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Global macro strategy Are central banks running out of ammunition to fight the next downturn?

The main challenge of monetary policy in the past was to contain high and volatile inflation. Policy makers rose to the challenge and brought inflation under control in many parts of the world, including emerging market economies with histories of very high inflation. The current challenge for central banks is quite different. Inflation and interest rates are very low in all advanced economies, which poses a new challenge to policy makers: how to respond to the next slowdown or recession. While a global recession is not the baseline consensus view at the moment, despite rising risks, it is essential to discuss and prepare policy options well in advance.

Global macro strategy (continued)

There is concern that central banks in major economies could run out of ammunition to fight the next recession. These concerns and policy options were discussed in a recent policy forum where academic, market participants and policy makers met to discuss the issue.¹ Several US Federal Open Market Committee members and policy makers from the European Central Bank (ECB) and Bank of England (BoE) joined the debate. Perhaps not surprisingly, central bankers believe there are stimulus options beyond the traditional policy rate tool. These policy options were labeled "unconventional" before the global financial crisis. But in a recent speech, former US Federal Reserve (Fed) Chairman Ben Bernanke referred to them as "New Monetary Policy" (NMP) tools.²

In recessions, central banks typically cut interest rates to stimulate the economy. In the last three US recessions, for example, the Fed cut rates by at least 500 basis points.² With the current US policy rate range between 1% and 1.25%, a recession would leave little conventional policy space in which to maneuver. In the euro area, Japan, and some other countries, short-term policy rates are already negative and even longer-term interest rates are negative or near zero in some global markets. What policy options are left for central banks?

NMP tools

In some countries, such as the US and Canada, there is still some traditional policy space, with policy rates above zero. Policy rates would likely be cut to zero in the next recession. But what moves would follow? Although policy responses might vary depending on the type and severity of a shock, there seems to be an emerging consensus that central banks would first rely on forward guidance once policy rates reached the zero bound.

In forward guidance, policy makers explain how they expect the economy to evolve and how monetary policy would be set in response. Forward guidance can be calendar-based, such as committing to not raise the policy rate for an extended period. It could also be state-based, such as making a commitment to not raise interest rates until certain desirable conditions are met, such as hitting an inflation target and/or achieving a certain level of the unemployment rate. The objective is typically to reduce long-term interest rates and commit to keeping them low, incentivizing households and firms to spend and invest, with the aim of boosting aggregate demand and output.

Asset purchases from the private sector, known as quantitative easing (QE), is the second NMP tool. In QE, the central bank typically buys government securities from the market, although in some cases other assets can be purchased. As with forward guidance, the idea is to reduce the risk-free rate and keep it low, potentially boosting other asset prices and lowering the exchange rate. In some countries central banks have also bought private sector assets, such as covered bonds, corporate bonds, real estate trusts and even equities via exchange traded funds. This measure has allowed central banks to influence riskier assets directly, rather than indirectly thought the risk-free rate. QE can be reinforced with forward guidance; for example, a central bank might commit to not hiking rates until after the completion of asset purchases.

Negative interest rates is another policy option currently in use in Europe and Japan. In practice, negative rates work through bank reserves held at the central bank. A byproduct of QE is the expansion of central bank balance sheets and the creation of excess reserves. As central banks buy government bonds and other assets from the market, such purchases create deposits of the banking system at the central bank. The portion of reserves above the required reserve level is called "excess reserves". Negative policy rates are applied to all, or certain categories, of excess reserves. The negative rate is a direct cost to a bank, and, to avoid that cost, banks are expected to switch to other assets, driving up their values. In this way, negative interest rates are thought to work similarly to other monetary policy tools.

Another option is the Yield Curve Control (YCC) mechanism, currently being used by the Bank of Japan (BoJ). In this strategy, the central bank targets interest rates along the yield curve and keeps them within a range. In YCC, the central bank has firmer control of the yield curve compared to other policies, but the amount of asset purchases necessary to control the curve is endogenous – not pre-set.

Global macro strategy (continued)

Finally, central banks can incentivize lending by providing attractive long-term funding, with the condition that this funding will be used for lending. The ECB's Targeted Long-Term Refinancing Operations is an example of this type of lending. This tool can be especially important in bank-dominated financial systems, such as Europe's. But because long-term rates are low in major economies, it is quite likely that lending-based programs and private sector asset purchases would have to be used more actively.

Are NMP tools effective?

The last global recession was deep and recovery was slow, despite the use of several NMPs around the world. Some observers argue that the new tools have limited power and are unlikely to be effective in the next recession. But we believe there is room for optimism. There is a growing literature on the effectiveness of various tools that, on balance, show that NPM tools were effective in easing financial conditions.³ In his recent speech on monetary policy, Ben Bernanke argued that NMP tools would add stimulus equivalent to a cut of 300 basis points in the federal funds rate.² That would mean that remaining policy space is not that much lower compared to the last recession.

