

Core Matters

Stormy for now, then brighter but volatile – 5-year returns forecasts

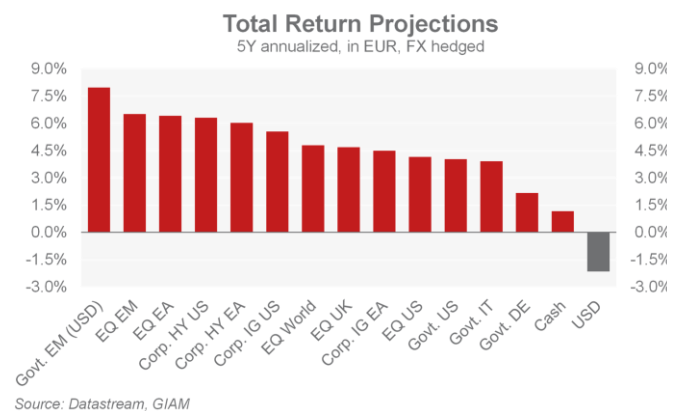
GIAM Macro & Market Research

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Our Core Matters series provides thematic research on macro, investment and insurance topics

- The war in Ukraine, the resurging inflation beast and aggressive monetary tightening leave markets and investors in a dense fog of uncertainty. Even after the sharp sell-off in equities and bonds over the past year, the bottom of markets may still be ahead of us.
- Yet the longer-term return outlook looks more encouraging than in previous years, following the recent sharp market correction. This is particularly true for Fixed Income, following the sharp rebound in yields by about 250 bps in core yields and 400 bps and more for Credit and riskier sovereigns. Current yields predetermine most of the long-term income perspectives in Fixed Income. And with central banks' terminal rates likely to land at lower levels than currently priced, we expect total returns to exceed the carry.
- Similarly, soaring rates and the global slowdown have triggered a sharp drawdown in Equities; lower earnings yields are a reliable precursor of higher long-term returns. The upgrade in return expectations, however, is less spectacular than for Fixed Income, as the earnings outlook is blurred by persistent headwinds to the global economy and Europe in particular.
- USD local returns appear attractive, with the USD rally still having legs short term. Yet the USD's gradual decline longer term from the current lofty levels requires strategic prudence. USD hedging costs are curbing much of US Credit appeal over the Europe. US Treasuries, by contrast, outshine Bunds and should prove a better hedge in adverse risk scenarios.
- Our return forecasts have improved, but we also expect a higher volatility regime in a more challenging macro environment (QE over, secular decline in rates and corporate taxes over, deglobalisation, more volatile geopolitical order). The single biggest risk to the outlook arises from a protracted inflation overshoot that would force central banks into reckless and persistent tightening. Also, a much deeper recession near term on rising geopolitical tensions and an outright energy crunch would leave long-lasting scars to both the economy and returns on risky assets, while core bonds may regain some of their safe-haven appeal.



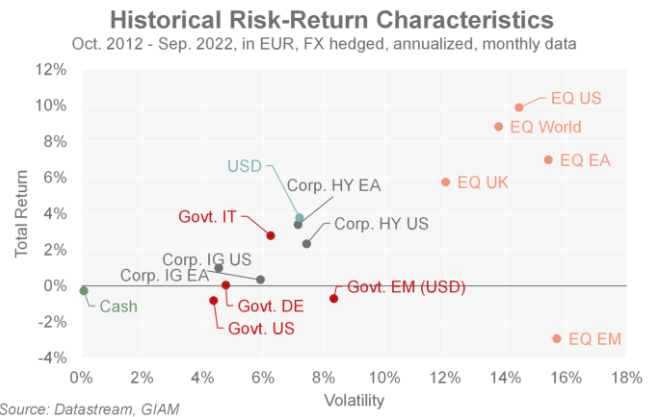
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1. Introduction

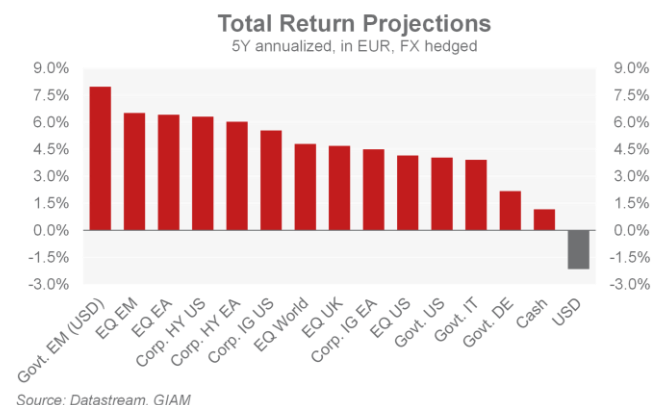
When it rains, it pours. We predicted a difficult year 2022 for asset performance, but the war in Ukraine has largely contributed to making it far worse than expected. Not only have financial returns been broadly negative, but volatility has surged, sometimes to record levels in the fixed income space. We publish this report annually, and a year ago warned about stretched valuations, the risks of a bullish commodity price cycle, rising inflation and forceful monetary policy tightening causing damage to liquid asset returns and a rise in the stock-bond correlation. All this has materialised in virtually the worst possible way, with the diversification benefits indeed vanishing. Surging inflation has caused catastrophic drawdowns in fixed income indices, even worse than those recorded in the late seventies: the Global Aggregate index, in EUR hedged terms, has lost more than 15% from the 12-month high. Equity losses so far have not matched those of the GFC or Covid sell-off – but the bear market has probably not expired as this report goes to press.

Fixed income losses have been so large that in selected instances – for instance US Treasuries and EM Hard Currency debt – the cumulated return of the past 10 years has switched to negative. The average annual return is just barely positive for core EUR Govies and developed IG credit indices. Equities have generated superior returns over the past 10 years, if more volatile ones.

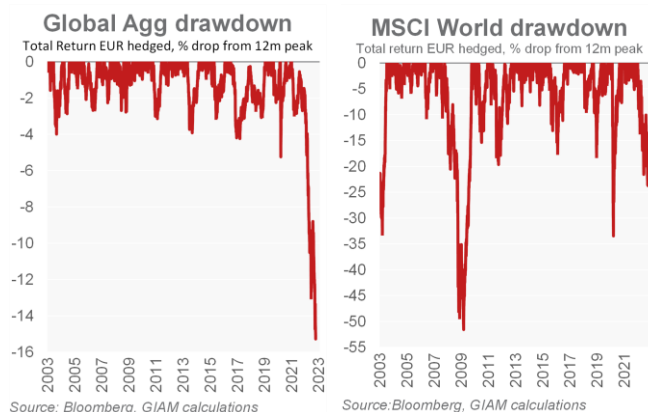


Terrible 2022 performance has destroyed core government bond returns for the past 10 years

Our projections for the next 5 years (chart below) are higher than those predicted last year, if only because asset prices are now starting from a much lower level of valuation, and higher yields imply higher carry in the fixed income space. A year ago (Sliding towards the new normal) we predicted negative 5-year total return for more than half of the asset classes listed in the chart below – vs. just one (the US dollar) in this new edition. Our equity projections are about 2-3 points above those of last year, though on an inflation-adjusted basis the gap is slightly smaller.



The two charts below show how much present valuation matters when considering future medium-term returns in stocks and bonds. The 5-year total return of the Global Aggregate bond index (in USD) tightly depends on the Yield

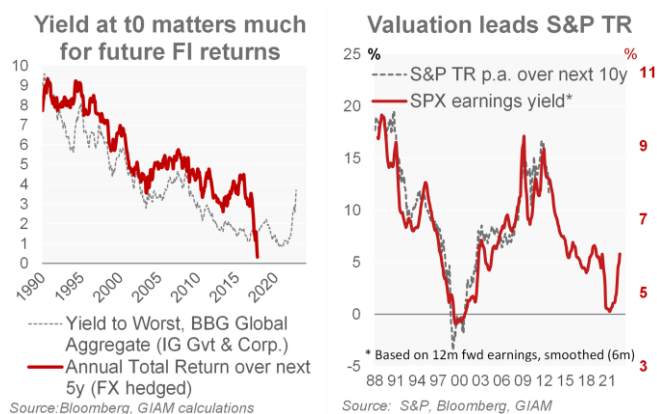


to Worst (YtW) at inception. For long, falling yields ensured capital gains that kept total returns above the YtW at inception; this sharply reversed in 2022, as the surge in risk-free yields and spreads caused a large drawdown. Yet the YtW is now approaching 4%, and we expect total returns to exceed that level over 5 years: central bank rates should eventually stabilise at lower levels (about 75bp lower) than currently implied by forward rates (5y3m OIS currently at 3.40% in USD, and 3% in EUR).

