.



Equity	49.5%
Equities United States	30%
Equities Europe	9.5%
Equities Asia ex Japan	6%
Equities Japan	4%
Fixed Income	46.5%
Asia Credit	14%
U.S. Treasuries	13.5%
Emerging-market (hard-currency) bonds	10%
U.S. high yield	5%
U.S. investment grade	4%
Alternatives	4%
Commodities	4%

The chart shows how we would currently design a balanced, dollar-denominated portfolio for an Asian 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. Source: Multi Asset Group, DWS Investment GmbH as of 12/2/19

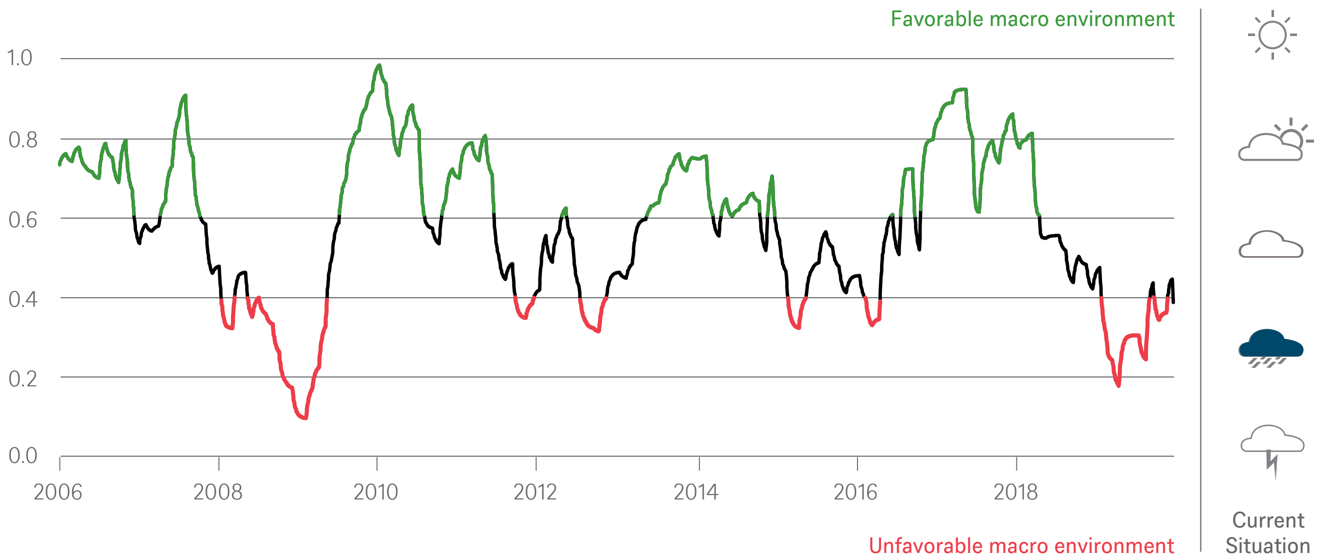
Unsettled outlook with sunny spells

The three indicators still point in different directions.

The year 2019 was marked by big mood swings in markets. This can be seen very clearly in the DWS risk indicator, which was subject to significant fluctuations. The ups and downs in investors' risk appetites were determined above all by the trade conflict between the U.S. and China. When punitive tariffs on imports or blacklists for companies gave way to hopes of an early end to the conflict the risk indicator declined. The DWS macro indicator, on the other hand, remained comparatively unaffected by mood swings. At the beginning of the trade conflict in 2018, it pointed to a weakening environment and the need for caution. In 2019, the trade sub-components of the indicator have been drawing a persistently negative picture. The macro indicator therefore certainly does also reflect the negative effects of the trade conflict and has been signaling a constantly negative macroeconomic situation for the past 15 months. In the meantime, however, the markets have moved away from the negative macroeconomic outlook and investors' risk appetite has returned. The renewed positive sentiment was probably driven primarily by central-bank monetary easing. All the major central banks lowered interest rates in 2019 and/or relaunched quantitative-easing programmes after a brief interruption. In addition, less and less economic data has recently come as a negative surprise. Overall, the weather has improved significantly.

MACRO INDICATOR / Condenses a wide range of economic data

The last few months initially saw a bottoming out of the macro indicator. Recently, however, the indicator has fallen back to the bottom third, so that further caution may be required. The global trade sub-indicators remain tense.



