

ALTERNATIVE RISK PREMIA: A DIVERSIFIER FOR ALTERNATIVE PARADIGMS

Dr Daniele Lamponi and Dr Lars Jaeger of GAM Systematic ARP remind us that negative correlation between equities and bonds is actually a relatively new phenomenon. They contend that in periods of higher inflation stocks and bonds might both suffer and benefit in line, and therefore diversifying into alternative assets could lead to more resilient and robust portfolios.

Marketing material for professional / institutional / accredited investors

Executive Summary

While negative equity/bond correlation has for many years been a cornerstone of asset allocation decisions among institutional investors, according to both theoretical and empirical considerations there is no guarantee that stocks and bonds are or will be positively or negatively correlated – and have not been in the past prior to 30 years ago.

With high inflation, stocks and bonds might both suffer and benefit together, as increasing inflation expectations hurt bonds and equities suffer from pricing uncertainties and cost pressures. The last time we saw this was in the early 1980s. In the current environment equities are losing value and bonds, once considered a hedge against falling equity markets, no longer look so reliable.

In these alternative paradigm scenarios, diversifying into alternative risks and assets, such as the ones offered by Alternative Risk Premia (ARP) programs, can contribute to making a global portfolio more resilient and robust. ARP programs are structured to cope with both low and high inflation periods, as shown by strong year-to-date performances across the ARP sector.

The equity/bond correlation is a cornerstone of asset allocation decisions among institutional investors. This has developed starting from the early 1990s, and negative correlation between stocks and bonds has been persistent since then. Actually, this is also the only lived experience of many professional investors today, including us. However past performance is not

a guide to future performance, and our role as investment professionals is also to assess risks and opportunities arising from changing market conditions. It is, therefore, normal that we challenge this assumption, even if it is anchored in our professional experience, and that we raise questions about the persistence of this negative correlation.

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The challenge

In order to challenge the assumption that bonds are negatively correlated to stocks let us on the one hand review its theoretical background and on the other analyse historical data. From a theoretical perspective, we can express the value of a company as discounted expected cash flows, that is:

$$Value\ of\ Company = \sum_{n=1}^{\infty} \left(\frac{E[Cash\ Flows]}{1 + rate + premium_{stock}} \right)$$

While bond valuation is given by the discounted value of all expected coupon payment and final reimbursement:

$$Value\ of\ Bond = \sum_{t=1}^T \left(\frac{E[Coupon]}{1 + rate + premium_{Bond}} \right) + \frac{E[Final\ payment]}{1 + rate + premium_{Bond}}$$

These formulas highlight that changes in the risk-free rate affect both stock and bond prices in the same direction. However, if we assume that equity cashflows increase when rates increase, correlation between stock and bond prices decreases. If we assume that equity cashflows decrease when rates increase, correlation between stock and bond prices increases. So finally, in this very simplistic model, the equity-bond correlation reduces to the relation of expected equity cashflows and interest rates.

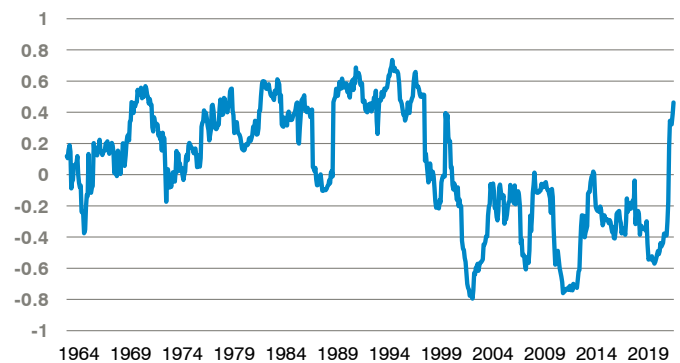
The latter is strictly related to the missing variable: inflation (or inflation expectation).

In fact, the expected future cashflows depend on the expectation of how well companies can cope with inflation. A company's expected cashflow might rise or decrease with inflation; on the one side, inflation might be associated with positive economic growth and rising profits, but on the other it might generate uncertainty and contribute negatively to the business cycle development.

⇒ From a theoretical point of view there is no guarantee that stocks and bonds are or will be positively or negatively correlated. While one would expect such a negative correlation in low inflation periods, when inflation expectations rise deviations from this are likely to be the case.

