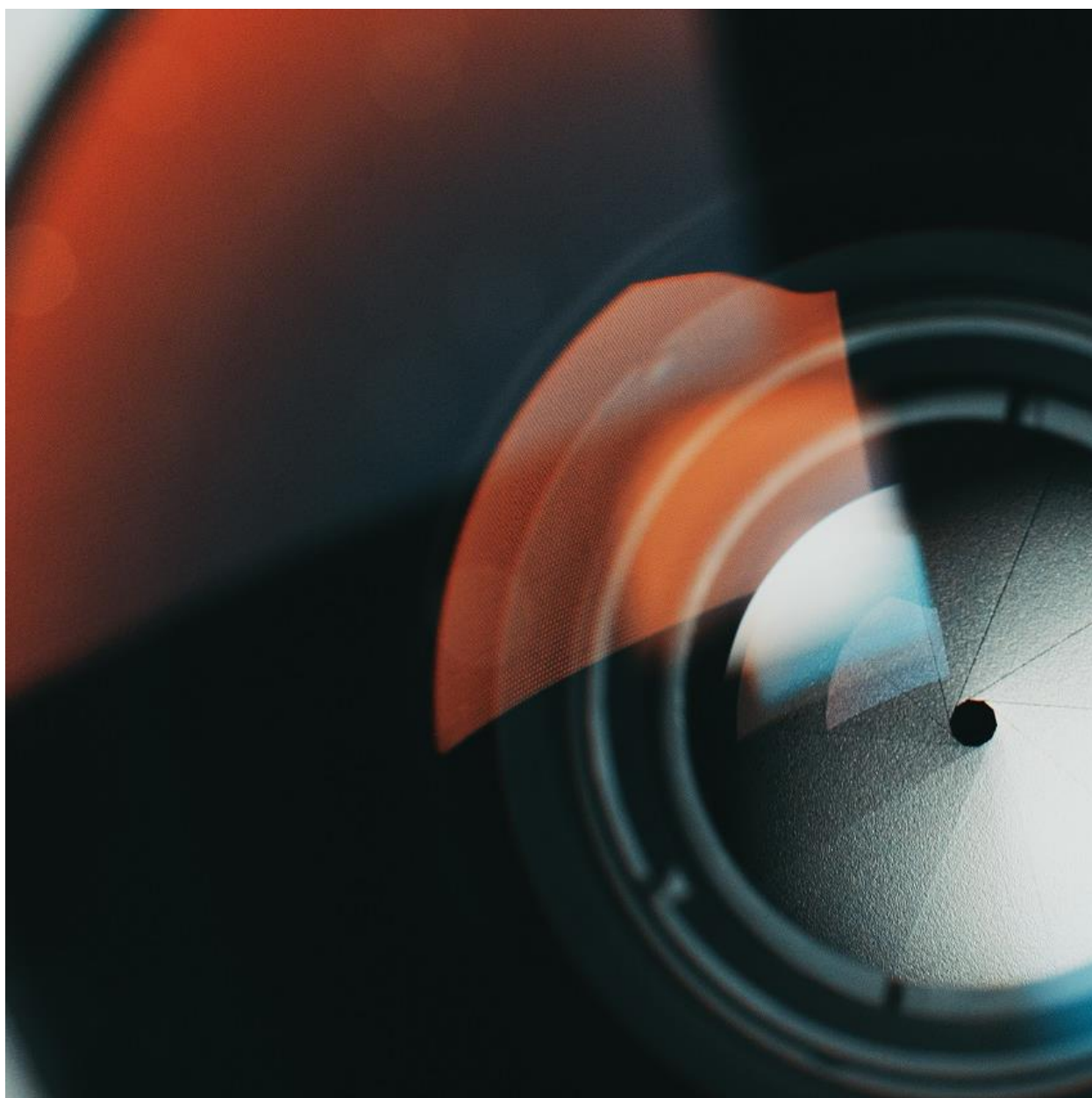


# ABSOLUTE RETURN CURRENCY STRATEGY



A ROBUST AND TRANSPARENT RULES-BASED STRATEGY,  
PROVIDING EFFICIENT AND DIVERSIFIED EXPOSURE TO  
CARRY, VALUE AND TREND FACTORS



RUSSELL INVESTMENTS RESEARCH

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# Absolute Return Currency Strategy

In an environment characterised by high uncertainty, investors continue to seek ways to improve their multi-asset portfolio returns through more dynamic allocations, diversification and opportunities to add value in non-traditional areas.

Currency management is an often-overlooked aspect of multi-asset portfolio management. Some investors simply believe that it is a zero-sum game and therefore can be ignored. Others view it as difficult to access a cost-effective currency strategy that adds value. However, what is often unappreciated is that currency can present very attractive return characteristics, with little to no correlation to traditional asset classes. For this reason, investors can potentially add value by incorporating a currency strategy into their portfolio—a strategy specifically designed to deliver alpha and lower total portfolio risk.

There is widespread academic evidence showing that currency factors can offer meaningful, persistent and relatively uncorrelated return sources. Russell Investments believes that Carry, Value and Trend are the three currency factors that are best placed to generate these positive returns at moderate volatility over long periods:

- **Carry** captures the tendency of higher-interest-rate currencies to generate higher returns than lower-interest-rate currencies, as a compensation for higher risk.
- **Value** takes advantage of the tendency of currencies to mean-revert to a level of long-term economic equilibrium, such as purchasing power parity (PPP).
- **Trend** exploits the propensity of currency returns to persist over short-to-medium-term horizons, so that past returns have some predictive power for future returns.

While each of the currency factors, in isolation, has experienced periods of significant negative returns, these falls do not often occur at the same time across the three factors. As such, we believe there is an advantage to investors in accessing a strategy that blends all three currency factors. A rules-based approach offers a cost-effective way to access these risk premia.

Russell Investments' Absolute Return Currency Strategy (ARCS), has been designed as a robust and transparent rules-based strategy which gives a diversified exposure to Carry, Value and Trend. Over the last 24 years, ARCS has achieved an annualised return of 3.4%, with a return-to-volatility ratio (Information Ratio) of 0.90. ARCS has a low correlation to traditional assets and thus can enhance multi-asset portfolio returns with modest or no additional risk.