Source: DWS Investment GmbH as of 12/3/19

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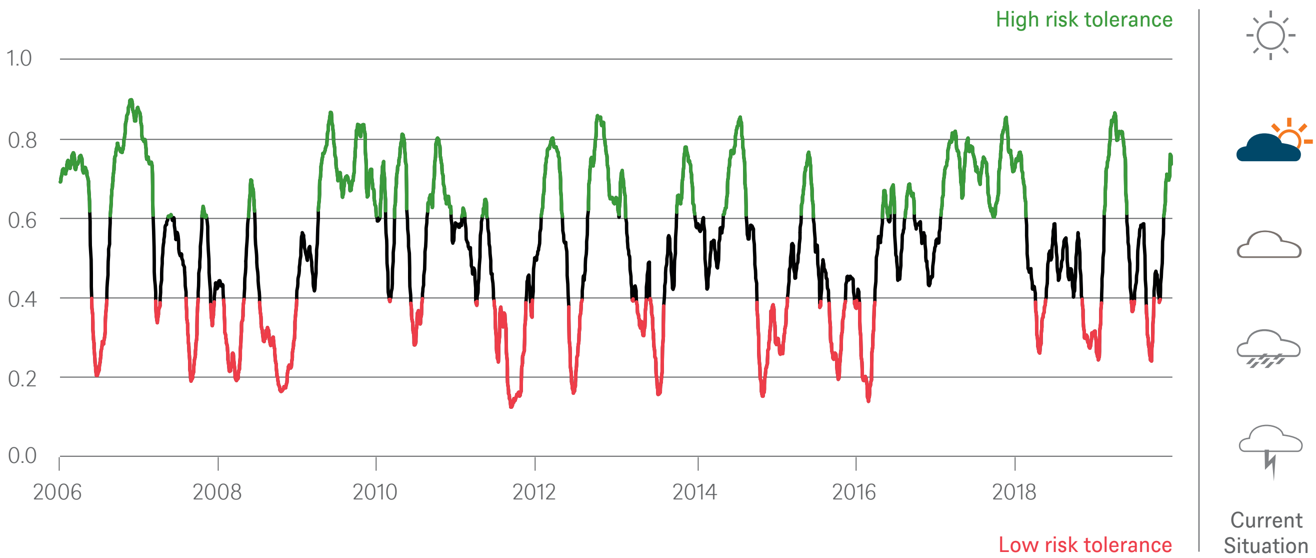
DWS Investment GmbH

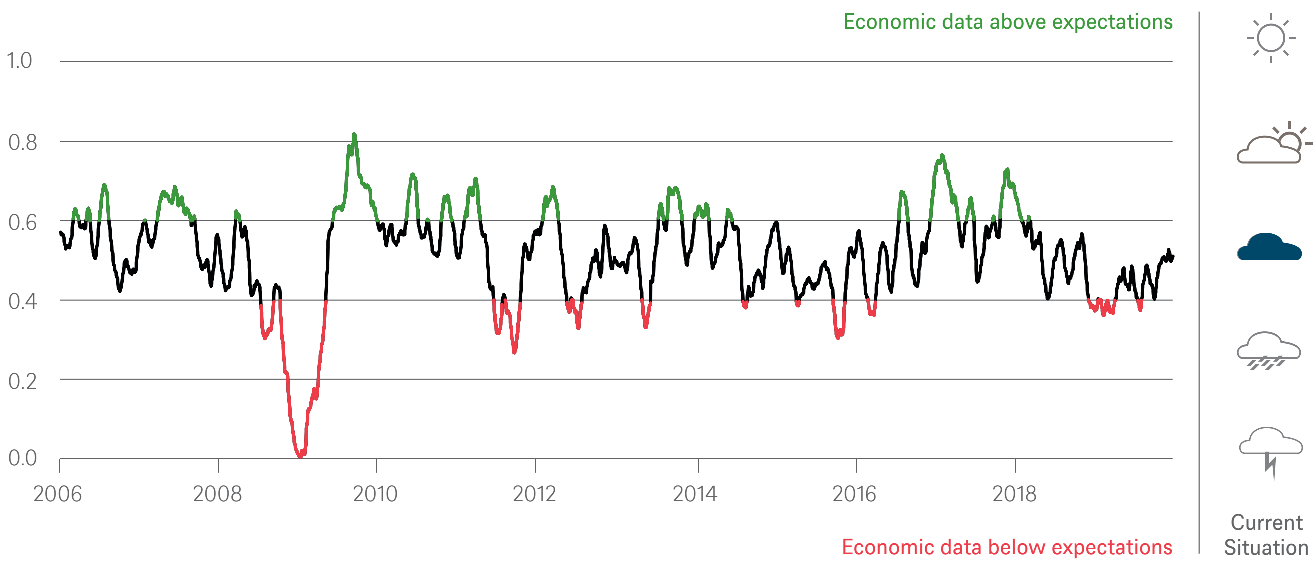
RISK INDICATOR / Reflects investors' current level of risk tolerance in the financial markets

