

Fixed Income Outlook

Q1 2021



Introduction



Colin Reddie

Co-Head of Global Fixed Income

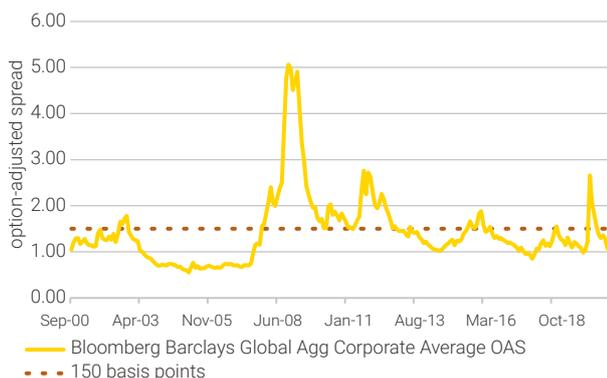


We previously highlighted the binary nature of the key risk events in the final quarter of this extraordinary year. Greater political certainty in the US, combined with positive news on both the efficacy and deployment of COVID-19 vaccines, have given investors the green light to add risk. While we acknowledged that these events had the ability to move markets significantly, we were somewhat shocked by the strength of returns delivered in November alone. If risk assets continue to rally into the end of the year, the valuation set-up for 2021 will be remarkable. While there are still some 'cheap' assets around, the majority of credit markets are priced for perfection. We have been focused on valuations as a result and share some of our thoughts from Jason Shoup, our Head of Global Credit Strategy in this Quarterly Outlook.

While the US Presidential Election provided plenty of drama on the night, it failed to deliver the 'Blue Sweep' that would have given the Democrats control of Washington. The 'split' power outcome meant markets were quick to price out the likelihood of significant fiscal spending. As we 'go to print' however, the run-off in Georgia might see the Senate split exactly 50/50. While this does not equate to legislative 'freedom' for the Democrats, it does mean the Republicans would be unable to hold any appointments to the new administration to ransom. On that point, President-elect Biden has been building out his administration, including Janet Yellen as the first female Treasury secretary. The Biden/Yellen combination is extremely dovish in our opinion, as she could provide the cover for a more aggressive "tax and spend" policy; Yellen is very credible and would naturally work well with the Federal Reserve. She is also an advocate of running an economy 'hot' to help with equality imbalances and lift disadvantaged groups of society out of poverty. As global growth expectations improve, with the roll-out of vaccines globally next year, the interplay of these powerful forces at work will be an area to watch closely.

While a time for healing within society and the global economy, the valuation starting point could make 2021 more challenging than many investors expect. In a year of extraordinary excess credit returns, November did not disappoint at +1.96%. As shown in Figure 1, there has been no other month in the last 20 years with an excess return of more than +1.5% from a starting spread below 150bp over government bonds. Put another way, take out the extreme historical 'tail risk' events, where mean reversion is at its strongest, and it illustrates how powerful the removal of those binary risks has been.

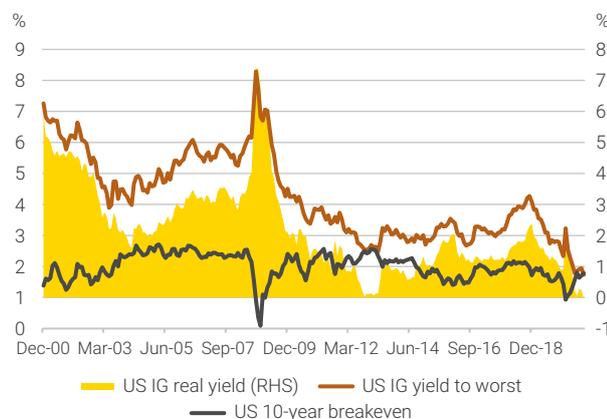
Figure 1: 20 years of the Barclays Global Aggregate Corporate spread



Source: Bloomberg, December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

More interestingly, the combination of tight credit spread valuations and higher inflation expectations given the improvement in the future growth trajectory means that for the first time ever, we have negative real yields in investment grade US credit.

Figure 2: 10-year US credit and 10-year US breakevens



Source: Bloomberg, December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

The debate around the strength of the economic recovery and the likelihood of longer-term ‘scarring’ caused by the pandemic takes a more important role in the first half of 2021 (James Carrick helps us look into the latter in detail). We can envisage a situation similar to the end of 2017, albeit with a very different fundamental backdrop. Back then, global growth was synchronised for the first time since the global financial crisis, and central banks were attempting to pull back from quantitative easing, causing a rise in government bond yields and general tightening of financial conditions that made for a very difficult 2018.

November’s price action should raise levels of concern as certain markets displayed all the trademarks of excess liquidity chasing yield and returns. Bitcoin surged 84% during October and November, highlighting this speculative fervour.

Figure 3: Bitcoin value in US dollars



Source: Bloomberg, December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

As we head into 2021, a more pervasive shift in this trend will require a combination of a change in the fiscal approach of policymakers or an increase in investors’ inflation expectations. As the global economy continues its recovery and vaccines are rolled out en masse, what are the chances of a shift in the policy function, and which policymakers would blink first?

Economic scarring or cosmetic surgery?



James Carrick
Global Economist, Asset Allocation

Economic wounds – like those to our skin – tend to result in persistent scarring. Unprecedented policy support is limiting scarring effects. But if structural change has been accelerated, governments might need to maintain policy support for longer.

