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MARKET GPS

# ALTERNATIVE PERSPECTIVES

September 2021

# OUR DIVERSIFIED ALTERNATIVES CAPABILITIES

Welcome to the latest edition of our Market GPS: Alternative Perspectives, where we highlight some of the current thinking from across our Diversified Alternatives team.

The nature of what constitutes a well-diversified portfolio continues to change, courtesy of an era of expansionary fiscal and monetary policy, which has fueled an environment of persistently low yields and inflated equity valuations. This dynamic has been exacerbated by the pandemic. In the same way that COVID has made people address their own life priorities of family, work, and health, investors have been forced to reconsider their own strategies and objectives, in the context of their own liabilities and risk tolerances.

This is a fascinating period for alternatives. At a time when the standard 60:40 model arguably represents a higher-risk proposition than it has done in decades, investors are increasingly looking to incorporate alternatives into their strategies to take advantage of its distinctive performance drivers.

In this edition of Perspectives, Aneet Chachra looks at evidence of the current "Flow World" environment, where short-term flow dynamics can result in large price deviations up or down. With the risk of inflation once again making headlines, Mathew Kaleel, Andrew Kaleel and Maya Perone consider the value of an allocation to commodities.

Finally, Natasha Sibley delves into world of auto-callables to look at how banks deal with the risk associated with structured notes. This is a fast-evolving area of the industry, and one that we expect to provide a range of interesting opportunities for investors within the alternatives space.

We publish Perspectives on a six-monthly basis and seek to continue the dialogue with timely articles in the intervening months. As always, we welcome any feedback or questions you may have.

- Minivans and Flows
- Commodities – super cycle or just good sense?
- Autocallables and the art of risk transfer

DAVID ELMS

**Head of Diversified Alternatives**

# MINIVANS AND FLOWS



ANEET CHACHRA, CFA
**Portfolio Manager**

Inflation and secular trends push up prices for stocks, goods and services over the long term. But over the short term? In this article, Portfolio Manager Aneet Chachra shows the impact even moderate changes in flow dynamics (and demand) can have on prices … for both minivans and markets.

## Key takeaways

- Prices, on average, rise during weeks when money flows into stocks, and fall in weeks when money flows out of stocks.
- Even a modest net flow imbalance can result in a meaningful S&P 500 move; the price of stocks can quickly change in response to a minor change in supply/ demand or participant dynamics.
- Flexibility and patience can enable adaptive participants to benefit from temporary pricing dislocations created by inflexible flows, strategies and people.

Just over a decade ago, my wife and I were expecting our second child and needed a vehicle that could accommodate two car seats, strollers, parents and luggage. After some quick analysis, we became proud owners of a minivan. It has been a phenomenal vehicle that has carried our family 100,000+ miles without incident.

We purchased a minivan for convenience and safety, but it also turned out to be a possible source of alpha. According to the academic paper "Sensation Seeking and Hedge Funds"[1] – "**sports car drivers underperform non-sports car drivers by 2.92% per year, while minivan drivers outperform non-minivan drivers by 3.22% per year.**" I have no idea whether this fund performance research is accurate. But car insurance rates for minivans are low, indicating their owners have few accidents.

Our second child is now 10 years old and likes to tell friends – "our car is older than I am." Given advancements in safety technology, we decided it was time to upgrade to a new model. While I had read about car shortages, I naively assumed that an uncool vehicle like a minivan could not possibly be in high demand.

I was wrong. Dealer websites would show minivans available at sticker price, but contacting them would reveal surcharges, hidden fees and useless "mandatory" accessories. The actual price for immediate delivery was $2,000 to $7,000 above manufacturer's suggested retail price. I kept asking why prices were so high and every exasperated salesperson replied similarly: "We aren't getting many cars and people are rushing to buy whatever we do get. And when someone really wants a car, they will pay a few thousand extra."

It is easy to see how price-insensitive buyers with ready cash push vehicle prices up. However, similar "money flow" effects are less obvious but also true for U.S. equities. We can show this via fund flow data.

The Investment Company Institute (ICI) publishes fund industry statistics. One data series is weekly net fund flow into U.S. equities (aggregating both mutual funds and ETFs). This particular series starts in 2013, so has 450 weekly data points so far. Flows are volatile but there have been net inflows in roughly half of the weeks, and net outflows in the other half.

We normalize this weekly flow from millions of dollars into a percentage of U.S. equity market capitalization to reflect change in market size over time. We then compare these net fund flows to S&P 500® Index price changes in the same week.

During weeks with net equity fund inflows, the S&P 500 went up by an average of +0.66% per week.

During weeks with net equity fund outflows, the S&P 500 went down by an average of -0.01% per week.

All S&P 500 returns (and more) since 2013 have come during weeks with positive net fund flow.

## Exhibit 1: Weekly net fund flow (inflow/outflow) vs. S&P 500 price change (%)

| | 1-week S&P 500 change (%) | Weeks with positive returns (%) |
|---|---|---|
| All Weeks | +0.27% | 63% |
| Net Inflow Weeks | +0.66% | 74% |
| Net Outflow Weeks | –0.01% | 55% |

Source: ICI, Bloomberg, Janus Henderson Investors, January 2013 to August 2021. **Past performance is not a guide to future performance.**

We can't directly trade on this spectacular relationship as fund flows and their corresponding price moves happen together. Fund flow data is released with a lag. Absent a time machine, predicting fund flows in advance is about as hard as predicting stock prices in advance.

