

Core Matters

Investment Returns: A 5-year perspective

17 October 2019

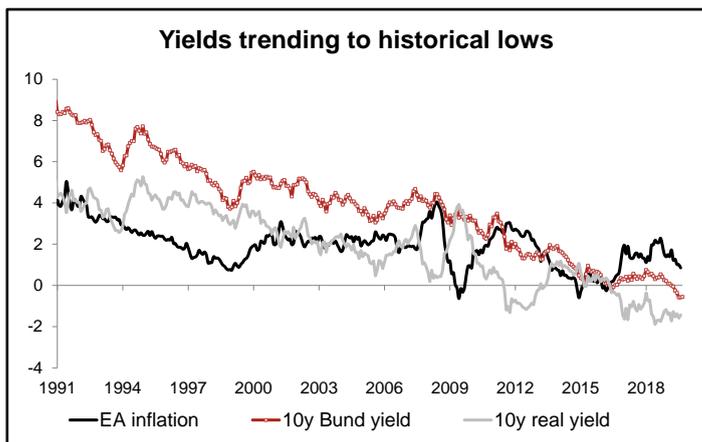


Macro & Market Research

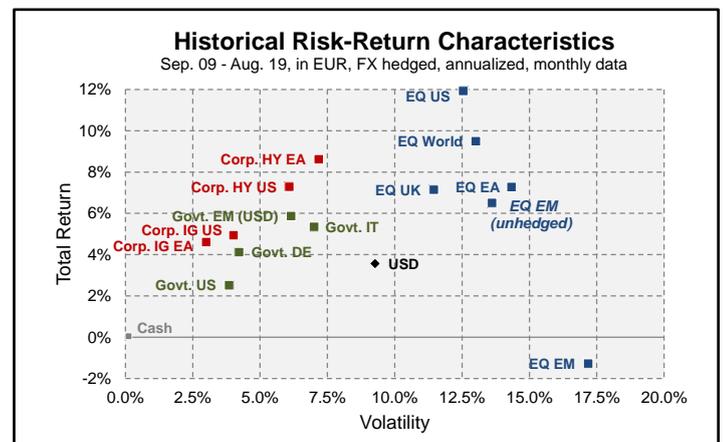
- 2019 has seen huge inflows into Fixed Income (FI) funds and outflows from Equities. From a medium-term return perspective this makes no sense. The formidable demand for safe assets reflects cyclical and structural forces (e.g. ageing).
- No matter the economic scenario, FI returns over the next five years are doomed. Government bonds and IG credit will struggle to deliver positive returns. Riskier credit should do better, yet will hardly beat inflation. Worse still, FI assets, especially in EUR, will barely offer cushion to portfolios in an alternative recession scenario.
- Valuations in Equities are much less stretched than in FI. They will not repeat the performance of the past ten years, but are still likely to deliver mid-single digit returns over the next five years.
- The positive tail-risk takes the form of an innovation and productivity shock boosting both real rates and profits. The negative financial tail risk includes a severe recession (unlikely) or a new form of populism tackling income inequality. The latter would likely support long-term stability but over five years would imply higher inflation and taxes.

1. Introduction

“It is difficult to predict, especially the future.” It is hard enough to anticipate developments over the coming year; with volatility increasing by the square root of time, isn't it foolish to try predicting the next five? Yet this exercise is an important building block for anyone willing to derive a Strategic Asset Allocation. The silver lining is that long-term financial returns much rely on valuation metrics that we measure relatively well. In contrast, the Tactical Asset Allocation is generally based on short-term triggers and risks (economic, political, flows etc.) that are inherently hard to predict. In this introductory paper we focus on major liquid equity and fixed income assets. We do not cover real assets such as Direct Real Estate (which we estimate make about 7% of the whole investment universe) or Private Equity (nearly 20 times smaller than liquid equities).

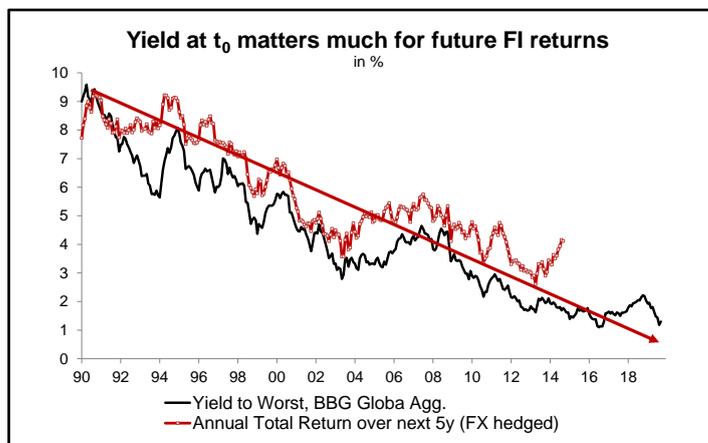


Beat inflation if you can. People invest money for future purposes hoping to see their money grow over time. For the least, they wish that returns will compensate for future increases in living costs. In today's 'upside-down' world – with about 25% of the global Investment Grade Fixed Income universe trading at negative yield – reaching this objective will be far from trivial. The root of financial return expectations is in that of so-called 'risk-free' assets, which today often offer negative yields: to hold safe investments, buy-and-hold investors often need to accept guaranteed nominal losses, and even deeper ones in real terms.



This is a radical change from historical norms. Over the 10 years to the 2008-09 Great Financial Crisis (GFC), the real yield (i.e. adjusted for inflation) of 10-year Bund averaged +2.1%. In the ten years that have followed the GFC, the average fell to zero; it now stands at -1.7%.

Over the past decades the consistent downward trend in yields boosted the total financial returns of those already invested. Investment in the German government bond index yielded an annual total return of almost 4% since 2009; Italian bonds delivered a bumpy 5.4%. Decent corporate earnings growth, overall solid risk sentiment and central bank support also helped to reign in Credit spreads. As such the Credit asset class has delivered great returns, at about 4.5% in investment grade and 8.6% in High Yield, even exceeding the total return of the MSCI EMU (7.3%, see chart above).



Alas, yesterday's boon is causing today's headache.

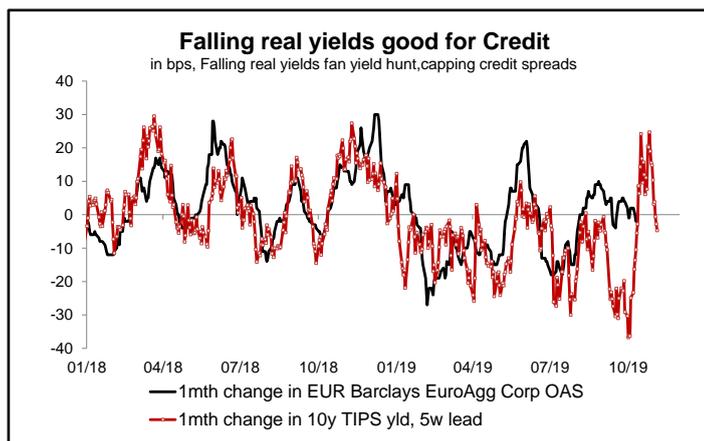
In Fixed Income, future returns to a large extent depend on today's yield levels (see chart above). The red line Total Return has consistently stood above the dotted black line (current yield) because the secular decline in yields has generated capital gains. But as yields stabilize (or rise) the two lines will converge (or even cross) – total returns in Fixed Income are virtually sure to prove much lower than they have been historically.

To add insult to injury, Fixed Income now offers asymmetric perspectives. The balance of risks attached to bond investment has worsened materially. At current depressed levels, the leeway for a further drop in yields (and thus a further surge in prices) is very limited, given that the ECB seems already close to the lower bound of its policy rate. By contrast, there is much to lose in case inflation accelerates and bond yields rebound.

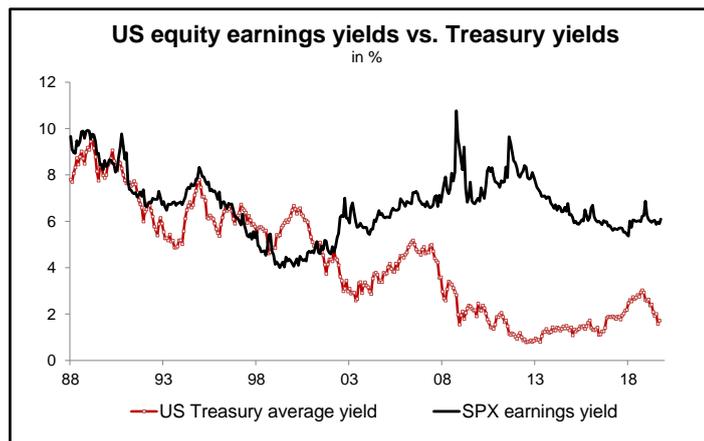
Similarly, corporate risk premia are already fairly tight, even though not yet back to pre-2008 levels. While there may be some leeway for further tightening (and more so as the purchase of corporate bonds is now part of the central banks' toolkit), the potential for widening will likely be larger in case the global economy and risk sentiment deteriorate more materially.

