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The Adaptive Asset Allocation Report

Issue No. 4

A Model driven Business Cycle Trend Following approach to investing

Robin Griffiths
Editor

► Robin Griffiths is Editor of The Adaptive Asset Allocation Report. Prior to this he was the Editor of the Dynamic Investment Trends Alert, a market newsletter for private investors published by Southbank Investment Research. Robin has served as Head of Multi-Asset Research & Advisory at the ECU Group. He was previously Chief Technical Strategist at HSBC Investment Bank for 20 years, before becoming Head of Global Asset Allocation at Rathbones, and then a director and technical strategist for Cazenove Capital Management. Robin was a Partner of WI Carr and Head of Technical Analysis at Grieveson Grant. Robin is a committee member and former chairman of the International Federation of Technical Analysts, and former chairman, now fellow, of the British Society of Technical Analysts. Robin has been a member of ECU's Global Macro Team for over 20 years. Robin has won several Technical Analyst awards for his research.

Pain is the Policy

Dear Readers,

Welcome to our second document available via ByteTree. The AAA model strongest assets are the same as last month. The strategy at the moment is about preserving capital and not trying to go for growth. Our main positions are in commodities, the Indian stock market and other low volatility equities that tend to outperform in bear markets.

We have confidence that the AAA model will generate good relative outperformance. However, we want to point out that in a bear market it can often pay not to play the game. The global equity market fell 50% in 2008 but we only fell 10%, so won the relative game. However, cash in the bank would have done even better. We mention this now as we observe that in the Strong group of the asset ranking table, we find cash and gold and even short UK equity market. There is a lesson here - cash is strong so you are not getting punished for holding it now.

There is a second problem to point out and that is currency. Sterling is now super weak and by contrast the US dollar is super strong. When ranked versus other global equity markets, most of the strength in the US equity market can be attributed to the US dollar. Also, the India stock market is now at the top of the ranking table, but the main reason is that sterling is so weak. When the Indian stock market is plotted in dollars, the position looks different.

What we will do about this is to run the model as normal but point out where there is a reason to not follow everything on the list. The model will do what it should, and the relative strength should follow. However, in a bad bear market we will indicate where we do not need to follow it. We mention this now as we strongly believe that we are in a bad bear market.

Having been in the stock market since 1966, I can assure you that this is now the scariest time to endure since 1974. The problems are huge, and they are global. We already have a war with Russia, and some want to start one with China as well. Much of the world is in recession now and even the strong parts, like the USA, will be in one next year. So far, the model is performing well and preserving capital in the process. However, we are now in more volatile assets than normal which can make life difficult. The bottom line for us is to preserve capital. There will be growth later in the next bull period, but to get to that we must go through the pain barrier. That is the way the world is, but the AAA model will do this for us. Good luck.

Best Wishes,

R. J. Griffiths

Robin Griffiths

Rashpal Sohan
Managing Editor

► Rashpal Sohan is Managing Editor of The Adaptive Asset Allocation Report. Prior to this he was the Managing Editor of the Dynamic Investment Trends Alert, a model driven investment publication for private investors published by Southbank Investment Research. Rashpal is a consultant data scientist who has developed the model for The AAA report. Rashpal holds a keen interest in data driven insights using Visualisation and Machine Learning and holds a Masters in Data Science from City, University of London, with distinction. His dissertation was on the topic of a Risk-Based Dynamic Asset Allocation Strategy using Ensemble Machine Learning and was awarded the City University Computer Science Outstanding Project Prize. The underlying trend algorithm from his dissertation forms the basis of the AAA Model. Rashpal has served as Senior Macro & Quantitative Strategist to the ECU Group, and built several fundamental and quantitative models for use in Dynamic Asset Allocation. Rashpal has over 15 years of experience in Asset Allocation, having previously served as Senior Asset Allocation Analyst for one of the UK's largest discretionary investment management firms, Rathbone Brothers. He holds a first class honors degree in Actuarial Science from the London School of Economics, is a qualified Financial Risk Management (FRM) professional and has passed all three levels of the Chartered Financial Analyst (CFA) Program. As a consultant Data Scientist, Rashpal has done projects for ByteTree, where he helped extract key insights from their Network Demand set of indicators using Machine Learning and Data Visualisation and has also done Data Science projects in Facial Recognition, Reinforcement Learning, Recommender Systems and the influence of regional personality differences on the UK's vote to leave the European Union amongst others. Rashpal has won several Technical Analyst awards for his research, together with his business partner.

Dear Readers,

Jay Powell, the chair of the Federal Reserve, put it quite succinctly last week: "We have got to get inflation behind us. I wish there was a painless way to do that. There isn't ". In essence, Mr. Powell is finally admitting – what we have been arguing all along – that rooting out inflation whilst achieving a soft landing is unrealistic. Nothing more than a pipe dream.

Now we are being told to expect higher rates, a recession and rising unemployment. In short, the Fed has prepared markets for a willingness to lance the boil no matter how much pain it takes. There is a high probability of a recession next year for the USA. Some countries like the UK are already in one. We just have to grit our teeth and batten down the hatches until the storm has passed – and a storm there will be.

Markets have failed to break out of the descending channel in place since the beginning of this year, financial conditions are tightening and classical bell weathers of economic growth are telling us that the global economy is slowing at a staggering pace. And all of this before Central banks are done tightening! All in all, it doesn't pay to run towards the beach when you can clearly see the tsunami heading towards you.

We are in the midst of an inflation and interest rate driven bear market which is not over yet. The AAA Model rankings tell us that we must still own energy and agricultural commodities, as an inflation hedge, and Low Volatility equities which are in relative uptrend now. We also own the Indian stock market, but that is more of a play on currency than the stock market. More risk-averse investors can also hold some gold, cash and inverse equities as these are all in the Strong asset category. The message is to preserve capital until better times are ahead.

If you have any questions or comments, please write in to aaa@bytetree.com. In future we will be hanging out at https://bytetree.com/research/aaa. If you have friends or family who you believe can benefit from our service, please spread the word.

Thank you again for your support over the years and good luck with your investments.

Best Wishes,

Rashpal Sohan

AAA Model Ranking

Model Ranking Date: **23rd September 2022**

IMPORTANT: Please Read the Addendum below before buying or selling any Assets.

ADDENDUM

The model was first run-on 23rd September 2022 this month. At this time, the strongest ranked assets were India Equities, World Low Volatility Equities, Agricultural Commodities and Energy Commodities. These are the same assets we held last month. Continue to hold them.

▼ For an explanation of what this portfolio is and how to use it, please see the "Model Guide" we've compiled at the end of this issue.

Buy	-
Hold	• **India Equities** • **World Low Volatility Equities** • **Agriculture Commodities** • **Energy Commodities**
Sell	-

- **Global Equities are in a bear market. There had been a rally but that is over now, and the downtrend has resumed.**
- **The strongest assets are the same as last month, mainly commodities especially energy and agricultural commodities.**
- **The India stock market is the top ranked asset at present but there is a catch. Sterling is weak which makes India look good for UK investors. This does not apply to USA investors.**
- **We also hold Low Volatility equities. They include stocks of companies that make essentials required in good times and bad. They are in relative uptrend now.**
- **Gold, Cash and Short Equities are all in the Strong assets group. The message is to preserve capital.**

"We have got to get inflation behind us. I wish there were a painless way to do that. There isn't."

– Fed Chair Jay Powell, 21st September 2022

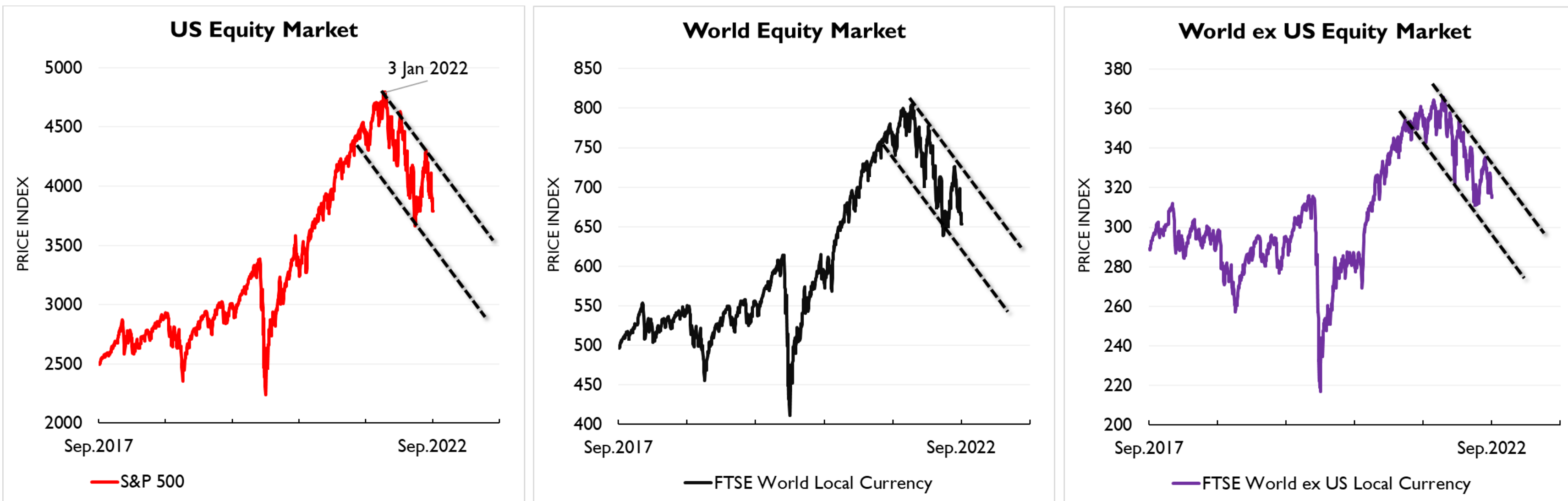
When troops are training, the going is tough. The idea is that anything you can do − that does not kill you − simply makes you stronger. Women also know that having a baby is a laborious process. That is the way it is, but at the end of it a new life is created. Central bankers have the same idea. **Mr. Powell wishes there was a painless way to cure inflation, but there isn't.** He spelled this out in his speech at Jackson Hole and reiterated the same last week after hiking interest rates again. We have to take the pain to get the job done. Not doing so would be even worse**.**

