



# Credit Portfolios, Valuations and Liquidity

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## Updating our “Credit Portfolios, Valuations and Liquidity” Paper

Fund structure plays an important part in the performance of credit funds. A well-structured fund supports pricing transparency, liquidity and fairness for unitholders.

More than a decade ago, as the GFC was unfolding, we published a short paper on this topic, titled: “Credit Portfolios, Valuations and Liquidity in 2008” outlining the structural features we would expect to see incorporated in an open-ended credit investment fund.

That paper was written to help investors make informed choices when comparing credit funds, and to understand the risks and the protections that can exist within fund structures.

More than 10 years later, we find the key principles from our 2008 report remain just as relevant. We update and expand upon our paper below.

## Introduction

We have observed a number of structural differences between a range of credit funds available in Australia, leading to some interesting observations that investors need to be aware of. In our view, a well-constructed open-ended credit fund which is reflective of the fundamental principles of credit portfolio management theory should:

- have Mark to Market pricing to protect existing unit holders from inflows and outflows that could potentially otherwise arbitrage the fund.
- have a high level of diversity by issuer and industry (and, where applicable, vintage) to minimise portfolio volatility.
- limit non-rated debt that has less marketability or liquidity.
- have low issuer concentration to lower the loss given default. Many investors are unaware of the liquidity risk of investing in funds that take large “cornerstone” positions in unrated debt. In Australia, it tends to follow that these funds are also relatively undiversified by issuer or industry.
- have considerably more diversity than an equity portfolio.
- invest in senior and secure investments that decrease the loss given default.
- invest in large markets where the broad mix of investor participants aid liquidity, visibility and marketability.
- pass all investment-related economic benefits to the fund’s investors (not the Manager), to avoid perverse incentives. This includes interest & principal payments, fees and discounts.
- have a fair buy / sell spread to reflect investment / redemption costs in the fund, to protect against arbitrage.

When credit portfolios are constructed contrary to the principles of credit portfolio management theory we believe that investors are exposed to risks for which they are not generally compensated. There are many lessons to be learned from historical examples of funds that have failed investors through poor credit portfolio construction.

## 1. Mark to Market versus Accrual Based valuations

A number of performance surveys compare both Marked to Market (MTM) funds and Accrual Based (or “Historical Cost Accounting”) valuation funds in the same survey. This may be misleading as it does not compare like with like.

Not surprisingly, in a weaker market where credit investments sell off, those managers that use the Accrual Based valuation method *appear* to produce the strongest returns. If these Accrual Based funds were to be re-valued to the then-current market prices there could be a significant correction to their performance.

Hence performance surveys provide poor information for selecting a manager if investors unknowingly select the manager with “good” performance that is not marked to market. In a credit sell-off, a canny investor could arbitrage Accrual Based funds by selling their accrual investment (valued at par or \$100 plus accrued interest), and buy a Marked to Market investment (valued sub-par).

### An example:

Assume there are two funds that invest in the same bond, one is valued using Marked to Market and the other using Accrual Based valuation methodology. At t=0 both have the same value and yield. At t=1 (one year from issue) assume credit spreads widen by 150 basis

points: the market value falls and the yield increases in the MTM fund, while the Accrual Based portfolio value and yield remains unchanged. From T=1, an investment into the MTM fund will *outperform* the Accrual Based fund by 1.50% a year (assuming no other changes) as the MTM fund has been revalued lower and now has a much higher prospective yield to maturity.

See *Worked Example in Table 1 below.*

Accrual accounting has its place, but we do not believe it is appropriate for open credit funds. For example, banks may use an Accrual Based valuation but simultaneously have provisions for credit losses. Private equity funds acknowledge the illiquidity of their underlying investments and do not offer the market open funds. Accrual Based valuation may better suit closed end funds.

### Key Takeaways:

- Marked to Market valuation is considered best practice for open-ended credit funds.
- Comparing returns of Accrual Based and Marked to Market funds makes it difficult for investors to compare like with like.
- An open-ended credit fund that uses Accrual Based valuation is open to arbitrage exploitation.
- Accrual Based valuation may be better suited to closed end funds.

