



THE Frontier Line

Thought leadership and insights from Frontier Advisors

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An appetite for complexity Structured credit

► Frontier Advisors

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Frontier's purpose is to enable our clients to generate superior investment and business outcomes through knowledge sharing, customisation, client empowering technology and an alignment and focus unconstrained by product or manager conflict.

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Andrew Kemp joined Frontier in June 2016 as a Senior Consultant, was promoted to Principal Consultant in 2018 and is the head of Debt and Currency, leading Frontier's fixed income and currency research program. Andrew has around twenty years of experience in the asset management industry both domestically and globally, having worked in Australia, Singapore and the UK. Andrew was Head of Fixed Income at DBS Asset Management (Singapore) for three years and prior to that spent a decade as Fixed Income Portfolio Manager at Alliance Bernstein Australia. Andrew joins Frontier from Chimaera Capital, where he was the Director of Asset Management, most recently in Melbourne, but chiefly in the Capital Management division in Singapore. Andrew holds a Bachelor of Commerce (Finance) from Otago University (NZ) and a Graduate Diploma of Applied Finance and Investment from Finsia.

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Nick Cooney joined Frontier as a Consultant in September 2019 and is a member of the Debt and Currency team. Nick is currently responsible for investment and manager research across a range of fixed income strategies. Prior to joining Frontier, Nick was an Investment Consultant with our GIRA partner, LCP. Based in London, he provided advice to a range of high-profile investors including complex multi-billion dollar institutions across the DB pension and UK insurance landscape. His role focused on strategic asset allocation, innovative risk management solutions and liquid credit research. Prior to this, Nick spent a short time working in the European sales team at PineBridge Investments, having started his consulting career at Mercer in the UK. Nick has a degree in Economics from Durham University and holds the Investment Management Certificate. Outside of Frontier, Nick sits on the Investment Committee of a British charity.

Introduction

In a liquidity starved and stressed market environment, complexity is perhaps the last thing on an investors mind. Once the dust settles however, for clients looking for valuable, lower risk returns in the low yield environment, high grade structured credit may be worth closer consideration.

Many investors are well versed with securitised credit through Residential mortgage backed (RMBS) and other asset backed securities. This paper looks more closely at the Structured Credit market where a wide variety of securities are available typically backed by pool of leveraged loans.



Pret-A-Manger

In a culinary context, the menu dégustation (tasting menu to the non-Francophiles) represents the ultimate leap of faith.

As diners we have less control over what arrives at the table and little way of assessing the risk of leaving dissatisfied versus a more traditional a la carte menu. Some commentators would have you believe structured credit investment to be a sinister analogy to this, but the post-Global Financial Crisis reality could hardly be more different.

The financial health and safety inspectors across the globe (SEC, FCA, APRA etc.) have worked with asset managers and owners over the past decade to instigate wide-reaching reforms which have righted many wrongs of the past and set the industry on a more sustainable path for the future.

While risks still exist, transparency, alignment of interests and understanding have all improved markedly over the last 10 years. In this paper, we explore just some of these changes but also highlight that even in the darkest of days, things were perhaps not as dire as commonly reported (some dishes left a bad taste in investors mouths, but others were far more palatable).

Whether a complement to investment grade corporate credit, a low risk return source within the alternative debt sector or a highly opportunistic strategy, we believe the complexity premium offered may be more valuable than ever given the low yield backdrop, and now may well be the right time to reserve your seat at the table.

Entrée: An introduction to structured credit

For those less hungry for basic information you can skip over this section, but for those unfamiliar with structured credit, let's take a step back for a moment to consider what we mean by this asset class.

In the simplest terms, structured credit describes a pool of loans which are packaged together in a 'special purpose vehicle' and sold to investors. In its most common form, Collateralised Loan Obligations (CLO) are a special purpose vehicle where assets are ringfenced from the issuer i.e. even if the issuing bank goes into default, investor money is safe. Losses only occur if there are losses from the underlying assets. Importantly, diversification of risk means that many businesses need to default (and not recover) around the same time before the structured credit securities are likely to run into any problems.

The pools of loans are sold to financial market participants in tranches, each with different risk/ return characteristics to choose from, the highest rated tranches protected from loss by the lower rated (subordinated) ones which sit beneath. Tranches mean that there is a return hierarchy where some investors get paid before the remaining cash is distributed to other investors on a lower level of the capital structure (i.e. pay AAA debt holders before BB holders), and this profile is accelerated should there be any issue with the credit quality of the loan collateral. Figure 1 provides a simplified illustration of how these assets work.