Furthermore, the **correlation environment between credit spreads and risk-free rates is less benign.** Risk-off episodes (e.g. amid recessions) harm Credit on widening risk premia (spreads over risk-free assets). In the past, such setbacks were cushioned by a marked fall in risk-free rates. For example, 10-year Bund yields dropped by 170 bps over H2 2008, the onset of the GFC. With the downside of risk-free rates being much more limited today, this cushion is largely reduced. Reversely, in the case of rising rates, the risk balance may have deteriorated. In the past, a rise in risk-free real rates (amid recoveries) helped Credit

spreads to tighten. Today, the effect looks far more ambiguous. Higher risk-free rates would undermine the strong hunt for yield and thus weaken an important source of demand for corporate bonds (see chart).



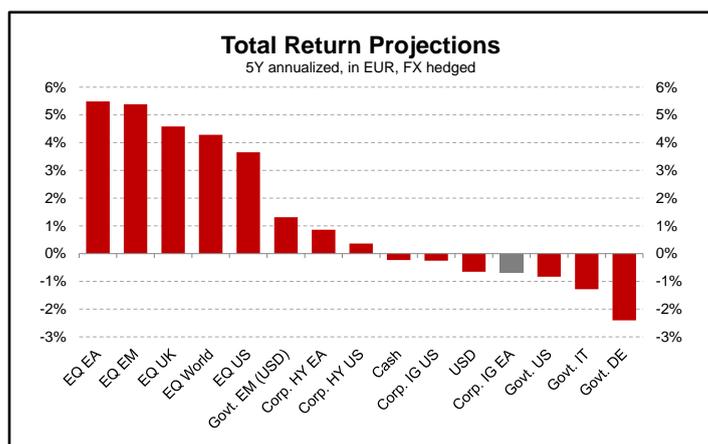
And yet, in order to escape the negative yield trap, investors inevitably need to assume some risk in their portfolios. Luckily equities, in our books, still offer better returns perspectives. The earnings yield, which we will show offer solid guidance to future equity returns, exceeds bond yields by far (see chart below). In other words equities offer a substantial risk premium, though they will not consistently reproduce the double-digit returns that have been the norm over the past decade (+13% annual for S&P500). Of course wealth is often concentrated in the hands of older households, who may dislike the volatility of the asset class. Our 5-year return expectations are averages that of course may include severe drawdowns.



The agenda. In section 2 we derive a broad picture for growth, inflation and central banks' policy over the next five years. Long-term structural considerations dominate our analysis. For example, we focus on the outlook for potential growth and so-called neutral interest rates of central banks, which in our view are a key anchor for bond yields. But we also consider a cyclical tilt in our forecasts. This means – especially in the euro area – that it may take a long time before monetary policy returns to 'neutral' levels.

In section 3, we then elaborate on the key assumptions for individual asset classes, including government bonds (Bunds, BTPs, US Treasuries), Credit as well as selected major equity markets. We also comment on various options for dealing with exchange rate risks in USD denomi-

nated assets. We conclude with a synthesis of the key findings and investment implications in the final part.



2. Macroeconomic background: Trapped!

The recovery in the global economy after the GFC has been much slower than in previous episodes, record low borrowing costs notwithstanding. Projections of trend growth for the next five years are consistently lower than that for the pre-GFC period. This is the result of two phenomena affecting the demand for goods and services and the supply capacities:

First, on the demand side the world economy may be suffering from what is called “**Secular stagnation**”: The overall propensity to save has increased and that to invest has fallen. Given that interest rates on safe assets cannot go too much below zero, the large reduction in yields needed to reduce saving and stimulate investment has not materialized. As a consequence, demand growth has stalled.

Secular stagnation has several potential explanations:

1. Slower population and (possibly) technological growth tend to lower the demand for new capital goods to equip the workforce.
2. Cheaper capital goods (e.g. due to the drop in IT goods prices) reduce the level of saving needed to satisfy the demand for capital.
3. Rising income and wealth inequality raise the share of income going to those with a lower propensity to spend.
4. Higher risk aversion and tighter financial regulation lead central banks, firms and governments to pile up reserves. This and heightened pension funding needs contribute to raise the demand for safe assets like government bonds, driving down their yields.
5. Partially offsetting this, low inflation implies higher real rates.

Second, concerning the supply side, not only investment has slowed down, but **productivity growth** has dropped sharply over the past decade. Several partial explanations have been put forward, ranging from an ageing population, the lack of new technological breakthroughs comparable with electricity or airplanes, to an increase in firms’ market power stifling innovation.

Adverse demographics have led the labor force to grow at a very slow pace (or to even shrink, as in the case of Ja-

pan). However, sluggish expansion investment has not permitted the big increase in the ratio of capital per worker needed to boost productivity.

Moreover, globalization, which was instrumental in keeping inflation low and in spreading technological progress, peaked just before the GFC. Afterwards, global trade increased at a much slower pace. Finally over the last three years a widespread backlash against globalization has led to a surge in protectionism. The reversal of a multi-decade process of reduction in barriers to trade and the negative shock on tightly integrated global value chains will remain a drag on capital expenditure, possibly capping potential growth.

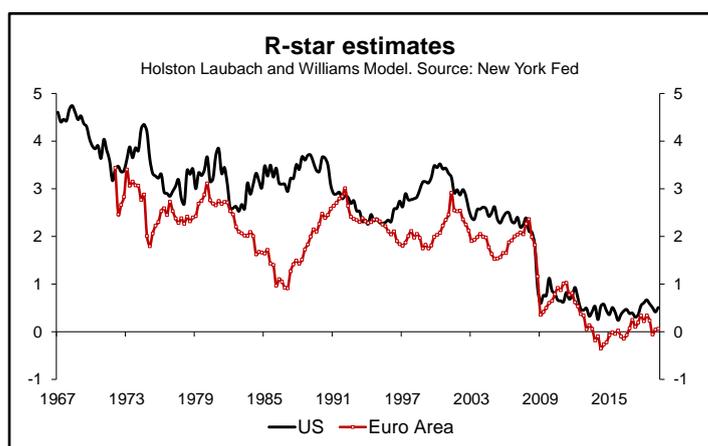
Growth outlook: Over the past decades the export-led development of China has been a key driver of global growth. This model is getting tired, not least because of the western backlash. The country has thus tilted its economic policy approach from “fast growth” to “high-quality growth”, implying a shift towards consumption-driven growth. We expect that GDP growth will diminish to 5% by 2024 providing less support to the global economy.

Growth in the euro area workforce is expected to start contracting from 2020 onwards. This may not be matched by a sufficiently large increase in the capital-to-labor ratio. Decreasing if not even negative gains from globalization will keep labor productivity gains well below its pre-GFC average. We see euro area potential growth falling from close to 1.5% currently towards 1% over the coming five years. In the US we project a less drastic fall, from presently 1.9% to around 1.7%, thanks to less adverse demographics and stronger productivity growth. The demographic transition will be most severe in Japan. Over the next five years its population will likely diminish by 2.5m people (about 2%; the IMF recently estimated a decline 25% of the population in the next 40 years). This will reduce the growth potential and productivity while increasing age-related health and pension spending. Trend growth is likely to slow to 0.5%.

Inflation: In this environment we also expect low inflation to persist. Over the past years inflation dynamics lagged considerably behind expectations with underlying inflation hovering around 1% in the euro area and slightly below 2% in the US. An entrenched period of low inflation has likely reduced medium-term expectations, which play a key role in the inflation process. Increased competition from globalization and online sales has also limited firms’ pricing power. Also, a lower degree of unionization has reduced unions’ bargaining power and their ability to push through higher wages. Moreover, in economies like the euro area a negative output gap has contributed to cyclical disinflation. As a result we deem it unlikely that the ECB’s inflation target of 2% will be reached in the foreseeable future. By 2024 we see underlying (core) inflation, which strips out volatile energy and food prices, at 1.7%, implying an average increase of only 0.1 pp per year. In contrast, the Fed’s inflation objective appears attainable by 2021. As a result, the inflation differential between both economies is set to narrow over the forecast horizon but only very gradually so. An important risk to this outlook is the possibility that a deep de-globalization may lead to higher

prices as barriers to trade lead to a less efficient allocation of production across countries.

Monetary policy: This muted economic outlook has strong implications for monetary policy. Economic theory states that the neutral real short-term rate (so called “r-star”, which is neither accommodative nor restrictive) is positively related to population growth and technological progress but dampened by a higher savings rate. Looking ahead, productivity growth has slowed in the post-GFC environment and the working population is continuing to fall. Heightened demand for safe assets as well as higher life expectancy will also contribute to a lower equilibrium rate. Central banks set their policy rates in line with r-star in case the economy is growing in line with potential and inflation is at its target. But the above mentioned factors imply that r-star and the policy rates will also recede globally. According to the results of one of the most renowned models (Holston, Laubach and Williams) this real rate is estimated to be currently around zero in the euro area and 0.5% in the US.



Given the slower trend growth outlook, our expectation is for a further decrease in r-star. In the euro area it should drop to around -0.2% over the coming years. This is in line with an [ECB analysis](#) which concludes that r-star will be “staying at levels around zero, or slightly below, in the coming years”. For the US, we assume a less pronounced deceleration in potential output will bring r-star to around 0.3% by 2024.

