

Weekly Market Comment

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Aggregate global stock market returns over the last 3 years; Source: Bloomberg, 8 Feb 2018

Meteoric stock markets crash back to reality

After the prolonged period of calmly up-trending stock markets (see chart above) the market correction that occurred over the last 10 days was perhaps overdue and did not come entirely unexpected as regular readers will know. As I wrote in my stock market assessment email on Tuesday, many (us included) had anticipated and warned this might happen, but nobody to my knowledge had been able to predict when exactly it would happen, nor expected the vehemence and cause.

Now that the first dust is beginning to settle, it is becoming clear that stock markets began to wobble in the US when equity investors finally came to realise that the return of more normal levels of interest rates and yields are the inevitable consequence of consistently improving economic condition worldwide which had given them ever improving corporate profitability. This wobble, or slight increase in market volatility led to a chain reaction that was triggered by derivatives based retail investment products whose returns were tied to and geared around low levels of volatility. When volatility exceeded certain thresholds, they become forced sellers of stocks to cover their exposures, while all more fundamentally based (human) investors were unwilling to buy their excessive volumes, given how expensive stock had recently become (again see chart above – last 6 weeks).

What followed was what can only be described as a flash crash, given how quickly equity prices collapsed back to where they had been trading at the end of last year. At those levels, valuations were no longer as extended, which brought back the fundamentally driven buyers and resulted in a gradual stabilisation of markets. We have dedicated a separate article to the dissection of the causes of the flash crash, written by our market trading expert Sam Leary.

The difficulty investors now face is to decide what is likely to happen as a consequence of this violent dislodging of the previous trend order. Firstly, market earth quakes as we just experienced tend to be followed by further tremors as witnessed Thursday and Friday. Secondly, the eruption of market volatility can lead to a fundamental market reassessment by investors leading to a break from the previous trend and finally, the sell-off itself can create a negative feedback loop into the real economy, with the potential to disrupt the previous economic balance or trend.

The aftershocks should begin to recede over the coming 2 weeks, while the fundamental reassessment should lead to the insight that with valuation levels now once again closer to the historical norm, further upside can only come from corporate profit growth. The still ongoing quarterly earnings report season is showing earnings growing at +13.5%, which still provides plenty of upside potential and should mean that there is little reason to anticipate the coming of a bear market. Ideally, the market correction will have acted as a warning shot and see market dynamics return to a more sustainable path that is tied to the reality of actual earnings growth, rather than fantastic expectations of future profit growth on the back of assumed technological quantum leaps.

Unfortunately, there remains the possibility that the market upset creates a new economic reality in which the reduction of capital market driven liquidity, together with the already reducing central bank provided liquidity leads to an economic slowdown which sours capital markets more fundamentally.

At the moment we can observe two camps of forecasting approaches to evaluated the probabilities for the above. The first is trying to predict the near future by comparing the status quo with the most comparable historic precedent. The second group is applying a more fundamental approach of analysing the prevailing economic fundamentals in order to reach conclusions what might follow from here.

The first approach struggles, because quantitative monetary tightening has no historic precedent and 'next best' fits offer a vast array of possible outcomes. The fundamental analysis establishes that there are none of the usual warning signs for a turning over of the economic or indeed market environment, as there would normally be slowing corporate earnings, rising default levels or falling business sentiment. This leaves the uncertainty how the still somewhat fragile global economy and capital market environment will cope with interest rates and yields finally rising again after such a prolonged period of historically low levels.

In the Tatton investment team, we have relatively high conviction for our central case that the global economy is not going to slow materially or fall into a recession this year. However, we cannot be as certain how capital markets will trade from here in light of the end of the goldilocks environment of strong corporate profit growth and low cost of capital.

I am inclined to expect that once again, the further monetary and economic development will be characterised by far less radical shifts and changes than market debate has currently been spurred into predicting by the reawakened equity market volatility.

Despite our more defensive portfolio positioning in anticipation of a potential market correction have our portfolios lost some of their previously achieved returns. Sadly, this is unavoidable in order to capture the returns that are available to investors with some certainty over the longer term.

However, over the shorter term, and until the picture becomes clearer to merit any more fundamental portfolio repositioning, we will continue to utilise the trade execution timeliness the overlay funds in our managed portfolios provide us with to steer portfolios towards valuable investment opportunities as they always also arise when major market disruptions occur.

