

Morgan Stanley Investment Funds

Diversified Alpha Plus Low Volatility Fund

FOR PROFESSIONAL CLIENTS ONLY.

PERFORMANCE REVIEW

In the month of May 2017 the fund's Z shares returned 0.13% (net of fees). During the month, the MSCI All Country World Index returned +1.6% in local currency terms (-1.0% EUR), and the JPMorgan Global Government Bond Index returned +0.5% in local currency terms (-1.7% EUR). Commodities returned -1.3% in USD terms and -4.3% in EUR (S&P GSCI Total Return Index).

During the month, the primary contributors to performance were a long position in Brazil bonds and in the Czech koruna vs. the euro, as well as positions within our China and Australia Slowdown themes (shorts in iron ore miners vs. global equities, copper, and the Australian dollar vs. the U.S. dollar and euro). Detractors included our long in sterling and our short in China H-shares vs. global equities, as well as equity positions within our Eurozone Recovery theme (long EMU domestic stocks and banks vs. global equities).

MARKET REVIEW

Global equity and bond markets rallied in May, as the 'Goldilocks' regime appeared unassailable. Global equities rose +1.6% and global bonds yields fell, with the U.S. 10-year Treasury yield down 8 basis points. Implied U.S. equity market volatility (VIX Index) fell below 10, to the lowest level since the early 1990s.

Inflation readings remained subdued globally, and U.S. 10-year inflation breakevens fell by 10 basis points to 1.8%. The U.S. core PCE deflator plunged to 1.5% YoY in April, reversing the increase over the past year. Eurozone core CPI reverted to 0.9% YoY in April, and remains essentially unchanged since mid-2015. Japan core CPI and Tokyo CPI just touched zero, coming back out of negative territory.

U.S. equities rose as economic data beat expectations (S&P 500 +1.4%). Technology stocks led (+3.2%). Tech is the best performing sector year-to-date (+20.5%), and the sector now makes up over 20% of the S&P 500, the highest level since 2001.

Emerging market (EM) assets rallied, amid risk-on sentiment, stable data from China (for now), and U.S. dollar weakness. Equities rose +3.0% (MSCI EM in USD), bonds rose 1.4% (JP Morgan GBI-EM Index, USD unhedged), and currencies rose 0.6% (JPM EMCI Index).

Commodities fell -1.3%, led down by oil (-2.7%), as OPEC's 9-month extension of output cuts disappointed the market. Iron ore fell -17.1% amid global supply builds and signs of moderation in China's property activity. The U.S. dollar index extended declines, falling -2.1%. The best performing major currency was the euro, which was up +3.2%, as European data continued to come in strong.

PORTFOLIO ACTIVITY

In May, we maintained neutral net equity exposure (0%).

We opened a long position in Brazilian 5 year local currency bonds (hedged FX) during the

Fund launch

April 2014

Investment team

Cyril Moullé-Berteaux,
Sergei Parmenov

Location

New York

Base currency

Euro

mid-May selloff, given improving growth and moderating inflation there. We also added to our Mexican peso exposure, initiating a long in MXN vs. a basket of EM currencies.

We believe U.S. dollar weakness and a decline in U.S. TIPS yields could help the gold price appreciate by ~20% in 2017, and we initiated long positions in gold and gold mining stocks vs. U.S. equities, as well as a long in U.S. 10-year TIPS.

Within our Eurozone Recovery theme, we initiated a long in Greek banks vs. developed market equities as a play on improving eurozone growth and resolution of the Greek sovereign debt overhang. We increased our long in Greek bonds, and hedged the position with 10-year German bunds given our view that German bunds are overvalued vs. history and relative to global rates. We initiated a long position in Portuguese vs. German 10-year bonds as part of our overall constructive view on Portugal.

We continue to believe that Chinese growth is at risk of relapsing as credit growth slows, and initiated a short in China H-shares vs. global equities, as well as increased our short in AUD vs. USD and EUR. We also increased our short positions in U.S. capital goods and cyclical stocks vs. defensive stocks.