Another key driver of our medium-term forecast is the cyclical behavior of central banks. After ending its bond purchases in 2018, the ECB did not take further steps towards policy normalization. Instead, the worsening inflation and growth outlook induced a policy shift in 2019, including open-ended QE. The unwinding of QE has been made dependent on the lasting increase of underlying inflation. Moreover, activity risks imply downside risks to inflation. For these reasons we expect the ECB to only slowly unwind its ultra-loose monetary policy stance over the coming years. A rate hike before 2023 looks unlikely and the ECB’s real short-term policy rate will remain in deeply negative territory for the whole horizon. With a projected level of -1.5% it will be 130 bps below the neutral rate. We assume that the ECB’s effective policy rate will be lifted to 0.2% by 2024 only.

In the US, the Fed sharply reversed gears in 2019, embarking on rate cuts in July. These are mostly targeted to

cushion the effects of global policy uncertainty on domestic demand and of a fading fiscal stimulus. We expect the Fed funds rate to decrease to 1.4% by the beginning of 2020. We then assume that a small cyclical rebound of the economy will allow the Fed to increase rates no earlier than 2022. By 2024 we see the Fed funds rate at around 2.1%, some 0.2 pp points below the (nominal) neutral rate.

	2024 macro and central bank scenario			
	Euro area		US	
	current	2024 proj	current	2024 proj
Equilibrium real short term rate (r*)	0.06	-0.18	0.40	0.12
Inflation	1.30	1.70	1.70	1.95
Potential growth	1.50	1.00	1.90	1.65
Neutral Central Bank policy rate	1.36	1.52	2.40	2.07
Current real short term rate (r)	-1.74	-1.50	0.25	-0.10
Current nominal short term rate	-0.31	0.25	1.95	1.85
Effective Central Bank policy rate	-0.50	0.20	2.10	1.80

Downside risks prevailing

In this scenario we embrace a guardedly constructive view on activity. Following a period of global weakness amid Brexit woes, trade war concerns and manufacturing slow-down in 2019/20, we look for a stabilization of global growth as the most threatening global uncertainties abate (orderly Brexit, partial US/China compromises on trade). For the 2021-2024 period we have not penciled in major disruptions either so that the US and the euro area will grow in line with potential. That said, we see the risks to this macro scenario rather skewed to the downside.

A worrisome blueprint for industrialized economies, especially in the euro area is what has happened to Japan over the last thirty years. Hit by a toxic mixture of ageing and shrinking population and bank deleveraging following a huge financial crisis, the Japanese economy has barely grown, contributing to zero (and temporarily even negative) inflation. The government had to step in with massive and persistent fiscal expansion to prevent growth from sliding further and deflation becoming pervasive. As these measures proved just strong enough to prop up growth and inflation, over the last three years the central banks still cut policy rates into the negative and started to buy bonds and other financial assets to keep financial conditions in check. Now the economy appears stuck in a shaky “low-growth high-debt” equilibrium.

Advanced economies are not doomed to such “Japanification”. Yet governments there will have to take bolder steps to stimulate potential growth by for example boosting infrastructure investment, which would also have a beneficial impact on real interest rates, propping up fixed income yields. However, if downside risks were to materialize the tentative steps to monetary policy normalization penciled towards the end of the 5-year period would be postponed further so that the ECB policy rate would remain fully in negative territory.

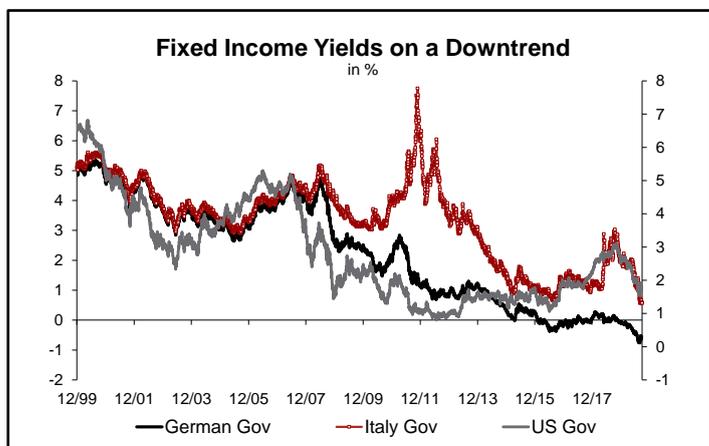
3. Financial return predictions

From this macroeconomic environment, we derive in the following key projections of total returns for 'liquid' asset classes most relevant to European investors. To ensure consistency, we apply a similar methodology when decomposing total return components for fixed income assets and equities. This way we aim to achieve a high degree of transparency and establish comparability between different asset classes.

The three components of the total return for all assets are income, growth and valuation. These three constituents add up to the overall expected total return for the respective asset class over the coming five years. Obviously, the source of the return differs between asset classes. While for example the average coupon represents the income component for fixed income assets, for stocks it is the expected dividend yield (and buybacks). We subsequently discuss these approaches and key results before comparing the implied returns and its investment implications in the concluding section.

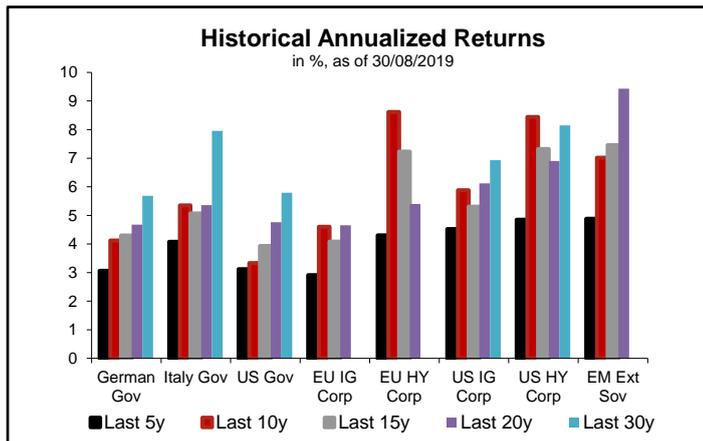
3.1 Fixed Income

Regarding fixed income assets, it is noteworthy that the current yield level is a major component of future returns. In other words, the starting point matters greatly. International yields have been on a long-term downward trend for decades. This tendency was reinforced by the GFC and the accompanying policy reaction. Many government bond yields are now trading in negative territory and even a significant proportion of corporate bonds have a yield-to-maturity below 0%. Although a medium-term approach usually requires a strong element of reversion to historical means, we are more cautious in this regard. We do not expect a full reversal of secular trends. As outlined above, central banks will not return to a policy stance for long perceived as a long-run equilibrium. Not least, this will contribute to a persistent low yield environment over the coming years.

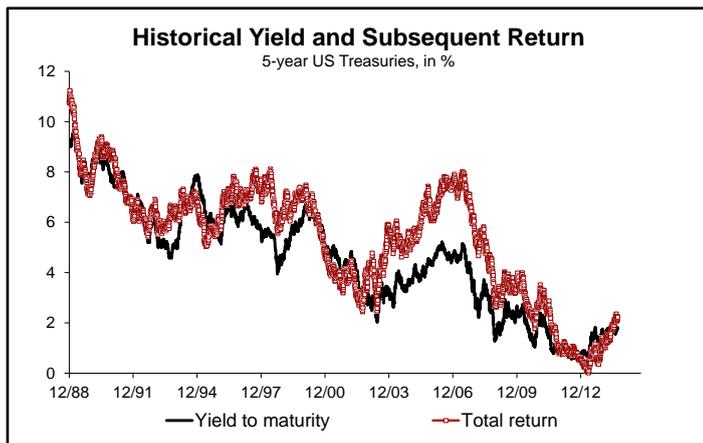


Hence, the impressive total returns in fixed income will remain out of reach for long. Over the last decades all fixed income assets considered yielded a high annual return – in some cases almost double-digit ones. As the chart below shows, the decreasing yield level has already started to take its toll, with returns trending lower. Still, it can be said that fixed income assets over the last years have yielded a solid and stable return. If that is a consolation, barring

strong economic and/or political upheavals, fixed income is expected to remain a less volatile asset class.



In contrast to other assets, bonds deliver (barring the default risk) a pre-determined pay-out over their lifetime. The future cash-flow can be calculated already at the time of issuance. As such, the current yield level very much defines the future return. As the chart below illustrates, using the example of 5-year US Treasuries, there is a strong connection between the current yield and the subsequent total return. Although there is no exact match (as the yield level can change over time), the 5-year US yield level at the time of the investment is a good indication of the annual total return investors can reap with investments in 5-year US Treasuries over the following five years.



Other factors are important to consider, but to some extent they cancel out. For example, a strong increase in yields causes a capital loss (and thereby reduces the total return), but it increases the re-investment yield. For sure, the sequence matters. In the example, eventually investors will not evade the capital loss (due to the yield increase), but the earlier it occurs, the stronger the balancing effect of a higher reinvestment yield becomes. This highlights the problem fixed income investors face in the current low yield environment: not only persistent low yields are sure to deliver low returns, but in a distant future a sharp policy turn (inflationary) could eventually cause capital losses.