Severe wounds typically result in scarring; skin can remain damaged for a long time after an initial blow. Economies are the same: they don't typically rebound back to 'normal' after a sharp negative economic shock. Instead, they tend to suffer long-lasting damage.

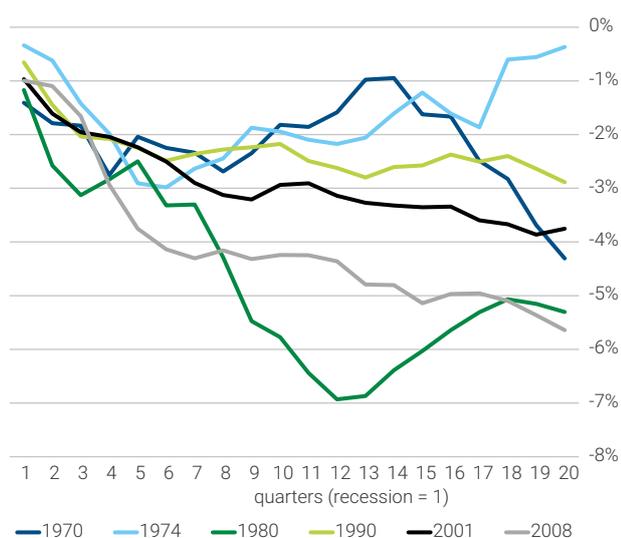


There are various reasons for this:

- 1. Balance sheets:** A temporary loss of income leads to a permanent rise in debt and loss of savings. Households, corporates and governments might restrain spending until their balance sheets improve (e.g. corporates cut costs after being downgraded to restore their previous credit rating, or governments raise taxes after a recession to meet fiscal rules).
- 2. Risk premiums / confidence:** Once bitten, twice shy. In a boom, people are happy to borrow and spend, confident in their ability to repay. After a shock, people become more cautious than before.
- 3. Credit channels:** Banks also become more cautious about lending after experiencing losses. Banks are more vulnerable to structural change than equity investors because they have no upside from higher share prices of 'winners' but instead suffer losses from bankrupt 'losers'.
- 4. Skills mismatch:** Again, structural change can lead to problems. How quickly can unemployed shop-assistants retrain as delivery drivers?

Figure 1 shows examples of scarring in the US. The economy failed to return to its pre-recession 'trend' after a recession, with an average 'gap' of 4%.

Figure 1: Gap between US GDP and pre-recession 5-year trend



Source: Macrobond, December 2020.

Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

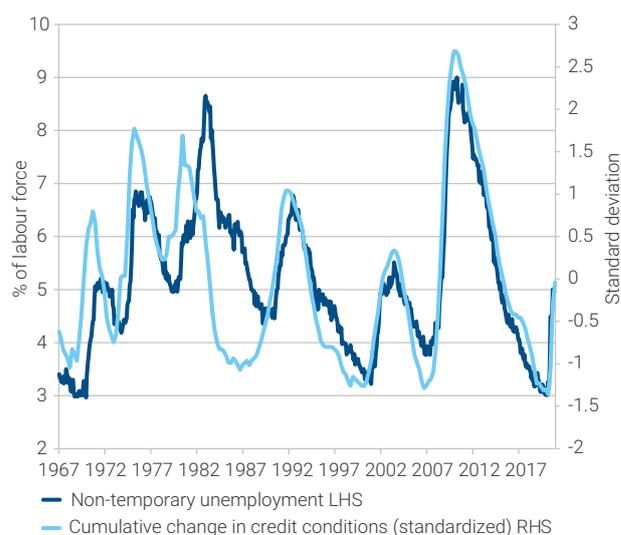
This is line with broader estimates from the IMF¹, although after accounting for pre-recession credit booms, demographics and secular slowdown in trend growth, the IMF estimates that scarring only occurs 70% of the time. This suggests there is scope for 'cosmetic surgery' to make the economy as good as, if not better, than the pre-crisis trend.

How are the patient (economy) and doctors (policymakers) doing this time around?

