A Visual Guide to the Credit Universe 2025

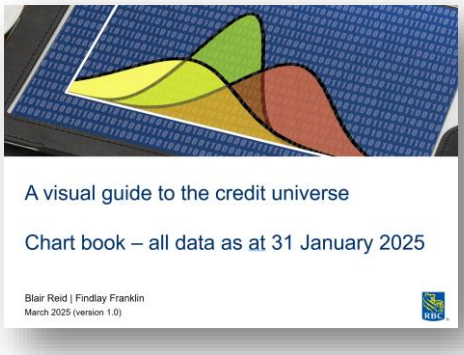
Why spreads matter - a MAC perspective

March 2025

Introduction

Bond investors are very aware that credit spreads have narrowed over recent years. The credit spread is the extra return over a risk-free yield which primarily compensates for the risk of default or impairment.

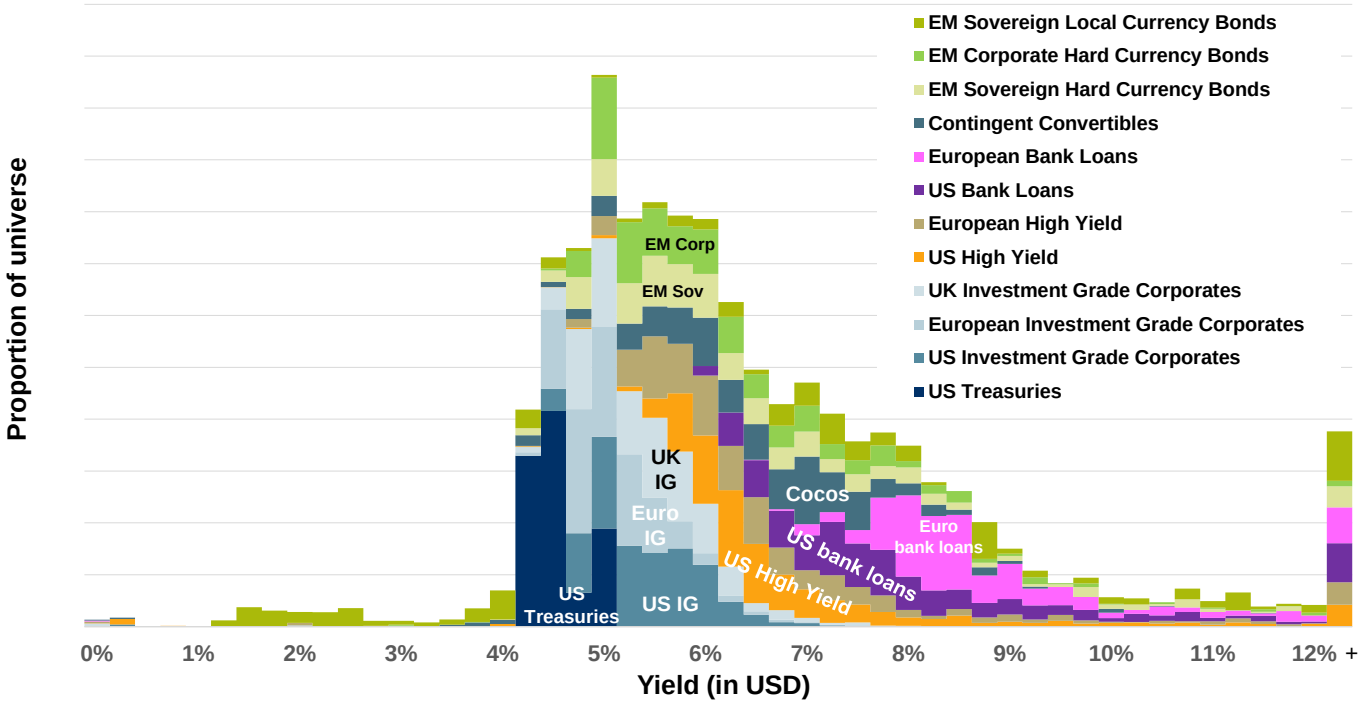
Every year we snapshot the credit universe to illustrate the opportunity set in different credit asset classes. Herein we try to answer the question: 'Why spreads matter?'. This paper accompanies the Chart Book shown right.



The chart of (almost) everything . . .

To get a broader sense of the credit universe, the chart below includes a wide range of credit asset classes to see how they 'fit together'. This chart measures bonds in yield, all converted to USD yield equivalent (we will come to spreads soon which are more useful to measure individual asset classes). The height of the bars represents the proportion of an index with that particular yield. The dark blue is US Treasuries which are the foundation from which other credit asset classes are measured. Investment grade (IG) sits alongside Treasuries. Then we have emerging markets, high yield, bank loans and cocos across the right tail.