Notwithstanding the capital gain (or loss) vs reinvestment trade-off, the current yield level largely determines the total return and the projected yield level at the end of the forecast horizon is of rather small significance. This highlights already the looming dilemma of fixed income assets as the

long lasting bond market rally has driven yields close to historical lows.

Fixed income total returns: the framework

When deriving the total return forecasts, we have to make a few assumptions. We focus on representative and investable bond indices. Concretely, we analyze the expected return for several fixed income *indices* for government, corporate, and (USD-denominated) EM bonds. Our calculations are based on ICE BofAML indices. Hence, we do not model to invest in a specific portfolio on a buy-and-hold strategy, but assume dynamic rebalancing. Therefore, it is implied that shorter-dated bonds are sold and replaced by longer-dated ones. This way a stable maturity of the investment can be assumed.

With these considerations in mind, we use the framework described above to model the return outlook for bonds. As for other asset classes, we differentiate between income, growth and valuation.

Income: This represents the main pillar for fixed income assets. It is closely related, but not identical with the current yield level. In fact, it is the sum of coupons an investor will receive over the period under coverage. Currently, the average coupon (which is known at an index level) is much higher than the current yield (older bonds have higher coupons). Over time bonds (with higher coupons) mature and are replaced by new ones. Accordingly, the income an investor will receive over the coming five years is an average of the current coupon and the future ones. To abstract from cyclical developments, we presume that there will be a linear development from the current yield level to the one at the end of the forecast horizon. Moreover, it is generally assumed that new bonds are issued at par and the forecast yield at that time determines the coupon. While this might vary for individual bonds, it is fair to assume that at index level new bonds are issued without any significant premium (or discount). Eventually, this brings a certain degree of uncertainty into the calculations as future coupons depend on the expected development of yields. However, over a time horizon of only five years the degree of uncertainty appears manageable. Depending on the composition of the index, a certain share of index members will not change over the next five years. For example, in the case of US Treasuries only slightly above 50% of bonds will mature within five years.

Growth: This pillar comprises the mark-to-market changes due to the passing of time. Actually, this is the capital loss (or gain) due to the a. roll and b. the pull-to-par effect.

a. The roll effect is generally positive. It means that as time goes by the remaining maturity shrinks and – in case of an upward sloping yield curve – the yield level decreases. However, given rather flat yield curves, the positive impact of the roll return will be lower than in the past.

b. The pull-to-par effect (bonds are repaid at par) can generally be positive or negative. In the current low yield environment, however, it is negative for all analyzed bond indices as bonds are trading above par and will suffer capital losses towards the time of redemption. All in, the growth return will be negative for all fixed income as-

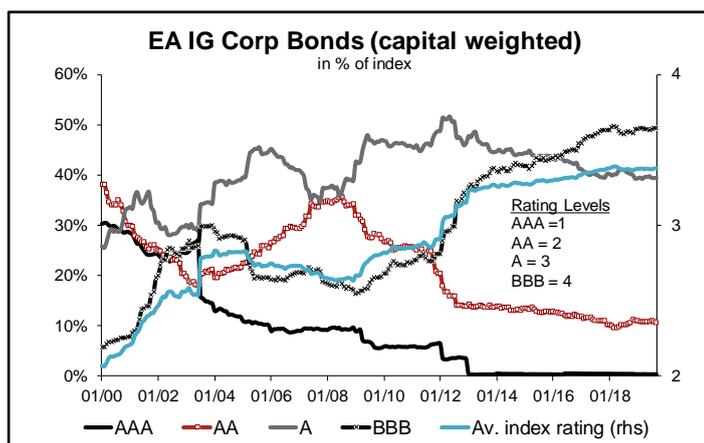
sets over the coming five years, particularly for government bonds.

Valuation: This pillar comprises the changing valuation of fixed income assets as yields move. There are up to three different effects to be considered:

a. The first subcomponent is the adjustment in valuation of fixed income assets due to a **change in the risk-free yield level**. This is not the same as the yield change over time as in the growth pillar, but a capital loss/gain as a result of a different yield level at a particular time. As we assume moderately higher yields (and a moderate spread widening) this affects all bonds negatively over the coming years. The longer the duration of the specific bond index the more negative the effect will be.

b. The second subcomponent refers to **credit migration** which is reflected in valuations. As we do not expect significant changes in the rating of government bonds, only corporate bonds will be subject to this effect. In the past, the average rating of IG corporate bonds deteriorated significantly. While less than 20 years ago, the average rating of euro area IG corporate bonds was slightly below AA, it is now between BBB and A (see chart below). All else equal, a worse credit mix implies a higher default probability, wider spreads and, eventually, capital losses. Looking further down the road, we forecast this negative tendency to prevail, but at a lower speed. There is a technical limit of the credit migration effect for IG corporate bonds. Theoretically, the average rating can drop to as low as BBB – but not lower. With around 50% of corporate bonds already BBB-rated ones in the IG space the scope for a further significant deterioration appears limited. Over the last five years, the deterioration has slowed already considerably (see chart below). Nevertheless, given that the hunt for yield will encourage corporates with less sound balance sheets to approach the market, we forecast the downward trend in rating to continue. This effect will slightly reduce the return outlook for US and euro area IG corporate bonds.

In contrast, the credit migration has a positive effect on HY bonds. As opposed to IG corporate bonds, there has not been a downward trend in recent years (if anything, the average rating improved slightly). What is more, by definition there is limited possibility of a downgrade for HY, unless default rates start rising (see below). We assume a slight positive effect on US and euro area HY corporate bonds.



c. The third subcomponent deals with **credit defaults**. Again, given the macroeconomic and financial environment we restrain from considering defaults of the analyzed government bonds over the coming five years. In case of a default, it is not simply a spread widening, but a (partial) loss of the bond notional. The impact is in any case negative.

However, historical data suggest that the default risk for IG corporate bonds is hardly noticeable. Accordingly, we subtract less than 0.1 pps from the annual return. By contrast, there is a marked capital loss for EM debt and a significant negative effect for HY corporate bonds. For calculating the annual loss for these asset classes due to credit defaults, we take into account the expected default and recovery rates over the forecast horizon. First, we consider the composition of the index. This is important as the rating determines the default risk. Second, we derive the annual default probability of the respective index. As current default rates are exceptionally low, we do not extrapolate them. Instead we consider long-term average default rates. Third, we assume an index-specific recovery rate for each asset class.

To illustrate the approach, consider the example of US HY corporate bonds. The index contains around 50% of BB-rated bonds, 38% of B-rated bonds and 12% of CCC-rated bonds. Multiplying with historical long-term default rates results in an estimated annual default probability of around 5.5%. Assuming a recovery rate of 45%, this implies an annual loss of around 3% to be considered for US HY corporate bonds (see table below).

Financial return calculations

As the next step, we project the yield and spread levels on a 5-year horizon. As our approach is a medium-term one, we do not incorporate any cyclical movements or the path to the terminal value. Instead, we focus on the (interpolated) trend of yields and spreads toward the assumed final value 5 years from now (as defined in the macro section).

Dependent variables	Input variables
German Government Bonds	ECB rate, ECB balance sheet, Vstox, ec. sentiment, pol. uncertainty, CPI core, infl. exp., yield curve
Italy Government Bonds	GER gov. yield, ECB rate, ECB APP, eq. and bond volatility, infl./def./debt diff. to GER, growth/ULC/current account ITA
US Treasury Bonds	Fed rate, Fed balance sheet, ISM, CPI core, US-dollar, infl. exp., yield curve
Corporate Bonds	10-yr yield, eq. volatility, corp. leverage, corp. earnings growth, global sentix
EM External Sov. Bonds	Fed rate, 10-yr US yield, US ISM, US earnings growth, US unemployment, eq. volatility, US-dollar, oil/commodity price, growth/budget deficit/debt/rating/int. reserves/ToT/current account EM

We use three different approaches to obtain a well-founded assessment of the respective yields and spreads.

The first (and most important one) is running several models to achieve a fundamentally deduced level for each sub-asset class. Several input factors enter these models. Beside economic variables (and the respective forecasts, see above) and monetary policy variables (including extraordinary measures), corporate fundamentals and the financial market environment are used to assess a

fair value of the relevant financial variables (for more details, see table below).

Second, we use current forward market pricing for the respective variables on a 5-year horizon. It seems sensible to use financial market participants' view (if available) as fundamental models have shown a mixed performance in recent years. It can be said that at least for main financial markets the pricing is likely to reflect all relevant information. Hence, incorporating financial forwards is a sensible way to account for the market view.

Finally, we consider the long-term average of the respective variables. On the one hand, it is unlikely that the gap between the long-term average and the current level will be closed. On the other hand, the current environment is far from normal and characterized by an unusually high degree of political and economic uncertainty. In all, given our doubts about mean reversion in the years to come, we attach only a small weight to this pillar.