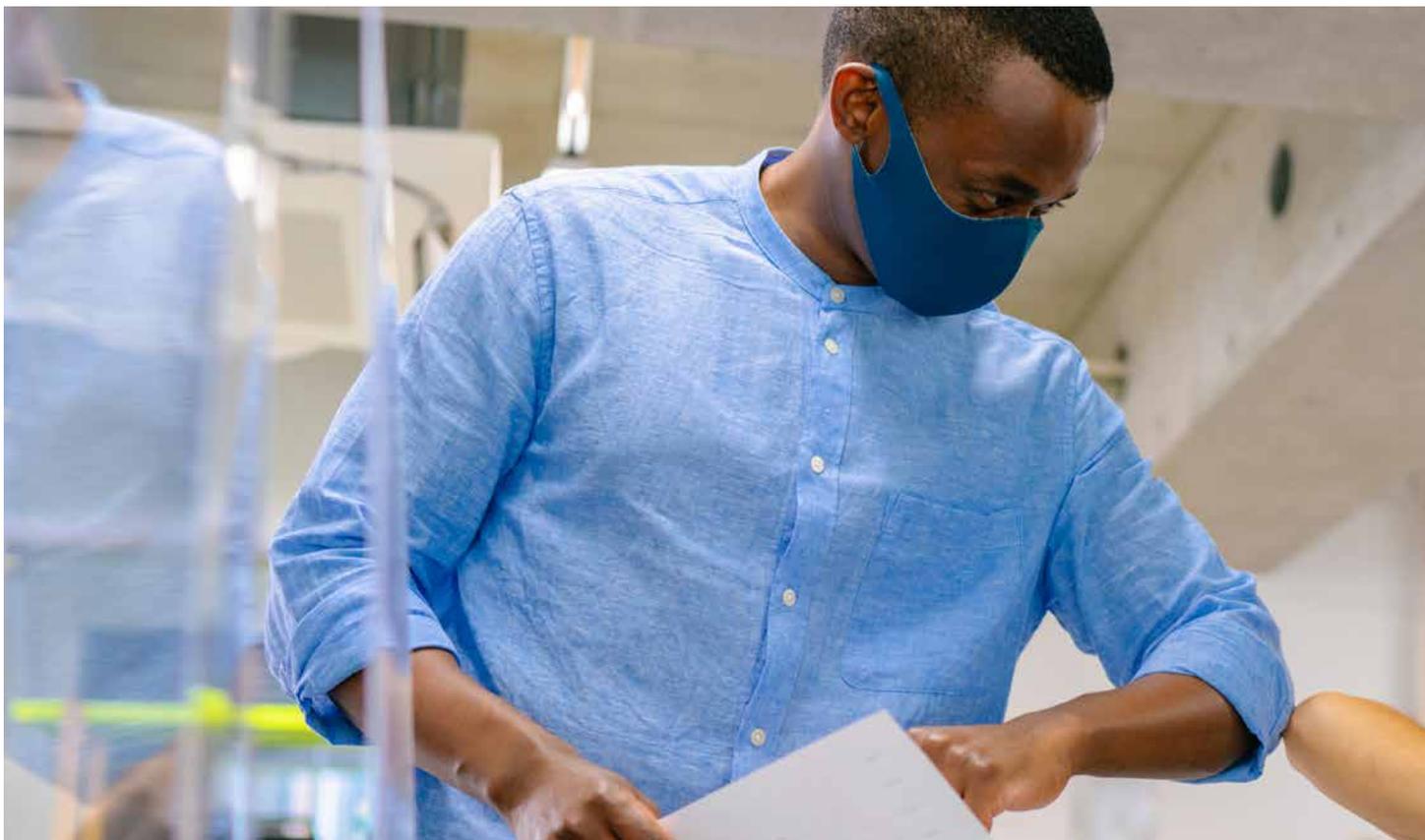
We're seeing mixed signals from the patient, reflecting extraordinary intervention by the doctors. 'Non-temporary' unemployment has risen in line with previous recessions in the US but this has been offset by unprecedented fiscal transfers. European policymakers have also supported households through 'job furlough schemes'.

News on delinquencies and bankruptcies has been mixed, reflecting 'extend and pretend' schemes introduced by governments. For example, the Mortgage Bankers' Association² reports a surge in delinquencies across residential and commercial mortgages, but official data from the Federal Reserve³ says all is fine; the difference is the interpretation of being on an 'official forbearance scheme'.⁴

Figure 2: US banks report tighter credit conditions as unemployment rises



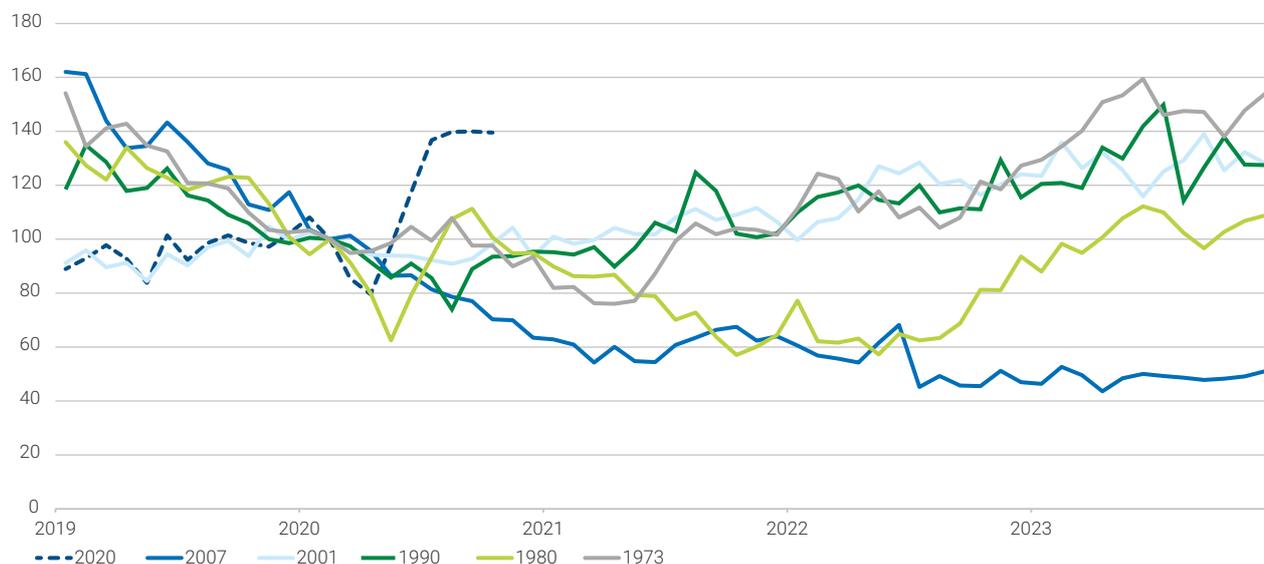
Source: Macrobond, Federal Reserve, LGIM.



Banks report that they are making it harder for customers to borrow, as they are worried about their exposure to troubled industries. But this is challenged by buoyant housing activity. Other high-frequency indicators like car and heavy truck sales are also holding up better than one would expect, amid tighter credit conditions and weaker confidence.

