Insight Paper

The Currency Phoenix has Risen from the Ashes

August 2023

Like a phoenix rising from the ashes, the recent resurgence of currency alpha after a decade-long absence is grabbing attention. The foreign exchange market, which is the largest and most liquid financial market in the world with trillions of dollars traded every day, has witnessed a reinvigoration of two underpinning strategies of currency alpha: momentum and carry.

After a period of subdued returns following the Great Financial Crisis (GFC), the emergent macroeconomic landscape following the pandemic has produced a rich opportunity set for trading in FX markets.

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In this paper, we look at the past three decades and shed light on the themes that may have contributed to the recent surge in performance.

Momentum and Carry Performance

We explore three significant periods for momentum and carry strategies in currency markets since 1990:

Pre-ZIRP	Zero Interest Rate Policy Period	Post-ZIRP
Jan 1990 to Aug 2008	Sep 2008 to Dec 2021	Jan 2022 to Jun 2023
Carry and momentum models displayed positive performance	Both carry and momentum strategies experienced a notable downturn in their effectiveness	These strategies appear to be experiencing a resurgence

To conduct this analysis, we used simulations of momentum and carry strategies as deployed in some of our investment programmes.

Table 1: Sharpe Ratio for Momentum and Carry Strategies Per Period

Period	Momentum	Carry
Pre-ZIRP	0.74	0.81
ZIRP	-0.07	-0.04
Post-ZIRP	0.88	0.44

Sharpe ratio figures calculated for carry and trend models used within our investment programmes using an equally weighted portfolio of the G10 currencies.

Note: The analysis seeks to highlight the change in Sharpe ratio of traditional trend and carry strategies across the three periods specified. The current implementation of some of Aspect's trend and carry models is used as a representative proxy for the performance of these types of strategies on G10 FX markets only. **Please see important disclaimers at the end of this document.**

The Sharpe ratios for these strategies highlight a clear difference across the given periods

Next, let's discuss some of the macroeconomic conditions during these periods, to better understand the potential reasons behind these different regimes.

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Foreign Exchange Macroeconomics

There are a number of fair value models that are employed to determine the exchange rate of a currency pair, and these models generally rely on similar macro inputs, encompassing the following key macroeconomic factors:

- **Interest Rates:** Diverging interest rates between two countries can impact the relative value of their currencies. Higher interest rates attract foreign investment, increasing demand for that currency and potentially strengthening its value.

- **Economic Indicators:** Economic indicators such as GDP, inflation rates, purchasing power parity, and trade balances can influence currency prices. Positive economic data generally strengthens a currency, whilst negative data can weaken it. This analysis will concentrate on inflation and GDP indicators as they have significantly influenced foreign exchange rates after the pandemic.

- **Central Bank Policy Uncertainty:** Monetary policies from central banks have a significant impact on currency prices, and unpredictable guidance can create price movements and trading opportunities. Tracking short-term interest rate volatility, which is a proxy for central bank uncertainty, can identify different currency trading regimes.

For the analysis we will be looking at the most popular and liquid traded FX pairs, known as the G10 currencies: USD/AUD, USD/CAD, USD/CHF, EUR/USD, GBP/USD, USD/JPY, USD/NOK, USD/NZD, USD/SEK. Between them these currency pairs account for nearly 80% of the entire volume of FX transactions globally.