In this paper, we highlight the value of adding an absolute return currency strategy to diversified portfolios.

In particular, we explain:

- how the Absolute Return Currency Strategy can benefit you and why it may be the right time to consider this strategy.
- the different ways you could incorporate the Absolute Return Currency Strategy into your portfolio.
- other bespoke ways you can gain access to the individual currency factors.

## Background

### The currency market

According to the Bank for International Settlement (2022)<sup>1</sup>, the foreign exchange markets are the largest and arguably most liquid financial markets in the world, with daily turnover of US\$7.5 trillion. The size and depth of the currency markets offers sufficient capacity to implement currency factor strategies in large size for institutional investors.

Average daily currency trading is dominated by a few currencies, with the U.S. dollar, Euro, Japanese yen, British pound sterling, Australian dollar and Canadian dollar making up more than 80% of the daily trading volume (Exhibit 1).

#### Exhibit 01: Turnover of OTC foreign exchange instruments, by currency – Top 15

	2001		2004		2007		2010		2013		2016		2019		2022	
	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
USD	1114	90	1702	88	2845	86	3371	85	4662	87	4437	88	5811	88	6639	88
EUR	470	38	724	37	1231	37	1551	39	1790	33	1590	31	2126	32	2292	31
JPY	292	24	403	21	573	17	754	19	1235	23	1096	22	1108	17	1253	17
GBP	162	13	319	16	494	15	512	13	633	12	649	13	843	13	968	13
CNY	0	0	2	0	15	0	34	1	120	2	202	4	285	4	526	7
AUD	54	4	116	6	220	7	301	8	463	9	349	7	446	7	479	6
CAD	56	4	81	4	143	4	210	5	244	5	260	5	332	5	466	6
CHF	74	6	117	6	227	7	250	6	276	5	243	5	326	5	390	5
HKD	28	2	34	2	90	3	94	2	77	1	88	2	233	4	194	3
SGD	13	1	18	1	39	1	56	1	75	1	91	2	119	2	182	2
SEK	31	2	42	2	90	3	87	2	94	2	112	2	134	2	168	2
KRW	10	1	22	1	38	1	60	2	64	1	84	2	132	2	142	2
NOK	18	1	27	1	70	2	52	1	77	1	85	2	119	2	125	2
NZD	7	1	21	1	63	2	63	2	105	2	104	2	137	2	125	2
INR	3	0	6	0	24	1	38	1	53	1	58	1	114	2	122	2

"Net-net" basis, April 2001-2022 daily averages, in billions of US dollars and percentage share.

Source: Reprinted from Bank of International Settlement, Triennial Central Bank Survey of foreign exchange and derivatives market activity in 2022. <https://stats.bis.org/statx/srs/table/d11.3>

A diverse group of individuals and institutions participate in the global foreign exchange markets: Corporations, commercial banks, equity and bond investors, currency managers, central banks and tourists. Participants can be broadly classified as:

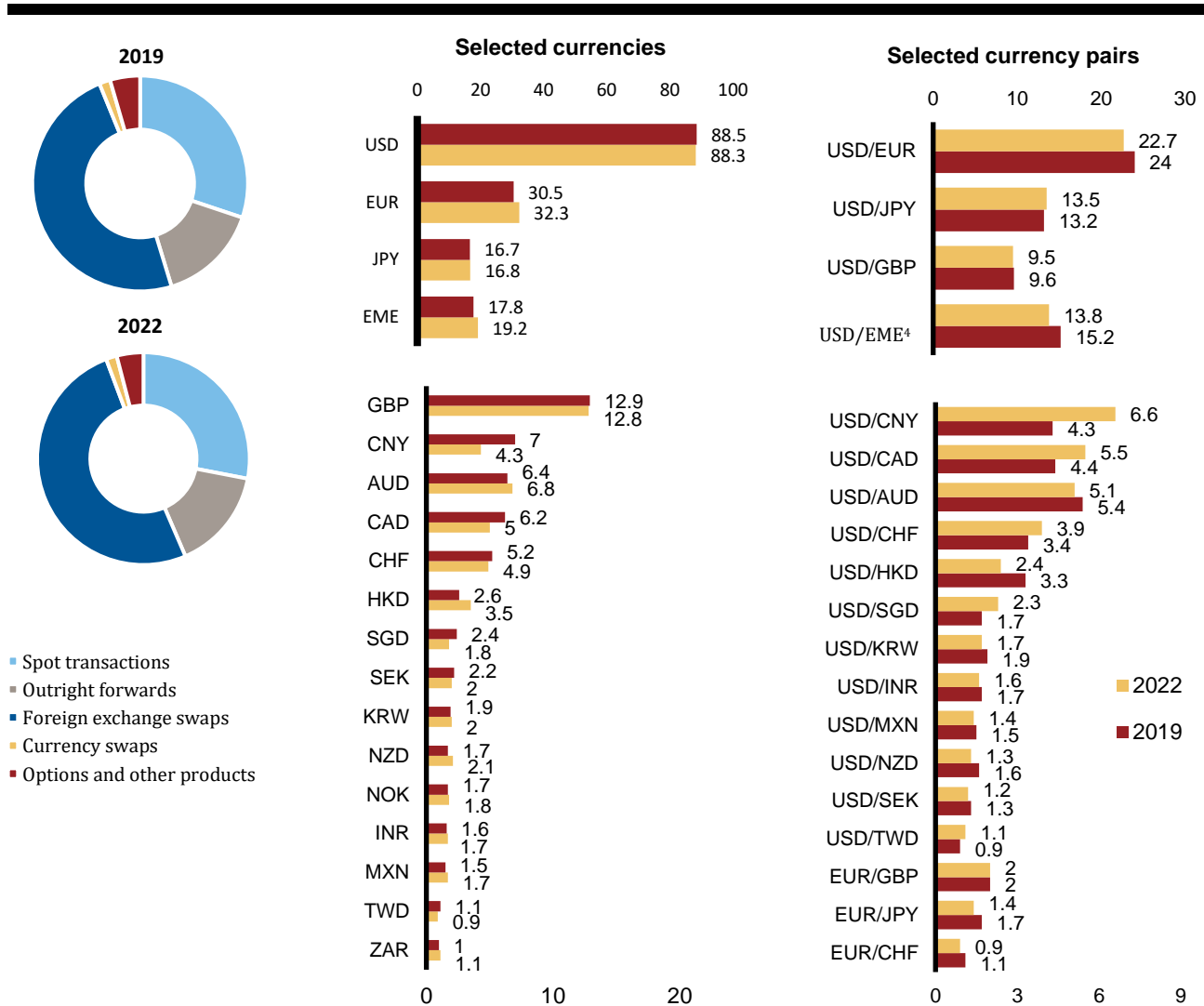
- **Hedgers** – a broad group of global corporations and investors who systematically convert their foreign currency revenues or exposures into their home currencies. Central banks are also active participants as they hedge to manage capital and currency flows.
- **Profit seekers** – Currency managers, global bond managers, hedge fund managers and commodities trading advisors (CTAs) are active participants, with profit-seeking objectives.
- **Dealers** – Commercial banks provide liquidity and facilitate trading activities by acting as intermediaries.