Perhaps a way to think about this would be a busy restaurant sending their most delicious dishes to diners on the more expensive tables first (AAA rated) and sending what's left to the discounted table (BB rated). That's not to say you'll get a bad experience choosing BB, but you do carry higher risk that you will not get all the dishes (returns) you had expected.

As illustrated above, we believe that structured credit is less complex than most investors realise (a common reason we hear for its underrepresentation in portfolios). The CLO example below provides further evidence of this.

Another reservation comes from a perception of structured credit being a niche investment, but this again likely comes from false perceptions. Far from a niche market, securitised and structured credit form one of the world's largest capital markets (US corporate fixed income is worth around US\$8.8tn vs. US securitised worth \$11.4tn), one where many fixed income investors already have exposure via funds benchmarked to the Bloomberg Barclays Global Aggregate Index. We believe that there is a case to broaden securitised allocations to include structured credit (CLO) and now may be the time to consider a more active decision to allocate to this asset class.

Structured credit has a myriad of attractive qualities including: contractual income, low interest rate sensitivity, low default history and attractive risk-adjusted returns which we explore further in this paper.

¹CLOs (Collateralised Loan Obligations) are pools of senior secured loans packaged within a special purpose vehicle.

²Schroders, SIFMA, Fed, Barclays as of June 2019. Includes US Agency.

