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UK Structured™ Products Association

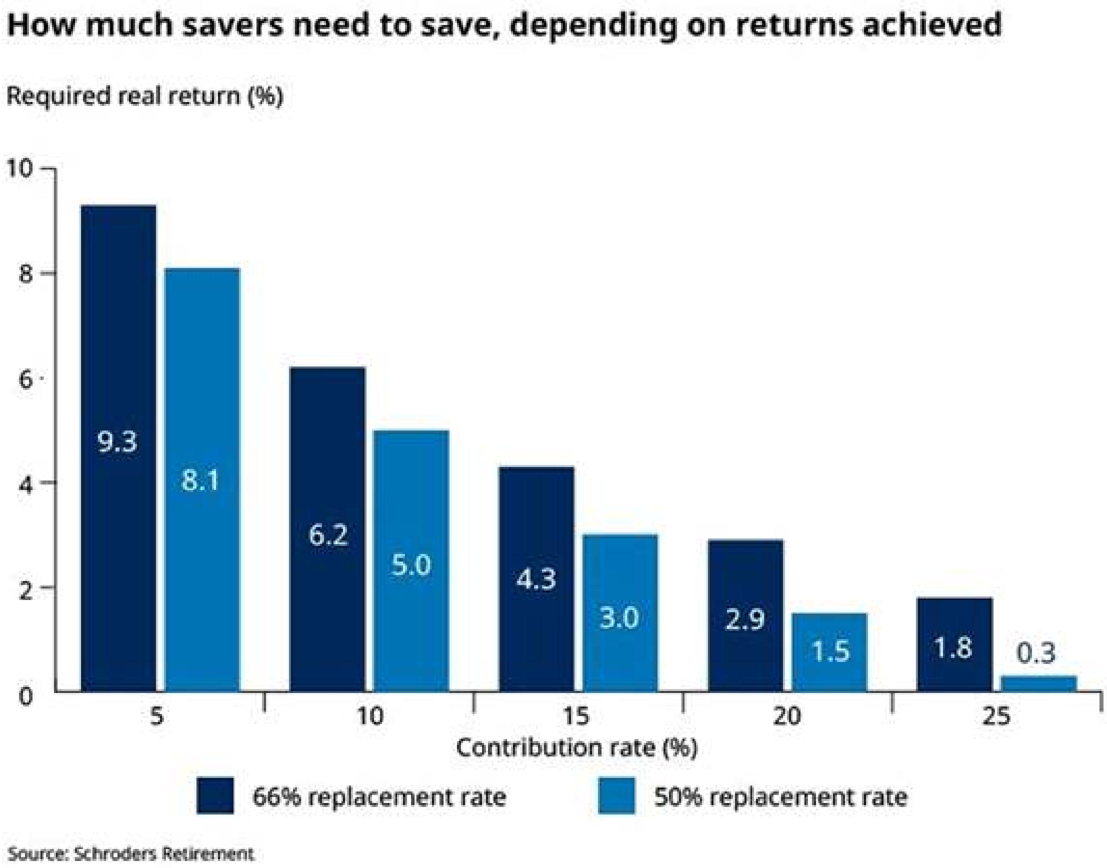
Monthly Market Report

January 2018

With commentary from David Stevenson

Every budget for the last two to three years has featured increasingly concerned commentary about the likelihood that tax relief on pensions contribution is due a radical restructuring. To date there hasn't been any big move but the higher rate relief is surely not long for this world. But if it does get removed at some stage in the future, it will only prompt a much bigger debate - how do we encourage more people to save and invest for the long term? That's already the focus of a government commissioned Patient Capital review. Savings rate will also be helped along by the move to increase contributions to the auto enrolment pension from 1% to 3% next year. But though this increase will undoubtedly help at the margins, the underlying problem remains the same. In simple terms, despite a relatively long bull market in risky assets (one of the primary components of a diversified portfolio of pension assets) most ordinary savers and investors are still not putting aside enough money - and they also have unrealistic expectations about likely future returns. Multiple studies have shown this to be an uncomfortable and inconvenient truth - the latest of which is from Schroders via their Global investor Study. The report does have one good bit of good news - we Brits aren't too bad when it comes to long term saving. The Schroders report finds that non-retired UK investors are saving a higher proportion of their income (11.3%) for retirement than the European average (9.9%), and roughly the same as the global average (11.4%). That figure also isn't too far away from 12.4% level most investors thought would be needed to save for a comfortable retirement. Unfortunately, as the chart below shows, this assumed annual contribution is actually likely to be inadequate given expectations of returns.

