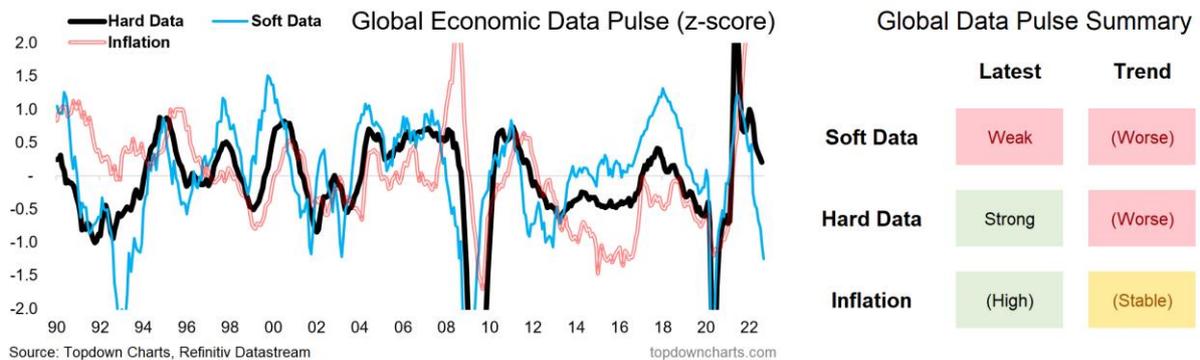
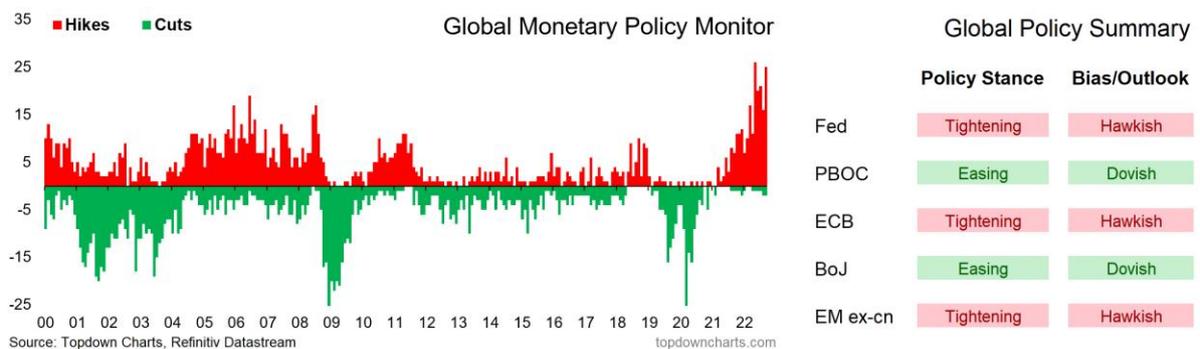


Topdown foreword: September stayed true to its historical tendency to be a bad month, with rate shocks, currency quakes, mini-crises, interventions, and nuclear war drums beating just about every asset class into submission. But with each tick lower in markets and each notch higher in rate hikes, we do get further through the cycle towards that idealized scenario of cheap valuations, economic nadir, disinflation, and central bank easing. For now that is the stuff of textbook frameworks, and a topic for discussion perhaps sometime next year, as central banks scramble to tighten policy, economic indicators head south, and previous valuation excesses get righted. As such, the macro/value/cycle models and general asset allocation framework continue to say stay overweight bonds/defence vs stocks/risk assets as this strange but familiar cycle progresses.

Global Business Cycle Macroscope



Global Monetary Policy Monitor



Valuation Snapshot



Month in Review

Market Overview -- Month to September: Nowhere to hide except cash in the month of September. The rate shock rippled across markets, with numerous worries laying waste to nearly every asset class. On the bright side, it probably sets things up for a better 2023 (well, the bar is very low on those YTD returns!).

Asset Class Returns: USD (unhedged)

