MONTHLY PERFORMANCE REPORT
December 2022

The Fund returned 6.07% for the month, compared with 3.08% for the BarclayHedge UCITS Global Macro Index and -4.61% for the Credit Suisse Global Macro Index. The Fund continues to achieve its objective of being a low volatility fund (6.60% since inception July 2014) with low correlation to equity markets, as a consequence of our risk management strategies. Inflation will be the number one global threat to returns in 2022, despite the Federal Reserve and the Biden administration professing through 2021 that its effects would be “transitory”.

PERFORMANCE (Inception JUL-2014)	Arminius Capital ALPS Fund	BarclayHedge UCITS Global Macro Index	CREDIT SUISSE GLOBAL MACRO (USD) INDEX	SOCIETE GENERALE CTA MUTUAL FUND INDEX
1 Month	**6.07%**	3.08%	-4.61%	-0.11%
3 Months	**4.83%**	7.65%	-7.56%	-4.78%
Calendar YTD	**21.67%**	0.34%	-4.61%	19.98%
1 Year	**21.67%**	0.34%	12.62%	19.98%
3 Years	**25.94%**	5.24%	20.65%	27.37%
5 Years	**8.44%**	13.67%	33.32%	37.57%
Cumulative since Inception JUL 2014	**40.40%**	**5.03%**	**24.15%**	**37.25%**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**CY**
2014	-	-	-	-	-	-	2.09%	0.04%	-1.43%	2.02%	1.18%	2.35%	6.37%
2015	3.85%	1.56%	-0.07%	-1.47%	0.77%	-0.09%	0.52%	-1.23%	-0.45%	1.23%	0.19%	-2.43%	2.26%
2016	-0.38%	-2.38%	0.54%	2.37%	1.22%	0.41%	-0.10%	0.03%	0.00%	0.20%	3.55%	4.60%	10.33%
2017	-0.13%	2.69%	3.31%	0.10%	1.25%	0.02%	-0.34%	1.28%	-1.45%	1.93%	-1.41%	1.04%	8.47%
2018	3.94%	-2.64%	-3.56%	0.49%	0.24%	-0.57%	-1.77%	0.88%	-1.94%	-3.90%	-3.75%	-2.26%	-14.1%
2019	0.08%	0.12%	0.35%	-0.22%	1.39%	0.20%	0.60%	1.44%	-2.72%	0.27%	0.70%	-1.85%	0.28%
2020	1.38%	1.11%	2.76%	-2.29%	-1.45%	-0.71%	-0.10%	0.22%	-0.17%	-0.29%	-0.64%	-0.61%	-0.88%
2021	-0.46%	0.44%	0.42%	0.92%	-0.28%	0.64%	0.89%	1.10%	-0.77%	0.31%	-0.48%	1.64%	4.43%
2022	-0.49%	-0.02%	-0.44%	-0.51%	0.08%	1.69%	4.79%	4.64%	5.54%	2.52%	-3.60%	6.07%	21.67%

GENERAL INFORMATION

Name: ALPS (Alternative Liquid Portfolio Strategy)

Base Currency: AUD or Client pref.

Entity Type: IMA

PMs: Marcel von Pfyffer (CIO)
Neill Colledge

Launch date: Jul-2014

Recommended investment Horizon: 10 years

Style: Global Macro

Investment Universe: Equities, Futures, Options, ETFs

Long/Short: Yes

Base Fee: 2.0% p.a. +GST

Performance Fee: 20.0% p.a. +GST

Benchmark: 0.00% (Absolute Return)

Prime Broker: Interactive Brokers

INVESTMENT MANAGER

Arminius Capital Investment Office Pty Ltd
AFSR 1296252 ACN 658654016
Licensed by:
Arminius Capital Advisory Pty Ltd
AFSL 461307 ACN 165509928

DISTRIBUTION DETAILS

Arminius Capital Advisory
115 Wickham St
Fortitude Valley
QLD 4006
AUSTRALIA
+61 7 3040 9104
info@arminiuscapital.com.au

FUND OBJECTIVES: The fund provides investors with exposure to all asset classes in the global macro universe. Arminius' aim is to provide smooth positive returns with lower volatility and lower risk than concentrated single market/asset class exposure. Our absolute return investment methodology utilises a combination of fundamental, momentum and quantitative inputs. As an absolute return fund, the objective is to preserve the capital base across every 10 year rolling period.

INVESTMENT STRATEGY: Arminius uses econometric modelling based on macro-economic indicators alongside fundamentals pertinent to each individual instrument within each asset class. Momentum is taken into account only once the fundamental value of each instrument has been ascertained. Low volatility and risk management is complemented by frequent re-balancing and equal weighting, according to what each hedging sub-strategy dictates.

FUND STATISTICS MONTHLY

From July 2014	**ALPS Fund**	XJO
Sharpe Ratio	**0.14**	0.06
Sortino Ratio (RFR)	**0.27**	0.18
Downside Deviation	**3.51%**	5.05%
Standard Deviation	**1.91%**	4.26%
Annualized SD	**6.60%**	14.74%
Mean Monthly Return	**0.36%**	0.35%
Compound Monthly Return	**0.34%**	0.26%
Excess Return (RFR)	**0.93%**	0.92%
Portfolio Correlation to XJO	**0.05**	-
R^2 Coefficient of Determination	**0.00**	-

FUND PERFORMANCE:

This month, the fund rose by 6.07% while global equities as measured by the MSCI World index fell by -4.34%, with US equities falling by -5.90%. MSCI World equities are now -19.46% YTD, while the fund is +21.67%. The world's risk free benchmark, US 10 year bonds, rose in yield by 0.18% to finish the month at 3.88%. The fund's market neutral positioning meant a measured, risk managed return for the month. The fund's volatility since inception is 6.60% and therefore continues to provide an alternative to low (or negative) yielding bonds; and a globally diversified, low volatility exposure with low correlation to equity returns.

In equities this month, our Australian exposure was net negative, contributing -0.44% to overall returns. Our US L/S exposure was net positive (-0.55%/0.66%), our European L/S exposure was net positive (-0.10%/0.66%) and Japanese L/S exposure was net negative (-0.43%/1.63%). Global Equities (including derivatives) as an asset class contributed +1.42% to returns; being positive, was superior to MSCI World equity returns for the month (-4.34%).