Accelerating pace of UK rate rises?

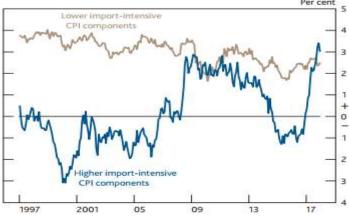
In our article on the UK last week, we commented that the Bank of England (BoE) faced a difficult balancing act on setting interest rates: raise too fast and they will compress consumer demand; raise too slowly and inflation will compress that demand for them. This week, the bank has jumped off the fence and (seemingly) come down on one side of the issue, nailing their hawkish colours to the mast.

Thursday saw the release of the BoE's quarterly inflation report, where the bank's Monetary Policy Committee (MPC) revealed that, under their current projections, "monetary policy would need to be tightened somewhat earlier and by a somewhat greater extent over the forecast period than anticipated" in order to get inflation back to their 2% target.

Back in November, when the MPC raised UK interest rates for the first time in over 10 years, governor Mark Carney indicated that a slow and steady approach to monetary tightening – with only two or three 0.25% rises over the next three years – should be expected. However, according to the bank's latest forecasts, that slow pace would see inflation persistently overshoot the target. To bring inflation back down to the target level over the next years, the MPC will therefore need to hike quicker than expected, if the economy does develop as they expect it to.

In a week which has been dominated by the almighty 'flash crash' wobble in equity markets – which many commentators believe was in large part a result of the tighter-than-expected outlook for global monetary policy – it might sound strange that the BoE is contemplating upping the pace. In fact, with the UK being one of the few major markets lagging behind the pack in the global economy's strong march forward, there was arguably even less pressure on the BoE to take a hawkish turn than the world's other central banks.

However, the BoE's hawkish outlook is precisely because they do expect growth – both global and in the UK – to be higher than anticipated back in November. The bank now expects the UK



CPI inflation by import intensity^(a)

Sources: ONS and Bank calculations.

economy to grow 1.7% this year, compared to the expected 1.5% back in November, and 1.8% in 2019, compared with a 1.7% expectation in November. What's more, the BoE expect UK growth to be lopsided towards demand "as growth in demand outpaces that of supply," creating a "small margin of excess demand by 2020".

The MPC acknowledges that the uptick in inflation over the past year came from the adjustment of import prices to the low value of sterling, an effect they expect to filter out sooner rather than later. However, what's changed from the November report is that they now expect domestic inflation pressures from the aforementioned excess demand to take over when the import inflation fades away. There's also the issue of oil prices, whose increase has meant that the short-term effects of higher import prices are now expected to last a little longer (both through oil itself and through its secondary effects on production and transport costs for goods).

Altogether, the BoE paints a picture of inflation above what they had anticipated, needing potentially larger measures to bring it in line. Over the past few years, the BoE has appeared to veer on the dovish side, seeming happy to let inflation overshoot the target in the near term rather than choke off positive growth dynamics. But, following governor Carney's comments last week, where he talked about a return to "a more conventional area for monetary policy", the bank now appears to have shifted the focus the other way, more concerned about falling behind the curve on inflation.

On the back of the report, markets are now pricing in an interest rate rise as early as May, where the previous expectation was November. This caused the value of sterling, which had already been on an upward trend lately (albeit largely on the back of dollar weakness), to spike higher. At the time of writing, the pound is at \$1.38 – still below the highs seen at the end of last month but in territory not seen since the referendum result in June 2016. The jump against the euro was equally large but, due to the general strength of the European currency, it's still well within the post-referendum range.

The bank admitted that exporters had benefitted from the low sterling value and that this had helped shore up growth, so one might naturally wonder what will happen to those exporters now that the value of sterling is increasing. Well, first of all, it's worth bearing in mind that, as mentioned, the main increase is coming against the dollar, while the sterling/euro exchange rate remains very low relative to recent history. And, given that the EU is our largest trading partner by some distance, the currency move's effect on British exporters shouldn't be too dramatic. But beyond that, the BoE seems to believe that any drop off in price competitiveness from a higher sterling would be compensated by the strong global growth scenario in their current forecasts. Strong global growth is a positive for British exports regardless of what happens to the currency.