So we have to give credit to policymakers for applying treatment as quickly and aggressively as they did. It looks like we will see mild, rather than severe, scarring – particularly as recent vaccine news should encourage everyone to hold on tight as there’s light at the end of the tunnel.

Figure 3: High-frequency indicators such as housing sales are holding up very well



Source: Macrobond, December 2020 There is no guarantee that any forecasts made will come to pass.



One wildcard is how much society will change in a post-vaccine world. While some areas might see pent-up demand (holidays), have we accelerated the structural decline in others (high street versus online shopping, business travel and commuting versus conference calls)? This would leave banks with legacy bad debts; the OECD is already particularly concerned by the risk to companies from higher corporate debt. We therefore agree with the OECD's assessment⁵ that fiscal and monetary authorities must be careful not to withdraw policy support too quickly.

1. <https://www.imf.org/external/pubs/ft/wp/2015/wp15230.pdf>

2. <https://www.mba.org/2020-press-releases/december/commercial-and-multifamily-mortgage-delinquency-rates-continue-to-vary-by-property-types-and-capital-sources>

3. <https://www.federalreserve.gov/releases/chargeoff/delallsa.htm>

4. <https://www.consumerfinance.gov/coronavirus/mortgage-and-housing-assistance/mortgage-relief/>

5. <https://www.oecd.org/economy/continued-fiscal-support-and-public-health-action-needed-to-make-hope-of-recovery-a-reality.htm>

Valuations: too far, too fast?



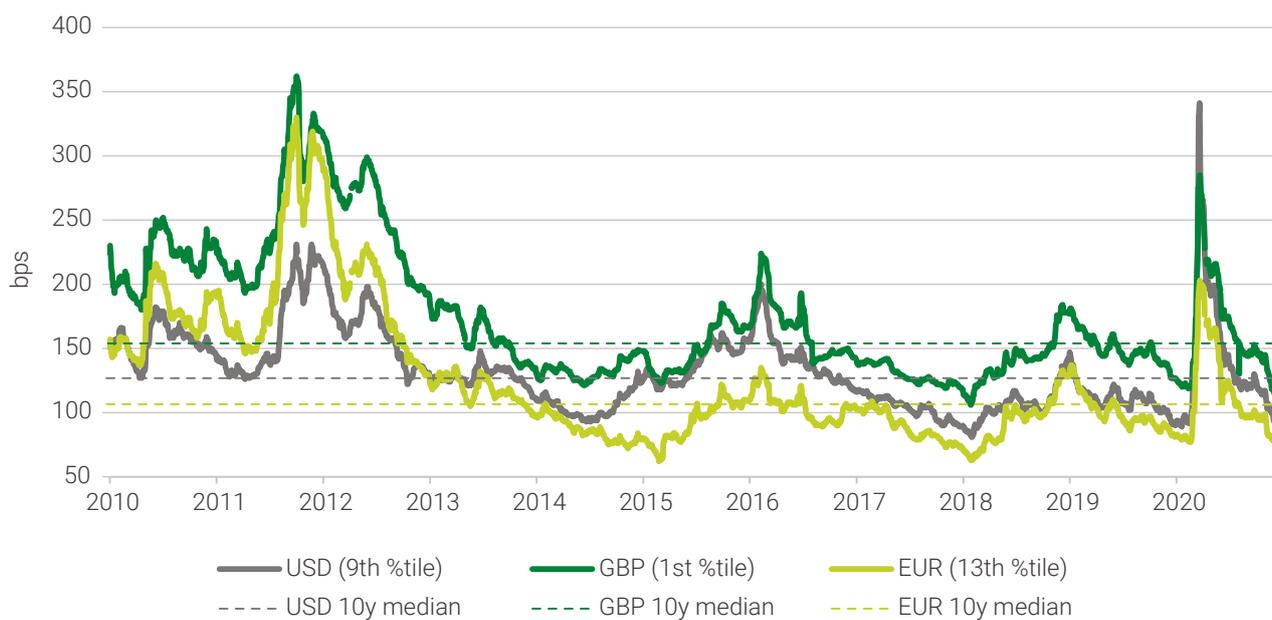
Jason Shoup
Head of Credit Strategy, LGIMA



After November's tremendous rally, the central question facing credit investors as 2021 begins is whether valuations reflect too much optimism. Like most risk assets, credit markets have managed to recover nearly the entirety of the March sell-off. Remarkably, investment grade credit markets look set to begin the year with spreads just a few basis points wider than pre-pandemic levels and at valuations that typically take years to achieve after a recession. For as sudden as the COVID 19 market crisis took hold back in the spring, the rally since then has been equally quick by historical standards. It is tempting to argue that the recovery has gone too far, too fast. At current levels, investment grade credit spreads have only been lower about 10 percent of the time since the financial crisis of 2008.