Our synthetic long VIX position contributed -1.31% to overall returns.

Commodity exposure was net positive, contributing +1.27% to overall returns. Our short WTI position was profitable, Brent was neutral for the month (models neither indicating overbought or oversold conditions) and RBOB trading returned +4.53%. Our short Heating oil position added 2.94%. Natural gas shorts were materially unprofitable again this month, gapping at stop out levels to -19.42% (Henry Hub in fact ended up finishing December down -40.78%!!!) but was offset by our Dutch Gas shorts which returned 46.00% and UK gas was neutral (not traded). This brought our energy basket to a net +4.94% position. Our Long gold position made +2.93% alongside our silver long which gained +7.78%. Copper, aluminium and zinc models' neutral signals were joined this month by iron ore (all zero exposure). Our coal long lost -4.99%.

Corn longs returned 2.39%, soybeans gained +2.70%, sugar generated no signal so was neutral, and our wheat positions made +0.75%.

A European style AUDUSD long call option position opened during November to hedge US Equities exposure and Commodities contracts' USD exposure, was exercised deep in the money at its expiry (early December). This added +4.68% to the fund's overall monthly return (materially offsetting the November fund return of -3.60% which was primarily caused by FX effects).

FUND MANAGER COMMENTARY

ALPS ended 2022 in positive territory (+21.67%), in stark contrast with global equities (-19.46%) and bonds (-15.13%).

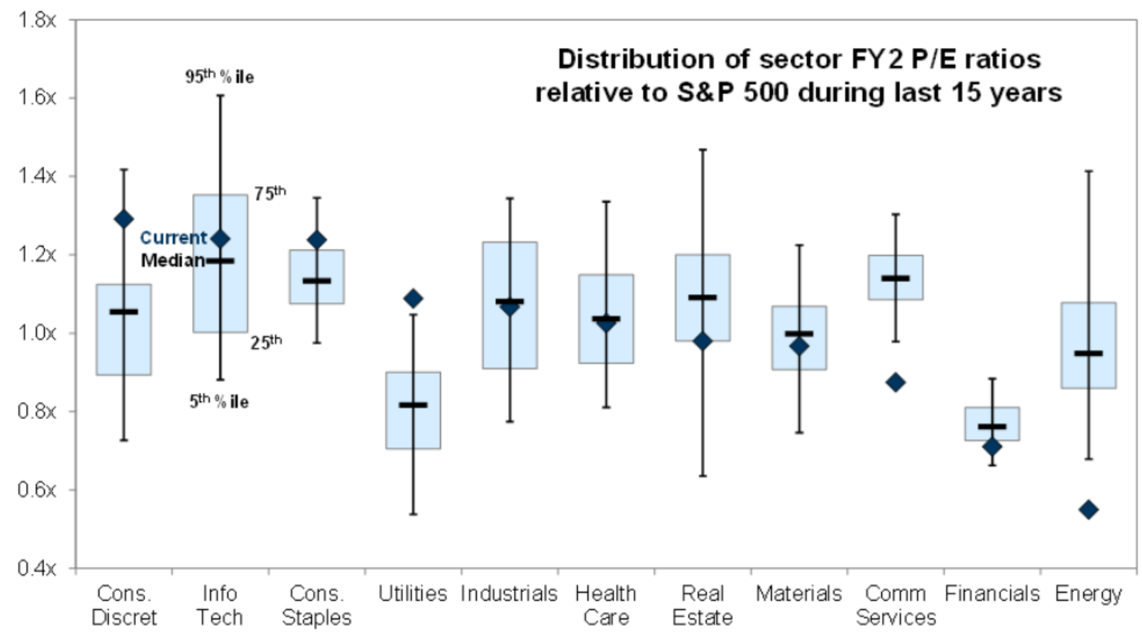
Well, that was a fun year, wasn't it? Fortunately for our investors, they were materially exposed through the year to the sole asset class that actually had a positive print in calendar 2022 – commodities. Our investors were also able to benefit with us by something that **most** hedge funds do: we "hedged" our other exposures. Arminius Capital's ALPS (Macro) returned 21.67% and Arminius Capital's CMOD (Commodities) returned 55.13%. Our three risk managed allocations (Conservative, Moderate, Aggressive) which are an SAA aggregation of 8 of our individual strategies, returned 18.09%, 19.79% and 23.04% respectively. During the year, ALPS collected **two international awards for 3rd and 5th place** for monthly returns in August & September from BarclayHedge.

https://www.barclayhedge.com/rankings-awards/performance-awards/

It has puzzled some in the global investing community as to why, with the green movement capturing so much attention, that the prices of commodities and equities linked to coal, oil & gas have had one of their best years in recent memory; for some - in history. Whitehaven Coal's (WHC-AU) total return including divs and special divs for CY2022 was +314% and many US oil companies returned in excess of 100% (OXY-US, EQT-US, XOM-US, MRO-US, MUR-US). The answer is simple: when capital is constrained from being re-invested in certain industries then in the absence of such capex investment into those sectors, the clearing price of the end product of those sectors (oil, gas) must necessarily rise. This is the end product of years of under-investment in sectors that the world needs on a daily basis just to survive. This may be too difficult a concept for some to grasp, but suffice to say that it is in no small part due to the widespread implementation of ESG mandates which have led directly to the price rises of energy commodities this year. We posit that this (and inflation caused by central banks & global governments' COVID financial profligacy) has in much larger part contributed to commodities' bounty in 2022, than Putin's little foray into the Steppe.

If you think the commodities markets providing giants like Switzerland-based Trafigura profits of 1 million dollars per hour through some months in 2022 is an annually unrepeatable "one-off event", then you might be jumping out of the profits plane prematurely without a "let-your-winners-run" parachute. History shows that fewer things beget inflation than bubbles, debt and war. All of these lead to (or create) massive inefficiencies in how risk is priced in capital markets. The outcome of these inefficiencies almost always inevitably lead to inflationary periods. Inflationary periods tend to last a lot longer than the incumbent "adults in charge" think they're going to. Our perspective – for what's its worth, given we got the inflation story right from 2020 onwards and have made 55% this year from our commodities trading – is that 2023 doesn't appear to have any of the hallmarks of a possible end to this inflationary period.