It is true that the recovery from the last recession was slow in many countries, but this was also one of the deepest global recessions in modern history, coupled with a global financial crisis. Even in past recessions, monetary policy never fully solved all problems, but it likely lessened them and made them easier to manage than they otherwise would have been.

In the next recession, we believe the NMP tools would likely be implemented more quickly and effectively. In the last recession, there was less experience with these new and unconventional tools and there was a need for debate about their potential costs and benefits, clarification of legal issues and political agreement. There were concerns, for example, that balance sheet expansion would lead to high inflation and QE was launched late in the game in the euro area due to political constraints. These concerns delayed the implementation of NMP tools and sent confusing messages to markets, consumers and firms. In the future, we believe these tools would be utilized more promptly and communication would be easier.

Despite our optimistic take, we recognize that there is less policy space than in the past. But we also observe a growing consensus that fiscal policy should play a more active role in the next recession. The challenge is that fiscal policy often requires legislation, and governing bodies may be slow to act in a recession. Currently the Fed and the ECB are reviewing their policy frameworks. We believe it is also the right time to discuss and prepare fiscal policy tools that could be employed promptly in the next recession.

Turgut Kisinbay, Director Fixed Income Research

Source: University of Chicago Initiative on Global Markets, US Monetary Policy Forum, New York, Feb. 21, 2020.
Source: Ben Bernanke, "The New Tools of Monetary Policy," American Economic Association Presidential

Address, Jan. 4, 2020.

³ Source: Committee on the Global Financial System (2019), "Unconventional monetary policy tools: a crosscountry analysis," CGFS Papers No. 63, October 2019.

Global macro strategy (continued) Interest rate outlook

US: Neutral. Uncertainty regarding the spread and severity of the coronavirus have created sharp moves in the US interest rate market. Rates are currently pricing in significant easing from the Fed, and if the coronavirus creates recessionary conditions, the Fed is indeed likely to be aggressive. Upside risk to interest rates would likely be realized if the behavior-related changes due to the coronavirus are transient and growth resumes its uptrend in the second quarter of 2020.

Europe: Neutral. Worries about the coronavirus has sparked a bout of core rates buying in the past month. This has been despite eurozone survey data showing further economic improvement, including a better than expected German manufacturing PMI in January. The January European Central Bank (ECB) meeting suggested that the ECB is less pessimistic, but still sees downside risks to growth and inflation (which is far from its target) and remains committed to its accommodative stance. While the meeting provided little detail regarding the ECB's strategic policy review, policy is clearly on hold for the foreseeable future.

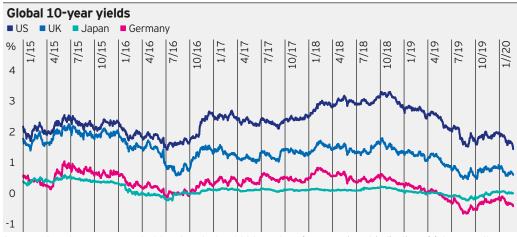
China: Overweight. Given the negative impact of the coronavirus outbreak on China's economy, the People's Bank of China (PBoC) is expected to maintain loose monetary policy, with the potential for cuts in the widely watched medium-term lending facility rates (MLF) and required reserve ratios (RRR). These policy measures could lead to lower short-term interest rates and further declines in longer-term rates. We would expect to shift to a neutral recommendation if the impact on economic growth is less severe than currently expected.

Japan: Neutral. Japanese government bond yields have declined due to coronavirus-driven risk aversion, but their beta has been relatively low versus US Treasuries. We believe there is limited potential for cuts by the Bank of Japan (BoJ) in the near term and the BoJ reduced the frequency of its 10 to 25-year quantitative easing operations in February, signaling its discomfort with lower long-term yields.

UK: Underweight. Although global risk aversion and the dovish asymmetry in the Bank of England's (BoE) policy guidance should support gilts, we believe the longer end of the yield curve offers little value on either an outright or cross-market basis. As a haven asset, gilts stack up poorly compared to global alternatives, in our view, such as US Treasuries, Australian government bonds and Canadian government bonds. In these markets, real yields are higher and the term premium is greater, even though the central banks have more or equal scope to reduce rates.

Canada: Overweight. The Canadian economy continues to soften as global growth trends recede on the back of the coronavirus and rail shutdowns have caused supply disruptions domestically. Domestic demand continues to be supported by job creation but we are closely monitoring consumer spending as a trigger for potential rate cuts toward mid-year. We believe absolute and relative value can be found in Canadian fixed income in this economic landscape.

