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IS IT WORTH INVESTING IN US CORPORATE BONDS?

AUTHOR
ALAN CUBBON, HEAD OF RESEARCH
CROWN AGENTS INVESTMENT MANAGEMENT

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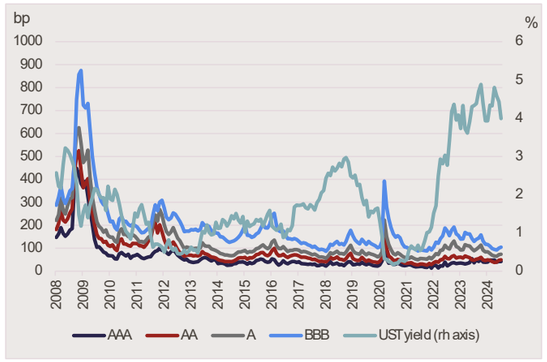
INTRODUCTION

How attractive are investment grade US dollar-denominated corporate bonds? Recent spreads available in the market have not been hugely attractive, compared to historical levels and against an uncertain economic backdrop in which defaults have sharply increased[1]. However, average spread levels are not the whole story. The US corporate bond market is very diverse, and there are many opportunities to invest in bonds with spreads higher than the average. Is that wise? If a bond comes with a higher-than-average spread, does that not mean it is more likely to have its credit rating downgraded, or even to default? We look at how such investments have fared since the Great Financial Crisis of 2008-9.

SPREAD HISTORIES

The chart below shows option-adjusted spreads over Treasuries for US corporate bonds of 3 to 5 years maturity since the start of 2008, together with the yield of US Treasuries of the same maturity. All series are market-value weighted. Rating categories are broad groupings: "A" spreads, for example, includes bonds rated "A+", "A" and "A-".

3-5y corporate bond spreads and US Treasury yields since the start of 2008



Source: ICE, CAIM, August 2024.

On occasion in the past there has been a "concertina" effect in evidence, where higher yields in the Treasury market led to higher spreads, and vice versa. If an investor can obtain a high yield by investing in a credit risk-free US Treasury bond, why would they invest in a riskier corporate bond for little extra benefit? Yet that appears to be exactly the situation facing us right now: since mid-2022 yields have stayed close to their post-GFC highs, while spreads have paradoxically tightened close to their lows.

THE CURRENT LANDSCAPE

Let's take a more detailed look at spreads currently on offer for different ratings for maturities up to ten years. The tables below show the average spreads and the relative sizes of the investment grade corporate bond market divided up this way, as of early August 2024.

US Corporate Bond Market Breakdown

No. of bonds	1-3	3-5	5-7	7-10
AAA	24	18	12	10
AA	223	130	80	63
A	1044	782	498	606
BBB	1104	1017	788	819

Value, %	1-3	3-5	5-7	7-10
AAA	0.4	0.2	0.1	0.1
AA	3.5	1.9	1.2	1.0
A	15.9	12.2	7.4	10.0
BBB	13.4	12.4	9.7	10.6

Spread, bp	1-3	3-5	5-7	7-10
AAA	19	43	48	63
AA	34	49	53	70
A	56	74	84	103
BBB	83	105	121	140

Source: ICE, CAIM, August 2024.

Higher spreads can be obtained by moving to a longer maturity or a lower-quality credit rating: but this of course increases interest rate and credit risks. Are the risks associated with higher spreads worth taking?

EVALUATING CREDIT RISKS

Credit rating agencies regularly publish "rating transition matrices". These could be based on actual history or they could be forecasts. The purpose of the matrix is to show the probability that a bond rated – for example – AAA today, is still rated AAA in (typically) a year's time. Or the probability that it was downgraded to AA, or A, and so on.

[1]*According to S&P Global's paper: "Default, Transition, and Recovery: 2023 Annual Global Corporate Default And Rating Transition Study", the global number of defaults in 2023 was almost double that in 2022.*

Suppose we think the example matrix below is a good estimate of percentage transition rates that will occur over the next year, ignoring cases where bonds have their ratings withdrawn during the year.

Example one-year rating transition matrix

		To							
		AAA	AA	A	BBB	BB	B	CCC	D
From	AAA	90	7	2	1	0	0	0	0
	AA	3	90	4	2	1	0	0	0
	A	1	2	90	4	2	1	0	0
	BBB	0	1	2	90	4	2	1	0
	BB	0	0	1	3	88	4	3	1
	B	0	0	0	1	3	85	7	4
	CCC	0	0	0	0	1	4	80	15

Source: ICE, CAIM, August 2024.

Let's also assume – for simplicity, for the moment - that the above 3-5 year yields and spreads are those of theoretical four-year bonds today, and that spread levels remain constant for each rating over our one year horizon.
So: if I buy an average A-rated corporate bond of four-year maturity today, I get a spread of 74 basis points over a US Treasury yield of 3.91%. In a year's time:

- If the bond is still rated A, then I get a return of 4.70%;
- If the bond has been upgraded to AA, then the spread tightens to 49 bp and I get a return of 5.40%;
- However, if the bond has been downgraded to BBB then the spread widens to 105bp and I get a return of 3.83%;
- And so on.