After the rather cautious attitude of investors at the end of the third quarter, risk appetite has returned to the market. Only the liquidity indicators remain tense. Overall, the risk indicator has been clearly positive since mid-October.



SURPRISE INDICATOR / Tracks economic data relative to consensus expectations

Although the surprise indicator was in the red for the best part of the year, there has been a slight improvement in the last two months. On a global basis, data releases have largely met analyst expectations. Only in Asia did negative surprises outweigh positive ones.



Source: DWS Investment GmbH as of 12/3/19

December 12, 2019

The global implications of water shortages

Population growth, urbanization and voracious water use bring hazards and opportunities in sectors such as agriculture and utilities.

- 75% of the earth is covered in water. But only 2.5% is fresh water and no more than 1% is available to sustain all terrestrial life and ecosystems.
- Today, 25% of world GDP growth is from countries facing chronic water shortages. By 2050, this is expected to rise to 45%.
- DWS has developed a water risk score finding that sectors likely to be most at risk are consumer staples, utilities, energy and mining

Petra Pflaum
CIO for Responsible Investments

The World Economic Forum's 2019 Global Risks Report ranks water crises among the top 10 risks in terms of likelihood and impact.[1] Estimates by the research company Trucost suggest a cost of 1.9 trillion dollars per year, when including the full economic, social and environmental costs of water pollution, flooding and drought. The true cost of one cubic meter of water ranges from 0.10 dollars where water is plentiful to 15 dollars in areas of extreme scarcity. Businesses can take advantage of this wide range and align water use with its availability.[2] While three quarters of the Earth is covered with water, only 2.5% is fresh water and less than 1% is available to sustain all terrestrial life and ecosystems.[3]

Pollution, the loss of natural wetlands and the increasing frequency of droughts are placing growing strains on the planet's available water resources. Climate change exacerbates these trends as does the overexploitation of natural aquifers to meet water demand. In this regard, the countries of most concern are China, India, Mexico, Spain, South Korea and the United States.[4] Water stress is therefore increasing in incidence within many parts of the world. The implications of water scarcity stretch from the impact on human health, via hunger and disease, to shortages for key industries, such as agriculture, and ultimately political stability. Inevitably these are likely to have important implications for governments, corporates, investors and populations.

Water use has been growing at more than twice the rate of human population growth since the 1980s. This pressure on water resources shows no sign of abating.[5] In the 20th century, the world's population increased from 1.5 billion to 6.1 billion, or by 4.6 billion. In this century, the UN estimates that the world's population will increase by 4.8 billion to reach 10.9 billion with 75% of this increase occurring in the first half of the century. Of the anticipated 2.1 billion growth in global population between now and 2050, 58% is expected to occur in Africa, with a further 33% of world population growth occurring in Asia.[6]

This growth coinciding with increasing levels of urbanization threatens biodiversity as well. In 1950, 30% of the world's population, or 751 million people, lived in cities. Today, this stands at 55% or 4.2 billion. By 2050, 68% of the world's population is projected to be urban. Just three countries – India, China

1 World Economic Forum (January 2019). Global Risks Report 2019
2 Trucost (2013) The True costs of water
3 UN Chief warns of widespread ills from global water crisis (March 2018); https://www.apnews.com/278d9a84cff74c3a996c88fa2d8d69f3
4 World Water Development Report 2019 (March 2019).
5 FAO (2017) Water for sustainable food and agriculture http://www.fao.org/3/a-i7959e.pdf
6 United Nations Population Division. World Population Prospects 2019

and Nigeria – are likely to account for 35% of the growth in the world's urban population between 2018 and 2050.[7]