STRATEGY AND OUTLOOK

The longevity of the U.S. economic expansion and the global economic recovery, as well as the level of asset prices globally, are becoming increasingly reliant on a single piece of economic data: the U.S. core personal consumption expenditures (PCE) deflator. Eight years into an expansion, core inflation, measured by the core PCE deflator, has rebounded just 50 basis points from lows reached in 2010.(a) This is despite the U.S. economy having added 15 million jobs since the recession ended in 2009, despite nominal consumer spending rebounding by 35% from the troughs (and vehicle unit sales doubling), despite corporate profits nearly tripling from their lows in 2009, and despite nearly a trillion dollars in fiscal stimulus, a \$3.5 trillion increase in the Federal Reserve's balance sheet, and eight years of steeply negative real interest rates.

Despite all this, core inflation remains stubbornly below the Fed's 2% inflation target and most economists and investors, including ourselves, have had to push our estimates for when U.S. inflation will reach this target further out.(b)

For this letter, we have set the ambitious goal of answering or addressing three questions:

- 1) Why is core inflation the single most important number in world today for global financial markets?
- 2) Why has core inflation not risen to, or above, the Fed's target?
- 3) How is inflation likely to evolve over the next 2-3 years and how will that impact markets?

The Most Important Number in the World

It is difficult to overstate the importance of the level of core inflation for economies and markets. In particular, the Fed's 2% core inflation target represents a critical threshold for markets, as it dictates whether stocks and bonds are positively or negatively correlated. When core inflation is below 2%, stocks and bonds are negatively correlated, a boon to portfolios that are long both stocks and bonds. When core inflation is above 2%, stocks and bonds are positively correlated.(c) In other words, a bear market in bonds causes a bear market in stocks, as we saw from the late 1960's to the early 2000's.(d)

In addition, the sweet spot for equity market valuations has historically been when core inflation is between 1-2%: over the past 70 years, stocks have on average traded at 11.5x forward earnings (or 14.8x trailing earnings). But when inflation is between 1-2%, equity

valuations have been 38% higher, at 15.9x on average. Once the 2% threshold is breached, valuations begin to fall: for example, when core inflation has been between 2-3%, stocks have traded at 12.6x forward earnings. And when inflation approaches 5-6%, stock valuations fall to 9.0x forward earnings. In addition, inflation below 2% has historically been associated with lower economic volatility and longer economic expansions.(e)

Lastly, and perhaps most importantly, the Fed behaves differently depending on whether inflation is above or below 2%. In the late 1980s and early 1990s, with inflation above 2%, the Fed pursued a policy of "opportunistic disinflation," tightening monetary policy when the economy appeared strong enough to handle it, in order to get inflation down to 2%.(f) Over the past eight years, with inflation stubbornly below 2%, the Fed's reaction function has been the exact opposite, easing monetary policy at any sign of economic weakness, a form of "opportunistic reflation". Early in the expansion, the Fed's rationale for continuing to cut rates and expand its balance sheet was initially to contain downside risks. It evolved to ensuring that the labour market was completely and fully healed (thus Fed Chair Janet Yellen's focus on broader measures of unemployment such as the U-6 rate, which includes part-time and marginally-attached workers). Today, with the economy at full employment, the Fed has maintained a high degree of accommodation—with its \$4.5 trillion balance sheet and policy rates more than 0.50% below inflation—a policy stance usually reserved for crisis management.(g) This current stance is entirely driven by core inflation remaining below the 2% threshold, in our view.

This unusually high degree of accommodation in monetary policy this late in the cycle is, in our view, responsible for extremely high valuations in most asset classes. According to our analysis, the three main asset classes in the U.S. - stocks, investment grade bonds, and residential real estate - are collectively more overvalued than at any time in history; more than in 2000, and more than in 2007.(h) Individually, stocks were more expensive in 2000 than they are today, bonds in 2016, and real estate in 2005; but collectively, all three have never simultaneously been this expensive. Since the Fed's mandate is focused on inflation and unemployment, the Fed has paid little attention to asset valuation (or record corporate leverage).