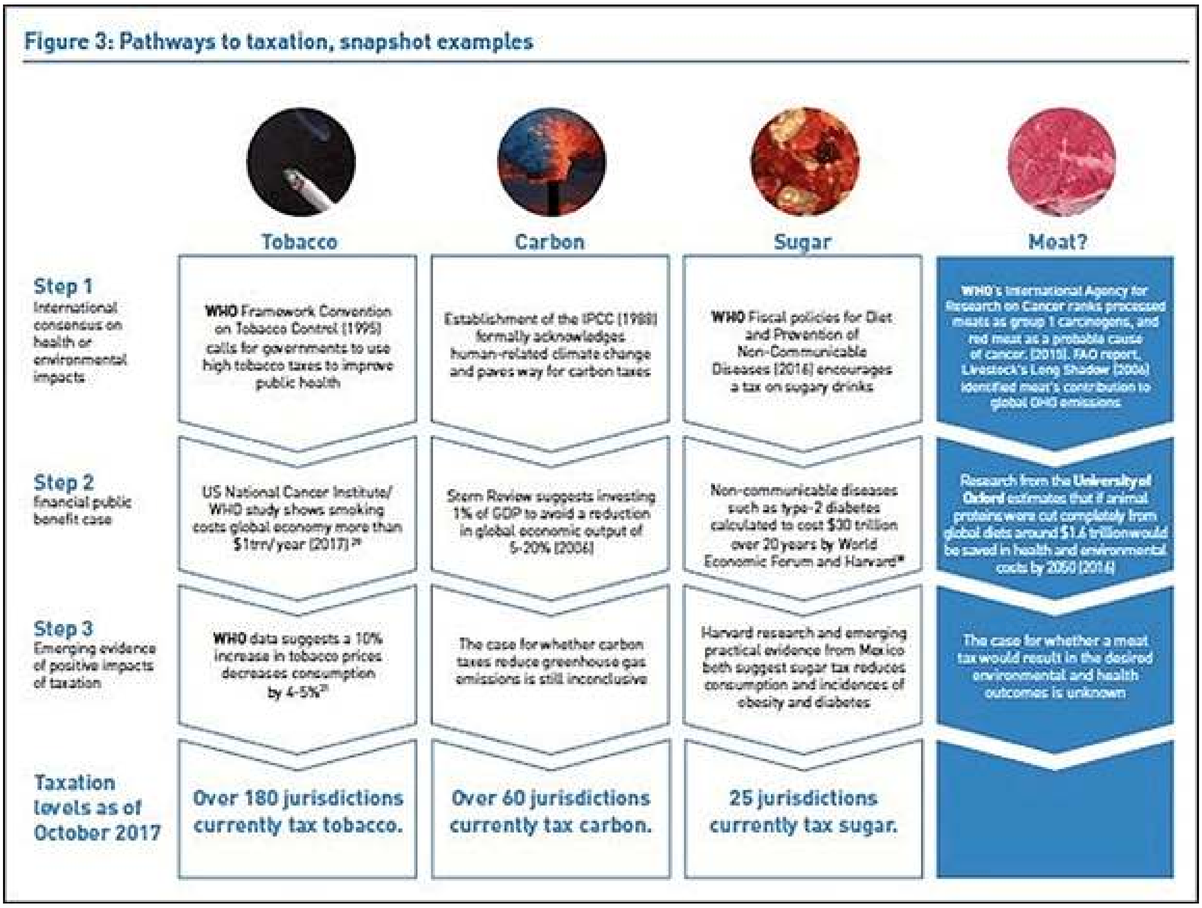
Schroders assumed a starting age of 30 with a £35,000 salary that rises in line with inflation. The table below shows the real annual returns - where inflation is taken into account - that would be needed to achieve two levels of income: 50% or 66% of your salary when you retire. According to Schroders if investors "contributed 10% of income, however, they would need a return of 6.9%, a level higher than the long-run return on equity markets." In the UK investors anticipated an even higher return, that of 8.7% over the next few years. Most mainstream institutions and strategists reckon that an annual return of around 5% per annum might be much closer to the mark. If that consensus is right, investors might need to be saving much closer to 20% of their earnings to hit a sensible target for retirement.