Likewise, the right-hand chart below shows that 10-year S&P returns closely track the earnings yield at inception (based on profits expected for the next 12 months). The latter now stands around 6%, and more still in European equities. While this is promising, let us not forget that 1/ those average nominal returns will be partly eaten up by inflation as the latter converges only relatively slowly towards the targets; 2/ those constructive forecasts must not hide the risk of further drawdowns in the near term.

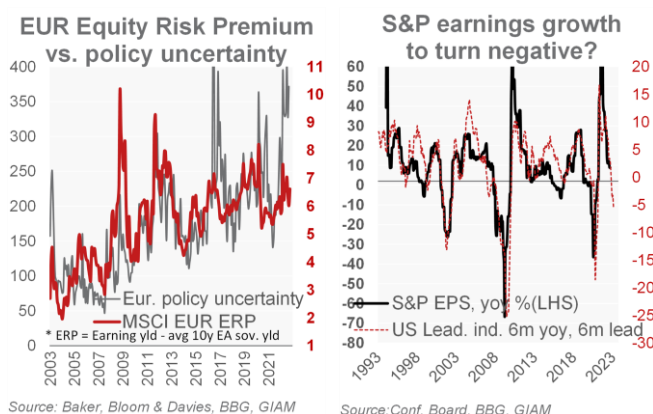
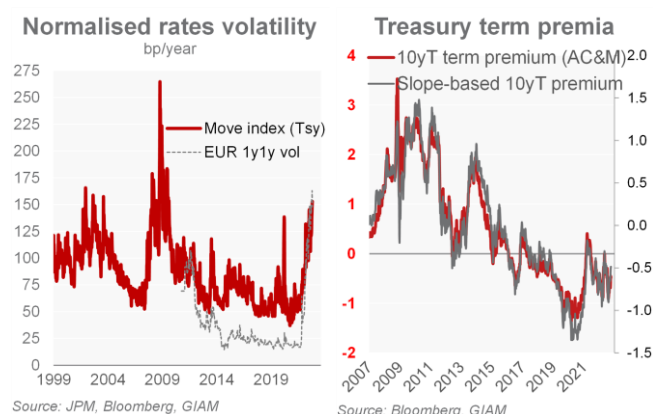
pricing ECB rates to stay around 3% over the medium term (5 years and beyond) – a level that we deem well above the neutral ECB rate. As the economy deteriorates and inflation slowly normalises towards the target (but not well below, in contrast to the pre-Covid regime), we assume that central banks – and bond yields – will eventually “cool off”.

Yet uncertainties are large, and term premia still very low (chart) and exposed to deteriorating supply-demand dynamics (large public deficits vs. Quantitative Tightening). The UK mini budget of September 2022, and the subsequent surge in Gilt yields, reminds that fiscal space is not unlimited, while the high inflation levels constrain central banks in their role as lenders of last resort. We see the euro area potentially exposed to similar market defiance against fiscal profligacy, given unresolved monetary union flaws. EA sovereign spreads have been resilient relative to corporate and EM sovereign (hard currency) bond spreads. We fear that this resilience is not fully justified. Despite a decent carry, EA non-core government bonds score poorly in our 5-year rankings relatively to other spread products (Corporate credit, EM HC debt). We also expect Bunds to underperform Treasuries, and to prove a much weaker safe-haven than Treasuries in a risk-off scenario (mutualisation risk).



We raised 5-year expected returns from these much lower levels of valuation, despite near-term risks

We are not out of trouble just yet. The end point for “risk-free” yields – if such as thing still exists, considering the rising public debt/GDP ratios and central banks’ smaller room for manoeuvre – remains highly uncertain. Our conviction is that recessionary forces and financial stability issues will produce self-correcting mechanisms capping long-term bond yields. Yet sticky inflation, wary central banks and bond supply-demand dynamics all create upside risks. The historically high level of bond volatility (left-hand chart below), particularly in the bottom left corner (e.g. 1y1y), reflects unusual uncertainty about monetary policy, as central banks manage the trade-off between unacceptably high inflation on the one hand and rising recession / financial stability risks on the other. Markets are currently pricing a terminal Fed Fund rate around 5%, and a peak ECB rate above 3%. More surprisingly, forwards are



Likewise, equities are likely to offer better entry levels within the next 6 months. Equity Risk premia (ERP) provide a

decent cushion over the medium term but appear too low relative to the large economic and financial uncertainties (left-hand chart above). Also we fear earnings consensus does not properly price the inevitable decline in earnings over 2023. So it is likely premature to call the bottom of the equity markets. The Fed pivot, likely in Q1 2023, will surely offer some oxygen, but we see it premature to position for that. We also need to see some stabilisation and pullback in long-term real yields to restore some financial stability: they have largely contributed to the toxic rise in the stock-bond correlation (chart below). Ironically, financial stability issues may precipitate the Fed pivot – but this would imply a sequence, i.e. further risk asset price drawdown before this happens.

couple of decades following the Iraq war (chart), and the risks of geopolitical flare-ups will increase in a more multipolar world. The frequency and intensity of climate events will also rise, and this too may impact not just the economy but also the geopolitical order. Our return projections have increased from last year, but so has our expected volatility expectations.

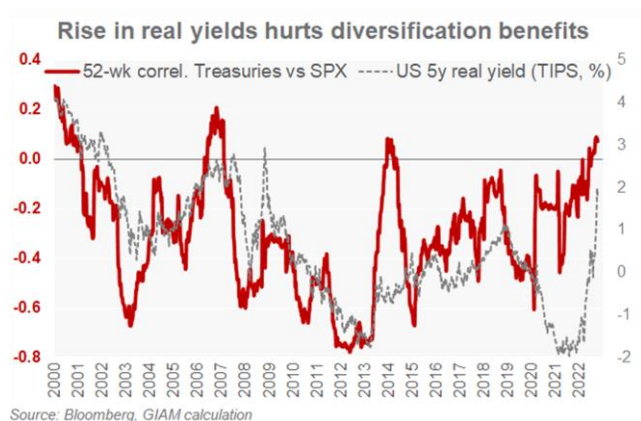
2. Macro Backdrop: Inflation to abate only slowly

The pandemic is on verge of becoming endemic. But its inflation legacy and the war in Ukraine are casting a long shadow over the medium-term economic outlook. The pandemic seems to have largely lost its economic sting. Severe lockdown measures have been largely unwound and, barring the emergence of a 'killer' variant, are unlikely to reappear. China stands out as an exception by sticking to its economically painful zero-Covid policy. Local lockdowns may still occasionally disturb the global supply chain.

