Deutsche Bank
Wealth Management

Annual Outlook 2020

CIO Insights

The end of monetary magic?

Refine for robustness and sustainable income

Letter to Investors

Christian Nolting
Global CIO

The end of monetary magic?

More than a decade ago, central banks embarked on a highly unconventional monetary policy path – generally referred to as "quantitative easing". This made possible the longest recorded U.S. economic upswing in history along with a strong rise in asset prices. But can this monetary "magic" continue to work?

As we move into a new decade, the power of additional monetary policy easing appears to be fading, but a replacement has yet to be found. The growing assumption is that other forms of policy will be needed to keep the global economy on an even keel. But policymakers are far from agreeing on what exactly these new policy approaches might be, let alone how to implement them.

So, whether we like it or not, central bank "magic" will continue to play an enormous role in both economic policy – and markets. Recent debate around the Fed's involvement in quasi-QE (as evidenced by its growing balance sheet) and the ECB's restarting of monthly purchases underline the fact that monetary magic is still a subject for debate.

Investors should therefore accept that, although monetary magic may be fading, we will be living with its effects, and searching for a replacement, for some time yet. This is the premise of our annual outlook for 2020 and we use six investment themes to explore the implications of this. Such an environment will remind us of the importance of strategic asset allocation (SAA) and the robustness it provides to the investment process.

01 In our first theme, "Policy pressures need prudent response", we therefore start by looking at the state of the global economy, with signs of a growth slowdown amplified by trade tensions, political concerns and other issues. With monetary policy presumed to be reaching its limits in terms of effectiveness, calls for more fiscal spending will become more vocal, but don't expect a massive fiscal boost. From an investor's point of view, this is an environment that will require a robust investment approach, an ability to focus on long-term returns and a willingness to consider alternative investment approaches.

02 With central banks maintaining a very accommodative monetary policy for a lack of any alternatives, as noted above, low or negative yields should remain a reality. Hence our second theme, "Living with a low yields world". Investors should not assume that they can simply sit this this out, and wait for higher yields – a considered response is necessary. In particular, you need to be sure about the reasons you are holding non-yielding bonds, and remember that risk-diversifiers are not necessarily income providers. This is an area where you may also need to consider how to capture returns from illiquidity premia in private markets for equity and debt.

03 Within fixed income, getting a positive absolute return will require risk, with the notable exception of U.S. Treasuries – and even these will struggle to deliver positive real returns. The task therefore is to "Find new income harbours", our third theme for 2020. Within the developed markets, looking beyond U.S. Treasuries and into the corporate space, U.S. investment grade (IG) and the European crossover segment (the borderlands between IG and high yield) are possible investment destinations. More promising might be the corporate space in emerging markets (EM), as well as sovereign holdings here, with a preference for hard currency.

04 Equities will remain a key part of most portfolios, and we see scope for further gains here too – but with the risk of further volatility attached. From the start of 2020, we think that both regional and "style" preferences could change. As our fourth investment theme, "Balance your style", this may be the point where some high-quality "value" stocks start to offer real opportunities as "value" stocks start to catch up with their "growth" peers – which have previously outperformed them. We would look for defensive "value" and predictable cash flow. At a sectoral level, we also see opportunities in global industrials.

05 FX considerations also play an important role in portfolios. Here, the question remains whether exchange rates are driven by the geopolitical and political factors or by differences between central banks' monetary policies and other fundamentals. "Politics tops policy", our fifth theme for 2020, suggests that the former could win out in 2020. Pressures for intervention (in various forms) to reduce the value of the USD will continue, with the JPY's role as a diversifier still very relevant. Slowing global growth may argue against commodities overall, but there will be some opportunities, for example around gold.

Monetary magic is not over yet – but cannot do the trick along. This environment will remind us of the importance of strategic asset allocation for portfolio robustness

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06 We continue to think that there is an important place for investing into long-term themes within an investment portfolio that will shape and steward the world of tomorrow. Our two new themes for 2020 include a look at areas benefiting from 5G and the implications of faster communications for industrial productivity and development. We look too at resource stewardship in a world increasingly concerned about urban refuse generation and recycling rates. The interaction between technology and sustainability remains key to dealing with demographic implications.

So what will 2020 bring? An evolving world, but not a completely different one. Central banks will remain centre stage, despite talk of the end of monetary magic: for an investor, this means that you need to reconcile yourself to living with low interest rates for some while longer and make sure that you have a robust investment process to capture the opportunities on offer. As regards investment returns, history suggests that years of sharp gains (as in 2019) are not usually followed by falls, but often instead by more modest growth - so 2020 should still be worth approaching in a positive spirit.

Christian Nolting
Global CIO

Instant Insights

2020 in a nutshell

- Economic growth slowdown to be accompanied by changing policy pressures.
- Low rates need a reassessment of bond holdings in portfolios.
- Further equity gains but style and regional preferences will shift.

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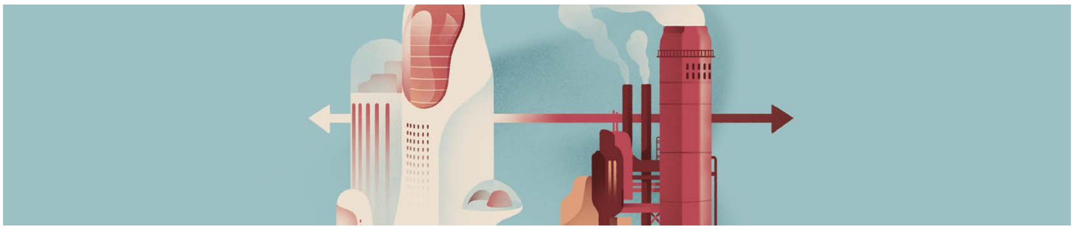

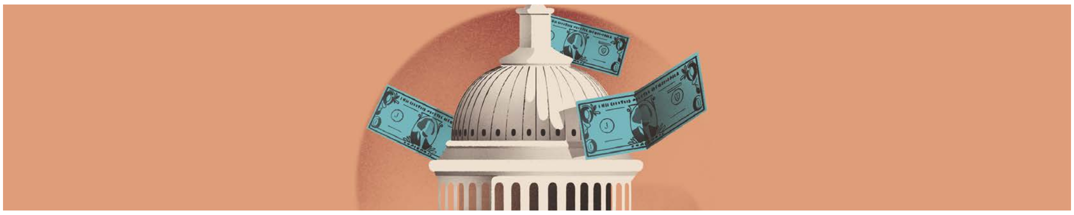

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Strategic asset allocation: our investment cornerstone

Any investment portfolio has to address the issue of asset allocation – the division of investment between asset classes.

Studies suggest that strategic asset allocation accounts for the bulk (around 90%) of portfolio returns – we all know from experience that alternative sources of return, for example through security selection or timing the overall market, are more difficult to sustain. They are not an effective basis on their own for robust portfolio performance but do contribute to returns if managed in a prudent manner.

But, given the investment uncertainties that every investor faces – and which have become more visible in recent years – how should one create an appropriate strategic asset allocation?

The first step is to realize that there is no single optimum strategic asset allocation. Individual investors have different investment preferences. They are also starting from different places – with access to different sorts of investable assets and facing different challenges, for example around FX.

The second step is to acknowledge that uncertainty needs to be part of the analysis. No one can predict the future with perfect certainty. Allocations should not premised on a single (unlikely) outcome: instead, this is a question of likelihood.

Making a reasoned response to uncertainty

At an asset class level, three factors are relevant for asset allocation: expected returns, volatility (the degree of variation of asset prices) and correlations (the relationships between the prices of different assets). As noted above, we cannot predict these with absolute certainty. But, based on knowledge and history, we can start to estimate them. A summary of our long-term asset class returns, for example, is in the box below.

Figure 1: Selected future asset class return assumptions for the next 10 years (in local currencies)

Source: Deutsche Bank Wealth Management. Data as of December 2, 2019. Returns are % p.a.