Source: Schroders Retirement team. For illustrations only. Starting age 30 years, retiring at 65. Starting salary of £35,000 assumed to grow at the rate of inflation. Replacement rate based on current annuity rates generating an income of 66% and 50% of final salary respectively

Investors in the huge consumer products beware! There's already a huge amount of debate about a sugar tax but the next target could be a levy on meat consumption. That at least is the suggestion of a new private report to investors produced by investor network FAIRR - an initiative supported by investors managing over $4 trillion of assets. They've just released a white paper called the Livestock Levy which warns that the "the growing evidence of the meat industry's harmful impacts on both human health and the environment make the imposition of a 'behavioural (or sin) tax' on meat products increasingly likely if countries are to fulfil their commitments to the Paris Agreement. Countries including Denmark and Sweden have already debated a meat tax." The reports authors think that government's will increasingly make more use of 'behavioural taxes' modelled on those levied on tobacco - the report observes that over 180 jurisdictions currently tax tobacco, over 60 tax carbon and at least 25 tax sugar.

Government's may be forced to act on meat consumption by a slew of fairly alarming statistics - the Food and Agriculture Organisation (FAO) for instance has found that the livestock industry is responsible for 14.5% of global greenhouse gas emissions, while the World Health Organization (WHO) has ranked processed meats as a cause of cancer. One of the key implications of the report is the call for companies to consider adopting an internal 'shadow price' of meat to account for future costs, in the same way many use internal carbon pricing - the report observes that in Denmark the meat tax is suggested to be approximately $2.7 per kilogram of meat. A meat tax, like a sugar tax, could have huge implications for many investors in consumer products businesses. Given that a proper, universal carbon tax is still a distant prospect, a meat levy is probably not imminent but the growing ranks of investing using an ESG policy is like to have an impact. As they pursue low carbon policies - echoing a recent move by the huge Japanese pension scheme - meat is likely to be the next target.