Figure 1: Structured debt is not as complex as it first appears

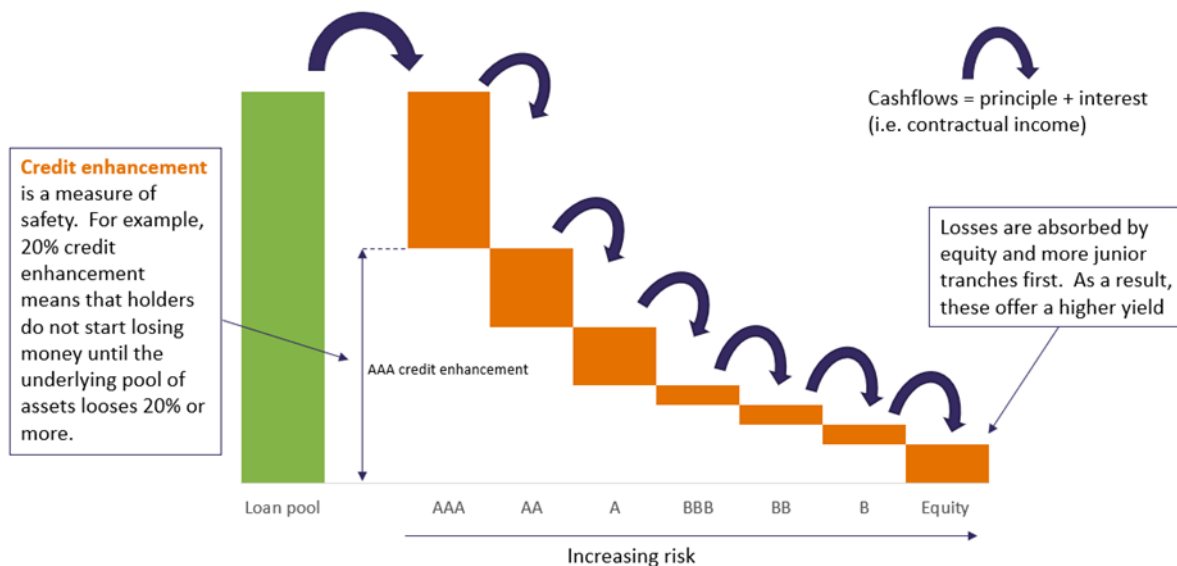


Figure 2: CLOs are one of the best-known examples of structured debt investment

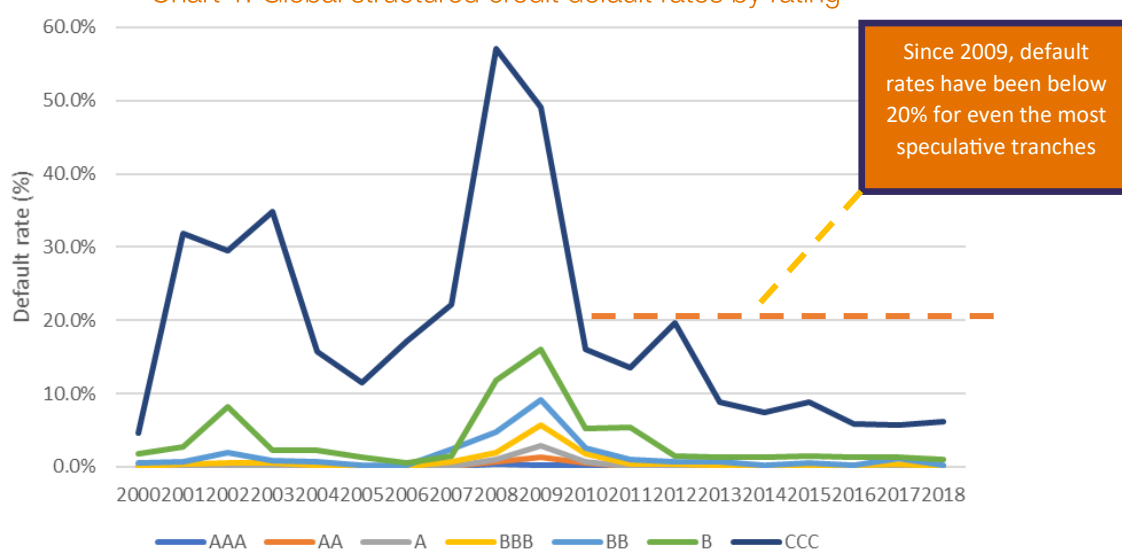


Le plat principal: Structured credit back on the menu

Chart 1 (below) highlights one of the reasons why some investors perceive structured credit to be risky, with exceptionally high default statistics during the financial crisis for some tranches - over 50% for CCC rated³. This is however a fairly simplistic way to view the market and ignores the intricacies and nuances core to understanding the true story.

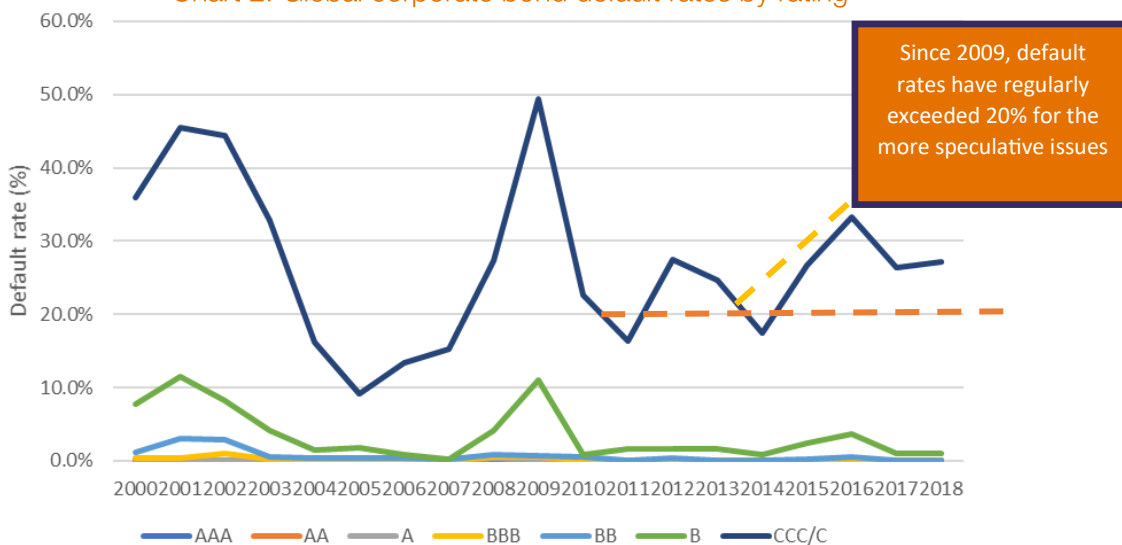
Aggregated data hides the fact that the structured credit default history varies considerably by region and underlying collateral. It also ignores the fact that standard global corporate bonds (which investors are seemingly more comfortable with) had a very similar default history over the Global Financial Crisis and have sustained comparatively higher default rates in the period since (see CCC tranche in Charts 1 and 2 below).