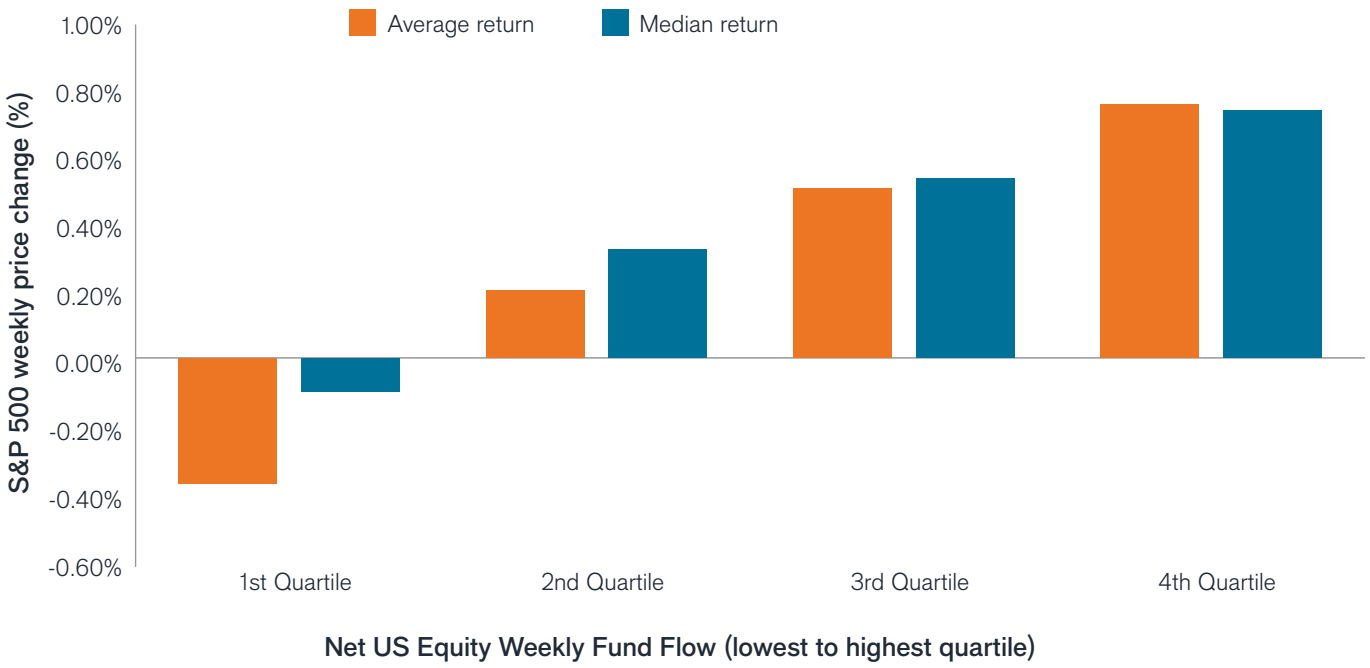
But this does show that prices, on average, rise during weeks when money flows into stocks, and fall in weeks when money flows out of stocks. Flows impact price.

Now theoretically, fund flows should not matter as every buyer is matched with a seller, and both transact at the "efficient markets" price. For every market participant reducing cash by buying shares, there is another market participant increasing cash by selling shares.

However, Exhibit 1 shows an observable relationship exists between net fund flows (in both directions) and concurrent price changes. Empirically, fund flows do matter.

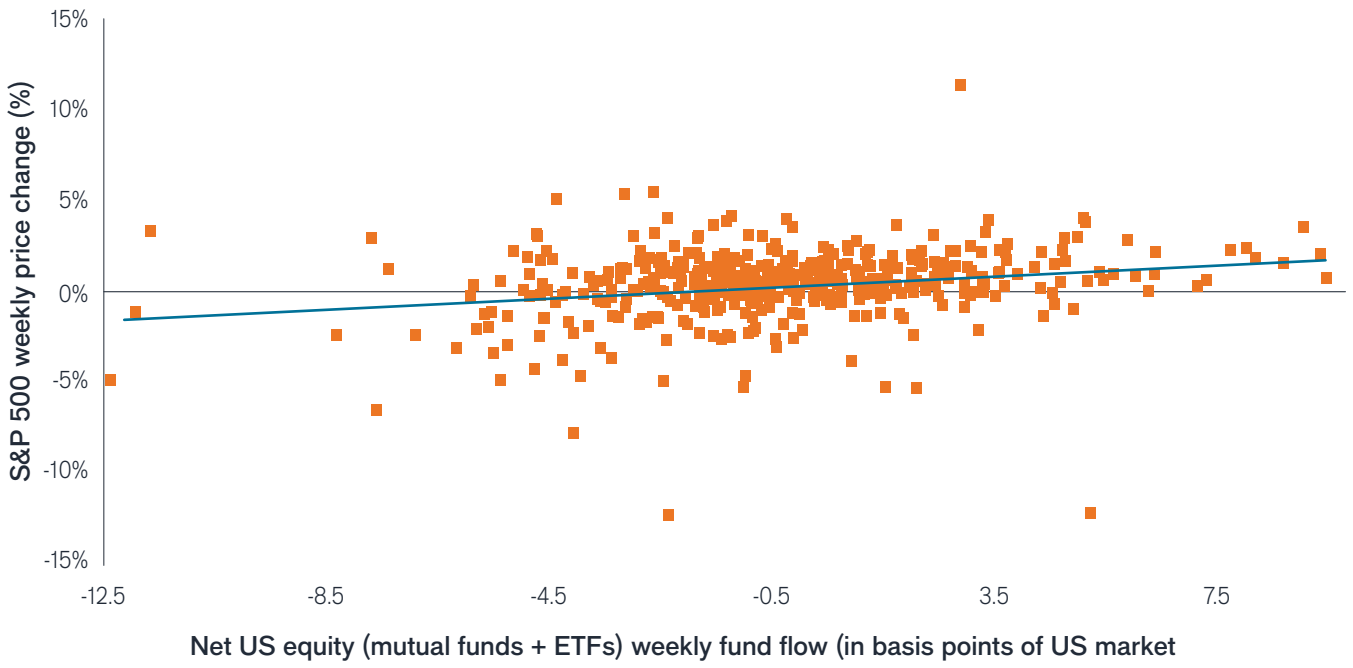
Exhibit 1 only looked at the direction of the fund flow, not the magnitude. If there is a real and not spurious association between flows and prices, there should also be a link between flow size and flow-induced price changes. To test this, we bucketed weekly flows into four quartiles ranging from lowest to highest. Exhibit 2 shows average and median weekly S&P 500 returns for each quartile. The relationship is indeed monotonic – larger flows (on average) result in a larger price impact.