However, when (or if) core inflation rises above 2%, the Fed will likely need to hike interest rates quickly to move cash rates into positive real territory (i.e. above inflation, rather than below). This is likely to reverse many of the market behaviours described above: stocks and bonds will likely return to being inversely correlated; with inflation above 2%, stock market valuations will likely drop at least 2.0x multiple points; and with cash rates in positive territory, competing assets will have to offer higher rates of returns. For example, if a three-month Treasury bill pays 2.5%, then the current stock dividend yield of 2%, the 10-year Treasury yield of 2.2%, the investment grade bond yield of 3.2%, and the real estate rental yield of 4% are unlikely to prove sufficient. If these asset classes re-price to levels implying a 100 basis points higher yields, that would imply a 30% decline in stocks, a nearly 10% decline in Treasuries and a 20% decline in residential real estate values.(i)

So if a shift in core inflation from below 2% to above 2% can have such a huge impact on markets, when is this likely to occur? Or is it likely to occur?

To summarise the conclusions of our analysis: cyclical inflationary pressures are clearly rising and will likely succeed in pushing inflation above 2%, but not for another 18-24 months, as structural disinflationary forces remain present or are only slowly reversing in our view. In addition, there are clearly some little-understood forces at work that are keeping inflation lower than expected—some "unknown unknowns" in the words of former Defense Secretary Donald Rumsfeld.(j)

One of the reasons inflation is likely to rise is that many of the factors that depressed it

appear to be in retreat. The most important one is the large output gap following the Global Financial Crisis (GFC), which has begun to close. In many ways, inflation's undershoot following the GFC should have been less of a surprise to us and to the market. Hindsight is 20/20, but it is clear that the scale of the financial crisis and its deep impact on the economy and the labour market explain a large portion of why inflation has fallen short of the Fed's expectation. We recently experienced the deepest recession since the Great Depression, with the number of unemployed more than doubling, consumer net worth declining by the equivalent of one and a half years-worth of disposable income, and more than \$7 trillion in S&P 500 market cap being wiped out. Models incorporating labour market slack would have actually predicted that inflation and wage growth should have fallen more than they did, with actual deflation in prices and wages. For a variety of reasons, including wage stickiness, downward price rigidity, and the changing job mix in the labour market, inflation did not fall as much as might be expected. But inflation has not risen much because it has taken the past eight years to use up the slack created by the recession. And it was not until recently that the slack has been taken up. For example, in the labour market, excess unemployment has all but disappeared and wages have begun to accelerate in response. Nominal wage growth of 2.5-2.75% may seem modest, but that compares to just 1.7% three years ago and importantly, adjusting for lower productivity and lower inflation expectations, wages are exactly where one would expect them to be today.^(k) If inflation was at 3% and productivity at 2%, wages might need to grow by 5% to attract and retain workers at full employment. But currently, with inflation at only 1.5% and productivity at 1%, perhaps wage growth of 2.5% is sufficient.^(l)

Another factor at play in suppressing inflation has been the uneven recovery outside of the U.S. Historical inflation cycles have tended to be global affairs, not local ones.^(m) When inflationary pressures rise simultaneously in most major regions, it is more likely to result in actual inflation. In the current cycle, the U.S. economy recovered relatively steadily with only a few minor hiccups. However, the eurozone experienced a second recession and banking crisis within two years of the GFC and emerging markets (EM), particularly commodity-sensitive EM economies and China, experienced massive decelerations and in some cases, recessions. The impact of this uneven global economic activity was the transmission of disinflation from the weak economies (Europe and EM) to the stronger ones (the U.S.) through weak currencies. The euro and EM currencies have depreciated by roughly 30% while the U.S. dollar appreciated by 30%.⁽ⁿ⁾ Our models estimate that during 2014-2016, U.S. dollar appreciation depressed inflation by 50 basis points.^(o) As the eurozone recovers, with its unemployment falling at approximately a 1% annual pace, and Japan has reached full employment (2.9% unemployment today), the developed world's aggregate output gap is closing and should be fully closed in 2018.^(p) Thus, this previously uneven, but increasingly synchronised, global economic growth represents one more disinflationary force that appears to be reversing and should help support stronger U.S. inflation.