Exhibit 1

Panel A. The figure shows the rolling correlation over two years (monthly data) between equity (S&P500) and bonds (zero coupon 10-year US bonds) going back 60 years. While market participants have experienced negative correlation for a couple of decades the situation might change going forward, as we have seen prior to the 1990s.



Source: GAM calculations and analysis of Bloomberg data. As at 30 September 2022.

Panel B. The figure plots the yearly returns of the S&P 500 versus the yearly returns of a 10-year zero coupon bond. Data covers the period from 1962 to 2022, in red the period 2000-2020, in green the rest. Dashed lines represent the regression line for the sub-periods.



Source: GAM calculations and analysis of Bloomberg data. As at 30 September 2022.

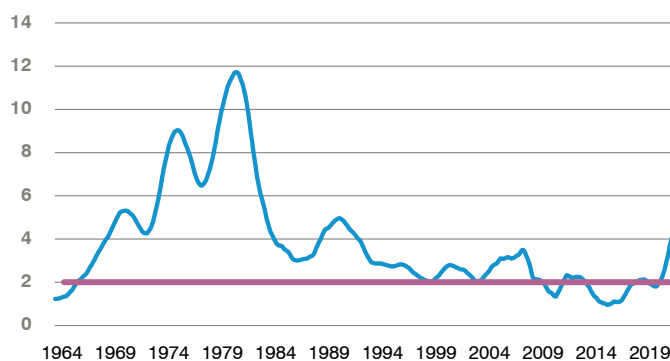
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The analysis of empirical data confirms the theoretical perspective and emphasises the existence of multiple regimes. Exhibit 1, Panel A, shows the historical correlation between equities, as represented by the S&P 500 index, and bonds, as represented by zero coupon 10-year US bonds, computed over 24 months, pointing out a regime switch at the beginning of this millennium. Exhibit 1, Panel B shows a scatter plot of yearly returns for different periods and again underlines the existence of multiple regimes: the regression line for the period 2000-2020 (dashed red) is negative, while the regression line for all the other years is positive (dashed green).

Exhibit 2 shows inflation during the same period. In view of the simplified theoretical background we presented above, it is not a surprise that the positive and negative correlation periods are characterised by very different inflation regimes, ie periods when expected cashflows are negatively/positively related to interest rates.

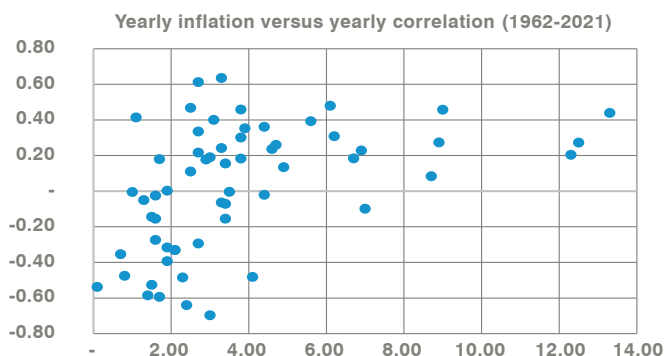
Exhibit 2

Panel A. Rolling inflation (CPI YOY) over 3 years (monthly data, US market).



Source: GAM calculations and analysis of Bloomberg data. As at 30 September 2022.

Panel B. Equity-bond correlation versus inflation (yearly data). Historically, in high inflation periods bonds comoved with equities.



Source: GAM calculations and analysis of Bloomberg data. As at 30 September 2022.

⇒ From an empirical point of view, we see that stocks and bonds have been negatively correlated only for the last 25 to 30 years. However historically there have been also extended periods where the two asset classes have been positively correlated.

Both theoretical and empirical analysis suggest that the negative bond-equity correlation is more a characteristic of certain macroeconomic environments, but it cannot be taken for granted. Specifically, while it has been beneficial to asset allocation decisions, going forward it would not be wise to assume its persistence.

Different paradigms

The past 20 years have been characterised by a strong globalisation trend with benefits for the global population. Covid and the recent geopolitical events might have stopped this trend and started a reversal. The globalisation trend had as a major dividend a long period of low inflation that might be ending now.

Inflation is currently rising, because of supply chain constraints, post Covid normalisation, reversal in the globalisation trend and geopolitical tensions. Doubts that central banks will be able to tame it without causing severe recessions are also becoming stronger. In this environment, equities are losing value and bonds, once considered a hedge against falling equity markets, no longer look reliable as such a hedge.

