

*With commentary from David Stevenson*



Happy new year! I think we can all agree that 2018 was one of those years best left forgotten - especially the last, torrid quarter. As we discuss later in this report (when we discuss volatility), there is some evidence that US equity market volatility spiked to extremely worrying levels over the last few months, on an intraday basis at least. I would argue though none of us should have been terribly surprised by the turbulence. Equity markets were looking more than a tad expensive, central banks are tightening like crazy (the subject of another section of this report) and the Trump Put looks like it might be beginning to lose some of its lustre as he doubles down on the face off with China.

But I also think that the fear (and loathing) can be over played. Obviously, equity markets are in effect exquisitely tuned forecasting machines - with a near perfect record (!) - and even my 84 year old mother could forecast that we are due a recession. But the hard facts, as they stand at the moment at least, is that the US economy is in good shape and the US Federal Reserve is likely to blink before thrusting the US into a slowdown. The Asian central banks, and especially the PBoC is likely to get more active in 2019, and thus we could see a recovery in sentiment. The big graphic below is from the Cross Asset research team at Morgan Stanley and acts as a nice summary of where valuations are at the moment. All things being equal - a very dangerous phrase I admit - global equities look cheaper although corporate credit arguably looks less enticing. The stand out statistic is that the all world MSCI index is trading on a forward PE of 12.9, well down on this time last year when it was at 16.7 times earnings - Morgan Stanley analysts reckon "cheap" on a twenty year time frame is around 11 times forward earnings.

The problem of course with being mildly positive is that its currently hard to see any obvious positive catalysts apart from the abject surrender of the US Federal reserve and its policy of 'normalisation'. On that subject my best guess is that we'll probably see two more rounds of interest rate increases and then the Fed will stop and watch and wait. Maybe a massive stimulus by the PBoC might be the thing that's needed for the global economy to pick up pace. I would also argue that cheaper oil is also a much-needed tonic and in the UK we may even start to adjust to a post Brexit future (or at least that's the hope by mid-summer). So, there are reasons to be moderately cheerful, even if we are late in the global business cycle. But there's a catch. Any upside potential is unlikely to be huge and the downside risks as we peer into 2020 and 2021 are obvious and hard to miss - too much global debt, greater risk of a US/China confrontation, Eurozone wobbles. One last hurrah perhaps?

---

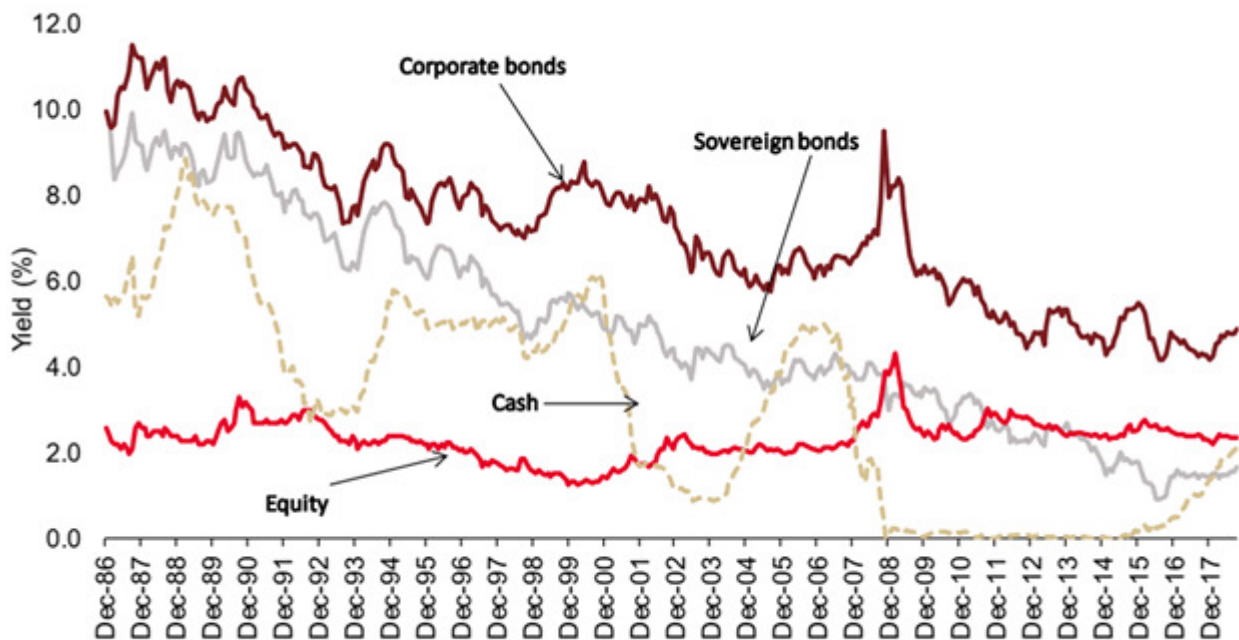
## Contents

- [Headline numbers](#)
- [CDS Rates](#)
- [Government Bonds](#)
- [Equity Markets and Dividend Futures](#)

- Volatility
- Summary of Pricing Impact on Structured Products
- Explanation of Terms