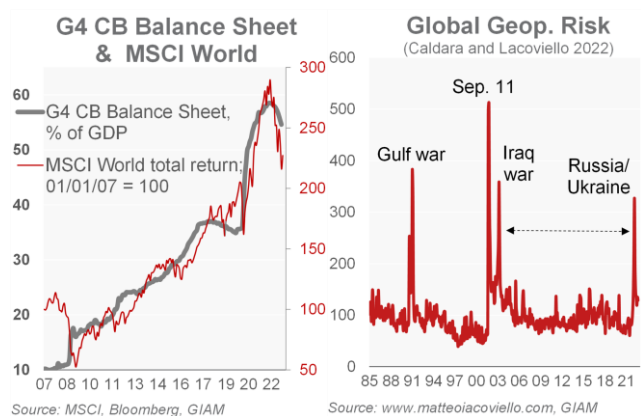
War in Ukraine a new dampener. Just when the global economy was escaping from the tight grip of pandemic, the Russian invasion of Ukraine emanated new economic shockwaves. Sanctions and retaliations disturbed value chains, pushed energy and food prices higher, and confidence lower. The key impact stemmed from Russia's role as a key supplier for oil and gas especially in Europe. The EU voluntarily reduced energy imports from Russia, which in turn cut its exports especially of gas to a minimum, sending prices soaring. The gas price rose from a 5-year average of 22 €/Mwh through end-2021 to an intraday peak of 341 €/Mwh in August 2022. At the global scale, the economic fallout from the war has been felt most in Europe. Some EMs have also suffered from reduced grain exports.

The inflation tsunami may be close to peak ... The resulting energy price shock has added to the price rises from to pandemic-related supply chain disruptions. Bottlenecks in the supply of key intermediate inputs, for instance for semi-conductors, are now easing, but labour shortages in the services sector – particularly through the post-Covid reponing – have fed inflation pressures. Euro area inflation had already soared to 5.9% yoy by February. Thereafter it accelerated further to a record high of 9.9% yoy in September.

... but will abate only slowly. That said, the inflation spike is set to come down only sluggishly. It is no longer confined to few sectors but broad-based. Second-round effects are already visible. Firms need to respond to higher input prices by raising sales prices. With the labour markets in good shape, wage growth has accelerated as well, most visibly in the US thus far, but pressures are building in Europe too. Firms and consumers increasingly view the low inflation environment a matter of the past. We assume that inflation on both sides of the Atlantic will stay above 2% at least until 2025. The risks are tilted to the upside. Apart from additional



A durably challenging macro background. The rest of this report will provide details on our improved 5-year total return expectations. While valuation has got more attractive, global assets will not benefit from the extraordinary expansion of the central banks' balance sheet that they have enjoyed over the past 15 years (chart below). We do not expect inflation to return to the sub-target pre-Covid regime. Corporations are also losing the secular benefits of falling interest rate charges and corporate tax rates.



The new world order will see some deglobalisation, which will make for a less friendly and potentially more volatile growth-inflation environment. The world enjoyed a relatively quiet

shocks (e.g. geopolitically-induced further commodity price increases) they also relate to stronger than pencilled in second-round effects.

Energy autarky and support measures. Cutting energy dependence from Russia has become an EU policy goal manifested in the RePowerEU initiative. Short term, managing the sharp cut of Russian gas supply over winter has been the priority. Gas storage has reached encouragingly by early autumn and barring a cold winter may suffice for European economies to muddle through – even if further cuts in energy use will be needed. The replacement of Russian gas, e.g. by LNG from other countries, will be proceed in 2023, but replenishing gas storage for the subsequent winter will still prove challenging. Thus energy prices in Europe will stay significantly above the pre-invasion levels, denting both the consumers' real purchasing power and the competitive position of local energy-intensive businesses. Governments have implemented a variety of support measures ranging from direct transfers to outright price caps for energy. However, these measures cannot fully offset the headwinds from rising energy prices.

Headwinds to potential growth. It was clear already that potential growth would suffer from a falling working population in this decade, especially in Europe. Yet the consequences of the pandemic, the green transition and the response to the war in Ukraine make the assessment more complex. As outlined in our [2021 5-year return outlook](#) the push to digitalisation will trigger only a very limited boost to productivity. Meanwhile, the war in Ukraine may prove a lasting drag. With the Western World cutting trade ties with Russia, gains from trade are being reversed. Mounting geopolitical tensions – e.g. between China and the US – increase the fragility of supply chains. We expect that a significant part of firms will reshore part of their activities back to the US or EU again even if this increases costs. Also, elevated uncertainty will dampen investment and growth.

Economic greening to have only a muted effect on growth... The green transition is a wildcard regarding longer term economic activity. A [study](#) by the European Parliament finds that in a negative scenario GDP in the EU recedes because of private consumption and net exports. In contrast, in a positive scenario higher output stems from higher consumption and investment, with carbon revenues being used to reduce VAT and support investment towards energy efficiency. In any case the overall impact of the European Green Deal on GDP is projected to be relatively muted ranging from -0.4% to 0.5% deviation of GDP by 2030 relative to the baseline. In the US, the Inflation Reduction Act (IRA) introduces tax cuts, loans and grants to develop manufacturing capacity for wind turbines, solar panel and other components needed for clean energy production plus tax credits to cut emissions. The measures, if implemented would tilt the US energy mix and increase efficiency leading

to a [meaningful reduction in CO2 emissions](#): by 2030 net greenhouse emissions could drop by 40% below 2005 level, a substantial improvement vs. the pre-IRA 30% estimate, and a step forward towards the targeted 50-52% emission cut. The [macroeconomic impact](#) of the whole package (which also includes higher taxes and reform to drug prices) appears marginally negative on growth (no more than 0.1% per year over 2022-31) and virtually negligible on inflation (despite the name).

... **but a larger one on debt.** Economic greening and accelerating energy autarky in the EU will be costly. Augmented military spending in the light of the Ukraine war and geopolitical tensions will come on top. Greening will only succeed if the effects are cushioned for lower income receivers. For the euro area we see additional annual spending needs of about € 800 bn or 6.6% of GDP over the current decade. In the US, IRA is estimated to marginally reduce debt (by just below 1pp of GDP per year), but this may be more than offset by the expected increases in military spending, should global confrontation with China and Russia continue. Generally, the combination of receding potential growth and high expenditure needs will weigh on public finances and limit the fiscal leeway and the tolerance for policy mistakes. In the euro area we expect the debt-to-GDP ratio to stay close to 100% towards the end of the decade. In the US, according to the Congressional Budget Office, the combination of lower growth and higher interest expenditure will reverse the short-term reduction in debt expected for 2022 and 2023. By 2027 Debt should be back up again to the 2021 level of 100% of GDP.

Monetary policy in inflation-fighting mode for longer

Global tightening. The largest global inflation spike in decades has forced central banks into a sharp policy U-turn. While the Fed had already started to hike rates in 2021, the ECB ended its asset purchases only by mid-2022, before embarking on rate hikes. We look for a peak rate of 2.5% next year, but policy uncertainty is extreme. As EUR inflation is likely to surpass the 2% threshold until 2025, we do not expect a meaningful policy reversal. But the ECB will likely shift from rate hikes to balance sheet shrinkage from 2023 onwards, with the stock of bonds from the asset purchase program (APP) holdings to be unwound. Also in 2023, key tranches of the Targeted Long Term Refinancing Operations (TLROs) will expire.

We expect the ECB to proceed cautiously with quantitative tightening (QT) to avoid a too strong rise in yields. Stopping reinvestments will be the preferred procedure and initially be confined to the APP. Holdings from the Pandemic Emergency Purchase Program (PEPP) will likely be fully reinvested until year-end 2024, at least. Thereafter we expect the ECB to

reduce PEPP purchases only carefully as they serve as the first line of defence against financial fragmentation before the newly designed Transmission Protection Instrument (TPI) may be triggered. Once inflation has come down towards target we also see leeway for a slightly lower policy rate of 2.0% by 2027.

The Fed is much more advanced in its tightening cycle but is still likely to hike rate to above 4.5% by end of 2022, with a substantial upside risk in early 2023. Given the prospect of weaker growth and slowing employment trends, and risks for financial stability, it may start easing as early as in H2 2023. We assume that the Fed Funds rate will return to its 2.5% equilibrium value rather quickly. Quantitative tightening is well underway and, as planned by the Fed, is operating in the background. We expect the process to end by mid-2025 and bring back the size of the Fed's balance sheet to just below 20% of GDP. [Recent research](#) by the Atlanta Fed estimates that a passive rollout of US\$ 2.2tn in Treasury over three years could tighten financial conditions by an equivalent of between 30 basis points under an optimistic scenario of no changes in risk aversion to as much as 74 basis points, if risk aversion is high due for example, concerns on the US debt trajectory.