Exhibit 1: The credit universe as at 31 January 2025

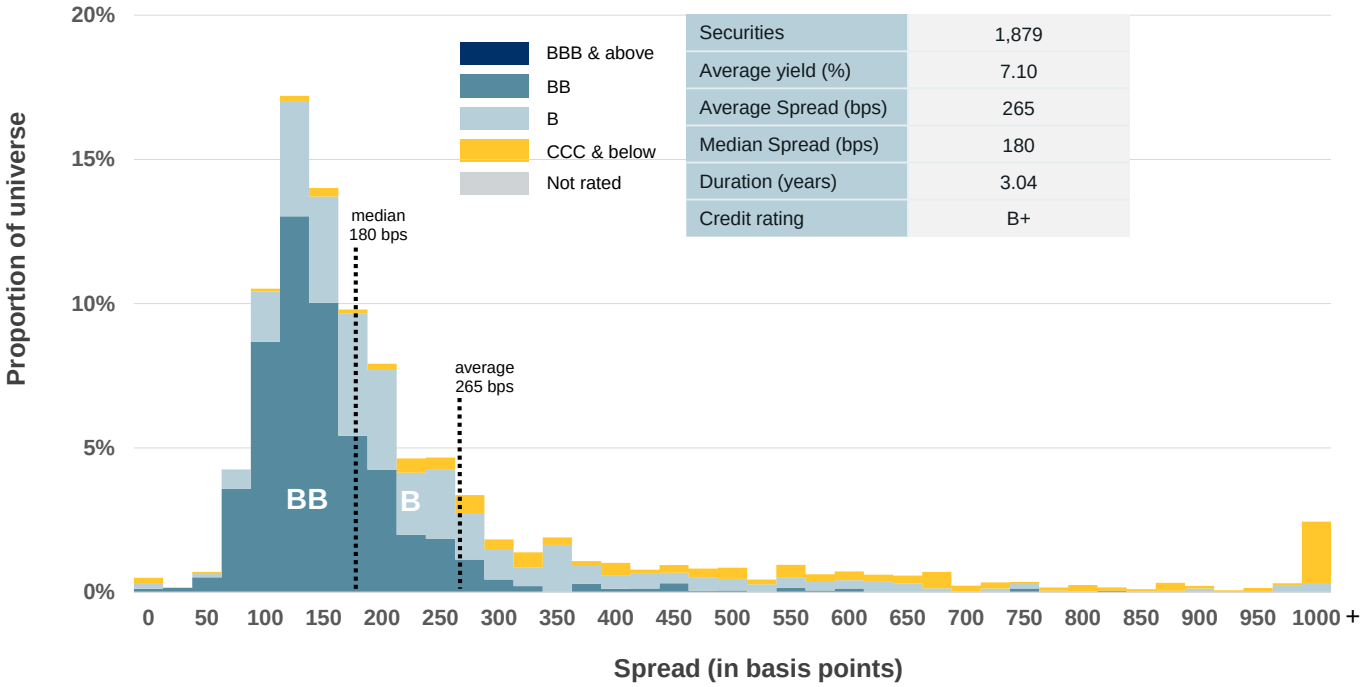


Note: Source Bloomberg as at 31 January 2025. Please refer to the Appendix for full index names. EUR yields are adjusted by +1.79% and GBP yields by -0.06% (using prevailing annualised 3-month FX forwards as at 31 January 2025). **Note that each asset class has been given an equal weight in the chart, albeit some asset classes are much bigger than others**.

Let's start with US high yield

The US high yield index has almost 1,900 securities and displays an average yield in USD of just over 7%. The average spread is 265 basis points (i.e. 2.65% over an equivalent US Treasury yield). As an active investor, we are very interested in the overall opportunity set which is embodied in the shape of the distribution below. There are high yield bonds with very low spreads, and others with spreads > 1,000 basis points.

Exhibit 2: ICE BofA US High Yield Index



Securities	1,879
Average yield (%)	7.10
Average Spread (bps)	265
Median Spread (bps)	180
Duration (years)	3.04
Credit rating	B+

Source: RBC Global Asset Management, Bloomberg as at 31 January 2025. ICE BofA US High Yield Index (Bloomberg Code: H0A0 Index).

Let's ask ourselves a few questions . . .

Q1: Is the average spread a good indicator of what's on offer?

In this case, no. We can see in the chart above the average seems to be to the right of most securities and this is because the right tail is truncated at 1,000 basis points (bps) and some bonds in the index have spreads that are exceptionally high. The more extreme the right hand tail, the greater the difference between the average and the median spread. The median spread is the level at which 50% of bonds, by weight in the index, have a spread less than the median and 50% are higher.

The median spread is 180 basis points, 85 basis points lower than the average. That is a lot. The difference between average and median is driven by the right hand tail. The lesson here is the median might provide a more meaningful expectation of what an investor might receive.

Q2: Is the credit rating of a bond a good indicator of likely spread?

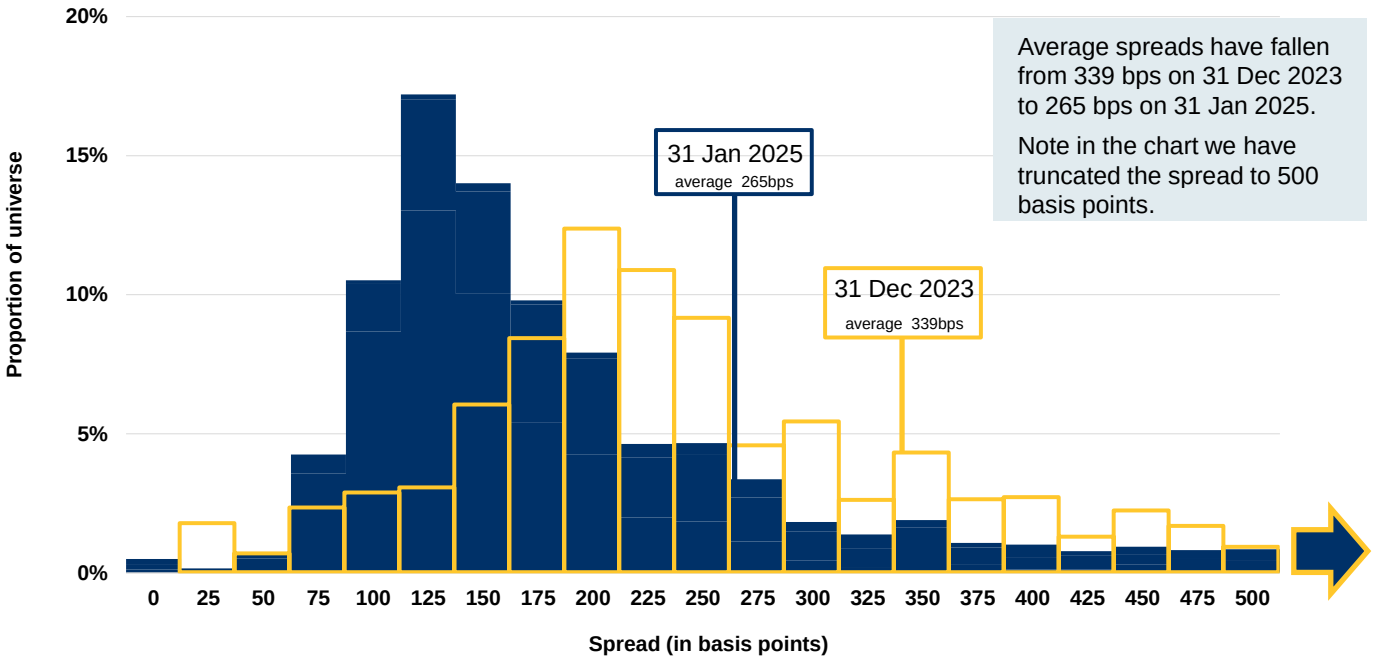
No. In the chart above we can see that BB rated bonds have spreads from 50 bps to 500 bps. But don't they all have the same implied probability of default? There are of course bonds rated BB+, BB and BB- in this bucket, though it is true to say, for any given credit rating, the spectrum of spreads is generally wider than one might expect.