Dispersion is Back

Interest Rates

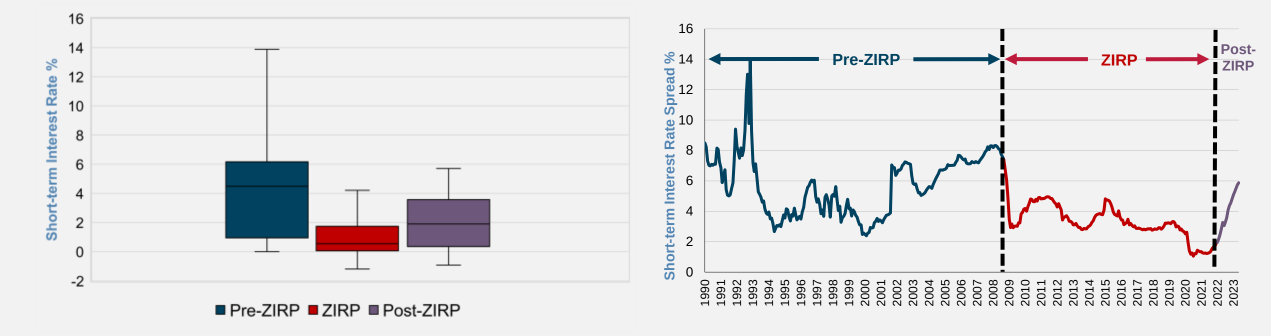

Figure 1: Interest Rate Dispersion: Jan 1990 to Jun 2023

The box plot highlights median, upper and lower quartile, as well as the 5th and 95th percentile statistics for short-term interest rates of G10 currency countries

Short-term interest rate spreads chart on the RH side shows maximum minus minimum of rates among the G10 economies at each point in time.

Source: Macrobond. Both charts show the distribution of interest rates for the ten most heavily traded currencies in the world (AUD, CAD, EUR, JPY, NZD, NOK, GBP, SEK, CHF, USD) across three different time periods — Jan 1990 to Aug 2008, Sep 2008 to Dec 2021 and Jan 2022 to Jun 2023.

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The rate dispersion across our chosen three distinct periods reveals notable differences. In the period before the Global Financial Crisis and the subsequent application of ultra-low interest rate policies, there was a notable divergence between major economies' interest rates, peaking notably near the end of Norway's banking crisis. In November 1992, interest rates in Norway soared to over 17%, whilst the US maintained a modest 3%.

The arrival of the Global Financial Crisis in 2008 marked a substantial narrowing in rate divergence as nations adopted zero or near-zero interest rates. This drastic monetary policy shift aimed to kickstart struggling economies amidst global financial turmoil.

In contrast, the post-ZIRP era has shown a renewed surge in rate differences. This trend has been largely fuelled by inflation dynamics, with major economies encountering a varied manifestation of both inflation drivers and inflation mitigants.