2027 macro and central bank scenario

Item	Euro area		US	
	current	2027 proj	current	2027 proj
Equilibrium real short term rate (r^*)	0.1	0.2	0.3	0.5
Inflation	9.1	2.0	8.2	2.1
Potential growth	1.5	0.9	2.0	1.8
Neutral Central Bank policy rate	9.2	2.2	8.5	2.6
Current real short term rate (r)	-8.4	0.0	-5.3	0.4
Current nominal short term rate (ESTR, SOFRE)	0.7	2.0	3.0	2.5

Source: Datastream, GIAM calculations

Assessing “r-star”. Economic theory states that the neutral real short-term rate (so called “r-star”, consistent with the economy on a balanced growth path) is positively related to population growth and technological progress as main factors determining potential growth. Apart from receding population growth there is some downside potential for r-star due to lingering supply chain disruptions and onshoring of activities in response to the pandemic and increased geopolitical uncertainty. That said, other factors are increasingly working in favour of higher r-star. High inflation will induce a reduction of excess savings at a time of huge public expenditure needs. With central banks reversing their bond purchases, we see altogether r-star trending somewhat higher within five years.

In the euro area it should increase to around 0.2% (from -0.3% in last year's projection) over the coming years implying a neutral central bank policy rate of 2.2% by 2027. This is

slightly higher than the mid-point of the ECB's projection. An [ECB analysis](#) concludes that r-star will be “staying at levels around zero, or slightly below, in the coming years”. For the US, we assume that a less pronounced deceleration in potential output will bring r-star to around 0.5% by 2026, with some upside risk due to the higher level of debt, which would require a higher level of equilibrium rate to bring back savings and investment into balance. If long-term inflation expectations remain well anchored at around 2%-2.2%, this implies a neutral nominal rate of just above the 2.5% shown by the latest FOMC projections. R-star serves as a guide to central banks: a structurally lower value implies less scope for rate hikes.

A much more persistent inflation overshoot is the most relevant risk to our base scenario

We acknowledge that medium term uncertainty is currently exceptionally high. The highest risk emanates from a much more persistent overshoot of inflation, that may force central banks to raise and keep rates to even higher levels. A second key risk is the fragile growth on the back of increasing geopolitical, pandemic and economic headwinds. The war in Ukraine may be morphing into a protracted conflict with repeated escalation burdening (energy) supply chains as well as business and consumer confidence on a much more sustained basis.

3. Financial return expectations

For deriving the updated 5-year total return expectations, we use our growth, inflation, and central bank forecasts as key starting points in our top-down approach. We subsequently focus on key liquid asset classes for euro-based investors, including Government Bonds (EA, US, EM), Credit (US and EA), Equities (various markets) and FX (focus USD). We do not cover unlisted assets and/or alternative assets. A detailed description of the underlying methodologies is also provided in our first [5-year return report](#).

3.1 Fixed income assets: a brave new world

Better carry and valuation. The fixed income outlook has significantly changed over the past year. Following the sharp yield rebound, we now envisage significant positive total returns over the next five years – in stark contrast to the mostly negative returns predicted last year. Expected Fixed Income returns are now close to or – in some riskier segments – even higher than the expected returns for equity markets, with a much lower expected volatility. Core European rates remains the exception, but DM credit and EM external debt are expected to globally outperform equity markets.

These high expected returns are significantly above history and must be put in a context of a sharp sell-off over the past year. Indeed, the global upward yield move we expected across the fixed-income asset class happened within less than a year, now providing attractive valuations for DM and EM government bonds but also credit.

Asset Class	Coupon	Mark to Market*	Valuation adj.**	Credit migration	Credit default	Overall***
German Government Bonds	1.6	0.4	0.2			2.2
Italy Government Bonds	3.2	0.9	-0.2			3.9
US Treasury Bonds	2.6	1.1	1.7			5.4
Euro IG Corporate Bonds	1.9	0.6	1.9	-0.1	-0.1	4.3
Euro HY Corporate Bonds	4.7	1.1	2.3	-0.2	-1.4	6.5
US IG Corporate Bonds	4.0	0.3	2.8	-0.1	-0.1	7.0
US HY Corporate Bonds	6.7	0.7	2.5	-0.2	-1.4	8.3
US EM External Sov. Bonds	6.1	1.1	3.1		-0.7	9.4

*pull and pull-to-par effect
 **changing yield level at a certain time
 ***annualized returns over 5 years in local currency and in %

Globally, we revise significantly upward our fair values for government yields. For these forecasts, we maintain our multiple approaches based on a weighted average of fundamental models, forwards, and long-term averages. Despite this upward revision, fair values are now close to or even below the current values (especially for the US) as we assume a normalisation of the current volatile market conditions. Combined with an attractive income, the projected returns for fixed-income assets are all clearly positive.

Arguably, the key risk for fixed-income assets is the persistence of a high inflationary environment that would continue to push global yields even higher. However, carry stands at a high level, providing a buffer in the case of a further rise in yields. For instance, European credit offers a carry of 3.9% while EM USD debt stands at a high 7.5%.

Default cycle picking up. Another caveat applies to Credit and EM, amid a looming rise in defaults as the economic outlook deteriorates and higher global yields lead to refinancing difficulties. That said, public sector support will help and mitigate the impact for corporates. For sovereigns, the IMF and international institutions have been proactive and swift in supporting the most fragile countries recently. To this extent, we expect defaults to impact total returns more than over the past years but only to a moderate extent. In the credit space, we assume that defaults will subtract up to -2.7ppt of return for HY and -0.7ppt for EM sovereigns.

3.1.1 Government bonds: Improved perspectives

Sea change. The environment for government bonds has changed materially vs. 2021. In fact, current yields are above the projected endpoints pencilled in a year ago. This implies

that the weak performance that we had forecast for the next few years has now already occurred within a year – and worse.

Compared to last year we raise our yield assumptions significantly for all covered government bond markets. Both forwards and fair value models point to higher levels (unsurprisingly, the slow-moving 10-year average has changed only slightly). In view of a sustainably higher level of key rates and inflation that is only slowly approaching the desired level, the low yield environment is a matter of the past. We adjusted EUR yield forecasts noticeably upwards (e.g. 2.1% for 10-year Bunds compared to 0.6% projected in 2021).

Asset Class	FV Approaches					5Y Forecast	
	Currency	Current*	Regression	Forward	LT average	FV **	Applied
German Government 3-year	EUR	1.76%	2.03%	1.61%	-0.33%	1.63%	1.70%
German Government 10-year	EUR	2.11%	2.09%	2.04%	0.44%	1.91%	2.10%
Italy Government 3-year	EUR	3.34%	3.02%	4.47%	0.68%	3.37%	3.40%
Italy Government 10-year	EUR	4.51%	4.50%	4.47%	2.20%	4.26%	4.40%
US Treasury 3-year	USD	4.29%	2.54%	3.24%	1.26%	2.69%	2.60%
US Treasury 10-year	USD	3.83%	2.72%	3.67%	2.10%	3.04%	2.90%
EM Ext. Gov. (spread in bps)	USD	426	390		317	353	350
Euro IG Corp. (spread in bps)	EUR	202	160		119	140	140
Euro HY (spread in bps)	EUR	575	525		401	463	460
US IG Corp. (spread in bps)	USD	151	150		133	141	145
US HY (spread in bps)	USD	497	475		450	462	450

*as of 30/09/2022

**weighted average (Govies: 50% regression, 40% forward, 10% LT average, EM: 50% regression, 50% LT av., Corps: 80% regression, 20% LT average)

After a disastrous 2022, the medium-term outlook brightens considerably for gov't bonds

Lower bond yields over 5 years? In view of the historically strong rise in yields, we expect in the base scenario a slight decline in euro area yields (and a moderate one in the US) over the 5-year horizon. This is a fundamental change compared to previous years, in which we had always forecast an upward trend. The decline assumes that the current extraordinary situation in financial markets will normalise somewhat. This should then also render a slight steepening of the currently partially inverted yield curves. Moreover, abstracting from cyclical fluctuations, trend growth is likely to ease (see section 2), dragging down equilibrium yields.

