Invesco

AT1 Capital Bonds: An alternative for improving risk-reward profile of fixed income portfolios

March 2022

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Record low interest rates and quantitative easing programmes are problematic for income investors. For those unwilling to accept low yields, the other choice would appear to be taking on more risk from either moving out the maturity spectrum or investing in debt from lower-rated issuers.

Innovative income assets can potentially improve an income portfolio's risk-reward profile.

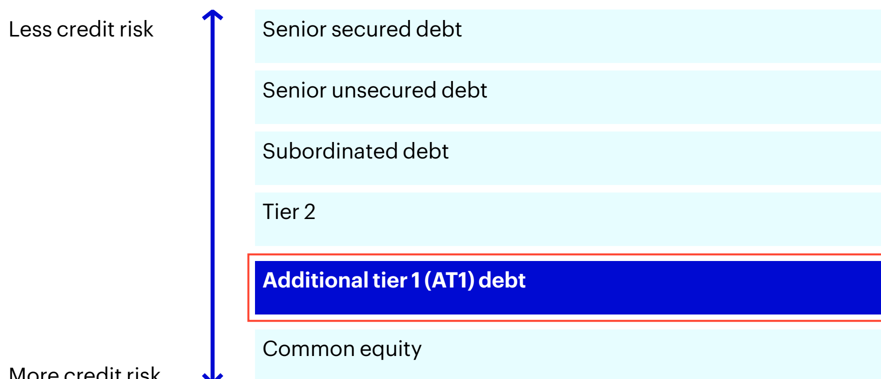
In this paper, we explore how the inclusion of Additional Tier 1 (AT1) contingent convertible bonds could potentially increase the overall yield of your fixed income portfolio, without compromising its overall volatility.

What are AT1s?
AT1s are issued by European banks for regulatory purposes. Given their subordinated position within the capital structure, AT1s offer a higher yield than more senior debt from the same issuer. AT1s are callable securities, which means they have relatively low interest rate risk. These "hybrid" securities have become increasingly attractive for yield-seeking investors, with the asset class maturing to a current market capitalisation in excess of US$250 billion.[1]

AT1s are high yielding securities often issued by investment grade companies.

Investment grade ratings offer improved credit quality.

Typical bank capital structure



For illustrative purposes.

Higher yields... not necessarily High Yield
Although AT1s sit at the riskier end of the fixed income spectrum and are lower rated than more senior debt, the majority of banks issuing them have investment grade ratings. The higher yield offered by AT1s is purely driven by their subordination in the issuer's capital structure, rather than the bank's credit quality.

Example
The table below shows the yields and ratings for senior and subordinated debt, and AT1 capital bonds for HSBC:

	Rating	Yield
Senior debt	A	2.77%
Subordinated debt	BBB+	3.21%
AT1 capital bonds	**BBB-**	**5.44%**

Higher yield (and lower rating) because of subordination rather than issuer quality

For illustrative only. Source: Bloomberg as at 28 February 2022. Yields shown are yield-to-maturity except, for AT1 for which the yield-to-call is shown.

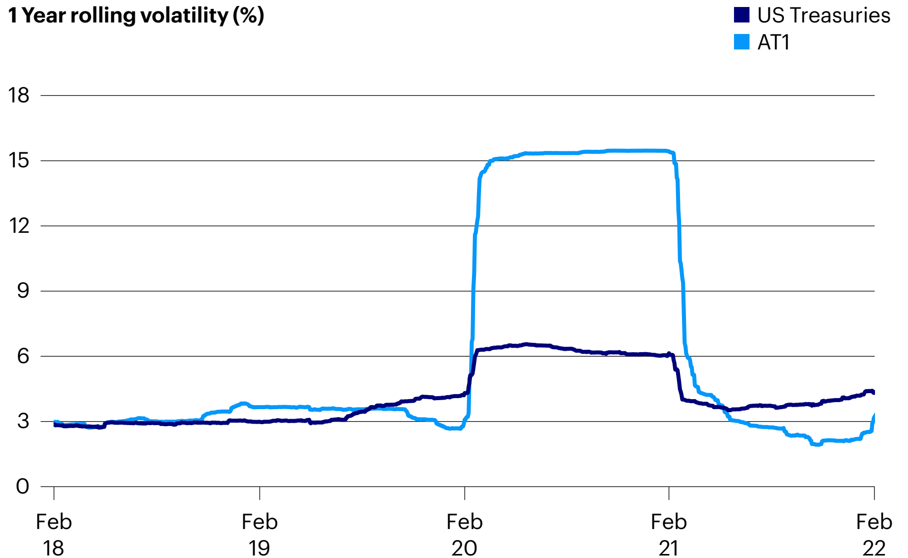
[1] Source: Bloomberg, based on the amount outstanding in the Bloomberg Global Contingent Capital Index, as at 28 February 2022.