Finally, with regards to the recent plunge in capital markets, Thursday's inflation report didn't have much to say on the issue. This is to be expected, considering that the data for the report was already finalised before markets swung down over the past week. They still think it's "too early" to tell what effects the equity slump will have, but pointed out that "notwithstanding recent volatility in financial markets, global financial conditions remain supportive". We agree with this sentiment, and don't think that the recent fall in equities is reflective of, nor likely to cause, a slowdown in the economy – UK or global.

The BoE's hawkish sentiment is a little unexpected, but it is yet another sign that global monetary policy is slowly coming back to the old normal – with more of a focus on controlling inflationary pressures than trying to stoke them. In the long run, that should be a good thing.

However, before we get ahead of ourselves, we should remember that central banks often use these communications to cause a reaction in capital markets which might effectively do their job for them. Clearly, in seeing more inflationary pressures through imported growth stimulus than before, they would want to keep their options open with regards to a May rate rise. That doesn't necessarily mean the bank will move in May, but that they want markets to be prepared for that eventuality. It's also possible that the MPC sees expressing hawkish sentiment as a way of driving up the value of sterling – thereby dampening import-inflation without having to actually raise rates. As such, we assign only a 50/50 probability to a May hike, but if the UK's economy returns to the positive upward momentum it displayed at the end of last year, then it is now looking far more likely.



A 'flash crash' post-mortem: volatility goes "bananas"

Who knew that mean reversion could feel quite so mean? But after a sustained upward surge in equity markets, falling back to trend was always going to be painful.

In the end, the overwhelming weight of volatility sellers finally broke the 'vol' market. This then bled through to equity markets, on which these vol indices (such as the VIX, which measures the expected volatility in the S&P 500) are based, manifesting as the large falls seen over the past week.

Essentially, the mass VIX ETPs (Exchange Traded Products both inverse and leveraged which in 2017 generated returns of 300% on the back of record low volatility), the huge growth of Risk Parity (systemic risk allocators) and momentum and quantitative (quant) traders all may have had a hand in Monday's violent equity market plunge, which has the hallmarks of a machine-driven vol short-covering 'flash' crash.

Perhaps it may mark the end of the era of record low volatility – one of the most crowded trades today – and a return to the trading patterns seen before the Global Financial Crisis.

Importantly, this crash was first and foremost a technical event brought about by investor positioning, and not one driven by deteriorating fundamentals, as is characteristic for the more worrisome market corrections. We note that it was the robustness of the global economic backdrop which led to a gradual normalising of interest rates and bond yields which many blame as the trigger for the initial sell off a week.

What caused the crash?

There has been much discussion about the cause of the crash. Most has focused on the possible upward pressure that a more aggressive US monetary policy (brought about by rising inflation expectations) could put on government bond yields and, subsequently, the compression of high valuation multiples that it could cause.

A higher risk-free rate (or discount factor) reduces the present value of future cash flows, possibly making valuation multiples like Price to Earnings (PE) seem excessively high. This resulted in the initial rational human-led fall in equities last Friday and then Monday in early trading.

US markets looked as though they would end the day around 1-2% lower. But, a sudden spike in the VIX (volatility index) unleashed the machine traders, causing the market to plunge dramatically to an intraday loss of nearly 7% in just a few minutes between 4-4:15pm NY time – all from a VIX spike.

These inverse VIX ETPs then became 'patient zero' and the epicentre of Monday's flash crash.

Why are VIX ETPs important then?

Despite their small market presence relative to the size of equities, their impact is significant for VIX pricing. If vol spikes, these products are economically driven to buy outsized amounts of 'vega' (see explanation below) or VIX futures to offset those spikes, which itself creates more volatility from additional supply from systematic funds.

Morgan Stanley estimates that an additional supply of up to \$35 billion of futures may become available for sale, which could create further downward pressure for spot equity markets.

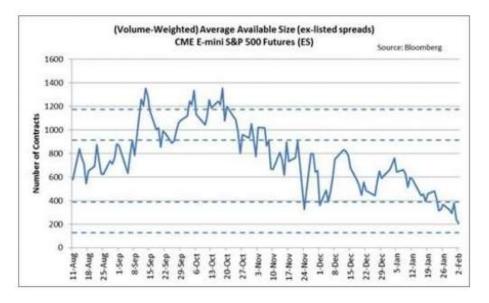
How does this relate to equity market falls?