Chart 1: Global structured credit default rates by rating



Source: S&P 2018 Annual Global Structured Finance Default Study and Rating Transitions, March 2019.

Chart 2: Global corporate bond default rates by rating



Source: S&P 2018 Annual Global Corporate Default and Rating Transaction Study, April 2019.

³S&P define CCC as “not likely to have the capacity to meet its financial commitments” in adverse conditions. In other words, these assets were always identified as very high risk so the default rate during a sustained economic recession should not surprise.

Manager pricing models to analyse structured credit are more rigorous than before and regulation has also moved on materially since the GFC – discussed in more detail below. This of course sidesteps the fact that some markets (e.g. investment grade) already had an attractive historical profile.

We believe that investment grade structured credit has compelling features which make it an appetising first step for investors uncomfortable making an allocation to more esoteric/ lower rated issues. Table 1 illustrates the difference in default experience between older and newer vintages of CLOs. Here you can see that the default history pre-crisis was reasonable, and post-crisis exceptionally strong. The important point to take away is that default risk is remote, and whilst other risks such as mark to market volatility remain, the risk of long term impairment of capital is low.

Table 1: The developments within the CLO marketplace

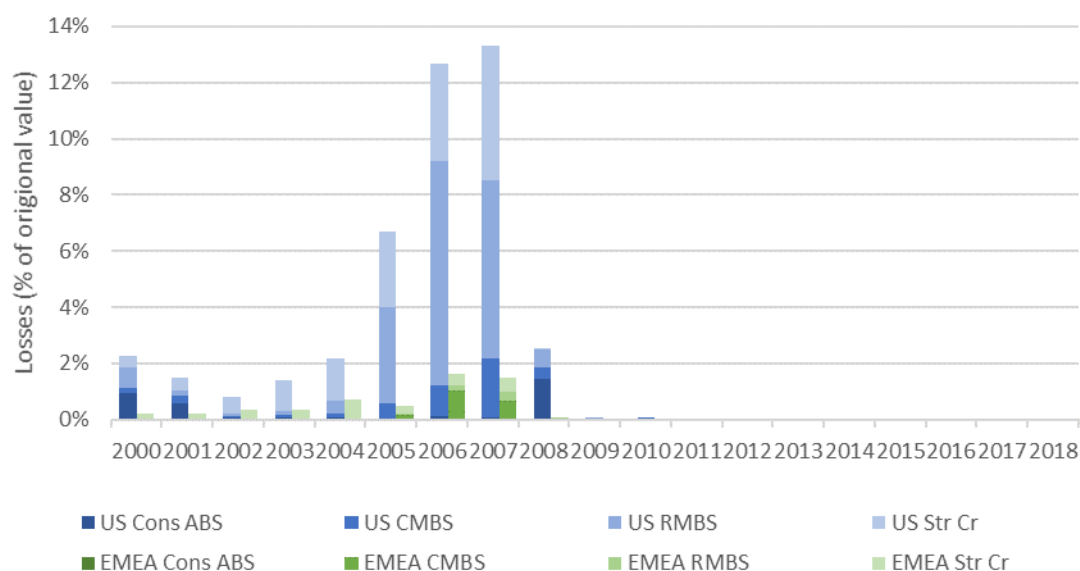
	CLO 1.0 Defaults by Original Rating (Issued 1994-2009)	CLO 2.0 Defaults by Original Rating (Issued 2010-Present)	S&P criteria for CLO to achieve rating (break- even default rate)
AAA	0.0%	0.0%	~67%
AA	0.2%	0.0%	~59%
A	0.6%	0.0%	~53%
BBB	1.1%	0.0%	~47%
BB	3.5%	0.0%	~40%
B	10.7%	0.0%	-

Source: Annual Global Corporate Default and Rating Transition Study.
S&P's rating criteria demonstrates the proportion of loan losses which could be absorbed by the structure before it is expected to lose money.

While default rates in low quality structured credit sectors were alarmingly high during the GFC (although not much more than regular bonds), Chart 3 below highlights that realised losses have been significantly lower than defaults, particularly in Europe, suggesting attractive recovery rates following default. Global markets have all performed much better post GFC and we believe that this presents compelling evidence that some of the more extreme risks have reduced over time – while acknowledging that credit markets overall have been benign over this period.