Economic Indicators

Gross Domestic Product

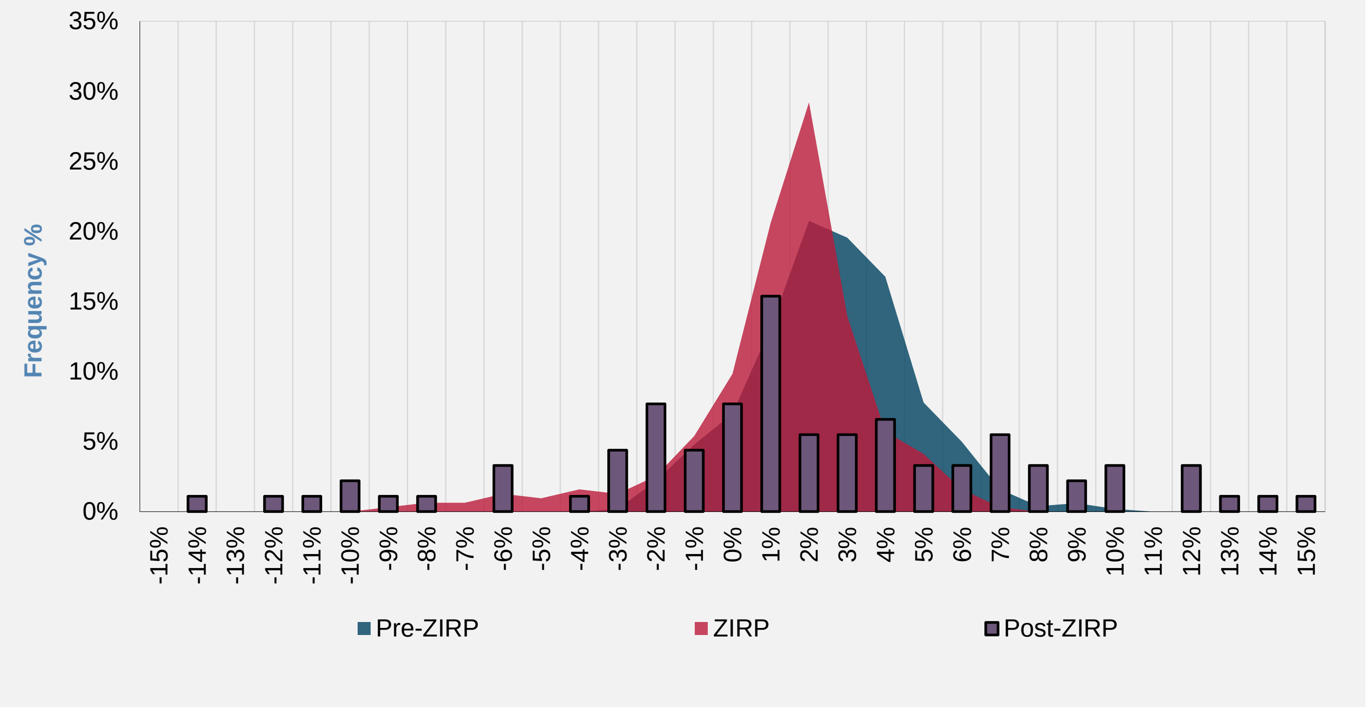

Figure 2: Annual GDP Distribution for G10 Currencies: Since 1990

Source: Macrobond. The chart shows the distribution of annual GDP growth for countries corresponding to the ten most heavily traded currencies in the world (AUD, CAD, EUR, JPY, NZD, NOK, GBP, SEK, CHF, USD) across three different time periods — Jan 1990 to Aug 2008, Sep 2008 to Dec 2021 and Jan 2022 to Jun 2023.

The ZIRP era exhibited a narrow set of GDP growth rates, concentrated around 2%. The GFC dealt a significant blow to economies worldwide, leaving most developed nations struggling to restore their growth prospects, and leading to muted economic expansion.

Contrastingly, the pre-ZIRP and post-ZIRP eras have exhibited a considerably broader span of GDP growth rates. The pre-ZIRP era included pivotal events such as the tech boom, the UK withdrawal of the British Pound from the European Exchange Rate Mechanism, the introduction of the Euro, and the 9/11 attacks. Each of these events catalysed a diverse range of growth prospects. The post-ZIRP era shows that economic divergence is once again everywhere. Here are some contrasting examples:

- The US has shown a strong economic recovery, aided by substantial stimulus spending and an impressively resilient labour market. Economic growth has persisted even as the Federal Reserve makes attempts to curb inflation.
- Japan's economy is showing economic resilience with strong corporate governance and ultra-low interest rates.
- In Australia and New Zealand, rising interest rates and falling house prices have hampered their recoveries. However, as travel improves and China reopens, these countries are expected to benefit from higher exports, especially from commodities.
- The EU's economic growth is facing potential risks: another surge in energy prices might trigger a new energy crisis, strict monetary policy could uncover existing weaknesses in the financial sector, and the future of the war in Ukraine is uncertain.
- The UK is struggling with high inflation, continues to adapt to life after Brexit, and is more vulnerable to interest rate rises as it relies less on long-term mortgages and loans. Its growth outlook is the lowest among the G10 currency countries.

These variances in recovery highlight that while some economies have adapted to the new normal, others are still navigating their way through these historically challenging times.