Does this mean an active manager, in the face of narrowing spreads, can simply move to the right in the chart above and take on greater spread without altering the overall credit profile (average credit rating). Yes, in theory. In practice there may be other risks in moving to the right as the credit spread can also compensate for other factors such as liquidity. Also, credit ratings tend to change infrequently and active managers are often taking a view different to the published credit rating.

Q3: How have US high yield credit spreads changed?

The chart below illustrates how credit spreads have changed over the 13 months between 31 December 2023 (yellow bars) and 31 January 2025 (blue bars). It is evident the distribution has moved to the left over the period with the average spread falling 74 bps. The median spread fell 60 bps over the same period, from 240 to 180 on 31 January 2025.

Exhibit 3: US high yield spreads – 31 Jan 2025 versus 31 Dec 2023

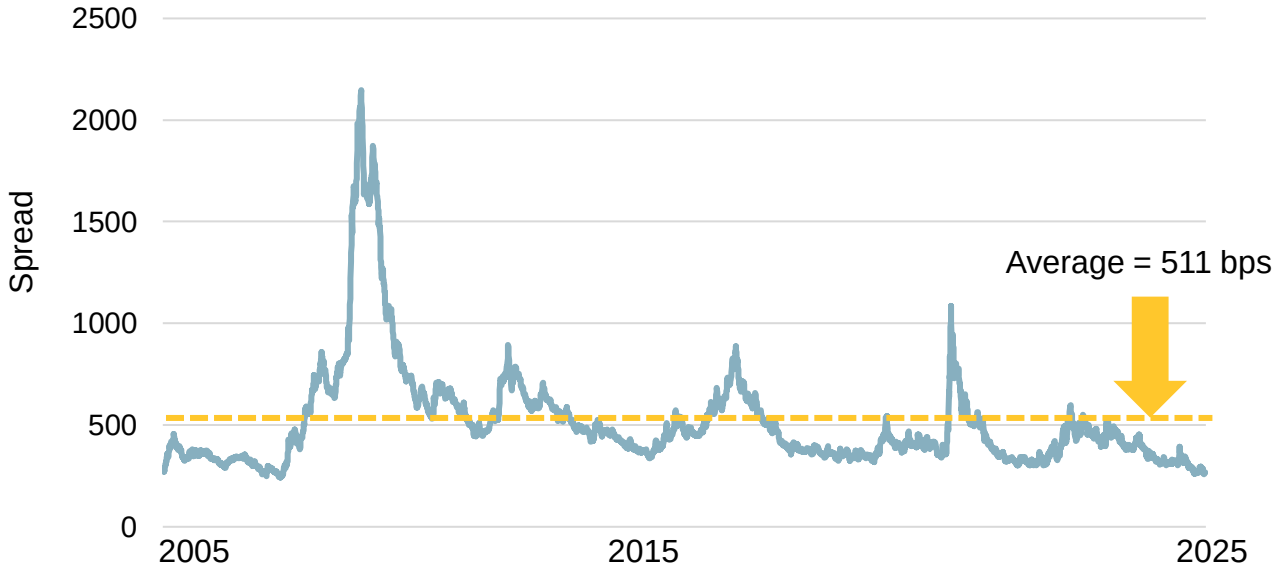


Source: RBC BlueBay, Bloomberg as at 31 January 2025. ICE BofA US High Yield Index (Bloomberg Code: H0A0 Index).

Q4: Are credit spreads too tight?

That depends. Spreads embody the market's best guess at the required compensation for future problems. Narrowing spreads mean, in aggregate, a more positive forward looking outlook. If the future begins to deteriorate, spreads tend to widen which hurts investors. The chart below shows a longer term history of US high yield spreads. As can be seen, we are currently below longer term averages.