## Headline Numbers

The chart below I think tells the single greatest story of the last decade, namely the compression of yields. The chart itself comes from the latest updated Income investing research pack by French bank SocGen, and their quant team. The incredible shrinking yield from cash through to corporate credit also, of course, helps explain why so many sophisticated investors are keen to put their money to work in structured products. The only fly in the ointment of course is the line which shows cash, where the yield (in the US at least) is rising. I've also noticed that the UK savings rate on the High Street has become much more competitive since the emergence of Marcus, Goldman Sachs online bank. It's not uncommon now to find instant and short term dated accounts offering between 10.25 and 1.75% with fixed rate products above this level. Once we see cash rates move above 3% - a long way away from where we are now - maybe we could see a new structural shift back towards risk free assets. But for now, the scramble for yield remains a priority for many investors.



Source: SG Cross Asset Research/Equity Quant, Thomson Financial Datastream

To this lay observer, it seems obvious that the global financial system has become addicted to not only low-interest rates but also to the constant balance sheet interventions of quantitative easing. In a sense, this addiction is almost physical. Cross Border Capital, a London based research house, argues that collectively central banks have "an outsized-effect in deregulated financial systems, where retail deposits are not the sole funding source because what matters most is the ability to re-finance positions and at the margin, Central Banks are the marginal suppliers of liquidity."

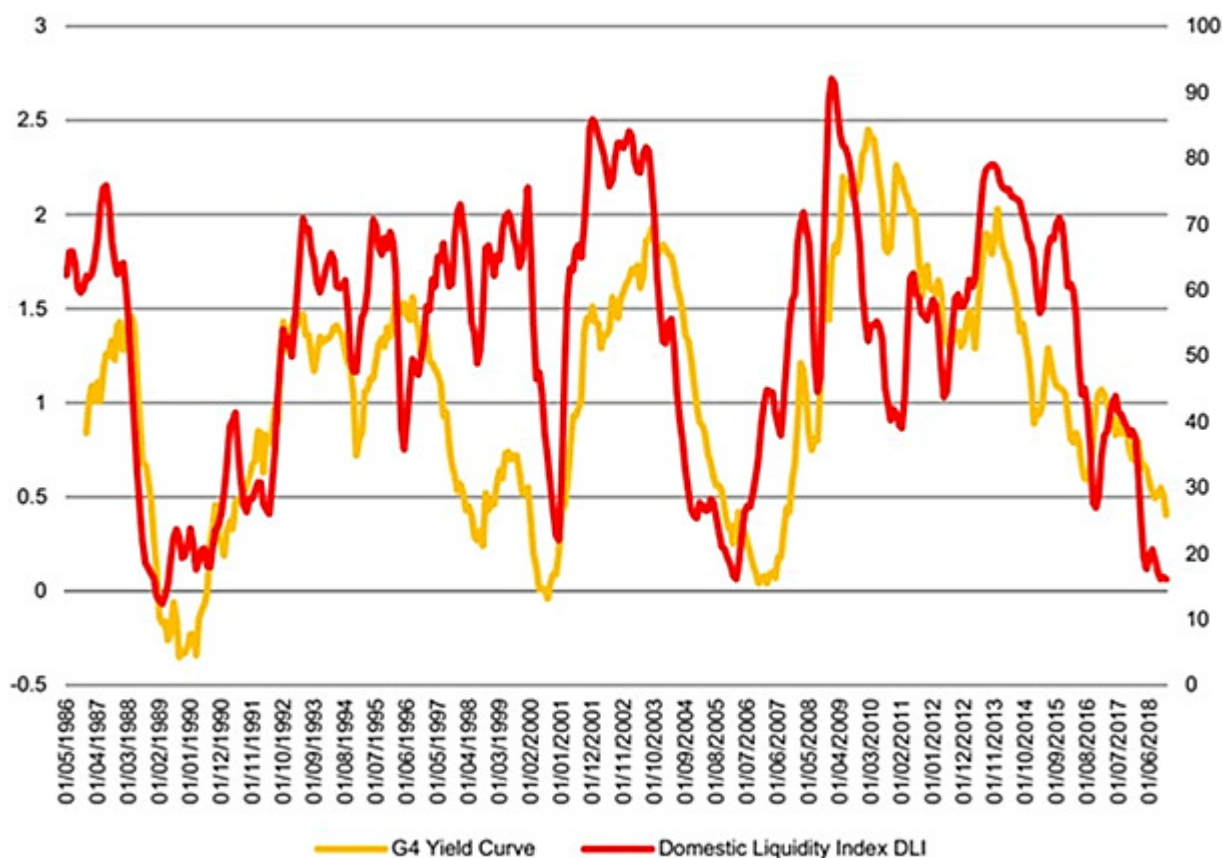
So, in a very practical sense, the global commercial position is addicted to liquidity provision by banks, not at the margins but within the core of financing. This all matters because the US Federal Reserve

provides the central pump/valve, or should we say spigot that provides liquidity to the global financial system. As this liquidity mechanism begins to falter or constrict, it's reasonable to assume that the rest of the world will follow, if only through the transmission system provided by dollar liquidity. Which is precisely where we are now - the primary liquidity system is now tightening at a surprisingly fast rate, largely because the US Fed is trying to shrink its balance sheet. On its own, the global financial system could survive this 'tightening' but other central banks such as the ECB and the BoJ are also tightening at the same time. This is, in turn, having a chilling effect of dollar-denominated liquidity for emerging market banks and borrowers. And, according to Cross Border, there is one final additional source of fiscal tightness to reckon with - a regulatory and legislative "onslaught against the Eurodollar /offshore wholesale markets".