## Exhibit 2: Net fund flow quartile is positively correlated with stock market returns




Source: ICI, Bloomberg, Janus Henderson Investors, January 2013 to August 2021. **Past performance is not a guide to future performance.**

## Exhibit 3: Weekly S&P 500 price change (%) vs. net fund flows (bps)




Source: ICI, Bloomberg, Janus Henderson Investors, January 2013 to August 2021. **Past performance is not a guide to future performance.**

Weekly fund flows are notoriously choppy. Similarly, market prices are also volatile week to week. Thus, while the flow versus price relationship is clear from looking at the aggregated data, this relationship is weaker (but still visible) in a scatterplot of individual weeks (Exhibit 3). Weekly net flow and price moves have a positive correlation of +0.24.

Importantly, the slope of the best-fit regression line (the blue line in Exhibit 3) provides a rough estimate of the price impact of fund flows. With the obvious caveat that there is considerable dispersion, the average multiplier is roughly 15x. For example, 5 basis points (+0.05%) of net inflow into U.S. equities over a week is associated with a +0.75% rise in the S&P 500.

To put this into context, total U.S. market cap is currently about $50 trillion – thus a 5 basis point net inflow is about $25 billion. This relatively small amount being material indicates considerable inelasticity in short-term market prices. It shows that a modest net flow imbalance results in a meaningful S&P 500 price increase or decrease.

There may be other confounding factors but nevertheless fund flows are a significant driver of index price moves. Broadly, the market clearing price of stocks can quickly change in response to a minor change in supply/demand or participant dynamics. Flows and prices can shift fast.

This is true for minivans as well. A month after postponing our purchase, I suddenly started getting calls from dealers offering much better deals. New supply is arriving soon while the most motivated buyers have already purchased ahead of school reopenings. The asking price for a minivan has quickly fallen by several thousand dollars. The extreme car buying frenzy has cooled, although prices remain well above pre-COVID levels.

My minivan saga is a microcosm of broader economic forces. Over the long run, inflation and secular trends push prices of stocks, houses, new cars and most goods or services higher over time. However, short-term flow dynamics can cause large price deviations both positive and negative along the way. Flexibility and patience can enable adaptive participants to benefit from temporary pricing dislocations created by inflexible flows, strategies and people.

1 Brown, Lu, Ray, Teo, "Sensation Seeking and Hedge Funds." Journal of Finance, December 2016.
Link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2882983

# COMMODITIES – SUPER CYCLE OR JUST GOOD SENSE?




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**Portfolio Manager**



ANDREW KALEEL
**Portfolio Manager**



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Commodities have faced a protracted period of uncertainty since the global financial crisis. But with multiple structural tailwinds and the risk of inflation making headlines, portfolio managers Mathew Kaleel, Andrew Kaleel and Maya Perone ask: is it time to reconsider their use as a valuable portfolio diversifier?

