Weekly Macro Themes

End of Year Special Edition - 2022

"The End of Year Special Edition takes a different format to the usual weekly slide deck, and presents you with highlights, reflections, and some of the best charts of 2022. I sincerely hope you enjoy it!"
-- Callum Thomas, Head of Research and founder of Topdown Charts

Topdown foreword: It was an extreme and unusual year for asset allocators, but also a natural extension and progression of this "strange but familiar cycle". Some macro/market developments ended up more extreme than anticipated, yet there were clues for those who wanted to look for them, and it was the type of environment in which my process and approach shined.

In the next few pages I will take you through some of the key charts and thinking that uncovered the macro/market clues (as well as reviewing some that led us astray!). I'll also go through some of my favourite charts and present a look at some of the most intriguing clues for next year.

I hope you enjoy this selection of charts which I have handpicked from reviewing all of the reports of the past year. As an exercise in reflection, this has been highly useful as I continue to hone my craft and refine the reports (let us never get complacent! *regardless of results*).

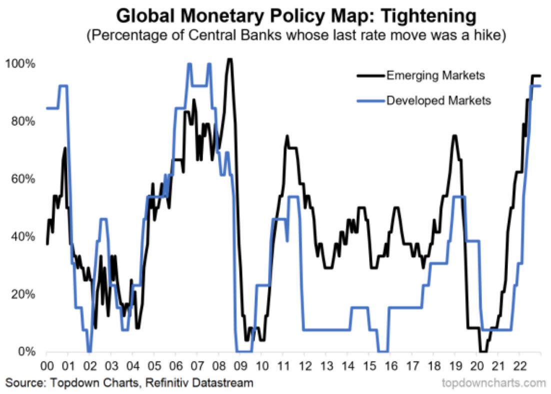
Best wishes for 2023, I look forward to catching up with you soon!

Section A. Charts That Worked

First up is a look at some of the charts and calls that worked particularly well during the year.

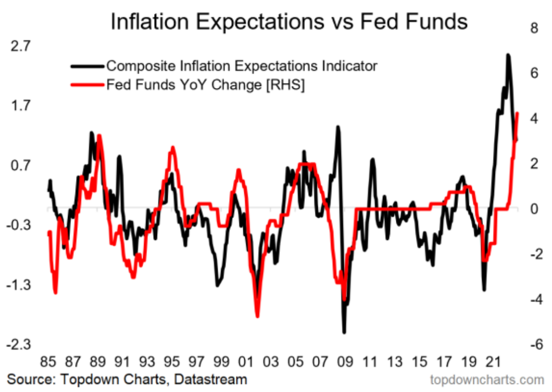
1. I was early on the trail of the original pivot – the pivot to tightening. In the end we saw what basically amounted to a transition from panic rate cuts in 2020 to panic rate hikes in 2022. This of course set the tone across asset classes.

"The Path to Policy Normalization: Last year I counted 123 rate hikes across 41 central banks, 2021 was the year of rate-hike lift-off… but mostly for EM. This (and covid) caused some indigestion across EM assets (therefore EM arguably has already taken its medicine to a certain degree). This year expect DM to be the main actor – specifically the Fed (rate hikes & QT on the table)." (15 Jan 2022)



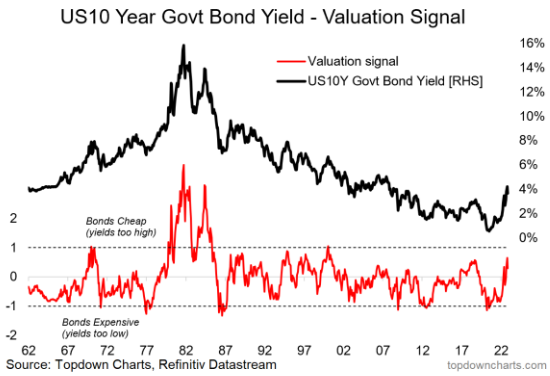
2. This chart was extremely useful in framing the impending risks relating to Fed tightening, it was a frequent feature in the risk-radar slide, and turned out to be perhaps the most important chart from a macro risk management perspective. Again, the clues were fairly clearly there for those who wanted to look for them, and as noted in the quote below, it was very much a logical and natural conclusion of the decisions and risks that the Fed chose during 2020-21.

"the Fed is behind the curve on rate hikes – and this is no accident: they did not want to risk hiking too early and scuttling the nascent recovery. However there are always trade-offs when it comes to risk management, and thus they now find themselves facing the risk that they need to play catch up." (11 Feb 2022)



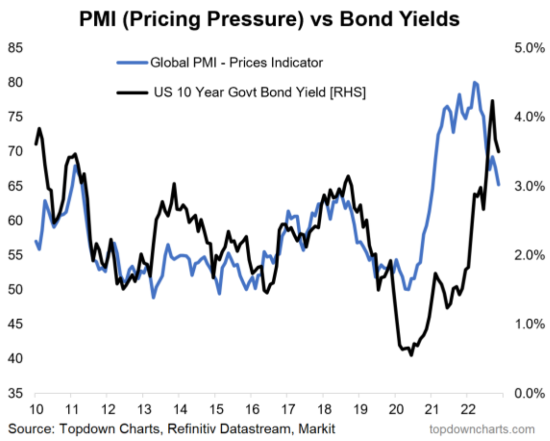
3. On the theme of looking for macro/market clues, one of the most extreme moves in the year was the double-digit losses facing fixed income investments – assets which are typically thought of as conservative, safe, defensive. Now it must be acknowledged that this year did see a geopolitical shock, but that shock was set against a backdrop, a context, of extreme expensive valuations for bonds. Faced with that background context, it was always going to be a matter of time before something showed up to trigger a reset.

"treasuries are still showing up extreme expensive, and while the macro/market model has come down some – it is still pointing to 10-year yields above 2.0% (and a few other indicators suggest higher). So I would say there remains clear runway/upside risk for bond yields." (15 Jan 2022)



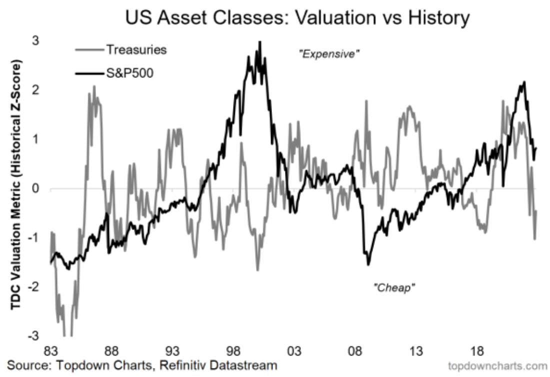
4. And something did show up! The inflationary shock was the catalyst for bonds, and again – there were clues in the charts: intriguingly on this one the chart was literally telling us that bond yields could head up as high as 4%. Something to take note of when you look at the 2023 charts…

"From the chart below, you might say that bonds are paying more attention to inflation… and in that case, if we take the left chart literally then 10-year yields could be on a path to 4%" (8 Apr 2022)



5. But what really made this year was the fact that we saw max drawdowns in excess of -20% for both stocks and bonds. There was basically nowhere to hide (except cash and commodities!). And again, there were clues – at the end of 2022 both stocks and bonds were trading at historically extreme expensive valuations. Could those valuations have gone even higher? Sure. But it's a risky game trying to justify or argue or bet against using valuations when valuation signals are screaming at us to be careful.