Inflation

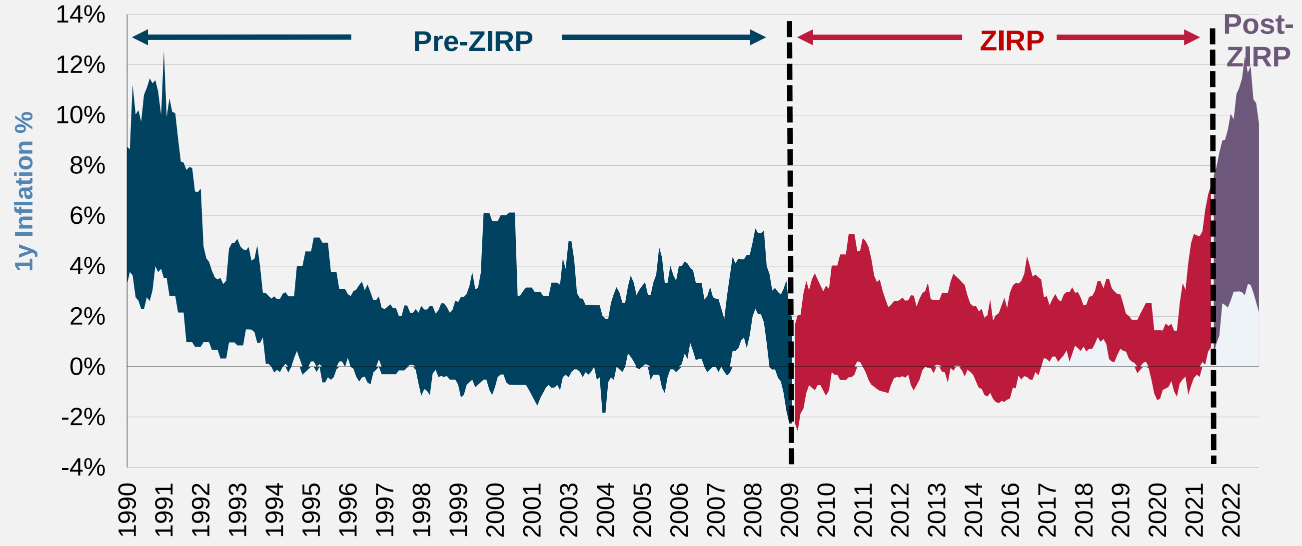

Figure 3: Annual Inflation Range of G10 Currency Countries: Since 1990

Source: Macrobond. The chart shows the range of annual inflation rates for countries corresponding to the ten most heavily traded currencies in the world (AUD, CAD, EUR, JPY, NZD, NOK, GBP, SEK, CHF, USD) across three different time periods — Jan 1990 to Aug 2008, Sep 2008 to Dec 2021 and Jan 2022 to Jun 2023.

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Inflation has been the key macro theme over recent years, as many nations have been subject to both supply and demand side shocks. However, some countries such as Switzerland have demonstrated a relative immunity to the rise of inflation, primarily owing to their unique energy mix, which renders them less vulnerable to oil and gas price fluctuations. Furthermore, inflation rates have begun to surprise on the downside in some countries, while drastically overshooting estimates in others. This has culminated in a widening inflation range forming since 2021.