The current agenda is to stop inflation. It is not yet under control. There will be more rate hikes this year. These will continue next year as well. This will be painful. The global economy is slowing down now. **There is a high probability of a recession next year for the USA. Some countries are in one already**. China has already slowed dramatically and is locked into a collapsing property bubble. Europe is in terrible shape and will have a long drawn-out recession. In the UK, the economy is already in a recession.

The new UK Prime minister and her team have just announced measures going for growth. Mr. Market has passed judgement on this with a sudden rise in gilt yields and a crash in sterling. The view is that this is the wrong policy at the wrong time, and it is not going to work. **The latest budget is a tax cut for the rich**. The idea is that when the rich then spend, it will "trickle down" to the people at the bottom of the pile in due course. This has not worked in the past and won't work now. The people at the bottom of the pile can't afford to eat and turn on the electricity now. In winter, times will be worse.

From mid-June, most markets rallied believing in the story of a soft landing. That rally is now over. For the USA stock market, that rally stayed in the trend lines of a descending channel (Figure 1). It is now over, and the negative trend has resumed. The same is true for the rest of the world. China and Europe both have their own problems. New lows are expected soon.

► **Figure 1: Markets have failed to break out of the descending channel in place since the beginning of this year**



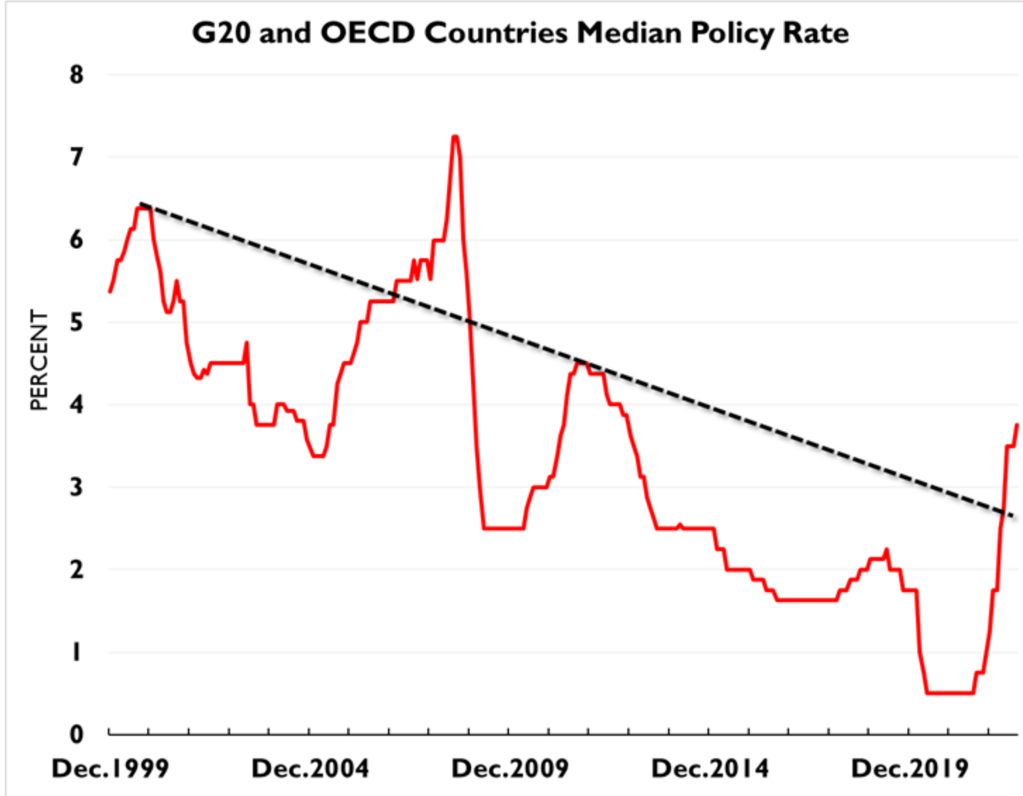
Source: ByteTree, Refinitiv Datastream

According to the World bank, **we are now seeing one of the most synchronized rounds of global tightening ever.** Last week we saw the Federal Reserve push up the Fed Fund rate by 75 basis points* for the third time in a row this year, pushing borrowing costs to the highest level since the Great Financial Crisis. The table in Figure 2 shows that most central banks are singing from the same hymn sheet and have also hiked recently. **Several more jumbo rate-hikes are expected soon.** The long-standing trend of falling rates has been broken (Figure 2 – Chart). This keeps equity markets under pressure and government bonds at the bottom of our asset ranking table.

[* A basis point is a standard measure for interest rates in finance. One basis point equals 0.01%]

► Figure 2: The vast majority of Central Banks are in rate-hiking mode with more hikes to come

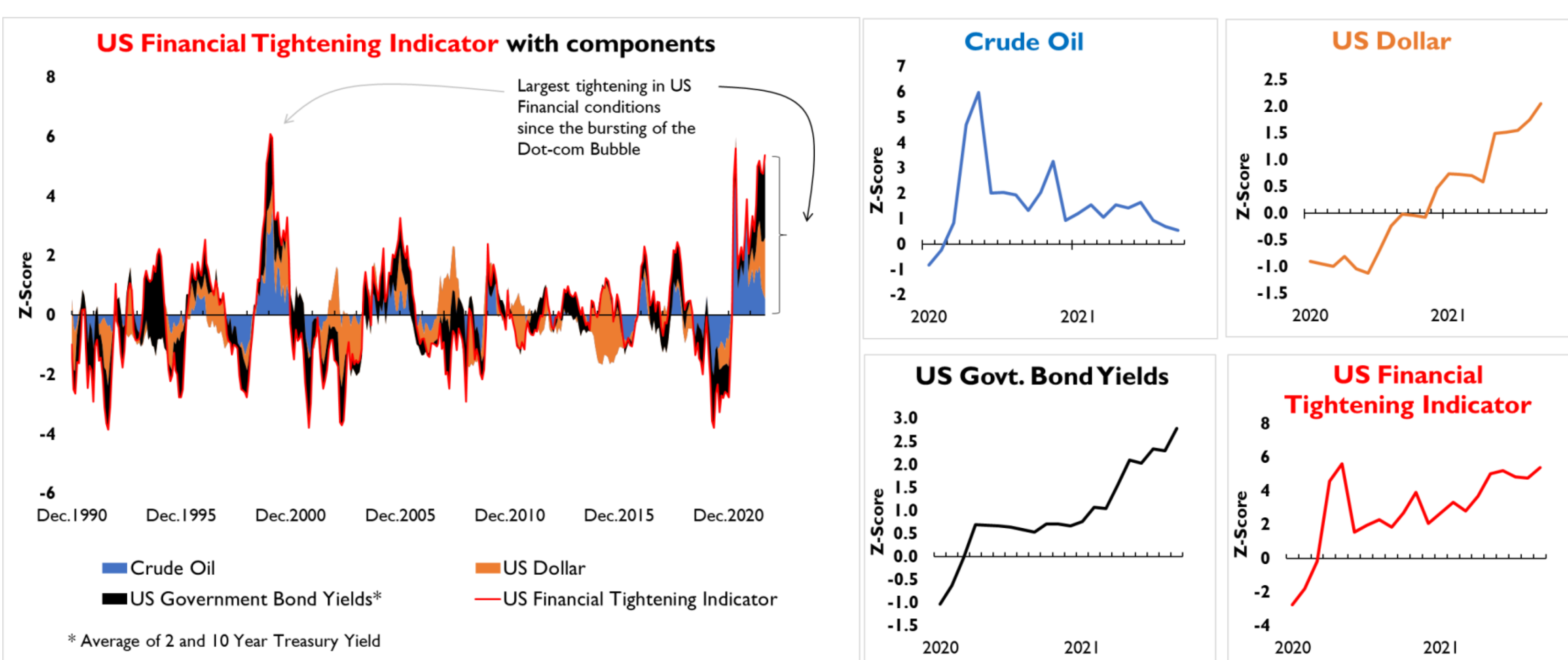
	Policy Rate	Last Change		Date of Last Change
Argentina	64.5	9.5	Hike	07 Sep 22
Australia	2.35	0.5	Hike	06 Sep 22
Brazil	13.75	0	No Change	22 Sep 22
Canada	3.25	0.75	Hike	07 Sep 22
Chile	10.75	1	Hike	07 Sep 22
China	4.35	-0.25	Cut	22 Jul 21
Colombia	9	1.5	Hike	29 Jul 22
Costa Rica	8.5	1	Hike	15 Sep 22
Czech Republic	7	0	No Change	04 Aug 22
Denmark	0.65	0.65	Hike	19 Sep 22
Euro Area	1.25	0.75	Hike	08 Sep 22
Hungary	11.75	1	Hike	30 Aug 22
Iceland	5.5	0.75	Hike	24 Aug 22
India	5.4	0.5	Hike	05 Aug 22
Indonesia	3.75	0.25	Hike	23 Aug 22
Israel	2	0.75	Hike	22 Aug 22
Japan	-0.1	0	No Change	22 Sep 22
Mexico	8.5	0.75	Hike	11 Aug 22
New Zealand	3	0.5	Hike	17 Aug 22
Norway	2.25	0.5	Hike	22 Sep 22
Poland	6.75	0.25	Hike	07 Sep 22
Russian Federation	7.5	-0.5	Cut	16 Sep 22
Saudi Arabia	3.75	0.75	Hike	22 Sep 22
South Africa	6.25	0.75	Hike	22 Sep 22
South Korea	2.5	0.25	Hike	25 Aug 22
Sweden	1.75	1	Hike	20 Sep 22
Switzerland	0.5	0.75	Hike	22 Sep 22
Turkey	12	-1	Cut	22 Sep 22
United Kingdom	2.25	0.5	Hike	22 Sep 22
United States	3.25	0.75	Hike	21 Sep 22