"to pick up on the fact we are seeing stocks and bonds correcting, it's timely to reflect on the valuations chart which shows both stocks and bonds almost 2 S.D. expensive vs history (thereby making it harder to maintain credibility around arguments that stocks look cheap vs bonds)." (28 Jan 2022)

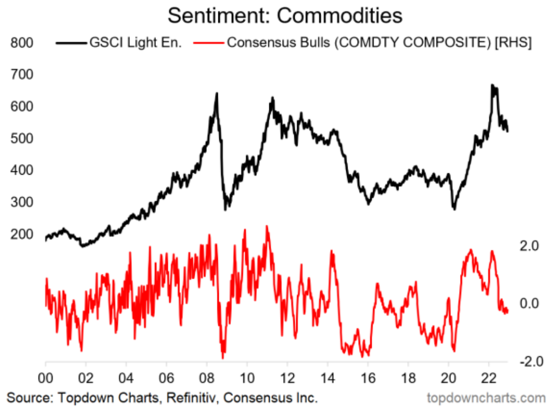


6. Aside from the unwind in expensive equity valuations, there was the unwinding of a series of bubbles that blew in the wake of the pandemic stimulus. This and a few other charts helped make the downside risk in equities clear.

*"growth/momentum basically had a parabolic run in the wake of *historical* stimulus, but **these previous sources of strength are now a source of weakness**. The key risk to global equities is that the initial unwind that kicked off earlier this year fully runs its course and takes the market from correction to bear market."* (11 Mar 2022)

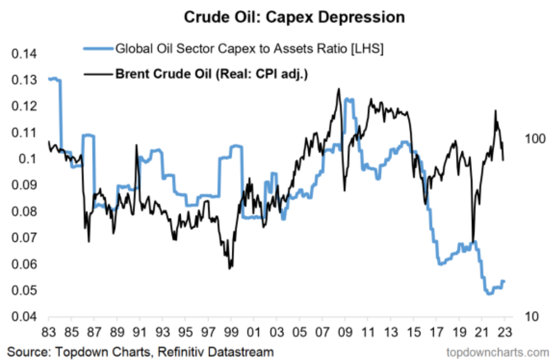
7. But one of the other big moves and big things to get right this year was commodities. Again, yes the geopolitical shock was the catalyst that did it, but I always say that geopolitics is tricky to practically use, it's almost always a boondoggle (many shadows to jump at), and in the end what is best to do is to focus on understanding the background context – to get the main picture. In that sense, commodities were "ready" to rally.

"Shorter-term on commodities, there has been what I would term a healthy consolidation, with the index holding onto a key support (former resistance) level, and with a recent decent reset in market breadth and sentiment (bullishness back to long-term average from about 2 S.D. stretched to the upside). All up, I would say there remains credible upside for commodities." (15 Jan 2022)



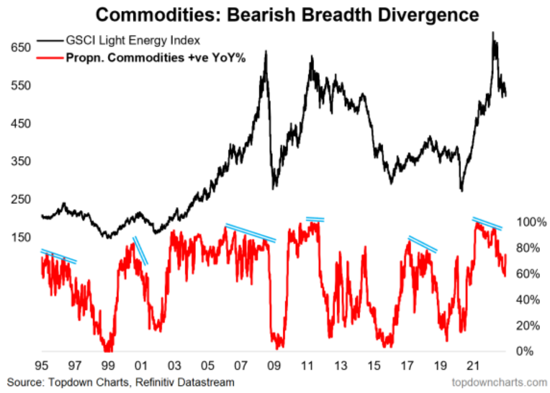
8. Similarly, and specifically for crude oil, the oil & gas sector "capex depression" set the scene for the spike in energy prices.

"Crude oil supply remains severely constrained (shifting social/political preferences, elevated funding risk premia, lingering pandemic uncertainty, and logistics/supply chain issues) – rig counts remain near record low, and global oil & gas sector capex rates are at a record low. Reopening progress and the investment boom thesis would likely see a surge in demand." (15 Jan 2022)



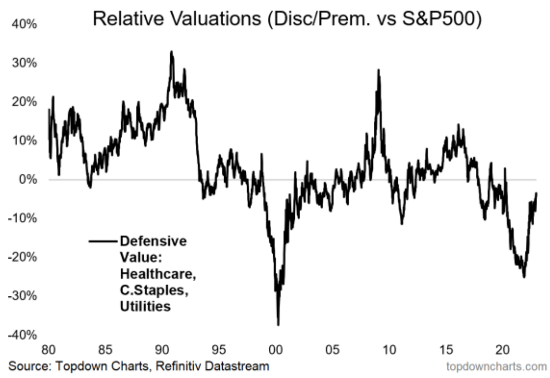
9. Staying with commodities, you never want to end up overstaying your welcome on an asset class or macro theme. So when all the clues started pointing to a peak in commodities, I was quick to abandon the bullish view and switch to bearish on commodities as numerous technical and macro risk signals began to light up.

"200dma breadth has rolled over from overbought, and another breadth metric (proportion of commodities positive on a YoY basis) has turned down, with a familiar and ominously bearish pattern appearing." (13 May 2022)



10. Last but not least, in a year where traditional defensive assets like bonds, did not work (and cash turned in negative *real returns*) investors had to get more creative in finding defensive assets, and the "defensive value" basket worked well as an undervalued and underappreciated hedging idea, strongly outperforming the index.

"the "defensive value" basket enjoys very cheap relative valuations, and remains out of favour after a long period of dismal performance (with allocations and sector weightings near record lows). This basket (Healthcare, Consumer Staples, Utilities) stands on its own merits in terms of the charts/indicators, but it also has the unique characteristic of outperforming the rest of the market during bear markets/major corrections." (15 Jan 2022)

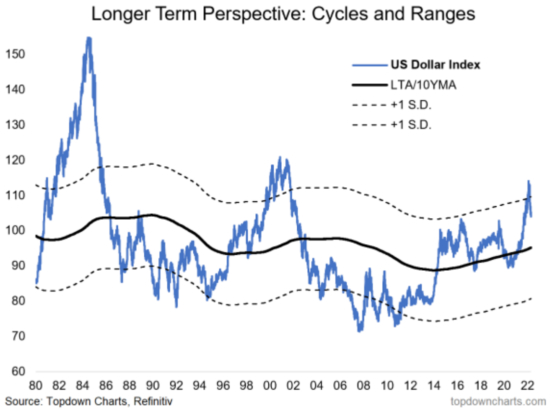


Section B. Charts That Didn't Work

Of course, it wouldn't be complete without a look at some of the charts that didn't work (or shall we say the ones that worked "less well!").