Moderately falling yields imply a much more positive return outlook for government bonds. Every single total return component (see table above) has increased compared to 2021. Most importantly, **valuation** (which reflects the expectation of lower yields into 2027) has switched from very negative levels to slightly positive (except for BTPs). The **mark-to-market** component shows the pull-to-par effect as most government bonds currently trade under par. Finally, the **income** component improved as well, reflecting the higher coupon level. This factor will gain importance over time as bonds with lower coupons mature.

Overall, we forecast positive total returns for all government bond markets under consideration. **US Treasuries** stand out (even in FX-hedged terms) as the transatlantic yield spread is seen to decline. **BTPs** rank in the middle, with most of the return attributed to the high carry from coupons. **German Bunds** remain the tailight. However, even this worst-performing bond market is expected to offer an average annual total return of more than 2% (from -1.7% in 2021).

3.1.2 Credit: higher carry & higher defaults

Credit spreads have repriced extremely rapidly in the new environment of persistently high inflation environment causing higher rates and limiting the ability of central banks to buy bonds. The fast repricing has **caused the 2022 total return performance of IG credit to be the most negative on records**, both in the US and in Europe.

Compared to last year we raise our return assumptions significantly for all segments of the credit market:

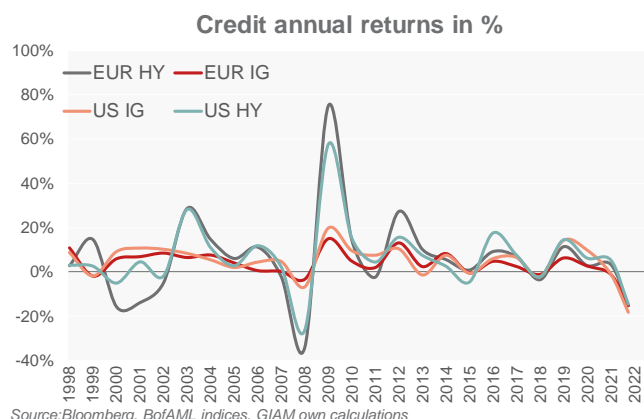
- 1/ The **underlying yield contribution is positive**, as mentioned in the previous section.
- 2/ Most importantly, **valuation** has turned from negative last year and to positive this year, as both our fair value models and the 10Y moving average point towards tighter spreads.
- 3/ Finally **carry is materially higher compared to 2021**.

Prospects for credit returns are brighter but the defaults cycle is entering a new era

Yet we are also revising higher the adjustments for defaults. According to Moody's the default rate is currently still below 2% both in the US and in Europe, i.e. below the long-term average. But this is unlikely to last given our economic expectations. Over the last decade, US defaults have been higher than European ones because of a different insolvency regime, and support during Covid was directed to households rather than companies. This time, however, Europe is more directly exposed to the energy crisis. Also, the support European governments provided to the private sector during the pandemic to prevent economic destruction will not be repeated to the same extent as 1/ public indebtedness has increased further over the past years 2/ central banks cannot sustainably buy bonds in a high inflation environment 3/ markets are very vigilant on fiscal trajectories and can abruptly limit market access. Hence, we raise the default adjustments to reflect an average yearly default rate of 4% in both regions.

Mid-single-digit positive returns. Last year most of our 5Y TR expectations for Credit were in negative territory. This year, we revise IG returns substantially upwards to above 4% in Europe and 5% in the US while we expect HY to deliver

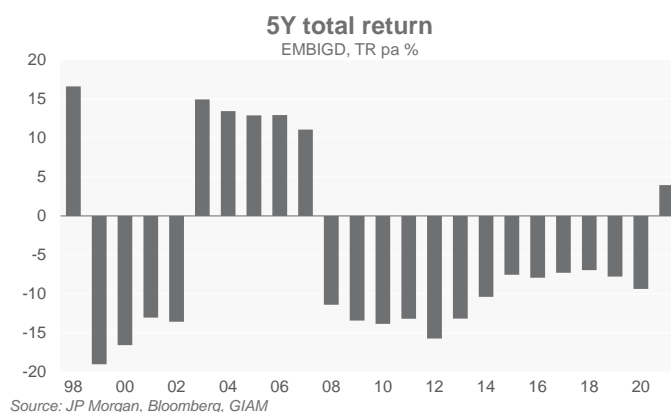
more than 6% total return over the next 5Y in both regions.



3.1.3 EM sovereign bonds: compelling returns

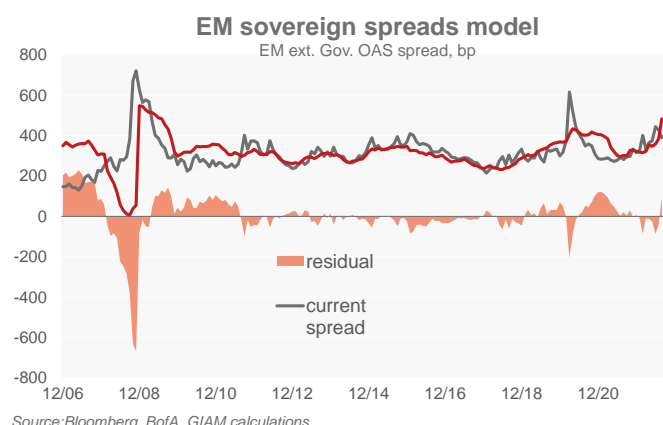
Rapid rise of underlying yields and EM spreads in 2022.

Even if the EM macroeconomic fundamentals – debt-to-GDP especially – have been deteriorating, the recent repricing of the asset class is leading to attractive valuations, rendering returns of almost 10% p.a. (in USD) possible. Since the creation of the EM external debt indexes, this return over a 5 period was only reached in the early 2000s, when the asset class was not as mature, and EM sovereign ratings were at higher levels.



Highest YtW since GFC. This high return is driven by both a very high carry effect and a positive valuation of EM external debt. First, at 8.4% the yield-to-worst of EM external debt is at its highest level since the GFC, providing a large buffer in the case of a further rise in DM core rates in the next 5 years. This high carry is being achieved even though the weighted-average rating of the main EM debt indexes has hardly deteriorated, hovering at the BBB- level. It is a compelling risk/reward in our view. Second, we expect EM yields to decline gradually in the wake of somewhat lower DM rates and tighter spreads, leading to a positive mark-to-market. EM

spreads have widened by c. 200bp over the past year, the largest move since the GFC. They are currently hovering above their long-term average and we forecast that they will reach 350bp in 5 years from 430bp currently.



This forecast combines (1) the 10Y average of EM spreads, and (2) our fundamental long-term model. The latter is based on the 10Y US real yield, a weighted average of EM inflation (%yoy), EM gross debt, and the oil price (Brent). The rising EM debt coupled with higher inflation will likely push EM spreads wider in late 2022 and 2023.

Cautious assessment on future defaults. There is a risk of spread overshooting given pending tail risks and the high number of distressed countries. Hence, we assume a harsher adverse impact from defaults than history, with a drag on expected total return of -0.74%. EM sovereign countries are still in a default cycle. Even if we do not expect a systemic crisis, more small EM countries will default in the next 5 years, as almost half of the frontier markets face a large refinancing gap. The number of distressed countries has never been so high, and both the higher refinancing rate level and the closing of the primary market will continue to put pressure on weak EM countries. That said, the risk of a systemic crisis or contagion to large EMs is low in our view. The international architecture for debt resolution has been evolving, albeit slowly, and the IMF has been swift to provide support.

3.2. Equities: normalizing returns ahead

Better valuation after sharp 2022 sell-off. Stock markets have tumbled over the last year amid increasing geopolitical risk, high inflation and tough central banks (CBs) causing a tightening of financial conditions. MSCI EMU and S&P500 have lost around 20%, and EMs by additional 8pp due to China's slowdown and the strong dollar (TW USD, +15%). In terms of market multiples, the **MSCI EMU and EMs are now trading at a significant discount to history** since 2004 (-13% and -17%, respectively), while US equities still trade at a premium of 10% (from 40% in October 2021).