Figure 1: spread history (option-adjusted spread) for US dollar, sterling and euro investment-grade debt



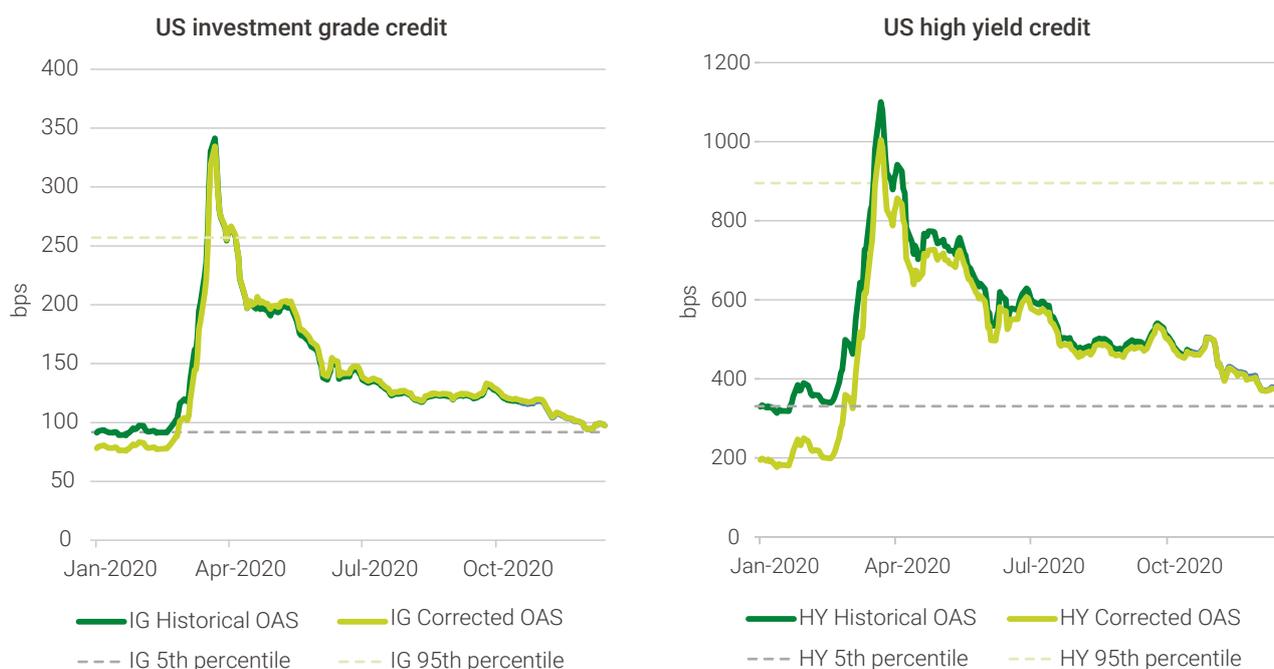
Source: Bloomberg, LGIM, December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

Entering the year at such 'rich' valuations has not boded well in the past. Unsurprisingly, starting the year with very low credit spreads makes it more likely that excess returns are negative over the following year. The fact that fixed income durations have lengthened as yields have declined compounds the issue. There is hardly any cushion in the higher quality credit markets as each basis point of credit spread 'widening' produces comparatively more loss due to yields being so low.

As such, for high quality credit to continue to perform, spreads may need to venture below the narrowest points of the previous cycle. As implausible as that may sound, it is not unthinkable given the abundance of central bank liquidity, the return to a record amount of negative yielding debt globally, and the knowledge that central banks (now including the Federal Reserve) are willing to provide direct support to credit markets. Frankly, the last year has been a glaring illustration of the power of liquidity over fundamentals. Even though companies are likely to improve the health of their balance sheets going forward, corporate leverage will probably end 2021 in a significantly worse position than it began 2020 due to COVID 19. And yet, as long as quantitative easing continues, there is no reason why credit spreads cannot remain low.

A more prosaic argument for credit markets at current valuations is that the investment universe has improved in the wake of all the COVID 19-related downgrades and bankruptcies. In the high yield market, many of the so called 'zombie' companies from the last credit cycle were forced to file for bankruptcy in 2020, and as such, the remaining cohort appear to compromise comparatively 'cleaner' credit stories. Likewise, many weaker triple-B rated credits have transitioned to high yield as fallen angels, where they are now among the strongest high yield companies. It is a case of survivorship bias, but today's US investment grade credit index would have entered 2020 at a spread of 77 rather than 90 basis points, had the COVID 19 fallen angels been presciently removed. This could suggest that there is plenty of room for continued upside in 2021.

Figure 2: Investment grade and high yield



Source: Bloomberg, LGIM. December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

A more straightforward takeaway from the current credit valuation picture is that it may be easier to locate upside opportunities away from the highest quality segments of the market. While extracting meaningful excess returns from investment grade corporate bonds will require the asset class to revisit and push through the spread 'floor' established over the last ten years, high yield and emerging markets would seem to have a clearer path for spread compression over the next six to twelve months, albeit one that is more sensitive to economic normalization, the level of interest rates, and the direction of the dollar. Similarly, for mandates that must stay within investment grade credit, there appears to be better return prospects available by extending in duration and moving down in credit quality, in our view. As much as the last few months could be characterised as a 'catch-up' rally from the COVID 19 sensitive issuers and sectors, 'safety' still looks to be trading at a premium as many single-A rated corporate bonds have set all-time lows in spread.

Finally, it should be noted that while credit valuations may look high on an outright basis, they do not look overly rich relative to other asset classes. In fact, a simple cross-asset model that focuses on the common valuation drivers—such as economic surprises, real rates, and the dollar—between asset classes, indicates that credit remains toward the cheaper end of the spectrum whereas bunds, small-cap US equities, and copper look the most over-valued, as shown in Figure 3. It may only be a small comfort, but if credit is overvalued, then it is likely other assets classes are as well.