Please note that graphically these losses appear larger than they are given the volume of data presented in the stacked bar – for example in 2007 the loss rate for US Structured Credit was only around 5%, not 13%. As demonstrated in earlier charts, Europe has been consistently lower risk compared to the US over time and in Europe post GFC, the only sector where a loss is currently expected is 2014 vintage European Consumer ABS with an expected loss rate of 0.01%.

Chart 3: Experienced losses have been considerably lower than implied by default rates

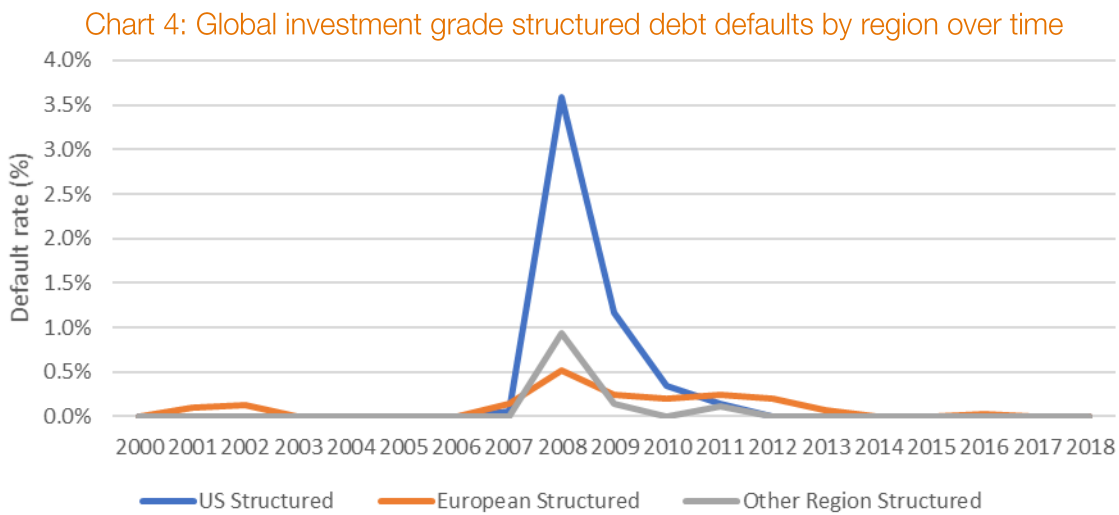


Source: TwentyFour Asset Management, Fitch Ratings 'Structured Finance Losses - EMEA 2000-2016 Issuance' July, 2017; Fitch 'Global Structured Finance Losses: 2000-2016 Issuance Special Report' September, 2017. Chart shows realised and expected losses as a % of original balance by issue vintage.

It is noteworthy that in 2018 only 2 out of around 20,000 investment grade structured securities defaulted globally. It is relatively difficult to “break” structures, particularly following market developments post-GFC (we will discuss this over dessert later).

Chart 4 demonstrates that investment grade structured credit globally has experienced very low default rates historically. Whilst table 1 highlights a constant default rate over time by rating band, the actual default profile on average is cyclical, and outside well documented recessionary periods, is generally very low and consistent with traditional investment grade (IG) corporate bonds.

Market pricing of default probabilities of course does change constantly, and asset allocators are well advised to consider relative valuations of this asset class within a broader dynamic asset allocation process (DAA).



Source: S&P 2018 Annual Global Structured Finance Default Study and Rating Transitions, March 2019. Frontier.