Contents

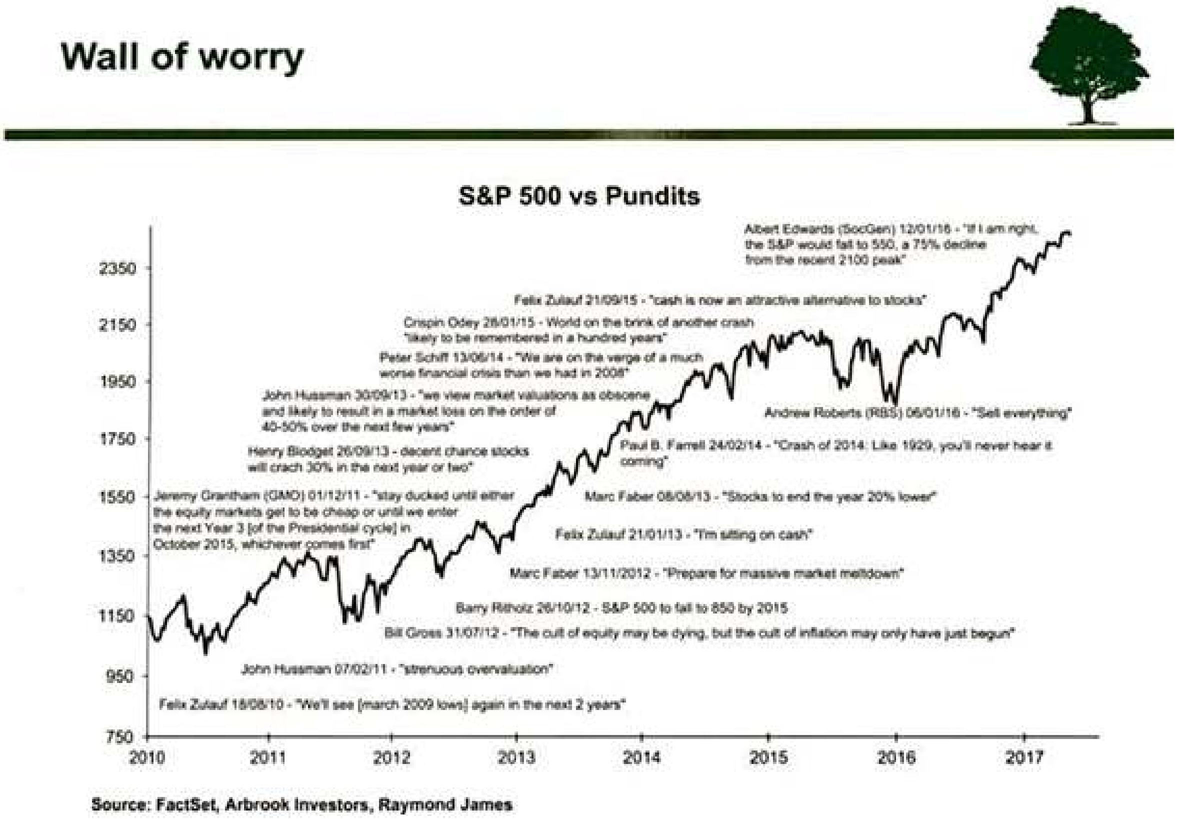
Headline Numbers

I would argue that many investors are suffering from a severe case of cognitive dissonance i.e. a blissful ignorance of facts based on a strong gut instinct which ignores the evidence.

Most investors I talk to are instinctively cautious, worried that equity market valuations are stretched. Yet markets keep ignoring these concerns, presenting plenty of contrary evidence to suggest that equities are the best of a bunch of bad options.

Should investors ignore this collective wall of worry and embrace a difficult though rewarding truth namely that we might be only midway through a long 10 to 15 year bull market in equities?

Three charts from a new manager Arbrook tells this story well. This is a new very actively managed open-ended fund structure focused on building a strong case for investing in sensibly priced US equities. Three charts from their recent investor pack hint at this fascinating, bullish alternative narrative. In sum the message is that we should all stay invested for what is only just the start of a long bull cycle - in this alternative vision, there's even better news to come, especially in the US equity markets. The first chart maps out that collective wall of worry that I think is still prevalent. It shows how the wall of worry has been constantly overcome by momentum in favour of US equities - how the bearish pundits have been consistently wrong and how the S&P 500 has powered ahead since 2010.



The next chart looks at valuations through the prism of the Shiller CAPE index. According to the widely used CAPE measure valuations do look a tad stretched, especially when compared to the last one hundred years but once we rebase the index around the period since the 1990s, the current measure doesn't look in the slightest bit extreme. Why rebase? Because something very important has happened to profits, corporate structures and technology over the last few decades - earnings are surging even as wage rates stagnate. Arguably globalisation and new technological advances, combined with increasing levels of oligopoly control, are helping to permanently rebase corporate profits to higher levels. And as those corporate profits surge, helped along by lower taxes, we could see price to earnings ratios move back to more reasonable levels by the beginning of the next decade.

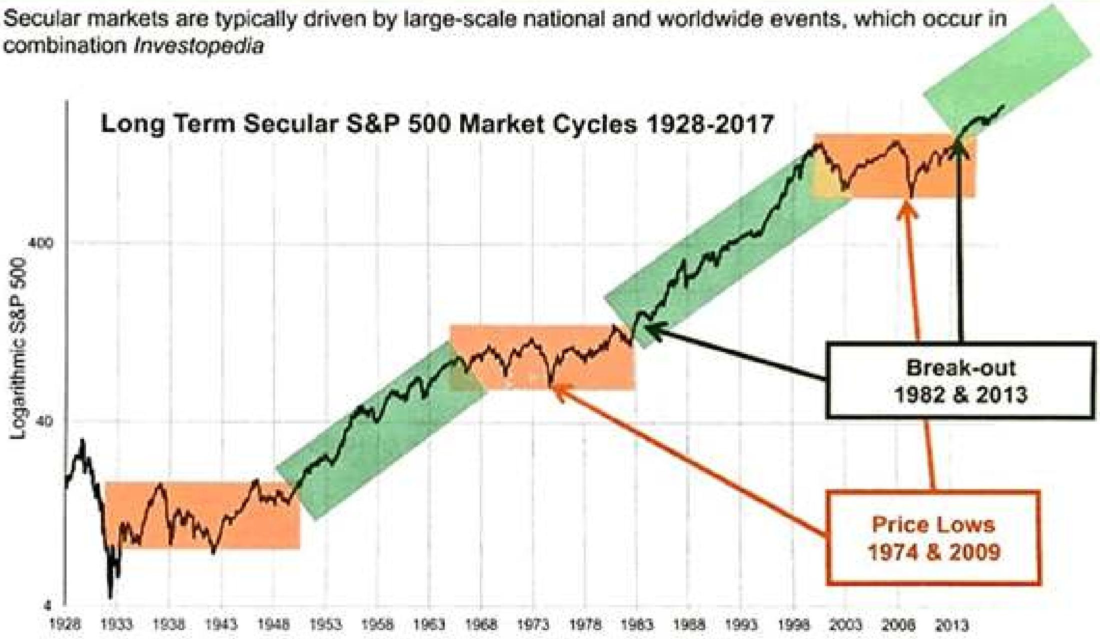
Valuation?