As S&P500 futures (e-mini – the most liquid equity future in the world) started gapping lower, VIX futures or vega were aggressively bought. You can think of the e-mini and VIX future as operating inversely, because they are natural hedges that help offset increases in one versus the other. Vol tends to fall as equity markets rise and vice versa.

High volatility can also negatively impact equity prices via flows from systematic volatility-linked funds, investor confidence, and VAR-driven risk reduction (Value at Risk).

The equity market falls were then exacerbated by a lack of liquidity. Morgan Stanley noted that the available size in ES futures has been falling, practically drying up on Monday afternoon with average available size just a paltry 75 contracts between 3:30 and 4:00 pm (when market

movements were most noticeable) versus typical levels between 500 and 1000 seen during last year.



What is vega?

Vega is a relatively simple concept. It measures volatility risk and is expressed as dollars per volatility point. These contracts have a 1,000 multiplier, where each VIX contract equals 1,000, or for each point rise in the VIX future, the value of the contract changes by \$1,000. This means that losses can magnify relatively quickly.

The two largest such ETPs from Credit Suisse and Nomura operate on a rules-based system that mechanically rebalance daily, so a rise in vol means automatic buying of VIX to cover its short positions.

The terrifying 96% surge in 1-month VIX futures to 50 on Monday, the largest percentage spike ever recorded, required inverse VIX ETPs to short cover, thereby wiping out 96% of their net asset value (NAV). Meanwhile, the volatility index VIX shot up 1.7 fold (+170%) from around 16.8 to 45.7.

This activity caused "termination events" or the bankruptcy of the short-VIX ETPs, as they hurriedly bought around \$200 million of vega or VIX futures. These are the largest VIX futures purchases in history. The financial losses from the termination of short-VIX ETPs will amount to billions of dollars. Unfortunately, those losses will be felt by many retail investors who had bought them without truly understanding their downside risks, but attracted by their stellar returns while markets went through the eerie period of ultra-low volatility last year. One could almost draw comparisons to the rise and fall of Bitcoins.

Are market structure changes or are new investors responsible?

Today, almost anyone can easily buy and sell securities and derivatives, anywhere in the world via a simple smartphone 'app', allowing fashionable positions to become more crowded. This can increase the risk of reversal (mean reversion) if specific trades have extreme positioning – and short-VIX seems to have been just such a trade.

Beyond such retail investor influence, one of the biggest shifts in the classes of investors has been the rise of systematic or quantitative (quant) strategies. Quants use unemotional machines (algorithmic trading) to execute rules-based trades faster than it takes for a human to finish blinking their eye.

Market experts estimate that around 60-70% of all US trades are now quant-driven, changing the speed in which market events happen. The speed of Monday's falls are a case in point.

Of particular effect this past week would have been momentum traders (known as a CTA) and Risk Parity funds that try to equal weight the different risks between bonds and equities by leveraging up (i.e. using debt) fixed income investments to offer the same risk as an equity position.

While these types of investors have increased market liquidity, they also bring new potential risks with them, because machines know no reason and are unable to take a step back and conduct a bigger picture assessment of their investment rationale as humans can. This can lead to completely counter intuitive market timing and lead to very crowded trades, which with their application of leverage on top, can magnify both gains and losses.

What happens next?

The termination of short VIX ETPs, the primary drivers behind Monday's moves, have now left the market, it has become unlikely that another such volatility-driven market plunge will occur in the short term.

However, it is possible that we will get some follow through over the next few weeks, in the form of a potential de-risking of VAR-based models as they "gross down". There could also be a further rebalancing of CTAs and Risk Parity funds by reducing risk to account for a re-pricing of realised vol, leading to weaker equity markets.

For now, the addition of these new classes of investors (primarily quant) suggests that traditional price discovery mechanisms, where humans have a notion of value or something's intrinsic worth, have at least during certain periods, been destroyed by machines.