Since 2000, Russell Investments ARCS has achieved an annualised return of 3.4%, with low correlation to traditional asset classes.

<sup>1</sup> BIS, Triennial Central Bank Survey of foreign exchange and derivatives market activity in 2022. Basel. [https://www.bis.org/statistics/rpfx22\\_fx.pdf](https://www.bis.org/statistics/rpfx22_fx.pdf)

Despite the high average daily turnover, most of the market's trading volume is estimated to be hedging activity related to corporate treasuries and asset management portfolios (Exhibit 2). For this reason, profit-seeking currency managers and investors, whose activities make up only a smaller portion of the market's volume, can seek to exploit the persistent inefficiencies in the currency market.

**Exhibit 02: Foreign exchange market turnover by instrument, by currency and currency pairs<sup>2</sup>**



<sup>2</sup> Adjusted for local and cross-border inter-dealer double-counting, i.e. "net-net" basis.

<sup>3</sup> As two currencies are involved in each transaction, the sum of shares in individual currencies will total 200%.

<sup>4</sup> Emerging market economy currencies excluding the Chinese renminbi and Russian rouble.

Source: Net-net basis, daily averages in April. Reprinted from Bank of International Settlement, Triennial Central Bank Survey of foreign exchange and derivatives market activity in 2019, page 5,7. Base currency USD.

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## Three compelling currency factors

There are several characteristics that can be used to describe the economic aspects of a currency, such as its interest rate, the cost of a basket of goods in that currency or its returns in the recent past. If these characteristics of different currencies can be grouped together, we can consider these economic aspects as currency factors.

There are several well-understood currency factor strategies which have received wide academic support over many decades<sup>5</sup>. They have been shown to present valuable, persistent, and relatively uncorrelated return sources over different market regimes.

We discuss the premise for what we believe to be three compelling currency factors: Carry, Value and Trend.

### Carry

In a Carry strategy, investors buy high interest rate currencies and sell low interest rate currencies. Carry currency trades bear the risk of changing interest rates and exchange rates. For example, if the one-year interest rate in the U.S. is 5.4% and the one-year interest rate in Switzerland is 1.4%, a U.S. investor can enter a one-year forward contract by borrowing and subsequently selling CHF. The investor can use those CHF proceeds to buy USD, which can then be invested for the one-year period. The investor will potentially make money if the CHF appreciates less than 4.0% (5.4% minus 1.4%) against the USD over the one-year period.

The persistency of Carry trades appears to contradict the uncovered interest rate parity (UIP) theory, which states that high interest rate currencies are expected to depreciate relative to low interest rate currencies commensurate with the interest rate difference. Yet academics and investment practitioners have shown that currencies in countries with high interest rates do not depreciate against currencies in countries with low interest rates, on average. This anomaly constitutes the term forward-rate bias, with the implication that investors can make systematic profits by selling (taking a short position) the low-yielding currency and buying (taking a long position) the high-yielding currency.

In periods of relatively low volatility, Carry strategies can generate relatively stable returns. However, Carry strategies are vulnerable during periods of increased market volatility and in market environments where investors flee to safe-haven instruments. Thus, it is possible for suddenly distressed market environments to induce sudden reversals in the Carry strategy's performance. So, while Carry has the highest long-term returns among the factors we consider, it has been subject to the largest falls and its returns can be the most correlated to traditional asset classes. Carry often suffers when interest rate gaps compress, as they did in response to the Covid-19 pandemic in Q1 2020. Rate differentials have been widening again as economies diverge in their central bank policies. We have seen strong performance in Carry strategies in recent years when rate gaps widen. Carry could continue to do well if rate differentials remain at their currently wide levels or continue to diverge further.

### Value

A Value strategy purchases currencies that are undervalued relative to their fair value and sells currencies that are overvalued. One of the oldest and most popular measures of currency fair value is purchasing power parity (PPP). The economic intuition of PPP is based on the arbitrage of goods across countries. If, at market exchange rates, a basket of goods costs significantly less in one country than another, the country with the cheaper goods basket is said to have an undervalued currency. A strong incentive should exist to buy goods in the cheaper country and ship them to the more expensive country, which increases prices in the cheaper country, creates demand for its undervalued currency and helps to equalise the cost of the goods basket in both countries. In equilibrium, purchasing power parity prevails, i.e. an identical basket of internationally traded goods costs the same in both economies (and all countries for that matter).

Currency value strategies take advantage of the tendency of exchange rates to revert to their PPP levels over time. However, Value strategies have a long investment horizon because the pace at which exchange rates return to long-term equilibrium levels, as estimated by fair value models, can be slow.

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<sup>5</sup> For example Daskov, N. and Swinkels, L.A.P., 2015. Empirical evidence on the currency carry trade, 1900-2012. *Journal of International Money and Finance*, 51, 370389. This found that the Carry strategy would have generated positive returns since 1900.