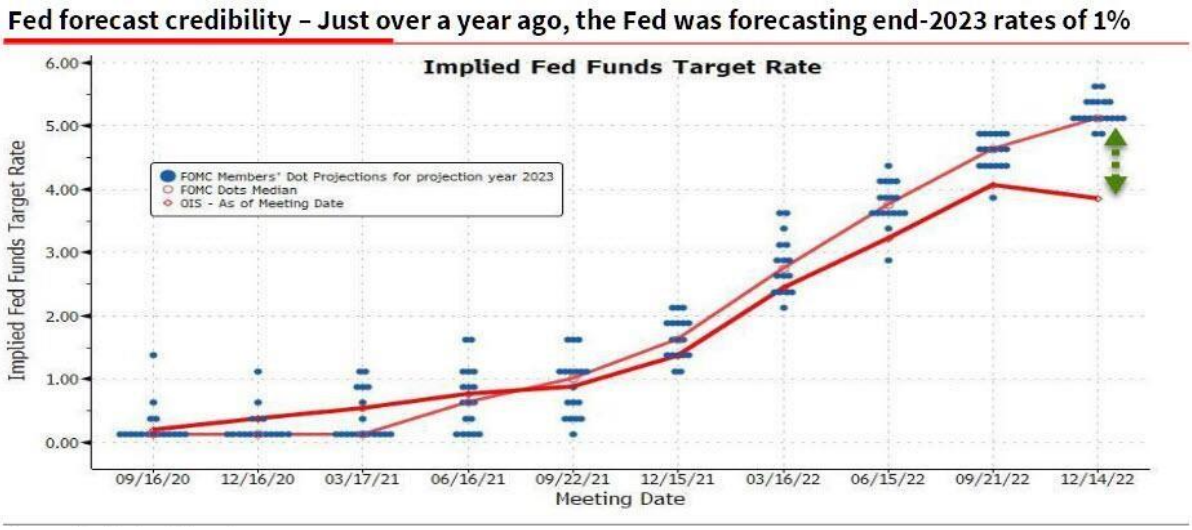
Not that I would ever trust a sell-side analyst to boil a pot of potatoes correctly, but even the most pedestrian consensus forecasts for the US energy sector show current FY2 PE ratios (the diamond marker in the chart below) as the lowest of <u>all</u> market sectors. This is quite astonishing particularly given that this has already been – by a significant margin of outperformance – the best performing sector in the S&P500 in CY2022. Without drilling (har har) down into how the analysts have come up with these numbers, be it based on USD translation effects, EM growth vs US domestic market growth or capex under-investment etc, the investment banks seem to think that energy producers are still very cheap and will be able to generate earnings superior to the rest of the market over the next 2 years.



As we have discussed many times since March 2020, we lay the blame for the inflationary status the world is currently not enjoying, largely at the feet of the world's central banks. Not content with their abject failure to guide the world's markets with their colossal failures during the inter-war period, we have now seen the fruits of the central banks' incompetencies displayed post-GFC. COVID was the great hand that raised the rug to show the world all the dust that the central bankers had swept under post-2009 when they were "saving the West's banking system".

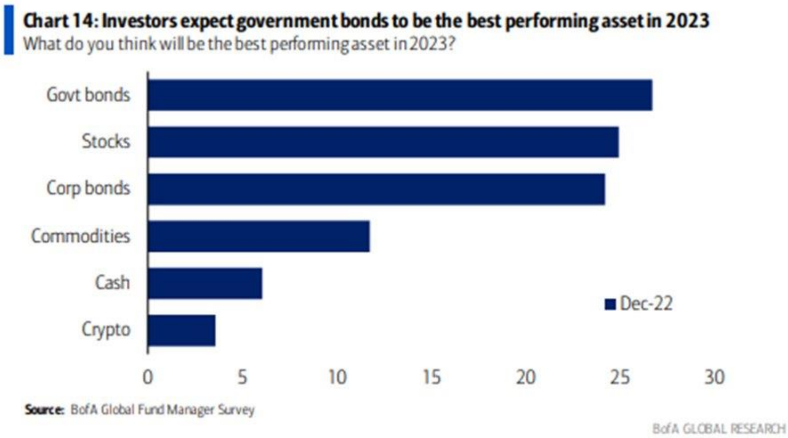
As they continued the previous decade's "God's work" through COVID, some market participants seemed genuinely surprised that inflation and financial largesse created by governments' reckless spending during COVID, ended up having an impact on housing, rent, heating, petrol, building materials and food. Quite incredible. And in some lucky countries (I mean this with the largest amount of disrespect possible to their economic intellect) they thought that the best way to combat the very inflation that they had helped create, would be to mandate wage level increases (yay! more votes!!) so that salaries would either be indexed to (or even outpace) inflation. Give teachers a 20% pay rise across 2 years? Brilliant. Done!

I have every confidence that every non-socialist universities' Economics faculties around the planet (yes, it would be a small field, right?) would fail every Western governments' Treasury Department and/or Finance ministries for their fiscal rectitude demonstrated across the past 3 years. They DID miss the inflation markers, and so why should we have anything but a distinct lack of confidence in their abilities to rectify the fact that they got it so wrong in 2020-21? Albert Edwards' chart below reminds us that in December 2021, the Fed's 2 year forecast (for December 2023) was that rates would only need to rise to 1%. **ONE PERCENT BY DEC 2023**. Where are those forecasters working now? Oh – they're still working at the Fed? Great. Job security with no metrics, KPIs or accountability is awesome! Love a good government job!