Figure 3: overvalued versus undervalued asset classes

	Current level	Model level	Current 1yr Z-score	Current less 1yr Z-score	R ²
Bund 10Y	-0.64%	-0.41%	-1.43	-1.78	0.7
Russell 2000	1912	1650	1.84	1.44	0.69
Copper	352	308	2.33	1.36	0.68
UK 10y	0.17%	0.41%	-0.87	-1.26	0.76
S&P 500	3663	3371	1.39	0.99	0.6
MSCI ACWI	630	577	1.63	0.95	0.75
JPY/AUD	1.28	1.34	-1.29	-0.88	0.46
MSCI EM	1258	1149	1.84	0.86	0.59
Spain 10y	0.00%	0.19%	-1.58	-0.71	0.74
MSCI Europe	1174	1116	1.17	0.5	0.77
Italy 10y	0.56%	0.71%	-1.56	-0.38	0.79
UST 10y	0.90%	1.01%	-0.08	-0.26	0.84
CDX HY	305	331	-0.96	-0.19	0.85
USD Trade Weighted	114.28	113.77	-1.21	0.15	0.69
EM Sov	309	311	-1.07	-0.01	0.79
US HY	384	377	-0.9	0.04	0.82
WTI Crude	46.57	47.49	0.55	-0.08	0.53
MOVE	47.52	49.92	-0.57	-0.11	0.32
EM HY	547	520	-1.02	0.11	0.68
CDX IG	54	50	-0.71	0.19	0.88
EU HY	364	335	-0.86	0.2	0.81
Vix	23.62	25.80	-0.46	-0.21	0.75
EM IG	146	134	-0.77	0.21	0.85
EU IG Credit	81	74	-0.95	0.21	0.78
JGB 10y	0.01%	0.00%	0.26	0.21	0.43
EUR/ USD	1.21	1.20	1.83	0.3	0.72
US IG	100	80	-0.77	0.4	0.87
Gold	1840	1912	-0.57	-0.48	0.64

Source for Figure 3: LGIM, December 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

Nine tailwinds for emerging market bonds



Uday Patnaik
Head of Emerging Market Debt

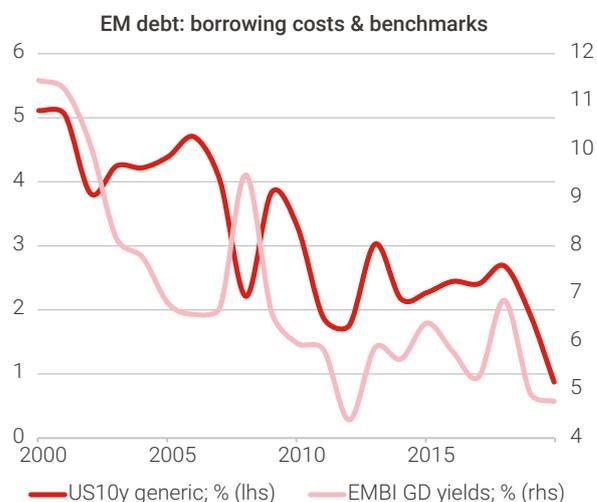
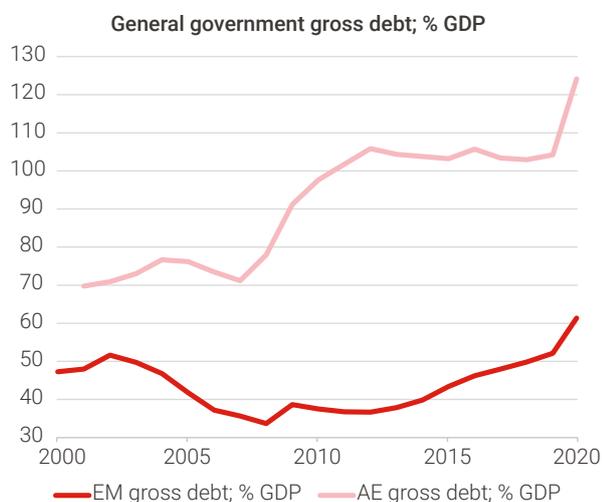
In this article, we summarise nine factors that we believe underpin a positive outlook for emerging market debt in 2021.

1. Public finances

The COVID-19 pandemic has impacted emerging market (EM) balance sheets, but to a lesser extent than in developed markets (DMs). The IMF expects EM government debt to rise by 9.2% of GDP in 2020 to 61.4% of GDP by the end of the year. Whereas advanced economies are expected to see an increase of 20% of GDP to 124% of GDP, which is more than double that of EMs in both relative and absolute terms. EM primary deficits are expected to be 8.5% of GDP in 2020, a 5.5% of GDP increase from 2019. In contrast, the primary deficit in advanced economies is projected at 13% of GDP this year, an 11% of GDP increase over last year.



Figure 1: debt and borrowing



Sources: LGIM, JP Morgan, Bloomberg, IMF. Data to 24 November 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.



2. Global growth and trade rebound

According to the IMF's forecasts, the global economy rebound in 2021 to 5.2% growth, from -4.4% in 2020. EM growth is projected at 6%, its highest level in a decade, and 2% higher than that of advanced economies. This will support global trade volumes, which are expected to rise by 8% or more in 2021. Export volumes in EMs are forecast to rise by 9.5%, their fastest pace since 2010. Furthermore, as 2021 wears on, we expect growth revisions in favour of EMs, given the relative outperformance in Asia and China in particular.

3. Vaccine development

Progress in the development of vaccines should support risk sentiment, on account of their potential to support a faster-than-expected global growth rebound.