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## Trend

The Trend strategy involves buying currencies that have experienced high recent returns and selling currencies that have had low recent returns. One simple implementation of a Trend strategy is to buy when the currency level is above its moving average, and to sell when it is below. Another common implementation is to buy when backward-looking currency returns over a certain fixed period are positive and sell when they are negative.

The insight used in a Trend strategy is that the expected distribution of the next period's return depends on its recent history. It continues to trend up if it was recently up or trends down if it was recently down. This momentum effect is believed to explain some of the movements in the currency market, as well as in equity, bond and commodity markets.

The economic rationale for the Trend factor is not well-explored. Unlike Carry, Trend (also known as momentum) is not explained by traditional risk factors, i.e. the Trend factor returns are not closely correlated to the equity risk premium or the credit premium. Academic research<sup>6</sup> finds that the Trend factor is consistent with behavioural anomalies, such as investor under- and over-reaction. The Trend strategy tends to perform best when markets evidence a persistent trend and worst when markets are choppy in range-bound conditions. The momentum effect is more difficult to exploit in markets that are relatively less liquid.



*..analysis shows that Carry, Value and Trend explain as much as half of successful currency manager returns.*

## Why is now the right time to consider currency factor investing as a source of return?

After a challenging 2022, when both stocks and bonds fell simultaneously, the last 12 months were positive for financial markets. Developed-market stocks reached a new all-time high in early 2024 and bond prices stabilised towards the end of 2023. Measures of longer-term expected returns on traditional financial assets still look modest. Stocks appear richly valued. The cyclically-adjusted price-earnings ratio of the US stock market is around 34<sup>7</sup>, substantially above its post-World War II average of 20. Interest rates have risen substantially since 2020 and are near their highest level since the Global Financial Crisis. However, at a current level of 3.82% for the Barclays Global Aggregate Bond Index<sup>8</sup>, bond yields are by no means high in the longer-term historical context.

In today's challenging markets, investors are keen to explore all means available to improve multi-asset portfolios returns, including more dynamic allocations, diversity and opportunities to add value in non-traditional areas. Another way is to be a more discerning buyer of skill, leading to the increased consideration of transparent, rules-based smart beta strategies in areas where the investor can gain exposures to systematic and replicable factor returns more cost-effectively.

Our internal analysis shows that **Carry, Value and Trend explain as much as half of successful active currency manager returns**. We also find that only about 15% of active currency managers generate alpha that goes over and above exposure to these three currency factors<sup>9</sup>. This suggests that many active currency managers use Carry, Value and Trend in their process and only a small minority can profitably take advantage of information or skills that go beyond exposure to the three factors.

Given that the currency markets are also liquid, with low trading costs, this creates a powerful basis for a transparent rules-based strategy. Such strategies should offer simple, fundamental capture of the currency factors that is not over-engineered and thus susceptible to hindsight bias. Such a systematic, rules-based approach lends itself to low-cost management and thus more efficient capture of these factors than the majority of active managers.

Carry, Value and Trend are three currency factors that have demonstrated significant average returns at moderate volatility over long periods. While each of the currency factors in isolation has experienced periods of significant negative returns, these falls do not often occur at the same time. As such, we believe there is an advantage to investors in accessing a combination of the three currency factors.

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<sup>6</sup> For example: Menkhoff, L., Sarno, L., Schmeling, M., Schrimpf, A., 2012. Currency momentum strategies. *Journal of Financial Economics* 106, 660 – 684

<sup>7</sup> As of 1 April 2024. Source: Robert Shiller's website [http://www.econ.yale.edu/~shiller/data/ie\\_data.xls](http://www.econ.yale.edu/~shiller/data/ie_data.xls)

<sup>8</sup> As of 3 April 2024. Source: Bloomberg.

<sup>9</sup> Luu, Van and Francesca Biagini (2015): *The Alpha and Beta of Currency Managers*, Russell Investments Research Note, November 2015.

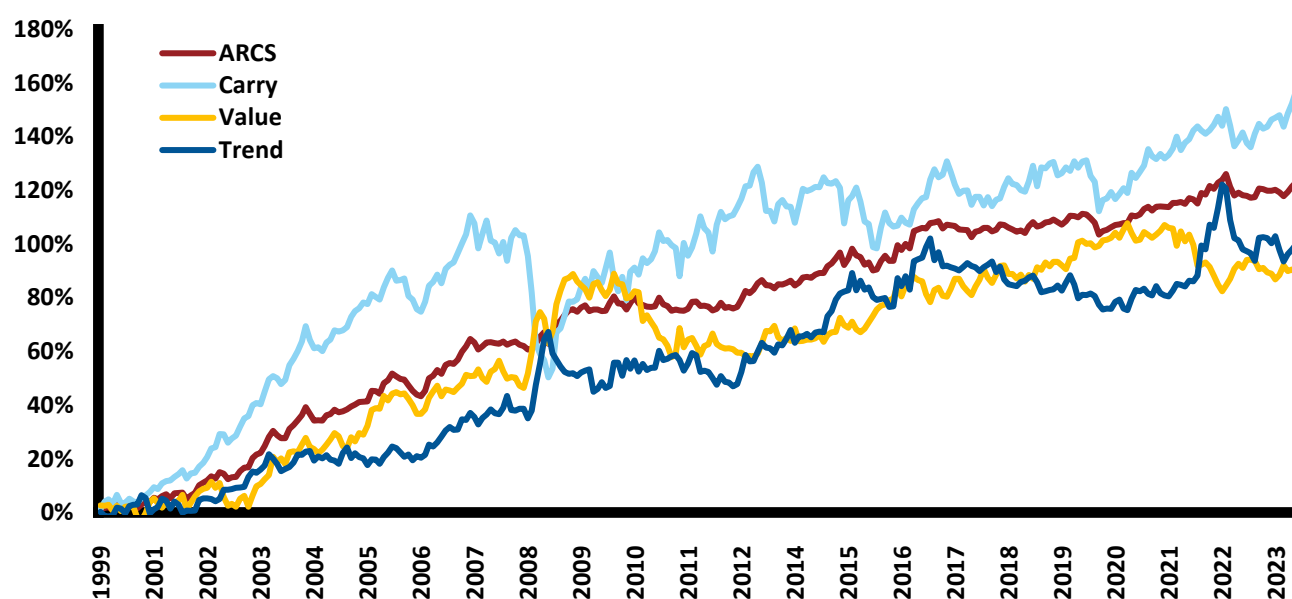
## Russell Investments Absolute Return Currency Strategy

### Absolute Return Currency Strategy return characteristics

The Absolute Return Currency Strategy has earned an average return of 3.4% per annum between 30 November 1999 and 31 March 2024. It has given annualised volatility of 3.7%, with an information ratio of 0.90.