Asset class	Return	Asset class	Return	Asset class	Return
U.S. Treasuries, 7-10 year (Bloomberg Barclays U.S. Treasuries)	1.7%	German Bunds, 7-10 year (Bloomberg Barclays German Treasury)	-0.7%	Emerging markets hard currency sovereign (Bloomberg Barclays EM USD Sovereign)	4.7%
U.S. equities (S&P 500)	5.7%	European equities (MSCI Europe)	5.4%	Emerging markets equities (MSCI Emerging Markets)	8.8%

The key is to know where we can be reasonably confident, and the areas where our predictions must be less secure. In short, we must understand the nature of uncertainty and include it in the investment process. This will allow us to build a strategic asset allocation.

As we noted above, strategic asset allocation is likely to account for the bulk of a portfolio's returns. But it is possible to take the process further in two ways. First, through tactical asset allocation that makes shorter-term deviations from the strategic asset allocations to benefit from market events. Second, for some portfolios, we can use a systematic hedging process to increase the proportion of potentially higher-yielding assets in a portfolio, while aiming to control risk. Again, this is a matter of recognising and understanding uncertainty and using it to our advantage. We cannot control the investment environment but we can try to understand its likely evolution and the implications.

Theme 1

Policy pressures need prudent response

Slowing growth will add to economic policy challenges. Stay focused on strategic asset allocation.

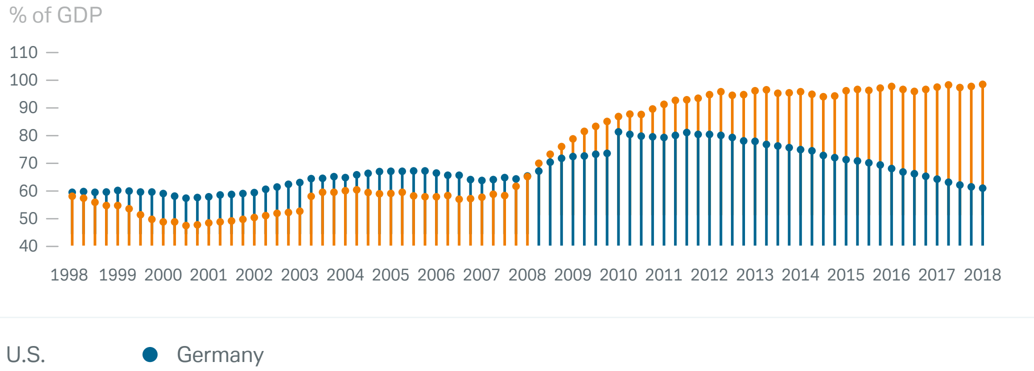
Monetary policy still key but reaching its limits

There is still a reliance on monetary "magic" as economic slowdown worries have encouraged major central banks loosen monetary policy again. However, many of the factors that are hurting economic performance are non-monetary in nature and thus beyond the scope of monetary policy to address or ameliorate. For sustainable growth, structured reforms, continued investment and many other factors are needed. Trade conflicts also cannot be resolved by central banks. Another continuing worry is that politicians and markets have become over-used to the ongoing support of the monetary magicians and will struggle, respectively, to implement and acclimatize to any alternative approaches. In addition, monetary easing channels already appear stretched and unlikely to work in the same way or as effectively as before: monetary policy may have decreasing marginal utility.

Markets also face potential challenges from political developments – most obviously via the U.S. election, Brexit and stresses within the German ruling coalition – but other more structural trends will also be important, for example "deglobalization" (with the peak of global trade growth probably already behind us) and concerns around rising debt levels.

Figure 2: Diverging public debt trends – the U.S. and Germany

Source: Datastream, Deutsche Bank Wealth Management. As of December 1, 2019.



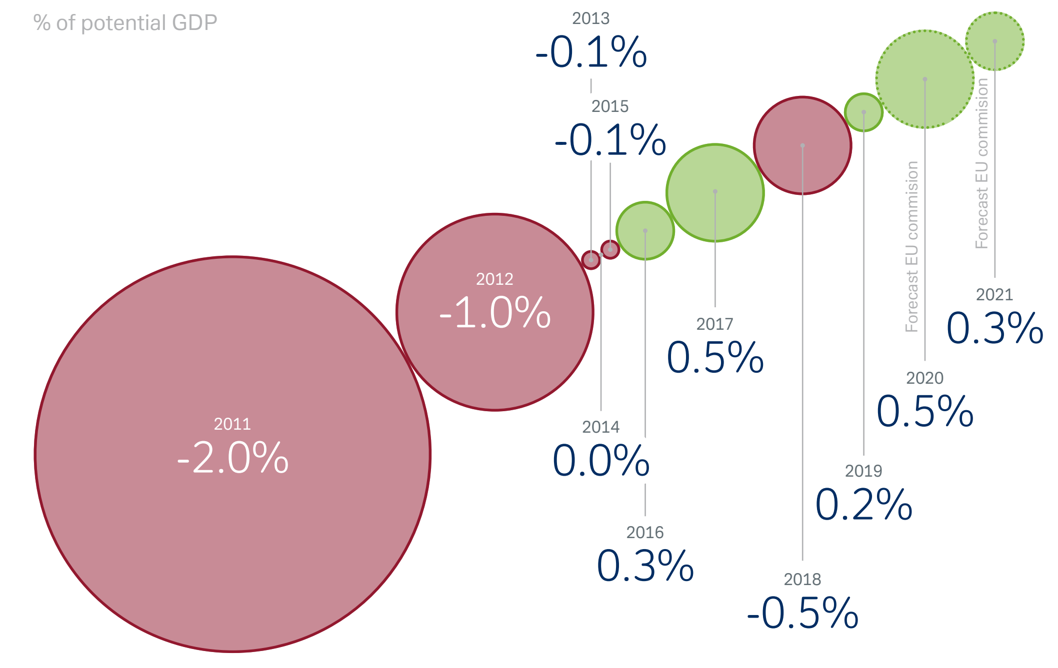
Substantial fiscal boost unlikely

This will add to pressures for policy alternatives. Calls for fiscal stimulus, for example, will become more vocal in 2020 but the impact of existing U.S. fiscal stimulus is fading and no big change in Eurozone fiscal policy is likely, despite obviously divergent trends between the two regions (Figure 2). And while we may get some gentle easing in Eurozone fiscal policy (Figure 3), we don't envisage a massive fiscal boost. The angling to policy towards immediate stimulus could also mean that structural reforms take a back seat in many countries – although we expect Chinese policy development to combine the two.

A sense of continued policy uncertainty, combined with growth fears, high valuations for equities and lacklustre earnings growth will tend to boost volatility. But it remains important that investors keep a clear view of long-term priorities while engaging in active management and attempting to capture tactical opportunities.

Figure 3: Mild Eurozone positive fiscal impulse* expected

Source: European Commission, Deutsche Bank Wealth Management. Data as of December 1, 2019.
* The fiscal impulse refers to the change in the size of a budget deficit/surplus, rather than its absolute amount.



Increasing cash holdings has risks

In this environment investors could be tempted to increase cash holdings, but this approach holds substantial dangers, both in terms of overall returns and by increasing portfolio risk – because it means that non-cash holdings need to be further along the risk/return curve to hit existing overall portfolio return targets.

Instead, getting the right strategic asset allocation (SAA) remains much more important for achieving sustained portfolio performance – for reasons that we describe in the preceding box. SAA allows us to capitalize on market uncertainty, rather than retreat from it.

Investors may also need to broaden and lengthen their investment horizons with a particular focus on risk management. Use of structured products within a portfolio may be one way of doing this.

The economic backdrop

Slower growth but no recession

In summary, we expect slower global economic growth in 2020 and think that there is only a limited probability of a U.S. recession. U.S. growth is forecast to slow from an estimated 2.2% in 2019 to 1.6% in 2020 and Eurozone growth from 1.1% to 0.9%. China will continue to experience a soft landing, with growth slowing to 5.8% in 2020 – but much will depend on finding a more comprehensive solution to the ongoing U.S./China trade dispute. Inflation will not be an issue in the medium term with U.S. inflation (core PCE) forecast to remain slightly lower than 2% – and Eurozone and Japanese inflation lower still.