Combine these all together and we have the mother of global liquidity squeezes at the moment. According to Cross Border since the end of January 2018, world private sector liquidity has fallen by some US\$3 trillion, with roughly two-thirds of the drop coming from the Developed Economies. Global Central Bank liquidity has fallen by another US\$1.1 trillion, with two-thirds of its drop recorded in Emerging Markets."

The chart below from Cross Border nicely sums up the current situation as regards domestic liquidity in the G4 economies. This a major red light for investors and one that needs careful monitoring. I'm inclined to agree with Cross Border Capital that the odds must be growing now for a major policy easing in 2019, with central banks working alongside the PBoC as the main catalyst for liquidity.

**G4 Yield Curve and Global Liquidity**  
1986-2018



**Source**

CrossBorder Capital, US Federal Reserve, People's Bank of China, Bank of Japan, ECB, Bank of England, IMF

| Measure                         | Values as of 17th December, 2018 | Values as of 14th January, 2019 |
|---------------------------------|----------------------------------|---------------------------------|
| UK Government 10 year bond rate | 1.24%                            | 1.26%                           |
| GDP Growth rate YoY             | 1.55%                            | 1.50%                           |
| CPI Core rate                   | 1.90%                            | 1.80%                           |
| RPI Inflation rate              | 3.30%                            | 3.20%                           |
| Interest rate                   | 0.75%                            | 0.75%                           |
| Interbank rate 3 month          | 0.85%                            | 0.85%                           |
| Government debt to GDP ratio    | 85.30%                           | 85.30%                          |
| Manufacturing PMI               | 53.1                             | 54.2                            |

[Back to menu](#)

## Bank CDS options

After the big repricing of the last few months, one might have expected that pricing for bank credit default swaps would have steadied or even declined at the start of the year. Sadly that isn't the case. Pretty much every bank captured in this survey recorded increased pricing for its CDS options over the last four weeks. The only exception? Royal Bank of Scotland which saw a marginal decline in pricing for its 1 year swaps. Overall, this specialised market is warning us that risk is still elevated and that concerns over the fragility of the global banking sector haven't entirely evaporated.

| Bank                 | One Year | Five Year | Monthly Change (5yr) | Annual Change (5yr) | Credit Rating (Fitch) |
|----------------------|----------|-----------|----------------------|---------------------|-----------------------|
| Banco Santander      | 28.43    | 81        | 34.18                | 92.84               | A -                   |
| Barclays             | 53.39    | 96.82     | 2.33                 | 123                 | A                     |
| BNP Parabis          | 31.8     | 74.1      | 6.2                  | 212                 | A                     |
| Citigroup            | 34.42    | 82.14     | 186                  | 110                 | A                     |
| Commerzbank          | 46.64    | 124       | 15.41                | 129                 | A+                    |
| Credit Suisse        | 47.80    | 108       | 8.15                 | 123.44              | A                     |
| Deutsche Bank        | 140.93   | 204       | -4.17                | 191                 | A+                    |
| Goldman Sachs        | 43.37    | 105       | 10.25                | 111.26              | A                     |
| HSBC                 | 22.46    | 50.13     | 8.85                 | 154                 | AA-                   |
| Investec*            | n/a      | 81        | n/a                  |                     | BBB                   |
| JP Morgan            | 28.26    | 65.01     | 6.36                 | 76                  | A+                    |
| Lloyds Banking Group | 28.39    | 75.02     | 9.05                 | 119                 | A                     |
| Morgan Stanley       | 38.34    | 92.2      | 13                   | 89                  | A                     |
| Natixis              | 28.05    | 60.55     | 26.84                | 130                 | A                     |
| Nomura               | 21.59    | 61.87     | 16.7                 | 32                  | A-                    |

|                     |       |       |      |     |     |
|---------------------|-------|-------|------|-----|-----|
| Rabobank            | 13.5  | 40.48 | 4.9  | 98  | AA- |
| RBC*                | 19.56 | 55.45 | -1.7 | n/a | AA  |
| RBS/Natwest Markets | 58.79 | 130   | 2.92 | 165 | A   |
| Soc Gen             | 32.97 | 74.86 | 5.12 | 204 | A   |
| UBS                 | 25.42 | 47.7  | 2.7  | 144 | A   |