Unfortunately, some investors, punting for the same quick win as Bitcoin buyers have learnt a harsh lesson. Volatility trading may seem like an easy way to make money, but just as with any derivative based investment, unless the buyer is aware of the potential leverage involved and change dynamics involved, the downside risks can be immense and come about extremely sudden.

Positive ESG Screening – Ethical investing with two return dimensions

Ethical and sustainable investing is a strategy used by socially conscious investors who want to limit the damaging impact the economy can have on our surroundings. Traditionally, ethical investing took the form of strict negative screening in which 'sin screens' were applied to an investment universe in order to restrict exposure to certain industries such as alcohol, gambling or tobacco. Negative screening guarantees that an investor will have zero or minimal exposure to certain unethical industries and therefore won't be funding tobacco companies to produce cigarettes, for example (generally funds have exposure thresholds of between 0% to <20% of revenue earned from said industries).

On the other end of the ethical investment spectrum is impact investing – the approach of investing in projects that directly aim to improve a specific factor, such as funding wind farms or organic food producers. Impact investing is a relatively new investment strategy which aims to gain ethical exposure to specific environmental or social projects. Generally, these projects aren't diverse or common enough to enable an ethically minded investor to create a broadly diversified, balanced portfolio.

One of the downsides to the negative screening approach is that it paints with a very broad brush. One could argue that simply ignoring certain industries and pushing them to one side doesn't represent a viable solution to tackling the issues we face in this day and age. On the other hand, impact investing only addresses a handful of industries, and to think that ethical investors have the power to revolutionize the world overnight and solve environmental and social issues may be overly ambitious. Investors can often have a bigger impact if they take a proactive approach to tackling issues of sustainability, rather than being inactive in certain industries. The bigger impact that investors can have is by engaging with companies that currently exist, pressurizing them to adopt more considerate Environmental, Social and Governance (ESG) standards.

In-between impact investing and negative screening is where positive Environmental, Social and Governance (ESG) investing is found. Often an area whose importance is overlooked, taking ESG factors into consideration can potentially lead to higher investment returns without constraining portfolio diversification, such as can occur in strictly negatively screened portfolios. Positive ESG investing is focused on developing a greater collective 'voice', pressurizing companies to address and improve their ESG standards. This strategy allows investors to be proactive in addressing unethical issues rather than simply sweeping them under the carpet and ignoring them in the hope that they will resolve themselves. Furthermore, engagement with companies on ESG issues is now starting to gain recognition not just in ethical funds, but also more traditional strategies.

One doesn't have to look far to read about the importance of tackling the issues that surround us. In January, Theresa May vowed to "eliminate avoidable plastic waste by the end of 2042 as part of a UK government crackdown on disposable items that are damaging the environment". This follows the introduction of the 5p plastic bag charge (October 2015), which was introduced in an attempt to reduce our plastic waste. And, this month, we have seen several supermarkets, most recently Morrisons, ditching 5p carrier bags in favour of the 10p 'bag for life' as a measure of plastic waste control. Is this the beginning of the 'plastic bag price war' we have become accustomed to with supermarket fuel prices in an attempt to comply with the ever-pertinent government recognition of damaging practices? It's hard to say but, whatever the case, it shows an increasing awareness of the need to consider these factors in order to protect our environment.

To relate this back to the investment world, one of the Tatton Ethical portfolio holdings (Kames Global Sustainable Equity) invests in a company called Mohawk. Mohawk, an American company, is the largest recycler in the flooring industry. They began business as a flooring manufacturer but, noting the need to improve their environmental standards, they realised they could recycle old carpets and plastic bottles to provide the raw materials rather than buying new plastic. That recycling arm grew to the extent that they're now responsible for c.20% of all bottles recycled in the U.S. Further still, they now produce enough recycled nylon to enable them to have a viable business arm selling nylon pellets to car parts manufacturers. Consequently, by investing in a positively screened ethical portfolio, investors are able to proactively challenge companies to take

the same consideration for ESG factors as Mohawk have and, in doing so, become part of a wider sustainable and socially responsible revolution.

It comes as no surprise that we find ourselves following in the footsteps of our Nordic compatriots, who hold a very stern position on recycling. Furthermore, it's interesting to note that these Nordic nations are one of the primary drivers of Ethical/ESG investing, with ESG considered strongly in most investment strategies. However, has the UK joined the party a little too late? The clear growth in ESG consideration is undeniable and it is an area which continuously is getting more thought put in to it.