Mindful of the dangers of too sharp a slowdown, the main developed market central banks will continue to support growth through accommodative monetary policies. We do not expect the Fed or ECB to cut rates further in the next 12 months, but ECB asset purchases will continue at EUR20bn/month for the foreseeable future and the Fed will also indulge in "quasi-QE", although these asset purchases will have the primary intention of maintaining market liquidity rather than interest rate reduction.

Consumers must stay happy

Economic growth will also be underpinned by consumers – who still appear optimistic in many economies, despite trade war-related and other uncertainties, encouraged by still high levels of employment and low borrowing costs, another ramification of monetary magic. U.S. household finances also appear in good shape with higher saving and lower interest payments relative to 2008 (Figure 4). Elsewhere, however, consumer health will be worth monitoring: Asian consumers may be particularly unsettled by trade-war fears.

Economic output and investment will also immune to trade and other uncertainties. Even if the partial "Phase 1" trade deal apparently agreed between the U.S. and China in December can be implemented in coming months, disagreements will persist and occasionally erupt in this and other bilateral trade relationships. In many economies (for example Germany), uncertainties have hit manufacturing hardest so far, but there are signs of the slowdown spreading to services sectors.

Politics could also spring some surprises in 2020, with implications for economic growth and investment. Market attention will become increasingly focused on the November 2020 U.S. presidential and congressional elections; the management of Brexit will remain an issue, even if a starting deal is struck, and geopolitical stresses will continue to have an impact.

Our macroeconomic forecasts are summarized in Figure 5.

Figure 4: The power of the consumer: U.S. household finances in good shape

Source: U.S. Bureau of Economic Analysis, Deutsche Bank Wealth Management. Data as of December 2, 2019.

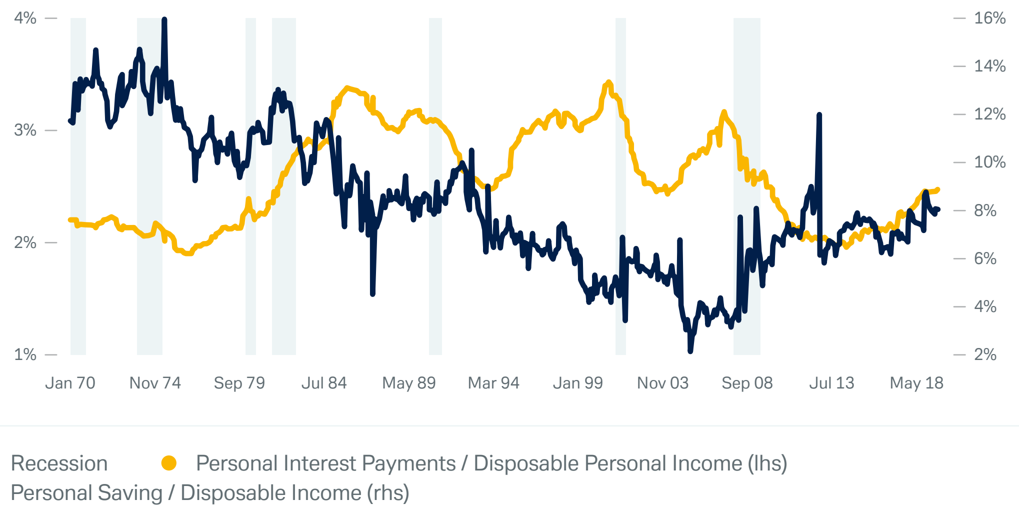


Figure 5: Our growth and inflation forecasts for 2019 and 2020

Source: Deutsche Bank Wealth Management. Data as of December 16, 2019.

GDP growth (%)	DB Wealth Management 2019 Forecast	DB Wealth Management 2020 Forecast
U.S.*	2.2	1.6
Eurozone (of which)	1.1	0.9
Germany	0.6	0.8
France	1.2	1.0
Italy	0.1	0.4
UK	1.2	1.3
Japan	0.8	0.2
China	6.2	5.8
India	6.0	7.0
Russia	1.2	1.5
Brazil	0.8	1.7
World	3.1	3.1

Consumer price inflation	DB Wealth Management 2019 Forecast	DB Wealth Management 2020 Forecast
U.S.*	1.9	1.9
Eurozone	1.3	1.3
Germany	1.5	1.6
Japan	0.8	1.4
China	2.4	2.5

Please see risk warnings for more information. Forecasts are based on assumptions, estimates, opinions and hypothetical models or analysis which may prove to be incorrect. No assurance can be given that any forecast or target will be achieved. Past performance is not indicative of future returns.
* For the U.S. GDP measure is calendar year and inflation measure is Core PCE Dec to Dec %. Forecast for U.S. Headline PCE (Dec/Dec) is 1.5% in 2019 and 1.4% in 2020. U.S. GDP Q4 on Q4 growth 2.0% in 2019 and 1.6% in 2020.

Investment calls

Theme 1

- Robust investment approach and strategic asset allocation (SAA) essential.
- Focus on long-term returns.
- Use alternative approaches.

Theme 2

Living with a low yields world

With a continuing policy reliance on monetary "magic", current financial repression in the form of negative (real) bond yields will continue for some time. In nominal terms, around USD 14 trillion of debt is now trading at negative yields (Figure 6). Many central banks now own high shares of their countries' overall debt (in the case of the Bank of Japan, 45%) and winding these holdings down will take time - if it happens at all.

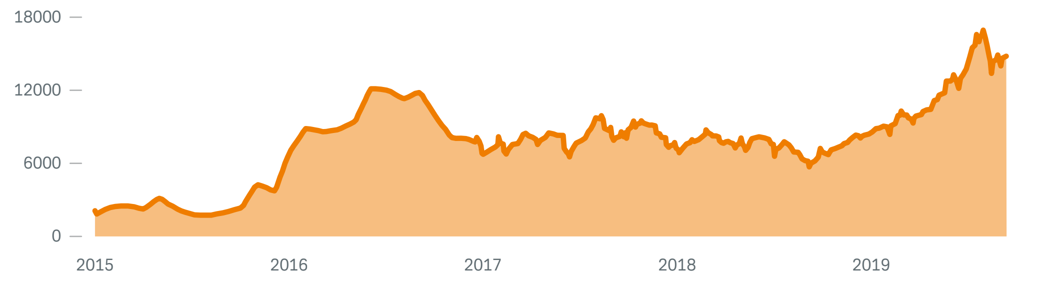
Low yields could persist for a long time

It would be a mistake to believe that the current situation necessarily sows the seeds of its own destruction. The example of Japan provides a disturbing blueprint for European bond markets going forward – and maybe even for the U.S. in the longer run. The Japanese situation has many differences from that faced by Europe, but its experience shows us that peak debt, ultra-expansionary monetary policy, direct intervention of the central bank into asset markets and hence low bond yields can continue for a very long time without bursting a bond bubble or causing a default of public debt.

The effects of lower yields for longer and ongoing financial repression therefore require a fresh look by investors. Instead of waiting patiently for higher or positive bond yields, investors need to create a considered response to the current situation.

Figure 6: USD 14 trillion of debt is now trading at negative yields

Source: Bloomberg Finance L P, Deutsche Bank Wealth Management. Data as of December 1, 2019.



Global negative yielding debt, market value in USD bn

Core bond holdings need to be justified

One central problem is that bonds with high ratings, which were in the past a source of stable and safe income streams, may not be able to provide this role within a portfolio. They may of course be able to provide some diversification benefits in case of market downturns (page 11) but need to be managed in a prudent manner – and not in excess volumes.

In summary, you need first to justify any holdings of non-yielding fixed income and make sure that the size of allocation is appropriate. Second, you should remember that a risk diversifier (one possible reason to hold non-yielding core government bonds) may not be an income provider. And, third, achieving any return on fixed income investments (with the exception of U.S. Treasuries) will require additional risk.