Source: [www.meteoram.com](http://www.meteoram.com) 9th January 2019

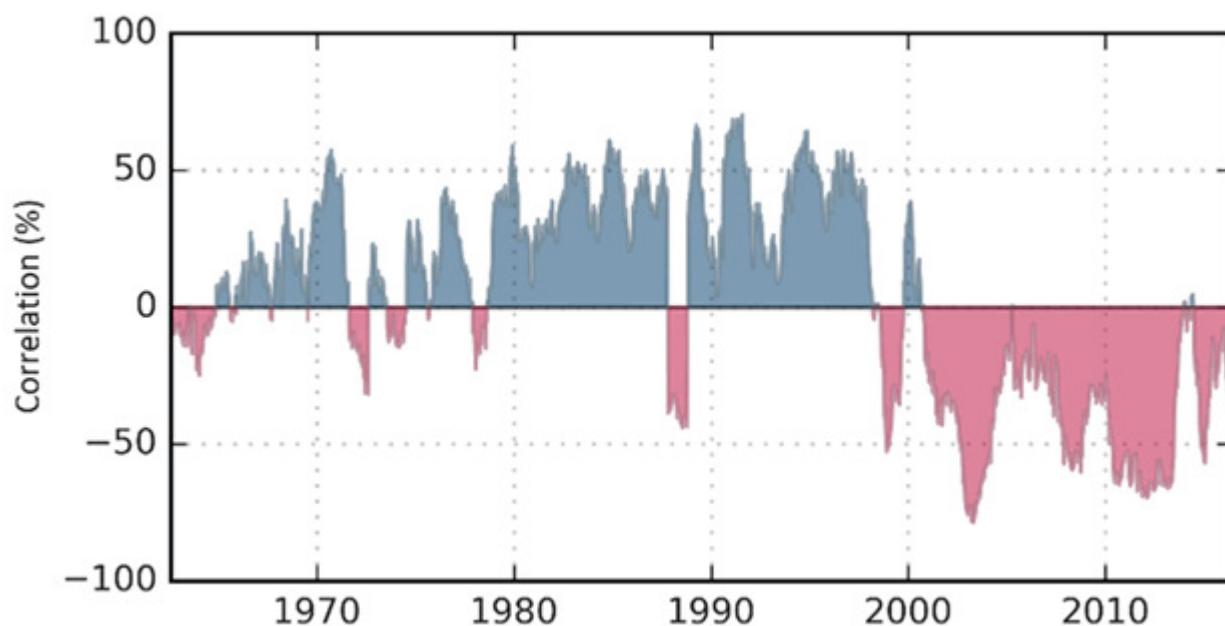
\*Model implied CDS rate is the 5 year model CDS from the Bloomberg Default Risk function

[Back to menu](#)

## Government Bonds

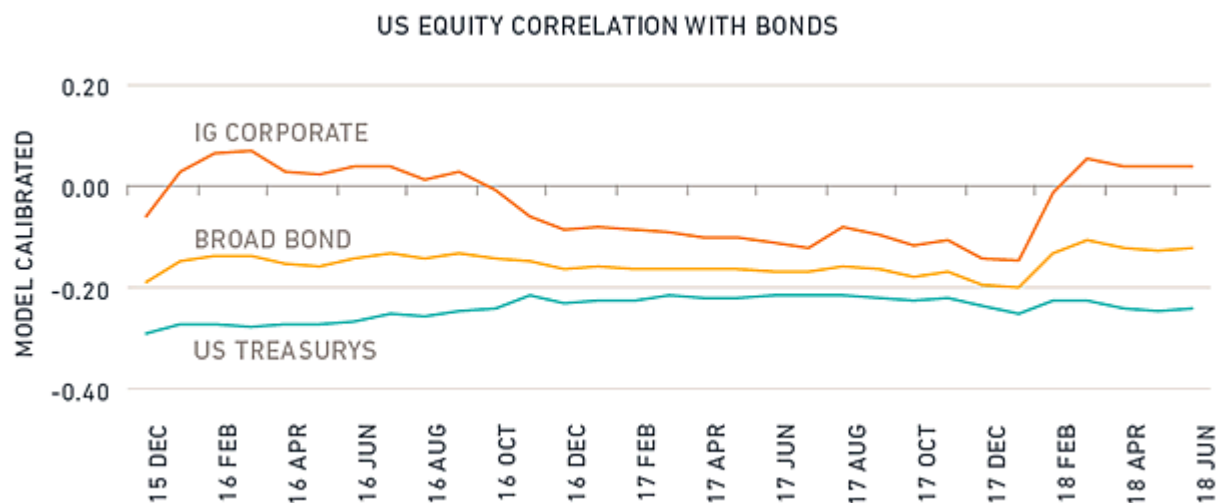
### Fixed Income

Do bonds provide real diversification benefits for investors? The theory is that for most equity investors bonds provide upside potential when equities are skittish. The first chart below is from [hedge fund Winton Capital](#). It shows that over the last 50 years the correlation between equities and bonds varies. In recent times, returns have been negatively correlated - especially since the late nineties - but it hasn't always been the case. According to Winton, before January 1998, the average correlation was positive with a value of 24%; afterwards, this figure dropped to -35%.