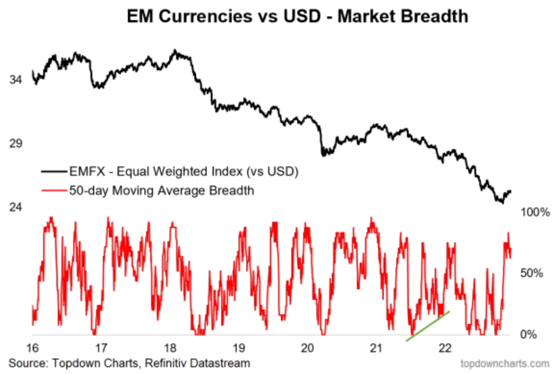
1. I started the year advocating a bearish US dollar view, albeit I quickly abandoned the bear view about a month later [25 Feb] as the evidence became clear that I had a wrong view.

"No cause to change the medium-term bearish bias on the US dollar at this stage. Still running with the prolonged/ranging/volatile transition to bear market (but sorry, no collapse prediction!). Looking at longer-term cycles, vanishing yield support, slight over-valuation, flip in sentiment…" (15 Jan 2022)



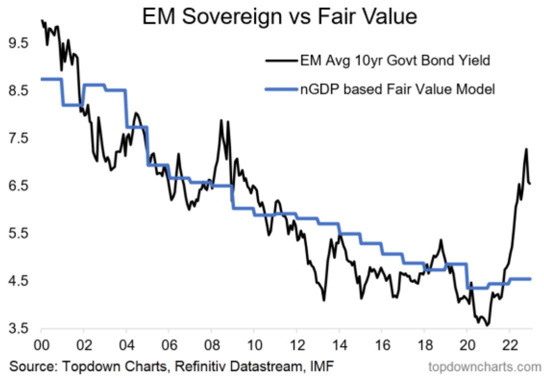
2. Similarly, given valuation and initially promising technicals (the original chart line has been left in the chart), started out bullish on EMFX, but also later abandoned that view (before it fell further!).

"EMFX appears to be finding some stability in the new year, with my equal-weighted 25-currency (vs USD) index rallying off the lows and putting in a bullish divergence signal on the 50dma breadth chart. Also of note is the 200-day moving average breadth indicator is turning up from oversold levels – all up indicating perhaps at least a pause to the weakening trend seen last year." (21 Jan 2022)



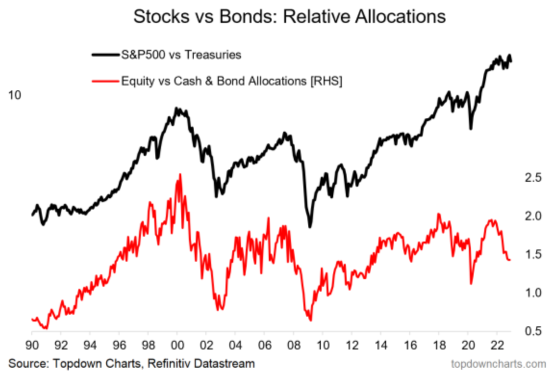
3. This one was a bit different, I would categorize this one as being too early. In hindsight it needed a bigger valuation cushion to protect against the risks facing EM bonds. But as things stand, the outlook for EM bonds is very compelling, with valuations now *much* cheaper. Another upside is with EM yields now much higher, you get paid a decent stipend while you wait for the value aspect to play through. But as always, a caution about getting too excited too early, because too early is just another way of getting it wrong short-term.

"Another case of emerging value in emerging markets is in EM sovereign bonds: EM 10-year government bonds are starting to look cheap in absolute (vs nGDP fair value model), and relative terms (vs developed peers – e.g. average 10-year govt bond yield across EM is trading at a 20-year high vs developed market yields)." (15 Jan 2022)



4. I began outlining the case for bonds vs stocks given how the evidence was shaping up, and stocks did fall, but bonds fell just as much making the stock/bond ratio go sideways, not down. Again though, I would be paying close attention to this one headed into next year.

"from a positioning/sentiment standpoint, the ratio of equity vs bond/cash allocations is rolling over from the upper end of the range. While it has been higher before (dot com bubble), this is definitely elevated vs history." (4 Mar 2022)

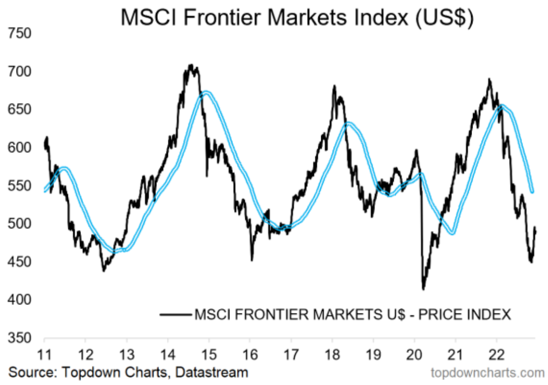


5. So on this one my call was for the PBOC to do more easing, which it kind of did, but much less than anticipated (to be meaningful for markets).

"the PBOC has pivoted from its neutral/hawkish stance (they opted for relative forbearance on stimulus during the pandemic – and in hindsight could afford to do so given the extent of stimulus unleashed around the rest of the world!). This week the PBOC followed-up its 5bp cut in December with a 10bp cut to 3.7%. Small moves, yes, but the signalling aspect is critical. …it continues the trend of "China zigging while the rest of the world is zagging" e.g. just as the Fed moves to hike rates, the PBOC is kicking of a rate cut cycle." (21 Jan 2022)

6. Turning bullish on frontier market equities before another (the final?) flush lower. Now they look even better on the valuation front, and remain an overlooked and underappreciated segment of global equities, another one to watch!

"Frontier market equities are starting to look interesting again. Valuation indicators have significantly improved – most metrics have moved back to cheap/bottom of the range. Meanwhile the MSCI Frontier markets index has bounced off support after dropping -26%. The risk/reward balance has definitely improved at this point." (12 Aug 2022)

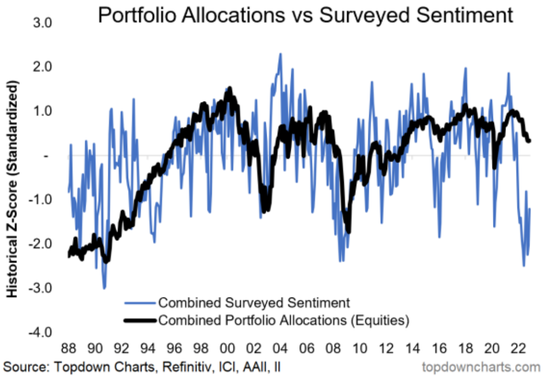


Section C. My Favourite Charts

These are some of my favourites – either new or interesting, or ones that helped illuminate some of the key developments across macro and markets.