4. Lower trade and geopolitical tensions

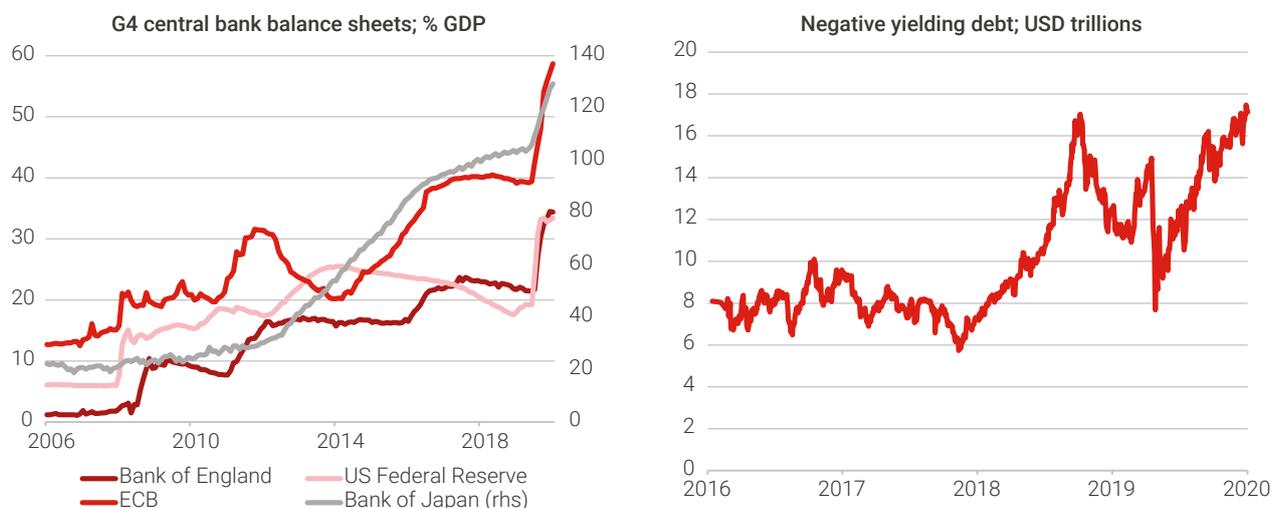
The incoming Biden administration is expected to follow a more inclusive, multilateral approach on the global stage. This should see a rebuilding of US alliances, lower trade tensions and a decline in Twitter diplomacy, which should help reduce volatility in financial markets.

5. Strong donor engagement

The IMF, other multilaterals and bilateral donors remain closely engaged with EMs. The IMF has provided financial support to more than 83 countries since the start of the pandemic, while bilateral creditors have provided 12 months' debt service relief to more than 45 countries via the G20's Debt Service Suspension Initiative that will last until mid-2021.

6. Supportive global liquidity conditions

The pandemic has seen G4 central bank balance sheets rise by 17.5% of GDP between March and September 2020 – a period of just seven months – a significantly faster and stronger pace than in the global financial crisis. Meanwhile, since the start of the pandemic, fiscal authorities around the world have launched unprecedented spending packages totalling nearly \$12 trillion. Global liquidity therefore remains abundant, with benchmark rates at historic lows. In addition, the stock of negative yielding debt stands at \$17 trillion (double March 2020's levels). With these dynamics expected to remain in place for the foreseeable future, the search for yield should continue to support inflows to EMs in 2021.

Figure 2: central banks and negative yielding debt

Source: Bloomberg. G4 balance sheets as at 30 September 2020. Negative yielding debt as at 24 November 2020. Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

7. Supportive valuations and technicals

We believe EM valuations remain attractive, particularly the EM high yield component, relative to both US investment grade and US high yield bonds. On the other hand, while lower headline fiscal deficits should mean lower EM issuance next year, EM cashflows are likely to be higher, with larger amortisation and interest payments returned to investors in 2021.

8. Supportive commodity price outlook

With a rebound in global growth prospects, commodity prices should remain supportive for EMs.

9. Range-bound dollar

Given its anti-cyclical characteristics (whereby the dollar is used as a funding currency to buy EM assets), the dollar is biased towards gradually weakening when global growth conditions are strong. Furthermore, both the US and the European central banks are likely to continue their quantitative easing programmes until a recovery is firmly in place; this should weigh down the outlook for the dollar and the euro, and prove supportive for EM currencies. We do note that if inflation expectations rise fast amid US growth outperformance versus Europe, then US yields could rise, which would support the dollar. However, even here, with talk of average inflation targeting, we do not expect any significant spikes in real yields. Hence, we do not expect a sustained rally in the dollar in 2021.

The above, however, does not mean there are no risks. The near term could see actions by the outgoing US administration on China, Iran, trade and other issues that could raise volatility. Beyond the transition to the Biden administration, a divided US Congress could mean a smaller stimulus and potential delays in arresting the spread of COVID 19. Both could weaken the US recovery.

Downside risks to global growth also emanate from Europe amid further lockdowns and the spread of infections. Within EMs, although Asian countries (outperformers on growth) have been more effective in controlling virus spikes, other large economies could be vulnerable to an increase in infection rates, all the more so as vaccine deliveries could take time. Conversely, if the vaccine leads to a faster global recovery than currently expected, inflation expectations could rise, pulling benchmark yields higher and strengthening the dollar.

Finally, EM sovereign and corporate spreads have tightened by around 250 bps since March in a rally that is now relatively mature. Although this implies 2021 is likely to feature bouts of consolidation, we believe the strength of the factors noted above could support a further 50-70 bp rally, pushing EM spreads to pre-crisis levels of approximately 300 bps. Sustained risk appetite could lead to the 240-260 bp resistance range being tested.