Australia: Overweight. Australian 10-year bonds have rallied sharply in the past month, mainly due to risk aversion surrounding the coronavirus. Although, the Reserve Bank of Australia (RBA) was less dovish than expected this month, the risk to Australian interest rates remains solidly to the downside, in our view, and the RBA is probably the most likely G10 central bank to ease in the next three months. This should continue to support cross-market outperformance.



Source: Bloomberg L.P., Jan. 2, 2015 to Feb. 24, 2020. Past performance is not indicative of future results.

Rob Waldner, Chief Strategist and Head of Macro Research, James Ong, Director-Derivative Portfolio Management, Noelle Corum, Associate Portfolio Manager, Reine Bitar, Portfolio Manager, Yi Hu, Head of Asia Credit Research, Michael Siviter, Senior Fixed Income Portfolio Manager, Avi Hooper, Portfolio Manager, Scott Case, Portfolio Manager

Global macro strategy (continued) Currency outlook

USD: Underweight. We continue to expect the dollar to decline somewhat going forward. Without the impact of the coronavirus, a closing of the global growth gap with solid, but unexciting, US growth would likely allow the dollar to depreciate. Risks increase with the coronavirus of a sharp dollar rally in a risk-off scenario, but on the other hand, aggressive Fed rate cuts will likely weigh on the dollar.

EUR: Neutral. We expect eurozone growth to stabilize around current below-trend levels of around 1% and the ECB to remain accommodative in the near term. Political uncertainty and weak economic data, and the negative cost of carry, should keep the euro range-bound versus the US dollar in the near term.

RMB: Neutral. Although renminbi-denominated assets have presented attractive investment opportunities for international investors, renminbi performance is likely to be impacted by the coronavirus outbreak in the near term. The impact on China's economic growth and potential further spread to other countries complicate the currency's outlook, especially coupled with resumed US dollar strength against major currencies. We remain positive on the renminbi's performance in the medium term but risk-off market sentiment and US dollar strength could increase its volatility and pressure the renminbi/US dollar exchange rate in the near term.

JPY: Overweight. The yen has struggled to rally versus the US dollar, despite global risk aversion. The lack of haven demand for the yen might reflect the view that Japan is more exposed to the coronavirus relative to the US due to the contribution of Chinese supply chains and tourism to Japanese growth. However, if the Fed meets market expectations for further cuts, the cost of hedging currency exposure will likely decline, potentially inducing some Japanese investors to take profit on long US dollar positions.

GBP: Neutral. The case for sterling is more balanced, in our view, as positioning is no longer obviously short and interest rate differentials are unlikely to be a substantial tail wind. Sterling's performance will likely increasingly be determined by the performance of UK economic data and the tone of negotiations with the European Union (EU). The current outlook on these fronts is mixed: UK data have recently surprised to the upside and the UK government has taken a more confrontational tone with the EU, potentially raising the hurdle for a speedy and comprehensive trade deal. A disruptive No Deal Brexit at the end of 2020 is unlikely, but drawn out and confrontational trade talks could create uncertainty that could prevent a substantial growth bounce. This should keep sterling rangebound.

CAD: Neutral. The relative economic resilience of the US economy and the close Canada-US trading relationship have contributed to the relative outperformance of the Canadian dollar, in our view, amid coronavirus fears. Demand for Canadian assets has been robust and we expect it to remain strong, especially for fixed income assets. Oil price declines have not yet negatively impacted the currency, despite the historical correlation between oil and the Canadian dollar, highlighting the Canadian economy's reduced dependence on oil and oil's decreased representation in the current account.

AUD: Neutral. The coronavirus has weighed on the Australian dollar due to increased global risk aversion and the damage to Australia's terms of trade via the sharp fall in iron ore and liquified natural gas prices. We do not expect much upside for the Australian dollar versus the US dollar until virus-related fears recede. Nevertheless, the Australian dollar does appear cheap, in our view, versus the New Zealand dollar, which is also exposed to a downside shock to Chinese growth.

Global macro strategy (continued)

Valuations of major currencies compared to purchasing power parity (PPP)						
	%	AUD	GBP	EUR	CAD	JPY
-	35					
lue	28					
Overvalued	21					
0 V0	14					
	7					
	0	25	2.7			
hed	-7	-2.5	-2.7	0.5		
Undervalued	-14			-9.5	-10.7	
Ider	-21					
J	-28					-34.7
	-35					

Source: Bloomberg L.P., data as of Feb. 24, 2020.