These three approaches are eventually used to calculate fair value projections. However, no economic or financial model is able to capture all aspects of financial markets completely. We adjust the conducted fair value projections in a last step. This way, it is guaranteed that the eventually used projections for the calculation of the total returns are not simply derived mechanically, but also reflect our qualitative assessment. The table below shows that this adjustment is relatively small; the (model-derived) projections are not changed substantially.

Government bond yields are expected to rise moderately over the coming years, with the recovery in euro yields assumed to be more pronounced than US ones. However, long-dated Bund yields will by far stay well below the long-term average. The curve is forecast to remain rather flat both in the US and in the euro area. The current environment is very supportive for high-yielding assets. For Italy, we assume a less confrontational relation with the EU, but limited structural reforms. We expect Italian BTP spreads to rise modestly over the forecast horizon.

Asset Class	Diff. FV Approaches 5-yr Projections						
	Currency	Current*	Regression	Forward	LT Average	FV **	Applied
German Government 3-year	EUR	-0.79%	0.46%	-0.37%	0.08%	0.09%	0.20%
German Government 10-year	EUR	-0.58%	0.53%	0.01%	1.20%	0.39%	0.70%
Italy Government 3-year	EUR	-0.06%	1.37%	1.31%	1.55%	1.36%	1.40%
Italy Government 10-year	EUR	0.84%	1.72%	2.10%	3.24%	2.03%	2.40%
US Treasury 3-year	USD	1.60%	1.87%	2.05%	1.17%	1.88%	1.80%
US Treasury 10-year	USD	1.70%	2.26%	2.37%	2.43%	2.32%	2.10%
EM Ext. Gov. (spread in bps)	USD	308	291		298	295	310
Euro IG Corp. (spread in bps)	EUR	110	102		142	122	125
Euro HY (spread in bps)	EUR	343	321		471	396	375
US IG Corp. (spread in bps)	USD	119	110		151	131	145
US HY (spread in bps)	USD	381	385		505	445	450

*as of 20/09/2019

**weighted average (50% regression, 40% forward (if applicable), 10% long-term average (50% if no forward applicable))

Although US yields are likely to rise as well, the extent of the increase is more muted given the currently rather high level in international comparison. The 10-year transatlantic yield spread is forecast to tighten from well above 200 bps to 140 bps. Though, this is still above the long-term average of around 120 bps. Hence, US bonds will continue to show a considerably higher yield level than German bonds. The main reason for the slowly upward creeping

international yield level is a very partial reversal of the massive trade-related shock that has plagued global economic sentiment over the past year.

We assume that corporate and EM bond spreads will only widen moderately (and will remain below the long-term average). The overall decent macroeconomic scenario, still supportive central banks and the low yield environment will keep demand for higher-yielding bonds elevated. Investors' tendency to invest in riskier fixed income assets to obtain a premium is assumed to prevail. What is more, corporate balance sheets appear overall solid. The expected depreciation of the US-dollar (see FX part further below) and the robust world economy will also keep yields on EM debt under control.

Sobering total returns going forward, but risk-taking still pays off

Based on these assumptions, we derive the average annual total return forecasts over the next five years (see table below). Overall, returns will be low (and in several cases negative) going forward. The return from coupons is the most important component for the analyzed asset classes. This is the case although the level of coupons will decrease going forward as bonds with higher coupons mature and are replaced by lower ones. This is less relevant for corporate bonds as spreads are seen to widen a bit which will compensate for the expiration of high-coupon bonds. Accordingly, the cash-flow derived from future coupons is expected to shrink only marginally.

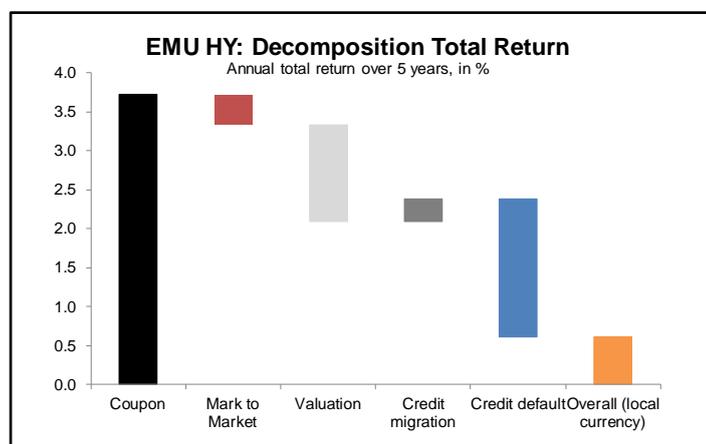
Asset Class	Coupon	Mark to Market	Valuation adj.	Credit migration	Credit default	Overall*
German Government Bonds	1.4	-1.5	-2.3			-2.4
Italy Government Bonds	2.6	-1.3	-2.6			-1.3
US Treasury Bonds	2.3	-0.4	-0.6			1.3
Euro IG Corporate Bonds	1.5	-0.6	-1.3	-0.2	-0.1	-0.7
Euro HY Corporate Bonds	3.7	-0.3	-1.0	0.3	-1.8	0.9
US IG Corporate Bonds	3.8	-0.5	-1.2	-0.1	-0.1	1.9
US HY Corporate Bonds	6.2	-0.1	-0.7	0.2	-3.1	2.5
US EM External Sov. Bonds	5.6	-0.5	-0.7		-0.9	3.5

*annualized returns over 5 years in local currency and in %

In local currency the highest annual return is likely to be achieved with US-dollar denominated EM sovereign bonds (>3%) due to a high coupon return. While this is still much below last years' performance, it is at least sufficient to render a positive total return for euro-based investors. US government and corporate bonds come in second. The ranking of coupon returns determines the sequence within US bonds. Despite a significant negative contribution from expected defaults, HY corporate bonds are forecast to achieve capital preservation after inflation. US IG corporate bonds will struggle to achieve this. US government bonds are likely to yield the lowest annual return among US-dollar denominated bonds as the coupon return will be lowered by the modest increase in yields. Generally, US-dollar denominated bonds are forecast to guarantee a positive annual return over the coming years.

However, for euro-based investors this will be significantly reduced by the hedging costs of more than 2% (more details in the FX section). Euro-denominated fixed income assets will deliver poor returns. It is the payback from the lasting bond rally and the historical low yield levels. Only EMU HY corporate bonds are seen to achieve a low, but positive total return due to the still decent carry (see below for a graphical decomposition of the total return). All other euro-denominated bonds are seen to yield a negative total return over the coming years. EMU IG corporate bonds will still perform better than euro area government bonds. In this sense, investors can still reap the benefit from investing in riskier bonds.

The worst performing fixed income asset class is likely to be the German government bonds. Terrible carry and a moderate yield increase will imply negative total return. For German government bonds to avoid a negative annual return over the next five years one has to assume a further downward shift of the curve by a whopping 50 bps. After this year's rally even Italian BTPs are unlikely to yield a positive total return as a moderate spread widening in combination with slowly increasing underlying yields will trigger capital losses.



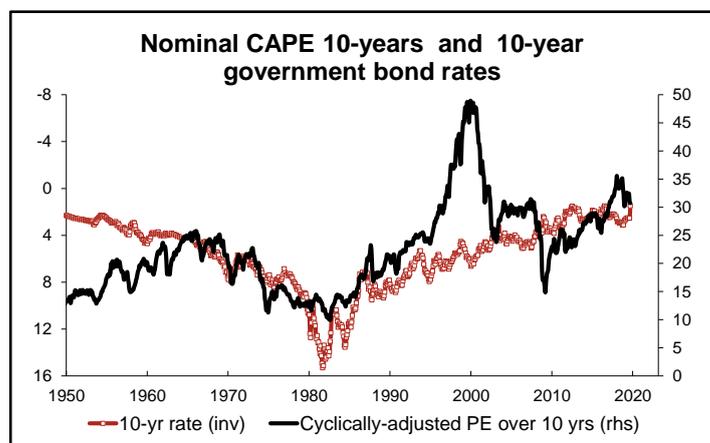
Parking funds in the money market will not be a satisfactory way out for euro-based fixed income investors. Of course money market instruments are essentially safe and immune to a rise in yields, but the negative coupon will keep the total return in negative territory. Overall, we forecast a negative total return of less than -0.2% over the coming five years. While this is slightly better than for euro government bonds, investing in money market papers will lock in the negative return for sure (even in the unlikely case of a further decrease in risk-free yields).

All in, fixed income investors will often struggle to achieve capital preservation. Those results do not depend strongly on the forecast yield and spread levels in five years from now. While higher (or lower) yield (or spread) forecasts will lead to some adjustments in the total return levels, the fact remains that the good years for fixed income investors are over. Worse still, in an alternative recession scenario fixed income assets are unlikely to offer the same cushion to portfolios as they did in the past.

3.2 Equities

Over the past decade, the performance of equities has been supported by very strong liquidity injections and rate cuts by central banks, which induced **high annual total returns** by historical standards (TR, MSCI World +11%, US +14% and euro area +9%). This was particularly true for the US and China, where monetary stimulus was complemented by a strong pro-cyclical fiscal push, including substantial corporate tax cuts.