The good news is that in recent months, bonds have been sticking to their recent trend - and provided equity investors with negative correlation. The chart below is from a recent report by index firm MSCI and shows that the correlation between equities and U.S. Treasury's has moved within a narrow band over the past several years; it currently stands at -.24 as of this writing. But MSCI also observes that a broader measure of the U.S. bond market — which includes not only government bonds but also bonds issued by corporates and mortgage-backed securities — has shown a "small increase in the correlation

but it continued to be negative (at -.12). An increase in the correlation of equities and corporate bonds drove this change as corporate spread volatility rose and spreads widened during the equity selloff. "



### UK Government Bonds 10-year Rate 1.26%



Source: <http://www.tradingeconomics.com/united-kingdom/government-bond-yield>

### CDS Rates for Sovereign Debt

| Country        | Five Year |
|----------------|-----------|
| France         | 39.15     |
| Germany        | 14.7      |
| Japan          | 23.4      |
| United Kingdom | 40.08     |
| Ireland        | 42.82     |
| Italy          | 222.3     |

|          |       |
|----------|-------|
| Portugal | 90.78 |
| Spain    | 82.11 |

### Eurozone peripheral bond yields

| Country        | December 2018 | January 2019 | Spread over 10 year |
|----------------|---------------|--------------|---------------------|
| Spain 10 year  | 1.41%         | 1.42%        | 121                 |
| Italy 10 year  | 2.94%         | 2.83%        | 262                 |
| Greece 10 year | 4.25%         | 4.29%        | 408                 |

|                | S&P Rating |          | Moody's Rating |          | Fitch Rating |
|----------------|------------|----------|----------------|----------|--------------|
| Germany        | AAA        | Stable   | AAA            | Negative | AAA          |
| United Kingdom | AAA        | Negative | AA1            | Stable   | AA+          |
| United States  | AA+        | Stable   | AAA            | Stable   | AAA          |

[Back to menu](#)

## Equity Markets and Dividend Futures

The numbers for the full year 2018 keep rolling in but I think it is worth dwelling on reported numbers coming from S&P Dow Jones Howard Silverblatt. He's been looking back on the numbers coming through for the bell weather index, the S&P 500, and it has to be said that overall corporate earnings, sales and dividends look to be in good shape. Lets' start with earnings. For Q3 2018 where reporting which has now finished, 382 of the 497 reported issues beat their operating earnings estimates, 75 missed them and 40 met expectations. On the sales front, 302 of the 494 issues beat sales expectations, as they set a new record, posting a 2.0% gain over Q2 2018 and up 10.7% over Q3 2017. Looking at the early run of numbers for last quarter (4) of 2018, 13 have so far beat their estimates, 2 have missed and 2 met, with 8 of the 17 beating on sales. Overall according to Silverblatt, "the Q4 2018 estimate is expected to decline 2.3% (up 19.4% year-over-year), as full-year 2018 operating earnings are expected to post a 26.1% gain over 2017 (with taxes getting most of the credit), while 2019 estimates are pointing to a 9.4% gain over 2018."

Two last stand out numbers. According to S&P Dow Jones, Q3 2018 buybacks set a record at USD 203.8 billion (USD 446 billion for the 12-month period). Equally impressive, Q4 2018 dividends set a record at USD 119.8 billion and an annual record of USD 456.3 billion (versus USD 419.8 billion for 2017), supported by savings from lower taxes. The table below shows that overall the average dividend increased by 13.48% in 2018, the best number since 2014 but well down on the numbers following the global financial crisis.

### S&P Indicated Dividend Rate Changes

(median and average exclude issues which have at least doubled)

|      | <b>MEDIAN</b>   | <b>AVERAGE</b>  | <b>DOUBLED</b> | <b>SUSPENDED</b> |
|------|-----------------|-----------------|----------------|------------------|
|      | <b>INCREASE</b> | <b>INCREASE</b> |                |                  |
| 2018 | 10.06%          | 13.48%          | 8              | 0                |
| 2017 | 8.70%           | 11.36%          | 4              | 2                |
| 2016 | 8.20%           | 10.51%          | 2              | 2                |
| 2015 | 10.00%          | 13.08%          | 3              | 3                |
| 2014 | 11.11%          | 17.50%          | 8              | 1                |
| 2013 | 11.76%          | 20.38%          | 19             | 0                |
| 2012 | 12.50%          | 20.20%          | 14             | 1                |
| 2011 | 14.29%          | 26.46%          | 27             | 0                |
| 2010 | 10.00%          | 17.94%          | 10             | 2                |