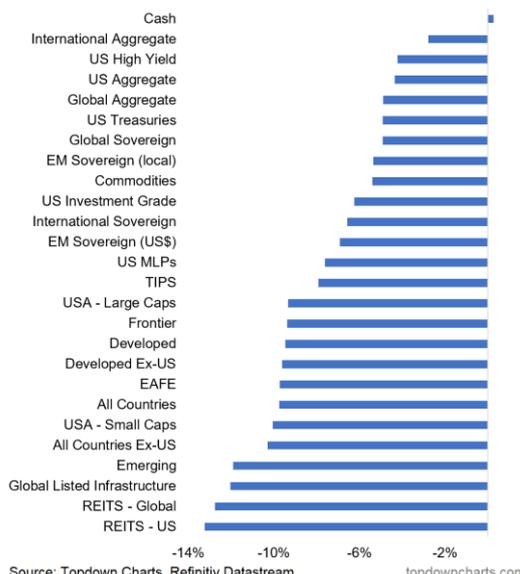
30-Sep-2022

Asset Class	Month %	YTD%	Year %	
Equities	All Countries	-9.7%	-26.7%	-22.0%
	All Countries Ex-US	-10.3%	-28.3%	-27.2%
	USA - Large Caps	-9.3%	-24.8%	-16.8%
	USA - Small Caps	-10.1%	-24.0%	-20.0%
	Developed	-9.5%	-26.4%	-20.9%
	Developed Ex-US	-9.6%	-28.0%	-25.9%
	EAFE	-9.7%	-28.9%	-27.2%
	Emerging	-11.9%	-28.9%	-30.1%
	Frontier	-9.4%	-28.0%	-27.7%
	REITS - US	-13.2%	-29.8%	-19.1%
Liquid Alt.	REITS - Global	-12.8%	-31.4%	-24.8%
	Global Listed Infrastructure	-12.0%	-12.6%	-9.2%
	US MLPs	-7.6%	12.5%	10.8%
	Commodities	-5.4%	1.9%	5.7%
Fixed Income	Global Sovereign	-4.9%	-20.9%	-21.8%
	International Sovereign	-6.6%	-27.2%	-28.7%
	US Treasuries	-4.9%	-16.5%	-16.7%
	Global Aggregate	-4.9%	-20.7%	-21.2%
	International Aggregate	-2.8%	-11.4%	-12.2%
	US Aggregate	-4.3%	-15.6%	-16.1%
	US Investment Grade	-6.2%	-22.7%	-23.0%
	US High Yield	-4.2%	-18.0%	-18.4%
	EM Sovereign (US\$)	-6.9%	-27.2%	-27.9%
	EM Sovereign (local)	-5.4%	-20.3%	-23.9%
	TIPS	-7.9%	-18.8%	-17.8%
	Cash	0.3%	1.1%	1.1%

Source: Topdown Charts, Refinitiv Datastream

topdowncharts.com

Month on Month %



Source: Topdown Charts, Refinitiv Datastream

topdowncharts.com

Market Highlights:

- The S&P500 finished September down -9.3%, its worst month since March 2020. Other US indices were similarly weak with the Dow falling -8.8% and the Nasdaq down -10.5%.
- The VIX rose 5.75 points to close at 31.62 as volatility ticked higher throughout the month.
- US 10-Year Treasury yields rose 67 basis points and ended September at 3.80% as tighter policy and inflation concerns fuelled the debt sell-off.
- The US Dollar Index gained 3.1% as it saw continued relative strength against most currencies. The DXY reached highs over 114 before closing lower at 112.12.
- Gold finished September down -2.6% breaking down through support during the middle of the month, before recovering somewhat to close at \$1674 per ounce.
- WTI Crude Oil fell -11.2% during the month to close just under \$80 per barrel.

Economics and (geo)Politics:

- It was another month of monetary tightening: the YTD count rising to 277 rate hikes across 80 central banks (which compares to 123 rate hikes across 41 central banks for *all* of last year). Aside from rate hikes, the US has largely continued its strong run as the Fed pushes on with policy tightening (and no near-term prospect of any pause or pivot). Bond yields have shocked higher with rates volatility at extreme levels and triggering off multiple weak spots e.g. the UK gilt run.
- Indeed, the UK came into focus with a near-collapse of pension funds due to surging bond yields and a falling Pound rattling an unsustainable/untested investment approach. The BoE in response stepped in with “QE” (actually market stability moves – rather than any pivot to easing).
- Japan also saw its own market intervention, making moves to stabilise the Yen as it continued to fall and make fresh lows against the USD. This is an example of the types of echo/mini crises that swirl around the main current of increasingly extreme global monetary policy tightening.
- Global economic data came in largely in line with trend as many economies continued to see inflation tick higher and growth trend lower, and surveyed economic confidence plunging.
- Geopolitical risk continued to boil over with Russia making several escalatory moves in its war with Ukraine; with threats of spillover/nukes rattling nerves. North Korea also clawed its way back into the headlines with missile tests.

The view from the top

Global Economic Outlook: With a steady transition of previous tailwinds to headwinds (higher bond yields, tightening monetary policy, higher energy costs), still high inflation, geopolitical shocks and covid complications in China, weakening data: there is a growing body of evidence pointing to a global recession.