Central Bank Policy Uncertainty

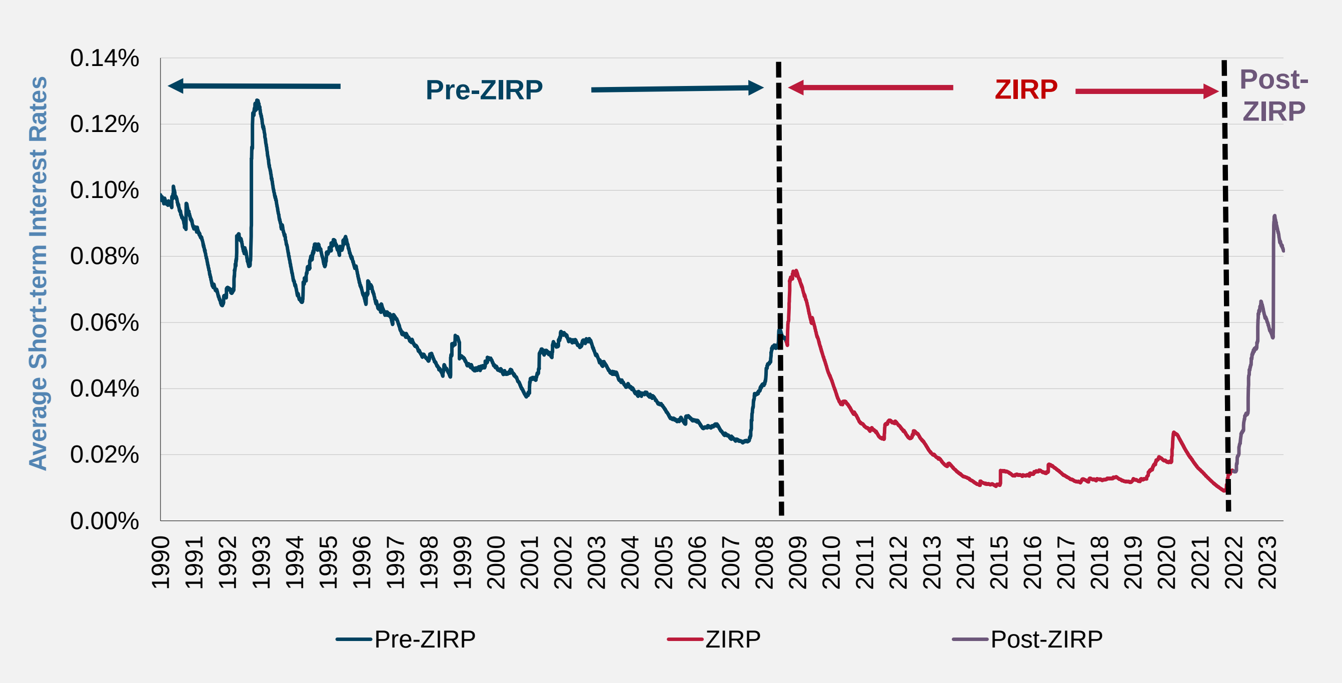

Figure 4: Average 3 Month Rate Long-term Volatility: Since 1990

Source: Macrobond. The chart shows the long-term volatility of short-term interest rates corresponding to the ten most heavily traded currencies in the world (AUD, CAD, EUR, JPY, NZD, NOK, GBP, SEK, CHF, USD) across three different time periods — Jan 1990 to Aug 2008, Sep 2008 to Dec 2021 and Jan 2022 to Jun 2023.

Short-term interest rate movements are primarily influenced by the policies of central banks. By examining the volatility of these financial instruments, we can use it as an indicator of the level of activity associated with central bank policies.

Before the ZIRP period, there was significant volatility and frequent shifts in central bank policies. This was mainly because major global economies adopted diverse monetary strategies to manage their unique economic circumstances amidst notable events such as Black Monday, the Dot-com bubble, and the 9/11 attacks. The start of the GFC marked an initial jump in volatility, which was swiftly followed by a decline to historically low levels, as a consequence of consistent and clear forward guidance from central banks about maintaining zero to low interest rates.

In recent times, central banks have found it increasingly challenging to provide accurate forward guidance, largely due to the unpredictable nature of inflation. Consequently, the volatility associated with these financial instruments has soared, hitting highs that have not been seen since the early 1990s.