Source: ByteTree, Macrobond, Refinitiv Datastream

There is a confluence of factors at play that is causing a significant tightening of financial conditions not seen since the bursting of the Dot-com bubble (Figure 3 – large chart)**.** And this is **all before the Fed is done with its rate hiking agenda.** The Fed's actions have put the US dollar and government bond yields on steroids (Figure 3 – small multiple charts) whilst energy prices have been skyrocketing owing to the war. This combination is a one-two punch for global growth. It's not over yet.

► Figure 3: Financial conditions have tightened significantly even before the Fed is done hiking rates

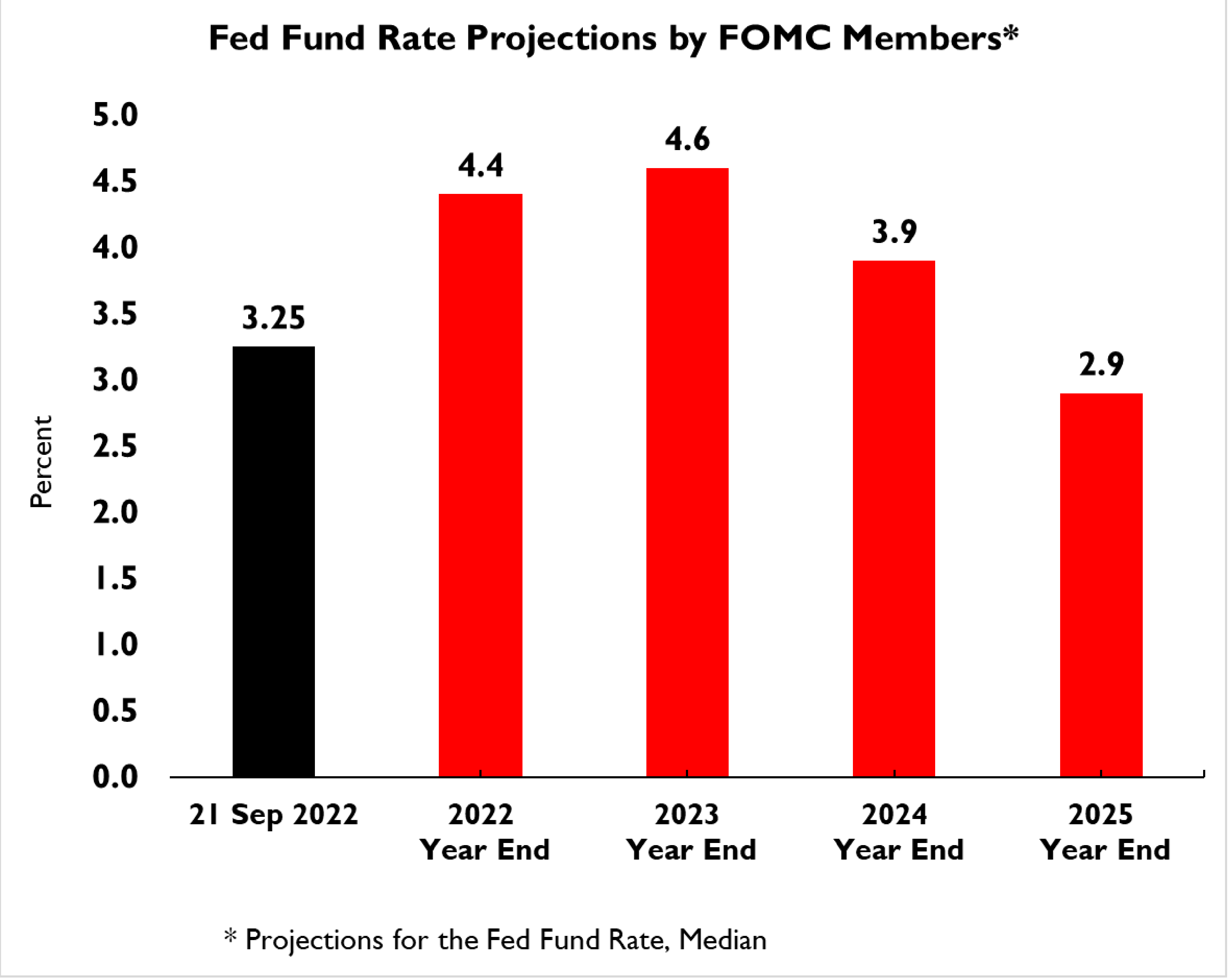


Source: ByteTree, Alpine Macro, Piper Sandler, Refinitiv Datastream

At this point, investors just want to know when the pain (rate hikes) will stop. There is no consensus amongst economists when this will happen, however **using the Fed's own projections, we can see that there are more hikes planned for this year and next.** By Christmas, the Fed expects the Fed Fund rate to be at 4.4% (Figure 4). This translates as at least two more jumbo rate-hikes this year. There would then be a smaller hike next year, taking the rate to 4.6%.

These views are based on the median projection of the latest Fed "dot plot" chart, where a dot represents how much each Fed official thinks it will cost to borrow money in the future. Whilst these projections are not set in stone, and evolve based on incoming data, they are nonetheless a useful starting point to gauge what the committee is thinking at a given point in time.