For the next five years we expect lower yet positive annual returns then. Firstly, given **high current US CAPE multiples** (31X vs an average of 23X since 1955), US mid-to-long term returns are set to diminish. The CAPE is the cyclically-adjusted price earnings ratio which uses a 10-year average of the past companies' profits at the denominator to smooth out their fluctuations that occur over different periods of a business cycle. Secondly, US technology firms are more likely to be pressured by antitrust measures in the foreseeable future, thus representing a cap to one of the biggest drivers of US profitability in the last ten years (indeed, IT has returned 20% annually vs 14% of the S&P 500 since 2009).



Furthermore, we expect more subdued GDP growth ahead, and EM countries will likely take a bigger chunk of the global profitability cake. EMs will increase their profit share at the cost of developed countries, especially of Europe (this trend was already visible in the years 2004 – 2018). This partly reflects superior GDP growth and increasing income per capita (see for instance [McKinsey](#)).

Besides, both increasing wage costs and the higher sensitivity towards inequality issues are likely to **continue to pressure corporate margins**. The latter have reached a top in the US in 2015 (share of NIPA profits in GDP) and have been declining since then. Lastly, the internationalization of the value chain, which largely contributed to the margins' expansion of relevant growth sector like Tech, Auto, Industrial or Luxury in the last years, is now seriously harmed by the new wave of populism and protectionism, especially from the current US Administration. Mid-sized Tech and Tech-enabled firms will also exercise an increasing pressure on big caps in the western world.

This results in a cautious view concerning future earnings growth rates in developed markets. Indeed, our forecast is lower than the historical average over the last two decades (see below for specific numbers). Having said this, the en-

vironment will continue to be characterized by **supportive central banks** (possibly coupled with more fiscal expansion), low yields and inflation rates along with only moderately higher credit spreads. This means that the discount rate of future earnings will also remain low and the cost of equity (COE) will stay contained, thus supporting equity valuations. Currently, the implied equity risk premia are at very high levels vs history (near record highs: for the MSCI EMU index 6.5% vs a 2.6% average since 1988), backing decent positive returns ahead, even after having accounted for structurally higher global political uncertainty.

Funds' flows should also revert to equities at least in part after the exceptional outflows of 2019: the difference between flows into equities and bond funds has recently reached the lowest point since 2007.

Long-term equity returns: the framework

While the long-term returns (beyond 10 years) are dependent on fundamentals and stock market valuations, they are uncertain and, as our analysis of historical data shows, more volatile for shorter time horizons.

To provide a quantitative framework in assessing prospective future equity return, we resort to the combination of different approaches and subsequent qualitative adjustments where it seems appropriate.

Our analysis to derive projections consists of the following building blocks:

1. a regression-based approach employing expectations for macro variables and other asset classes as an input,
2. a CAPE-based model, deriving return expectations from adjusted target price earnings ratios (PE) and future earnings growth,
3. a historical assessment of returns at CAPE levels similar to current ones.

We then adjust the average of those three models according to the estimated degree of current markets' under-/overvaluation, which we assume to correct over the 5-year time horizon. In what follows, the approaches and the adjustment are described in more detail.

Our **first regression-based approach** employs our projections on macro and financial variables provided in this study to come up with consistent equity total returns. Variables used are GDP growth, 10-year government yields, EUR/USD exchange rate and HY spreads. This approach is applied only to the US and the euro area (EA), as these markets are at the core of our investments. The aim of the approach is to derive equity returns consistent with other projections, implicitly representing a reality check.

The **second approach** employs our CAPE-based model, which uses in-house expectations of earnings growth, payout ratio (PR), dividend yields (DY), buyback yields and target CAPEs for the end of the 5-year horizon. Thus, long-run returns are broken down into three components: **income** (dividend and buyback yields), **growth** (earnings growth), and **valuation** (target CAPE). We first assess a probable future earnings growth and pay-outs to investors which define the dividends to be expected. Payout ratios

are assumed to be mean-reverting. In the US we also add to the dividends the net buyback yield (+0.8%) which represents an additional cash yield to investors. In the EA and Japan the net buy back is not relevant. Based on this stream of expected future earnings, we come up with a projected 10-year average. The latter is then multiplied by the target CAPE at the end of the forecast period to get the forecast index level.

In the end the investor gets the stream of cash yields plus the annual price appreciation. We derive the target CAPEs for the different markets from the projected one for the US (i.e. using the analysis of historical valuation gap of a market in relation to the US). The target for US CAPE is derived from the historical average (last 30 years excluding bubble years), which is then adjusted slightly upward (from 22.3 to 23), having also taken into account the two positive factors making higher PEs possible: low CPI (and 10-year interest rate) plus dovish central banks. Indeed, supportive central banks improve financial conditions. Furthermore, historically CAPE levels tend to be higher during periods of low CPI or rates and vice versa (real earnings growth used to be threatened by high inflation): for periods with CPI rates between 1% and 3% we find that CAPE levels tend to surpass the 20X levels (the average CAPE is 26.4, with a standard deviation of 6).

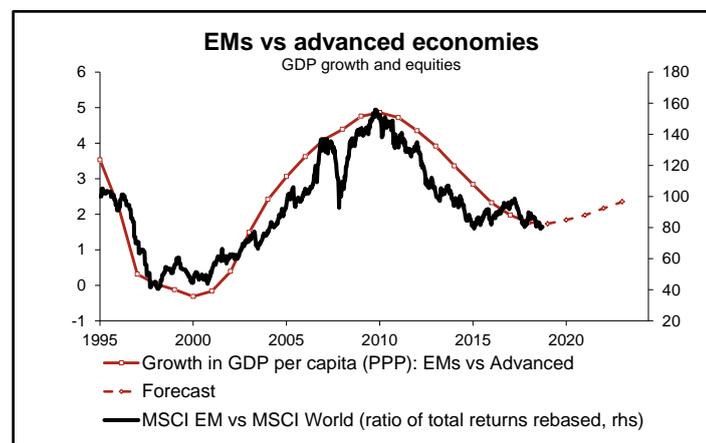
The final forecast for the target US CAPE derives from the midpoint between the simple average over 30 years and the average calculated for periods of low inflation. For the EA and EMs we apply the valuation gap based on the analysis of the data since 2007. The final targets are: 23x, 15x, and 14.5x for the US, the EA, and EMs.

As far as earnings growth is concerned, we have the following expectations (which are below average since 1980): 4%, 5.5% and 7.5% (for the EA, US and EMs, respectively vs a historical growth rates of 4.7%, 7%, and 8.5%). Such growth forecasts are obtained looking at the extension of the historical trends (mainly exponential interpolation) over the forecast horizon. To this end we used two time windows: since 1987 and since 1998. We then opted to be on the lower band of such trends for the qualitative reasons outlined above: lower growth ahead, increased wages and competition from EMs and Tech-enabled firms. Food for thought: since 1998 the US has experienced a nominal annual GDP growth of 4.3%, while the earnings growth was at 6.3%. For EMs our estimate of 7.5% is actually rather prudent as the expected nominal GDP growth (e.g. by IMF) over the next 5 years is around 8%.

In the **third approach** returns are derived from historical patterns, for periods of similar CAPE levels. We analyze the distribution of subsequent 5 to 10 year returns. Across all markets under consideration: the dispersion of 5-year returns is rather high, but it decreases as we increase the time window (from 5 to 7 or 10 years). This means that the average 5-year return is more uncertain when compared to longer time-span averages. For this reason, we take the average of returns over 5 and over 10 years.

In the **final step** we assess the degree of current under-/overvaluation of each market under consideration. Models based on future developments of macro and micro varia-

bles could underestimate the present disequilibrium in valuation of market indices. For this reason, we adjust the average of the three quantitative results for future returns to take into account the cited over-/undervaluation gap, assuming the latter to be closed over the forecast horizon of 5 years. Indeed, returns are function of – among other things – initial valuation and more expensive markets usually yield lower returns in the future.



The degree of under-/overvaluation is derived from the results provided by our short-term regression models (using current inputs of macro- and financial variables) as well as different cash-flow discount approaches (DDM, three-stage earnings growth models, risk-premia gap vs history and targeted PE based on macro variables' trend). While the US index is showing a premium to fair value based on several approaches (5% on average), that is not true for the EA and EM. In particular for the EA, while the implied risk premium looks quite high (6.5% due to low yields), the CAPE, other market multiples (PE, price-book etc.) as well as regression models do not show appreciable discount to historical average. For this reason we prudently prefer not to apply any valuation adjustment to this index.

As for EMs, current CAPE and market multiples are below average by 27% and 9%, respectively. That said, regression models' results are nearly fair together with other valuation approaches which take into consideration the current earnings trend (weak) and the latter in relation to the level of hard currency yields do not signal undervaluation.

Equities outperforming but below historical norm

The final return expectations along with output from different approaches are presented in the tables below.¹ EM equities are expected to have the highest performance across the markets covered here. The drivers of future mid-term outperformance of EM equities would be a weaker US dollar, lower CAPE multiples and structurally superior GDP growth.

Our total return projections for the US (+6.9%) are in line with the **total returns derived from the current earnings yield**, making use of the historical relationship since 1987 between earnings yields and subsequent 10-year CAGR

¹ The expected return of the MSCI World in dollar terms is higher than the weighted average of covered developed markets in local currency (representing 80% of the MSCI World). It was derived by regressing the returns of the MSCI World in USD on the returns of the single markets under consideration and the TW USD.