Emerging markets are likely to keep exerting some downward pressure on inflation, despite a noticeable rebound in economic activity. With Brazil and Russia exiting recessions and other commodity-sensitive emerging markets stabilising, the maximum disinflationary pressure is likely behind us, but recent experience shows that after a credit boom, deleveraging continues to pressure growth and usually prevents the return of inflationary pressures for years. China is, as usual, a big question mark. If our view of a resumption of the slowdown in China due to a trifecta of regulatory, monetary, and housing policy tightening is correct, further disinflationary pressures from this corner of the world could persist.

Overall, our conclusion is that cyclical inflationary pressures domestically are gathering force and disinflation from abroad is lessening and even reversing in developed markets.

What remains are slow-moving structural disinflationary forces, many of which, such as globalisation and technological innovation, are in the process of ebbing or even reversing. As ‘global factor price equalization’ has run its course, leading to the convergence of productivity-adjusted wages globally, global trade, which doubled from 30% of global GDP in 1975 to nearly 60% in 2007, has begun to stagnate.^(q) For example, China’s share of global exports has stopped growing after rising significantly in the 2000s. Increased protectionism will also dampen global trade and its disinflationary impact. In addition, price transparency brought about by e-commerce has helped keep goods prices in deflation until recently. But as e-commerce penetration has risen, recent research shows off-line and online goods prices have converged. It appears likely that additional gains in e-commerce share will not translate into further goods prices disinflation.

Another potentially inflationary long term factor is that most major economies are facing structural fiscal deterioration as social spending is poised to explode due to ageing. Historically, rising higher deficits and rising dependency ratios have tended to lead to accelerating inflation. And the rising populism brought about by high economic dissatisfaction in many major economies (e.g. stagnant real incomes over decades in the U.S., high inequality) is likely to result in increased fiscal spending. The eventual addition of fiscal expansion to the policy mix could be the spark that lights the tinder prepared by massive money printing by major central banks.

Net-net, cyclical inflationary forces are slowly rising domestically and in developed countries, while the structural disinflationary forces of the past 30 years are reversing. Despite all this, our models only forecast that core PCE inflation will reach 2% in early 2019. Until then, it appears that the Goldilocks regime of moderate growth with benign inflation (below the 2% threshold) will persist. There are, of course, many risks to this base case that we continue to track. Most of the obvious ones, such as a China slowdown or crisis, or a resumption of peripheral risks centering on Italy, tend to be deflationary, given the high level of debt in the world. However, we are also attuned to potential non-linearities in economic behaviour and outcomes, as the U.S. heads further into full employment, which could generate inflation surprises.

- (a) Source: MSIM Global Multi-Asset (GMA) Team analysis; Bloomberg LP.
- (b) Source: MSIM GMA Team analysis; Haver; U.S. Bureau of Labor Statistics; S&P 500; Congressional Budget Office
- (c) Source: MSIM GMA Team analysis; Datastream.
- (d) Source: Ibid.
- (e) Source: MSIM GMA Team analysis; Datastream; IBES (for the whole paragraph).
- (f) Source: MSIM GMA Team analysis; Haver.
- (g) Source: MSIM GMA Team analysis; Bloomberg LP.
- (h) Source: MSIM GMA Team analysis; IBES; Moody’s; Datastream; Valuations measured as combined Z-score of S&P 500 forward P/E (stocks), 1/Moody’s LT BBB Yield (investment grade bonds), primary residence rental yield (residential real estate).
- (i) Source: MSIM GMA Team analysis; Bloomberg LP; BAML Research; Datastream; Haver.
- (j) Source: Donald H. Rumsfeld, Defense Secretary under former President George W. Bush, used this phrase in a U.S. Dept. of Defense news briefing on February 12, 2002, to refer to facts that we “don’t know [that] we don’t know”.
- (k) Source: MSIM GMA Team analysis; Bloomberg LP; U.S. Bureau of Labor Statistics; Haver.

(l) Source: MSIM GMA Team analysis; Datastream.

(m) Source: GMA

(n) Source: MSIM GMA Team analysis; Bloomberg LP

(o) Source: MSIM GMA Team analysis; Haver; U.S. Federal Reserve Board of Governors.

(p) Source: MSIM GMA Team analysis; Bloomberg LP; Organization for Economic Cooperation and Development.

For further information, please contact your Morgan Stanley representative.

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