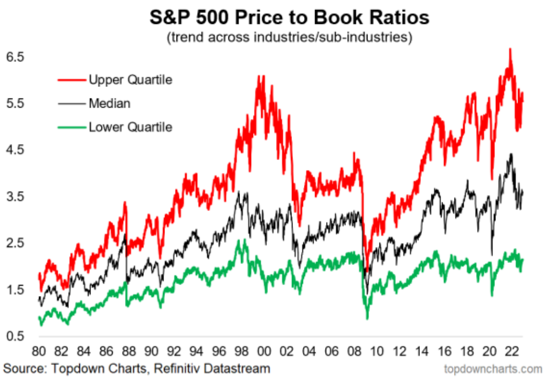
1. Earlier in the year a fascinating development showed up in the charts: investors were saying in surveys that they were extremely bearish, but their asset allocations said otherwise. Things have shifted now, but it's still an intriguing disconnect.

"also worth highlighting is how while surveyed sentiment is bearish, investor portfolio allocations to equities remain near the top of the range: no capitulation there" (13 May 2022)



2. Interesting to note the pushback that I got on this chart back when it was putting in all-time high readings. Still would not say we are anywhere near cheap on this chart, but at least somewhat of an adjustment has taken place.

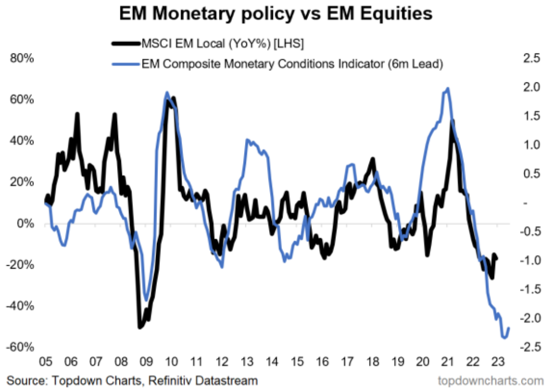
"Focusing on the US, the S&P500 value vs growth ratio is turning up from record lows (total return terms), and this is from a starting point of value showing up much cheaper than usual relative to growth… and at a time where market valuations in general (but especially certain sectors and companies) are at historically extreme expensive levels." (28 Jan 2022)



3. One of my favourite leading indicators; EM monetary conditions composite (my own secret recipe of various monetary herbs and spices), as I noted: when the liquidity tides are going out it's hard for the equities or the economy to perform.

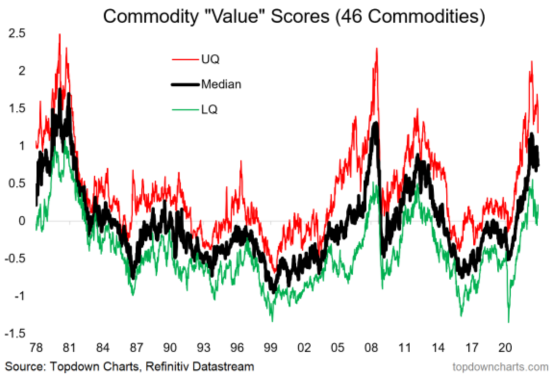
As the year rolled on, emerging market equities started to get cheaper (or less expensive), and sentiment began to shift, but this one stopped me from getting tempted to tilt bullish.

"But specifically for Emerging Markets, it's difficult for the equities to put in positive performance when monetary conditions tighten like this." (25 Mar 2022)



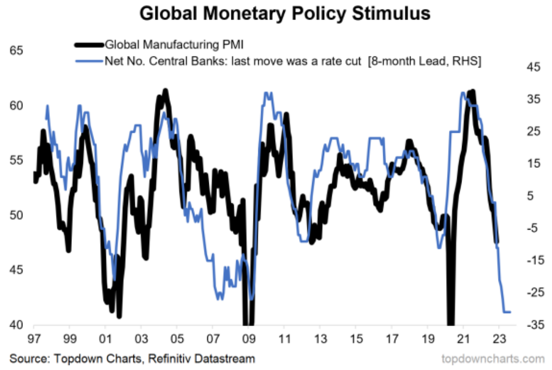
4. One of the charts that helped me change my view on commodities, this indicator took top down insights from bottom-up analysis: looking at the breadth and level of valuation indicators across 46 different commodities (and yes, you can build valuation indicators on commodities, but it take a bit of creativity and ingenuity). Goes to show when valuation readings get extreme enough they have a habit of speaking for themselves.

"In terms of valuation trends across commodities, these indicators basically work on a mean/trend reversion and real + relative price deviation basis. Across the 46 commodities we can see prices are certainly looking stretched." (18 Mar 2022)



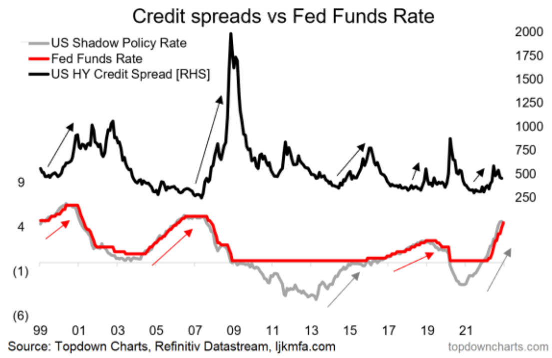
5. As we head into 2023 global recession looks near-certain, with a number of indicators now dropping into recessionary territory, such as the global manufacturing PMI in the chart below. As the leading indicator suggested at the start of the year, this is entirely logical.

"a bunch of leading indicators are pointing to a slowdown. First set of charts is the monetary policy trackers – the global policy pivot [to tightening] which I documented at length last year, as a minimum means less of a tailwind to growth, and ultimately tightening." (21 Jan 2022)



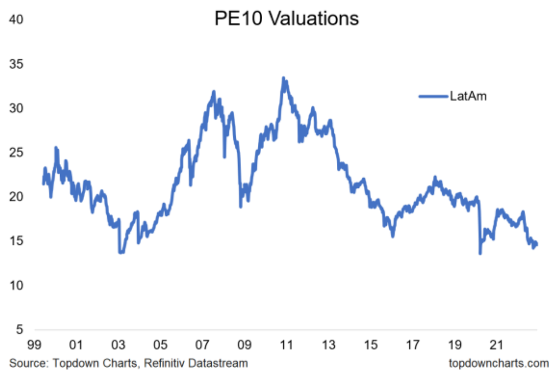
6. Bearish credit kind of worked this year in that credit spreads widened somewhat, and I noted with this chart that credit was on borrowed time. I suspect with policy lags, further tightening, and recession risk in 2023, that the initial pop up in spreads could be simply Act 1 of a show that will go on into next year.