Exhibit 4: US high yield spreads – a history

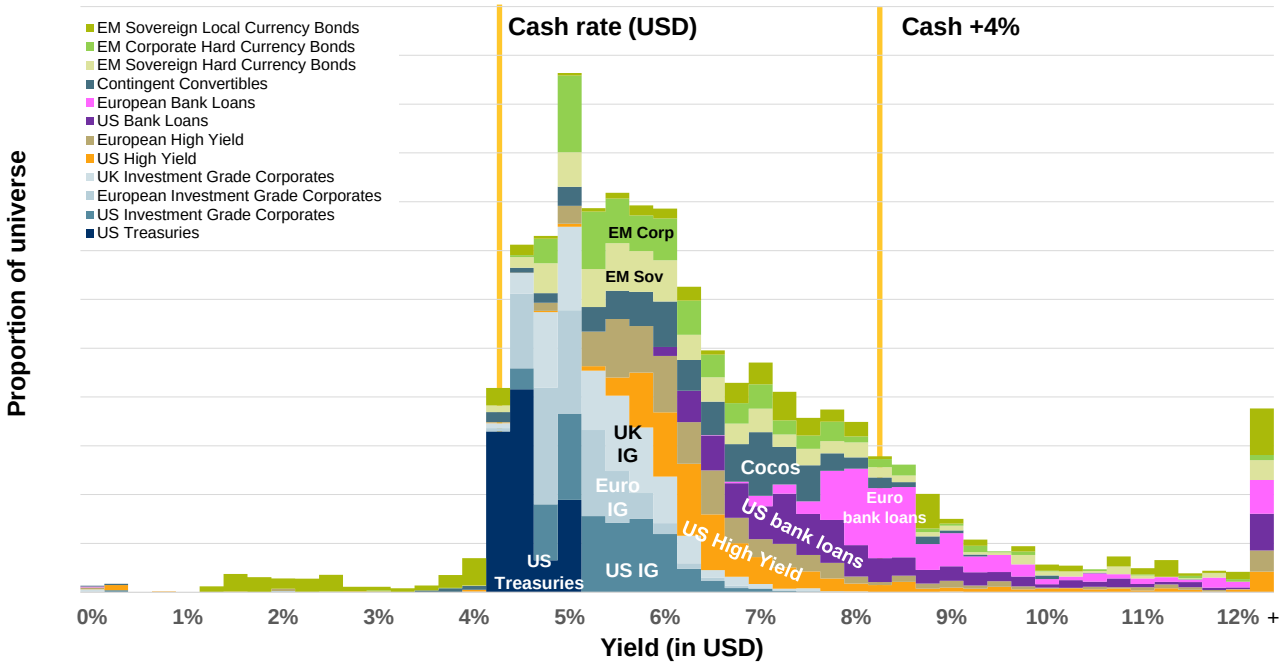


Source: RBC Global Asset Management, Bloomberg as at 31 January 2025. Start date 28 Feb 2005. ICE BofA US High Yield Index (Bloomberg Code: H0A0 Index).

Narrower spreads can make achieving performance targets more challenging. Many fixed income products have 'cash+' targets, and BlueBay's flagship Multi-Asset Credit (MAC) strategy has a target of cash +4-6% over a credit cycle. For a given level of risk, and generalising, the narrower spreads are the harder it is to reach a cash+ style target. Therefore, most targets are predicated over a credit cycle, or a longer term period typically of at least five years, allowing for the fluctuation of spreads over time.

If we replicate the chart from the first page, then add the USD cash rate as well as an indication of cash +4%, we can see that there is a limited subset of securities – **at this particular date** – that intrinsically generate cash +4% and above. It is also a narrow set of asset classes offering such returns. Multi-asset credit portfolios seek to add value from asset allocation, security selection and active overlays/hedging and are not constrained to invest in the universe around the cash +4% level.

Exhibit 4: US high yield spreads – a history



Note: Bloomberg as at 31 January 2025. Please refer to the Appendix for full index names. EUR yields are adjusted by +1.79% and GBP yields by -0.06% (using prevailing annualised 3-month FX forwards as at 31 January 2025). Cash is ICE BofA 1 Month Deposit Rate (LUS1). **Note that each asset class has been given an equal weight in the chart, albeit some asset classes are much bigger than others**.

The question initially posed was 'Why spreads matter?' and this has many angles. The primary consideration is whether credit spreads are too tight for expected defaults, and as the spread is the markets collective best guess regarding the future, by definition many investors believe spreads are too narrow whilst others believe they are too wide.

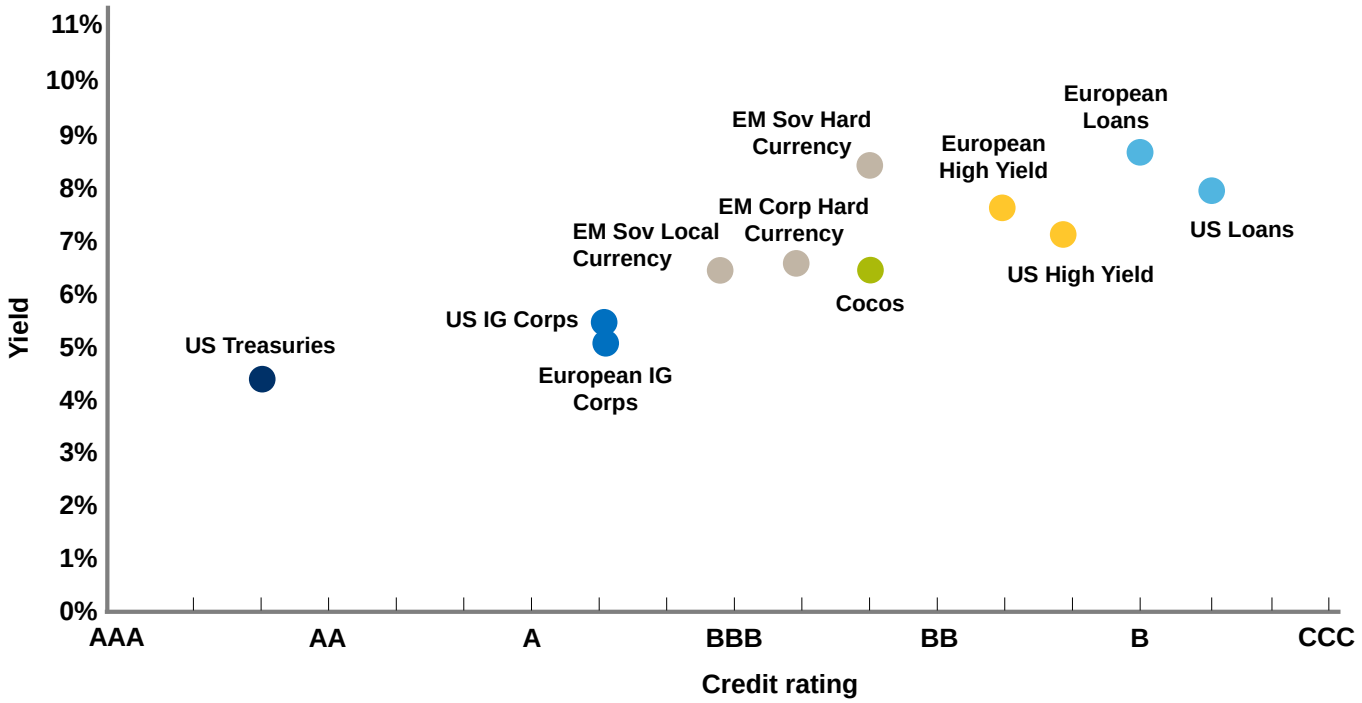
The secondary consideration is performance targets in a cash+ framework and, as at 31 January 2025, the average spread on our MAC funds was around 260 bps. However, for these funds this figure is effectively penalised by allocating to both convertible bonds and emerging market local debt. As at 31 January 2025, the spread on our convertible bond holdings was about 60 bps, whilst EMD local bonds was approximately 130 bps (and we would further note there are multiple approaches for calculating EMD local spreads). These are low because the calculation ignores the potential positive impact of equities markets in the case of convertibles, and currencies and the case of EMD local bonds. In contrast, the spreads for EMD hard currency bonds and cocos was around 300bps, and high yield and structured credit around 300-340 bps.