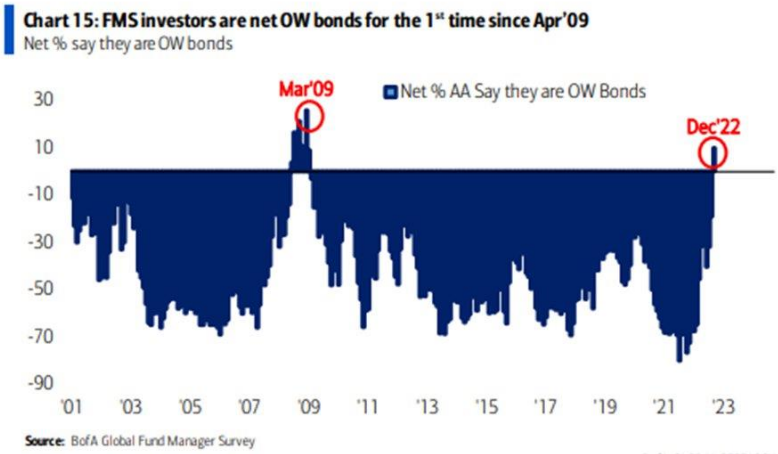
What the politicians and central bankers now will have front of mind is not the economy or the markets, but rather limiting the reputational damage that they have incurred. Because they don't want to find themselves compared to Arthur Burns or Gough Whitlam, they will necessarily be unable to conduct their operations objectively, which brings with it an entirely new set of risks to financial stability. As we have mentioned in previous reports, governments and central banks seem to think that they can continue to drive the "stable growth" car competently, by keeping one foot on the brake pedal (embarking upon Quantitative Tightening to undo all their undue stupidity of 2020-21) and the other foot on the accelerator (not raising interest rates ANYWHERE near as high or as fast as what was - and is – needed). And if you count to about 3 after saying this, you will begin to hear "their" squeals about how "…but…but…but…core inflation is already receding", at which time you direct them to the library shelf of books about Arthur Burns having successfully defeated inflation in under 2 years. This is a joke in scholastically bad vitriolic taste, as we know full well that the only books written on Arthur Burns are about how he failed miserably to defeat inflation, thinking that after 2 years of slightly raising the Federal Funds rate, his work was done. Goodnight, Elizabeth.

2022 killed many things, not the least of which was the 60/40 portfolio (S&P500 -19%, World Govt Bond Index -17%), but also many fund managers' reputations. As we smile & wave here at Arminius Capital because we are "modestly aged" and can analyse time series, it comes as little surprise to us that the 30 or was it 40 year bull market in bonds had to come to an end at some stage. Nothing quite like a once every 50 years inflation shock to wake the bond market from its slumber. This is demonstrated with incredible alacrity by the below Bank of America charts showing that in December 2022, fund managers went overweight bonds (O V E R W E I G H T) for the first time since 2009. Bond market participants in 2022 were absolutely and completely "toweled" (this is a technical term) for what Jim Bianco described as "arguably the worst investment call in the history of organized society".



27% of FMS investors expect government bonds to be the best performing asset of 2023 (followed by stocks at 25%, corp bonds 24%, commodities 12%, cash 6%, crypto 4%).

Note we are long US government bonds in H1'23...hard landing & credit event risks underpriced (see Year Ahead 2023: long Bonds H1, long Stocks H2).



Allocation to bonds surged in December with FMS investors net 10% OW bonds (up 29ppt MoM), the first time investors have been net OW bonds since Apr'09.

Was 2022 as bad as it gets this cycle? Don't jump the gun. Morgan Stanley has kindly compiled a table comparing a host of market conditions in 2008 vs December 2022. Given that we've probably spoken enough in this missive about inflation returning, let's just walk past that gorilla, and look at a few other fairly rudimentary, vanilla leading economic and/or financial conditions indicators: The PE ratios of the 2 periods aren't really in the same ballpark, let alone the same game played with different shaped balls. Although we'd be happy to waltz out the latest updated CAPE chart or Buffet Indicator chart, we'll let you do the hunting this month. A mean reverting unemployment rate, a typical harbinger of bad times ahead is pretty much in historical nosebleed territory – and that's even if you believe the ADP or the BLS numbers.

Powell will be knocking his head into the bathroom mirror at Jackson Hole because he knows that until he sees signs of people being fired in seriously large numbers (unemployment is 3.7%!!!!!!) then inflation is not going anywhere. Get a few hundred thousand people fired for starters, and then he might begin to see moderation in housing prices, cars & discretionary spending. Not before.

The table below shows that this market has a lot of bad news that is nowhere near priced in yet.

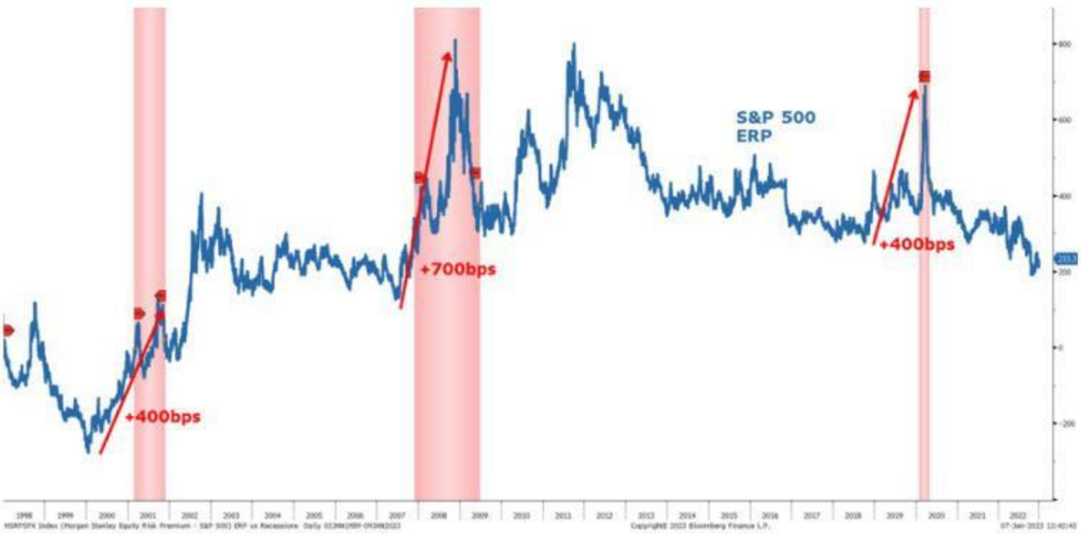
Exhibit 5: Past as Prologue? Don't Assume Market Has Priced the Severity of the Earnings Recession