Consider exploring illiquidity premia

Investors may also need to accept restrictions on liquidity, as part of capturing the illiquidity premium around private markets in equity and debt, although it is important to realize that such premia are not fixed and can move or even disappear over time.

Our fixed income forecasts are summarized in Figure 7.

Figure 7: Bond yield and spread forecasts for end-2020

Source: Deutsche Bank Wealth Management. Data as of December 16, 2019.

U.S.		
UST 2 yr	U.S. 2yr yield	1.50%
UST 10yr	U.S. 10yr yield	1.85%
UST 30yr	U.S. 30yr yield	2.25%
U.S. IG CORP	BarCap U.S. Credit	110bp
U.S. HY	Barclays U.S. HY	400bp

Asia Pacific		
JGB 2yr	JPN 2yr yield	–0.20%
JGB 10yr	JPN 10yr yield	–0.10%
Asia Credit	JACI Index	265bp

Europe		
Schatz 2yr	GER 2yr yield	–0.60%
Bund 10yr	GER 10yr yield	–0.35%
Bund 30yr	GER 30yr yield	0.15%
Gilt 10yr	UK 10yr yield	0.95%
EUR IG Corp	iBoxx Eur Corp all	90bp
EUR HY	ML Eur Non-Fin HY Constr. Index	360bp

Emerging Markets		
EM Sovereign	EMBIG Div	320bp
EM Credit	CEMBI Broad	320bp

Investment calls

Theme 2

- Justify any holdings of non-yielding fixed income.
- Any return requires risk.
- Consider the illiquidity premium.

Non-yielding fixed income: its role as a portfolio diversifier

Focus on risk-adjusted returns

Many core developed market bonds are now trading at negative yields (with the notable exception of the U.S.). Our long-term capital market return assumptions (LTCMA) also foresee low or negative returns on these bonds for several years to come.

This begs one obvious question: why hold these bonds at all? Is, for example, there a case for holding a larger cash allocation instead?

The answer to this question involves the question of uncertainty – and our understanding of it – something that is central to our strategic asset allocation process (see page 4).

A standard optimization reveals that, based on our current LTCMA, some portfolios might show a slightly better risk-adjusted return, if government bonds were excluded in favour of a higher cash allocation.

However, we could only rely on this better risk-adjusted return if we were completely confident in our LTCMA forecasts – and the world is always to some extent unpredictable.

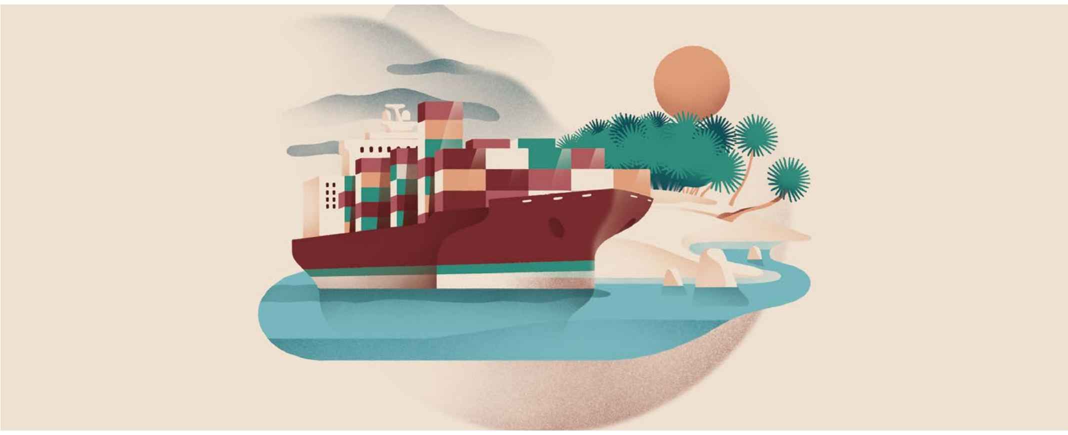
In fact, if we look at how uncertainty around the LTCMA could impact the risk-adjusted return of both allocations (government bonds vs. cash) we can see some significant advantages in a strategic asset allocation (SAA) that includes government bonds. If there are big negative surprises to the LTCMA, then the risk-adjusted returns of an SAA that includes government bonds are likely to prove more robust than an SAA without them.

This is one important reason why it may still make good sense for an SAA to include government bonds: in essence, the investor accepts a small possible return disadvantage (if our LTCMA are realized) in exchange for a large potential return advantage if there are unwelcome surprises ahead.

Theme 3

Find new income harbours

The current environment of low or negative yields is likely to continue in parts of the corporate space as well as developed market government bonds. Investors may need to look for income elsewhere.



Keep an open mind on sources of yield

Bond investors will therefore also need to take a different attitude to risk, looking for higher yielding investments in emerging market and corporate bonds and keeping an open mind as to where and what these investments may be.

Emerging market bonds have been an investment focus of ours for several years. And, with inflation hovering near historical lows, emerging market real yields are materially higher than developed market real yields (for example in Germany or the U.S.).

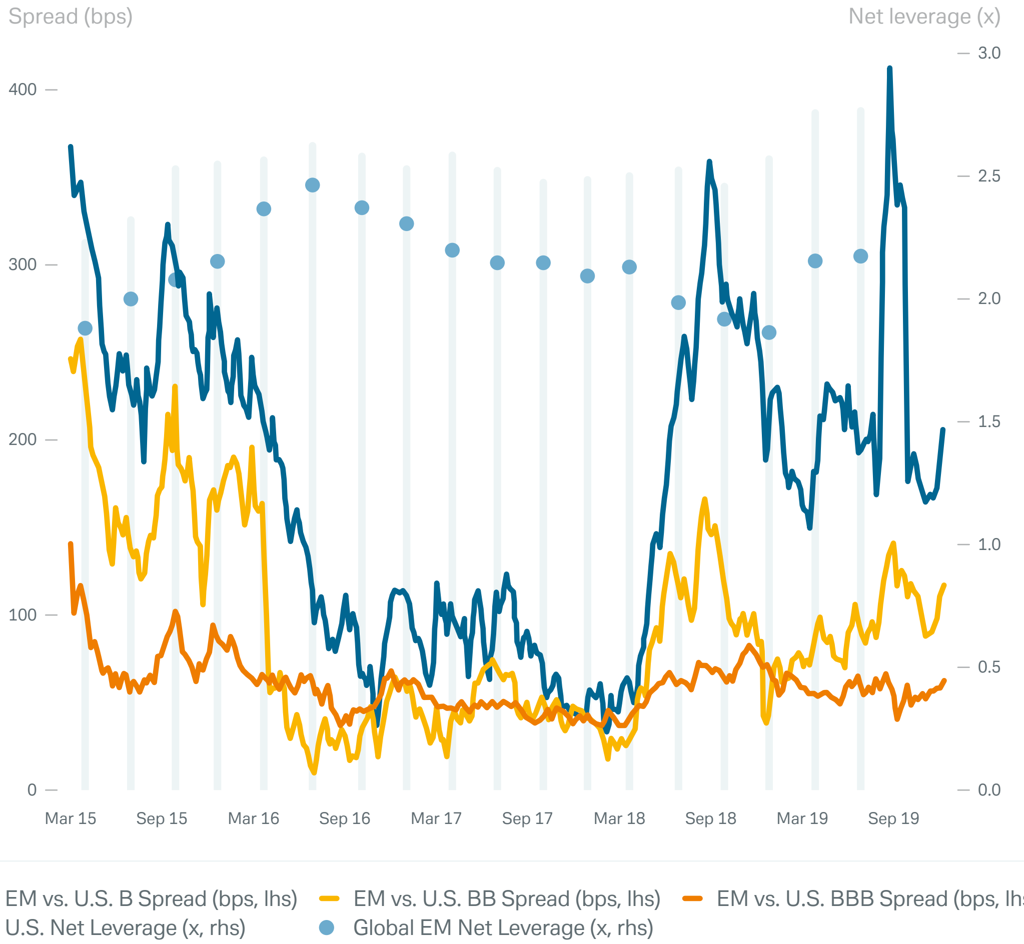
Within emerging markets, the natural focus has been on hard currency sovereign debt, but some emerging market corporates may be equally or even more attractive. They can compare favourably on various measures with their developed market peers, as shown by Figure 8 in the case of net leverage. Likewise, while the focus has tended to be on USD-denominated emerging corporate bonds, those denominated in other hard currencies (e.g. EUR) may also appeal.