Spread is only one indicator of the ability of a manager to reach a cash+ target. As mentioned above, active asset allocation, security selection and active hedging can also play a role. For BlueBay's MAC portfolios we would hope to add value from all these tools, and our general rule of thumb is so long as spreads average around 250 bps plus in high yield, structured credit, cocos and EMD hard currency, the target is reachable.

What about the other credit asset classes?

Let's broaden out from US high yield and consider some other asset classes. The chart below illustrates the relationship between yields and credit quality.

Exhibit 5: Credit rating versus average yield (in USD)

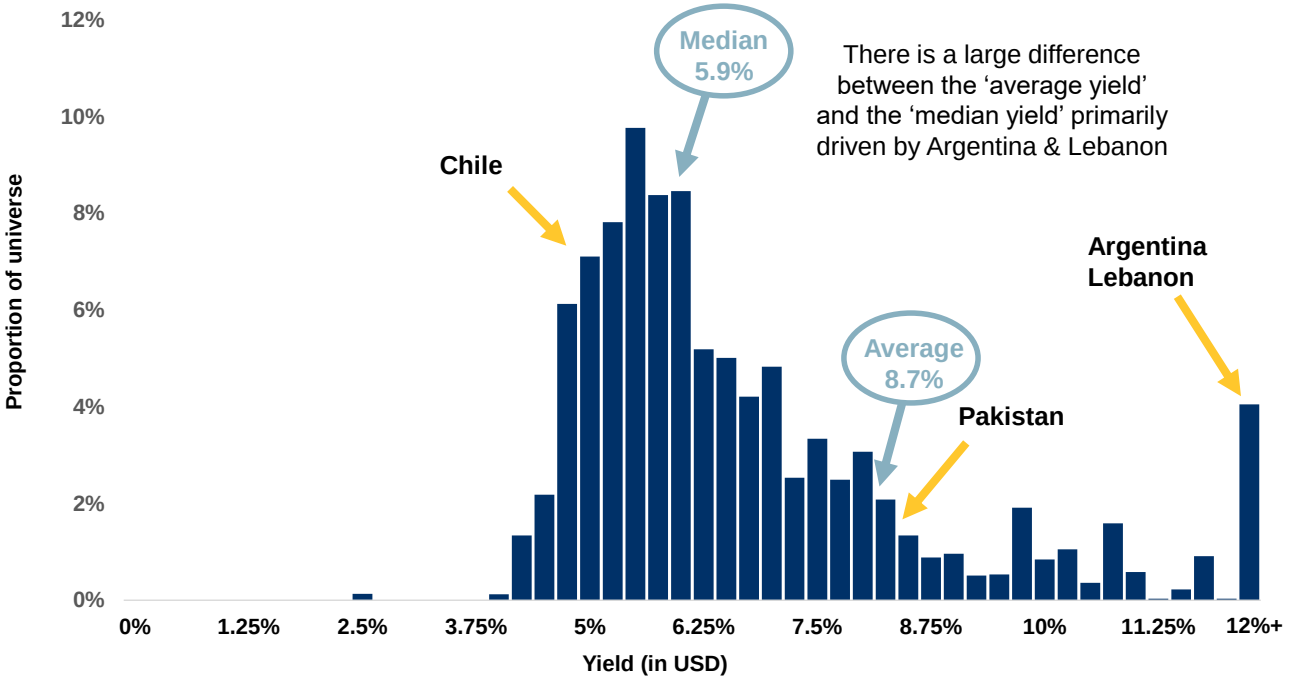


Note: Bloomberg as at 31 January 2025. Please refer to the Appendix for full index names. EUR yields are adjusted by +1.79% and GBP yields by -0.06% (using prevailing annualised 3-month FX forwards as at 31 January 2025).

The previous diagram shows there is a broadly reliable relationship between average yield and average credit rating. As a very general rule, as you move from AA to A to BBB to BB to B, you pick up around 1% for each step.

The starkest difference between averages and medians is currently displayed in the EMD hard currency market shown below.

Exhibit 6: EMD hard currency yield distribution

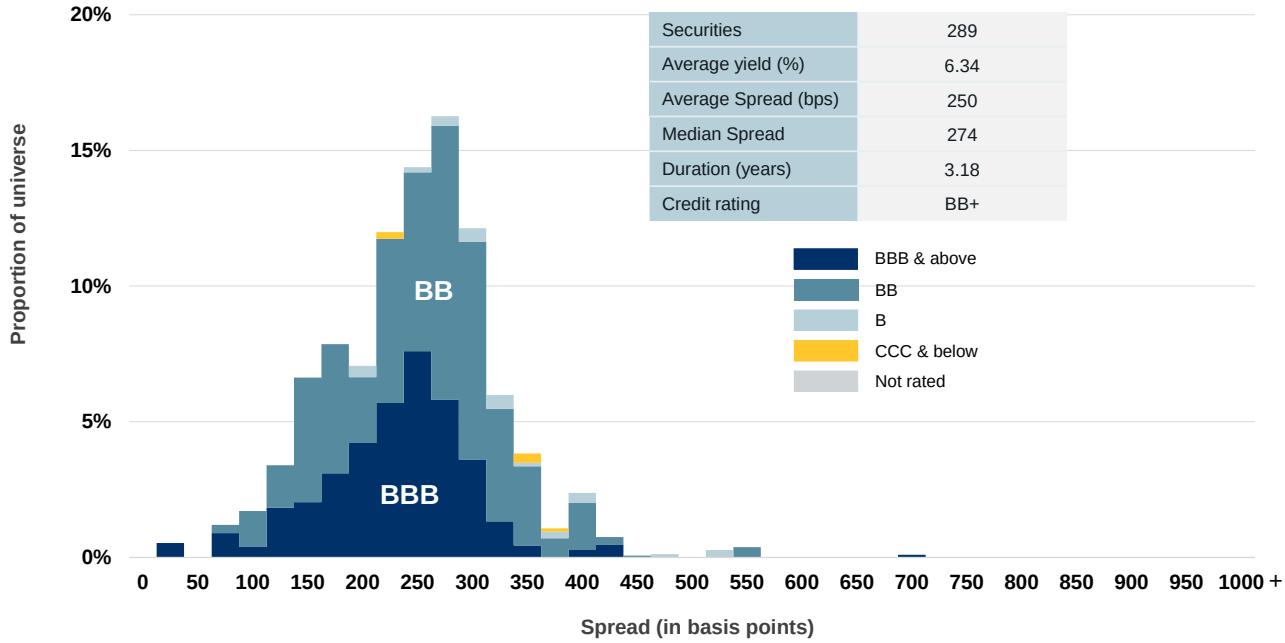


Source: RBC Global Asset Management, Bloomberg as at 31 January 2025. JP Morgan EMBI Global Diversified Index (Bloomberg Code: JPGCCOMP Index).