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With high inflation, stocks and bonds might both suffer and benefit together; higher inflation hurts bonds as investors factor in higher interest rates, and equities might suffer from higher uncertainty and increased risk for operating margins. In low inflation environments the behaviour of these two assets is very different, as the discount rate for equities is more stable and equity valuation depends on growth expectations. One way of representing these scenarios is a four-quadrant grid representing expected growth versus expected inflation, ie four different economic regimes¹: rising growth with falling inflation, falling growth with falling inflation, rising growth with rising inflation, and falling growth with rising inflation. Traditional asset classes are typically positioned on two of these quadrants. Most traditional assets (ie equities and credits) do well in periods of falling inflation, particularly coupled with rising growth. Government bonds do well particularly with falling or tame inflation and falling growth. These two regimes have mostly been dominant over the last two decades. In the traditional framework, gold and cash allow some hedging for alternative scenarios. Outside of the traditional framework, alternative risk premia allow a more homogeneous and complete coverage of the four quadrants. Exhibit 3, for instance, reports the expected behaviour of some selected risk premia and traditional assets, emphasising the diversification advantage of ARP strategies in alternative scenarios.

Exhibit 3

The figure reports selected risk premia for four different economic regimes. In red are traditional risk premia and in green some selected alternative risk premia.

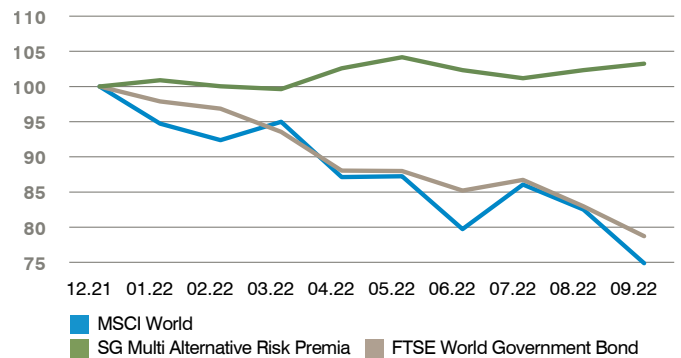
Market expectations		Inflation	
		Falling	Rising
Growth	Rising	Equities Credit Merger Arbitrage	REITs Commodities Merger Arbitrage FX Carry FX Trend Bond carry Commodity Trend
	Falling	Govt Bond Cash Commodity Carry Merger Arbitrage FX Value Equity Value	Gold Bond trend Bond carry FX Carry FX Trend Equity Value Commodity Trend

Source: Framework created by Ray Dalio, founder of Bridgewater Associates. Quadrants filled according to market/author expectations.

In these alternative paradigm scenarios, we believe diversifying into alternative risks and assets, such as the ones offered by ARP programs, is key to making a global portfolio more resilient and robust. With a comprehensive set of risk premia across asset classes, ARP programs can cope with both low and high inflation periods, as some of the available premia clearly benefit from increasing inflation expectations². The year-to-date performances for 2022 clearly reminds us of the diversification potential for ARP strategies in these alternative scenarios (see Exhibit 4): the Société Générale Alternative Risk Premia Index, representing the performance of the largest ARP providers, is up +3.3% for the year, ahead of performances of -25.1% for the MSCI World Index (equity market), and -21.3% for the FTSE World Government Bond Index (government bonds)³.

Exhibit 4

Year-to-date total return indices, S&P 500, Bloomberg US Government 10-year bonds, and Société Générale Alternative Risk Premia.



Source: Bloomberg. As at 30 September 2022.

A world of opportunities

This is a world of opportunities, with extreme macro uncertainty bringing lots of potential for divergence across countries, sectors, currencies, commodities, and asset classes. Finally, this uncertainty creates an environment where alternative risk premia continue to be rewarded: and we think therefore leaves our investment philosophy unscathed. With a comprehensive set of risk premia across asset classes, ARP programs can cope with both low and high inflation periods, with some of the available premia clearly benefiting from increasing inflation expectations. By allowing a broader coverage of alternative paradigms ARP investing can provide robust and real diversification to traditional portfolios.

¹This framework was created by Ray Dalio, founder of Bridgewater Associates, in the 1990s.
²This is the case for instance for bond and commodity momentum and equity value premia.
³All the performances are as of 30.09.2022.

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