Source: Robert Shiller http://www.econ.yale.edu/~shiller/data.htm,
S&P http://eu.spindices.com/indices/equity/sp-500
Arbrook Investors, July 2017

The last chart from Arbrook is perhaps the most incendiary. It looks at a variety of S&P 500 market cycles, with those marked in green representing a momentum driven breakout while those marked in orange represent sideways and declining markets. Since the end of the global financial crisis, we've clearly moved into a momentum-driven breakout phase, with lots of structural factors underpinning buoyant investor spirits (not least technological change). Yet most breakouts last a great many years whilst our current cycle is very immature at just a few years in duration. If we are poised for the mother of all bull markets we could see the current market hit new highs for at least another two to three years - before the inevitable retreat sometime early in the next decade.

Measuring secular bull & bear markets

Secular markets are typically driven by large-scale national and worldwide events, which occur in combination *Investopedia*



Source: FactSet, Raymond James, Arbrook Investors, July 2017

I have to say that I'm not entirely convinced by the argument that we could have at least another three to four years of surging share prices, but I'm not entirely dismissive of this argument either - as I once was! I genuinely think that something of a deeply structural nature is happening, powered by technology and globalisation - and it is providing a permanent boost to corporates. Perhaps the simplest explanation is the best - the most dominant structural factor are low-interest rates, which help to boost the share prices of valuable, income producing assets such as corporates. In which case, make sure you are long equities and ignore all those moaning pundits and value fiends telling you to stay in cash!

Measure	Value as of 10th November, 2017	Value as of 14th December, 2017
UK Government 10 year bond rate	1.33%	1.21%
GDP Growth rate YoY	1.50%	1.50%
CPI Core rate	2.70%	2.70%
RPI Inflation rate	3.90%	3.90%
Interest rate	0.50%	0.50%
Interbank rate 3 month	0.53%	0.52%
Government debt to GDP ratio	89.30%	89.30%
Manufacturing PMI	56.3	58.2

Back to menu

Bank CDS options

Most rates on credit default swaps continued their recent gentle declines last month although some prices for credit default swaps for HSBC Bank did marginally increase over the month - from very low levels it must be said. What's also striking is that over the last 12 months credit default swap rates have declined markedly for all banks in the list, with most experiencing a 50-70% decline. One notable recovery story - Deutsche Bank. Though its credit default swaps are a little more expensive than its peers, the previous risk premium has almost completely disappeared after a 65% decline in the cost of insuring against default on its bonds. One very final observation - the cost of insuring against a bond default by UBS - over the next five years - is now less than the cost for insuring UK government gilts.

Bank	One Year	Five Year	Monthly Change (5yr)	Annual Change (5yr)	Credit Rating (Fitch)
Banco Santander	13.67	42.19	-8.9	-49	A -
Barclays	22.22	45.35	-3.86	-45	A
BNP Parabis	8.45	22.24	-30	-74	A
Citigroup	17.17	42.37	-13	-46	A
Commerzbank	16.68	51.94	-6	-57	A+
Credit Suisse	16.59	51.1	-16	-61	A
Deutsche Bank	25.67	72.44	-11	-64	A+
Goldman Sachs	20.21	55.82	-9.19	-39	A
HSBC	8.77	20.93	-5	-70	AA-
Investec*	n/a	189	n/a	n/a	BBB
JP Morgan	17.03	40.58	-11.53	-36	A+
Lloyds Banking Group	10.76	42.36	-11	-34	A