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Financial Repression and its Effects on Currency Trading Strategies

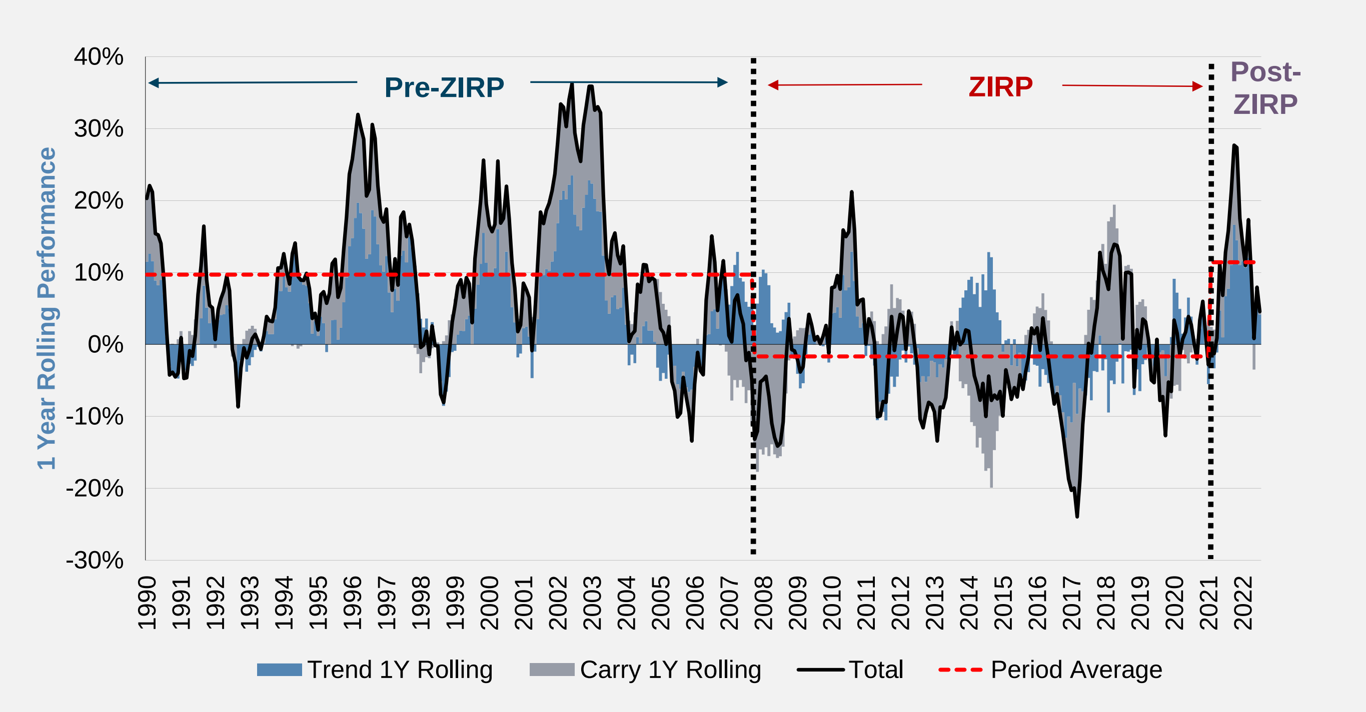

Figure 5: Trend and Carry 1 Year Rolling Performance: Since 1990

50/50 Split of a Trend and Carry Equally Weighted Portfolio of the G10 Currencies.

Note: The analysis seeks to highlight the change in performance of traditional trend and carry strategies across the three periods specified. The current implementation of some of Aspect's trend and carry models is used as a representative proxy for the performance of these types of strategies on G10 markets only. Performance is measured as the rolling one-year returns. **Please see important disclaimers at the end of this document.**

The Global Financial Crisis led to an era of financial austerity whereby governments and central banks implemented measures aimed at reducing their debt loads and stabilising their economies. This era was also marked by a period of range bound and suppressed macroeconomic indicators that are notable for driving FX prices: inflation, interest rates, central bank policies and GDP figures. As these essential macroeconomic indicators became both more stable and more similar to each other, opportunities for directional currency trading strategies such as carry and trend were hard to come by. One can see from Figure 5 that during ZIRP there was a decade-long period where carry and trend struggled, bringing the period average performance for these strategies to below zero.