Based on my yield and spread assumptions, including for "high yield" ratings BB to CCC, I can calculate the returns associated with all possible final ratinwgs in a year's time. This includes the case where the bond defaults: if this happens let's assume the bond is worth a "recovery value" of 25% of par. Based on our transition matrix we have the probabilities of our bond moving to each of these ratings. Hence we can calculate the expected return of our bond. We can also calculate the return of a US Treasury bond of the same maturity.

Is the return difference worth it? Assuming the corporate bond offers a positive return premium, then ultimately that's a subjective decision for each investor[2]. We can vary our assumptions on yields, spreads and even transition rates, and see how these affect the returns. We can also, with a little bit of algebra, calculate how far credit spreads can back up before the expected return of our corporate bond matches that of the equivalent Treasury. These spreads are shown in the table below, based on yields and spreads from ICE US bond indices and the hypothetical transition matrix above. The cushion is how far spreads can back up from current levels before the return of a corporate bond of each rating matches that of the Treasury bond.

Spot and one-year breakeven spreads, bp, using example matrix above

	AAA	AA	A	BBB
Treasury spreads	43	49	74	105
Breakeven spreads	55	61	95	131
Breakeven cushion	12	12	21	26

Source: ICE, CAIM, August 2024.

At this point a "risk-neutral" investor becomes indifferent between the two bonds. In practice, of course, nobody would ever opt for the corporate bond in such a hypothetical scenario: imagine making that choice and then trying to explain it to your boss after things go wrong.

[2]*If the expected return of the corporate bond is lower than that of the Treasury, then clearly it's not worth it. The severity of the crisis in 2008 meant that for a time investors in high-yield bonds were unable to obtain spreads that adequately compensated them for the increased risks of downgrade and default. And that's before considering that credit spreads should ideally offer extra returns for things like lower liquidity, rather than simply increased credit risk. The evaluation framework discussed in this paper can inform an investment decision but is no replacement for an active manager.*

THE AVERAGE IS NOT THE WHOLE STORY

The calculation framework above is aimed at investors who are purchasing a diverse set of bonds that behaves like an "average" portfolio. That is, it is possible that proportions of your portfolio can be upgraded, downgraded or default in line with the rates quoted in the transition matrix. If, instead, you buy a single bond and it defaults, then the framework is not of much use. (5% of a single bond obviously cannot default, for example.)

But this raises another point. In the charts and tables above we have looked at average spreads. But the US corporate bond market is diverse, and many bonds offer spreads above the average. Of course we may well be concerned about why their spreads are higher than average. Is this because the market feels the bonds are riskier? Well, presumably so; but if we look at a breakdown of the market made up of bonds with a spread that is above average, but no more than 1.5 times the average – to exclude extreme cases - then we arrive at the tables below.

US corporate bond market breakdown, based on bonds with spreads between 1 and 1.5x average

No. of bonds	1-3	3-5	5-7	7-10
AAA	3	6	5	7
AA	85	45	36	25
A	356	277	165	215
BBB	267	261	225	277

Value, %	1-3	3-5	5-7	7-10
AAA	0.1	0.2	0.1	0.2
AA	3.2	1.4	1.4	0.9
A	18.3	15.4	8.3	13.9
BBB	9.4	9.1	7.4	10.5

Spread, bp	1-3	3-5	5-7	7-10
AAA	26	59	62	83
AA	42	60	64	84
A	68	90	101	120
BBB	101	126	144	166

Source: ICE, CAIM, August 2024.

Compared to the original tables the spreads have to be more favourable, by construction. And there are still a good number of bonds in each rating/maturity bucket to choose from. But do the risks that come with the higher spreads pay off? In fact, if we compare the historical returns of the market and the "higher-spread" subset, there is little to choose between the two as the table below shows. This looks at annualised monthly returns for the 3-5 year maturity sectors since the start of 2010. If we'd included the crash year of 2008, and also 2009 where spreads rebounded, this would make the "above average" figures slightly better; but it's dubious that those two years are the best to look at when you're trying to assess "normal" market conditions.

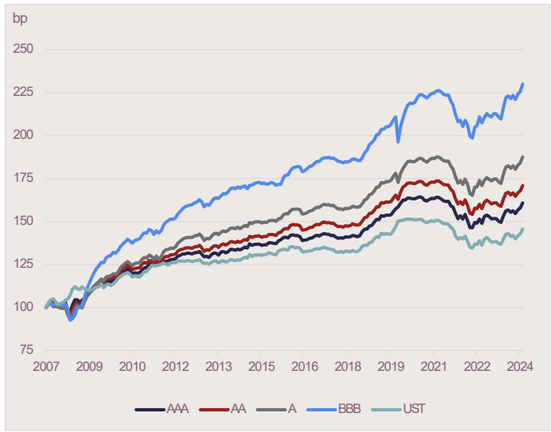
US 3-5y corporate bond market returns, by rating, 2010 –

	AAA	AA	A	BBB
Full Market				
Return, %	2.52	2.85	3.44	4.30
Volatility,%	3.04	3.21	3.49	4.07
Info ratio	0.83	0.89	0.99	1.06
Above Ave Spread				
Return, %	2.13	2.82	3.53	4.86
Volatility, %	2.85	3.37	3.69	4.48
Info Ratio	0.75	0.84	0.96	1.09

Source: ICE, CAIM, August 2024.