Morgan Stanley	21.52	52.2	-7	-41	A
Natixis	13.60	31.96	-11.3	-57.48	A
Nomura	12.74	42.33	-4.33	-49.32	A-
Rabobank	8.81	21.19	-9	-67	AA-
RBC*	n/a	66	n/a	n/a	AA
RBS	11.78	50.7	-7	-56	A
Soc Gen	9.35	24.27	-23	-72	A
UBS	10.12	19.32	-2.1	-68	A

Source: www.meteoram.com 10th December 2017
*Model implied CDS rate is the 5 year model CDS from the Bloomberg Default Risk function

Back to menu

Government Bonds

Inflation is increasingly the hot topic for many bond investors. One of the four great horsemen of the financial apocalypse (the others being a civil war, deflation and government expropriation), inflation never really went away of course after the global financial crisis but was exiled to places such as Zimbabwe and Venezuela. Having enjoyed its time in the tropical sun, inflation is back again in the developed world, courtesy of the populists. Overall, I'd suggest there are three main narratives about the inflation story at the moment, all of which are explicable using my favourite set of metaphors, namely cars and the stupid things we all do with them on a regular basis.

The first, beloved of all QE critics and bond vigilantes, is that we are one step away from the great inflationary car crash. Zimbabwe and Venezuela loom because monetary policy will spin out of control as the evil central bankers lose control of their balance sheets.

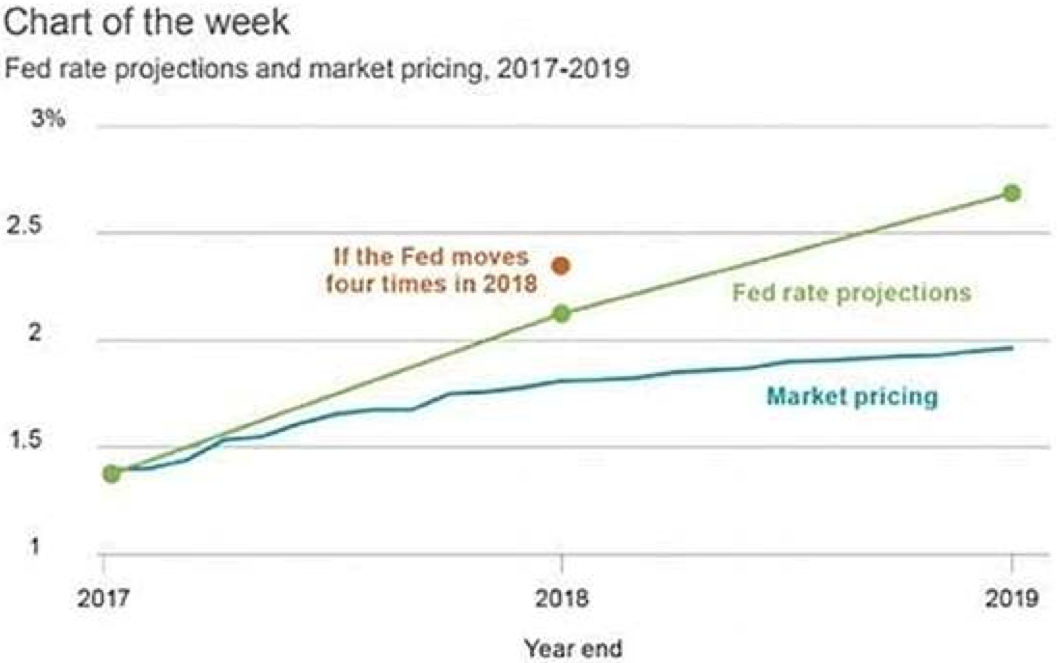
The second narrative can be called the sensible 'check the temperature gauge' concern beloved of all families stuck on a long journey - "darling, its been a long journey but did you check we have enough water in the engine or we'll overheat in this traffic jam". By and large, this is probably the collective mainstream view of most dismal investors after a year or two of solid global economic growth.

The last scenario is the one I subscribe to. It's named after every teenage encounter with a steep hill - the stall scenario - and describes the impossibility of generating meaningful inflation in the face of the steep hill of disinflation, generated by globalisation and technological change.