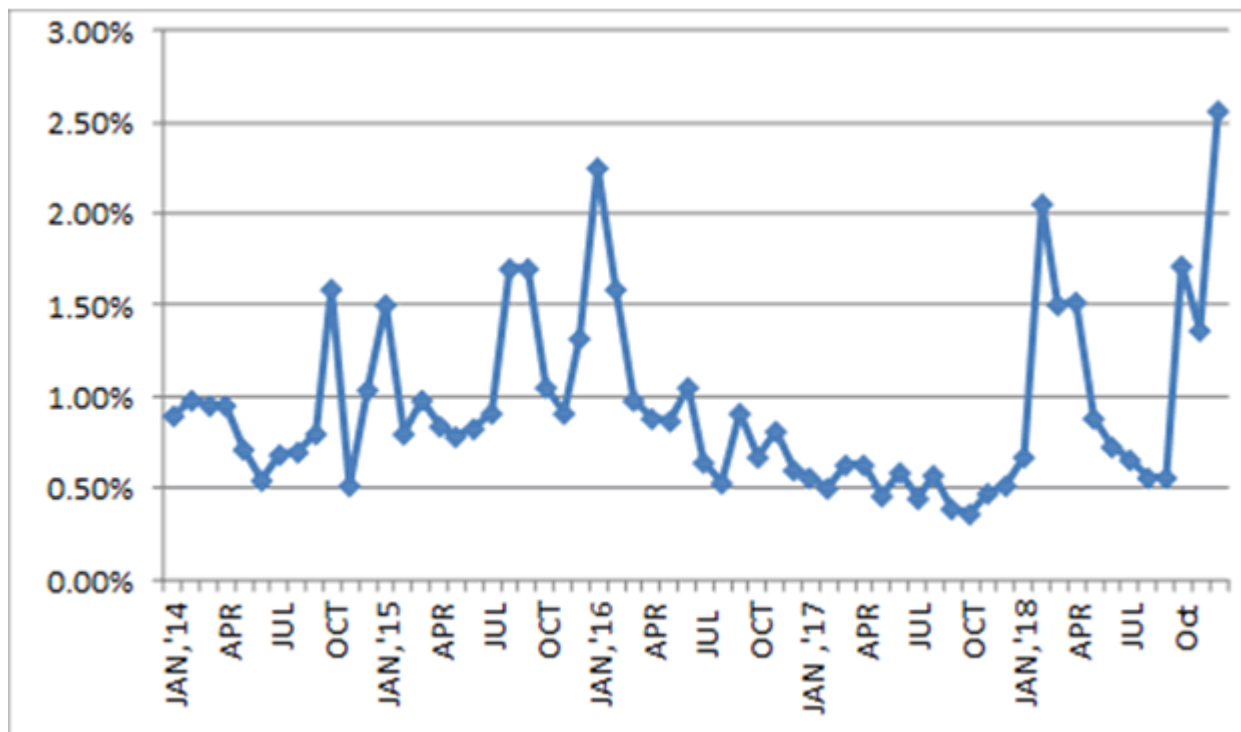
| Name                            | Price % change |        |        |      |      |      | Close |
|---------------------------------|----------------|--------|--------|------|------|------|-------|
|                                 | 1 mth          | 3 mths | 6 mths | 1 yr | 5 yr | 6 yr |       |
| FTSE 100                        | 0.05           | -2.1   | -10.6  | -12  | 1.21 | 12.2 | 6849  |
| S&P 500                         | -1             | -7     | -8     | -7.6 | 40   | 75   | 2574  |
| iShares FTSE UK All Stocks Gilt | 0              | 2.64   | -0.2   | 0.36 | 16.4 | 12.2 | 13.13 |
| VIX New Methodology             | -15            | -14    | 49.3   | 79   | 48   | 34.5 | 18.19 |

[Back to menu](#)

## Volatility

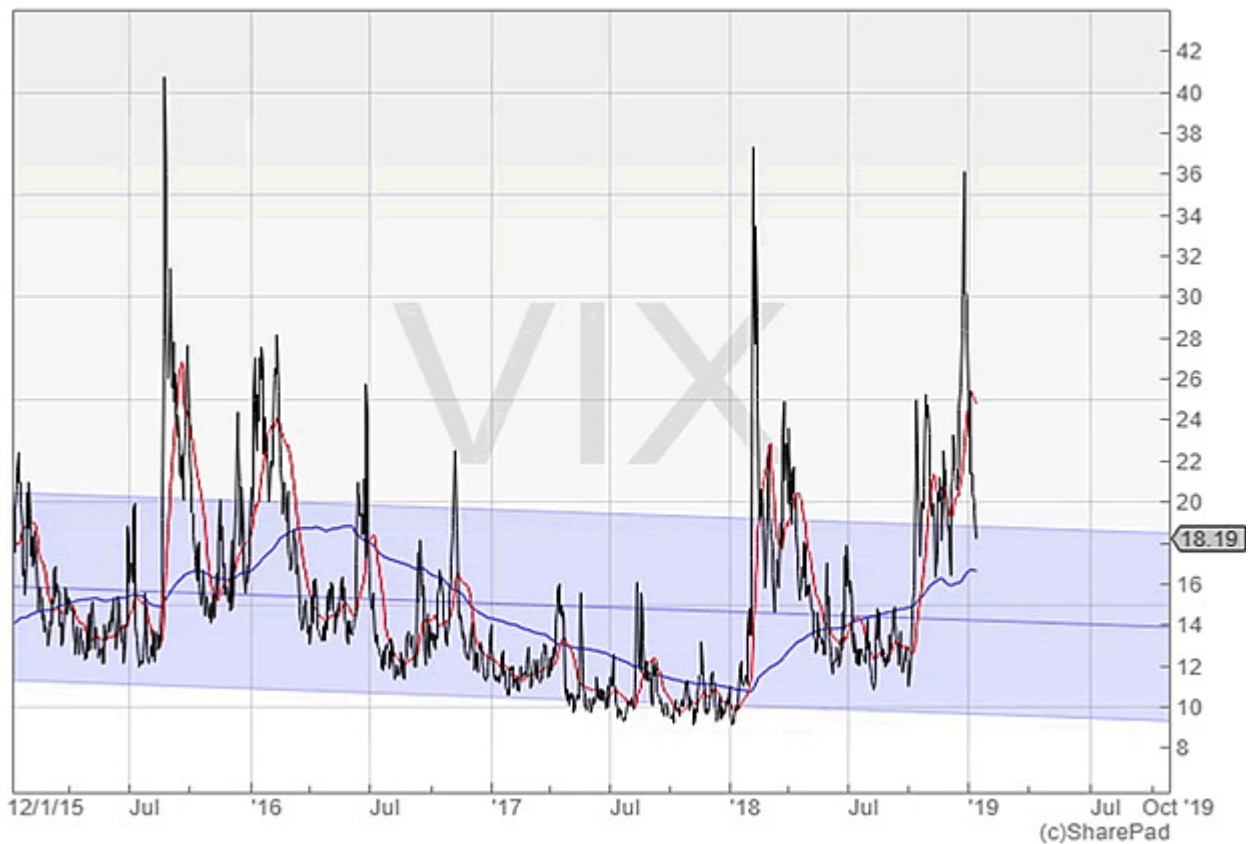
S&P Dow Jones numbers for 2018 tell an intriguing story as regards intraday volatility (daily high/low) for US equities. This measure shot up to 2.56% in December (November 2018 was at 1.37%) and was 1.21% overall for 2018, up from 0.51% for 2017 (which was the low from 1962, when S&P DJ's data starts; the average is 1.43%). The chart below tells this story of volatility peaking sharply towards the end of 2018.