Rob Waldner, Chief Strategist and Head of Macro Research, James Ong, Director Derivative Portfolio Management, Noelle Corum, Associate Portfolio Manager, Michael Siviter, Senior Portfolio Manager, Yi Hu, Head of Asia Credit Research, Avi Hooper, Portfolio Manager, Scott Case, Portfolio Manager This section highlights the key themes driving Invesco Fixed Income's global credit research process and views. Themes are updated based on evolving trends and expectations.

Asset class themes

Investment grade (IG): Utilizing market strength to opportunistically increase quality exposure given (i) uncertain coronavirus outbreak macro impact, (ii) corporate outlook revisions and (iii) robust credit valuation. Easy financial conditions expected to continue, leading to opportunistic supply

Rationale

We expect the pace of improvement in US corporate credit fundamentals to pause in the first half of 2020 as the growing and increasingly uncertain impact of the coronavirus outbreak feeds through global demand and supply chains. Initial S&P 500 earnings estimates for 2020 call for a high single-digit year-over-year increase, but we believe these estimates could be at risk based on a swathe of recent corporate earnings warnings and negative revisions. Despite successful outcomes related to the China trade and Brexit negotiations, global economic activity remains at risk in the short-term as China and other countries manage the impact of the virus outbreak. Operating margins remain near historical highs, which has supported improved free cash flow metrics. In addition, we are seeing pressure from shareholders to decrease leverage through management incentives which remains a positive consideration for the IG asset class.

The ultimate impact and timing of an effective control to the outbreak remains in question, while credit risk premiums remain near cycle lows and duration-adjusted US IG credit valuation remains near all-time tight levels. In the meantime, global policymakers continue to pursue accommodative measures aimed at supporting economic activity. We also note recent strength in the US dollar and the additional headwinds this could pose to credit fundamentals of certain globally diversified issuers.

Market technicals remain supportive, as net issuance is expected to be modestly lower in 2020, while new issuance demand remains positive. However, there is growing uncertainty about supply expectations, as low US Treasury yields and credit spreads result in opportunistic supply, while corporate issuers increase tenders and refinance higher coupon debt. In addition, elevated equity market valuations could spur additional merger and acquisition (M&A) related issuance, although this has not yet materialized significantly in 2020. From a demand perspective, foreign investor demand for US IG credit is expected to remain steady as hedging costs decline.

In Europe, manufacturing data are stabilizing but the fundamental outlook remains constrained by low 2020 growth expectations. Nevertheless, European issuers generally carry less debt on their balance sheets and are benefiting from a combination of negative sovereign yields and strong technical demand from yield-starved investors and central bank buying.

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IFI strategy We prefer to tactically increase quality in US IG credit exposure, as growing uncertainty regarding fundamentals does not appear to be fully reflected in current robust valuations. We favor Europe over the US and Asia. Key market drivers we are monitoring include 1) the pace at which issuers revise first half earnings estimates, 2) a potential US monetary response to current global growth concerns, 3) the continued strength of the US dollar and 4) the potential impact of the coronavirus outbreak on consumer demand and behavior.

High yield (HY): High yield saw a slow start to 2020 but fundamentals remain supportive Rationale

High yield energy came under renewed pressure in the weeks following the coronavirus outbreak and amid expectations of a slowdown in China. The financial, healthcare and pharmaceutical industries were outliers - all outperformed the overall high yield market. Our positive thematic views in metals and mining, telecommunications and media and technology (TMT) faced a setback but we continue to view our holdings favorably.

IFI strategy

Given the juxtaposition of supportive fundamentals and high valuations, we are taking a more cautious approach to the overall market. Energy, specifically oil exploration and production names, remain vulnerable, in our view, despite relative cheapness to other sectors. In energy, we are positioned mainly in natural gas producers and midstream names.

US residential mortgage backed securities (US RMBS): Strong housing fundamentals and relative value are driving demand

Rationale

US housing fundamentals continue to build on the strong momentum established in the second half of 2019, driven by low mortgage rates and a robust labor market. National home price appreciation has accelerated for four consecutive months and is likely to improve further given tight supply conditions, especially for modestly priced properties. RMBS market technicals normalized in February following significant outperformance in January, which reduced, but did not eliminate, relative value opportunities in the sector, in our view.

IFI strategy

We believe US Fannie Mae and Freddie Mac credit risk transfer securities currently offer modest value relative to similar risk profiles. We favor recently issued classes with lower dollar price premiums, given less exposure to prepayments than seasoned classes with higher coupons. We believe the potential for further spread tightening in senior Non-QM securities is limited following recent outperformance, but the sector still offers an opportunity for short spread duration and outsized carry compared to corporates.