**Table 1. Worked Example – MTM vs Accrual Based Valuation Method**

		Marked to Market Example (A)			Accrual Example (B)		
<b>Initial Spread</b>		2.00%			2.00%		
<b>LIBOR Rate</b>		2.50%			2.50%		
<b>Total Yield</b>		4.50%			4.50%		
<b>Issue Date</b>		01/01/2019			01/01/2019		
<b>Maturity</b>		01/01/2026			01/01/2026		
<b>Face Value</b>		100			100		
<b>Frequency</b>		1			1		
<b>Years Outstanding</b>		7			7		
<b>Date</b>	<b>t=</b>	<b>MTM Portfolio A</b>	<b>(LIBOR Constant Yld)</b>	<b>Market Spread</b>	<b>Accrual Portfolio B</b>	<b>Yield</b>	<b>Return Differential</b>
01/01/2019	0	\$100.00	4.50%	2.00%	\$100.00	4.50%	0.00%
01/01/2020	1	\$92.62	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2021	2	\$93.68	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2022	3	\$94.80	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2023	4	\$95.99	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2024	5	\$97.25	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2025	6	\$98.58	6.00%	3.50%	\$100.00	4.50%	1.50%
01/01/2026	7	\$100.00	6.00%	3.50%	\$100.00	4.50%	1.50%

Source: Bentham.

## 2. Non-rated or shadow rated securities

Applying a public rating to a bond or loan broadens the marketability of that security as many types of investors require a rating from a recognised rating agency<sup>1</sup> to allow inclusion in a portfolio.

A public rating of corporate debt (compared to private debt) ensures a reasonable amount of information is available and has been reviewed by an independent third party.

Domestically, most (investment grade) bond issuance is rated, but few loans are rated. By contrast, 95% of the US Broadly Syndicated Loan market is rated.

When assessing what proportion of a fund's assets are 'rated', it is important to distinguish between an *internal* rating (determined by a fund manager, and of use only inside that institution) and an *external* rating from a recognised rating agency. When publishing a "% rated" statistic, we believe managers should be clear about the type of rating they are referring to.

### Key Takeaways:

- A public rating improves marketability of debt, which improves liquidity.
- Unrated debt is less common overseas.
- Private debt offers less information transparency.
- Internal ratings may have a qualitative bias to be higher, particularly if based largely on financial ratios. External ratings are based on both qualitative and quantitative factors.

## 3. Liquidity = Marketability

The marketability of an investment supports liquidity in that instrument. The relative size of an investor's holding and the depth of a market (in terms of trading volumes, and number of participating investors) are key determinants of the liquidity of debt. Desirable investments usually have good market depth near the current price.

The characteristics of marketability include:

- Broad distribution (by investor type) which should lead to superior liquidity.
- Transparent pricing, including observable bid/ask spread.
- Rated entity (with preferably two ratings) providing a handle for relative value comparison.

- No locally-specific tax benefits (i.e. franked securities are marketable only within Australia)
- A genuine secondary market with sizeable flows. An ASX listing, for example, can give a false impression of liquidity by generating frequent pricing information, but with limited volume.

Investors in illiquid/private debt are married to debt with little possibility of divorce. It greatly restricts the ability for a Portfolio Manager to respond quickly to advantageous investment opportunities that may be presented in the market. It also restricts the ability of a portfolio to be managed and re-weighted to take advantage of these opportunities.

### Key Takeaways:

- When assessing public and private debt investment opportunities, investors need to consider the relative marketability and liquidity of each.
- Private debt has less marketability and is therefore less liquid.
- A listed market for securities does not guarantee meaningful liquidity.

## 4. Marketability of assets reduces fund lock-up risk

Lock-up of a fund (the suspension of redemptions) may occur when a manager believes there is no liquidity to sell into, or that the price available in the market doesn't provide value to investors. When a fund contains assets which are not marketable, a manager may be forced to resort to lock-up.

It has been Bentham's experience that keeping to our list of principles has helped protect our funds from lock-up. For example, throughout the GFC, each of Bentham's credit funds remained open (able to accept applications and redemptions daily). By contrast, in 2008, numerous Australian credit and fixed income funds locked-up, preventing investors from accessing their money.

### Key Takeaways:

- Marketability of underlying assets helps protect an open credit fund from lock-up.