Within emerging market bonds, our overweight positions include India. We have a neutral position on China and a neutral position on Asia and Latin America overall. We have an underweight on Brazil.

Within developed market corporate bonds, we see opportunities in U.S. Investment Grade and the Eurozone crossover segment (i.e. lower-rated investment grade, higher-rated high yield). The likelihood of slower growth keeps us more cautious on high yield in general. With the ECB being a large buyer again, the hunt for yield will continue and even lower-rated European bonds will trade on negative yields. Against this background, remember too that U.S. Treasuries still appeal as a source of positive nominal yields.

Figure 8: EM corporates can measure up against DM peers

Source: BAML, JPMorgan, Deutsche Bank Wealth Management. Data as of December 16, 2019.



Investment calls

Theme 3

- Incorporate corporates into EM bond investments.
- Only act opportunistically in Europe.
- U.S. Treasuries keep their allure.

Theme 4

Balance your style

Equities markets enjoyed marked gains during much of 2019, thanks to low interest rates and some earnings growth helping push up valuation multiples (e.g. price/earnings ratios). Market trends may start to shift in 2020.

Modest further equity market gains possible

Going into 2020, valuations are stretched and the perceived lack of alternatives will not be enough, on its own, to drive valuations much higher from here. But modest single-digit corporate earnings growth should provide some support and further gains in equities indices look likely over the course of the year. A convincing resolution of trade concerns (by no means certain) could also provide an upward jolt to equities prices.

From an investor's perspective, dividends – both a as a return contributor and as a cash flow generator – should, as in previous years, not be neglected. Dividend yields, which are higher than bond yields in many developed markets, can continue justify the higher risk associated with equities and can also be important for income generation. The focus, however, should be on expanding sustainable dividends – those that can be paid from income and without threatening a company's balance sheet. This could be a way of coping with the low yields world (as discussed in Theme 2): turn from a saver into an investor.

Reconsider equity "styles"

A new equities trend for 2020 will relate to "style" – those sorts of stocks that an investor should favour. During the past three years, equity markets have mainly been driven by "growth" stocks (stocks of companies thought likely to grow faster than the market as a whole). "Magical" low interest rates supported this. In contrast, there has been little contribution from "value" stocks (those trading at a low price compared to their apparent fundamentals). Now, however, we believe that the valuation spread between the two "growth" and "value" styles may be approaching its peak (Figure 9).

We would therefore consider a more balanced style positioning in terms of "growth" vs. "value" for 2020. Some "quality" value stocks could provide real opportunities.

At a sectoral level, we also see opportunities in global industrials, in both absolute and relative terms. See our regional sector preferences in Figure 10. Our equity index forecasts are summarised in Figure 11.

Figure 9: "Growth" stocks' premium to "value" may now be approaching its peak

Source: FactSet, Deutsche Bank Wealth Management. As of December 11, 2019.

● MSCI World Growth vs. Value NTM P/E ratio

Figure 10: Regional sector weightings

Source: Deutsche Bank Wealth Management. Data as of December 13, 2019.

	EUROPE	U.S.	EM
Energy	Neutral	Overweight	Neutral
Materials	Overweight	Underweight	Underweight
Industrials	Overweight	Overweight	Overweight
Consumer Discretionary	Neutral	Neutral	Overweight
Consumer Staples	Underweight	Underweight	Underweight
Healthcare	Overweight	Overweight	Underweight
Financials	Underweight	Overweight	Neutral
Information Technology	Overweight	Neutral	Neutral
Communication Services	Underweight	Neutral	Overweight
Utilities	Neutral	Underweight	Neutral
Real Estate	Underweight	Underweight	Neutral

● Underweight ● Neutral ● Overweight

Figure 11: Equity index forecasts for end-2020

Source: Deutsche Bank Wealth Management. Data as of December 16, 2019.

U.S.	S&P 500	3,300
Germany	DAX	14,000
Eurozone	Eurostoxx 50	3,770
Europe	Stoxx 600	420
Japan	MSCI Japan	1,060
Switzerland	SMI	10,450
UK	FTSE 100	7,510
Emerging Markets	MSCI EM	1,120
Asia ex Japan	MSCI Asia ex Japan	700

Investment calls

Theme 4

- Robust equity diversification.
- Revisit "growth" vs. "value".
- Look for defensive value and predictable cash flows.

Theme 5

Politics tops policy

FX markets provide a unique way to see how theory interacts with reality. In principle, FX rates should primarily be driven by central bank monetary policy and economic fundamentals. In practice, they are highly susceptible to political statements or speculation about political intentions, amongst other drivers. We believe that politicians' actions are likely to prove particularly important in 2020. Commodities will also feel the consequences.

Sustained further USD strengthening unlikely

Even after putting political rhetoric to one side, it would appear that the USD is overvalued on many conventional measures and pressures for intervention (in various forms) will continue as new policy frontiers are explored. USD strength is therefore probably peaking, although we do not expect a sharp decline in the value of the currency. Our end-2020 forecast for EUR/USD is 1.15, which implies a slight depreciation from current levels. (Figure 12 gives our 12-month forecasts.) Moreover, any moderation in USD strength is likely to be interrupted by periods of temporary USD strength at times of global uncertainty.

The USD's role as global reserve currency gives it unique attributes and fundamentals can anyway cut both ways. Higher yields in the U.S. should, in general, be supportive of the USD. But, if an economic downturn encourages central banks to cut rates repeatedly (which we do not expect) then the Fed has more potential to lower interest rates than the ECB – removing one supportive factor for the USD.

Figure 12: FX forecasts for end-2020

Source: Deutsche Bank Wealth Management. Data as of December 16, 2019.

EUR vs. USD	EUR/USD	1.15
USD vs. JPY	USD/JPY	105
EUR vs. JPY	EUR/JPY	121
EUR vs. GBP	EUR/GBP	0.89
GBP vs. USD	GBP/USD	1.29
USD vs. CNY	USD/CNY	7.10

ECB policy evolution will impact EUR

Meanwhile, the EUR will continue to face its own, largely domestically-generated, challenges. Quite aside from Brexit, populist politics seems likely to continue to have an impact in the region's major economies, possibly including Italy. In addition, currency markets may be unsettled by the evolution of ECB policy – and official communication around this – as its new head, Christine Lagarde, seeks to match her policy preferences with those of an ECB Governing Council that appears to hold rather different views in some areas: nonetheless, the ECB will stay committed to an unconventional monetary policy path.

JPY to remain important as a portfolio diversifier

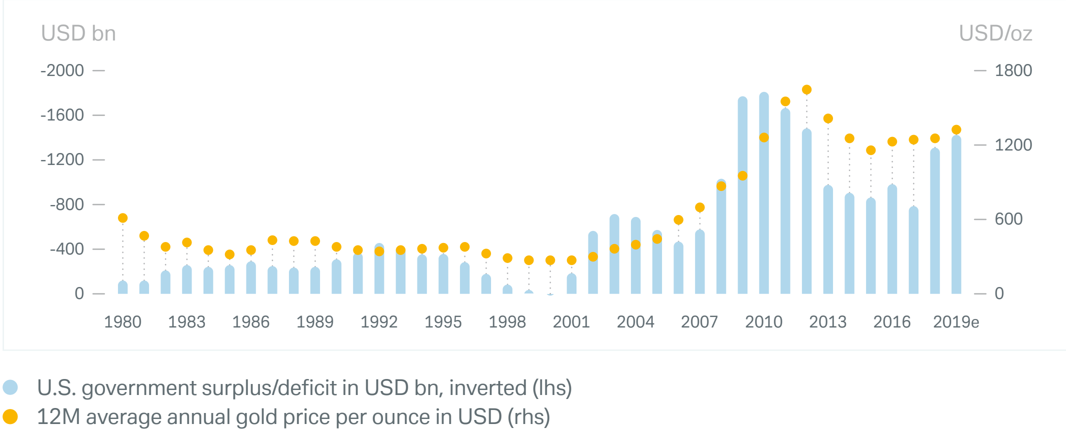
Against this background, investors will continue to look for currencies that can act as portfolio diversifiers. The JPY has played this role well over the last year and may continue to do so. Although volatility is currently relatively low and risks are (probably wrongly) perceived as "known", spikes in global volatility will occur, with political developments a potential sentiment destabiliser. Against this background, we continue to believe that a long JPY position could prove to be beneficial for many portfolios.