As stated in the last ethical article we wrote (8th September 2017): Embedding ESG criteria into one's investment process "has to be a good thing for our planet and social cohesion, if ESG is promoted from niche to mainstream and capital is increasingly allocated towards activities which should help to keep our planet in a shape and format that future generation find as habitable as we do now". Investors in ethically defined investment strategies can proactively help towards reducing environmentally and socially damaging practices while ensuring companies uphold strong corporate governance. However, the most effective manner to achieve these goals in our view is by proactively incorporating ESG into investments. Rather than simply excluding certain industries and turning a blind eye to the wider issues surrounding us and future generations, ESG investing combines the virtues putting one's savings towards a better future of our planet while at the same time generating the necessary returns for one's own future.

PERSONAL FINANCE COMPASS

Global Equity Markets

MARKET	CLOSE	% 1 WEEK	1 W	TECHNICAL
FTSE 100	7088.9	-4.8	-354.6	Ľ
FTSE 250	19198.7	-3.8	-763.8	R
FTSE AS	3900.7	-4.6	-186.0	Ľ
FTSE Small	5639.5	-3.1	-182.6	R
CAC	5063.5	-5.6	-301.5	Ľ
DAX	12083.3	-5.5	-701.8	Ľ
Dow	23913.5	-6.3	-1607.5	Ľ
S&P 500	2577.9	-6.7	-184.2	Ľ
Nasdaq	6345.7	-6.1	-414.6	Ľ
Nikkei	21382.6	-8.1	-1891.9	N

Global Equity Market - Valuations

MARKET	DIV YLD %	LTM PE	NTM PE	10Y AVG
FTSE 100	4.1	19.9x	13.5x	17.1x
FTSE 250	2.8	17.2x	13.8x	17.0x
FTSE AS	3.9	18.8x	13.6x	16.7x
FTSE Small	3.1	10.6x	-	-
CAC	2.9	16.8x	14.0x	15.6x
DAX	2.6	16.5x	12.6x	15.7x
Dow	2.0	21.7x	16.0x	15.3x
S&P 500	1.8	21.9x	16.4x	17.6x
Nasdaq	1.0	25.5x	19.4x	20.3x
Nikkei	-	-	-	-

Top 5 Gainers		Top 5 Losers	
COMPANY	%	COMPANY	%
COMPASS GROUP	2.8	RANDGOLD RESOUR	-14.5
DIRECT LINE INSURAN	1.8	G4S	-9.5
ADMIRAL GROUP	0.1	SCHRODERS	-9.1
KINGFISHER	0.1	STANDARD LIFE ABER	-9.0
PADDY POWER BETF	-0.6	SAGE GROUP /THE	-8.7

Currencies Commod			dities		
PRICE	LAST	%1W	CMDTY	LAST	%1W
USD/GBP	1.38	-2.17	OIL	63.5	-7.4
USD/EUR	1.22	-1.76	GOLD	1315.2	-1.4
JPY/USD	108.68	1.37	SILVER	16.3	-1.9
GBP/EUR	0.89	-0.48	COPPER	304.1	-4.6
CNY/USD	6.30	-0.03	ALUMIN	2170.0	-2.5

Fixed Income

GOVT BOND	%YIELD	% 1W	1 W YIELD
UK 10-Yr	1.59	0.5	0.01
US 10-Yr	2.84	-0.2	0.00
French 10-Yr	0.98	-3.5	-0.04
German 10-Yr	0.74	-3.1	-0.02
Japanese 10-Yr	0.07	-23.3	-0.02

UK Mortgage Rates

MORTGAGE BENCHMARK RATES	RATE %
Base Rate Tracker	2.3
2-yr Fixed Rate	1.5
3-yr Fixed Rate	1.7
5-yr Fixed Rate	2.0
Standard Variable	4.29
Weighted Average Interest Rate (BoE)	1.5
Nationwide Base Rate	2.50
Halifax Standard Variable	3.99

* LTM = last 12 months' (trailing) earnings; **NTM = Next 12 months' estimated (forward) earnings

For any questions, as always, please ask!

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The value of your investments can go down as well as up and you may get back less than you originally invested.

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