US asset backed securities (US ABS): Recent ABS spread rally reduces relative attractiveness to corporates, in our view, but opportunities remain; selective in adding esoteric ABS

Rationale

Technical trends remain supportive, in our view, on continued strong investor demand for higher-quality ABS and given excess capacity in the secondary market as dealer inventories remain below average. Stable-to-strong consumer fundamentals should further support these positive technical trends over the near term. While absolute spreads are at the lowend of recent trading ranges and, in some cases, approaching post-crisis tights, we believe there are still opportunities to add at attractive levels.

IFI strategy

We see value at the top of the capital structure in liquid, amortizing benchmark and certain non-benchmark sectors which continue to benefit from a slightly inverted yield curve and relatively attractive all-in yields. We also see value in adding certain subordinate exposures where structures quickly de-lever. While the relative value proposition for several benchmark and non-benchmark US ABS remains, we are selective in adding esoteric US ABS at this stage of the economic cycle and given the lack of tiering across sponsors and asset types.

Emerging markets (EM): Will growth momentum continue?

Rationale

The coronavirus has overshadowed our expectations for EM growth recovery and resiliency. The critical issue is whether the impact to growth will last one quarter or become longer. EM policy makers are likely to ease monetary conditions to offset demand shocks as inflation conditions remain benign. EM currencies are vulnerable in this context as they will likely be the release valve for re-casting growth expectations. Select EMs also have room for counter cyclical fiscal policy.

The spillover effect onto financial conditions, especially via the US dollar and Fed expectations, will likely be key in determining EM vulnerability, but we expect the Fed to remain supportive, given this uncertainty. In the face of uncertainty and volatility, technicals in global fixed income and EM hard currency remain strong but we believe differentiation will remain key.

IFI strategy

We are selective on credits due to the mix of improving fundamentals but moderately rich valuations. We favor credits with strong fundamentals and a focus on idiosyncratic country level dynamics: We screen for names with strong reform prospects and improving macro stories. We are rotating into higher quality HY credits, such as BBs, and IG credits, such as BBBs, that have an expanded buyer base and better mix of valuations, especially compared to developed credit markets, and improving macro trajectories.

Sector themes

Consumer story nuanced globally, monitoring the impact of coronavirus, US fiscal policy Rationale

The solid US labor market and consumer confidence support the consumer sector but US consumers are more value and delivery conscious as internet sales typically account for a growing portion of sales. International retail demand remains uneven, especially as coronavirus stress builds, including large declines in local Chinese demand.

IFI strategy

While we favor internet-resistant and value-based US consumer sectors, such as dollar stores and aftermarket auto part retailers, we have reduced our retail positions. We expect US automotive original equipment manufacturers (OEM) to remain pressured. Longer-term, however, we believe autos will need to maintain an IG profile, with stronger balance sheets and financial metrics. In EM, we have turned slightly more defensive due to a relatively muted growth outlook. We prefer IG credits with a global footprint and multi-product offering. European auto demand has also come under volume pressure, but we hope the worst of the regulatory impact is now behind the sector (see Credit article in this issue). Large European consumer goods companies are fighting low growth with debt-funded mergers and acquisitions and capital allocation policies that favor shareholders, leading to the slow deterioration of the overall credit quality of the sector. Given tight spreads and an uncertain outlook, we remain cautious on this sector.

Michael Hyman, CIO Global Investment Grade and Emerging Markets, Joe Portera, CIO High Yield and Multi-Sector Credit, Mario Clemente, Head of Structured Investments, Paul English, Head US IG Research, Sam Morton, Head of European IG Research, Megan Ziegenfuse, Product Manager, David Lyle, Head of Residential Credit, Kevin Collins, Head of Commercial Credit, Glenn Bowling, Head of ABS Credit, Stanislav Gelfer, Analyst, Ray Janssen, Senior Analyst, Rahim Shad, Senior Analyst, Maynard Xu, Analyst This section highlights the views of Invesco Fixed Income's credit analysts across a broad range of fixed income assets managed by Invesco.

Global credit strategy

New European auto emissions regulation - not too onerous, supports ESG goals

The European automotive sector has experienced more than its fair share of emissions scandals in recent years. We believe a new European Union (EU) regulation taking effect in 2020 represents a significant milestone by finally putting a financial cost on carbon emissions. We expect this rule to create a financial incentive for major car manufacturers to accelerate their shift toward electrification, which could reduce the auto sector's environmental footprint.

Auto emissions lead environmental, social and governance (ESG) concerns

Following 2015's so-called "Dieselgate" scandal, in which the US Environmental Protection Agency cited German auto maker Volkswagen Group for violating US emissions standards, it is not surprising that auto emissions have moved to the forefront of the ESG agenda. In April 2019, the European Parliament and the Council adopted Regulation (EU) 2019/631, which introduces an EU fleet-wide average emission cap of 95g CO2/km. The regulation will be phased in, targeting each manufacturer's 95% lowest emitting cars in 2020, but all newly registered cars in 2021.