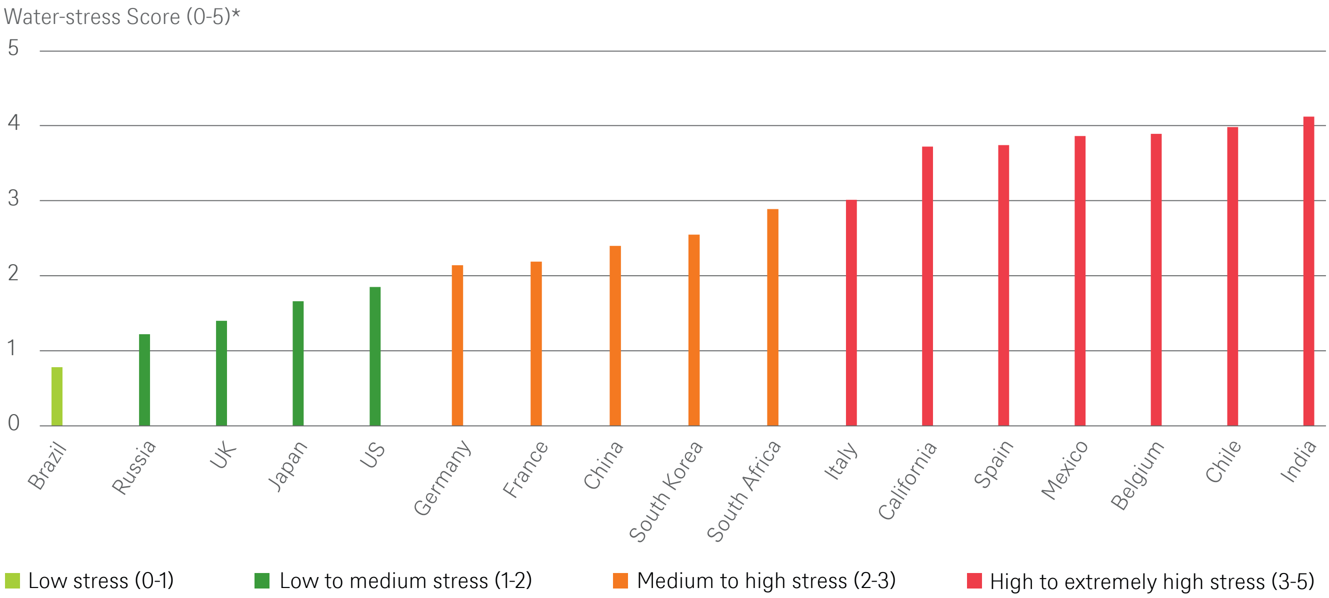
Currently, it is estimated that 1.7 billion people in 44 countries are chronically short of water. By 2050, roughly half of the world's population, or 4.9 billion people, will live in a country where the lack of fresh water will be chronic or recurrent.[8] Figure 1, using data from the World Resources Institute, shows that at a country level, water stress is most acute in the Middle East. Other emerging-market countries, most notably India, Chile, Mexico and Thailand are also likely to be severely affected. While developed-market countries appear more resilient at first glance, this masks significant divergences at a regional level. For example, on the WRI water-stress measure[9] the United States scores 1.85, placing it in the low-to-medium risk category. However, looking more closely, New Mexico (4.26) and California (3.72) are rated on par with the United Arab Emirates and Spain, respectively.[10]

Water stress and migration also pose risks to political stability, particularly in emerging markets. A 2011 IMF study examined the link between food-price inflation and anti-government demonstrations across 120 countries between 1970 and 2007.[11] It found that a 10% increase in food prices led to a doubling in anti-government protests in low-income countries where food constitutes a high share of total personal expenditures. To a large degree, the Arab Spring in 2011 was arguably sparked by the surge in grain prices at that time. Civil unrest has also been an important factor contributing to global migration trends. The international migrant stock as a percent of the total population stands at 3.4%, compared to 2.8% during the 1990s.

These trends create risks for companies and their operations in water-stressed regions, including their license to operate. Indeed we have already witnessed beverage companies facing strong local opposition, for example in France and India,

WATER-STRESS SCORES BY COUNTRY

Water stress is most acute in the Middle East. Other emerging-market countries, most notably India, Chile, Mexico and Thailand, are also likely to be severely affected.