"Credit is getting closer to a short/underweight: US high yield spreads are at expensive levels (back to 2007 levels), "real yields" are negative, effective nominal yields are close to record lows, and the spread of spreads indicator for the lowest quality credits shows a much lower risk premium than usual. Importantly, the Fed has accelerated taper and will likely commence QT and rate hikes this year – which collectively has historically been a headwind for credit sooner or later." (15 Jan 2022)



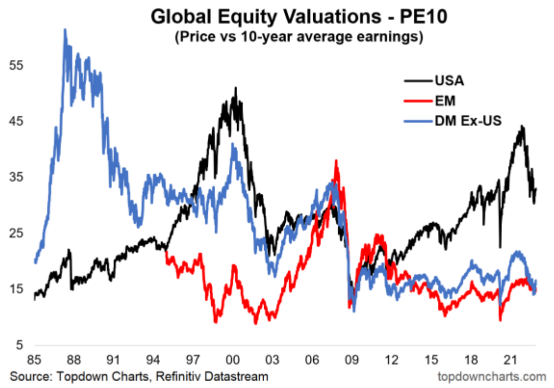
7. This one makes my favourites list because as a group, LatAm were one of a very few markets that are sitting on positive returns YTD as I write (they also had a very strong initial run in Q1 given their heavy commodity exposure). But as things stand now, given the push lower in commodities, they've actually gotten cheaper despite the positive stock price performance.

"LatAm equities [Argentina, Brazil, Chile, Colombia, Mexico, Peru] look notably cheap (currently tracking at an average PE10 of 16.9 vs long-term average of 21.9). FX valuations are also quite cheap, almost 2 standard deviations below long-term average. So there appears to be a value opportunity emerging in this subset of emerging markets." (15 Jan 2022)



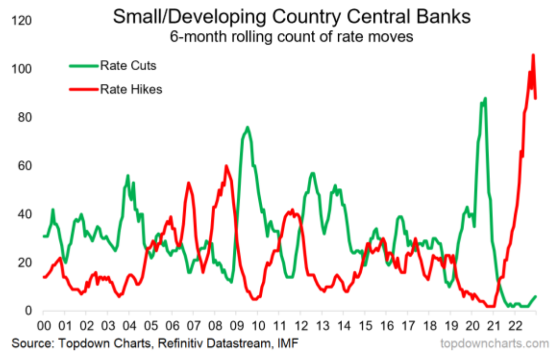
8. Another valuation one, and an old favourite. It's interesting because of the path of US valuations, but I think the more interesting one is developed markets excluding USA: that group briefly saw valuations drop all the way to the bottom of the range, with only 2008 and 2020 turning in cheaper levels (and not by all that much either). Perhaps another clue to think about for next year.

"US equities are tracking at extreme expensive levels. Much like the dot-com era, there is a long line of people presenting a long list of reasons for this (e.g. rates are low, earnings are high, and various other reasons which are obvious and therefore likely already reflected in the valuations)." (15 Jan 2022)



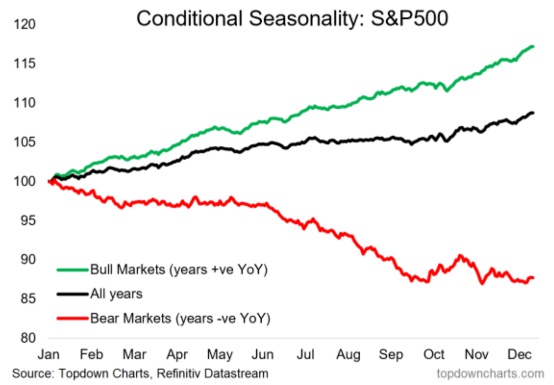
9. Almost feel like I'm talking too much about monetary policy, but it has been a big deal for macro and markets. What I like about this chart is how it draws information from a non-obvious source: the world's smallest central banks. They were first to pivot to rate hikes, and now…

"Given still intense inflationary pressures, the global policy pivot that kicked off last year remains an important theme. Indeed, checking in on the smaller/developing country central banks we see an ongoing lurch towards rate hikes as central banks frantically scramble to click undo on the rash of rate cuts delivered in the depths of the pandemic panic in 2020." (4 Feb 2022)



10. Finally, perhaps my most favourite is my alternate take on seasonality, differentiating between bull vs bear markets. The thing I like about this is how it flips some of the traditional market aphorisms on their head.

"I wanted to see if the seasonal pattern looks different during a bull vs bear market. To do this, as a quantitative proxy I simply marked years where the market finished down YoY as "bear markets" (and vice versa). As you might expect, but perhaps also somewhat surprising, the bear market seasonality picture is entirely different than the all-time and bull market seasonal patterns. Interestingly, the "sell in May" effect seems to be absent during bull markets (accentuated in bears)." (21 Oct 2022)

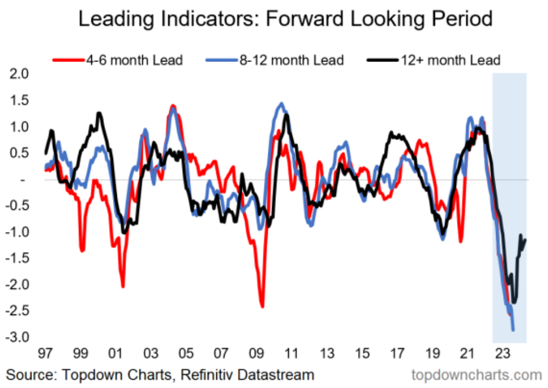


Section D. Charts to Watch in 2023

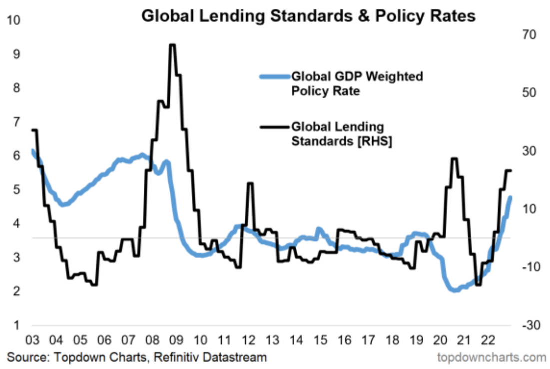
As interesting and sometimes amusing as it is to look back, we get paid for looking forward. There are several key clues, trends, and themes that will be critical to keep front of mind as we head into 2023 and into the next phase of the cycle.

1. Global Recession 2023: One of the most interesting pieces of analysis I undertook in 2022 was to perform a sort of meta-analysis on all the leading indicators I've accumulated over the years. The key takeaway from that is grouping leading indicators by type, geography, forecast window, they are all unanimous in pointing to a sharp downturn heading into early-2023.