In Exhibits 3 and 4, we demonstrate the stability of ARCS, relative to the individual components of Carry, Value and Trend. Each of the individual currency factors has experienced significant negative returns, however typically this has occurred at different times. As a result, ARCS achieves a better balance of return to risk with much shallower falls, with the largest fall being 5.56%.

#### Exhibit 03: Russell Investments Absolute Return Currency Strategy vs. individual currency factors



Source: Russell Investments, data from 31 December 1999 and 31 March 2024. Base currency USD.

#### Exhibit 04: Absolute Return Currency Strategy performance characteristics

DECEMBER 1999 – MARCH 2024	CARRY	VALUE	TREND	ARCS
Annualised return %	4.0	2.7	3.3	3.4
Risk (standard deviation) %	7.7	6.7	6.8	3.7
Cumulative return %	156.9	89.4	99.8	123.0
Worst 1-year portfolio return %	-23.5	-14.7	-12.7	-2.9
Max drawdown %	-28.7	-16.5	-13.4	-5.6
1 Month Return %	1.8	-0.6	1.0	0.7
3 Month Return %	5.4	-1.4	3.3	2.4
1-year return %	8.1	-2.5	1.3	2.3
2 Year Return % pa	2.7	-0.7	3.0	1.8
3 Year Return % pa	3.0	-2.4	3.3	1.4
4 Year Return % pa	4.9	-1.3	3.0	2.3
5 Year Return % pa	2.2	-0.3	1.8	1.4

Source: Russell Investments. Data between 30 November 1999 and 31 March 2024. Base currency USD.



## Low correlations to traditional asset classes

The benefit of ARCS is not limited to its stand-alone return and risk properties. As supported by academic research<sup>10</sup>, Carry, Value and Trend provide economically large and significant diversification benefits within broader multi-asset portfolios.

Our view is that ARCS can play an important role in both multi-asset and single-asset portfolios. For multi-asset investors, a potential diversification benefit derives from currency's low correlations with multi-asset portfolios. For investors in single assets—particularly fixed income portfolios—currency may serve as both a diversifier and a potential source of returns.

In Exhibit 5, we show the correlations of ARCS and its underlying factors with other typical asset classes:

### Exhibit 05: Correlations between currency factor strategies and standard asset classes (USD)

CORRELATION MATRIX	ARCS	ARCS - Trend	ARCS - Value	ARCS - Carry	Cash	US Equities	Non US Equities	US Long Gov't	US Aggregate	Global High Yield	Global Agg ex US	Property	Hedge Funds	Private Equity	Balanced Portfolio
ARCS	1.00														
ARCS - Trend	0.50	1.00													
ARCS - Value	0.46	(0.12)	1.00												
ARCS - Carry	0.60	(0.06)	(0.09)	1.00											
Cash	0.01	(0.01)	0.05	(0.02)	1.00										
US Equities	0.19	(0.16)	(0.05)	0.47	(0.10)	1.00									
Non US Equities	0.18	(0.17)	(0.13)	0.52	(0.06)	0.87	1.00								
US Long Gov't	(0.05)	0.04	0.12	(0.20)	0.05	(0.14)	(0.10)	1.00							
US Aggregate	(0.04)	(0.06)	0.03	(0.03)	0.12	0.11	0.18	0.86	1.00						
Global High Yield	0.14	(0.21)	(0.09)	0.46	(0.07)	0.72	0.77	(0.01)	0.33	1.00					
Global Agg ex US	0.05	0.04	0.08	(0.03)	0.13	0.06	0.06	0.74	0.81	0.22	1.00				
Property	0.11	(0.10)	(0.12)	0.35	(0.05)	0.69	0.65	0.10	0.30	0.66	0.27	1.00			
Hedge Funds	0.12	(0.12)	(0.23)	0.48	0.06	0.62	0.69	(0.10)	0.14	0.65	0.03	0.49	1.00		
Private Equity	0.14	(0.21)	(0.09)	0.47	(0.12)	0.87	0.88	(0.11)	0.17	0.78	0.10	0.72	0.66	1.00	
Balanced Portfolio	0.17	(0.18)	(0.09)	0.48	(0.06)	0.93	0.94	0.08	0.36	0.83	0.26	0.78	0.69	0.92	1.00

Source: Russell Investments, Bloomberg, data from 31 December 1999 and 31 March 2024. For calculation purposes, we assume a U.S. balanced portfolio with the following allocations: 20% U.S. equities, 20% non-U.S. equities, 6% long U.S. government bonds, 20% U.S. aggregate bonds, 6% global HY bonds, 8% Global ex USA aggregate bonds, 5% domestic real estate, 5% hedge funds, 5% private equity and 5% cash. Non-U.S. equities, hedge funds, and private equity unhedged. Base currency USD.

Absolute Return Currency Strategy exhibits low correlations to all these asset classes, ranging from mildly positive correlation with U.S. equities (0.19) and almost a zero correlation with U.S. aggregate bonds (-0.04). Among the individual factor strategies, Carry has the highest correlation with Non-US Equities (0.52) and hedge funds, global high yield and private equity (around 0.5), whereas the Trend and Value have low or even negative correlations to the other asset classes. The positive correlation of Carry to equities and credit emphasises the benefit of combining it with Value and Trend.

As we will see later, it is also possible to enhance or reduce exposure to individual factors such as Carry, in a customised or more dynamic version of the strategy.

<sup>10</sup> Kröncke, Tim-Alexander, Felix Schindler und Andreas Schrimpf (2014), International Diversification Benefits with Foreign Exchange Investment Styles, Review of Finance 18 (5), 1847-1883.