## Key takeaways

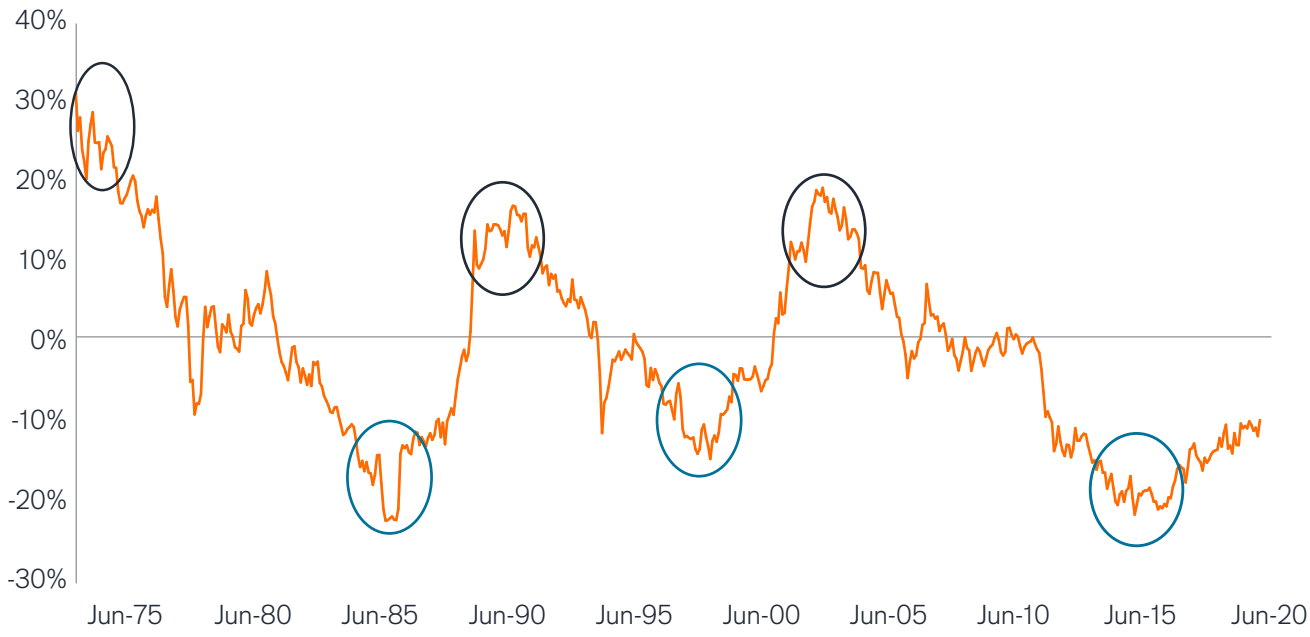
- A more persistent inflationary regime would be structurally detrimental to traditional equity/bond portfolios, eating into corporate margins and impacting nominal bond yields.
- An allocation to commodities may help to mitigate the impact of any inflationary trends or spikes, particularly in an environment where there are both supply constraints and persistent and robust demand.
- Despite calls of a new commodity 'super cycle', we would at this point characterise recent commodity price changes as a reversion to what we would consider fair value, relative to global equities.

## **Observation 1:** Commodities in a cyclical perspective

Commodities have well-defined cycles over time, and this is particularly evident when looking at the returns of commodities relative to other growth assets. The measure that we use to highlight the cyclical nature of commodity markets is by comparing rolling five-year annualised returns of global stocks and commodities (Exhibit 1). The series has historically fluctuated between periods of over and undervaluation of commodities as an asset class relative to global equities. This is best explained by the underinvestment in commodity markets that establishes a cyclical low during downturns, and eventual oversupply at the end of a cycle.

While we have seen a pickup in the calls of a new commodity 'super cycle' in the first half of 2021, we would instead characterise the recent increase in commodity markets as a longer-term reversion to what we would consider 'fair value' relative to global equities. Whether this is the start of a super cycle or not is less relevant than the simple fact that, should history be any guide, this current cycle of commodities outperforming global stocks may persist for several years. This, in our view, provides an attractive option for investors seeking to diversify portfolios and protect against an outbreak of commodity price inflation.

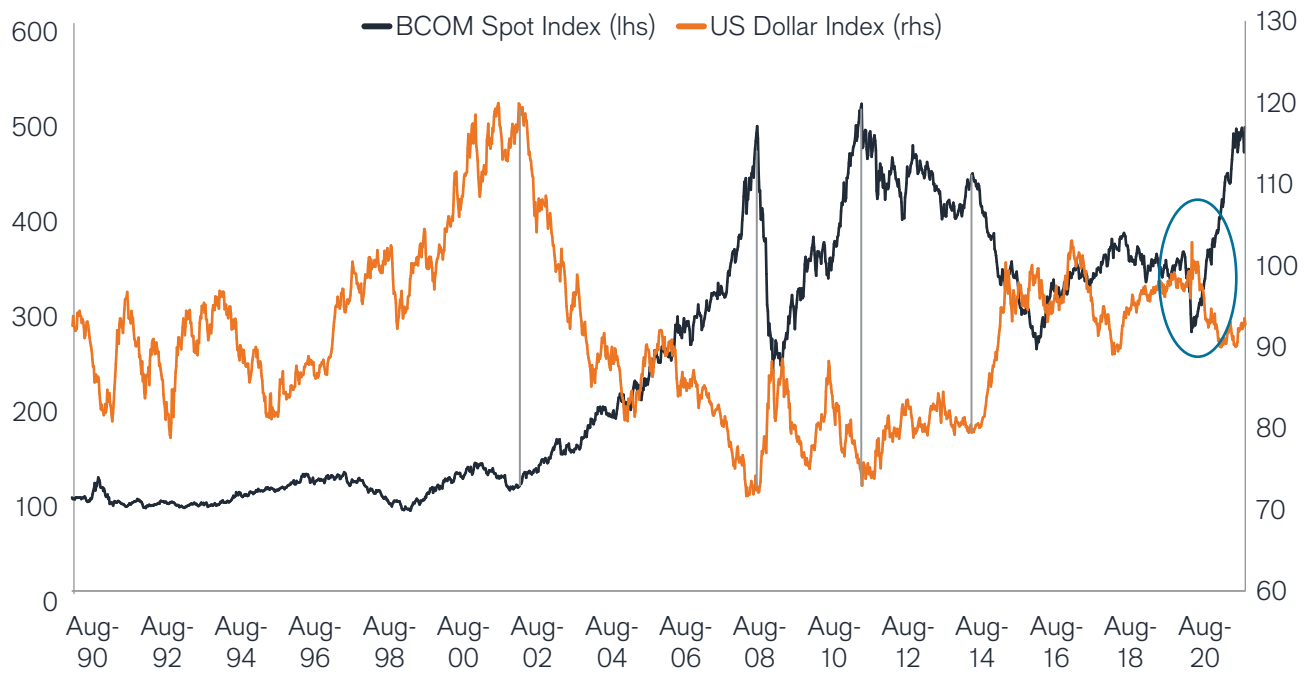
### Exhibit 1: Commodities (BCOM) versus MSCI World Index