Mild CNY depreciation could be caused by China's continuing macro slowdown and accompany any possible future setbacks in U.S./China trade talks. However, we believe that the PBoC will remain unwilling to implement any aggressive easing due to concerns over corporate/household leverage, making a sharp fall in the CNY unlikely.

GBP made sharp gains in the run-up to, and after, the UK's December 2019 general elections. The currency could remain buoyant in coming months, but will remain vulnerable to setbacks later on in 2020 if fears about the the UK and EU's ability to cut a final deal resurface.

Figure 13: The gold price and the U.S. budget deficit

Source: Datastream, Deutsche Bank Wealth Management. Data as of December 1, 2019.



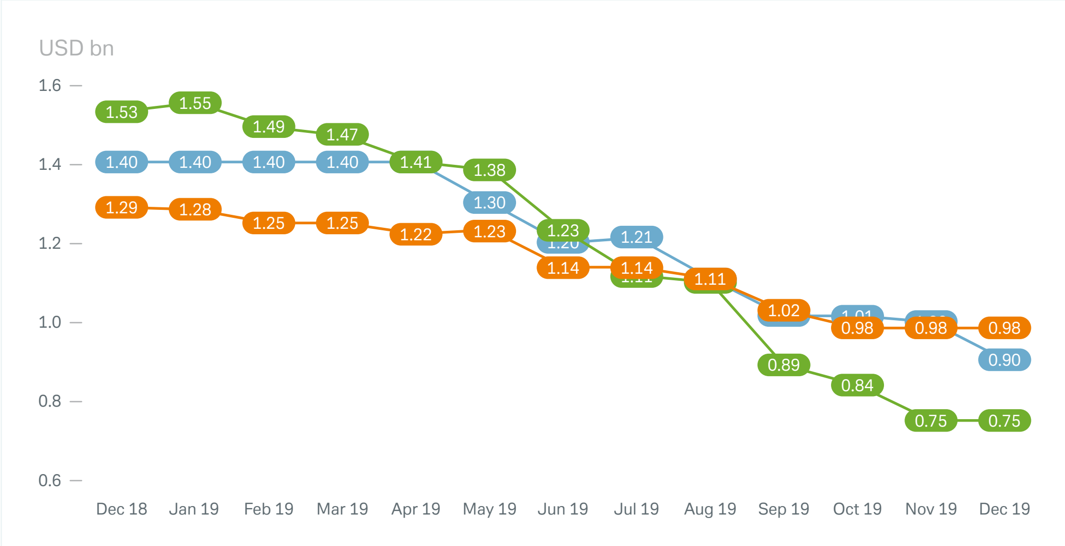
The case for gold

Slowing economic growth argues against outright commodity exposure but the case for real assets plus a likely moderation in USD strength points to opportunities in gold. History suggests that a rising U.S. budget deficit can be associated with upward pressure on the gold price (Figure 13). Our end-2020 forecast for the gold price is USD1,550/oz.

Oil prices cannot resist the downward pressure from slowing global economic growth which will most likely have implications for demand (Figure 14), but political spats will cause temporary upward blips during the course of the year. Our end-2020 forecast for WTI is USD54/b.

Figure 14: Global oil demand growth forecasts have been revised down

Source: Bloomberg Finance, IEA Monthly Market Oil Report, Deutsche Bank Wealth Management. Data as of December 12, 2019.



Opec Monthly Oil Market Report
IEA Oil Market Report
EIA Short-Term Energy Outlook

Emerging market currencies: weathering the storm

Emerging market currencies face some headwinds from global trade tensions. But not all the news is bad. Emerging market economic development has been less volatile than developed markets in the last few years and we expect this trend to continue in 2020. Emerging market assets performed well in 2019 due to central bank policies in developed markets, and we do not expect these to reverse. But slowing global growth is negative for commodity prices, and provides another reason for taking a selective approach to emerging market currencies.

Selected emerging market currency forecasts at end-2020 are as follows:

USD/CNY	USD/TRY	USD/MXN	USD/BRL
7.10	6.10	19.50	4.15

Investment calls:

Theme 5

- USD strength peaking.
- Use JPY as a diversifier.
- Gold takes a shine.

Theme 6

Tech meets ESG

Our long-term investment themes, now in their fourth year, target structural, long-term changes in the economic environment. They can be best visualized as falling within a triangle, the three sides of which are technology, demographics and sustaining the world we live in.

Existing themes include cybersecurity, millennials and health care (launched 2017), infrastructure, smart mobility and artificial intelligence (launched 2018) and ESG (environment, social and governance) investing and enhanced infrastructure, both launched in 2019.

For 2020 we launch two new long-term themes: 5G Fast Forward and Resource Stewardship.

Get ready for the next data level: 5G Fast Forward

5G is short for fifth generation within cellular (mobile phone) networks. 5G has higher capacity and speed to integrate various sources (i.e. sensors, cameras, and foot patrols, maps, appliances, databases and drones).

5G will have multiple and major impacts

However, its capabilities are expected to go way beyond the scope of previous network generations, and have a profound impact both on consumer and industrial behaviour. 5G's likely impact can be broken into three areas, as follows:

First of all, 5G will create opportunities for the service providers that create networks and deliver data to end users. According to one industry participant, by 2024, 5G subscriptions will reach 1.9 billion users with 35% of traffic being carried by 5G networks and 65% of the global population being covered by the technology. This is likely to result in new industry alliances and structures within technology infrastructure and data centres that support it. Service providers are already turning to cloud-based platform experts to collaborate and accelerate 5G innovation.

Second, 5G will have a much broader impact in improving commercial productivity through enabling more efficient working which have a large impact on economies across the globe. 5G-ready smart factories are already being established based around internet of things (IoT) and web services platforms and flexible and secure wireless connectivity seems likely to significantly reduce factory costs compared to traditional automation techniques.

Third, 5G will accelerate the creation and use of "big data". Through this it will touch and transform many industries – including but not limited to the automotive, retail, education, and entertainment industries in addition to the health care sector. Use of Internet of Things (IoT) devices will accelerate with 5G and will result in an increase in both the velocity and volume of data, with the majority of IoT growth projected to occur in North East Asia.

Figure 15: 5G capabilities vs. existing 4G LTE networks

Source: Cisco Systems, Qualcomm, Deutsche Bank Wealth Management. Data as of December 1, 2019.

	4G LTE	5G
Average data rate	25 Mb/s	100 Mb/s
Peak data rate	150 Mb/s	10,000 Mb/s
Latency	50 ms	1 ms
Connection density	2,000km^2	100,000 km^2

Resource stewardship

Our second long-term theme for 2020 is resource stewardship (the effective management, use and conservation of scarce resources), with a focus in this instance on waste management and recycling challenges – although the subject is much broader this. Investment regulation and monitoring is now focusing on such environmental concerns: note for example impending mandatory reporting in 2020 in the context of the Task Force on Climate-Related Financial Disclosures (TCFD).

According to the United Nations' forecasts, urbanization combined with total world population growth imply an additional 2.5bn people living in urban areas by 2050 – which will then account for 70% of the global population.

Increased urban populations will pose significant challenges for rubbish collection and recycling. At present, while collection rates in high-income cities have risen to 100%, the average in low-income cities amounts to only 35%. The UN assumes that at least 2bn people have no access to solid waste collection.