The following chart illustrates the pattern of returns since the end of 2007, so including the GFC and its immediate aftermath, using the same 3-5 year sector of the full market. Together with the overleaf table it shows that if you can tolerate the rockier road, with the occasional sharp drawdown, investing in lower-rated credit has paid off in the long-term.

US 3-5y corporate bonds and Treasuries, total return indices



Source: ICE, CAIM, August 2024. Indices based at 100 on 31st December 2007.

The lack of a systematic difference in returns should probably come as no big surprise, as otherwise it suggests that it would be possible to obtain an arbitrage over a reasonably short period: a risk-free profit within the same market achieved by going long one side and short the other. Instead, the message is that the "above average" part of the US market is still sufficiently diverse that there is no great disadvantage in restricting oneself to this part of the market.

COMPLETING THE PICTURE

We have shown that there are ample opportunities to invest in US corporate bonds with higher-than-average spreads, and that investing in a diverse set of such bonds has not historically meant dealing with significantly different risks and returns from investing in the full market.
But if the risks and returns are the same, then why bother? At this point we should admit that a statistical approach to investing in corporate bonds, as we have considered here, only takes you so far. Many, if not most, investors make use of traditional credit analysis: typically looking for companies they feel that the market is undervaluing, or through the primary market: looking for attractively-priced new issues. The statistical and traditional approaches are complementary, and indeed are what we at CAIM make use of ourselves. Where we invest in credit this is often as an adjunct to a government bond mandate. Allocations to corporate bonds, or credit more generally (including bonds issued by supranationals or state agencies) are made where we feel this can generate alpha, but often we are unable to invest in a broad swathe of such bonds as this would entail high tracking errors and downside risks. We therefore employ traditional analysis to evaluate bond opportunities, underpinned with a statistical foundation which gives us context on the current attractiveness, or otherwise, of the asset class.

CONCLUSION

A statistical approach is an often-neglected part of the investment process for corporate bonds. Traditional issuer analysis will always play a central role; but the attractiveness of current spreads, for example, cannot be appreciated without an awareness of whether the rates of upgrades, downgrades and defaults are running at historically "normal" levels, or without considering how spreads may evolve.

We have argued that both approaches are necessary to make the most of opportunities within the US corporate bond market which continue to exist given its breadth and diversity. As such, government-only bond investors may consider relaxing their guidelines to allow themselves greater access to the extra returns the corporate bond market, and credit markets more generally, can afford.

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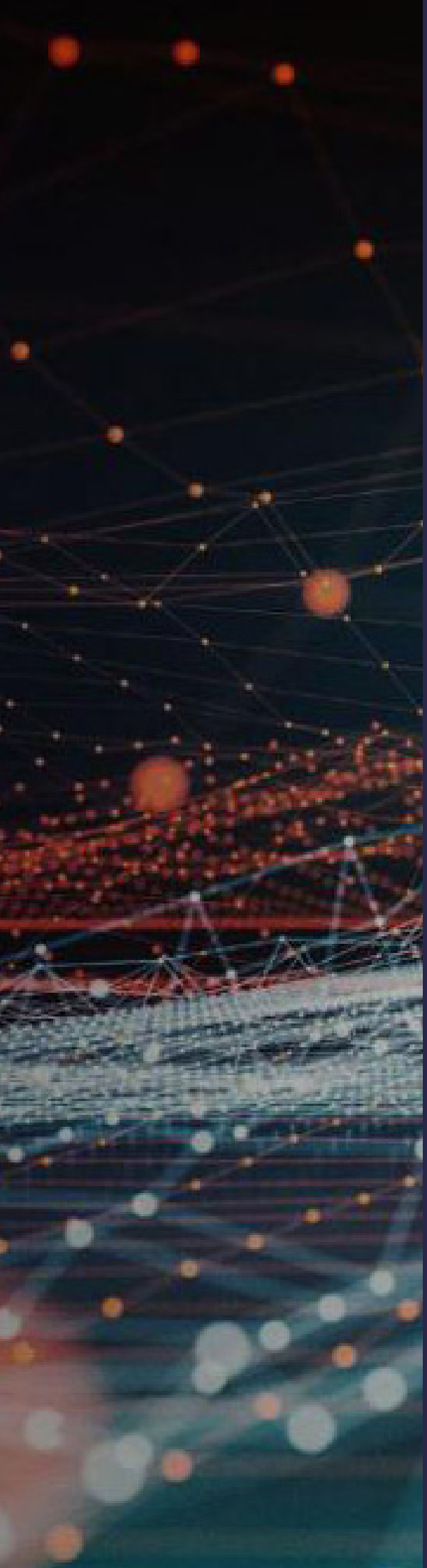

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The Rex Building
62 Queen Street
London, EC4R 1EB

T: +44 (0)20 3903 2500
www.caiml.com