Headwinds are unlikely reverse short term. Monetary tightening by major central banks will proceed further as the Fed and the ECB recently doubled down on their pledge to bring down inflation. Furthermore, the EA, and potentially the US, are headed for a recession in 2023 amid a looming energy crunch, curbed production, tighter financial conditions and eroded real income. Companies' earnings and net cash flows will suffer, adding to the headwinds over the next quarters.

Subdued valuation and improving economic growth from 2024 on to result in higher returns

That said, economic growth is expected to improve from 2024 on, which along with more subdued valuations would bring about higher returns in the following years. Among EMs, we should see even more robust returns as China benefits from diverging monetary policy – more expansionary – and a re-accelerating economy. Overall, **EM equities should see better prospects than developed countries (DMs)** over the next 5 years due to depressed valuations and a toppish US dollar. On average, for all indices, our current forecasts are higher by ca. 2pp compared to our Autumn 2021 release, mainly due to reduced index prices since then.

3.2.1. Conservative earnings assumptions

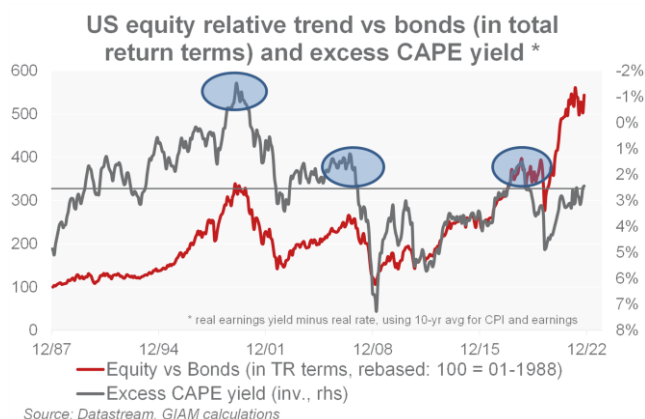
The deterioration of financial conditions amid central banks tightening and the economic slowdown will cause a decline in profitability in 2023-2024. The energy shock, surge in geopolitical risk, deglobalisation and enduring supply chains issues are adding to the mid-term negatives, notwithstanding the ongoing fiscal support.

We thus assume lower earnings growth in developed markets. For EMU we employ a conservative 3%, down from 4% one year ago. For the US, we pencil in 5% (unchanged), which is still 2pp below historical average (last two decades). Apart from the adverse factors mentioned above, residual Covid-19 effects in selected service sectors, likely higher taxation, rising wages and input costs as well as surging costs of debt will weigh.

Superior nominal GDP growth will underpin earnings in EMs. Yet the Covid fallout (longer than in DM countries, most notably in China) and rising input and debt costs will weigh. The severe deterioration in financing conditions (higher yields and spreads, stronger USD) and Chinese regulatory pressure could also maintain the relative EM earnings and margin growth subdued in the next years, as has been the case since 2011. Thus, we further lower the expected EM earnings growth from 5% (last year) to 4.5% for the next 5 years.

Higher cost of equity. In addition to a historically subdued earnings assessment, higher yields and credit spreads will

raise the cost of equity (COE) and thus the discount rate of future earnings, consequently demanding lower equity valuations vs. the last 10 years. Indeed, the equity earnings yield (12-month earnings divided by the index price, a market proxy for COE) has increased substantially in the last year, especially for EMU. That said, due to higher yields, the EMU risk premium has remained near historical average (if measured by earnings yield minus 10-year rate) or even declined, when proxied by the difference between dividend yield minus BBB yield. For the MSCI EMU the latter spread declined over the year from +1.7 to -1.1; for the US from -0.6 to -4.1.



The US risk premium based on earnings yield is well below the historical average, having reached a cyclical trough (2.5% vs the mean 4.2%). In contrast to the EA and EMs, the US market continues to show a high real CAPE¹ multiple (29.5X vs an average of 20.6X since 1955); mid-to-long term returns are thus set to be below those of the last two decades. Indeed, the US valuation gap based on market multiples (+10% for the US vs -13% for the EA, s. the page above) is mostly due to the higher euro area risk, given the proximity of Ukrainian war and the resulting energy shock for Europe, while the US is energy independent.

The current US CAPE yield gap vs real yields backs relative equity TR vs bonds in line with or slightly below average. Expected equity TR are still decent (5.6%).

The US CAPE yield gap vs real yields (2.4%, a longer-term measure for relative valuation and potential return) remains above the low levels which characterised market tops in 2000, 2007 and 2018 (-1.5% in 2000, and +1.5% in 2007 and 2018). It has nevertheless declined over the past 12 months (from 2.8%) and remains lower than the average (4.1% since 1950, 2.6% since 1987). Thus, US equity returns might struggle to

exceed US bonds' ones in the mid-term. We forecast around 5.5% for both asset classes for the next five years.

3.2.2. Long-term equity returns: the framework

While long-term returns 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 equity returns, we combine different approaches:

1. a **regression-based approach** employing forecasts 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 future returns at CAPE levels** like current ones.

We then adjust the average of those three models with an estimated factor based on risks and under/overvaluation metrics, which we assume to correct over the 5-year time horizon. In what follows we briefly describe the three building blocks of the framework. For more details, please refer to our [original publication](#).

1. The **regression-based approach** employs our projections on macro and fixed income variables discussed earlier to derive estimates of prospective equity returns. Variables used include GDP growth, 10-year government yields, EUR/USD and HY spreads. This approach is applied only to the US and the euro area (EA) - at the core of our universe. TR results are somewhat lower than last year, especially for the US, mostly due to upgraded yields and spread forecasts.
2. Our proprietary **CAPE-based model** uses our expectations of earnings growth, payout ratio (PR), dividend yields (DY), buyback yields and target CAPEs for the end of the 5-year horizon. Alternatively, we derive total return forecasts making use of modelled fair PEs over the estimation period. These come from our proprietary macro quant models. In the end, long-run returns are broken down into three components: income (dividend and buyback yields), growth (earnings growth), and valuation (target CAPE).

Indeed, an equity investor gets the stream of cash yields plus the annual price appreciation. We use the target CAPEs for the US as an anchor for and then apply historical valuation gaps relative to the US for the other markets. The target for US CAPE is derived from the historical average (last 30 years excluding bubble years), which is then adjusted slightly downward, as we account for higher CPI (and 10-year interest

¹ The CAPE is the cyclically-adjusted price earnings ratio which uses a 10-year average of past profits at the denominator to smooth out the

fluctuations that occur over the business cycle – both numerator and denominator being adjusted for inflation

rate) plus the reduction in monetary support.

For the EA and EMs, we apply the valuation gap vs. the US based on the analysis of the data since 2007. The final CAPE targets are: 23x (US), 16x (EA), and 14x (EMs). We decreased CAPE targets by 1pp vs the last year due to the higher inflation and FI rates. As our histogram-based analysis shows, the 23x level for the US is commensurate with what we had historically since 1987 for the inflation levels taken between 3% and 4%. For the EA, we applied the historical gap vs the US which is 30%. The enduring energy shock and related loss of competitiveness may prove a persistent drag, which will barely be offset by some progress regarding stronger fiscal integration and vigilance on structural reforms.