AT1 yields are driven by subordination in the capital structure, rather than issuer quality.

Return vs Volatility

Since an AT1 bond falls towards the bottom of the issuer's capital structure, it would be among the first debt instruments to absorb losses in times of financial distress. This position on the 'hierarchy of loss absorption' is what drives the higher yields (and lower ratings), where AT1 holders are compensated for assuming additional risk. However, during volatile periods, such as at the height of the COVID-19 pandemic in March 2020, "riskier" assets tend to be the most affected. The chart below shows the 1-year rolling volatility for the perceived "risk-free" asset class of US Treasuries along with that for USD-denominated AT1s. During calm periods, the volatility of each asset class is broadly similar but, when markets become distressed, AT1 volatility experiences a much larger increase.

1 Year rolling volatility (%)



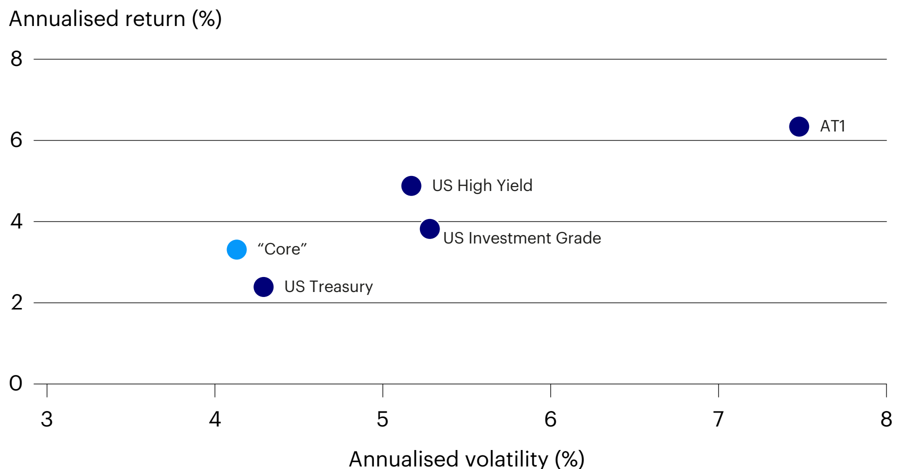
Source: Bloomberg, Invesco, based on daily index returns from 27 February 2018 to 28 February 2022. **Past performance is not a reliable indicator of future returns.** See chart below for proxies being used.

It's therefore interesting to run some analyses to see if, even with the additional volatility, AT1s can improve the risk-reward characteristics of a diversified fixed income portfolio. The next chart shows the annual returns and volatility for the main USD-denominated fixed income asset classes over the last five years. We have also included a typical "core" fixed income portfolio comprising of 45% US Treasuries, 45% investment grade credit and 10% high yield.

We see from this chart that this core fixed income portfolio offers the potential for lower volatility than any of the three components on their own. The reason is that, while US Treasuries and investment grade credit are highly correlated, the addition of high yield helps to diversify the risk due to its low or negative correlation to the other two asset classes.

The analysis also shows that AT1s had the highest returns, with the most volatility, over this period. Similar to high yield, AT1s also exhibit low correlations to higher rated debt. This means that adding AT1s to a core portfolio can further diversify risk. Adding AT1s as a satellite investment to a core fixed income portfolio can not only improve returns, it can also reduce risk.