Rise of global middle class adds to problem

Rubbish and recycling problems will be increased by the rise of the global middle class, which by 2050 is projected by the United Nations to number 3bn people globally (with obvious implications for other forms of carbon emissions). New joiners of the middle class will have sufficient disposable income to purchase products in a way comparable to people in high-income countries today. Higher consumer spending will lead to more waste generation. By 2050 waste volumes are expected to more than double with Asia and Africa outpacing high-income regions in terms of municipal solid waste generation by 2030.

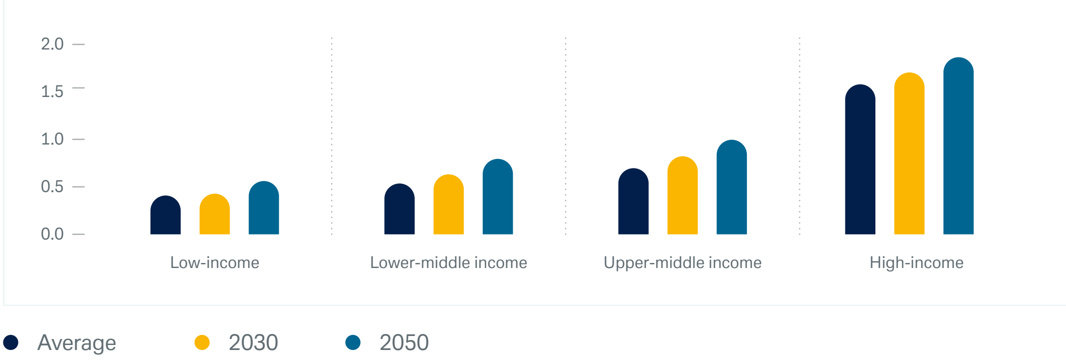
Moreover, we live in world of gadgets with ever-shorter product cycles, adding to the problem of e-waste. Based on 2016 numbers, only a small part of e-waste is collected and recycled: around 35% in Europe, and less in Asia and the Americas. The rest goes into landfills and incinerators or to waste traders. The amount of global e-waste is expected to grow by 8% per year and although nearly 100% of e-waste is recyclable, the current recycle rates are not promising – just 15.5% worldwide (in 2018). About 40% of e-waste is exported to Asia (from the U.S., Canada, and Europe).

Tighter regulation by authorities and an emphasis on “greening” the waste sector (according to the so-called “4Rs” – recover, recycle, reuse and reduce) is already evident. Regulation should lead to greater capital expenditures that will be relevant a broad range of companies engaged in diverse fields. For instance, the European Commission has said that by 2030, all plastic packaging used on the EU market should be reusable or recyclable in a cost effective way.

Efficient waste management and recycling needs also to be seen as part of coping with expected sharp increases in demand for energy and water. New forms of technology or material science can help to avoid resource scarcity.

Figure 16: Municipal waste generation per capita for urban population (kg/day)

Source: World Bank, Deutsche Bank Wealth Management. Data as of December 1, 2019.



The ESG investment landscape

Investment based on environmental, social and governance (ESG) issues has a long history but has gathered pace significantly over the last year. In part, this has been due to governmental and inter-corporate initiatives, but it is also clear that taking ESG factors into consideration can be an effective way to invest, not just as regards ethical considerations: companies that score better on ESG criteria can often provide more sustainable long-term revenue streams. They can also reduce risks through pursuing responsible business practices.

ESG methods and investment vehicles

ESG investing can be done in various ways. Exclusionary screening stops investment in firms or sectors that do not align with investor values or other criteria. Positive screening actively seeks out companies that appear to be performing well vs. certain ESG measures. Alternatively, thematic ESG investment focuses on investment in particular areas (for example clean energy) and impact ESG investing aims to generate specific positive, measurable social or environment impact as well as a financial return.

As interest in ESG investment has grown, the number of potential investment vehicles has expanded too. Within equities, investors can focus on individual equities, equity funds or managed accounts designed to focus on particular factors. Within the increasingly important fixed income asset class, green or social impact bonds, tailored for particular purposes, can be accessed from issuers or via fixed income funds or managed accounts. ESG mutual funds include the more liquid exchange traded funds. ESG investors can also approach the subject via alternative private market investments, for example focused on early-stage ESG enterprises.

Investment calls

Theme 6

- Shape and steward the world of tomorrow.
- Get ready for the next data level. 5G Fast Forward.
- Resource stewardship.

Our asset class views summarized

Core government bonds
Accommodative monetary policy means lower (or negative) for longer - helped by no further Fed/ ECB rate cuts, growth easing and still low inflation levels. End-2020 yield forecasts: 10-year U.S. Treasuries 1.85%, 10-year JGBs -0.10%, 10-year German Bunds -0.35%.

Investment Grade
The U.S. technical backdrop and Fed policy remains supportive, but U.S. elections may have an impact. EUR IG will continue to benefit from CSPP but will not be immune to the U.S./China trade conflict. End-2020 forecast spreads: U.S. IG (BarCap U.S. Credit) 110bp, EUR IG (iBoxx EUR Corp) 90bp.

High Yield
Improvement in U.S. HY metrics is already waning and trade/economic slowdown risks remain. EUR HY is divided, with some sectors trading relatively wide. Selectivity will be key to EUR HY investing. End-2020 forecast spreads: U.S. HY (Barclays U.S. HY) 400bp, EUR HY (ML EUR Non-Financials) 360bp.

Emerging markets hard currency debt
Issuer fundamentals have improved further vs. global peers and solid overall returns are expected but downside risks remain - e.g. trade, global slowdown, industrial commodities or unexpected USD strengthening. End-2020 forecast spreads: EM Sovereign (EMBIG Div) 320bp, EM Credit CEMBI Broad 320bp.

U.S. equities
The economic backdrop should be favourable and earnings per share are likely to increase. Geopolitical uncertainties may however dent U.S. capex spending and fiscal risk needs to be monitored. End-2020 S&P 500 forecast: 3,300.

European equities
The monetary environment remains supportive, valuations look reasonable and dividend yields are attractive. But further evidence of economic improvement is needed for sustainable price growth. End-2020 Euro Stoxx 50 forecast: 3,770.

Japanese equities
About half of the Topix is trading below book value and better corporate governance has boosted shareholder returns. But the ongoing trade conflict is a negative for share prices. End-2020 MSCI Japan forecast: 1,060.

Emerging market equities
Trade concerns also cast a shadow here but valuations are attractive on an absolute and relative basis. Differentiation at a country level is key. Changing U.S. rate expectations could be a risk. End-2020 MSCI Emerging Markets forecast: 1,120.

Gold
Continued support from slowing global growth and accommodative monetary policy. Any USD headwinds appear surmountable. End-2020 gold price forecast: USD1,550/oz

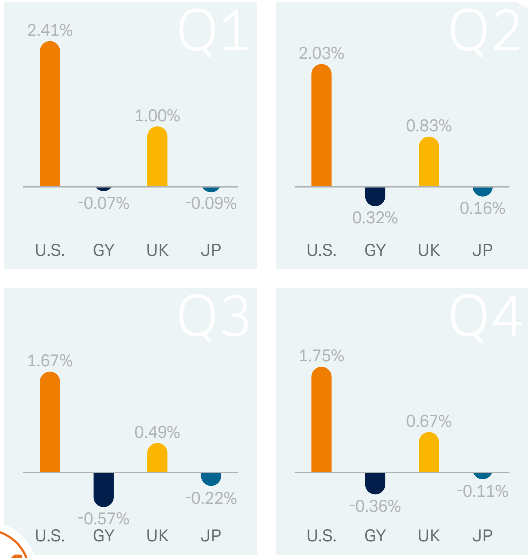
Oil
OPEC unity has held so far but declining growth in global demand (and the threat of higher U.S. output) will keep the lid on prices despite possible short-term volatility.
End-2020 price forecast: WTI USD54/b.

Hedge funds
Positive on Macro Opportunistic, positive/neutral on Relative Value, neutral on Equity Hedge and Credit. We see potential in a range of low "beta" strategies.