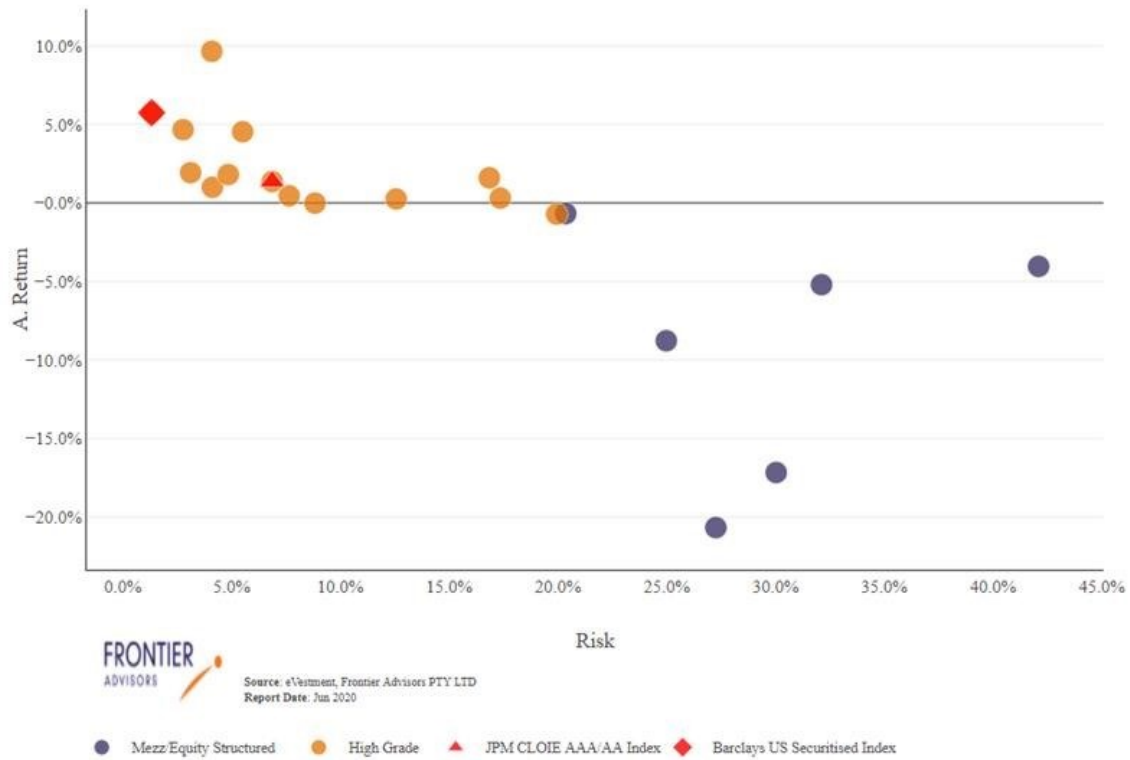
Default remote, yet volatility high?

Managing mark to market risk can be challenging in structured credit making a clear understanding of likely behaviour in stressed conditions paramount. Sub-investment grade components of this market can experience very volatile price movements, yet some highly rated structured credit instruments exhibit lower mark-to-market price changes and credit spread volatility, which align with the risk and return expectations of a typical Alternative Debt sector for example.

COVID-19 highlights a period where the “good and bad” of structured credit were on display. Charts 5 and 6 highlight a range of Securitised and Structured credit manager returns categorised by risk (IG or sub-IG focus). Whilst most of the IG focused strategies recovered from the COVID-19 shock in March to be somewhat flat to modestly positive over 1-year to July, the drawdown profile was weak and indeed highly correlated with other credit asset classes. This profile needs to be understood and considered relative to sector risk/return objectives in order to accurately size an investment within this area.