Return vs Volatility



Source: Bloomberg, Invesco, based on daily index returns from 27 February 2018 to 28 February 2022. **Past performance is not a reliable indicator of future returns.** US Treasuries is represented by Bloomberg US Treasury Total Return Index, Investment Grade by Bloomberg US Corporate Total Return Index, High Yield by Bloomberg US Corporate High Yield Total Return Index, AT1 by Bloomberg Contingent Capital USD Total Return Index.

Using AT1s to diversify your portfolio

AT1s can be a useful diversification tool as they exhibit low correlations with traditional fixed income assets such as government bonds and investment grade credit. Even with the sharp increase in volatility earlier this year, allocating a relatively small percentage of AT1s to a core fixed income portfolio could improve returns while reducing overall volatility.

Allocating even a small portion of a core fixed income portfolio to AT1s can improve portfolio outcomes.

Correlation table

	UST	IG	HY	AT1s
UST	1.00			
IG	0.75	1.00		
HY	0.18	0.42	1.00	
AT1s	**-0.11**	**0.36**	**0.79**	**1.00**

Source: Bloomberg, Invesco, based on 5 year daily returns to 28 February 2022.

Credit rating of the diversified portfolio

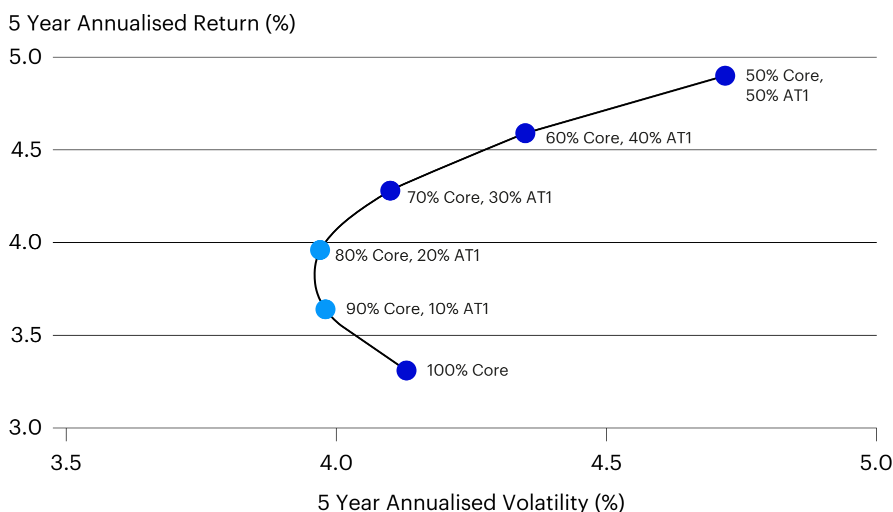
An important consideration is how the addition of AT1s affects the credit quality of the portfolio. The following tables show the average credit rating when AT1s are added to a core portfolio.

Asset	Average rating
US Treasuries	AAA
USD Investment Grade	A-
USD High Yield	B+
USD-denominated AT1	BB+

Asset mix	Average rating
100% Core	A+
90% Core, 10% AT1	A
80% Core, 20% AT1	A
70% Core, 30% AT1	A-
60% Core, 40% AT1	A-
50% Core, 50% AT1	BBB+

Source: Bloomberg, IHS Markit, Invesco, as at 28 February 2022.

Efficient frontier



Source: Bloomberg, Invesco, based on daily returns five years to 28 February 2022. See "Returns vs volatility" chart in the previous page for proxies being used. **Past performance is not a reliable indicator of future returns.**

Further information

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Conclusion

Selecting the most suitable allocation between any variety of assets will depend on several factors including the investment objective and risk tolerance. However, over the last few years AT1s have developed into an established asset class that can offer attractive risk-reward characteristics when added to a core fixed income portfolio. Therefore, if you are looking for ways to increase overall yield without exposing your portfolio to materially more risk, an allocation to AT1 contingent convertible bonds may be worth considering.

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Data as at 28 February 2022, unless otherwise stated.

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