Markets and the global economy – review and outlook

With monetary magic reaching its limits, and the global economic environment evolving, what should we expect?

10-YEAR GOVERNMENT BOND YIELDS DURING 2019



KEY MACROECONOMIC FORECASTS FOR 2020

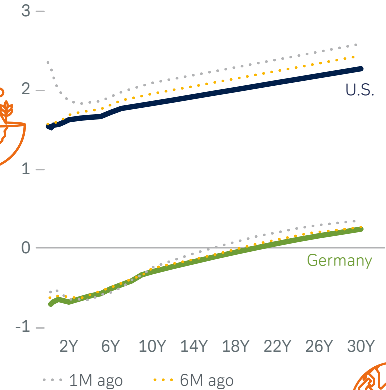
	U.S.	Eurozone	Germany	Japan	China
GDP Growth	1.6%	0.9%	0.8%	0.2%	5.8%
Consumer Price Inflation	1.9%	1.3%	1.6%	1.4%	2.5%

GDP Growth Consumer Price Inflation

ESG

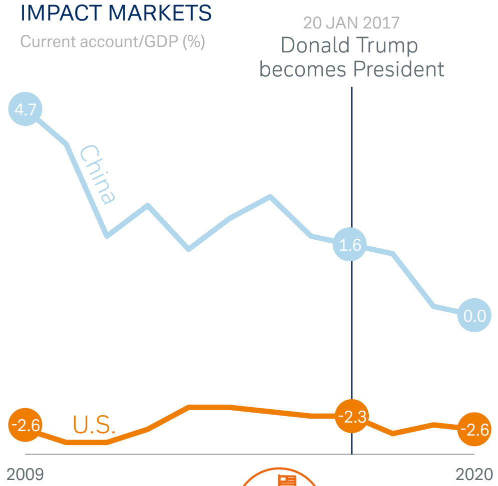
Likely to be a continuing trend in 2020 - Deutsche Bank Wealth Management is significantly accelerating its Environmental, Social and Governance (ESG) strategy to help add purpose to investment performance.

U.S. & GERMAN BOND YIELD CURVE ON DECEMBER 10 2019

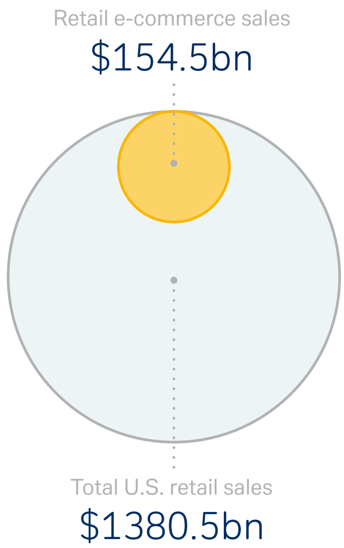


EXTERNAL IMBALANCES TO CONTINUE TO IMPACT MARKETS

Current account/GDP (%)



U.S. E-COMMERCE HAS FURTHER TO GO - Q3 2019



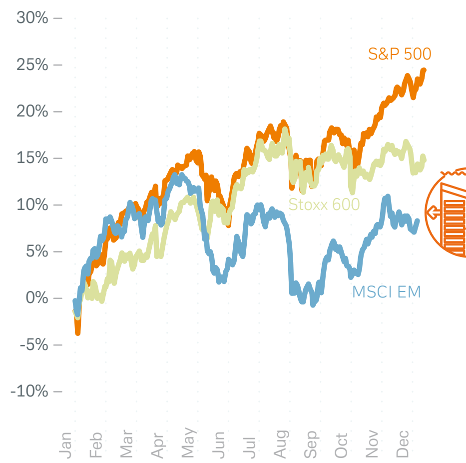
KEY FX FORECASTS

EUR vs. USD	USD vs. JPY
1.15	105
EUR vs. JPY	**EUR vs. GBP**
121	0.89
GBP vs. USD	**USD vs. CNY**
1.29	7.10

KEY CREDIT RATINGS

	S&P	Moody's	Fitch
U.S.	AA+	Aaa	AAA
Japan	A+	A1	A
Germany	AAA	Aaa	AAA
China	A+	A1	A+
UK	AA	Aa2	AA

EQUITY MARKET PERFORMANCE IN 2019



Resource Stewardship Cloud IPOs
AI Machine Learning
Data Privacy VPNs 5G
Ad Targeting
Sustainability Cash
Elections Streaming Wars
Blockchain FX

Source: World Government Bonds, Trading Economics, Census Bureau of the Department of Commerce, State Administration of Foreign Exchange, Deutsche Bank Wealth Management. Data as of December 16, 2019.

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Glossary

The Bank of Japan (BoJ) is the central bank of Japan.

Beta measures the volatility of an individual security or sector versus the overall market. Lower beta implies lower volatility.

BRL is the currency code for the Brazilian real.

Bunds are longer-term bonds issued by the German government.

CNY is the currency code for the Chinese yuan.

The ECB's Corporate Sector Purchase Plan bought corporate sector bonds from 2016-2018, and was then restarted in November 2019.

The DAX is a blue-chip stock-market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange; other DAX indices include a wider range of firms.

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

An emerging market (EM) is a country that has some characteristics of a developed market in terms of market efficiency, liquidity and other factors, but does not meet all developed market criteria.

The Energy Information Administration (EIA) is part of the U.S. Department of Energy and an agency of the U.S. Federal Statistical System.

ESG investing pursues environmental, social and corporate governance goals.

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

The EuroStoxx 50 Index tracks the performance of blue-chip stocks in the Eurozone and includes the super-sector leaders in terms of market capitalization.

The Federal Reserve is the central bank of the United States. Its Federal Open Market Committee (FOMC) meets to determine interest rate policy.

The fiscal impulse refers to the change in the size of a budget deficit/surplus, rather than its absolute amount.

The FTSE 100 Index tracks the performance of the 100 major companies trading on the London Stock Exchange.

Growth stocks are those of companies seen as likely to have above-average earnings or revenues growth.

High yield (HY) bonds are higher-yielding bonds with a lower credit rating than investment-grade corporate bonds, Treasury bonds and municipal bonds.

The illiquidity premium is the excess return on an illiquid investment, to compensate for illiquidity.

The International Energy Agency (IEA) is an intergovernmental agency studying energy-related issues

The Internet of Things (IOT) is comprised of computers and other devices with embedded electronics that allow them to collect and share data.

An investment grade (IG) rating by a rating agency such as Standard & Poor's indicates that a bond is seen as having a relatively low risk of default.

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

The MSCI 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.

Glossary

The MSCI Japan Index measures the performance of around 323 large and mid-cap stocks drawn accounting for about 85% of Japanese market capitalization.

MXN is the currency code of the Mexican peso.

Net leverage measures attempt to assess a firm's ability to meet its borrowing obligations.

The People's Bank of China (PBoC) is the central bank of the People's Republic of China.

Personal Consumption Expenditure (PCE) is a price index for goods and services, particularly relevant in the context of U.S. GDP.

Price/earnings (P/E) ratios measure a company's current share price relative to its per-share earnings. In this context, LTM refers to last twelve months' earnings.

Purchasing manager indices (PMI) provide an indicator of the economic health of the manufacturing sector and are based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment. The composite PMI includes both manufacturing and services sectors. They can be published by public sector or private agencies (e.g. Caixin, Nikkei).

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

A reserve currency is a currency held in large amounts by central banks as part of their foreign exchange reserves.

The S&P 500 Index includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

A spread is the difference in the quoted return on two investments, most commonly used in comparing bond yields.

The Stoxx Europe 600 includes 600 companies across 18 European Union countries.

A strategic asset allocation process involves setting preferred allocations for asset classes on a medium to long-term time horizon.

The Swiss Market Index (SMI) includes 20 large and mid-cap stocks.

TOPIX refers to the Tokyo Stock Price Index.

Treasuries are bonds issued by the U.S. government.

TRY is the currency code for the Turkish lira.

Value stocks are those that appear to be trading lower than justified by their fundamentals (e.g. sales and earnings).

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

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