Source: Janus Henderson Investors, Morningstar, 1 January 1975 to 31 December 2020, showing rolling five-year annualised excess returns for commodities versus the MSCI World Index.

Note: Stocks are represented by the MSCI World Net Total Return USD Index, Commodities are represented by the GSCI from January 1975 to December 1990 and the BCOM Commodity Index from January 1991. **Past performance is not a guide to future performance.**

## Exhibit 2: The US Dollar/Commodity cycle




Source: Janus Henderson, Bloomberg as at 31 December 2020.

Note: The Bloomberg Commodity Spot Index (BCOMSP – shown on the left-hand axis) tracks prices of futures contracts on physical commodities on the commodity markets. ICE's US Dollar Index (shown on the right-hand axis) measures the value of the United States dollar relative to a basket of foreign currencies (the euro, Japanese yen, sterling, Canadian dollar, Swedish krona and Swiss franc). **Past performance is not a guide to future performance.**

## **Observation 2:** The relationship between the US dollar and commodities

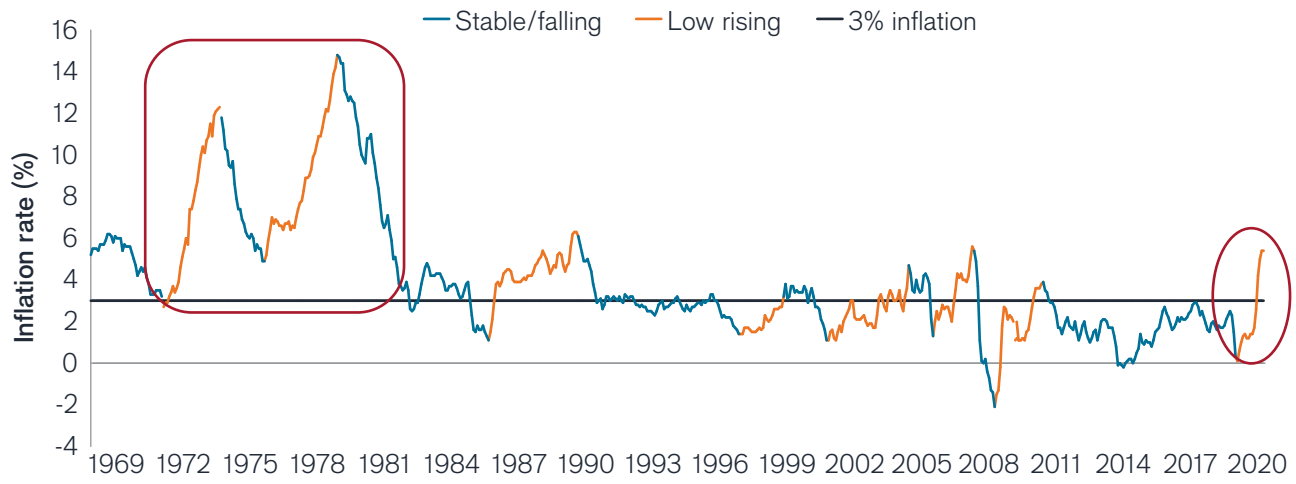
A second consideration when looking at the future path of commodity markets is longer-term cycles in the US dollar, in which all major commodities are still traded. This relationship is a direct one; spot prices for commodities tend to rise in periods of relative weakness in the US dollar as those commodities are cheaper in local currency terms. This long-term inverse relationship is highlighted in Exhibit 2, with the most recent base in commodity markets occurring in March 2020. From that base, commodity markets have rallied in conjunction with a correction in the US dollar.

As with commodity markets, cycles in the US dollar tend to take a number of years to play out; if the absolute base for commodity markets in this cycle was March 2020, a persistent weakening of the US dollar would provide a broadly positive tailwind for commodity markets.

## **Observation 3:** Inflation is only an issue if it is persistent

Commodity markets and wage prices are two of the key inputs that determine the rate of change and level of inflation. While transitory impacts can be mitigated, more persistent regimes of low/rising, or high/stable inflation are detrimental to traditional equity/bond portfolios, eating into corporate margins and impacting nominal bond yields.