Personally, I think the car crash scenario is the one most easily dispatched. It rests on the core argument that we are collectively measuring all the wrong prices and that inflation measures such as CPI/RPI doesn't tell you what's happening in the real world of asset prices. To which I can only reply - so what, that's always been the case. Ever since the dawn of time people have complained that official measures don't include what others think should be included in inflation measures. But we have these measures because they work, are clearly understood and easy to explain. I accept that asset price inflation is a problem but believe that controlling this should not be part of inflation policy but a more general regulatory and fiscal approach (tax the stuff going up in value for no reason). The next coherent narrative around inflation comes from mainstream equity market analysts, in awe of the Trumpian threat to massively decrease taxes and worried that the US recovery will overheat and nudge inflation higher. A recent note from Blackrock's global strategist Richard Turnhill, I think, nicely sums up this mainstream view.

He reckons that it's probable that the "U.S. economy is shifting from reflation to inflation - and we have greater confidence in inflation returning to its medium-term trend and the Federal Reserve's target.

Better wage growth and potential fiscal stimulus should cement this transition...This year's surprise was better-than-expected growth coinciding with cooling inflation, partly due to one-off factors. We see that changing in 2018 as the U.S. economic slack created by the deep 2007-09 recession disappears. The market pricing of higher Fed rates has shifted up, yet the chart shows it remains well below the Fed's and our own outlook. We believe the Fed is on course to increase rates in December and match its projection of three increases next year. We see the potential for four rate rises in 2018 if growth gets a boost from fiscal stimulus." The chart below sums up the consensus market view about interest rate projections - personally I think the market pricing is about right for interest rates, though I concede we could see a top for US interest rates at 2.25%.



Sources: BlackRock Investment Institute, with data from the Federal Reserve and Bloomberg, November 2017.
Notes: The green line shows the Fed's median projection of its fed funds policy rate relative to the market pricing in fed funds futures, the blue line. The orange dot shows where the end-2018 fed funds rate would be if the Fed raises rates four times in 2018, compared with its current projection of three hikes.

Turnhill suggests that inflation expectations "were dented this year due to the surprise slowdown, tied to major one-off drops and moderation in some categories such as housing. Yet we see inflation expectations firming up as prices climb at a gradual pace.". To help measure this potential upwards inflexion, Blackrock has launched something called the Inflation GPS earlier this year "to help cut through the noise on price trends. The Inflation GPS is consistent with core prices climbing back towards the Fed's 2% target. The October Consumer Price Index supports the signal from the Inflation GPS".

Nevertheless, Turnhill reminds us that various "structural factors - including the role of technology - should keep price pressures in check." I'd suggest this is something of an understatement by Turnhill. In my stalled car scenario, global consumers are staring at a monumental wall of disinflation produced by the twin forces of technological disruption and globalization. The populists of the left and the right better understand this disinflationary wall of fear than the bond vigilantes - who sit around worrying about QE and monetary debasement.

What the populists and the PE firms both realise is that ordinary families haven't seen strong wage growth for decades. They also realise that there's always an army of cheaper wage labourers waiting to do their job at the drop of a PE or outsourcers hat - thus restraining wage inflation. Just like Marx in the 19th century, the populists have identified many of the main problems, and then promptly suggested all the wrong solutions. But salute their observational skills nevertheless. And then consider why all these forces - technology, China, an ageing population, towering amounts of debt - will keep a lid on inflation for decades to come. And then stop worrying.

UK Government Bonds 10-year Rate 1.21%

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

CDS Rates for Sovereign Debt

Country	Five Year
France	17.09
Germany	9.24
Japan	26.86
United Kingdom	19.54
Ireland	27.03
Italy	116.24
Portugal	111.825
Spain	55.97

Eurozone peripheral bond yields

Country	November 2017	December 2017	Spread over 10 year
Spain 10 year	1.56%	1.49%	117
Italy 10 year	1.83%	1.79%	147
Greece 10 year	5.17%	4.17%	385