The average yield is 8.7%, however the median is a lot lower at 5.9% i.e. 50% of the universe yields 5.9% or less. It is due to the very high yields of Argentina and Lebanon at this snapshot in time. The corollary is for a manager to build a portfolio with a yield equal to or greater than the average, the risk may be high.

In contrast to this skew, the most symmetric distribution is that of cocos shown below. The average and median spread are relatively close.

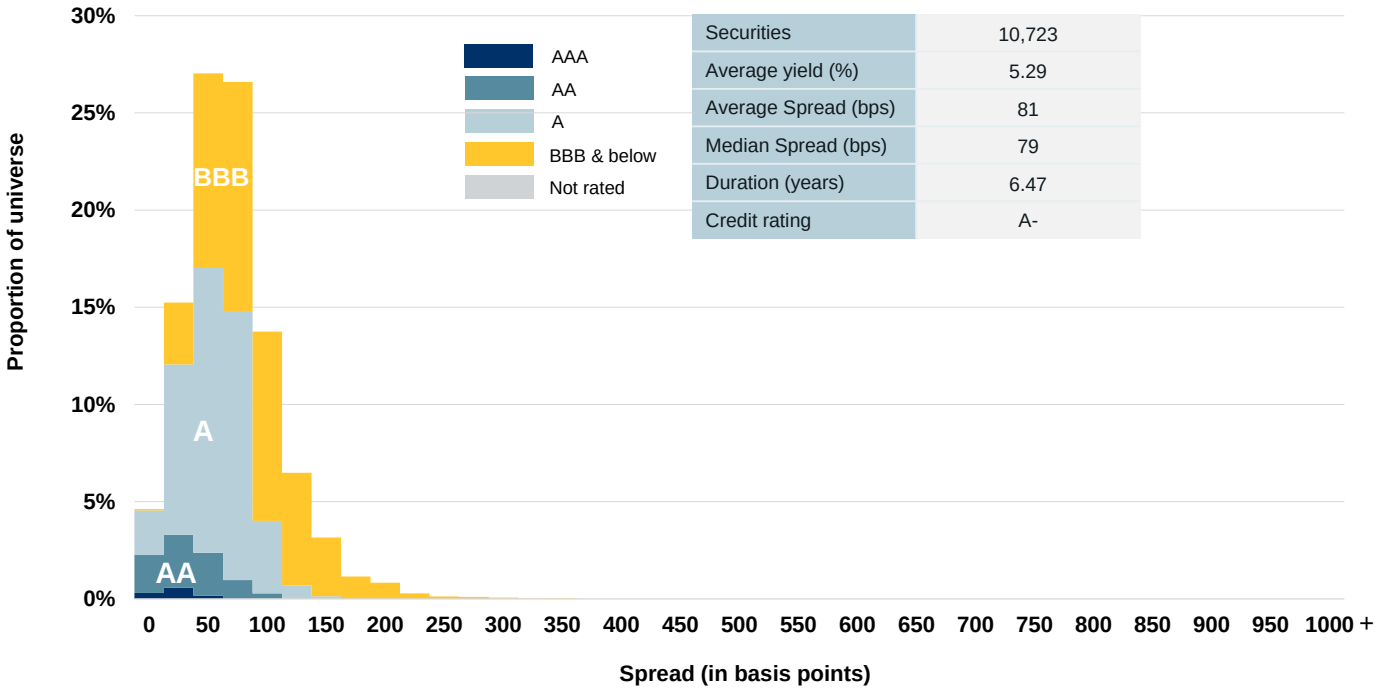
Exhibit 7: Cocos yield distribution



Source: RBC Global Asset Management, Bloomberg as at 31 January 2025. ICE BofA Contingent Capital Index (Bloomberg Code: COCO Index).

Let's pivot to a narrow distribution and below is US investment Grade corporate bonds.

Exhibit 8: US Investment Grade Corporates yield distribution



Source: RBC GAM, Bloomberg as at 31 January 2025. ICE BofA US Corporate Index (Bloomberg Code: C0A0 Index)

As we can see, the distribution is narrower and the median and average spread are very close together. For an active manager there is less choice when an asset class has a narrow distribution, and performance targets usually reflect the more limited choice.

Summary

At outset we asked 'why spreads matter' and this has two primary strands:

- **Security level – are spreads high enough to compensate for risk of default?** Given relatively low defaults over recent years, spreads have, if anything, overcompensated investors. However, the question of spread levels is really a forward looking question and tighter spreads means investors receive less compensation for a deteriorating future. Thus the answer to this question depends on an investor's view and, at the current juncture, our view is spreads offer sufficient compensation. Active managers can react to tighter spreads by moving portfolios to where they see the greatest opportunity.

- **Portfolio level – can performance targets be reached?** From a multi-asset credit (MAC) perspective, today's spread levels are healthy enough to reach performance targets. At the time of writing, in multi-asset credit we have taken a middle stance, largely avoiding securities with low spreads and also minimising exposure to securities with lower credit ratings. In many ways we are trying to find the optimal balance between an attractive average spread at the highest possible credit rating consistent with the overall performance target.

We have also included some appendix pages covering default probability, yield conventions and currency considerations.

If you have any questions feel free to reach out.

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Appendix 1: Summary data

Data as at 31 January 2025.