## Putting strategy into practice

Investors can incorporate the ARCS strategy into their portfolios in different ways:

- As an Absolute Return Strategy
- As part of their currency overlay programme

In each case, the strategies are implemented with currency forwards, which is a very efficient use of capital. This allows the rest of the portfolio to remain invested in equities, bonds and other long-only asset classes with minimal impact to the rest of the portfolio.

### An Absolute Return Strategy

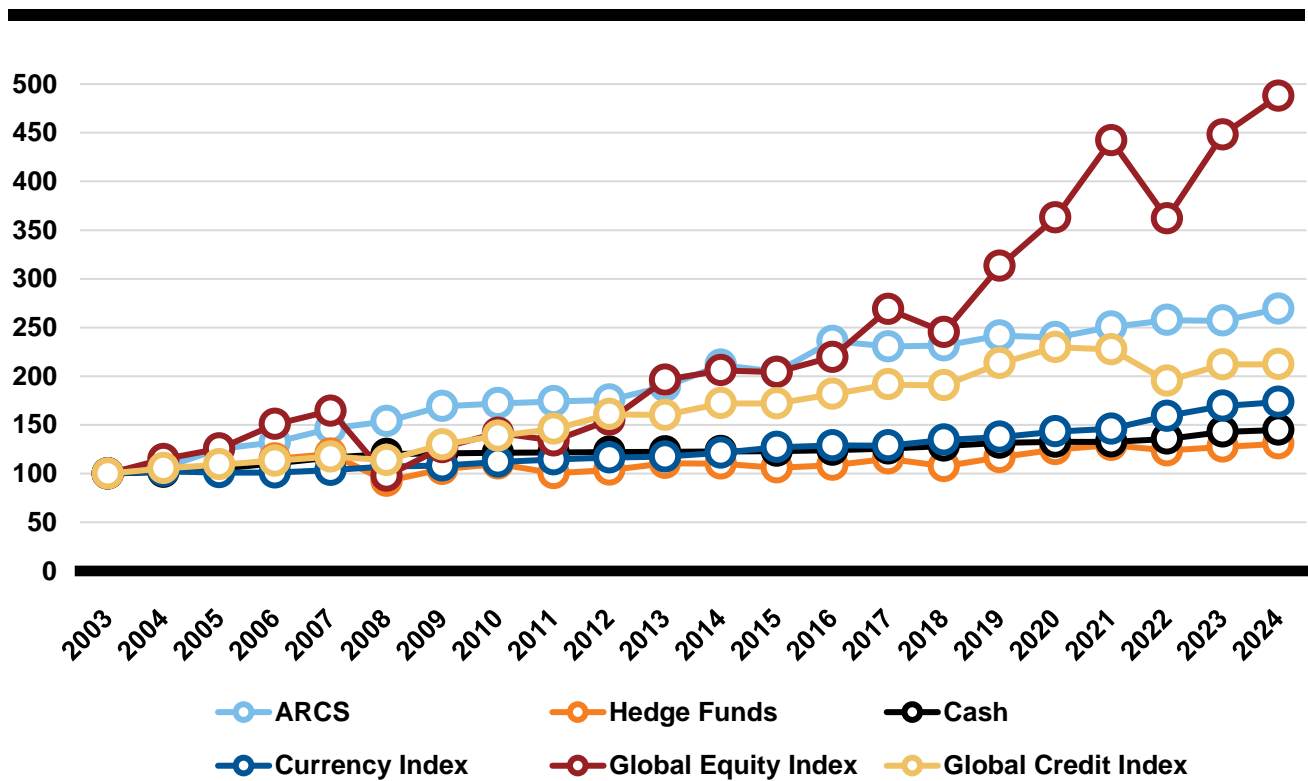
The strong historical risk/return ratio, relatively low drawdowns and low correlations to traditional assets makes the Absolute Return Strategy attractive. The liquid nature of the currency forward markets means it can be executed very efficiently even for large investors, and the low-cost implementation improves net-of-fee outcomes.

Importantly, we can scale ARCS to meet a particular volatility requirement. As noted earlier, the standard ARCS strategy has a historic annual volatility of 3.7%, however this can be scaled up to suit an investor's individual risk budget. As an illustration, let's consider an exposure with double the ARCS positions (7.6% volatility), taking it closer to a typical risk budget of an active currency strategy (around 10% volatility).

This higher volatility strategy has performed well against almost all assets including the HFRX (Hedge Fund Index) and Barclays Trader FX Global (an index of currency strategies) over sustained periods. As shown in Exhibit 6, ARCS performance is second only to equities since 2004.

**“** The strong historical risk/return ratio, relatively low drawdowns and low correlations to traditional assets make ARCS attractive to consider as an absolute return strategy.

**Exhibit 06: Comparison of an Absolute Return Currency Strategy relative to other assets**



Past performance does not predict future returns.

Source: Russell Investments, Bloomberg and Barclays Capital between 31 December 2003 and 31 March 2024. ARCS is scaled to 2x its volatility. Base currency USD.