* The ratio of total withdrawals to total renewable supply in a given country or region. A higher score means more water users are competing for limited water supplies.
Source: World Resources Institute as of 08/2019

7 World Urbanization Prospects 2018; United Nations Economics and Social Affairs Division
8 World Water Development Report 2019 (March 2019)
9 The water-stress measure compiled by the World Resources Institute (WRI) refers to the ratio of total withdrawals to total renewable supply in a given country or region. A higher score means more water users are competing for limited water supplies.
10 World Resources Institute (August 2019). 17 countries, home to one quarter of the world's population, face extremely high water stress https://www.wri.org/aqueduct
11 Arezki, R. ad Brueckner, M. 2011. Food prices and political stability. IMF Working Paper WP/11/62

for their overuse of water resources. Today, 20% of global gross domestic product (GDP) is produced in water-scarce regions and this could rise to 45% by 2050.[12] However, there are also business opportunities in these regions. The clothing industry demonstrates an extreme example of the high water demands: the production process of a T-Shirt can take up to 2,700 liters of water, illustrating the scope for efficiency gains.[13]

DWS has recently created a water-transition-risk score for companies, combining data from Sustainalytics, ISS-Oekom, MSCI and Trucost. Figure 2 depicts our findings that the sectors most likely to be exposed to substantive water risks (companies with E and F scores) are consumer staples, utilities, mining (within the materials sector) and parts of the energy complex. Conversely, there are plenty of examples of new or existing technologies to mitigate water risks. Such solutions include recycling waste water, rainwater harvesting, drip-irrigation technology, precision planting and hybrid seeds, improved infrastructure and pipes as well as introducing desalination facilities. Companies with low or no exposure to water-scarcity risks (A and B scores) or exposure to water-risk-mitigation technologies can be attractive investments.

Agricultural products are, of course, key inputs for consumer staples. As a result, this sector accounts for 70% of the world's total freshwater withdrawal mostly through irrigation. However, 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.[14] Since more than 75% of the world's food supply comes from just 12 plants and five animal species, the world economy is exposed to high risks of extreme crop failures or diseases.[15]

For the third year in a row, there has been a rise in world hunger such that the number of undernourished people has increased to nearly 821 million in 2017 from around 804 million in 2016. The most concentrated areas of undernourishment are in India, China, Pakistan, Ethiopia and Indonesia. Climate change and population growth threaten to increase the number of undernourished people worldwide by 40 to 170 million this century, according to the Intergovernmental Panel on Climate Change (IPCC).[16] Increases in crop yield in higher latitudes are likely to be outweighed by the negative impacts on yields and hence production in lower latitudes, where most agricultural-based emerging-market countries are located.

The investor and company sustainability association Ceres has published an analysis describing which food companies are making most progress towards a water smart future.[17] Of the 35 publicly traded companies evaluated, 77% now specifically mention water as a risk factor in their financial filings, up from 59% in 2017. Despite this growing awareness, effective management of water risk still lags, with an average overall company score of 38 out of 100. Meat companies, which are particularly vulnerable to water risks, also continue to do the least to manage them.

These trends emphasize the importance of investors and companies assessing water risks and opportunities within their investment decisions. Many sectors exposed to substantive water risks, such as utilities, mining and energy, are also affected by climate-transition risks. However, the consumer-staples sector is an exception to this trend. While this sector is less affected by climate-transition risks, it is even more so impacted by climate change due to their exposure to water.

We are working on improving and eventually optimizing our existing sector allocation in light of water-scarcity risks, alongside other ESG themes, such as climate-transition risks in general. As indicated above, moreover, there are companies and sectors with the opportunity to benefit by offering solutions to mitigate water shortages. Taking all this into account remains important in our investment-decision process and something we will continue to intensively work on in 2020.

12 World Water Development Report 2019 (March 2019)
13 World Wildlife Fund (January 2013). The impact of a cotton T-shirt
14 Global Footprint Network (May 2019). Advancing the science of sustainability database
15 Food and Agriculture Organization of the United Nations. (November 2018). What is happening to agrobiodiversity?
16 Intergovernmental Panel on Climate Change (October 2018). Global warming of 1.5°C
17 Ceres (2019). Feeding ourselves thirsty; https://www.ceres.org/sites/default/files/reports/2019-10/FOT2019_Executive_Summary.pdf

DWS WATER-STRESS SCORES BY SECTOR

Consumer staples, utilities, mining and parts of the energy sector are most exposed to substantive water risks. Potential winners tend to be easier to identify at the subsector level.