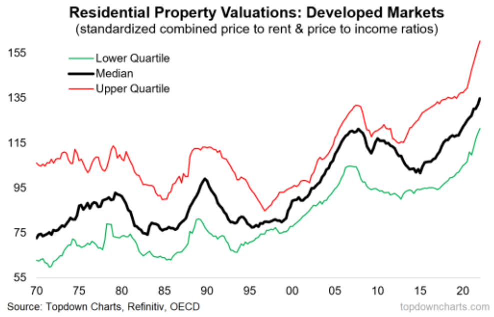
In many ways it's a coming full circle of the massive stimulus that was unleashed in 2020. Or as I call it: "a strange but familiar cycle".



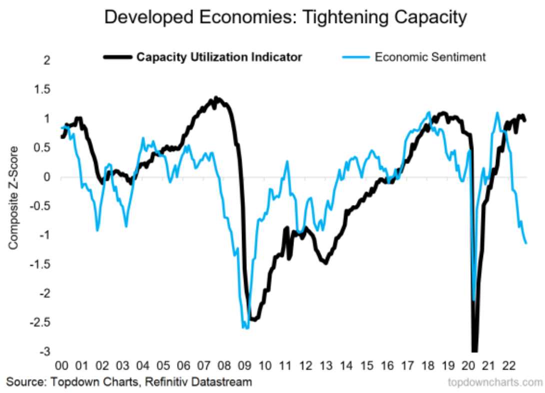
2. Double Trouble: I include this one because it goes to show how financing conditions have tightened – banks are becoming more stringent and stingy in their lending decisions, and the interest rate on those loans is now a lot higher. So it's a situation of even if you can get a loan, you might not be able to afford it! If we do get a recession next year it could be the last straw for some of the more unsustainable business models and credit stress could become an issue.



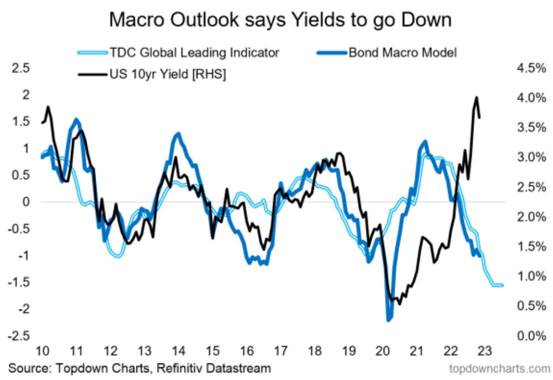
3. Property At Risk: Housing market valuations reached a record high across developed markets last year. That's going to be a problem if rates stay high or head higher. Key risk to monitor.



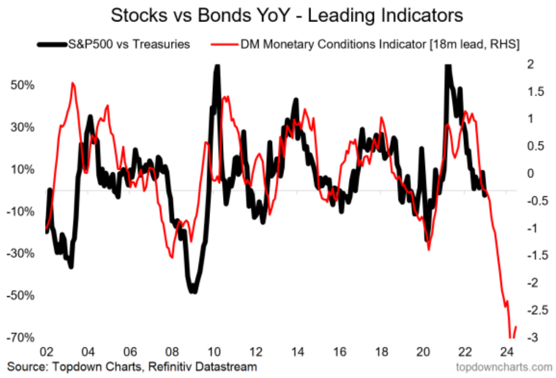
4. Unflation: The downward drift in commodity prices is already going to dampen headline inflation, but a recession will seal the deal (the fastest way to free up capacity is demand destruction: central banks understand this).



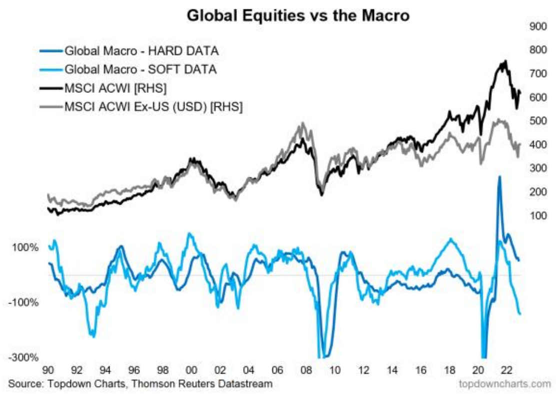
5. Bond Yield Go Down: Weaker growth, credit stress, housing market issues, lower inflation… it's all a recipe for lower bond yields. If we take my models literally then US 10-year bond yields could head back below 1.5% by the middle of next year. A lot of if's and but's around that, but an interesting forecast being suggested by the models, and fits with the macro (and valuations).



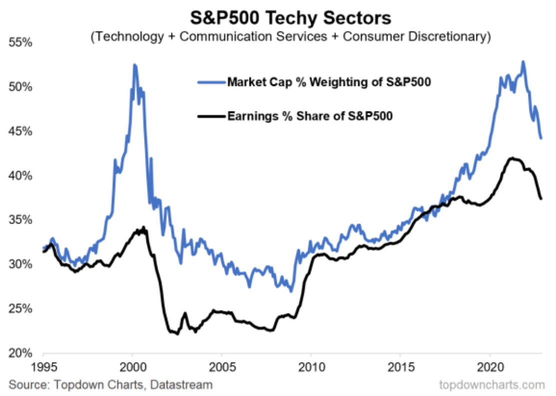
6. Bonds Beat Stocks: On valuations, treasuries are cheap, and stocks are not. By itself that means bonds have the advantage, but bonds also disproportionately benefit in the event that global recession does indeed set in. The leading indicator affirms this notion in the chart below.



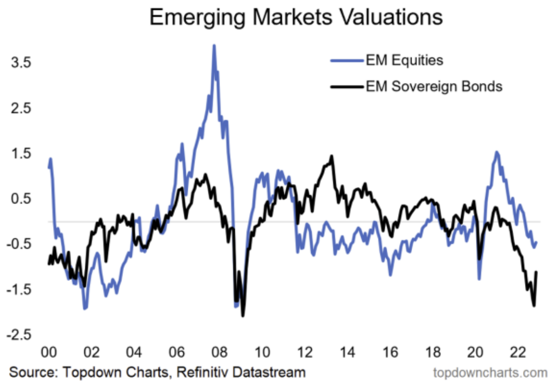
7. Monetary Risk to Macro Risk: Arguably much of the pain in equities this year was down to the rates/inflation/monetary shock. Recession risk means slowing growth is now the big concern.



8. Tech Unwind: Definitely different from the dot com bubble, but definitely also some excesses that needed to be unwound. My sense is we are still just over midway through this process, and ultimately, growth stocks can't outgrow the macro.



9. EM Stocks & Bonds: So when it comes to emerging markets, the equities are looking somewhat cheap, but what's really interesting is where the bonds got to. There is what appears to be a major once-in-a-decade value setup for emerging market sovereign bonds (I am talking at the asset class level; equal-weighted). I think this could be one of those moments in time for asset allocation, but a few things do need to go right.