Index	Average Rating	Spread	Average Yield (%)	# of Securities	Duration (yrs)
US Treasuries ($)	AA+	-	4.4	291	5.8
US Investment Grade Corporates ($)	A-	81	5.3	10,723	6.5
European Investment Grade Corporates (€)	A-	89	3.1	4,347	4.4
UK Investment Grade Corporates (£)	A-	87	5.3	945	6.0
US High Yield ($)	B+	265	7.1	1,879	3.0
European High Yield (€)	BB-	304	5.6	761	2.7
US Bank Loans ($)	B-	456	8.0	1,406	-
European Bank Loans (€)	B	501	7.0	467	-
Contingent Convertibles ($)	BB+	250	6.3	289	3.2
Convertible Bonds ($)	BB+	-	-2.2	244	1.4
EM Sovereign Hard Currency Bonds ($)	BB+	313	8.7	991	6.5
EM Sovereign Local Currency Bonds (local FX)	BBB	-	6.3	400	5.3
EM Corporate Hard Currency Bonds ($)	BBB-	239	6.5	663	4.2

Note: Please refer to the Appendix for full index names. EUR yields are adjusted by +1.79% and GBP yields by -0.06% (using prevailing annualised 3-month FX forwards as at 31 January 2025). **Note that each asset class has been given an equal weight in the chart, albeit some asset classes are much bigger than others**.

Appendix 2: Index names and yield convention

Asset class	Index	Yield convention	Spread convention
US Treasuries	Bloomberg US Treasury Index (LUATTRUU Index)	Yield to maturity	OAS to Govt
US Investment Grade Corporates	ICE BofA US Corporate Index (C0A0 Index)	Yield to maturity	OAS to Govt
Euro Investment Grade Corporates	ICE BofA Euro Corporate Index (ER00 Index)	Yield to maturity	OAS to Govt
UK Investment Grade Corporates	ICE BofA Sterling Corporate Index (UR00 Index)	Yield to maturity	OAS to Govt
US High Yield	ICE BofA US High Yield Index (H0A0 Index)	Yield to maturity	OAS to Govt
European High Yield	ICE BofA Euro High Yield Index (HP00 Index)	Yield to maturity	OAS to Govt
US Bank Loans	JPM Leveraged Loan Index (JLLILLI Index)	Yield to 3-year takeout[1]	Spread to 3-year takeout[1]
European Bank Loans	JPM European Leveraged Loan Index (JLLELLI Index)	Yield to 3-year takeout[1]	Spread to 3-year takeout[1]
Contingent Convertibles	ICE BofA Contingent Capital Index (COCO Index)	Yield to worst	OAS to Govt
Convertible Bonds	FTSE Convertible Global Focus Hedged Index (UCBIFX02 Index)	Yield to maturity	-
EM Sovereign Hard Currency	JP Morgan EMBI Global Diversified Index (JPGCCOMP Index)	Yield to worst	OAS to Govt
EM Sovereign Local Currency	JP Morgan GBI-EM Global Diversified Index (JGENVUUG Index)	Yield to worst	-

1. **Yield to 3-year takeout**: while most leveraged loans have a longer maturity than 3 years, loan refinancing, prepayments and corporate actions have typically reduced the weighted average life of loans to approximately 3 years. As such, its more appropriate to calculate a yield based on that horizon.

Appendix 3: Yield and spread conventions

Bonds are not all created equally (alas!). Some bonds are simple and have contractual cashflows for the entire term of the bond, paying coupons and principal on known dates. Others are issued with an embedded option for the issuer to repay early at certain dates, and these bonds are termed 'callable'. Many government and high quality investment grade markets fall into the simpler type; in high yield markets and other sub-investment grade sectors, callable features are prevalent. For example, most US high yield bonds are callable.

Investors, and index providers, tend to use the yield most relevant for the asset class and the three most common types of yield are:

Yield to maturity: the yield from holding the bond to maturity

Yield to call: as an issuer may choose pay the bond off before it reaches maturity, the yield to call is the yield achieved if the bond is held only to its call date (rather than maturity)

Yield to worst: an investor will often compare the yield to maturity and yield to call. The lower figure is the yield to worst i.e. the lowest possible yield. Note that if a bond isn't callable, the yield to maturity and yield to worst are the same.

Yield to 3-year takeout: while most loans have a longer maturity than 3 years, loan refinancing, prepayments and corporate actions have typically reduced the weighted average life of loans to approximately 3 years. As such, it is more appropriate to calculate a yield based on that horizon.

The various 'yield conventions' for the asset classes are listed in the Appendix 2.

Spreads

The situation is similar for spread calculations. The most common types of spread are:

G-spread: the yield difference between a fixed-income security and a comparable government bond with the same maturity. It measures the additional return investors require to compensate for the credit risk and other risks associated with the security compared to a risk-free government bond.

Option-Adjusted Spread to Government: a measure of the spread of a fixed-income security rate over a risk-free government bond rate, adjusted to account for embedded options. This metric helps investors assess the relative value of a security after considering the risk of options, like prepayment risk.

I-Spread (Interpolated Spread): The spread over the interpolated government curve, used for bonds that are not benchmark issues and where the government curve needs to be interpolated for an appropriate comparison.

Appendix 4: Default probabilities

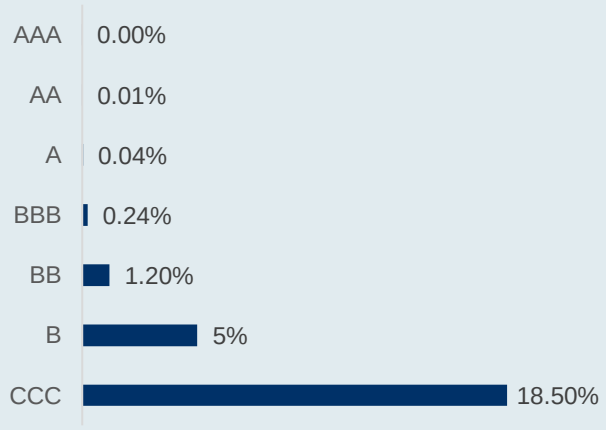
The largest contributor to yield differences is usually underlying credit risk - the possibility of an issuer not paying back the full contractual cashflows i.e. defaulting on its promise. Credit rating agencies (e.g. Fitch, S&P, Moody's) publish credit ratings for most bonds, from AAA, the safest, to CCC which are more speculative.