## Exhibit 3: US CPI urban consumers (yoy) inflation (%)




Source: Bloomberg, Janus Henderson Investors, March 1969 to July 2021. **Past performance is not a guide to future performance.**

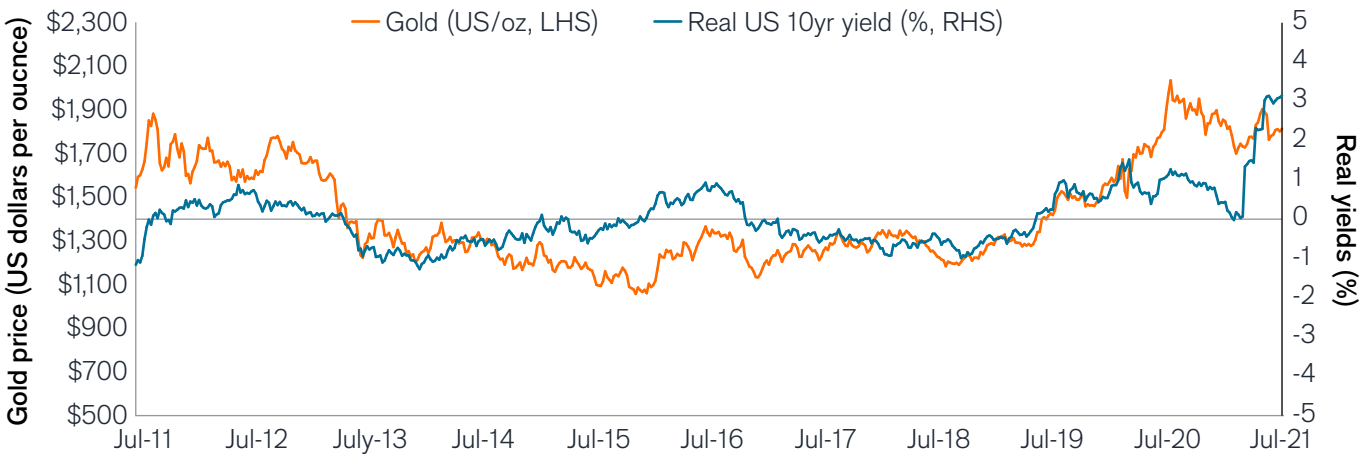
There has been only one meaningful period of persistently elevated inflation in the last fifty years, measured as levels above 3% year-on-year (yoy), which was in the 1970s (Exhibit 3).

Whilst not the baseline assumption, a combination of higher wages and commodity price pressures occurring simultaneously would create significant headwinds for traditional portfolios and would argue for the inclusion of commodities as both a diversifier and inflation hedge.

## **Observation 4:** Gold prices are more a reflection of investors hunting real yields than inflation

Gold prices typically provide an insight into real yields and the protection of capital, which gives us a snapshot of both inflation and nominal yields (Exhibit 4). We expect gold to continue to provide synthetic portfolio insurance against an unexpected collapse in real yields, whether as a result of changes in nominal yields and/or inflation.

## Exhibit 4: Gold prices vs real yields




Source: Bloomberg, Janus Henderson Investors, July 2011 to May 2021. **Past performance is not a guide to future performance.**

## **Observation 5:** A structural change in oil market dynamics

Prices for crude and refined petroleum products have rallied from the lows in March 2020; however, the potential for further price appreciation remains. The lack of recovery in US onshore oil rigs and supply discipline by OPEC+ has led to a normalisation in US petroleum inventories relative to the five-year average. The combination of ongoing supply discipline by OPEC+ and the dearth of investment going into new oil development, partly due to environmental, social & governance (ESG) considerations, could very well see a significantly tighter oil market in the months ahead and into 2022. This also has significant implications for the natural gas markets, both in the United States and globally, as a once oversupplied gas market swings into an environment of supply constraints and potentially structural deficits in inventory levels. These factors, alongside wage or food price inflation, could materially impact year-on-year inflation outcomes.

### The sensitivity of commodity markets to inflation can benefit investors

Commodity prices are both a reflection and driver of changes in interest rates and inflation. Outside of the key factor of changes in wage expectations, a bullish commodity market cycle is intrinsically inflationary, particularly in environments where there are both supply constraints and persistent and robust demand. In our opinion, the current environment suggests we are potentially in such an environment. The incorporation of ESG factors into investment decisions across all industries, in combination with a push to build out a global renewable industrial complex, provides a multi-year demand push and also imposes supply constraints in energy.

Central banks have also collectively moved from a policy of inflation targeting toward one that is comfortable with higher levels of sustained inflation. In its release to the market on 17 March 2021, the US Federal Reserve articulated this objective:

> "…the [FOMC] Committee will aim to achieve inflation moderately above 2 per cent for some time so that inflation averages 2 per cent over time and longer term inflation expectations remain well anchored at 2 per cent."

This policy, echoed by other major central banks, can be understood as a desire for global central banks to achieve higher sustained levels of price inflation. While short-term rates have remained near-zero bound, the change in central bank policy has led to increases in long-term rates and inflationary expectations.