	August 2008	Today
P/E Ratio	13x	16.8x
10 year yield	3.80%	3.48%
CPI y/y	5.30%	7.10%
10 Year Breakevens	2.30%	2.13%
Equity Risk Premium	380bps	250bps
ISM Mfg PMI	50	49
S&P % Change From Peak	-18%	-19%
NTM EPS % Change From Peak	-5%	-3.90%
Unemployment Rate	6%	3.70%
Jobless Claims	435,000	211,000
3Month-10Year Spread	+200bps	-79bps
Fed Cuts to Date	325bps	0

Source: Bloomberg, Morgan Stanley Research

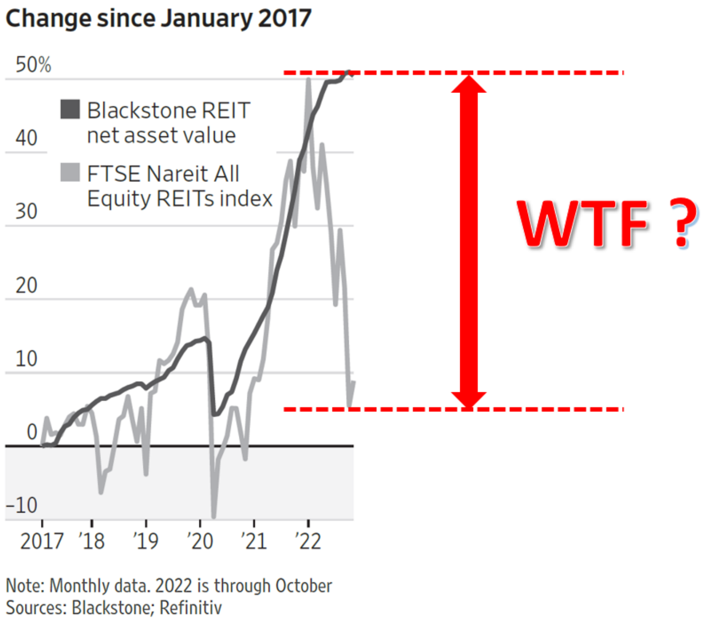
Suffice to say, both the table above and chart below SHOULD suggest to you that someone somewhere is clearly still overstating earnings and this market has feet of clay and is built on sand.

Exhibit 1: ERP Always Rises Materially When a Recession Arrives So Don't Assume It's Priced



Source: Bloomberg, Morgan Stanley Research.

Finishing 2022 with our GFC comparisons, we noted this month – as happened in 2007 – liquidity issues were the canary in the coal mine. Repo market conditions aside, the liquidity bogeyman raised his head in December when Blackstone remarkably gated redemptions in a monster-huge sized property fund. The laughter began resonating amongst the cynics when this chart came out in the Journal:



To those of us who have in the past few years chuckled at Private Equity, Pension (Superannuation) and Property funds' ability to ascribe their own valuations to their funds' "illiquid" assets, the above chart came as no surprise. Magically, Blackstone seems to have created a fund whose investments in an asset class (property) have amazingly not moved while the value of other funds' properties in the same asset class have dropped precipitously. Then, in December 2022, investors started to question how was it possible that Blackstone was 7 sigma events smarter than every single other property investment manager in the United States?

Investors began to pull their money out of Blackstone, so then the mighty investment giant (FUM, not intellect) gated redemptions in the fund. I was working in London during the GFC when British Land did this and let me tell you, nothing sends a clearer message to the market about serious liquidity problems than ***when*** a massive property fund gates redemptions. Listed Investment Companies, REITs and Property funds that get into trouble then gate redemptions, are unaffectionately referred to in the industry as "Lobster Pots". This may be some of the first very serious cracks appearing in the plumbing of the financial markets – far more so than a piddling -20% drop in equity markets (which was really just the US Tech sector taking a bit of froth off). We recall fondly that the NASDAQ fell -78% from peak to trough, ending in the early 2000s, whereas in 2022 it's **<u>only</u>** down -30%.

"And so where to for 2023?", our investors call out for re-assurance & guidance. If you want predictions, then you need to go and speak to an economic forecaster, remembering that they're called "forecasters" because "CHARLATAN" is too hard to spell for most people.

While we here at Arminius Capital are perfectly capable of building insanely complex econometric models that will either give you great stimulation or put you to sleep (depending on your love of math), we always resort to the old maxim "All models are wrong, but some are useful". Our models should be able to present a valuation for something as "far out" as perhaps 9-12 months, but given that every time we run our models, we get a different valuation, we are reticent to tell people anything at all, other than perhaps 4 weeks out.

This is not because we don't want to be seen with our models (some of them are quite hot) but rather - given the many decades that we have been working in capital markets - we are all too aware of how rapidly factor inputs can change. Hence, we run a "hedge fund" (as demonstrated amply in 2020 and 2022 with our performance – due to hedging) and not an asset gathering mega-shop. We know what returns asset classes will average over various time periods (bonds since 5000 B.C., US equities since 1871 A.D.) but the trick is in the timing. Given that most investors do not live to see 100, attempting to time the market perfectly is a fool's errand. What we will impart is that 2022 has definitively seen the end of an era on a number of fronts. Bonds are breaking, commodities are corralling (not singing chorals) and the drums of war are beating in a way that they have not since the Greatest Generation volunteered to go to basic training.

We expect central bankers in 2023 to choose recessions over combating inflation. History shows that this is the incorrect choice as unchecked inflation almost always leads to periods of "wars", be they civil, populist or international. History likewise shows that few men have the intestinal fortitude (courage) that when faced with the hard thing to do in preference to the easy thing, they will do the hard thing anyway because it is the right thing to do. Hemingway wrote that Courage is "grace under pressure", and watching the world's governments since 2020 stumble and fall over at almost every fiscal policy point is hardly what I would refer to as an exposition in grace. Likewise, the central bankers and Treasury/Finance heads in Europe, England, America and Australia have definitely been under pressure these last 3 years and were found completely wanting.