The diagram below provides a long term view of the probability of default associated with each credit rating. The numbers represent the chance of a bond of a particular credit rating, selected at random, defaulting within a 12 month window. Note the probability of default rises on an exponential basis and is not linear.

Default rates vary considerably over time and at the present time defaults are generally lower than the long term averages depicted.

To further complicate things, when a bond does default an investor usually gets back a proportion of their investment known as the recovery value. These also vary considerably over time, and from sector to sector. We'll ignore recovery values herein, though in practice a bond investor spends quite a bit of time estimating them.

Credit ratings and default probabilities



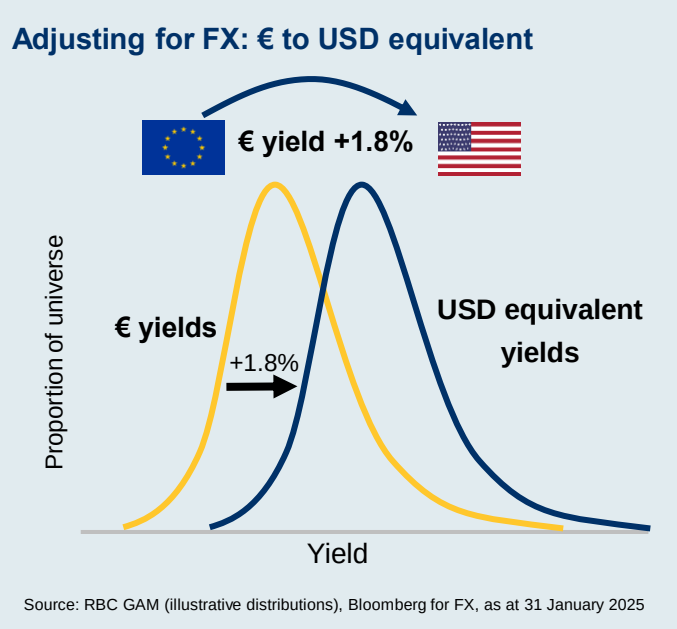
Source: Bloomberg default matrix, as at 31 January 2025. For illustrative purposes only. There is no assurance that any of the trends depicted or described herein will continue

Appendix 5: Currency considerations

A simple comparison of the yields for, say, US, UK, Japanese and European bonds ignores the different 'risk free' interest rates prevailing in each region. Bond yields are usually calibrated relative to a risk free government yield and to compare high yield bonds from the US and Europe an adjustment for the different prevailing central bank rates is needed and the mechanism of adjustment is currency forward rates which broadly reflect the difference in short term interest rates between two countries.

To compare different jurisdictions we generally adjust yields to one currency, often 'USD equivalent'. A key point is there is no perfect way to do this as ultimate accuracy requires imputing currency hedging costs way into the future. In practice, a simpler adjustment is often made, and here we used the one year currency 'forward rate' as a proxy. This has the effect of removing the currency impact on a one year view, and further assumes that fixed adjustment all the way into the future.

The diagram below is an example of one adjustment we have made: bonds denominated in € have +1.8% added to the yield to approximate what a US investor would achieve by buying a European bond and hedging the currency. The net effect is a shift of the entire yield € yield distribution to the right.



Source: RBC GAM (illustrative distributions), Bloomberg for FX, as at 31 January 2025

Risk free rates, and FX rates, vary over time and in practice investors purchasing overseas bonds usually use a series of 'rolling' currency hedges which protect against changing exchange rates over time. However, unless an investor hedges an asset to the maturity date, there will be some exposure to movements in risk free rates over time.

Drawing all these aspects together, what is clear is bond comparisons are not as straightforward as one might hope. Nonetheless, it is possible to bring an analysis closer to 'apples with apples' by adjusting for currency effects and taking account differing credit quality.

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- An Alternative Investment represents a speculative investment and involves a high degree of risk. Investors must have the financial ability, sophistication, experience and willingness to bear the risks of an investment in an Alternative Investment. An investor could lose all or a substantial portion of his/her/its investment.
- An investment in an Alternative Investment should be discretionary capital set aside strictly for speculative purposes.
- An investment in an Alternative Investment is not suitable for all investors. Only qualified eligible investors may invest in an Alternative Investment.
- An Alternative Investment's offering documents are not reviewed or approved by federal or state regulators and its privately placed interests are not federally or state registered.
- An investment in and Alternative Investment may be illiquid and there are significant restrictions on transferring or redeeming interests in an Alternative Investment. There is no secondary market for an investor's investment in an alternative investment and none is expected to develop. Substantial redemptions by shareholders within a limited period of time could compel an Alternative Investment to liquidate its positions more rapidly than otherwise would be desirable, which could adversely affect the value of the distribution proceeds and the value of the remaining interests in an Alternative Investment.
- The net asset value of an Alternative Investment may be determined by its administrator in consultation with its manager or advisor in certain cases. Certain portfolio assets may be illiquid and without a readily ascertainable market value. Since the value assigned to portfolio investments affects a manager's or advisor's compensation, the manager's or advisor's involvement in the valuation process creates a potential conflict of interest. The value assigned to such portfolio investments may differ from the value an Alternative Investment is able to realize.
- An Alternative Investment's manager or advisor has total trading authority over the Alternative Investment. The death or disability of the manager or advisor, or their departure, may have a material adverse effect on an Alternative Investment. The use of a single advisor applying generally similar trading programs could mean lack of diversification and, consequentially, higher risk.
- An Alternative Investment may use a complex tax structure, which should be reviewed, and may involve structures or strategies that may cause delays in important tax information being sent to investors.
- The Alternative Investment's fees and expenses which may be substantial regardless of any positive return will offset such Alternative Investment's trading profits. If an Alternative Investment's investments are not successful, these payments are expenses may, over a period of time, deplete the net asset value of an Alternative Investment.
- An Alternative Investment and its managers/advisors may be subject to various conflicts of interest.
- The fund may be leveraged.
- The fund's performance can be volatile.
- A substantial portion of the trades executed for the fund takes place on foreign exchanges

The above summary is not a complete list of the risks, tax considerations and other important disclosures involved in investing in a Private Fund and is subject to the more complete disclosures in such Fund's offering documents, which must be reviewed carefully prior to making an investment. For a copy of the fund's offering documents, please contact please contact rbcgamusinfo@rbc.com.

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