* The "water-transition-risk score" combines company data to evaluate each sector's exposure to water risks.
Source: DWS Investment GmbH as of 11/2019

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November 25, 2019

MACRO / Signs of stabilization

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

Region	2019F		2020F
United States	2.2	↘	1.6
Eurozone	1.1	↘	0.9
United Kingdom	1.2	↗	1.3
Japan	0.8	↘	0.2
China	6.2	↘	5.8
World	3.1	→	3.1

Fiscal deficit (in % of GDP)

Region	2019F		2020F
United States	4.4	↗	4.6
Eurozone	1.1	→	1.1
United Kingdom	2.2	→	2.4
Japan	3.2	↘	2.3
China	4.8	↘	4.2

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

Region	2019F		2020F
United States[1]	1.9	→	1.9
Eurozone	1.3	→	1.3
United Kingdom	1.9	↗	2.0
Japan	0.8	↗	1.4
China	2.4	↗	2.5

Current-account balance (in % of GDP)

Region	2019F		2020F
United States	–2.5	↘	–2.6
Eurozone	3.3	↘	3.2
United Kingdom	–4.3	↗	–4.2
Japan	3.2	↗	3.4
China	0.2	↘	0.1

Benchmark rates (in %)

Region	Current*		Dec 2020F
United States	1.50–1.75	↘	1.25–1.50
Eurozone	0.00	→	0.00
United Kingdom	0.75	→	0.75
Japan	0.00	→	0.00
China	4.35	↘	4.10

Commodities (in dollars)

	Current*		Dec 2020F
Crude oil (WTI)	56.8	→	54
Gold	1,471	↗	1,575
Copper (LME)	5,812	↗	6,240

* Source: Bloomberg Finance L.P. as of 11/14/19
[1] core rate, personal consumption expenditure Dec/Dec in % (no average as for the other figures)
F refers to our forecasts as of 11/14/19
WTI = West Texas Intermediate
LME = London Metal Exchange

Legend applies to this and the following page
_ Macro data, exchange rates and alternative investments: The arrows signal whether we expect to see an upward trend ↗, a sideways trend →or a downward trend ↘.
_ The signals' 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.

Equities / Earnings rebound ahead

	Current*		Dec 2020F				
			Forecast	Total return (expected)[1]	Expected earnings growth	P/E impact	Dividend yield
United States (S&P 500)	3,191	●	3,300	5.3%	6%	-3%	1.9%
Europe (Stoxx Europe 600)	418	●	420	4.1%	6%	-5%	3.5%
Eurozone (Euro Stoxx 50)	3,773	●	3,770	3.4%	7%	-7%	3.5%
Germany (Dax)[2]	13,408	●	14,000	4.4%	10%	-9%	3.0%
United Kingdom (FTSE 100)	7,519	●	7,500	4.5%	2%	-2%	4.7%
Switzerland (Swiss Market Index)	10,542	●	10,450	2.3%	5%	-6%	3.2%
Japan (MSCI Japan Index)	1,047	●	1,060	3.7%	4%	-2%	2.5%
MSCI Emerging Markets Index (USD)	1,088	●	1,120	5.8%	9%	-6%	2.9%
MSCI AC Asia ex Japan Index (USD)	674	●	700	6.4%	9%	-5%	2.5%

* Sources: Bloomberg Finance L.P., FactSet Research Systems Inc. as of 12/16/19 F refers to our forecasts as of 12/16/19
[1] Expected total return includes interest, dividends and capital gains where applicable
[2] Total-return index (includes dividends)

Fixed Income / Yields range bound

United States

	Current*		Dec 2020F
U.S. Treasuries (10-year)	1.82%	●	1.85%
U.S. municipal bonds[1]	87%	●	80%
U.S. investment-grade corporates	102 bp	●	110 bp
U.S. high-yield corporates	382 bp	●	400 bp
Securitized: mortgage-backed securities[2]	48 bp	●	47 bp

Europe

	Current*		Dec 2020F
German Bunds (10-year)	−0.35%	●	−0.35%
UK Gilts (10-year)	0.71%	●	0.95%
Euro investment-grade corporates[3]	112 bp	●	90 bp
Euro high-yield corporates[3]	374 bp	●	360 bp
Securitized: covered bonds[3]	43 bp	●	40 bp
Italy (10-year)[3]	168 bp	●	150 bp