(6.7%, s. chart below; for the EA and EMs the relationship is less reliable). Besides, our results are coherent (nearly 0.5% to 1% lower) with the approach which uses the **ex-post real returns** (over several past decades) to which we add our average forecast of inflation.

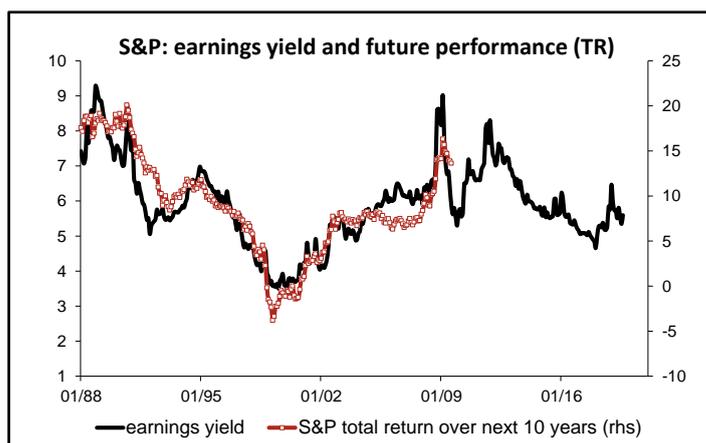
In all, **our expectations are below the historical averages since 1998.**

Market	Hist. avg 5-year total return since 1998 (p.a.)	5-year total return projection (p.a.)
World (in \$)*	6.8	6.5
US	8.4	5.9
EA	6.9	5.5
UK**	6.2	6.0
EM (in \$)	7.8	7.6

*derived from the single returns in local currency, taking into consideration the expected depreciation of TW USD

** Brexit is a risk (along with lower projected earnings growth) but due to high UK firms's international exposure, flexibility (organizational) and nearly 10% valuation gap to the EA, we decided to put the UK projection 0.5% (p.a.) above that of the EA

Approach	5yr projections (p.a.)		
	EA	US	EM
Regression models (macro- and financial variables)	6.0	9.0	
CAPE-based model	5.8	6.9	7.3
Historical returns coherent to current CAPE levels	4.7	4.7	8.0
<i>Average</i>	<i>5.5</i>	<i>6.9</i>	<i>7.6</i>
Adjustment due to current over-/undervaluation (p.a.)	0.0	-1.0	0.0
Final projection	5.5	5.9	7.6



3.3 FX exposure (USD)

Investing in higher yielding currencies outside the euro area is one way to escape the ultra-low European yield environment and to enhance portfolio returns. Shorter-dated interest rates in the US, for example, have been exceeding euro area (Bunds) levels by more than 2.5-3.0% for most of 2019. However, this comes at the cost of engaging in an additional layer of FX risk, which can be substantial especially when compared to fixed income investment. Volatility in the EUR/USD has averaged 8.8% over the past 10 years, compared to 2.4% for global government bonds (BofAML index).

The FX risk can be eliminated by hedging the underlying FX exposure (e.g. via forwards or cross-currency swaps). In the case of the USD, this comes at a cost of currently ~2% p.a. for 5-year contracts. This brings us back to the fact that there is no free lunch in investing: once we eliminate the FX risks on foreign assets, we are thrown back to the rate environment prevailing in the euro area.

In our asset class universe, we focus on FX opportunities denominated in USD.² In our calculations, we provide three different expected returns for these items.

1. Expected returns in **local currency** (USD). They are the base for the return calculations but have the drawback that – for a European investor – they do not reflect the unknown returns in EUR. This drawback is dealt with in two further calculations:

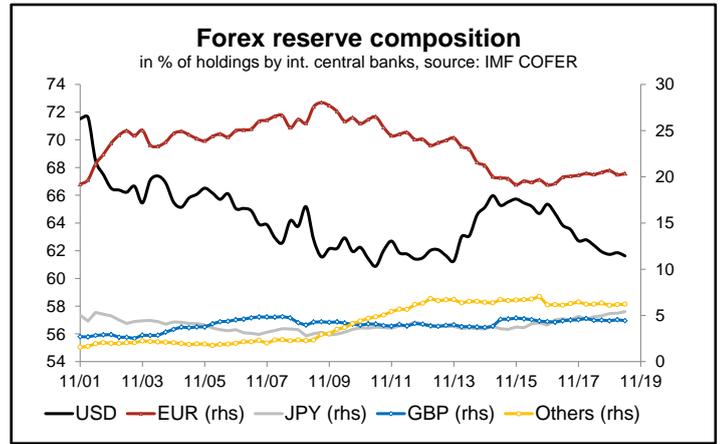
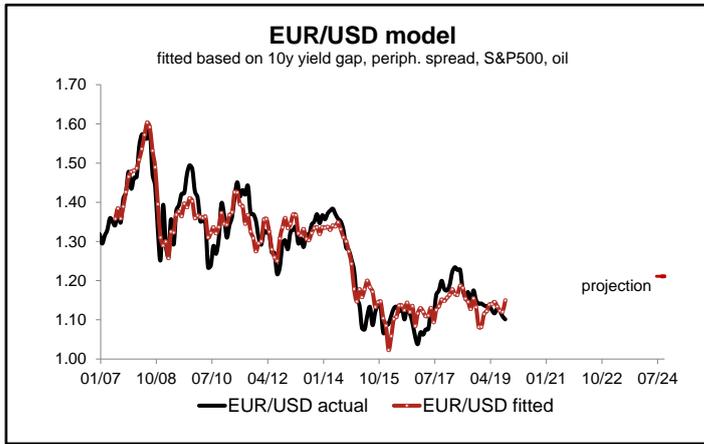
2. We adjust the local currency returns for **hedging** costs. For this purpose, we assume that investors fully hedge their exposure in foreign currency (including returns) via 5-year forward contracts.³ This means that the FX risk is largely eliminated.

3. The investor is willing to keep the **FX risk unhedged**, with the expected return to a large extent depending on expected EUR/USD moves. In our quantitative approach, we base EUR/USD forecasts on the basis of two equally weighted approaches: (a) mean reversion to purchasing power parity (PPP) and (b) fair value models.

² The only one exception is the GBP denominated MSCI UK. Amid persistent Brexit uncertainties, fundamentals are only of marginal help in determining a reasonable 5-year GBP/EUR forecast. We deem a no-deal Brexit the most likely scenario, which should help to unwind a sizeable part of the ~11% political discount the GBP is trading vs. EUR since the 2016 referendum (based on internal regression models). Roughly consistent with this, the IMF puts the range of GBP REER undervaluation in a wide range of 0-15% in its 2019 External Sector Report.

Assuming that about half of the political discount will be resolved, this points to a 5-6% lower EUR/GBP over the coming years. Given the highly unsecure and fluid situation around Brexit negotiations, we aim to avoid that the GBP forecast distorts total return forecasts. We thus pencil in a more prudent GBP appreciation to 0.85 for EUR/GBP. Compared to levels prevailing in mid Sept (Sept 20), this implies an annualized appreciation by 0.76% p.a.

³ We assume reinvestment of income, such that the hedge notional is growing/shrinking with the asset classes' respective total return. For hedging purposes, we assume total returns to be constant over time. The additional average hedging needs for the of the 5-year period then amount to roughly ½ of the expected total returns (i.e. ½ of the expected change in the required hedging amount). Overall, we thus apply the hedging costs to the invested notional plus ½ of the expected total returns.



Regarding (a), we employ OECD estimates of EUR/USD PPP and project the evolution over the coming years. For this we use the average of expected inflation rates (2% for US, 1.5% for EA). Based on these numbers, the EUR/USD is projected to rise from slightly below 1.32 in 2018 (last available) to close to 1.36 by 2024. We then assume mean reversion towards PPP with a half-life of three years, arriving at a PPP-implied value of 1.292 by 2024.

There will likely be also mounting headwinds from global FX reserves managers amid the growing (mis)use of the dollar for geopolitical purposes by the US Administration. Reserves diversification out of the US seen over the past three years is likely to continue, with the EUR (whose share has still barely recovered after the sovereign debt crisis) to partially benefit.

EUR/USD 5y projections		
	Forecast	Weight
Fair value projection	1.211	50%
PPP	1.292	50%
Weighted avg	1.251	
Projection after qual. adj.	1.270	
Current (as of 20/9/2019)	1.102	
Forwards	1.232	

Combining these views with the quantitative results, we pencil in a value of 1.27 as a reasonable projection for the EUR/USD on a 5-year view. This is moderately above the value of 1.23 currently priced by forwards. This implies that for our base scenario, unhedged USD exposure will not pay off: Compared to hedged USD exposure, it implies a higher risk while expected returns are lower than in a hedged approach.