	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

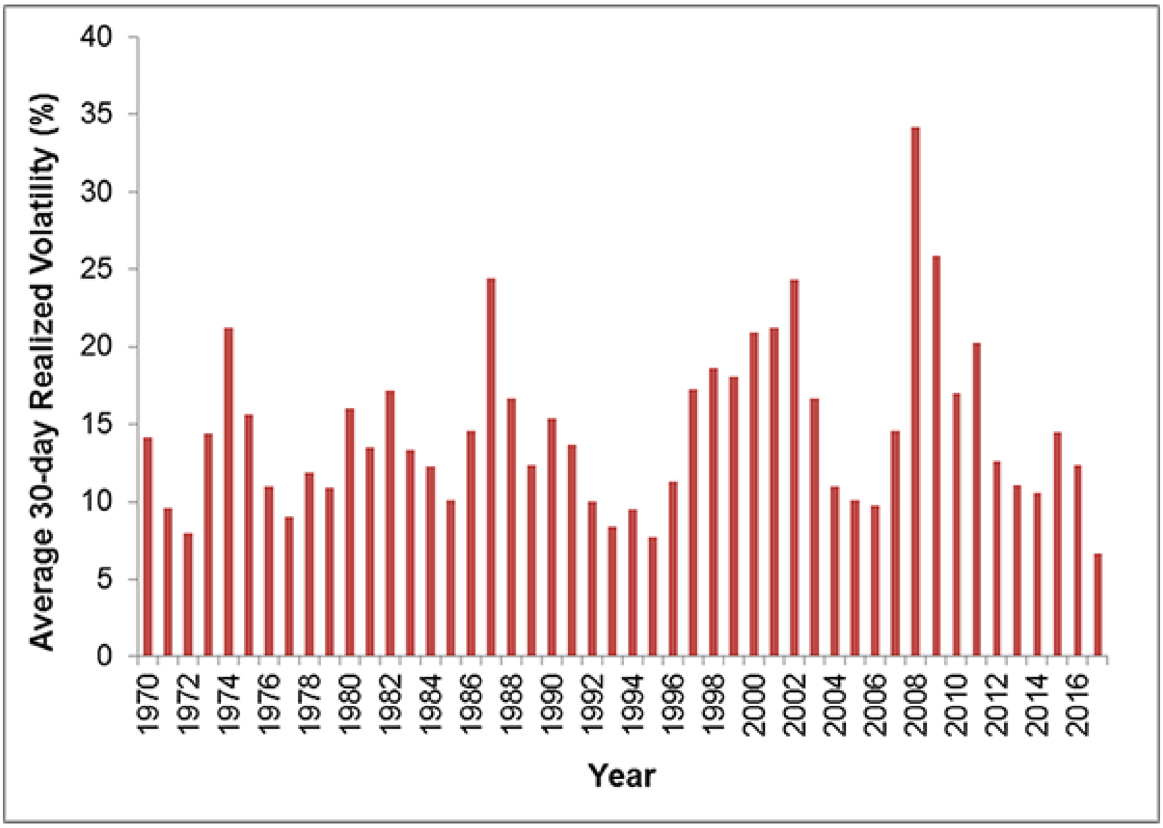
[Back to menu](#)

Equity Markets and Dividend Futures

Volatility

The numbers for 2017 are nearly in and volatility looks like it cruising to multi decade lows. Unless there's a huge equity market upset in the dying trading days of mid late December, new data from Hamish Preston, senior associate, at S&P Dow Jones Indices suggests that US equities haven't been this calm since the 1970s, while European equities are also at a decade low.

According to Preston, the average observed 1-month volatility in the S&P 500 in 2017 is" lower than in any other year since 1970. Market participants have also seemed intensely relaxed about the expected impact of anticipated news-flow on S&P 500 constituents; 47 of the lowest 56 closing VIX levels since January 1990 have been observed in 2017, as well as two new all-time low closing levels. This environment helped the S&P 500 VIX Short Term Futures Inverse Daily Index to a 175.63% year-to-date total return." And what's true for US is also true for Europe according to S&P Dow Jones Preston - he observes that "Risk was the dog that didn't bite this year" in Europe as victories for the favourite candidates in Dutch, French, German and Japanese elections did not provide the unexpected results typical of 2016. "Without such surprises, and supported by ultra-low stock-to-stock correlations, the average monthly volatility in the S&P Europe 350 has been lower in 2017 than in any other year in the past decade".



Measure	December Level	November Level	October Level	September Level
Vstoxx Volatility	12.3	14.61	12.43	13.96
VFTSE Volatility	7.09	10	9.69	10.71

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. 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 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.

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