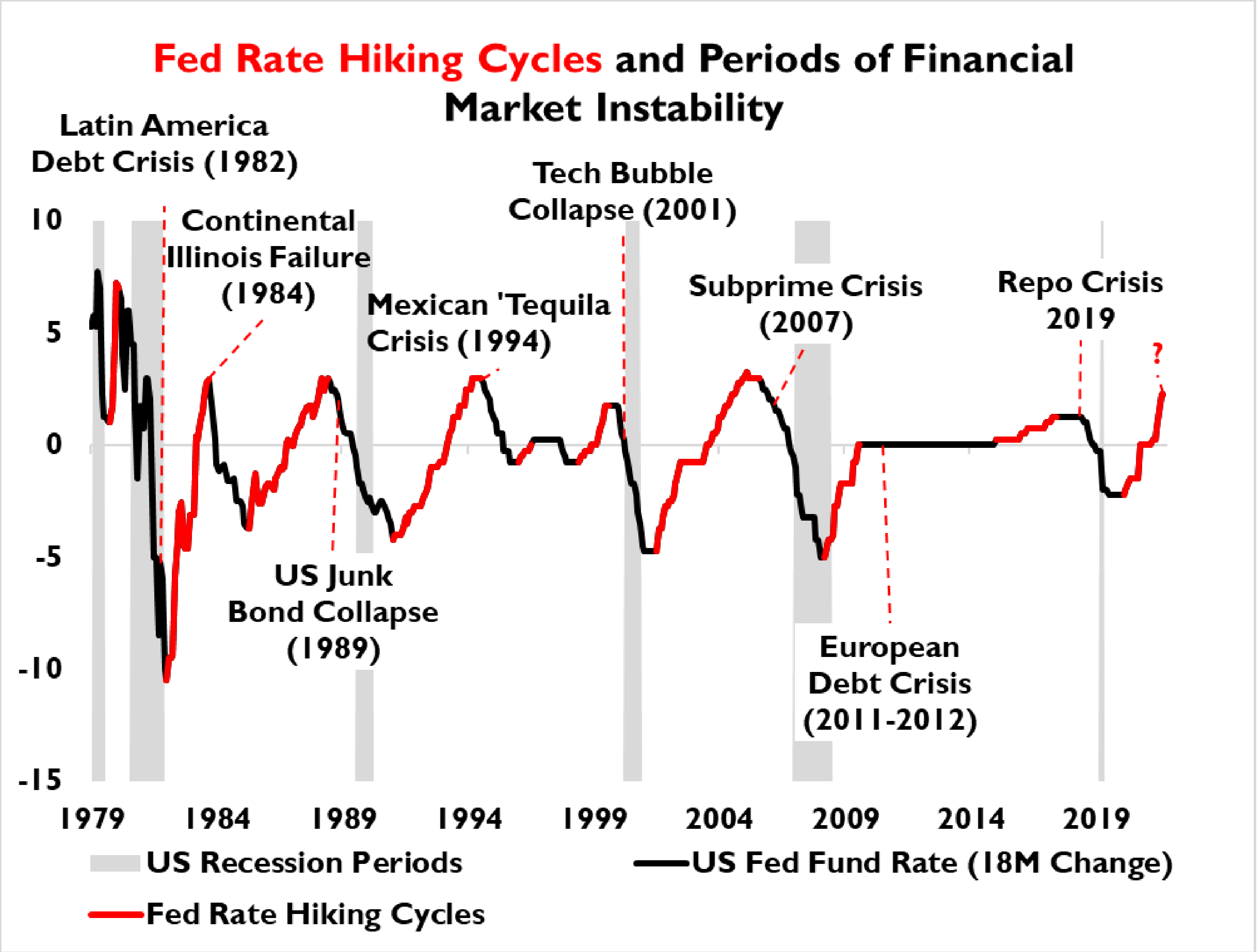
► **Figure 4: The Median projection of the Fed's latest dot plot shows interest rates rising to 4.4% by December followed by one more rate hikes next year**



Source: ByteTree, Federal Reserve, Refinitiv Datastream

One of the wisdoms of the stock market is that bull markets do not die of old age. Rather, they are murdered by the Fed. **History shows that whenever the Fed acts tough, it frequently ends in periods of crisis and/or recession** (Figure 5). This time around, their hand has been forced by the need to tame inflation and end the period of excessive monetary easing. This had been a good idea when started by Mr. Greenspan, Fed chairman from 1987-2006. Of course, when he started it, rates were high. It then followed on until they went negative, and as a policy it was copied by the largest central banks. By making the safest asset have a negative yield, the capitalist system was broken. Most prices had nothing to compare with. The entire game went too far, and it may well take many years to correct properly. However, that process is underway right now and the Fed will allow quite a lot of pain before it changes its mind. This is a big correction. **The global equity markets have further to fall.**

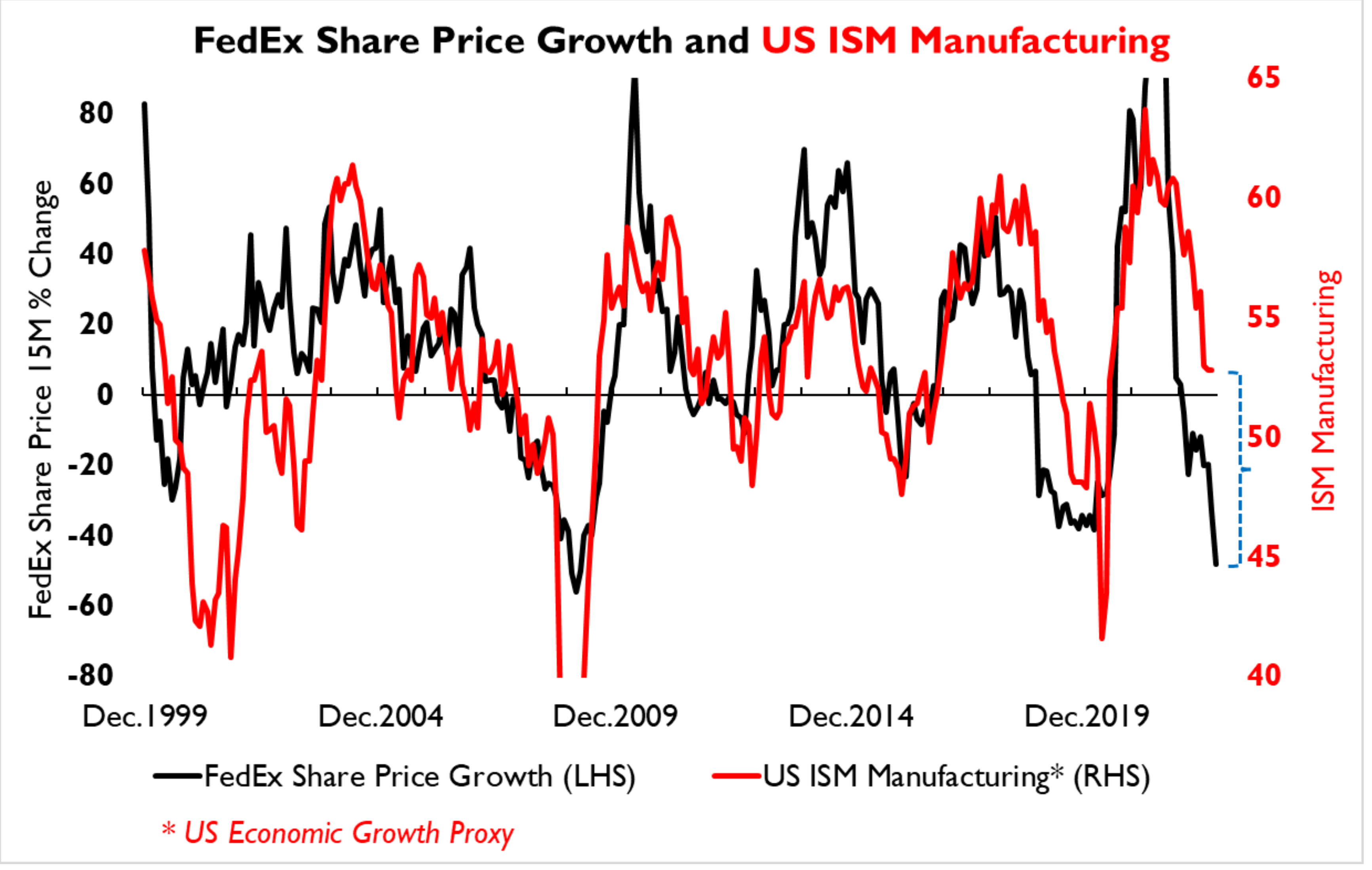
► **Figure 5: Fed Rate hiking cycles frequently end in periods of crisis and financial market instability**



Source: ByteTree, UBP, Refinitiv Datastream

In our last report, we argued that earnings would be the next shoe to drop that will hit global equity markets. **Two weeks ago, we saw the share price of FedEx Corporation, a courier delivery service, drop over 20%** after the CEO announced that a slowdown in the global economy will cause its revenue to fall $500 million short of its target. Some businesses are very good at predicting how the global economy will unfold and FedEx is one of those businesses. We can see that over the last two decades, the share price of the company has closely tracked US economic growth (Figure 6). The CEO did not mix his words in announcing that **the company's dismal performance is a sign that a global recession is on our doorstep** and has gone into full cost-cutting mode to survive the tough times ahead. So must we.