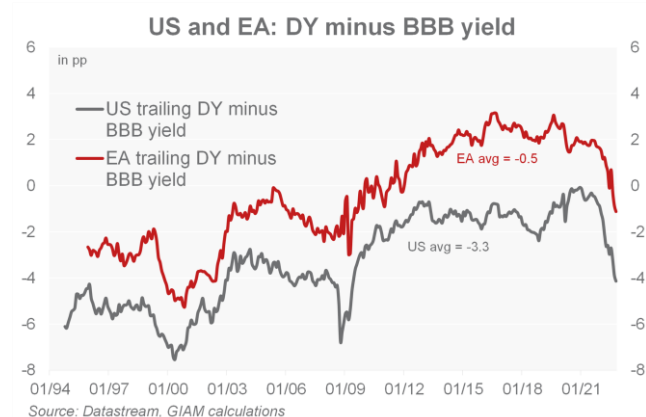
Market	Hist. avg 5-year total return since 1998 (p.a.)	5-year total return projection (p.a.)
World (in \$)*	7.3	6.2
US	9.1	5.6
EA	6.7	6.4
UK**	5.9	6.9
EM (in \$)	6.9	7.9

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

** On valuation grounds, we decided to put the UK projection 0.5% (p.a.) above that of the EA

adjustments, to be prudent, by one fourth of the historical standard deviation (SD) of same returns (SD observed over 5 and 10 years). The result is a projected TR of 6.4% for EA, 4.9% US and 7.1% EM. All result higher than last year, on average by 2pp, mostly due to the cited reduced valuations.

In the final step, we assess the degree of current under-/overvaluation plus specific risks of each market under consideration. The resulting positive or negative adjustment is then attributed equally over the forecasted years. This time, we added a very small negative factor to EA only (-0.5pp p.a., lower than last year) to account for higher energy and geopolitical risks.



The resulting valuation premium of the US vs the EA seems justified as it benefits from higher policy flexibility, higher R&D and education spending on GDP, energy independency and more favourable population growth. For EMs, superior TR forecasts results from more appealing valuations as well as higher GDP growth and a toppish US dollar.

3.2.3. Equities: neck-on-neck with fixed income

The final return expectations are presented in the tables above. The rankings between different stock markets are little changed vs. Oct. 2021, but overall annual return projections exceed last year's by ~200 bps on average (260 bps for EMs and 140 bps for the US). We expect EMs to have the highest performance over the next 5 years across the markets covered here, primarily owing to a toppish US dollar, much lower CAPE multiples and higher nominal GDP growth. Geopolitical risks seem to have increased, though, and entail downside risks to the forecast.

Equity TRs exceed fixed-income only for the euro area; equally attractive for the US and less appealing for EM.

Compared to historical averages (since 1998), our 5-year return expectations are lower for the US, roughly in line for

Expected returns (p.a.)	EA	US	EM (in \$)
Regression models (macro- and financial variables)	6.1	2.9	
CAPE-based model	8.3	7.9	8.8
Historical returns coherent to current CAPE levels	6.4	5.9	7.1
Average	6.9	5.6	7.9
Adjustment due to risks & current over-/undervaluation	-0.5	0.0	0.0
Final projection	6.4	5.6	7.9

Applying these CAPE targets, the negative price performance over the past year implies that, in this approach, 5-year projections for all indices we cover have increased on average by 3pp vs. last year.

3. Historical assessment. We derive future return perspectives from the historical ones observed during periods in which CAPE levels were in line with current ones. Across all markets under consideration, the dispersion of 5-year returns is quite high, and it decreases as the time window extends (from 5 to 7 or 10 years). For this reason, we start with a 10-year window, making further downward

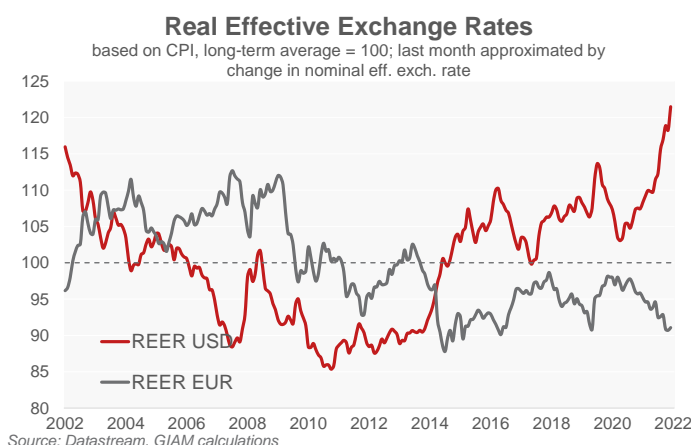
the EA and somewhat above those for EMs. They exceed return perspectives of fixed-income instruments only for the EA, are almost equal for the US (with higher volatility) and less appealing for EMs (hard currency-based).

3.3. FX: Structural USD downside on lofty valuations

We also consider assets denominated in USD, which offer both diversification benefits and – under current market conditions – the prospect of higher returns in local currency. This entails exposure to FX risk, which is not negligible. The historical 10y EUR/USD volatility (7.2%) exceeds that of Bunds (4.8%) by a factor of 1.5 and is almost half that of equities (15.4% for MSCI EMU).

This FX risk can be hedged, albeit at a cost of around 1.4% p.a. (based on 5y forwards), roughly unchanged from last year. Alternatively, if left open, the return prospects in EUR hinge on the forecasted EUR/USD rate. In our summary tables, we show the results for all the categories (local, hedged in EUR, unhedged in EUR).

Is it worth taking the risk of unhedged USD exposure? We do see [value in the short term](#), but not over the five-year term due to severe fundamental USD overvaluation. As in our previous exercises for 5-year EUR/USD prospects, we apply a quantitative approach: (a) a mean-reversion framework based on purchasing power parity (PPP) and (b) projections based on a financial market fair-value model. We then add the forward-implied carry, which equals the hedging costs, to arrive at the expected total return on open USD exposure. If the result is positive, it may pay off to leave USD exposure open, otherwise, FX should be preferred in any case.



For (a), we employ PPP values for the EUR/USD in 2021 provided by the OECD and project its evolution by 2027 applying the projected inflation gap (assuming an annual average of 2.8% for the EA, and 2.4% for the US). This

² We also provide forecast EUR/GBP for UK equity exposure. The PPP model (applying a 4-year half-life time to the gap vs current) renders 0.986 in 5-years. The tendency is consistent with the estimated ~7.5%

projects PPP at 1.346 in 2027 (from 1.364 estimated for 2022). Assuming a mean reversion to PPP with a half-life of four years, this implies a spot rate of 1.14 by 2027. This is substantially lower than last year's estimate: first, the starting value is 20 ct lower; second, the much higher CPI estimate for the EA implies a lower PPP projection (due to internal EUR revaluation via rising prices).

For (b), we use a EUR/USD regression model based on 10y US and Bund yields, EMU risk (spreads on Southern Europe government bonds), overall risk sentiment (proxied by the S&P500), and the oil price, which explains 68% of historical EUR/USD variation. The model points to a substantial undervaluation of the EUR/USD of more than 20%, which has built throughout the pandemic. Given the higher uncertainty and lower fit of the model, we assume this gap to close by only two-thirds over the 5 years considered. There is also some upside in the projected fair value (mostly from a closing transatlantic yield gap and rising equities). Combined, these factors imply a projected fair value of close to 1.23, which is only slightly lower than in last year's update (1.24).

5y projections EUR/USD

	Forecast	Weight
Fair value projection (regression)	1.227	30%
PPP model	1.140	70%
Weighted avg	1.166	
Projection after qual. adj.	1.160	
Current (30/9/2022), 5d avg.	0.969	
Spot return USD p.a.	-3.5%	
Forwards	1.039	
Implied carry p.a.	1.4%	
Total return p.a.*	-2.1%	

Source: Datastream, GIAM calculations; * spot return + carry

Combining the two approaches, we attach a much lower weight to the fair value model (30%) vs. the PPP approach (70%) due to the deteriorated fit and higher model uncertainties. The weighted projection renders a quantitative target of 1.166, 13 ct below last year's gauge.²

Normalisation from stretched USD valuations renders FX hedging superior

Other approaches corroborate the tendency of a marked EUR/USD rebound on valuation grounds, despite our expectations of USD strength near term. The currently very lofty USD valuation is confirmed by its real-effective value which exceeds the long-term norm by 22% with the EUR conversely 9% below (see chart). Similarly, the [IMF External Sector Report](#) gauged a ~9% overvaluation for 2021, with the

overvaluation of sterling (and ~7% overvaluation of the EUR). We employ a target of 0.98, only marginally below forwards (0.99 as of end-Sept).

real effective USD having climbed another 11% by August 2022. A big chunk of the correction may happen once global uncertainties ease, the European energy crunch starts to mitigate and world growth starts to recover, unwinding safe-haven flows into the USD. The USD is also set to suffer from further reserves diversification, as incentives for several EMs to mitigate USD exposure have risen amid financial sanctions imposed on Russia during its invasion of Ukraine.