<sup>1</sup> The major US rating agencies are Moody's, Standard & Poor's and Fitch.

## 5. A listing cannot create fund liquidity (only an active pool of investors can)

Just as a listed market does not guarantee liquidity for individual securities, listing an investment vehicle (e.g. a LIC) cannot create liquidity for fund investors.

In practice, a LIC may trade at a large discount to NAV if investor demand for the vehicle is low (i.e. liquidity is poor).

### Key Takeaways:

- A listed market for an investment vehicle does not guarantee meaningful liquidity.

## 6. Diversification is important

A key concept in credit portfolio management is diversification. This is because defaults tend to be unexpected and occur in industry clusters. The most recent sell off in credit (Dec-18) was caused by systemic risk aversion and did not impact funds that had concentrated portfolios. However when defaults increase, the lack of diversity will become a significant issue for funds holding concentrated positions in less liquid markets (e.g. the Energy sell-off in 2015/16). We observe that in a global context, Australia is unique in tolerating concentrated credit portfolios despite our economy facing the same default risks as elsewhere.

The below matrix shows the loss given default (LGD) of different issuer concentration limits. Not surprisingly, the LGD increases in a linear fashion. E.g. a 10% concentration is 10 times riskier than a 1% concentration.

Moody's has a measure of portfolio diversity called a Diversity Score, which is their primary measurement for industry and issuer diversification in CLOs (Collateralised Loan Obligations). This Score recognises that diversification by number of *issuers* is not sufficient. In essence, increasing the number of industry exposures increases the diversity score, as can different country exposures.

Diversity is more important in credit portfolios than in equity portfolios but less recognised. This is due to the asymmetric returns of credit portfolios. A portfolio with 20-50 securities is not diversified enough to reap the full diversifiable benefit. Investing in a credit fund with only an equity fund level diversity requires exceptional confidence in the investment manager's expertise.

### Key Takeaways:

- Strict industry and issuer concentration limits are important in decreasing the overall losses when defaults do occur.
- In a higher default environment, portfolios with higher concentrations will suffer more per individual default.
- Different industry and country exposures create diversity.
- A credit fund should be much more diversified than an equity fund.

**Table 2: Loss Given Default at Different Levels of Concentration Risk**

Position in the capital structure	Issuer-weighted recoveries	Loss in default	Single Company Maximum Exposure (%)									
			1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
<b>Loans</b>			<b>Loss Given Default at different levels of issuer concentration</b>									
Senior Secured	\$67.20	33%	0.3%	0.7%	1.0%	1.3%	1.6%	2.0%	2.3%	2.6%	3.0%	3.3%
Senior Unsecured	\$45.80	54%	0.5%	1.1%	1.6%	2.2%	2.7%	3.3%	3.8%	4.3%	4.9%	5.4%
<b>Bonds</b>												
Senior Secured	\$54.00	46%	0.5%	0.9%	1.4%	1.8%	2.3%	2.8%	3.2%	3.7%	4.1%	4.6%
Senior Unsecured	\$38.20	62%	0.6%	1.2%	1.9%	2.5%	3.1%	3.7%	4.3%	4.9%	5.6%	6.2%
Senior Subordinated	\$31.10	69%	0.7%	1.4%	2.1%	2.8%	3.4%	4.1%	4.8%	5.5%	6.2%	6.9%
Junior Subordinated	\$23.70	76%	0.8%	1.5%	2.3%	3.1%	3.8%	4.6%	5.3%	6.1%	6.9%	7.6%

Source: Bentham and Moody's Default and Recovery Rates of Corporate Bond Issuers, 1983-2018.

## 7. Holding a substantial proportion of a single issue (cornerstone investors / club deals)

While holding greater than 20% of a security may give an investor power to drive lending terms, so-called cornerstone investors generally (by definition) also reduce the breadth of investor distribution. This not only places great emphasis on the initial credit research but also implies that the cornerstone investor will have limited ability to efficiently exit their holding if the credit quality of the security deteriorates.

The 2008 crisis proved that the type of investors who invest alongside you matters. Should other investors in a small club deal be forced to sell into difficult market conditions, the remaining holders could experience a sharp fall in price without there having been credit impairment.