Asia-Pacific

	Current*		Dec 2020F
Japanese government bonds (10-year)	−0.07%	●	−0.10%
Asia credit	265 bp	●	265 bp

Global

	Current*		Dec 2020F
Emerging-market sovereigns	323 bp	●	320 bp
Emerging-market credit	326 bp	●	320 bp

Currencies

	Current*		Dec 2020F
EUR vs. USD	1.10	→	1.15
USD vs. JPY	108	→	105
EUR vs. GBP	0.86	→	0.89
GBP vs. USD	1.29	→	1.29
USD vs. CNY	7.02	→	7.10

* Source: Bloomberg Finance L.P. as of 11/14/19
[1] Ratio of 10-year AAA Municipal yield to 10-year U.S. Treasuries yield
[2] Bloomberg Barclays MBS Forward Index
[3] Spread over German Bunds

F refers to our forecasts as of 11/14/19
bp = basis points

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Aquifers are underground layers of water-bearing permeable rock, rock fractures or unconsolidated materials such as gravel, from which water can be extracted using a well.

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

A benchmark is an index or other value against which an investment's performance is measured.

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

A bull market is a financial market where prices are rising – usually used in the context of equities markets.

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

The Conservative Party, also referred to as "Tories", is a center-right political party in the United Kingdom.

Consumer discretionary is a sector of the economy that sells non-essential goods and services.

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

A convertible bond is a fixed-income debt security that yields interest payments, but can be converted into a predetermined number of equity shares. The conversion from the bond to stock can be done at certain times during the bond's life and is usually at the discretion of the bondholder.

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.

A correction is a decline in stock market prices.

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 current account includes trade in goods and services, a net-factor-income balance (e.g. earnings on foreign investments and cash transfers from individuals working abroad) and transfers (e.g. foreign aid). It is a part of the balance of payments.

Cyclical is something that moves with the cycle.

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

Deflation is a sustained decrease in the general price level of goods and services.

The Democratic Party (Democrats) is one of the two political parties in the United States. It is generally to the left of its main rival, the Republican Party.

The deposit rate is the rate banks receive when they make overnight deposits with the ECB.

The dividend yield is the dividend that a company pays out each year divided by its share price.

Duration is a measure expressed in years that adds and weights the time periods in which a bond returns cash to its holder. It is used to calculate a bond's sensitivity towards interest-rate changes.

Earnings per share (EPS) is calculated as a company's net income minus dividends of preferred stock, all divided by the total number of shares outstanding.

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.

An exchange-traded fund (ETF) is a security that tracks an index or asset like an index fund, but trades like a stock on an exchange.

An expansionary monetary policy is a type of macroeconomic monetary policy that aims to increase the rate of monetary expansion to stimulate the growth of the domestic economy. The economic growth must be supported by additional money supply.

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

The FTSE US Broad Investment-Grade Bond Index measures the performance of U.S. Dollar-denominated bonds issued in the U.S. investment-grade bond market.

Gilts are bonds that are issued by the British Government.

The Global Economic Policy Uncertainty (GEPU) Index measures uncertainty in the 20 most important economies by weighting the relative number of articles containing a range of risk terms.

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.

Gross national product (GNP) is economic statistic that measures what a country's citizens produced. It includes gross domestic product (GDP) plus any income earned by residents from overseas investments, but excludes income earned within the domestic economy by overseas residents.

Growth stocks are stocks from companies that are expected to grow significantly above market average for a certain period of time.

A hedge is an investment to reduce the risk of adverse price movements in an asset.

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

The House of Commons is the lower chamber of the United Kingdom's parliament.

The United States House of Representatives is a legislative chamber consisting of 435 Representatives, as well as non-voting delegates from Washington, D.C. and U.S. territories. Representatives are elected for two-year terms and each state's representation is based on population as measured in the previous Census.

The iBoxx Euro Corporate Index includes euro-denominated corporate bonds issued by investment-grade-rated entities.

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 Asia Credit Index (JACI Index) provides investors the opportunity to track total return performance of the Asia fixed-rate dollar bond market. The index is a market cap-weighted index comprising sovereign, quasi-sovereign and corporate bonds and it is partitioned by country, sector and credit rating.

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

Leverage attempts to boost gains when investing through the use of borrowing to purchase assets.

Monetary easing includes measures such as lowering interest rates, implemented by Central Banks with the aim of facilitating GDP growth or inflation.