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A New Regime: A Diverse Opportunity Set

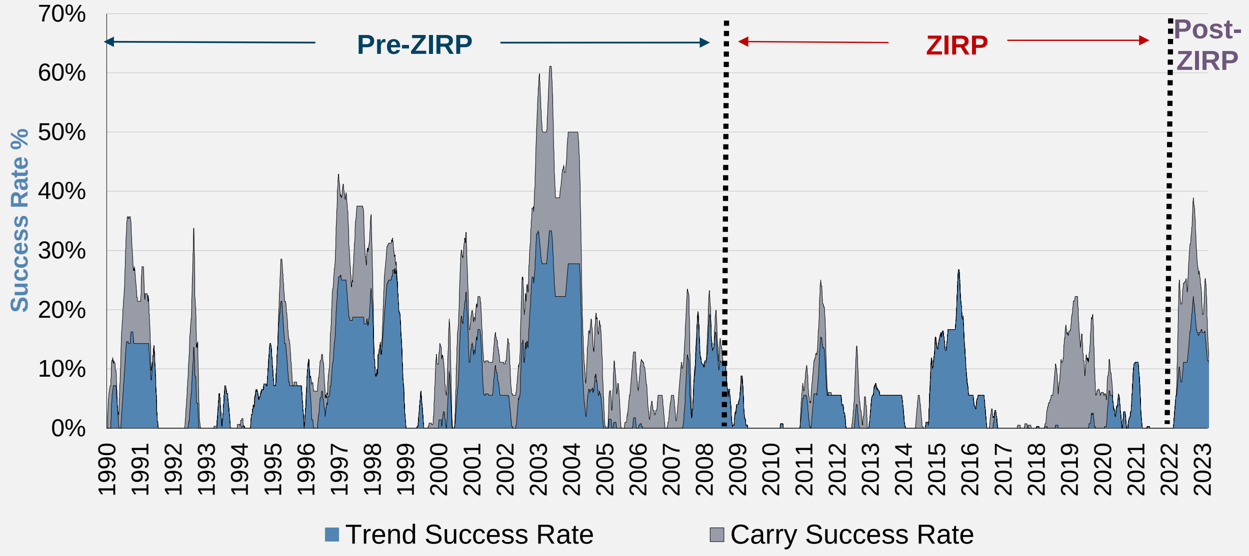

Figure 6: Trend and Carry Strong Performers Success Rate: Since 1990

Success rate is a percentage of markets that have achieved a Sharpe ratio over 2 on a 1 year rolling basis.

Note: The analysis seeks to highlight the success rate of traditional trend and carry strategies across the three periods specified. Success rate is a percentage of markets that have a achieved a Sharpe Ratio over 2 on a 1 year rolling basis. The current implementation of some of Aspect's trend and carry models is used as a representative proxy for the performance of these types of strategies on G10 FX markets only. Performance is measured as the rolling one-year returns. **Please see important disclaimers at the end of this document.**

By analysing the carry and trend success rate for strong performers - those individual markets with a Sharpe over 2 on a 1 year rolling basis - one can get a sense of the richness of opportunity across FX markets. A high success rate shows that the performance is being shared amongst a wide variety of markets, whilst a low rate shows that performance was concentrated in a handful of markets.

We observe significant dispersion in FX winners prior to the ZIRP period, indicating the sector's potential for momentum and carry strategies across a broad set of markets. However, during the ZIRP period, this average percentage plummeted to approximately 5%, signalling both poor performance and a concentration of potential winners in a few markets.

Currency Strategies are Back with a Vengeance

The divergence of macro indicators in recent times has led to a return of the large opportunity set we witnessed before the ZIRP period. As deglobalization, political instability and persistently high and wide-ranging inflation continues, and as central banks around the world adopt different policies, the macroeconomic indicators essential to pricing currencies have begun to diverge again. This new macro environment we find ourselves in has proven historically and recently to provide strong trend and carry opportunities. Like the mythical Phoenix, with its ability to rejuvenate itself, currency alpha is renewed and has risen from the ZIRP ashes.

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