### Key Takeaways:

- High concentration in one issue damages secondary market liquidity of a credit portfolio.

## 8. Accrual valued funds can turn into mark-to-market funds at the most unfortunate times

Funds using Accrual Based accounting can become a mark-to-market fund at the most unfortunate of times. Investors can receive a nasty surprise with a significant negative gap in their unit price. The fall should be roughly equal to the change in market price plus a present value of fees which the fund is obligated to pay (for a closed end fund).

Initially in a market sell off, funds using Accrual Based accounting are outwardly unaffected. However, it is not uncommon after a period of market underperformance that some investors redeem their holdings, leading the manager initially to sell liquid holdings to meet the initial unit redemptions. The remaining investors are then left with the more illiquid, concentrated positions.

### Key Takeaways:

- Valuation catch ups are uncertain and can be large and negative.
- Beware large gaps to NTA valuation.

## 9. Transparency of economics and alignment of interests

All economics from a fund's investments should be for the benefit of the fund. We believe this should include the obvious principal and income payments on bonds and loans, but *also* any fees or discounts associated with originating or purchasing assets.

We have been surprised to hear that some credit funds have been taking loan upfront or arranging fees for the benefit of the *manager*, rather than the *fund*. These fees can be substantial, and not passing these on in full to the fund could give rise to a conflicted situation whereby the loan margin is reduced to increase the loan upfront fee (benefiting the manager, harming the fund investors). Usually the discounts/upfront fees are higher the riskier the deal (reflecting the difficulty in underwriting). This could result in a perverse incentive where a manager pockets the higher up-front fees, while the investor is left with a riskier loan and possibly lower coupon.

### Key Takeaways:

- The full economics of an investment should flow to the fund.
- Transparency of economics is important to ensure alignment of interests.

## 10. A fair buy-sell spread protects all investors (fair allocation of transaction costs)

A buy-sell spread is a cost paid by investors upon investment into or redemption from a fund. It represents the underlying transaction costs of buying/selling assets (bonds or loans) to fulfil a new investment or fund a redemption.

Buy-sell spreads are not management fees, and do not get paid to the fund manager. Buy-sell spreads are paid to the *fund* – for the benefit of existing unitholders.

As the underlying costs of transacting assets can change over time, we believe the buy-sell spread on a fund should vary according to market conditions. All things being equal, trading costs increase during times of stress and lower liquidity (wider buy-sell spreads) and decrease during the good times or when there is higher liquidity (tighter buy-sell spreads).

The purpose of buy-sell spreads is to protect long-term unitholders from bearing the cost of trading from *other unitholders* entering or exiting the fund. As such, we believe that an active buy-sell spread should be seen as a beneficial structural feature for long-term investors in a fund.

The value of an active buy-sell spread is most obvious in times of market distress, where limited liquidity may make transaction costs sizable: an exiting investor who withdraws capital from a fund would otherwise be able to burden the *remaining* investors in a fund with the costs of their exit.

Bentham monitors buy-sell costs on underlying assets on a daily basis, and adjusts the buy-sell spread on our funds monthly (or as required).

**Key Takeaways:**

- Buy-sell spreads are not a management fee.
- Buy-sell spreads aim to allocate the trading costs of investment / redemption to the investor making the investment or withdrawal, protecting long-term investors from bearing these costs which can fluctuate over time.
- Bentham believes it is best practice to match the buy-sell spread to current market conditions and has adopted this as a formal policy.
- A buy-sell spread helps prevent preferential treatment for investors able to game or arbitrage mis-priced funds.

## 11. A note on the Australian hybrid market

The Australian hybrid market has some unique features which warrant consideration before including such securities in an open credit vehicle.

While Australian hybrid securities are predominately listed on the ASX, this does not guarantee meaningful liquidity. Many of these securities have low turnover relative to other listed and unlisted credit and fixed income markets.

As franking credits can only be utilised by domestic investors, the buyer-base for hybrid securities is typically limited to Australian investors. A narrow investor base limits liquidity – particularly in difficult market conditions.

**Key Takeaways:**

- ASX listing does not guarantee liquidity.
- Larger funds relying on ASX liquidity may be disappointed.
- Australian hybrids with franking credit may be particularly challenged in a domestic downturn.

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## **More information**

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