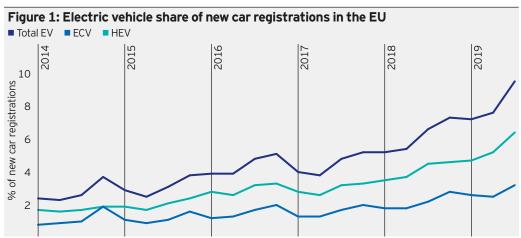
In our view, the proposed regulation is meaningful because of the combination of the following three factors:

- The European Environment Agency reported that auto emissions across the EU fleet increased by 2g to 120g CO2/km in 2018 (driven by the consumers' increased appetite for more highly polluting SUVs) after steadily declining from 2010 to 2016.¹
- Manufacturers face a penalty of €95 per vehicle for each g/km that its fleet exceeds the target.²
- In 2018, the European Automobile Manufacturers' Association (ACEA) reported that 15.2 million vehicles were registered across the EU.³

In this context, we are not surprised that Bloomberg has reported that "Europe's Tough Emissions Rules Come with USD39 billion Threat" and that this has raised concerns for some investors.⁴ However, we believe there are reasons to expect that financial penalties will be lower than this headline would suggest.

Mitigating factors should limit financial penalties to automakers

First, we expect 2020 and 2021 to show continued growth in the penetration of electric vehicles into the European fleet. Since 2018, we have seen a pickup in electrically-chargeable vehicles (ECV) and hybrid electric vehicles (HEV) (Figure 1). We expect this trend to accelerate in the coming years, given several high-profile product launches in the segment and increased consumer willingness to adopt electric vehicles.



Source: ACEA, data from March 31, 2014 to Sept. 30, 2019.

Global credit strategy (continued)

Second, we believe the regulation's staggered implementation (95% of fleet assessed in 2020 and 100% in 2021) should provide time for manufacturers to comply. We assume that the worst 5% of emitting vehicles of a given manufacturer contribute disproportionately to average fleet emissions.

Finally, as part of the regulation, eco-innovation credits (manufacturers can be granted emissions credits for vehicles equipped with innovative technologies) and super-credits (cars emitting less than 50g CO2/km are double-counted in 2020 and counted 1.67 times in 2021) will likely help reduce financial penalties, even if disclosure from the manufacturers in this area is inconsistent.⁵

Credit implications for auto sector

We see the introduction of what we characterize as a "carbon tax" on automotive manufacturers as a key step toward reducing the environmental impact of the sector. In our view, it is unclear at this stage whether manufacturers will pass this "tax" onto consumers through higher prices for higher polluting vehicles or use it to subsidize lower emitting vehicles. Irrespective of what is chosen, the introduction of financial penalties and incentives seems like a sensible way to encourage change in consumer behavior. Indeed, we believe that the direction of travel is clear with UK Prime Minister recently announcing that the ban on petrol and diesel car sales would be brought forward to 2035.⁶

We expect the implementation of the new emissions regulation to have a divergent impact on European auto manufacturers, depending on the starting point of their fleet emissions, their progress with electrification and their level of profitability. We are using this analysis to determine both fundamental and ESG ratings for issuers in the European automotive sector.

Invesco Fixed Income (IFI) is closely monitoring ESG risks across its portfolios and especially in the automotive sector. Having a well-resourced and experienced credit team is important for assessing the issues raised here and to inform our investment decisions. IFI seeks to ensure that credit spreads adequately reflect downside risks, including ESG factors, or, where this is not the case, that "at-risk" names are avoided.

Global ESG perspective

At Invesco, collaboration between our Global ESG team and investment teams helps us identify industries and issuers with evolving ESG profiles, to differentiate between outperformers and underperformers.

Invesco's Global Head of ESG, Cathrine de Coninck-Lopez shares the view on the auto sector, commenting, "Clearly there is more work to be done to reduce automotive emissions globally, but we see this European regulation as a powerful step in the right direction. The implementation of strict regulation that puts a clear price on carbon emissions should create an incentive for manufacturers and eventually consumers, to reduce their environmental footprint."

Sam Morton, Head of European IG Research

¹ https://www.eea.europa.eu/highlights/average-co2-emissions-from-new, Feb. 11, 2020.

² https://ec.europa.eu/clima/policies/transport/vehicles/cars_en, Feb. 11, 2020.

³ https://www.acea.be/press-releases/article/passenger-car-registrations-0.1-in-2018-8.4-in-december, Jan. 16, 2019.

⁴ https://www.bloomberg.com/news/articles/2019-06-26/europe-s-tough-new-emissions-rules-come-with-39billion-threat, June 26, 2019.