A repricing of longer-term interest rates affects portfolios sensitive to equity and bond market beta, particularly if it leads to a sustained period of higher inflationary outcomes, as was the case in the 1970s. This raises the question of how various asset classes might perform, and how investors might respond. While the commodity bear cycle that followed the Global Financial Crisis of 2007–2008 was longer than average, an allocation to commodities could represent an interesting opportunity for investors, in terms of growth potential, portfolio diversification and as a potential hedge against the effects of inflation.



# AUTOCALLABLES AND THE ART OF RISK TRANSFER




NATASHA SIBLEY, CFA

**Portfolio Manager, Diversified Alternatives**



Portfolio manager Natasha Sibley explores the realm of autocallables, looking at the investment opportunities created by banks' need to transfer risk.


## Key takeaways

- Autocallables are a yield-enhancing structured product, with the potential for attractive coupons balanced against the risk that the underlying asset will fall below a certain value, resulting in losses for the product.
- The large demand for equity forwards from banks to manufacture autocallables has led to distortions in the price of equity forward parameters.
- The market for risk transfer continues to evolve rapidly, providing opportunities that could help to enhance diversification or performance across a portfolio or strategy.

Structured products can often seem as one of the more exotic parts of the investment world. But in reality, while the underlying products may have complex features, they tend to be a simple function of 'need and opportunity'. Innovative and highly customisable instruments, structured products offer investors a reasonably accessible route to holding derivatives, providing flexible solutions tailored to meet specific objectives.

Autocallables are one such example; a structured product that generates yield by selling puts. The 'autocallable' feature means that that the product is automatically called – ie. the investor receives their capital back, along with a generous coupon – if the price of an underlying asset (an index or stock, for example) is above a pre-set level on pre-set dates. Capital is at risk in these products, and if the underlying price drops below the strike of the embedded put, investors can find themselves exposed to losses.

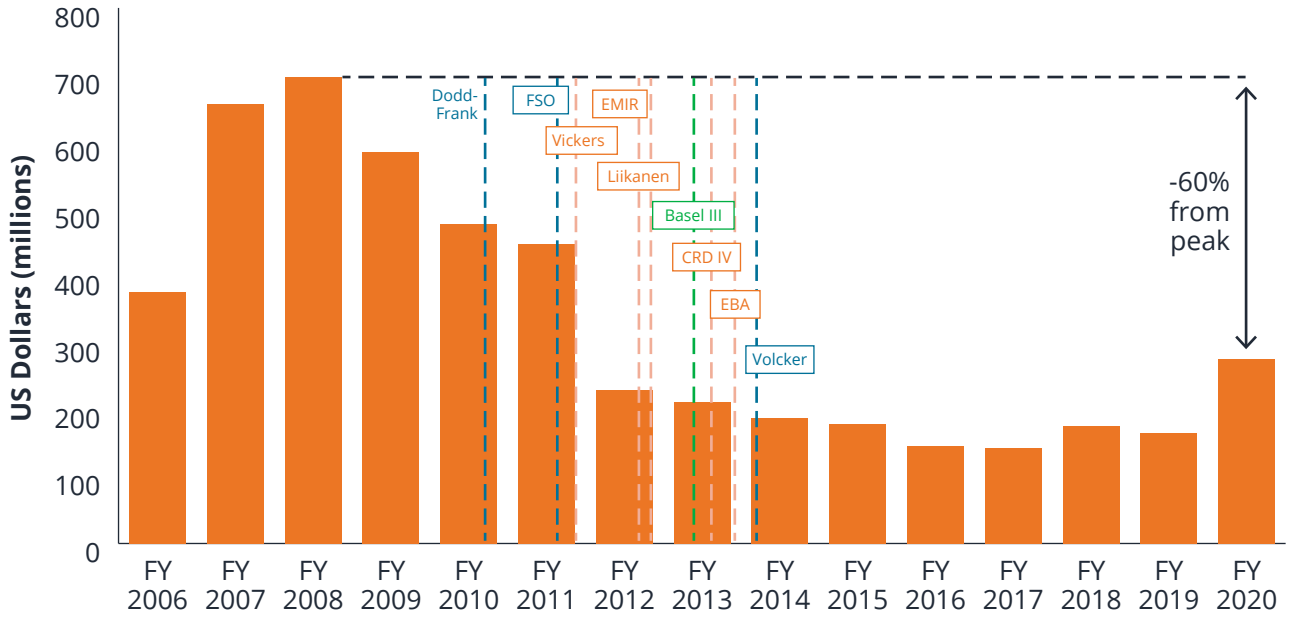
## Need and opportunity

The past decade has seen interest rates stuck at, or close to, historic lows, leaving investors engaged in a search for yield. At their heart, autocallables are ostensibly a yield-enhancing product, with the potential for attractive coupons balanced against the risk that the underlying asset will fall below a certain value. Despite the variations in terms and structure, the high coupons that can be manufactured by selling out of the money puts has made autocallables a popular choice, particularly during what has been an extended period of low interest rates. As their popularity increased, banks that issue these products broadened the range, adding various features, and issuing autocallables on a wider range of indices, baskets and individual stocks.

However, this growth in demand brought with it a dilemma. The introduction of stricter regulations (Exhibit 1) saw banks required to hold more capital, or hedge exposure more precisely, impacting their ability to warehouse the risk associated with structured notes (the 'need'). As a consequence, banks tightened their hedging of issued notes, shifting more risk off their books (the 'opportunity'), to make room for more issuance. This has created an opportunity for investors willing or able to provide liquidity to banks that are limited in how much risk they can hold on their balance sheets.