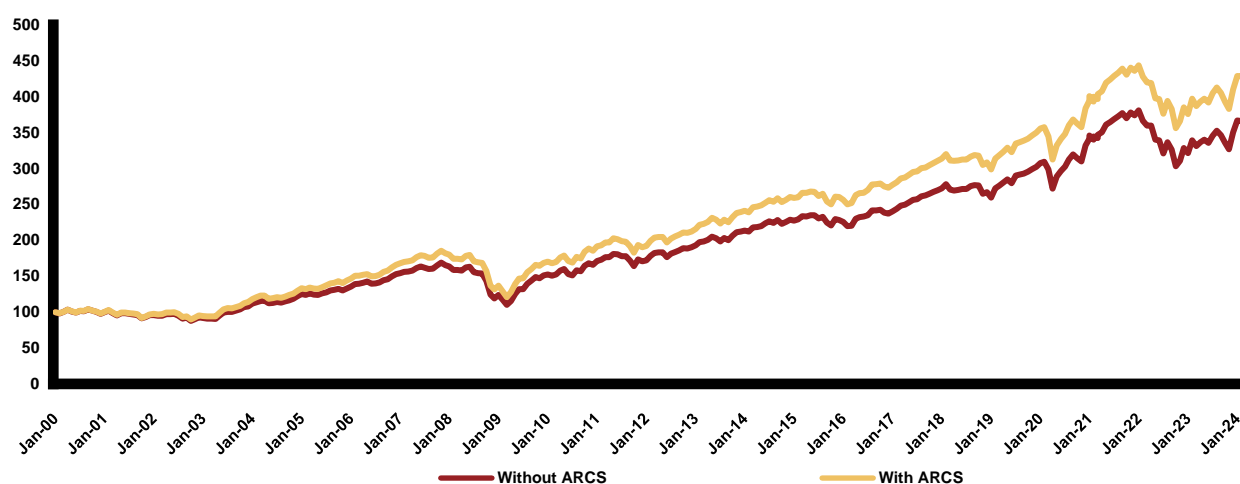
## Part of a currency overlay programme

Many investors seek to hedge all or part of their currency exposures through a passive currency overlay programme. ARCS can be implemented alongside a passive currency overlay programme so that an investor takes intentional control of the currency factors they want to be exposed to, retaining those that are expected to have a positive long-term return. This replaces random volatility with intentional risk exposures.

In this scenario, investors would typically hedge a portion or all their intrinsic currency exposure back to their base currency. From there, they can add exposure to ARCS. Since ARCS does not need to be funded, a 20% overlay can be added to a balanced portfolio without reducing the allocations to the traditional asset classes. We highlight the impact of adding a 20% allocation to ARCS in Exhibit 7.

**This replaces random volatility with deliberate risk exposures.**

### Exhibit 07: Impact of adding a 20% currency overlay programme to a balanced portfolio (%)



Source: Russell Investments, Bloomberg and Barclays Capital between 31 December 1999 and 31 March 2024. For calculation purposes, we assume a U.S. balanced portfolio with the following allocations: 20% U.S. equities, 20% non-U.S. equities, 6% long U.S. government bonds, 20% U.S. aggregate bonds, 6% global HY bonds, 8% Global ex USA aggregate bonds, 5% domestic real estate, 5% hedge funds, 5% private equity and 5% cash. Non-U.S. equities, hedge funds, and private equity unhedged.

In Exhibit 8, we extend the analysis to compare the return and risk characteristics of the balanced portfolio against an addition of 10%, 20% & 30% to ARCS.

### Exhibit 08: The impact of varying the allocation of the currency overlay on a global balanced portfolio

	WITHOUT ARCS	WITH 10% ARCS ALLOCATION	WITH 20% ARCS ALLOCATION	WITH 30% ARCS ALLOCATION
Annualised return %	5.59%	5.94%	6.28%	6.63%
Risk (standard deviation) %	9.09%	9.16%	9.25%	9.34%
Return to volatility	0.59	0.65	0.65	0.71
Worst 1-year portfolio return %	-30.71	-30.74	-30.76	-30.79
Max drawdown %	-34.91	-34.92	-34.93	-34.93

Source: Russell Investments, Bloomberg and Barclays Capital between 31 December 1999 and 31 March 2024. For calculation purposes, we assume a U.S. balanced portfolio with the following allocations: 20% U.S. equities, 20% non-U.S. equities, 6% long U.S. government bonds, 20% U.S. aggregate bonds, 6% global HY bonds, 8% Global ex USA aggregate bonds, 5% domestic real estate, 5% hedge funds, 5% private equity and 5% cash. Non-U.S. equities, hedge funds, and private equity unhedged.

The annual return increases as ARCS exposure is raised—from 5.94% with a 10% overlay to 6.63% with a 30% overlay. However, the risk levels are only raised slightly. Focusing on the 20% overlay, the portfolio return increases from 5.59% to 6.28% while volatility increases 9.09% to 9.25%, resulting in improvement change in the return-to-risk ratio from 0.59 to 0.65. In terms of downside risk outcomes, the portfolio with the 20% currency overlay has almost identical one-year falls and peak-to-trough falls as the portfolio without ARCS.

ARCS does not need to be a part of a hedging overlay, but can simply be managed separately on an unfunded basis. The impact is the same as the overlay above. So, a 20% unfunded ARCS allocation would have added around 70 bps per year of additional returns over the last 24 years.

**A 20% unfunded ARCS allocation would have added around 70bps per year of additional returns to a typical balanced portfolio over the last 23 years.**

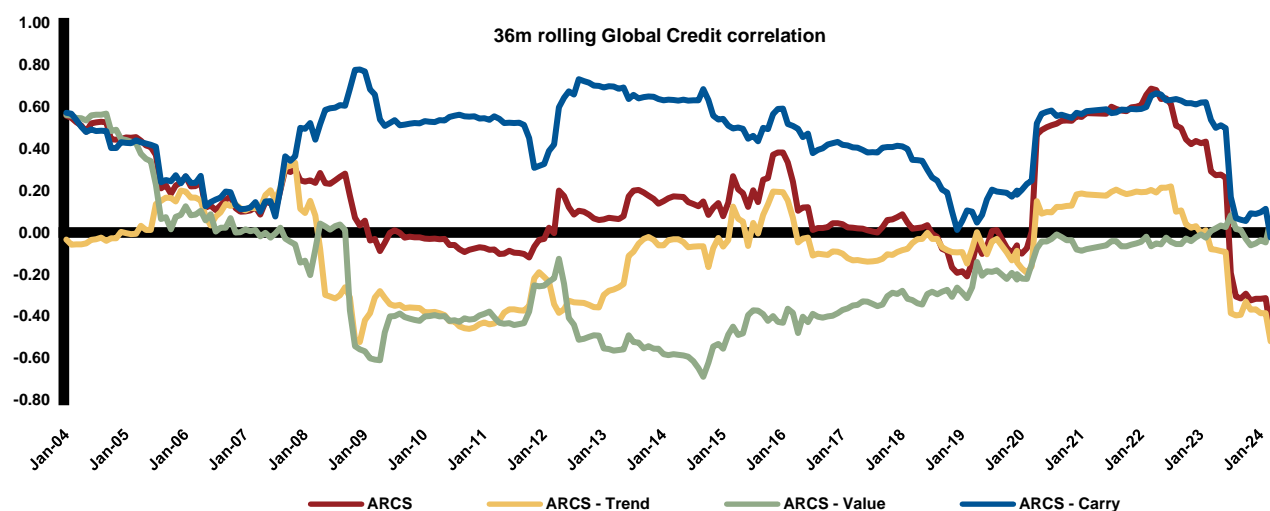
## Enhanced / customised versions of the Absolute Return Currency Strategy

It is possible to consider customised allocations to Value, Carry and Trend. In particular, the Carry factor's higher correlation to equity and credit risk means that improved results may be obtained by lowering the Carry weight or even using an adaptive approach to respond to rises in volatility.