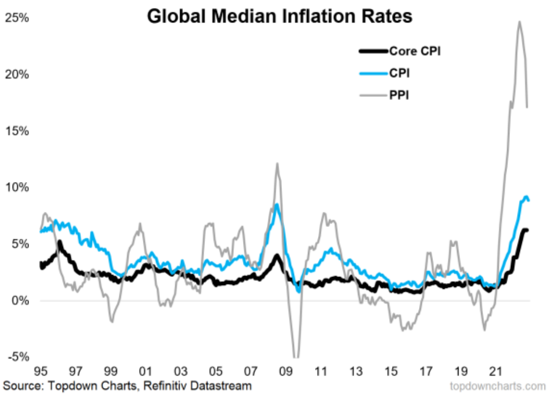


10. China Policy Map: With China transitioning away from zero covid to zero cares about covid, the door is opening wider and wider for more forceful stimulus. The property market downturn, global growth risks, and clear disinflation trend makes for a classic and compelling case for monetary easing. Amid an otherwise gloomy outlook for 2023, this could be a key bright spot for macro and markets if they do step up stimulus.

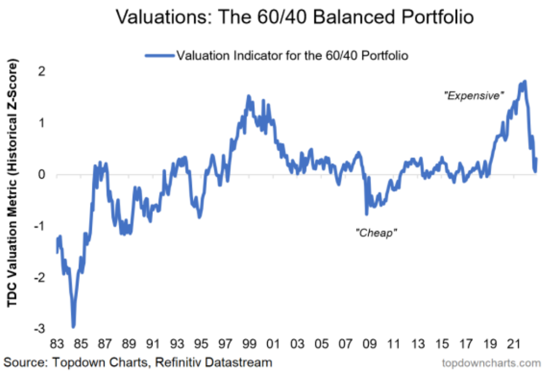
Section E. Honourable Mentions

These charts were worthy of mention but didn't quite fit into any of the previous categories.

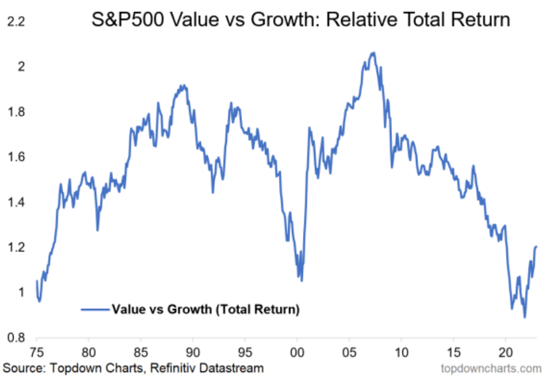
1. Compare and contrast: heading into this year all measures of inflation globally were accelerating, heading into 2023 all measures are peaking.



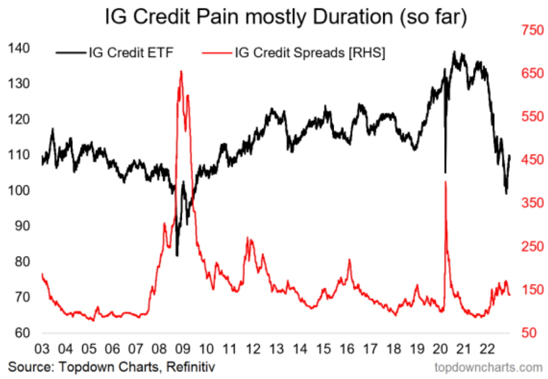
2. No wonder the 60/40 portfolio got beaten down so badly this year, with a record high weighted average valuation score it never stood a chance.



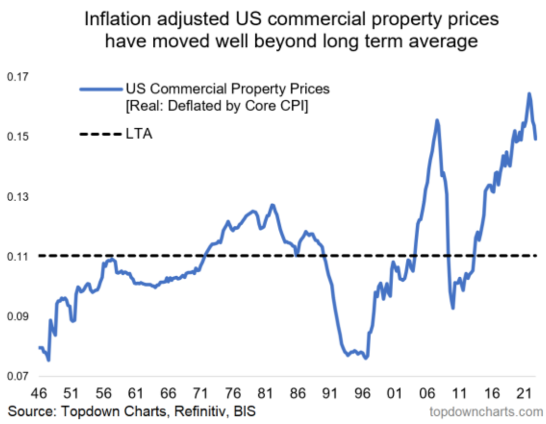
3. It sure looks like a multi-decade turning point is in for value vs growth. The relative value backdrop certainly makes a case (value stocks still trading near 20-year lows vs growth stocks).



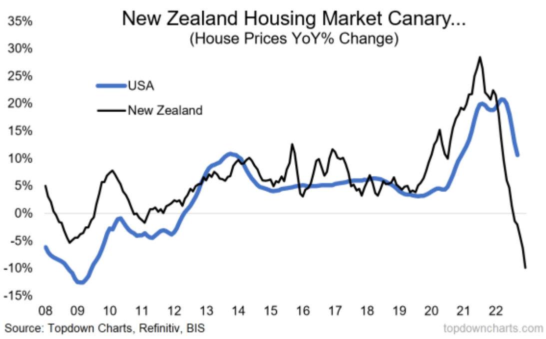
4. Usually when corporate bonds suffer big losses it's due to credit stress (e.g. 2008 and 2020), not this time; it was all about the interest rate-shock.



5. Commercial Real Estate is also starting to show the scars of the rate shock. Rising interest rates, inflation pressures, and an uncertain economic outlook make for a toxic combination, especially set against historically stretched prices.



6. My own country's housing market seems to be the proverbial canary in the coalmine (substantial policy easing by the RBNZ, early exit from lockdowns, and subsequent aggressive policy tightening lead to a classic boom/bust cycle). A big reset in (inflation adjusted) house prices is underway across developed markets.

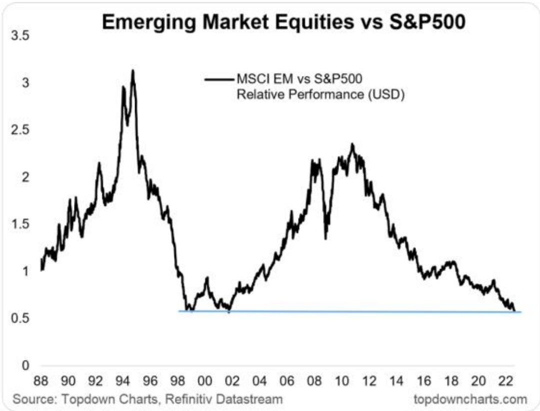


Section F. People's Choice Charts

In this section I defer to our followers on Twitter (@topdowncharts) for the most popular charts based on views and engagement.

These charts are *not* updated to the latest -- in contrast to those in the previous sections (because it helps explain why folk were so interested in them at the time …as always, just email me if you want to see any of these or others updated, or if you had any questions in general).