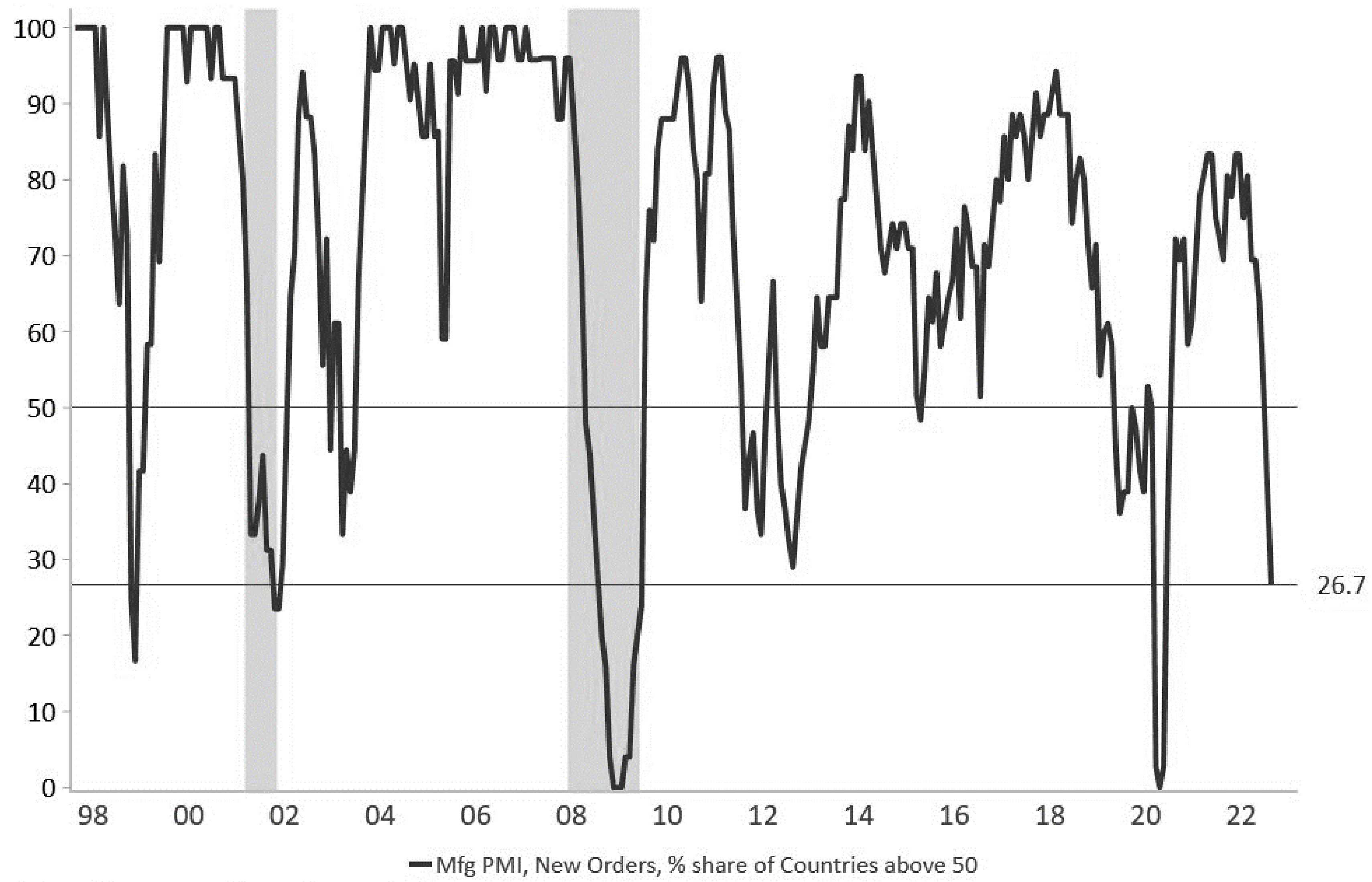
► Figure 6: **The share price of FedEx Corporation is a bell weather of the US and global economy and recent weakness portends to economic contraction ahead**



Source: ByteTree, Refinitiv Datastream

Other reliable indicators give the same message. When forecasting economic activity, we have found that some data series have a great track record of giving a good lead. The Purchasing Managers Indices are one of them. They measure global business conditions from the perspective of Purchasing Managers who are at the forefront of the world economy, making important decisions about hiring, investment, production, procurement, etc. Within these indices, **the new orders component is especially useful as a reliable leading indicator of global economic growth conditions**, making the recent collapse telling (Figure 7). It **suggests that global economic growth is slowing at a staggering pace**. Excluding the pandemic, this is the weakest growth we've seen since the GFC.

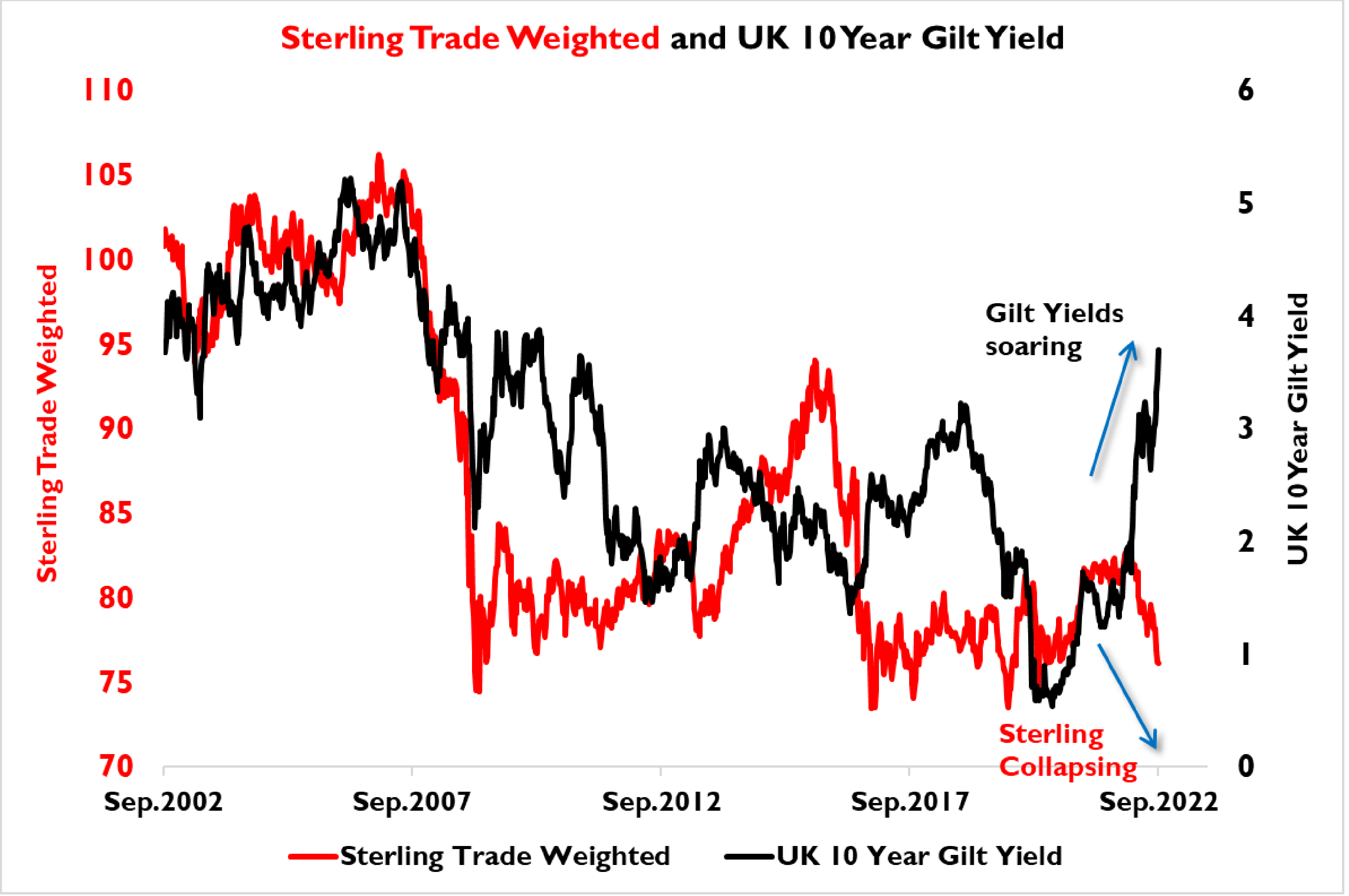
► Figure 7: **Global manufacturing PMI New Orders continue to contract at a pace not seen since the Great Financial Crisis**



Source: ByteTree, Renaissance Macro Research, Macrobond

Some parts of the World are already in recession and the UK is one of them. The Bank of England has admitted this recently. The new government is now trying to act and talk about growth enthusiastically. However, the Bank of England has its own agenda and is being forced to pull economic levers in the opposite direction. **The judgement that really matters is that of the market and so far this has been very negative. Gilt yields have risen, and sterling has fallen to new lows** on the announcement of the government's significant tax cuts (Figure 8). The trickle-down policy is not going to work. One factor the government has not accounted for is trying to solve its own problems in a world that is going the other way. Going for growth when the world is contracting is a Sisyphean task.