⁵ https://ec.europa.eu/clima/policies/transport/vehicles/cars_en, Feb. 11, 2020.

⁶ https://www.bbc.co.uk/news/science-environment-51366123, Feb. 4, 2020.



Greg Seals Senior Client Portfolio Manager



Kevin Collins Head of Commercial Credit



David Lyle Head of Residential Credit



Glenn Bowling Head of ABS Credit

The bottom line Structured debt offers potential opportunities with more conservative approach

Many observers are probably aware of the tremendous value offered by distressed securitizations in the years following the global financial crisis, but investors without deep expertise in structured debt may not appreciate the important improvements that have taken place in this market in the past decade. We speak with the IFI Structured Debt Team about the evolution of the structured debt market post-crisis and the potential opportunity it currently offers investors.

Q: The structured market was at the epicenter of the 2008 global financial crisis. How has it turned around since then?

Since the global financial crisis, the rebuilding of the new issue markets for structured debt, primarily mortgage and asset-backed securities, has evolved in a systematic and disciplined manner. The Invesco Structured Investments Team believes that mortgage and consumer loan-backed securities currently offer the potential to benefit from the intersection of more conservative underwriting and structuring, and attractive relative value compared to corporate debt.

Q: What have been among the most important improvements?

Post-crisis, the overall securitization process has improved, with the hallmark being more conservative structuring. Perhaps the most significant advance has been the increase in subordination levels in recently created non-agency residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS) and asset-backed securities (ABS). The level of subordination is the percent of the securitization that is junior (the percent that ranks below more senior debt), which provides more protection to senior bond holders. Many newer securitizations now feature subordination at the BBB rating level that is more than twice the average of pre-crisis levels. For example, a typical BBB bond that might have had a 5% level of subordination in the past now has 10%.

Q: Does this present a potential opportunity for investors?

While subordination in the years leading up to the crisis was clearly too low, in many instances, the pendulum appears to have swung to a very conservative posture after underlying collateral losses experienced during the crisis. But in the years since the crisis, realized losses of securitizations' have been lower than the expected losses implied in their ratings, leading to bond upgrades as the ratings agencies have recognized that they were too conservative.

An example of excessive conservatism is reflected in Moody's ratings actions related to nonprime auto ABS deals. In the past three years, Moody's has issued 472 ratings upgrades, versus only three downgrades.¹ In the RMBS market, the rating agencies have been especially active in upgrading Agency Credit Risk Transfer (CRT) securitizations, due to strong borrower performance, with 149 upgrades out of 189 CRT bonds issued from 2013 to 2019.² This has created an opportunity to buy into an undervalued asset class for a number of years. However, we believe there may be room for further upgrades as the structured finance market continues to follow a disciplined approach.

Q: What have been other important post-crisis improvements in the structured market?

In addition to more conservative, and simpler, structures, residential mortgage underwriting practices have shown tremendous improvement with respect to required income levels and asset documentation, credit scores and down payments and property valuation standards. In ABS and CMBS (even though the crisis was less focused in these areas), securitizations have benefitted from improved underlying collateral loan underwriting, lower underlying collateral loan leverage and increased rating agency scrutiny.

Regulations implemented in the wake of the crisis have also improved transparency and defined risks more clearly for mortgage borrowers, lenders and investors. For example, new credit risk retention rules for CMBS became effective under the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2016, and require originators and/or a key investor to retain 5% of the fair market value of any new securitization.

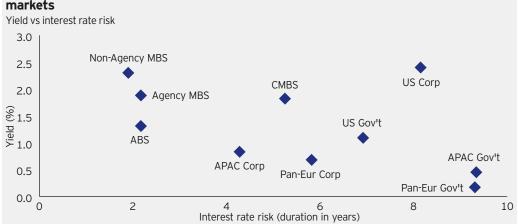
Q: How would you rate the health of the underlying collateral markets, such as consumer loans, housing and commercial real estate?

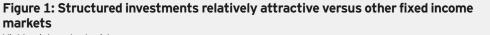
At the current late stage of the credit cycle, investors are confronted with the challenge of seeking yield while protecting against interest rate and credit risk. There is broad awareness that the volume of BBB-rated corporate debt has increased in recent years and, while companies have shown some restraint when it comes to adding leverage, corporate credit risk has clearly risen.

This contrasts with the recent improvement in consumer fundamentals across structured markets. Borrower fundamentals have improved dramatically as the economic recovery has extended into its eleventh year, including solid wage growth (around 3% annually), historically low household debt service ratios and higher than average individual savings as a percentage of disposable income.³ While corporate debt levels relative to GDP have risen, the ratio of household sector debt to GDP has declined in the past five years.⁴ Solid housing market fundamentals support residential mortgage-backed markets, including improved affordability due to lower mortgage rates, limited housing supply, strong household formation and low mortgage default rates. In commercial markets, we see stable vacancy rates and improving rents in higher quality properties. For these reasons, we view most structured markets as being closer to mid-cycle than late cycle, in contrast to corporate credit markets.