Instead of central bankers not bending to the bond market's wishes and staying the course until the inflation dragon is well and truly slain, they will in all likelihood embark upon a period in coming years where they will slowly but surely increase their "target range" for inflation. Given the bravery issue we have discussed in the above paragraph, it is dubious that they will do this implicitly (setting static CPI targets) but will more likely do it via the under-the-hood plumbing method of QE that they have employed with such latent disastrous effects since 2009. See Japan for a crash course in markets manipulated by governments trying to stop something that can't be stopped.

If they don't stay the inflation slaying course, then the corollary of this will in all likelihood be a 2023 global recession, re-emergent inflation down the road, commodities to benefit, and equities to stay away from.

Speaking of **IF**, our wish for 2023 is that all central bankers and politicians would recite the below verse.

If you can force your heart and nerve and sinew

To serve your turn long after they are gone,

And so hold on when there is nothing in you

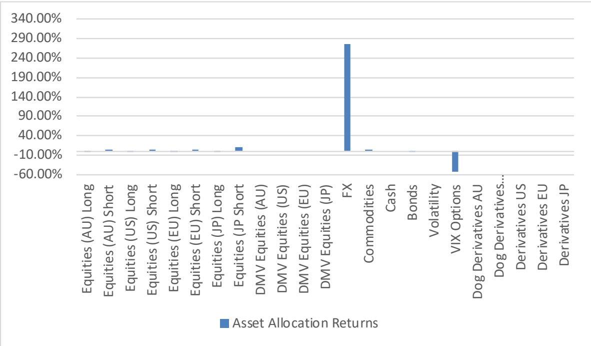
Except the Will which says to them: "Hold on".

We thank our investors for their trust in 2022, hope you enjoyed the double digit returns we provided, and wish you continued good returns, happiness and success for 2023 – it will be a jungle out there ;o)

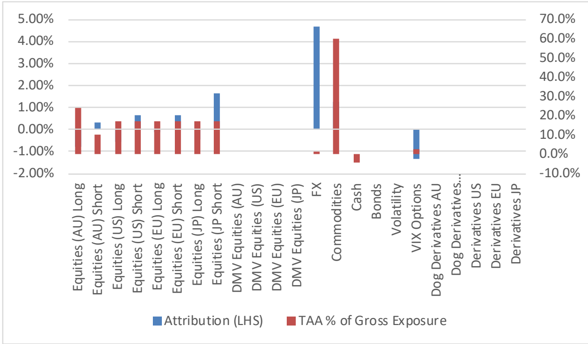
Q.E.D.

PERFORMANCE TABLES

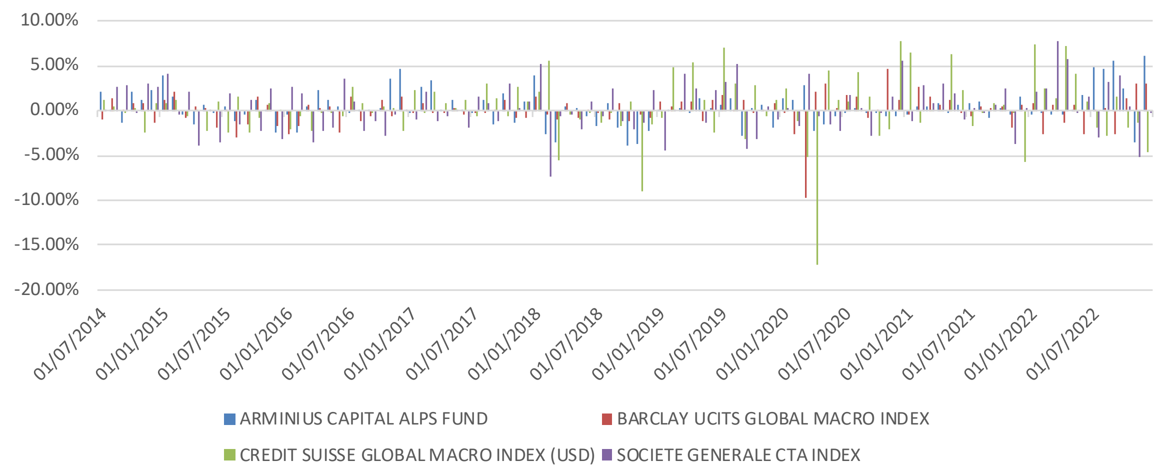
Asset Allocation Returns



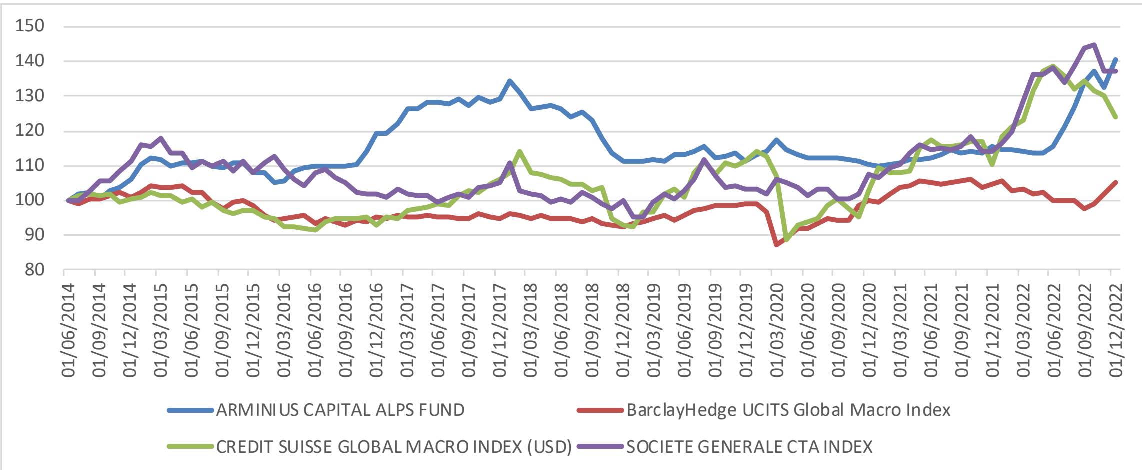
Attribution and TAA



Monthly Performance since Inception July 2014



Cumulative Performance since Inception (Base 100 = 30 June 2014)