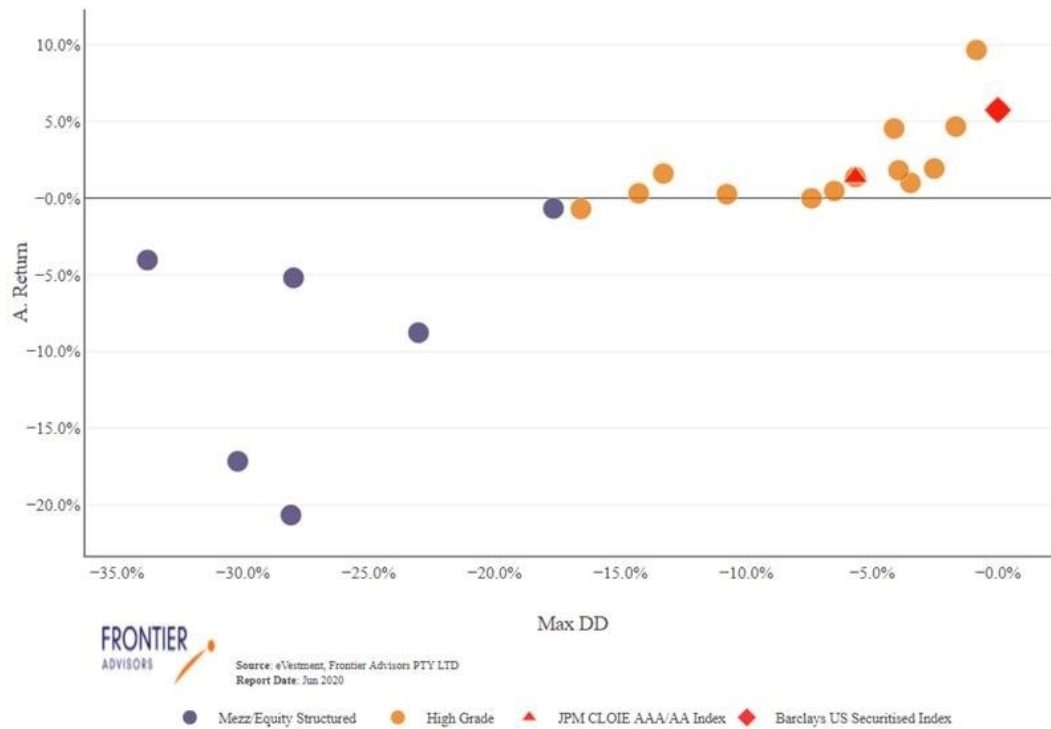


Chart 5: Manager return vs risk - 1yr



Source: eVestment, Frontier

Chart 6: Manager Max. Drawdown - 1yr



Source: eVestment, Frontier

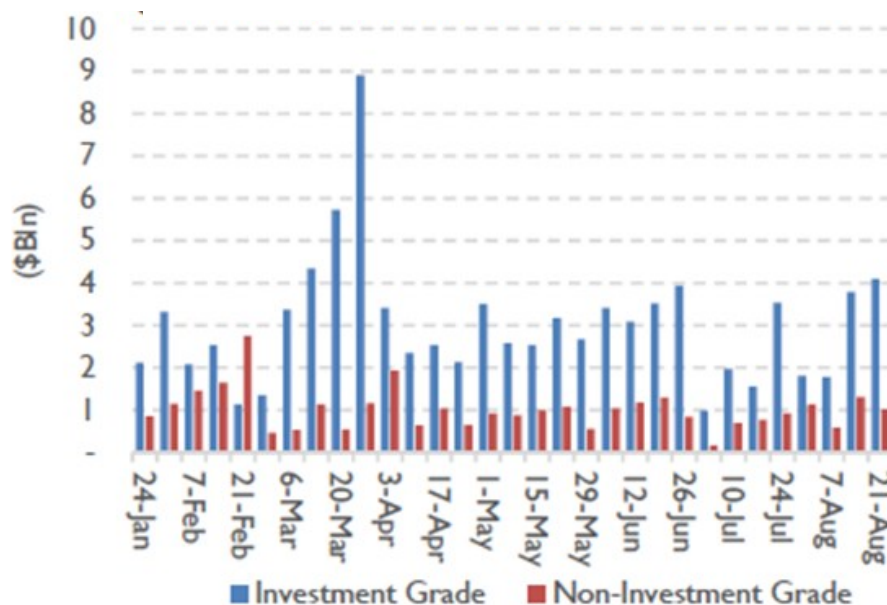
Dégustation de vins: Liquidity is important

As highlighted by Chart 7 (below), the preconception that structured credit liquidity, as referenced by the CLO market “dries up” during stressed market conditions is not always accurate. Data from Trace which tracks transactions within debt markets, highlights that the COVID-19 period saw higher transactional volumes. Liquidity was available particularly in IG CLOs, but simply put: you may not have liked the price!

We note that some structured credit investments may be private and not actively traded on the secondary market and as a result, there are often significant yield premiums available.

We would generally advise clients unfamiliar with structured credit, to take a first step of investing in higher rated, liquid markets as an introduction to the asset class, in order to diversify existing credit portfolios. There are many asset managers offering comingled fund structures with daily redemption terms and appropriate risk characteristics to suit a range of needs.

Chart 7: Weekly US CLO trading volumes in 2020



Source: : SIFMA, ICE, Bentham.

Desert: Structured debt just got sweeter

There are a good few reasons that many investors are cautious of structured credit as an opportunity (some of which were addressed above) but we believe that there is a case for optimism and reason to further research this asset class. Regulatory rules since the GFC (e.g. Basel III/ Solvency II) have limited the natural investor base for structured credit assets as banks and insurance companies are not allowed to hold substantial volumes of these assets. Combine this within the additional technical factor of complexity putting some investors off, there are many reasons why there is not just a strategic case for holding structured credit, but a tactical one too.