Q: Is there value in structured markets compared to traditional fixed income markets?

Against a backdrop of stable-to-improving fundamentals, we believe structured markets currently offer attractive risk-adjusted yields across a variety of interest rate and credit risk profiles, versus more traditional fixed income investments (Figure 1).





Source: Invesco, Barclays Live, data as of Feb. 29, 2020. Non-Agency MBS stats are based on investment grade market yields on non-agency market yields; Agency MBS represented by Bloomberg Barclays US Aggregate MBS Index; CMBS represented by Bloomberg Barclays CMBS Investment Grade Index; ABS represented by Bloomberg Barclays US Aggregate ABS Index; US Corp represented by Bloomberg Barclays US Aggregate Corporate Index; US Gov't represented by Bloomberg Barclays US Treasury Index; Pan-Eur Corp represented by Bloomberg Barclays Aggregate Corporate Index; APAC Corp represented by Bloomberg Barclays Asian Pacific Aggregate Corporate Index; APAC Gov't represented by Bloomberg Barclays Asian Pacific Aggregate Treasury Index; Pan-Eur Gov't represented by Bloomberg Barclays Pan-European Aggregate Treasury Index.

The bottom line (continued)

We believe high-quality structured portfolios yielding around 2.0% or more with 2-4 years of duration exposure offer a compelling opportunity to capture attractive returns while reducing volatility typically associated with the longer interest rate and spread duration offered by corporate debt markets (Figure 1). Given the significant spread tightening in traditional fixed income sectors seen in 2019, we expect carry to be a larger component of fixed income returns going forward. High-quality structured securities also offer potential diversification benefits, in our view, within a broader fixed income portfolio.⁵

Q: Why might structured investments make sense in the current environment?

Investors may realize, upon close examination, that their portfolios are heavily exposed to large corporations through equity, corporate debt, bank loans, private corporate debt and collateralized loan obligations, which reference primarily US corporations. We would argue that conservatively underwritten and structured ABS, CMBS and RMBS deserve a potentially larger place in portfolios since they are backed principally by hard assets, which we believe should be of increasing importance to late-cycle investors. Additionally, spreads in many structured sectors tend to exceed those of traditional asset classes, due to their extra complexity and an institutional buyer base that tends to adjust preferences gradually

Please read the Investment risk section at the end of this publication.

¹ Source: J.P. Morgan Global Securitized Products Research Nov. 26, 2019.

² Source: Bloomberg L.P., data from Jan. 1, 2014, to Dec. 31, 2019.

³ Source: Bureau of Labor Statistics, US Average Hourly Earnings All Employees, data as of Jan. 7, 2020.

⁴ Source: Federal Reserve Bank of St. Louis Economic Data, data from Jan. 1, 2015 to Dec. 31, 2019.

⁵ Source: Invesco, Bloomberg L.P., Barclays Live, data as of Dec. 31, 2019. Based on correlations to US Treasuries represented by Bloomberg Barclays US Treasury Index; US IG Corp represented by Bloomberg Barclays US Aggregate Corporate Index; Emerging Markets represented by Bloomberg Barclays EM USD Aggregate Index; US HY Corps represented by Bloomberg Barclays US Corporate High Yield 2% Issuer Cap Index; Bank Loans represented by S&P/LSTA Leveraged Loan Total Return Index; US Equities represented by S&P 500 Index; Aggreg Capital (IVR) returns; CMBS represented by Bloomberg Barclays CMBS Investment Grade Index; ABS represented by Bloomberg Barclays US Aggregate ABS Index. Past performance cannot guarantee future results. An investment cannot be made directly in an index. Diversification does not guarantee a profit or eliminate the risk of loss.

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Recent IFI publications

- 1. Multi-sector asset allocation report Q1 2020,
- IFI Global Investors' Summit November 2019, January 2020, Rob Waldner, Chief Strategist and Head of Macro Research and Tony Wong, Head of Fixed Income Investments
- 3. Asia's US dollar bond market: A new asset class, June 2019, Ken Hu, CIO Asia Pacific, Yifei Ding, Portfolio Manager, Haidan Zhong, Client Portfolio Manager
- 4. Chinese onshore bonds: A market too important to ignore?, June 2019, Yi Hu, Head of Asia Credit Research
- 5. China embarks on Digital Silk Road, May 2019, Adrian Garcia, Senior Credit Analyst
- 6. Progress report on SOFR, May 2019, Justin Mandeville, Portfolio Manager

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