GLOBAL FINANCIAL MARKETS – MONTHLY DATA

EQUITIES	30-Nov-22	31-Dec-22	ROR
WORLD			
MSCI World Index (USD)	2720.9	2602.7	-4.34%
EUROPE			
Germany DAX (TR)	14397.0	13923.6	-3.29%
Switzerland SMI (PR)	11127.8	10729.4	-3.58%
STOXX Europe 600 (EUR)	440.0	424.9	-3.44%
FTSE 100	7573.1	7451.7	-1.60%
France CAC 40	6738.6	6473.8	-3.93%
FTSE MIB	24610.3	23707.0	-3.67%
Netherlands AEX	724.1	689.0	-4.85%
Belgium BEL 20	3685.0	3701.2	0.44%
OMX Stockholm 30	2102.4	2043.4	-2.81%
Norway Oslo All-Share	1404.7	1362.7	-2.99%
Ireland FTSE	363.2	366.1	0.81%
Spain IBEX 35	8363.2	8229.1	-1.60%
Cyprus CSE General	88.6	89.6	1.12%
AMERICAS			
S&P 500	4080.1	3839.5	-5.90%
DJ 30 Industrials	34589.8	33147.3	-4.17%
DJ 65 Composite Average	11536.1	10962.8	-4.97%
NASDAQ Composite	11468.0	10466.5	-8.73%
Russell 1000	2239.1	2105.9	-5.95%
S&P TSX	20453.3	19384.9	-5.22%
Brazil Bovespa	112486.0	109734.6	-2.45%
Mexico IPC	51684.9	48463.9	-6.23%
ASIA			
S&P ASX 200	7284.2	7038.7	-3.37%
Nikkei 225	27969.0	26094.5	-6.70%
Hang Seng	18597.2	19781.4	6.37%
Korea KOSPI	2472.5	2236.4	-9.55%
FTSE Strait Times	3290.5	3251.3	-1.19%
Taiwan TAIEX	14879.6	14137.7	-4.99%
New Zealand NZX 50 (TR)	11552.0	11473.2	-0.68%
Shanghai SSE Composite	3151.3	3089.3	-1.97%
China Shenzhen A Share	2111.9	2066.7	-2.14%
India S&P BSE SENSEX	63099.7	60840.7	-3.58%
FTSE Bursa Malaysia KLCI	1488.8	1495.5	0.45%
Indonesia JSX	7081.3	6850.6	-3.26%

FOREIGN EXCHANGE	30-Nov-22	31-Dec-22	ROR
AUD/USD	0.6794	0.6829	0.51%
EUR/AUD	0.6515	0.6350	-2.53%
JPY/AUD	93.68	89.15	-4.84%
GBP/USD	1.2064	1.2084	0.17%
CHF/USD	1.0603	1.0902	2.82%
USD/CAD	0.7443	0.7392	-0.68%
EUR/GBP	0.8645	0.8900	2.95%
EUR/USD	1.0429	1.0754	3.12%
USD/CHF	0.9456	0.9240	-2.28%
GBP/AUD	1.7774	1.7723	-0.29%
CBOE Volatility Index (VIX)	20.58	21.67	5.30%

COMMODITIES	30-Nov-22	31-Dec-22	ROR
Energy			
Crude Oil WTI (NYM $/bbl) Continuous	80.55	80.26	-0.36%
Brent Crude (ICE $/bbl) Continuous	86.97	85.91	-1.22%
NY Harbor ULSD (NYM $/gal) Continuous	3.36	3.30	-2.04%
NY Harb RBOB (NYM $/gal) Continuous	2.38	2.48	3.93%
Natural Gas (NYM $/btu) Continuous	6.93	4.10	-40.78%
Precious Metals			
Gold (NYM $/ozt) Continuous	1759.90	1826.20	3.77%
Silver (NYM $/ozt) Continuous	21.78	24.04	10.37%
Industrial Metals			
Aluminum (LME Cash $/t)	2387.00	2360.50	-1.11%
High Grade Copper (NYM $/lbs) Continuous	8198.00	8387.00	2.31%
Nickel (LME Cash $/t)	26500.00	30425.00	14.81%
Iron Ore 62% CN TSI (NYM $/mt)	93.25	111.28	19.34%
Zinc (LME Cash $/t)	2974.00	3025.00	1.71%
Agricultural			
Corn (CBT $/bu) Continuous	6.67	6.79	1.72%
Soybeans (CBT $/bu) Continuous	14.70	15.24	3.71%
Wheat (CBT $/bu) Continuous	7.96	7.92	-0.44%
Cotton #2 (NYF $/lbs) Continuous	0.85	0.83	-1.47%
Sugar #11 (NYF $/lbs) Continuous	0.20	0.20	2.09%
Indices			
GS Commodity (CME) Continuous	621.60	610.10	-1.85%
PowerShares DB Commodity Index Tracking Fund	25.49	24.65	-3.30%

10 YEAR SOVEREIGN YIELDS	30-Nov-22	31-Dec-22	Yield D
US	3.70%	3.88%	0.18%
UK	3.18%	3.66%	0.48%
Europe	1.96%	2.53%	0.58%
Australia	3.53%	4.05%	0.52%
Belgium	2.52%	3.17%	0.65%
Canada	2.98%	3.30%	0.32%
Denmark	2.16%	2.75%	0.59%
France	2.43%	3.07%	0.64%
Germany	1.96%	2.53%	0.58%
Greece	4.15%	4.59%	0.43%
Ireland	2.40%	3.04%	0.64%
Italy	3.87%	4.64%	0.77%
Japan	0.25%	0.42%	0.17%
Netherlands	2.23%	2.85%	0.62%
New Zealand	4.08%	4.48%	0.40%
Norway	3.13%	3.17%	0.04%
Portugal	2.89%	3.54%	0.65%
Spain	2.96%	3.61%	0.65%
Sweden	1.84%	2.39%	0.55%
Switzerland	1.12%	1.58%	-0.46%