Yet when finetuning the forecast, we also consider the bias of risks towards a more sluggish easing of currently high geopolitical and policy uncertainties. We therefore pencil in a target of 1.16 slightly below the quantitative predicament. This forecast is clearly above forward pricing (1.04), with the annual expected spot depreciation of 3.5% p.a. materially exceeding the implied carry of 1.4%. Thus there is a **strong case for hedging USD exposure on a 5-year horizon**.

4. Conclusions: brighter returns, higher risks

Since our 5-year returns update last year, the tectonic shifts on the inflation threat, central banks' priorities and geopolitical risks have left deep marks on the longer-term total return outlook.

The regained appeal of fixed income is most striking. 10-year core bond yields (both USTs and Bunds) have risen by almost 2.5pp. Yields on Italian BTPs are almost 4pp higher than last year. And the risk premium on corporate credit is higher, by 1.5pp in IG Credit and 3.3pp higher on HY. This very much boosts the carry from fixed income while keeping prospective losses from yield and spread increases at bay. Riskier fixed income products (notably EM bonds) thus rank among the top picks, with their prospective returns roughly in line with more volatile equities. Cash and Government bonds rank lowest, but in contrast to previous years now offer positive returns prospects.

energy crunch and looming recession in the euro area. Also, higher real rates and weaker earnings prospects represent headwinds. EM and Euro area equities look most favourable, but are exposed to the highest risk short term, with capital outflows in particular blurring EM prospects.

So the case for equities is weaker today in risk/reward terms than in earlier years dominated by depressed rates (see chart above). Stocks still maintain their virtue as portfolio diversifiers. That said, investors prepared to take long-term risk may prefer investing in EM bonds which even after accounting for hedging costs have return prospects as high as 8% p.a. in our books.

Total returns by asset classes over past year

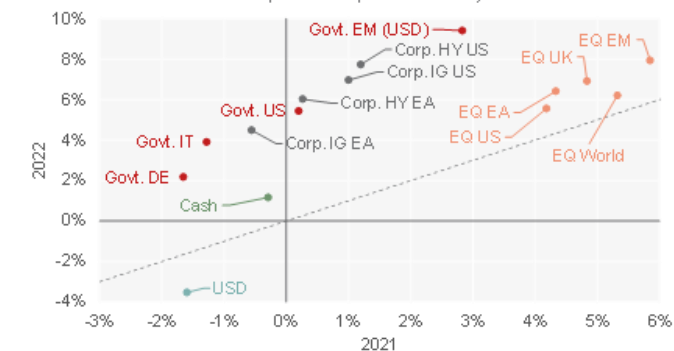


Our return projections are consistently higher than last year. A key reason is the unusual, synchronized slump in bond and equities over the past year amid inflation overshoots and the Ukraine war (chart below), with much lower valuations providing more upside.

The drawdown in both bond and equities from stretched valuations have brightened the long-term outlook

Total Return Projections

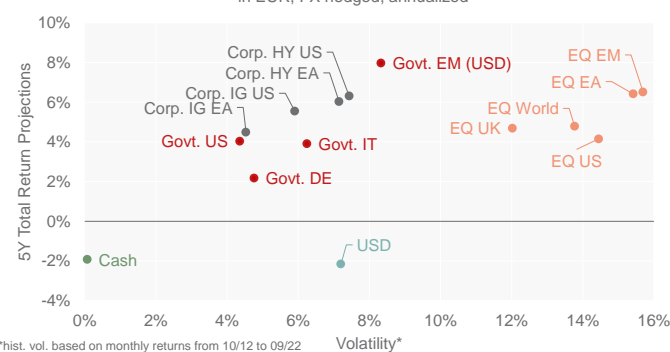
5Y, annualized, in local currency



Equities also offer long-term upside, and somewhat more so than last year. But they (most so European stocks) are subject to substantial near-term risks amid the persisting

Risk-Return Characteristics

in EUR, FX hedged, annualized



EUR investors may be attracted by the even higher yield levels in USD assets. Indeed USD exposure even offers

protection against a further intensification of the European energy crunch and geopolitical tensions. Fundamentally, however, the USD is exceptionally dear, pointing to an alignment lower towards fundamentally justified levels over the next years. For long-term investors, hedging USD exposure is recommended, even if the costs of doing so are close to 1.5% p.a. over five years.

Total Return Projections

(5Y, annualized)

Asset Class	Currency	Local	EUR (FX hedged)	EUR (unhedged)
Cash	EUR	1.2%	1.2%	1.2%
Govt. DE	EUR	2.2%	2.2%	2.2%
Govt. IT	EUR	3.9%	3.9%	3.9%
Govt. US	USD	5.4%	4.0%	1.7%
Govt. EM (USD)	USD	9.4%	8.0%	5.5%
Corp. IG EA	EUR	4.5%	4.5%	4.5%
Corp. HY EA	EUR	6.0%	6.0%	6.0%
Corp. IG US	USD	7.0%	5.5%	3.2%
Corp. HY US	USD	7.7%	6.3%	3.9%
EQ World	USD	6.2%	4.8%	2.5%
EQ US	USD	5.6%	4.1%	1.8%
EQ EA	EUR	6.4%	6.4%	6.4%
EQ UK	GBP	6.9%	4.7%	4.9%
EQ EM	USD	7.9%	6.5%	4.1%
		Spot	Carry	Total
USD		-3.5%	1.4%	-2.2%
GBP		-1.9%	2.2%	0.2%

Where do we see the major risks to our projections?

Among a plethora of risks, we see two key issues standing out. First, a much more protracted inflation overshoot. Second, a deeper recession exacerbated by rising geopolitical tensions, a protracted energy crunch and potentially new and more lethal and infectious Covid variants.

1. Protracted inflation overshoot. We flagged persistent price pressures as a key risk already in [last year's projections](#). Inflation uncertainties have risen much further since. Our base scenario numbers hinge on the assumption that central

banks ultimately succeed in their fight against inflation. After moving into a restrictive stance near term, this will allow for some easing to neutral policy levels as inflation starts to creep towards the 2% target.

Yet the risks are much tilted to a scenario in which de-anchoring inflation expectations and a wage/price spiral require central banks to raise rates to much higher levels to tame the inflation beast. This would leave both bond and equities exposed to further losses over the first half of the forecast period. Inflation linkers and to some degree energy commodities would offer some protection in this scenario.

2. Much deeper recession. Our base case endorses a moderate recession in the euro area (and a minor one in the US). Yet plenty of forces loom that may turn the contraction much nastier, including a protracted energy crunch in Europe or/and a military escalation of the Ukraine war. And while the war has put Covid worries to the backburner for now, the emergence of (highly infectious and lethal) mutations remains another key risk.

Equities would suffer severely in such a scenario, while central banks may be pushed to ease their restrictive monetary policy stances much sooner. (Unhedged) US Treasuries would provide good hedging properties, as more advance US yields would have more leeway to drop, and the USD would rally. By contrast, the supportive action by the ECB may be more constrained than the Fed's as deeper supply side disruptions in Europe would prevent price pressures from subsiding fast amid the economic contraction.

Upside risks to our forecasts arise from a fast path towards negotiations over the war in Ukraine and a quicker retreat of inflation on easing supply bottlenecks and falling energy prices. Both could help growth economic growth and earnings to rebound, while inflation would recede quickly. Yet the probability of such a goldilocks scenario – relatively positive for equities – is low. So while overall the 5-year returns outlook is decent, keep an eye on the downside risks for now.

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