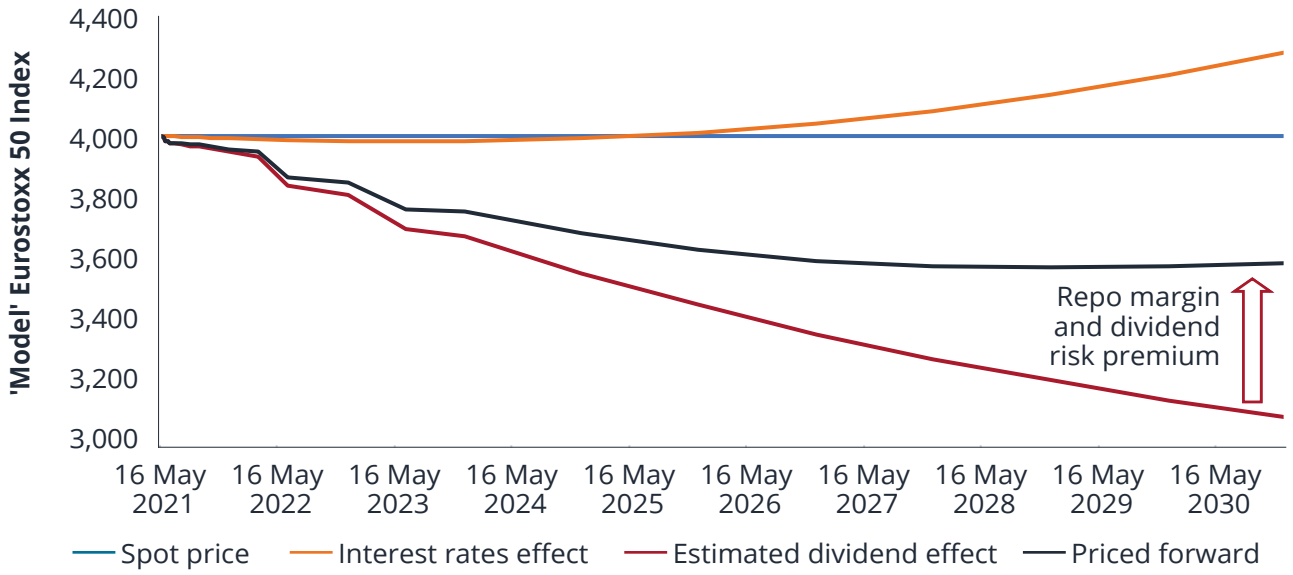
This dynamic has made for interesting markets as pricing moves away from fundamentals and supply/demand becomes more of a factor. One of the key exposures of

**Exhibit 1: Bank ability to hold the risk associated with structured notes has been limited**




Source: Janus Henderson, Bloomberg, at 31 December 2020.
**Note: This is intended for illustrative purposes only. Summed Investment Bank Equity VaR on 99% daily basis.**

## Exhibit 2: Finance 101 meets the real world




Source: Janus Henderson Investors, Eurostoxx 50 Index, 16 May 2021 to 18 December 2030.

Note: For illustrative purposes only. Used here to highlight the difference that demand can have on fundamental pricing for equity forwards. It does not reflect actual performance or pricing. Note: For illustrative purposes only. Used here to highlight the difference that demand can have on fundamental pricing for equity forwards. It does not reflect actual performance or pricing.

an autocallable is forward equity exposure. In order to offset this exposure, when banks issue autocallables they typically buy forwards on the indices and stocks that underlie them. This large demand for equity forwards from banks hedging their structured product exposure fuels distortions in the price of equity forward parameters.

In theory, the price of an equity forward is determined by the spot price, adjusted by both interest rates and expected future dividends. This is illustrated in Exhibit 2: spot price, adjusted higher for interest rates, and then lower to account for the estimated dividend effect (pricing in the market's expectations for dividends for those investors holding shares).

In reality, equity forwards in markets with heavy autocallable issuance typically trade higher than theory would suggest, as this hedging demand from banks moves prices away from fundamentals.

The premium of forwards to theoretical value can be split into two main components. The first is the dividend price discount – demand on forwards equates to supply on dividends, so high forward prices mean low dividend prices. There is a tradeable market for dividends which allows us to quantify the component of equity forward premium that is due to discounted dividend prices relative to expectations.

The second component is referred to as 'equity repo', or equity funding. It is the spread on top of interest rates that is paid to take long synthetic equity exposure. It directly parameterises how expensive an equity forward is compared to its theoretical level. Investors can 'earn' this repo rate by selling forward equity and buying spot.

## It comes down to what risk transfer can offer investors

While much of this can seem fairly esoteric, risk transfer strategies such as this can represent an additional source of diversification for investors. It can provide different opportunities from traditional risk assets at different points in the cycle, and during major market events.

The market for risk transfer has grown significantly over the past few years, and it continues to evolve rapidly. Every market event provides more information to improve models and evolve risk-testing. Different types of structured products are being developed all the time, driven by the same function of need and opportunity, which will inevitably present new opportunities (and new pitfalls) for investors. Careful analysis to identify advantageous solutions could help to enhance diversification or performance across a portfolio or strategy.

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