► Figure 8: **Gilt yields have surged and Sterling has fallen to new lows on the announcement of the UK government's new tax cut measures aimed at boosting economic growth**



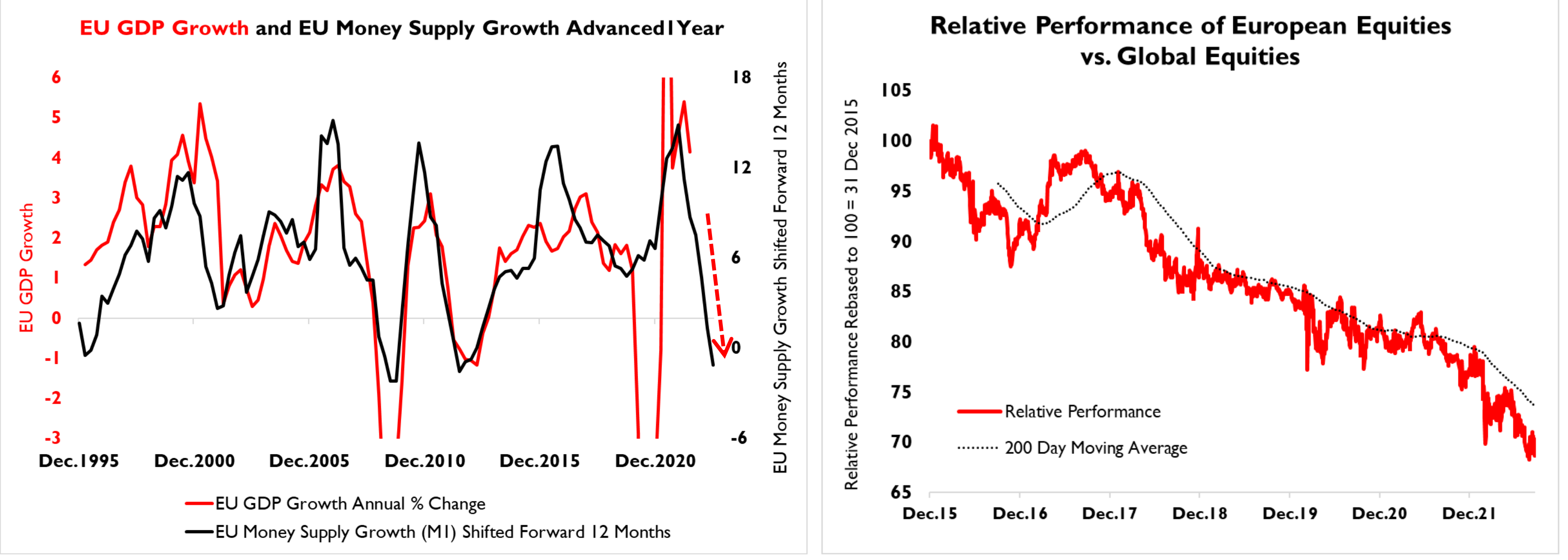
Source: ByteTree, Refinitiv Datastream

Europe is also in a total mess. With Russia putting the screws on Europe, in retaliation for being hit with sanctions, things are only going to get worse. Prior to the war, around 40% of Europe's gas came from Russia. Following supply cuts, that figure is now down to 9%. The cut in supply has led to a surge in energy prices to eye-watering levels. In recent months, Europe's energy import costs have quadrupled from an annual rate of 1.6% of GDP to around 6.4%, weighing on consumer and business sentiment and depressing production.

Eventually, Europe will find a way to wean itself off Russian gas, but in the short term, **the continent faces a bleak winter with the prospect of a deep and long recession** (Figure 9a) coupled with prolonged and elevated inflation. **The European stock market continues to stay in a steep downward trend relative to the world equity market** (Figure 9b). That trend has accelerated in recent months and dropped the EU Equity Market to the bottom of the Weak asset group in the AAA Model. We do not expect a new buy signal for a long time to come.

► **Figure 9: Leading economic indicators suggest that Europe faces the prospect of a deep and long recession and the European stock market remains in a steep downtrend relative to the world equity market**

(a) (b)

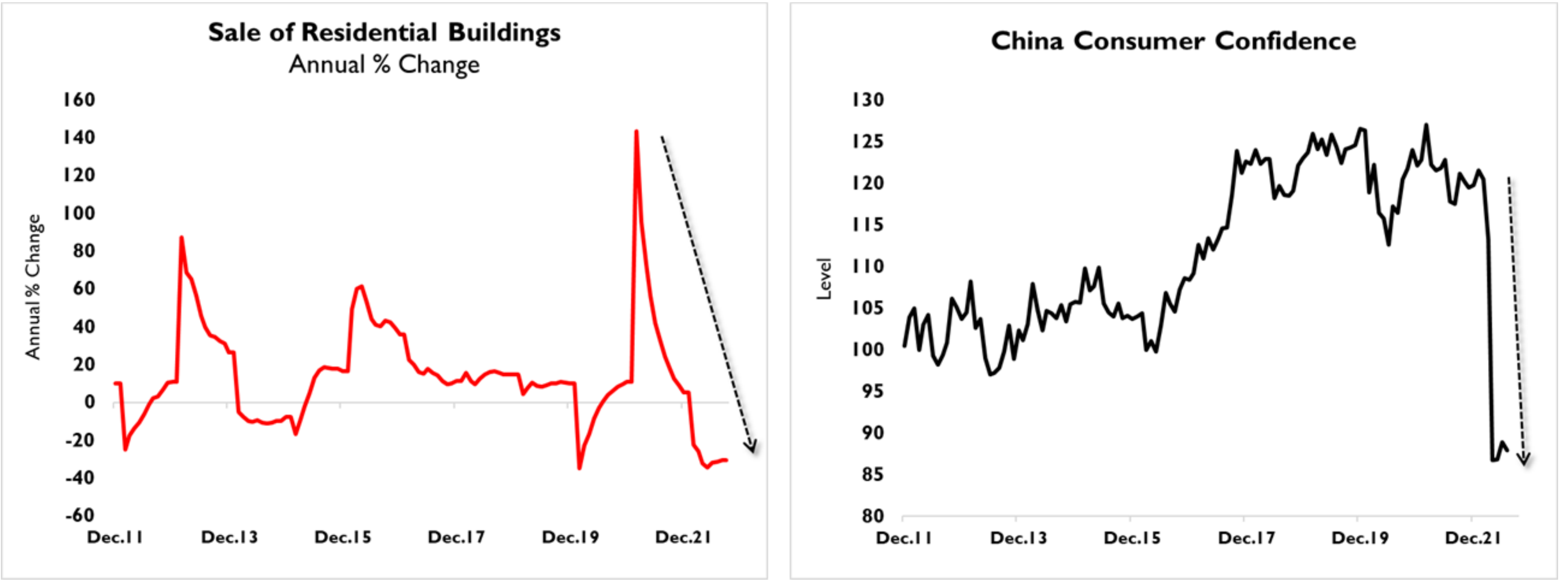


Source: ByteTree, Refinitiv Datastream

The Chinese economy has experienced double-digit growth for years but is now shifting to an era of slower growth as it adapts to the new economic reality**. At the moment it is struggling, with the property sector in a massive correction** (Figure 10a) having overbuilt for years. In this country, with 70% of household wealth trapped in property, the collapse of the property market has crushed consumer confidence (Figure 10b). COVID-related lockdowns and weakening export demand have also dragged on economic growth. The demographic situation is also alarming owing to a large ageing population. Turning this into a new growth phase will be a real challenge for the administration. As a result, **China's stock market remains very weak and is ranked among the Weak Assets** in the AAA model. We see no quick way out of this problem.

► **Figure 10: The collapse in the Chinese property sector has caused a destruction in household wealth and crushed consumer confidence**