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).

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 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 AC World ex USA Index captures large- and mid-cap companies across 22 developed- and 23 emerging-market countries, excluding the United States.

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

The MSCI AC World Information Technology Index captures large- and mid-cap securities across 23 developed- and 26 emerging-markets classified in the Information Technology sector.

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

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

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

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.

A rating is a standardized assessment of the creditworthiness of the issuer and its debt instruments by specialized agencies. The main three rating agencies are the Moody's (Aaa over Baa1 to C, best to worst) , S&P (AAA over BBB+ to D, best to worst) and Fitch (AAA over BBB+ to D, best to worst).

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 Republican Party (Republicans), also referred to as Grand Old Party (GOP), is one of the two major political parties in the United States. It is generally to the right of its main rival, the Democratic Party.

A repurchase agreement (repo) is a form of short-term borrowing, whereby a dealer commits to repurchase the security shortly after it is sold. The dealer pays the repo interest as remuneration.

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

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 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 total return is a performance measure of an investment. It measures the earned income of an investment over a specific time period.

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).

U.K.'s EU referendum held on June 23, 2016 in which the citizens of UK voted for an exit of the UK from the EU, with a majority of 52%.

The United States Congress is the legislature of the federal government. It is comprised of the Senate and the House of Representatives, consisting of 435 Representatives and 100 Senators.

The United States Senate is a legislative chamber consisting of 100 Senators, with each state being represented by two Senators. Senators are elected for six year, overlapping terms in their respective state.

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.

Value stocks are stocks from companies that are trading at prices close to their book value and that are therefore cheaper than the market average on that metric.

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.

West Texas Intermediate (WTI) is a grade of crude oil used as a benchmark in oil pricing.

The White House is the official residence and principal workplace of the President of the United States.

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.

PERFORMANCE / Overview

Performance in the past 12-month periods (%)

	11/14 – 11/15	11/15 - 11/16	11/16 - 11/17	11/17 - 11/18	11/18 - 11/19
Asia credit	2.7%	5.7%	5.4%	–1.9%	12.5%
Dax	14.0%	–6.5%	22.4%	–13.6%	17.6%
Emerging-market sovereigns	–0.2%	7.0%	10.2%	–5.4%	14.0%
Emerging-markets credit	0.0%	8.3%	8.6%	–1.9%	13.4%
Euro high-yield corporates	2.4%	5.8%	8.1%	–3.0%	8.8%
Euro investment-grade corporates	0.6%	3.2%	3.3%	–1.7%	6.5%
Euro securitized: covered bonds	1.4%	1.2%	1.0%	–0.3%	3.7%
Euro Stoxx 50	10.6%	–10.4%	19.9%	–8.7%	20.0%
FTSE 100	–1.9%	11.1%	12.3%	–0.7%	10.1%
German Bunds (10-year)	3.2%	2.5%	0.4%	1.6%	5.1%
Italy (10-year)	6.7%	–1.6%	5.0%	–7.3%	17.6%
Japanese government bonds (10-year)	1.8%	2.1%	0.3%	0.1%	1.5%
MSCI AC Asia ex Japan Index	–10.6%	7.1%	35.2%	–9.6%	7.8%
MSCI AC World Index	–1.9%	4.3%	25.3%	–0.4%	14.3%
MSCI Emerging Market Index	–17.0%	8.5%	32.8%	–9.1%	7.3%
MSCI Japan Index	7.6%	1.7%	24.3%	–6.0%	9.3%
MSCI World Information Technology Index	4.4%	6.1%	38.8%	4.9%	28.9%
S&P 500	2.7%	8.1%	22.9%	6.3%	16.1%
Stoxx Europe 600	14.5%	-8.1%	16.8%	–4.4%	18.3%
Swiss Market Index	1.3%	–9.2%	22.2%	0.3%	20.0%
U.S. high-yield corporates	–3.4%	12.1%	9.2%	0.4%	9.7%
U.S. investment-grade corporates	0.0%	4.2%	6.0%	–2.8%	15.2%
U.S. securitized: mortgage-backed securities	1.7%	1.6%	2.1%	-0.5%	8.0%
U.S. Treasuries (10-years)	2.0%	0.6%	2.2%	–1.6%	12.3%
UK Gilts (10-years)	2.9%	5.2%	2.2%	2.0%	6.4%

Source: Bloomberg Finance L.P. as of 11/30/19

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