- **More sensible structures:** Some of the more volatile structured credit asset classes like CDOs⁴ have all but disappeared post GFC, and CLO's, have improved with stricter rating and credit enhancement requirements.
- **More informed market:** Credit rating agency models have changed, with ratings better reflecting intrinsic risk (though still not without limitations). The proprietary models used by asset managers are also significantly better tools for independent risk assessment compared to 10 years ago.
- **Recourse (in some markets):** Some assets, like CLOs have recourse for the principal and interest payments globally.
- **Floating rate structure:** The floating rate nature of these assets means that they are less sensitive to interest rate movements, which is an additional attractive feature given zero yields notable in many global markets.

For the simplicity, we will focus on a single structure debt asset class (CLOs) as a case study for how the market has changed post-GFC. Investment grade CLO tranches have a strong performance track record over time due to strong structural protections. Newer vintages (known as CLO 2.0s) issued from 2010 have additional credit support in the form of greater layers of subordination (i.e. can sustain higher level of losses in underlying assets before the structure fails) and have a shorter reinvestment period which helps reduce risk.

The average corporate bond default rates between 1994 and 2009 were broadly similar to those of CLOs, though lower for the higher risk securities (e.g. 4.8% for B rated issuers). The opposite is true post-crisis (e.g. 1.6% for B rated issuers). We believe that the market reforms which gave rise to CLO 2.0s may have something to do with this. Consider this a restaurant under new management; you might not have liked it before but now may be the time to give it another try.

These structures are default remote and difficult to 'break'. Even for the lowest rated investment grade CLO 2.0s (BBB rated), we would need to see unprecedented default rates of almost 50% before the structure defaults.

⁴Collateralised Debt Obligations (CDOs) are a type of structured debt which essentially repackages a pool of structured debt assets and sells them again with a higher credit rating, which exaggerated losses when any of the original underlying assets experiences losses.

Cheque please: Where to next?

With yields on traditional fixed income assets clustered around zero, the complexity premium offered by high grade structured credit could prove to be an attractive, low risk complement to investment grade corporate bonds for example, and well aligned to portfolios seeking a cash plus return profile. For those with an acquired taste, we do see opportunities in more speculative investments but being selective is crucial.

Many managers offer very attractive fee rates for the return profile available compared to other actively managed funds, and there can be fee discounts offered by managers with strong capabilities who can blend corporate and structured credit exposures.

While standalone allocations to global sub-investment grade structured credit may be appropriate for some clients, we believe that for most a Multi-Asset Credit ("MAC") approach is a reasonable way to gain exposure to lower grade structured credit (see our other paper entitled "[When Out of Stock is a Good Thing](#)" for more information on MAC).

In our view, only the most sophisticated investors should consider more esoteric private/ distressed structured credit investment, acknowledging that the very high return potential (some up to 20% pa) is not without considerable risk.

Diners (investors) are able to reduce the chance of having a poor experience by researching their restaurant (manager) in advance, and selecting the right cuisine (asset classes). We recommend that you look for managers who offer appropriate liquidity, higher credit quality, utilise seasoned originators and have a good understanding of structural investor protections.

We welcome the opportunity to discuss this space in more detail with any interested parties.

We believe that it would be appropriate to consider strategic allocations to global high-grade structured credit for clients seeking modest, low-risk returns in excess of a cash benchmark.

Within the mid-risk space, a standalone allocation may be sensible although gaining exposure to structured credit via a Multi-Asset Credit fund is also a lower governance and cost solution for many investors.

Some more opportunistic strategies do offer an attractive return profile, but can be too concentrated by sector or region. Manager selection plays an even more crucial role here.

About Frontier Advisors: Frontier Advisors is one of Australia's leading asset consultants. We offer a range of services and solutions to some of the nation's largest institutional investors including superannuation funds, charities, government / sovereign wealth funds and universities. Our services range from asset allocation and portfolio configuration advice, through to fund manager research and rating, investment auditing and assurance, quantitative modelling and analysis and general investment consulting advice. We have been providing investment advice to clients since 1994. Our advice is fully independent of product, manager, or broker conflicts which means our focus is firmly on tailoring optimal solutions and opportunities for our clients.

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