The big table below digs deeper into this story of intraday volatility. On average there were 16 days in 2018 where the intraday vol was more than 3%, well above the average since 2009 of 10.4 days. There were five days where intraday vol was above 4% - 2011 boasted 10 such days. Looking at longer term numbers, since 1962 we should have expected an average of 10 days where the S&P 500 moved by more than 3%, 3 where the index moved more than 4% and 1.5 days where moves of 5% or more were expected. Thus, intraday volatility seems to be moving back closer to the longer-term average which is I think mildly re-assuring, as financial markets might be starting to 'normalise' again. Great news unless you are a super bull - if we can live with "normal" market volatility, there's a decent chance that we might just avoid a future market sell off on the massive scale of 2008/9.

| <b>S&amp;P Dow Jones Indices</b> |              |             |             |            |            |
|----------------------------------|--------------|-------------|-------------|------------|------------|
| <b>Daily High / Low spreads</b>  |              |             |             |            |            |
| <b>H/L Spread</b>                | <b>1%</b>    | <b>2%</b>   | <b>3%</b>   | <b>4%</b>  | <b>5%</b>  |
| <b>Avg fr 2014</b>               | <b>81.0</b>  | <b>17.6</b> | <b>5.4</b>  | <b>1.4</b> | <b>0.4</b> |
| <b>Avg fr 2009</b>               | <b>114.0</b> | <b>32.1</b> | <b>10.4</b> | <b>3.4</b> | <b>1.3</b> |
| <b>Avg fr 1977(me)</b>           | <b>142.5</b> | <b>38.1</b> | <b>9.7</b>  | <b>3.6</b> | <b>1.9</b> |
| <b>Avg fr 1962</b>               | <b>169.2</b> | <b>43.4</b> | <b>9.9</b>  | <b>3.0</b> | <b>1.5</b> |
| <b>2018</b>                      | 110          | 38          | 16          | 5          | 1          |
| <b>2017</b>                      | 10           | 0           | 0           | 0          | 0          |
| <b>2016</b>                      | 87           | 20          | 5           | 0          | 0          |
| <b>2015</b>                      | 119          | 19          | 6           | 2          | 1          |
| <b>2014</b>                      | 79           | 11          | 0           | 0          | 0          |
| <b>2013</b>                      | 70           | 6           | 0           | 0          | 0          |
| <b>2012</b>                      | 122          | 12          | 0           | 0          | 0          |
| <b>2011</b>                      | 170          | 68          | 24          | 10         | 5          |
| <b>2010</b>                      | 157          | 43          | 11          | 1          | 1          |
| <b>2009</b>                      | 216          | 104         | 42          | 16         | 5          |
| <b>2008</b>                      | 228          | 133         | 75          | 49         | 34         |



| Measure          | January Level | December Level | November Level | October Level |
|------------------|---------------|----------------|----------------|---------------|
| Vstox Volatility | 18.43         | 19.16          | 16.63          | 19.96         |
| VFTSE Volatility | 17.52         | 17.30          | 15.5           | 16.45         |

[Back to menu](#)

## Summary of Pricing Impact on Structured Products

| Pricing Parameter                     | Change | Impact on Structured Product Price  |
|---------------------------------------|--------|---|
| Interest Rates                        | Up     | Down  |
| Underlying Level                      | Up     | Up (unless product offers inverse exposure to the underlying)   |
| Underlying Volatility                 | Up     | Down for capped return/fixed return/capital at risk products.<br>Up for uncapped return/capital protected products. |
| Investment Term                       | Up     | Down  |
| Issuer Funding Spread                 | Up     | Down  |
| Dividend Yield of Underlying          | Up     | Down  |
| Correlation (if multiple underlyings) | Up     | Up (unless product offers exposure to the best performing underlyings only)   |