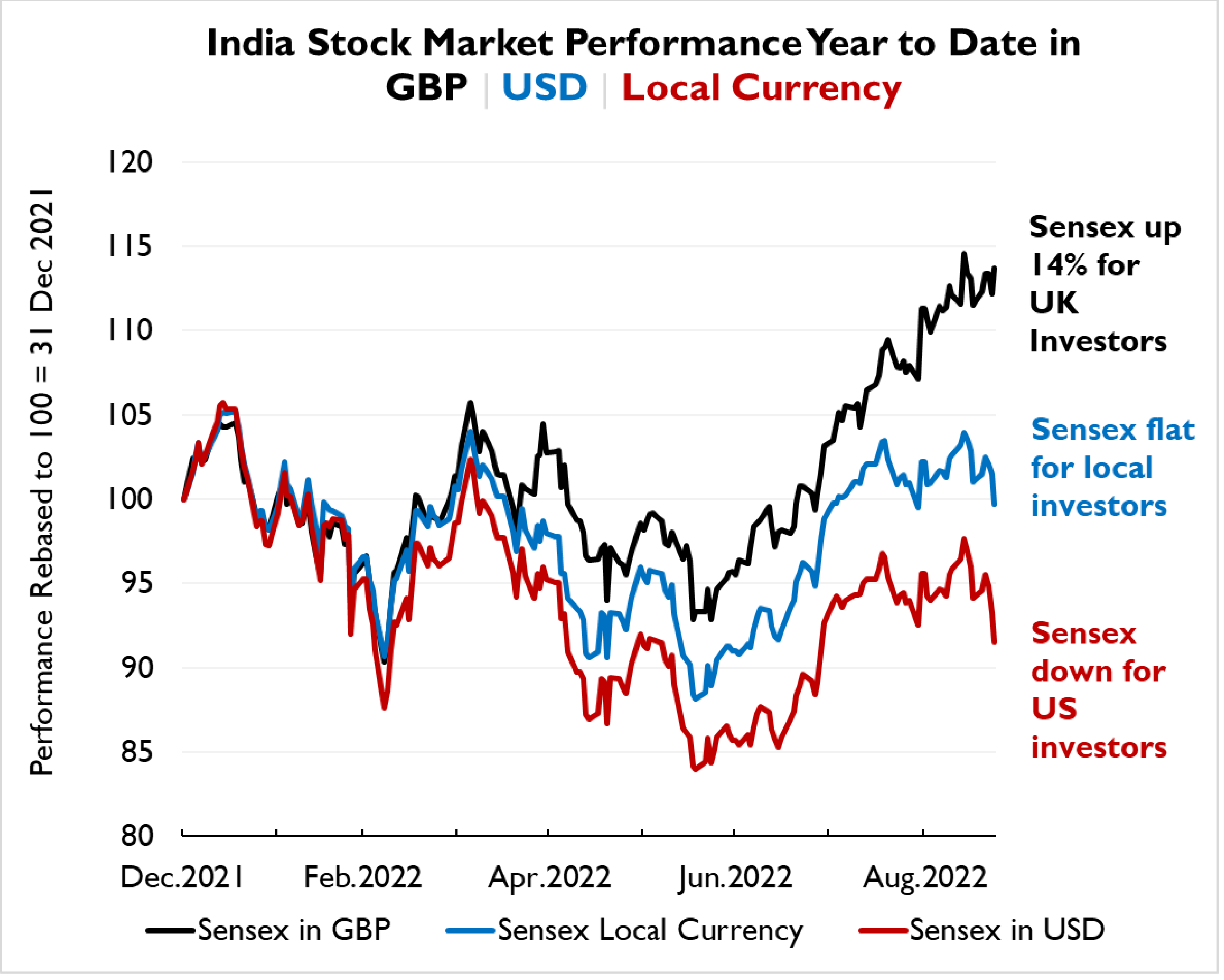
(a) **(b)**



Source: ByteTree, Refinitiv Datastream

India's stock market is at the top of our asset ranking table at the moment. It is doing especially well for UK investors (Figure 11 – black line)**. The reason is primarily down to the weakness of sterling.** However, if one is a US dollar investor, the position is different (Figure 11 – red line). The dollar is far too strong. The Indian stock market is the only regional equity market that we hold. However, we expect it to be sold again in due course as markets drop. If the price of oil were to rally again that could also make the Indian market come off again. **For now, we continue to own it, but we must be prepared to sell when the model decrees.** With the global economy mired in recession and the global equity bear market raging on, it is very unlikely that the Indian stock market will be spared. As ever, our job is not to predict when this will happen, but simply to follow the model.

► **Figure 11: The Indian Stock market has buckled the global trend and gone on to rank as the strongest asset in the AAA Model but this is primarily due to weakness in sterling**

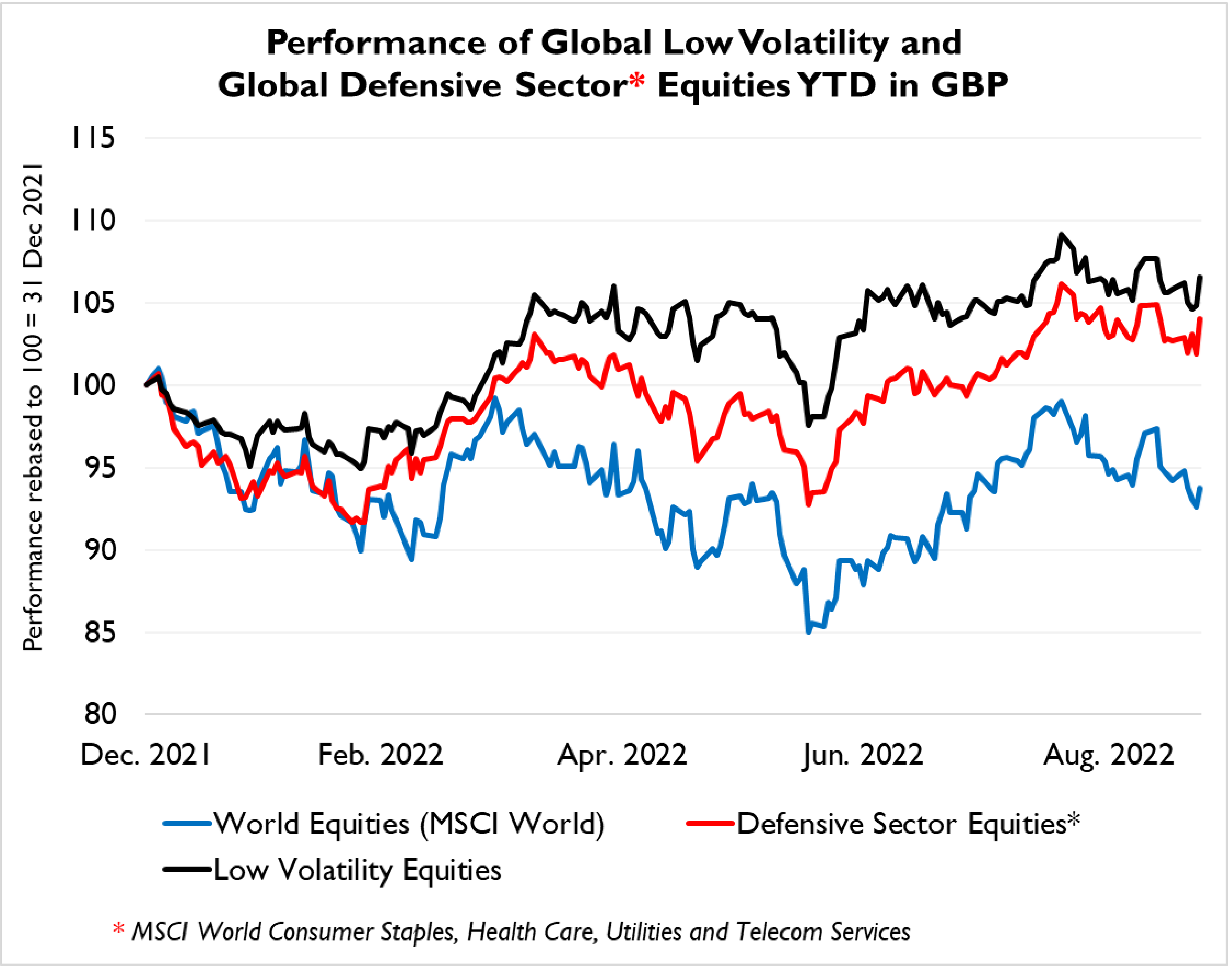


Source: ByteTree, Refinitiv Datastream

We are in an inflation and rate driven bear market which is not over yet. We can clearly see this from the asset rankings. The Strongest assets are primarily inflation beneficiaries – notably energy and agricultural commodities. The weakest assets are all bonds, which are being pulverized by rising interest rates. The Strong assets are primarily defensive in nature – Cash, Gold Bullion and short (inverse) equities. As they are strong, we will not be punished for holding some cash or gold even though they are not the top investments. US Equities rank as Strong, but this is due to the strength of the dollar. By comparison, most growth sensitive equity markets are in the Weak asset group.

Amongst the Strongest Assets, we also own Low Volatility Equities. These styles of equities are more defensive than traditional equity markets (Figure 12 – blue line) **and normally outperform in bear markets.** Their performance this year (Figure 12 – black line) has closely mirrored the performance of defensive sector equities (Figure 12 – red line) which tend to be more resilient in a bear market. So far, they have helped us survive and stay afloat and we expect this to continue. In a nutshell, the strategy now is to preserve capital. The bear market is not over.

► **Figure 12: Low volatility equities perform like defensive sector equities and normally outperform traditional equities in a bear market**



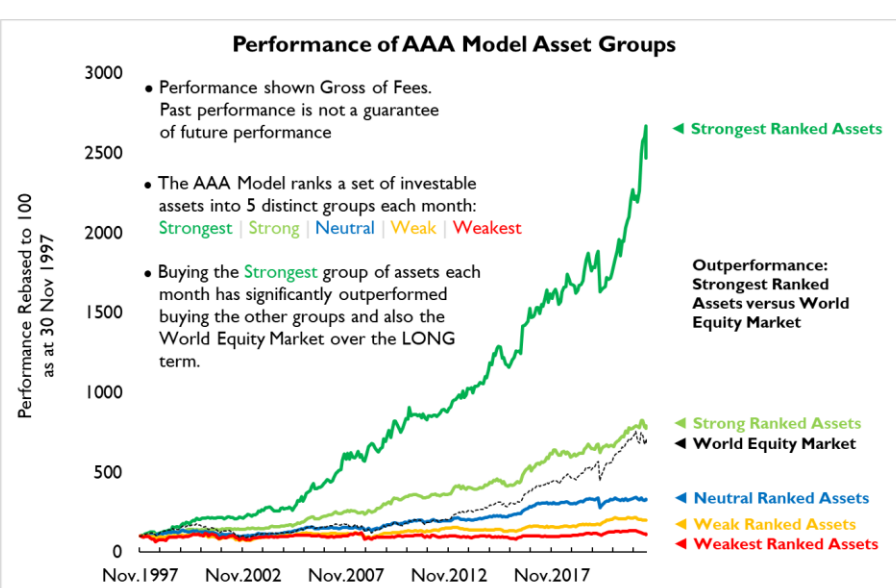
Source: ByteTree, Refinitiv Datastream

►Model Guide: What is the AAA model and how to use it?