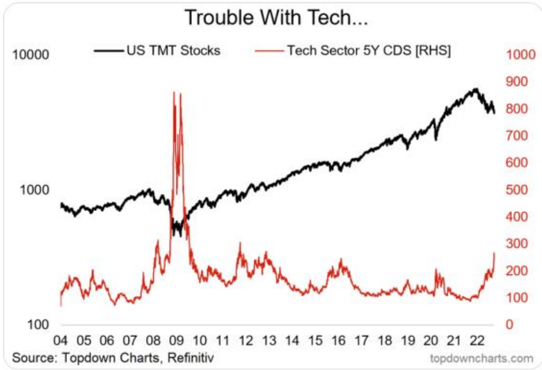
1. As I quipped at the time: "That is one heck of a round-trip in relative performance for emerging markets vs the S&P500". Makes one ponder what the next decade may bring.



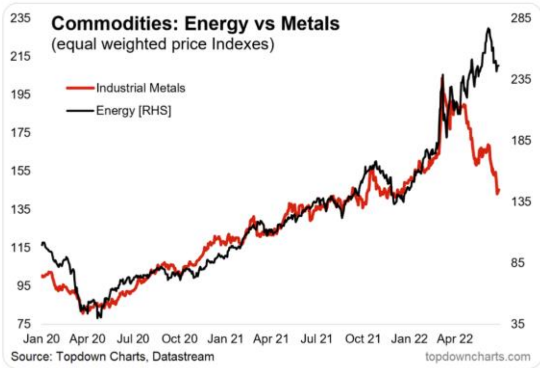
2. This Speculation Barometer documented the outright collapse in bullish risk taking. The plunge in this indicator lined up with the charts of surveyed market sentiment and reflected the macro tremors shuddering across markets (geopolitical risk, inflation risk, Fed rate hike risk, post-pandemic realities, growth wobbles).

Macro moved, sentiment shifted.

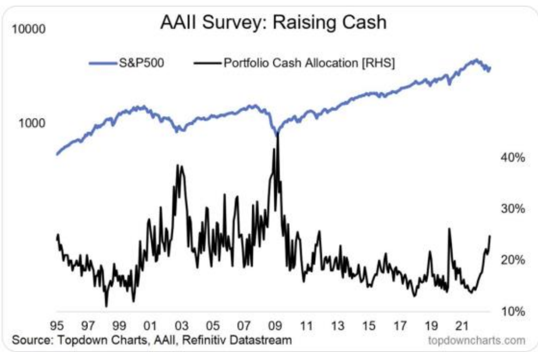
3. Tech Stock CDS pricing blew out to the widest level in almost a decade. Tech is not immune to tightening financial conditions and a weaker economy: you can't outgrow the macro.



4. Industrial metals predicting the drop in energy prices (because industrial metals are more sensitive to the ebb and flow of global economy activity, especially China).



5. Reported investor portfolio allocations to cash rose to one of the highest readings of the past decade. This shift reflects a change in investor moods, a change in alternatives (positive cash rates!), and of course poor performance across stocks and bonds. It also represents an element of dry powder and a contrarian sentiment signal.



Topdown Charts -- What we do:

<u>We help investors make decisions with confidence</u>. We do this by delivering a flow of interesting ideas, risk management alerts, and meaningful macro insights.

Topdown Charts Professional

www.topdowncharts.pro

This is our full service, it's aimed at multi-asset portfolio managers and professional investors requiring top-down input in their process: who want an extra flow of ideas to stay informed and avoid missing ideas + risks that may be lurking off the radar.

The Topdown Charts Professional service includes:

-Regular research reports (see below for a full listing)

-Help with questions and requests (either about the reports or in general)

-Use of the charts (e.g. in your own reports and presentations)

The Reports

Weekly Macro Themes: Core report, featuring 5 ideas/topics each week spanning investment ideas, risk management input, and meaningful macro insights.

Global Cross Asset Market Monitor: Weekly intelligence briefing on shorter term sentiment and technicals across global markets and asset classes.

Market Cycle Guidebook: A monthly focus on the medium-longer term factors such as cycle/valuation/monetary, updated capital market assumptions, and a summary of views across asset classes and TAA positioning guide.

Quarterly Strategy Pack: Slide pack of core views and charts across macro and markets to support discussions and presentations with clients.

Entry-Level Service?

For those with budget or time constraints, try us out: topdowncharts.substack.com

Report by Callum Thomas, Head of Research at Topdown Charts

About Topdown Charts

Topdown Charts (established: 2016) provides chart-driven research across a global multi-asset universe. The flagship report is the Weekly Macro Themes report which has been designed specifically for multi-asset portfolio managers, active asset allocators, and macro-driven fund managers. The perspective is that of a buyside strategist and the key deliverables of the report are: investment idea generation, meaningful macro insights, risk management input, and asset allocation research.

Research Process and Framework

Research Process

Valuation

Valuation as a common anchor in the thesis
- Identify and develop valuation indicators
- Monitor for extremes (where the best opportunities are found)
- Explore the relative value case (no asset exists in a vacuum)

Cycle

Cycles are a constant across time and markets
- Identify the core cyclical/monetary drivers for the asset class
- Develop and monitor indicators and key data points
- Clarify how asset prices evolve across the cycle

Tactics

Round out the idea with tactical guidance
- Tactical indicators aid in idea generation + implementation
- Apply disciplined and sensible technical analysis techniques
- Look for extremes in sentiment, flows, and positioning

Key Beliefs

- Risk = owning an asset which is overvalued, overowned, overbought and out of time.
- Risk also = underexposed to assets which are undervalued, unloved, oversold, and turning around.
- See things as they are: avoid forecasting, be data-driven yet be unapologetically forward looking.
- Must define/frame key risks and drivers for a given asset class.
- Know what indicators/charts to watch and monitor (and strive for constant innovation/improvement).
- Aim = put the odds in your favour.

Key Objectives and Scope of Research

Really there are 3 key objectives that we aim to deliver: **risk management input** (investors tend to disproportionately punish permanent loss of capital vs rewarding exceptional performance), **idea generation** (but exceptional performance is still critical!), and help our clients **gain perspective** (which not only helps them in managing money, but also communicating with their clients and stakeholders).

Risk Management	Idea Generation	Gain Perspective
• Rule 1 of investing: don't lose money. • What do we need to be paying attention to?	• Engage multiple factors to find the best ideas. • Create unfair advantage for our clients through superior research.	• Stay focused on the signal, not the noise. • Inform our clients with cutting-edge studies.

Investment Universe

Equities	Alternatives	Fixed Income
❑ Regions/Countries	❑ Commodities	❑ Government bonds
❑ Sectors/Industries	❑ Currencies	❑ Corporate credit
❑ Styles/Factors	❑ REITs, MLPs	❑ Inflation linked