For (b) we employ a fair value model based on explanatory variables with a strong historical fit and close links to our overall forecast exercise. These include the 10-year yield of US Treasuries and Bunds (yield gap), a weighted average of Southern European 5-year spreads over Bunds (EMU risk), S&P500 (risk environment) and the Brent oil price (assumed at US\$ 70/bl in 2024). Based on assumption for these variables – partially resulting from similar exercises in this study – the approach renders forecasts around 1.21. The simple average of the two approaches results in a projected value of close to 1.25.

In the final comparison of the results, we therefore focus on the hedged return overview when comparing the returns in the cross asset overview.

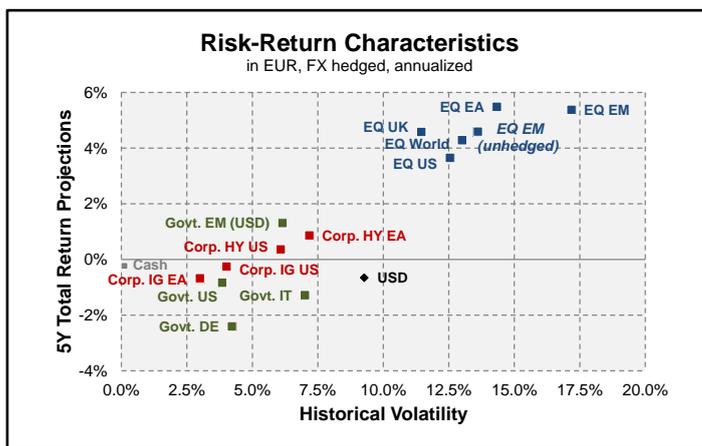
Unhedged USD exposure does not pay off

The case for a higher EUR/USD is also supported by our overall strategic views. The US dollar is overvalued on other approaches, too. The real effective exchange rate is trading about 9% above the longer-term average. Similarly, also the IMF assesses the fundamental overvaluation on several fundamental approaches at between 6-12%. Furthermore, fading economic outperformance of the US is likely to weigh on the capital inflows into the US, which carried much support to the Greenback over recent years.

4. Conclusions

Rich valuations across assets classes are making investment a challenging activity for long-term investors. Our analysis concludes that, to **preserve capital**, a large chunk of portfolios will need to be invested in riskier segments such as Credit and, more importantly, Equities. There is nowhere to hide in today's world of extremely low interest rates: going forward European savers will not be able to secure nominal wealth without engaging in risky assets. This will imply a higher level of portfolio risk, which pensioners are not keen to embrace. The alternative – safer investments – will destroy value, more so on an inter-generational perspective.

The construction of an optimal portfolio of course depends on a large set of not just expected returns but also correlations and risk measures, which are beyond the scope of this paper. But the assessment of prospects for longer-term return already provides a few striking findings, that can be seen in the chart and the table below. Four points stand out:



First, **fixed income investors will struggle to achieve nominal capital preservation on a 5-year horizon**. Expectations are particularly bleak for AAA-rated debt: we expect annual returns on German Bunds to average -2.4% over five years. Even returns on investment-grade corporate debt may fail to go above the zero line. The same holds for US government bonds, where decent expected returns in local currency (+1.5%) turn negative after accounting the FX hedging costs.

Second, from a risk/reward perspective, **EM hard currency debt** (mostly USD) and **High Yield exposure** (both in EUR and USD) **look superior to euro area IG corporates and government bonds** (including BTPs). This is largely due to the benign volatility profile of those asset classes, which is comparable to the low levels of US Treasuries and German Bunds. USD bonds generally offer more value than European ones. Unlike in Europe, US rates are still quite distant from the lower bound. In case of an adverse scenario (e.g. global downturn), US yields have much more leeway to fall: US Treasuries would offer much better returns and risk protection than high-graded European debt. US corporate bonds too may prove more resilient than European ones: USD spreads would likely widen amid rising risk aversion, but this move would be better cushioned by a fall in underlying US rates. Consequently, while base line return expectations on hedged US

bond exposure are not outstanding, US fixed income generally seems preferable.

Third, **holding cash remains unattractive, as it will render negative returns for sure**, with overnight rates below -0.4% likely for longer. But it will quite **likely still outperform government bonds** by a sizeable margin. More generally, the very flat term structure offers very little cushion for longer-dated bonds to offset the negative duration impact from a 'normalization' of bond yields. Meanwhile, cash alternatives, e.g. gold, are getting more popular – even though they are highly vulnerable to an upward surprise in global yields.

Fourth, for having realistic prospects to grow the portfolio value over a longer period, **there is no alternative (TINA)** to devoting a substantial share of the funds to equities. In USD terms, we estimate that the MSCI World still has leeway to provide an annualized return of 6.5% over the next five years. When converted into EUR, after hedging costs of around 2% (and even higher annualized USD depreciation, if unhedged), the returns are less juicy but still above 4%. The costly management of FX exposure is also the key reason why **euro area equities should rank highest in strategic portfolios**, for which we expect annual total returns of 5.5% roughly on par with USD hedged EM equity exposure.

Asset Class	Currency	Total Return Projections (5Y, annualized)		
		Local	EUR, FX hedged	EUR unhedged
Cash	EUR	-0.2%	-0.2%	-0.2%
Govt. DE	EUR	-2.4%	-2.4%	-2.4%
Govt. IT	EUR	-1.3%	-1.3%	-1.3%
Govt. US	USD	1.3%	-0.8%	-1.5%
Govt. EM (USD)	USD	3.5%	1.3%	0.6%
Corp. IG EA	EUR	-0.7%	-0.7%	-0.7%
Corp. HY EA	EUR	0.9%	0.9%	0.9%
Corp. IG US	USD	1.9%	-0.3%	-0.9%
Corp. HY US	USD	2.5%	0.4%	-0.3%
EQ World	USD	6.5%	4.3%	3.5%
EQ US	USD	5.9%	3.7%	2.9%
EQ EA	EUR	5.5%	5.5%	5.5%
EQ UK	GBP	6.0%	4.6%	6.8%
EQ EM	USD	7.6%	5.4%	4.6%
		Spot	Carry	Total
USD		-2.8%	2.1%	-0.7%

Of course, predicting medium- to long-term returns is an art more than a science. We have tried to be relatively agnostic on the macro assumptions that are the backbone of financial market developments. What could make us completely wrong? We see two types of major risks:

1. **A severe downturn.** The major issue there is that the Fixed Income asset class, especially the safer ‘risk-free’ government sector, would not offer the same cushion as it did in the past. In contrast the riskier segment (equities, EM and credit) would suffer as profits decline and defaults pick up. Overall portfolio returns would likely be weaker than in our base case.

That said, we see two silver linings. First, we do not have large macro imbalances in the system. There are pockets of fragilities, e.g. the hunt for yield and the associated decline of risk and liquidity premia, the crowded preference for Growth assets over Value, the rise of algorithmic trading and the increased role of momentum strategies, the switch from active to passive funds and the shrinking of banks’ balance sheets (at the cost of altering market making capacities) all suggest increased gap risks. Policy makers in particular are closely looking into the non-bank liquidity gap risk, given the rising attraction for private markets. At the macroeconomic level non-financial leverage (Corporate, Public Sector and to a much lower extent Household) has increased, but the extension of debt maturities and the consistent decline in debt servicing costs (e.g. as a share of profits) reduce the risk of a severe balance sheet crisis.

For that matter, we believe that the spreading of the negative yield disease has actually increased the economic pain threshold that would force investors to rush out of risk assets. **Risk-free bonds are so rich and equity risk premia so generous that it would take particularly bad news to trigger a massive flight to quality.**

2. **Reflation and a rise (normalisation) in bond yields.** We expect that the drivers that have depressed the real component of bonds yields are structural and here to stay (demographic shock, preference for safe assets, digitalisation and the associated reduction in capital expenditures etc.). We see every reasons for inflation to stay low too (acute competition, internet, self-sustained expectations etc.); but one cannot exclude more radical policy changes that would revive inflation.

One is “helicopter money”, or a bolder blurring of the frontier between monetary and fiscal policy. Another is a change in the expression of populism. The latter has so far taken the form of growth-destructive policies, such as the US tariffs and the threat of a Hard Brexit. Yet one cannot exclude that populism would form in a way that tackles its very core root: inequality. Policies that would increase wages and challenge the consistent rise in profits as a share of added value (at the expense of labour income), reverse the consistent fall in corporate taxes (from about 40% in the nineties to now about 25% globally) or break up quasi monopolies (tech sector) would likely prove inflationary. Hence the focus on the US elections of November 2020, given the fairly left-wing positions of democratic candidates in good position (firstly E. Warren). We suspect such policies would initially prove bearish for both stocks and bonds, but eventually benefit cash and inflation-linked bonds and inflation-related (mostly *real*) assets. The impact on equity returns would depend on the size of both the revisions in profit expectations and the rise in the discount factors (bond yields). Bond returns would react more slowly, but capital losses (as yield rise) would depress total

returns (which would drop through the level of current yields). The impact on bond returns also depends on the speed of the correction: the earlier the shock the better, as at least re-investment through the holding period is quickly done at a higher level.

Sadly, at the currently high level of asset price valuation, the **tail risks** for 5-year portfolio returns are heavily skewed to the downside, **unless fast innovation finally manages to produce a miraculous productivity shock.**

Imprint

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