ROR = Rate of Return
Yield D = Yield differential

GLOBAL FINANCIAL MARKETS – CALENDAR YEAR 2022 DATA

EQUITIES	31-Dec-21	31-Dec-22	ROR
WORLD			
MSCI World Index (USD)	3231.7	2602.7	-19.46%
EUROPE			
Germany DAX (TR)	15884.9	13923.6	-12.35%
Switzerland SMI (PR)	12875.7	10729.4	-16.67%
STOXX Europe 600 (EUR)	487.8	424.9	-12.90%
FTSE 100	7384.5	7451.7	0.91%
France CAC 40	7153.0	6473.8	-9.50%
FTSE MIB	27346.8	23707.0	-13.31%
Netherlands AEX	797.9	689.0	-13.65%
Belgium BEL 20	4310.2	3701.2	-14.13%
OMX Stockholm 30	2419.7	2043.4	-15.55%
Norway Oslo All-Share	1307.7	1362.7	4.21%
Ireland FTSE	493.3	366.1	-25.78%
Spain IBEX 35	8713.8	8229.1	-5.56%
Cyprus CSE General	68.7	89.6	30.43%
AMERICAS			
S&P 500	4766.2	3839.5	-19.44%
DJ 30 Industrials	36338.3	33147.3	-8.78%
DJ 65 Composite Average	12266.9	10962.8	-10.63%
NASDAQ Composite	15645.0	10466.5	-33.10%
Russell 1000	2645.9	2105.9	-20.41%
S&P TSX	21222.8	19384.9	-8.66%
Brazil Bovespa	104822.4	109734.6	4.69%
Mexico IPC	53272.4	48463.9	-9.03%
ASIA			
S&P ASX 200	7444.6	7038.7	-5.45%
Nikkei 225	28791.7	26094.5	-9.37%
Hang Seng	23397.7	19781.4	-15.46%
Korea KOSPI	2977.7	2236.4	-24.89%
FTSE Strait Times	3123.7	3251.3	4.09%
Taiwan TAIEX	18218.8	14137.7	-22.40%
New Zealand NZX 50 (TR)	13033.8	11473.2	-11.97%
Shanghai SSE Composite	3639.8	3089.3	-15.13%
China Shenzhen A Share	2647.7	2066.7	-21.94%
India S&P BSE SENSEX	58253.8	60840.7	4.44%
FTSE Bursa Malaysia KLCI	1567.5	1495.5	-4.60%
Indonesia JSX	6581.5	6850.6	4.09%

FOREIGN EXCHANGE	31-Dec-21	31-Dec-22	ROR
AUD/USD	0.7278	0.6829	-6.18%
EUR/USD	1.1403	1.0754	-5.69%
JPY/USD	114.97	129.75	12.86%
GBP/USD	1.3531	1.2084	-10.69%
CHF/USD	1.0992	1.0902	-0.82%
USD/CAD	0.7905	0.7392	-6.49%
EUR/GBP	0.8427	0.8900	5.61%
AUD/EUR	1.5667	1.5749	0.52%
USD/CHF	0.9110	0.9240	1.43%
GBP/AUD	1.8636	1.7723	-4.90%
CBOE Volatility Index (VIX)	17.22	21.67	25.84%

COMMODITIES	31-Dec-21	31-Dec-22	ROR
Energy			
Crude Oil WTI (NYM $/bbl) Continuous	75.21	80.26	6.71%
Brent Crude (ICE $/bbl) Continuous	77.78	85.91	10.45%
NY Harbor ULSD (NYM $/gal) Continuous	2.33	3.30	41.70%
NY Harb RBOB (NYM $/gal) Continuous	2.22	2.48	11.40%
Natural Gas (NYM $/btu) Continuous	3.56	4.10	15.38%
Precious Metals			
Gold (NYM $/ozt) Continuous	1828.60	1826.20	-0.13%
Silver (NYM $/ozt) Continuous	23.35	24.04	2.95%
Industrial Metals			
Aluminum (LME Cash $/t)	2806.00	2360.50	-15.88%
High Grade Copper (NYM $/lbs) Continuous	9692.00	8387.00	-13.46%
Nickel (LME Cash $/t)	20925.00	30425.00	45.40%
Iron Ore 62% CN TSI (NYM $/mt)	112.50	111.28	-1.08%
Zinc (LME Cash $/t)	3630.00	3025.00	-16.67%
Agricultural			
Corn (CBT $/bu) Continuous	5.93	6.79	14.37%
Soybeans (CBT $/bu) Continuous	13.39	15.24	13.80%
Wheat (CBT $/bu) Continuous	7.71	7.92	2.76%
Cotton #2 (NYF $/lbs) Continuous	1.13	0.83	-25.96%
Sugar #11 (NYF $/lbs) Continuous	0.19	0.20	6.14%
Indices			
GS Commodity (CME) Continuous	561.65	610.10	8.63%
PowerShares DB Commodity Index Tracking Fund	20.78	24.65	18.62%

10 YEAR SOVEREIGN YIELDS	30-Dec-21	31-Dec-22	Yield D
US	1.51%	3.88%	2.37%
UK	0.98%	3.66%	2.68%
Europe	-0.19%	2.53%	2.73%
Australia	1.63%	4.05%	2.42%
Belgium	0.17%	3.17%	3.00%
Canada	1.45%	3.30%	1.85%
Denmark	0.05%	2.75%	2.69%
France	0.19%	3.07%	2.88%
Germany	-0.19%	2.53%	2.73%
Greece	1.32%	4.59%	3.27%
Ireland	0.24%	3.04%	2.80%
Italy	1.16%	4.64%	3.48%
Japan	0.07%	0.42%	0.35%
Netherlands	-0.05%	2.85%	2.90%
New Zealand	2.27%	4.48%	2.21%
Norway	1.70%	3.17%	1.48%
Portugal	0.46%	3.54%	3.08%
Spain	0.56%	3.61%	3.05%
Sweden	0.21%	2.39%	2.18%
Switzerland	-0.12%	1.30%	-1.42%

ROR = Rate of Return
Yield D = Yield differential

ARMINIUS CAPITAL INVESTMENT OFFICE PTY LTD ACN 658 654 016 AFSR 001296252 ("Arminius Capital" or "Arminius" or "ACIO" or "we" or "us")
CORPORATE AUTHORISED REPRESENTATIVE OF ARMINIUS CAPITAL ADVISORY PTY LTD ACN 165 509 928 AFSL 461307