### Custom weighting scheme

Exhibit 9 shows how the Carry, Value and Trend factors have been correlated to the excess returns of the Barclays Global Credit Index over maturity-matched government bonds. The Trend and Value factors show low correlations to this index. However, Carry has had a positive correlation throughout, rising to a maximum of 0.78, and has a long-term average of 0.45. Most recently, that correlation has been around zero.

#### Exhibit 09: Currency and credit correlations



Source: Russell Investments, Barclays Capital between 31 December 2004 and 31 March 2024. Correlations are to the excess returns (over equivalent duration government bonds) of the Barclays Global Credit Hedged USD Index.

Portfolios with large exposures to equity and credit may want to emphasise Value and Trend rather than Carry. As an example, we have numerous bespoke applications of ARCS across our internal Funds as a function of our portfolio managers' desire to customise relative Carry, Value and Trend factor weightings. In many of our fixed income funds, the underweight to Carry was preferred, given the broader fixed income portfolio's high exposure to credit.

## Adaptive Absolute Return Currency Strategy

Investors may also seek to increase return or reduce risk by varying exposures to the factors over time using an adaptive strategy. While Carry can be a hugely beneficial currency factor from a return perspective, it can be interpreted as a risk premium. As such, investors could gain additional benefit by reducing the weight to Carry in certain market conditions.

In this sense, one can contemplate an adaptive version of ARCS that varies the weight to Carry over time, based on the prevailing risk environment. The objective would be to limit exposure to Carry in high volatility periods when the information ratio of the strategy is unfavourable. Academic research has shown that financial-market volatility exhibits clustering. Large price changes are more likely to be followed by more large changes, and small changes are more likely to be followed by small changes. If we know that volatility is, at least at some extent, predictable and that the Carry strategy performs poorly in periods of high volatility, we can adjust our exposure depending on the prevailing volatility regime.

To construct an adaptive version of ARCS, we can use a composite volatility index to change the weight to Carry over time and redistribute the remainder equally to Value and Trend. If implied risk is below a rolling average, we raise the Carry weight and reduce Trend and Value allocations accordingly. As we can see in Exhibit 10, the return from this adaptive approach has historically exceeded the static ARCS version by 30bps per annum and the return-to-risk ratio increased from 0.92 to 0.94.

### Exhibit 10: Adaptive Absolute Return Currency Strategy

	ADAPTIVE ARCS	ARCS
Annualised return %	3.7	3.4
Risk (standard deviation) %	3.9	3.7
Return to volatility	0.94	0.92
Worst 1-year portfolio return %	-3.1	-2.9
Max drawdown %	-5.5	-5.6

Source: Russell Investments. Data from 31 December 1999 to 31 March 2024. Base Currency USD.

While volatility and one-year falls are higher for the adaptive version, this increase in stand-alone risk does not carry through when the currency factor strategy is added to a balanced global portfolio. As we show in Exhibit 11 compared with the equally weighted static overlay, the balanced portfolio with Adaptive ARCS has slightly higher returns with lower volatility and downside risk.

### Exhibit 11: Adaptive Absolute Return Currency Strategy

	WITHOUT ARCS	WITH 20% ARCS ALLOCATION	WITH 20% ARCS ADAPTIVE ALLOCATION
Annualised return %	5.59%	6.28%	6.35%
Risk (standard deviation) %	9.09%	9.25%	9.19%
Return to volatility	0.59	0.65	0.69
Worst 1-year portfolio return %	-30.71	-30.76	-30.09%
Max drawdown %	-34.91	-34.93	-34.25%

Source: Russell Investments. Data from 31 December 1999 to 31 March 2024. For calculation purposes, we assume a U.S. balanced portfolio with the following allocations: 20% U.S. equities, 20% non-U.S. equities, 6% long U.S. government bonds, 20% U.S. aggregate bonds, 6% global HY bonds, 8% Global ex USA aggregate bonds, 5% domestic real estate, 5% hedge funds, 5% private equity and 5% cash. Non-U.S. equities, hedge funds, and private equity unhedged. Base currency USD.

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## Conclusion

Making intentional decisions on currency can be a valuable return source. This is especially important when expected returns from traditional asset classes are low.

There is widespread academic support showing that currency factors can offer persistent and relatively uncorrelated return sources. We believe that Carry, Value and Trend are strategies that are well placed to generate these positive returns at moderate volatility over long periods.

Our internal analysis shows that Carry, Value and Trend explain a substantial part of successful active-currency-manager returns over the last decade. We also find that only about 15% of active currency managers generate alpha that goes over and above exposure to these three currency factors. For this reason, we believe a systematic, rules-based strategy can offer efficient access to this return opportunity.

The Absolute Return Currency Strategy is designed to be a robust and transparent rules-based strategy, providing efficient and diversified exposure to Carry, Value and Trend factors. Over the last 24 years, this strategy has achieved strong returns with low correlation to traditional assets. As such, it offers investors the opportunity to enhance multi-asset portfolio returns with modest or no additional risk.

While the core version of the Absolute Return Currency Strategy offers a robust investment solution, there is also scope for investors to design custom versions or to consider an enhanced version of the strategy, using volatility indicators to vary the weight of Carry.

## QUESTIONS?

Call Russell Investments at **44 020 7024 6000**  
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