- The AAA model is a technical model which ranks a list of important assets using our proprietary *Business Cycle Adaptive Trend* ranking algorithm.
- As different assets outperform at different stages of the business cycle*, the AAA model aims to identify which are the strongest and weakest trending assets at each phase of the business cycle.
- The model is run monthly and outputs the complete list of ranked assets divided into 5 distinct groups based on their trend-strength: Strongest, Strong, Neutral, Weak and Weakest.
- Whilst we will show the complete list of ranked assets as a table in the Appendix (Figure B), the assets to buy each month are the ones labelled as "STRONGEST".
- The chart below (Figure A) shows the difference in performance between buying the assets labelled as Strongest each month compared to buying the others [Strong, Neutral, Weak and Weakest]. The main point to take away from this chart is that the Strongest trending assets significantly outperform the other groups over the long term hence are the ones to buy. Of course, investors also need to bear in mind that **past performance is never a guarantee of future results.**
- The rankings are updated monthly and any changes to the rankings need to be mirrored in your portfolio [buy any assets that are promoted to the Strongest asset group each month and sell any that have left the group]. These trends do not change as rapidly as those for individual shares and typically means holding four assets each month.
- The strongest assets can be purchased using Exchange Traded Funds (ETFs) or Managed Funds. A representative sample of the former is shown in the Appendix for illustration purposes however this list should not be considered recommendations.

* Greed assets [risk assets] generally do better in times of economic expansion and investor risk-adoration. Conversely, Fear assets [defensive assets] generally do better in times of economic contraction and investor risk-aversion.

► Figure A: Buying the Strongest ranked assets has significantly outperformed the other groups over the long term



► Figure B: The AAA Model ranks a list of key assets each month but only the Strongest assets should be bought

	September 2022	Representative ETF Name Distributing ETF Name; Accumulating ETF Name	Representative ETF Ticker Distributing*	Representative ETF Ticker Accumulating*
Strongest	India Equities	No Distributing ETF ; DB X-TRACKERS MSCI India Index UCITS ETF ACC	-	XCX5
	World Low Volatility Equities	No Distributing ETF ; iShares Edge MSCI World Minimum Volatility UCITS ETF	-	MVOL
	Agricultural Commodities	No Distributing ETF ; ETFS Commodity Securities Agriculture Dow Jones UBS CI	-	AGAP
	Energy Commodities	No Distributing ETF ; ETFS Commodity Securities Energy DJ-UBSCI	-	AIGE
Strong	Gold Bullion	No Distributing ETF ; ETFS Physical Gold	-	PHGP
	US Equities	iShares S&P 500 UCITS ETF USD DIST ; ISHRS Core S&P 500 UCITS USD (ACC) ETF	IUSA	CSP1
	EM Equities	Vanguard FTSE Emerging Markets UCITS ETF USD ; No Accumulating ETF	VFEM	-
	UK Cash	No Distributing ETF ; No Accumulating ETF	-	-
	Inverse UK Equities	No Distributing ETF ; DB X-TRACKERS FTSE 100 SHORT DAILY ETF	-	XUKS
Neutral	Global High yield	iShares Global High Yield Corp. Bond UCITS ETF DIST ; iShares Global High Yield Corp. Bond UCITS ETF ACC	IGHY	HYLA
	Industrial Metals	No Distributing ETF ; ETFS Industrial Metals ETC	-	AIGI
	World Equities	iShares MSCI World UCITS ETF USD DIST ; iShares Core MSCI World UCITS ETF USD ACC	IWRD	SWDA
	UK Equities	iShares Core FTSE 100 UCITS ETF DIST ; SPDR FTSE UK All Share UCITS ETF	ISF	FTAL
	EM Govt. Bonds ($)	iShares J.P. Morgan USD EM Bond UCITS ETF DIST ; iShares J.P. Morgan USD EM Bond UCITS ETF ACC	SEMB	JPEA
Weak	Global Govt Bond	iShares Global Govt. Bond (USD) DIST UCITS ETF ; iShares Global Govt Bond UCITS (ACC) ETF	SGLO	IGLA
	Japan Equities	iShares MSCI Japan UCITS ETF DIST ; iShares Core MSCI Japan IMI UCITS ETF ACC	IJPN	SJPA
	World Quality Equities	No Distributing ETF ; iShares Edge MSCI World Quality Factor UCITS ETF	-	IWFQ
	China Equities	HSBC MSCI CHINA ETF ; No Accumulating ETF	HMCH	-
	EU Equities	iShares MSCI Europe ex UK UCITS ETF EUR (DIST) ; iShares MSCI EMU UCITS ETF ACC	IEUX	CEU1
Weakest	UK Corporate Bonds	iShares Core £ Corp Bond GBP UCITS ETF ; No Accumulating ETF	SLXX	-
	UK Gilts	iShares Core UK Gilts UCITS ETF GBP ; No Accumulating ETF	IGLT	-
	Global Corporate Bonds	iShares Global Corp Bond UCITS (USD) DIST ; iShares Global Corp Bond UCITS (USD) ACC	CRPS	CRPA
	UK Index Linked Gilts	iShares Index Linked Gilts UCITS ETF ; No Accumulating ETF	INXG	-

* *Distributing* units pay out dividends and income whilst *Accumulating* units reinvest it. Please select the ones that suit you. In some cases only one option is available.

Appendix

AAA Model Rankings GBP Portfolio with representative ETF Tickers

	September 2022	Representative ETF Name Distributing ETF Name; Accumulating ETF Name	Representative ETF Ticker Distributing*	Representative ETF Ticker Accumulating*
Strongest	India Equities	No Distributing ETF ; DB X-TRACKERS MSCI India Index UCITS ETF ACC	-	XCX5
Strongest	World Low Volatility Equities	No Distributing ETF ; iShares Edge MSCI World Minimum Volatility UCITS ETF	-	MVOL
Strongest	Agricultural Commodities	No Distributing ETF ; ETFS Commodity Securities Agriculture Dow Jones UBS CI	-	AGAP
Strongest	Energy Commodities	No Distributing ETF ; ETFS Commodity Securities Energy DJ-UBSCI	-	AIGE
Strong	Gold Bullion	No Distributing ETF ; ETFS Physical Gold	-	PHGP
Strong	US Equities	iShares S&P 500 UCITS ETF USD DIST ; ISHRS Core S&P 500 UCITS USD (ACC) ETF	IUSA	CSP1
Strong	EM Equities	Vanguard FTSE Emerging Markets UCITS ETF USD ; No Accumulating ETF	VFEM	-
Strong	UK Cash	No Distributing ETF ; No Accumulating ETF	-	-
Strong	Inverse UK Equities	No Distributing ETF ; DB X-TRACKERS FTSE 100 SHORT DAILY ETF	-	XUKS
Neutral	Global High yield	iShares Global High Yield Corp. Bond UCITS ETF DIST ; iShares Global High Yield Corp. Bond UCITS ETF ACC	IGHY	HYLA
Neutral	Industrial Metals	No Distributing ETF ; ETFS Industrial Metals ETC	-	AIGI
Neutral	World Equities	iShares MSCI World UCITS ETF USD DIST ; iShares Core MSCI World UCITS ETF USD ACC	IWRD	SWDA
Neutral	UK Equities	iShares Core FTSE 100 UCITS ETF DIST ; SPDR FTSE UK All Share UCITS ETF	ISF	FTAL
Neutral	EM Govt. Bonds ($)	iShares J.P. Morgan USD EM Bond UCITS ETF DIST ; iShares J.P. Morgan USD EM Bond UCITS ETF ACC	SEMB	JPEA
Weak	Global Govt Bond	iShares Global Govt. Bond (USD) DIST UCITS ETF ; iShares Global Govt Bond UCITS (ACC) ETF	SGLO	IGLA
Weak	Japan Equities	iShares MSCI Japan UCITS ETF DIST ; iShares Core MSCI Japan IMI UCITS ETF ACC	IJPN	SJPA
Weak	World Quality Equities	No Distributing ETF ; iShares Edge MSCI World Quality Factor UCITS ETF	-	IWFQ
Weak	China Equities	HSBC MSCI CHINA ETF ; No Accumulating ETF	HMCH	-
Weak	EU Equities	iShares MSCI Europe ex UK UCITS ETF EUR (DIST) ; iShares MSCI EMU UCITS ETF ACC	IEUX	CEU1
Weakest	UK Corporate Bonds	iShares Core £ Corp Bond GBP UCITS ETF ; No Accumulating ETF	SLXX	-
Weakest	UK Gilts	iShares Core UK Gilts UCITS ETF GBP ; No Accumulating ETF	IGLT	-
Weakest	Global Corporate Bonds	iShares Global Corp Bond UCITS (USD) DIST ; iShares Global Corp Bond UCITS (USD) ACC	CRPS	CRPA
Weakest	UK Index Linked Gilts	iShares Index Linked Gilts UCITS ETF ; No Accumulating ETF	INXG	-

* *Distributing* units pay out dividends and income whilst *Accumulating* units reinvest it. Please select the ones that suit you. In some cases only one option is available.

Source: ByteTree, Refinitiv Datastream

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