*Source: UK Structured Products Association, January 2014*

*This information is provided for information purposes only, and the impact on a structured product price assumes all other pricing parameters remain constant.*

[Back to menu](#)

## Explanation of Terms

### CDS Spreads and Credit Ratings

A CDS effectively acts like an option insuring at a cost in basis points a bank or government bond in case of default. The higher the basis points, the riskier the market perceives that security. Crucially CDS options are dynamic and change in price all the time. A credit rating is issued by a credit rating firm and tells us how risky the issuer is viewed based on the concept that AAA (triple A) is the least risky and ratings at C and below are regarded as much riskier. CDS and ratings are useful for structured product buyers because they give us an indication of how financial risk is viewed by the market. Crucially a high CDS rate indicates that an issuer of a bond will probably have to pay a higher yield or coupon, which could be good for structured product buyers as bonds are usually a prime source of funding for a structured product. G8 government bonds issued by the likes of the UK and US Treasury are also sometimes used as collateral in some form of investments largely because they are viewed as being low

risk. One last small note on credit ratings and CDS rates. A is clearly a good rating for a bond (and much better than B) but AA will be viewed as even safer with triple AAA the least risky. Terms of CDS rates anything much above 100 basis points (1%) would warrant some attention (implying the market has some, small, concern about the possibility of default) while anything above 250 would indicate that the market has major concerns on that day about default.

### Why does the yield matter on a bond?

As we have already explained bonds are usually used as part of a structured product. The bonds yield or coupon helps fund the payout. All things being equal a higher bond yield means more funding for the payout. But rising bond yields, especially for benchmark US and UK Treasury 10 year bonds also indicate that the markets expect interest rates to rise in the future. Rising interest rates are not usually a good sign for risky financial assets such as equities.

### Volatility measures

Share prices move up and down, as do the indices (the 500 and FTSE100) that track them. This movement up and down in price is both regular and measurable and is called volatility. It is measured by stand alone indices such as the Vix (tracking the volatility of the 500), VStoxx (the Eurozone Dow Jones Eurostoxx 50 index) and Vftse (our own FTSE index ). These indices in turn allow the wider market to price options such as puts and calls that pay out as markets become more volatile. In simple terms more volatility implies higher premiums for issuers of options. That can be useful to structured product issuers as these options are usually built into an investment, especially around the barrier level which is usually only ever broken after a spike in volatility. Again all things being equal an increase in volatility (implying something like the Vix moving above 20 in index terms) usually implies higher funding levels for issuers of structured products.

### Dividend Futures

These options based contracts measure the likely total dividend payout from a major index such as the FTSE 100 or the Eurozone DJ Eurostoxx 50 index. In simple terms the contract looks at a specific year (say 2015) then examines the total dividend payout from all the companies in the index, adds up the likely payout, and then fixes it as a futures price usually in basis points. Structured product issuers make extensive use of dividend futures largely because they've based payouts on a benchmark index. That means the bank that is hedging the payout will want to be 'long' the index (in order to balance it's own book of risks) but will not want the dividends that come from investing in that benchmark index. They'll look to sell those future possible dividends via these options and then use the premium income generated to help fund their hedging position. In general terms the longer dated a dividend future (say more than a few years out) the lower the likely payout on the dividend future as the market cannot know dividends will keep on increasing in an uncertain future and must fix his price in some level of uncertainty.

### Equity benchmarks

Most structured products use a mainstream well known index such as the FTSE 100 or 500 as a reference for the payout. For investors the key returns periods are 1 year (for most auto calls) and 5 and six years for most 'growth' products. During most though not all five and six year periods it is reasonable to expect an index to increase in value although there have been many periods where this hasn't been the case especially as we lurch into a recession. Risk measures such as the sharpe ratio effectively measure how much risk was taken for a return over a certain period (in our case the last five years using annualised returns). The higher the number the better the risk adjusted return with any value over 1 seen as very good.

[Back to menu](#)

---

To find out more about UKSPA, please visit [www.ukspassociation.co.uk](http://www.ukspassociation.co.uk).

Kind Regards,

A handwritten signature in black ink, appearing to read 'Zak De Mariveles', with a stylized flourish at the end.

Zak De Mariveles  
UK Structured Products Association Chairman  
[chairman@ukspassociation.co.uk](mailto:chairman@ukspassociation.co.uk)

THIS COMMUNICATION IS FOR FINANCIAL ADVISERS IN THE UK ONLY

This email is sent from The UK Structured Products Association (UKSPA) and is intended for UK financial advisers only. UKSPA has taken every step to ensure the accuracy of the information in this email but cannot accept liability for errors. Copyright of the contents of this email belongs to UKSPA. This email and its contents are only intended for the recipient. If you no longer wish to receive emails from UKSPA please [click here to unsubscribe](#)