Contact us

For further information about LGIM, please visit lgim.com or contact your usual LGIM representative



Important information

The information contained in this document (the 'Information') has been prepared by LGIM Managers Europe Limited ('LGIM Europe'), or by its affiliates ('Legal & General', 'we' or 'us'). Such Information is the property and/or confidential information of Legal & General and may not be disclosed by you to any other person without the prior written consent of Legal & General.

No party shall have any right of action against Legal & General in relation to the accuracy or completeness of the Information, or any other written or oral information made available in connection with this publication. Any investment advice that we provide to you is based solely on the limited initial information which you have provided to us. No part of this or any other document or presentation provided by us shall be deemed to constitute 'proper advice' for the purposes of the Investment Intermediaries Act 1995 (as amended). Any limited initial advice given relating to professional services will be further discussed and negotiated in order to agree formal investment guidelines which will form part of written contractual terms between the parties.

Past performance is not a guide to future performance. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested. The Information has been produced for use by a professional investor and their advisors only. It should not be distributed without our permission.

The risks associated with each fund or investment strategy are set out in this publication, the relevant prospectus or investment management agreement (as applicable) and these should be read and understood before making any investment decisions. A copy of the relevant documentation can be obtained from your Client Relationship Manager.

Confidentiality and limitations

Unless otherwise agreed by Legal & General in writing, the Information in this document (a) is for information purposes only and we are not soliciting any action based on it, and (b) is not a recommendation to buy or sell securities or pursue a particular investment strategy; and (c) is not investment, legal, regulatory or tax advice. Any trading or investment decisions taken by you should be based on your own analysis and judgment (and/or that of your professional advisors) and not in reliance on us or the Information. To the fullest extent permitted by law, we exclude all representations, warranties, conditions, undertakings and all other terms of any kind, implied by statute or common law, with respect to the Information including (without limitation) any representations as to the quality, suitability, accuracy or completeness of the Information.

Any projections, estimates or forecasts included in the Information (a) shall not constitute a guarantee of future events, (b) may not consider or reflect all possible future events or conditions relevant to you (for example, market disruption events); and (c) may be based on assumptions or simplifications that may not be relevant to you.

The Information is provided 'as is' and 'as available'. To the fullest extent permitted by law, Legal & General accepts no liability to you or any other recipient of the Information for any loss, damage or cost arising from, or in connection with, any use or reliance on the Information. Without limiting the generality of the foregoing, Legal & General does not accept any liability for any indirect, special or consequential loss howsoever caused and, on any theory, or liability, whether in contract or tort (including negligence) or otherwise, even if Legal & General has been advised of the possibility of such loss.

Third party data

Where this document contains third party data ('Third Party Data'), we cannot guarantee the accuracy, completeness or reliability of such Third-Party Data and accept no responsibility or liability whatsoever in respect of such Third-Party Data.

Publication, amendments and updates

We are under no obligation to update or amend the Information or correct any errors in the Information following the date it was delivered to you. Legal & General reserves the right to update this document and/or the Information at any time and without notice.

Although the Information contained in this document is believed to be correct as at the time of printing or publication, no assurance can be given to you that this document is complete or accurate in the light of information that may become available after its publication. The Information may not take into account any relevant events, facts or conditions that have occurred after the publication or printing of this document.

Telephone recording

As required under applicable laws Legal & General will record all telephone and electronic communications and conversations with you that result or may result in the undertaking of transactions in financial instruments on your behalf. Such records will be kept for a period of five years (or up to seven years upon request from the Central Bank of Ireland (or such successor from time to time)) and will be provided to you upon request.

In the United Kingdom and outside the European Economic Area, it is issued by Legal & General Investment Management Limited, authorised and regulated by the Financial Conduct Authority, No. 119272. Registered in England and Wales No. 02091894 with registered office at One Coleman Street, London, EC2R 5AA.

In the European Economic Area, it is issued by LGIM Managers (Europe) Limited, authorised by the Central Bank of Ireland as a UCITS management company (pursuant to European Communities (Undertakings for Collective Investment in Transferable Securities) Regulations, 2011 (S.I. No. 352 of 2011), as amended) and as an alternative investment fund manager with "top up" permissions which enable the firm to carry out certain additional MiFID investment services (pursuant to the European Union (Alternative Investment Fund Managers) Regulations 2013 (S.I. No. 257 of 2013), as amended). Registered in Ireland with the Companies Registration Office (No. 609677). Registered Office: 33/34 Sir John Rogerson's Quay, Dublin, 2, Ireland. Regulated by the Central Bank of Ireland (No. C173733).

LGIM Managers (Europe) Limited operates a branch network in the European Economic Area, which is subject to supervision by the Central Bank of Ireland. In Italy, the branch office of LGIM Managers (Europe) Limited is subject to limited supervision by the Commissione Nazionale per le società e la Borsa ("CONSOB") and is registered with Banca d'Italia (no. 23978.0) with registered office at Via Uberto Visconti di Modrone, 15, 20122 Milan, (Companies' Register no. MI - 2557936). In Germany, the branch office of LGIM Managers (Europe) Limited is subject to limited supervision by the German Federal Financial Supervisory Authority ("BaFin"). In the Netherlands, the branch office of LGIM Managers (Europe) Limited is subject to limited supervision by the Dutch Authority for the Financial Markets ("AFM") and it is included in the register held by the AFM and registered with the trade register of the Chamber of Commerce under number 74481231. Details about the full extent of our relevant authorisations and permissions are available from us upon request. For further information on our products (including the product prospectuses), please visit our website.

© 2021 Legal & General Investment Management Limited.

CC1103122020