The previous base case was that the stimulus/reopening driven recovery would continue into 2022 getting a boost from capex/investment rebound, clearing of backlogs, further reopening and normalization and fiscal spend. These forces do remain in motion to a certain degree, but it's fair to say the balance risks to the economic outlook are skewed clearly to the downside, while inflation still risks anchoring higher. This is an unfriendly backdrop for risk assets, and hence a cautious asset mix is warranted.

Risk backdrop: With multiple leading economic indicators pointing to a global growth slowdown, there is a high likelihood of recession. Inflation risks also remain front of mind, but at a certain point *deflation* risk may start to come back into focus as demand weakens. The pandemic is fading into the background with many aspects back to normal, that said there may still be issues in "living with covid" and tail risk/volatility remain e.g. China lockdowns. Meanwhile geopolitical risk has substantially intensified, we are at a dangerous point on a number of fronts, and the current tense backdrop likely lingers for longer.

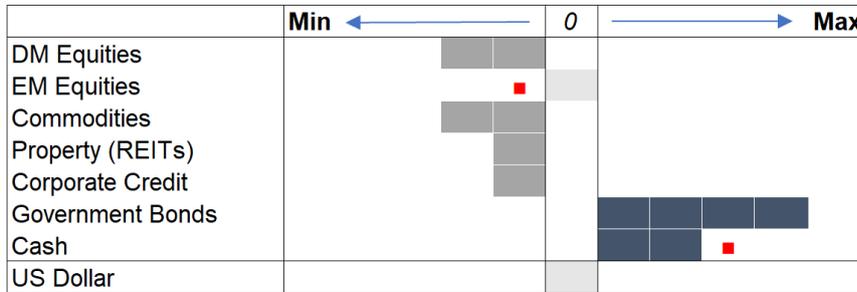
Summary view across asset classes (global unless otherwise noted)

Asset Class	Short-Term View	Medium-Longer Term View
DM Equities	Sentiment extreme bearish, but clear bearish momentum. Likely to remain extremely volatile in either direction given sentiment vs trend.	Favour DM ex-US on relative value over a longer view. In the immediate term US valuations remain somewhat elevated, cycle turning down, monetary headwinds.
EM Equities	Sentiment increasingly bearish, but technicals remain weak, USD strength, monetary tightening, geopolitics present ongoing headwinds.	Relative value vs DM (US) and reasonable absolute valuations a positive. EM looks attractive longer term. But value not yet enough offset monetary/growth concerns.
Commodities	Technicals and sentiment still show bearish momentum; growth risks in focus, geopolitics = 2-way risks.	Supply tailwinds (weak capex) may provide partial offset to growth slowdown. Valuations somewhat expensive.
Property	Sentiment extreme bearish, technicals weakened for listed property, monetary headwinds a concern, while growth risks also may become an issue.	Valuations still somewhat high (but have reset materially), some uncertainty on longer term effects of the pandemic (changes in behaviour, tenant stress).
Corp. Credit	Previous complacency disrupted, technicals softer, macro-outlook mostly bearish, warrants caution on credit.	Credit spreads still far from cheap levels, duration an offset(?), monitoring for weak spots as policy tightens, economy falters.
Govt Bonds	Sentiment/positioning very one-sided. Valuations have reset to cheap, main tension is growth risk vs inflation risk. Technicals mixed, volatility very high.	Real yields remain low vs history. Expect bonds to better prove their value as a diversifying asset in event of genuine recession, esp. vs equities.
Cash	Low cash rates = expect negative real returns. Yet short-term: cash remains a reliable means of capital preservation.	Cash rates globally on the rise. Short-term rates being bid up across geographies as central banks push on with rate hikes.
US Dollar	Technicals look overbought, sentiment and positioning stretched bullish, Fed rate hikes increasingly priced-in already, risks somewhat balanced.	Lean bearish on a medium/longer term basis as longer-term cycles play out, but neutral for now given macro/policy divergences, resilient technicals.

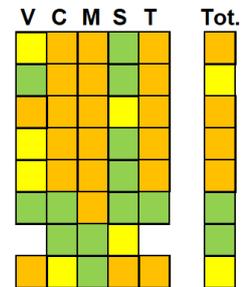
Asset Class Ratings and TAA Overlay

As a reminder, we do not manage any money, or provide personal financial advice, nor offer securities. The purpose of the following tables is to provide a high-level positioning preference based on our analysis and indicators across the various asset classes, from an unbiased/generic multi-asset portfolio perspective.

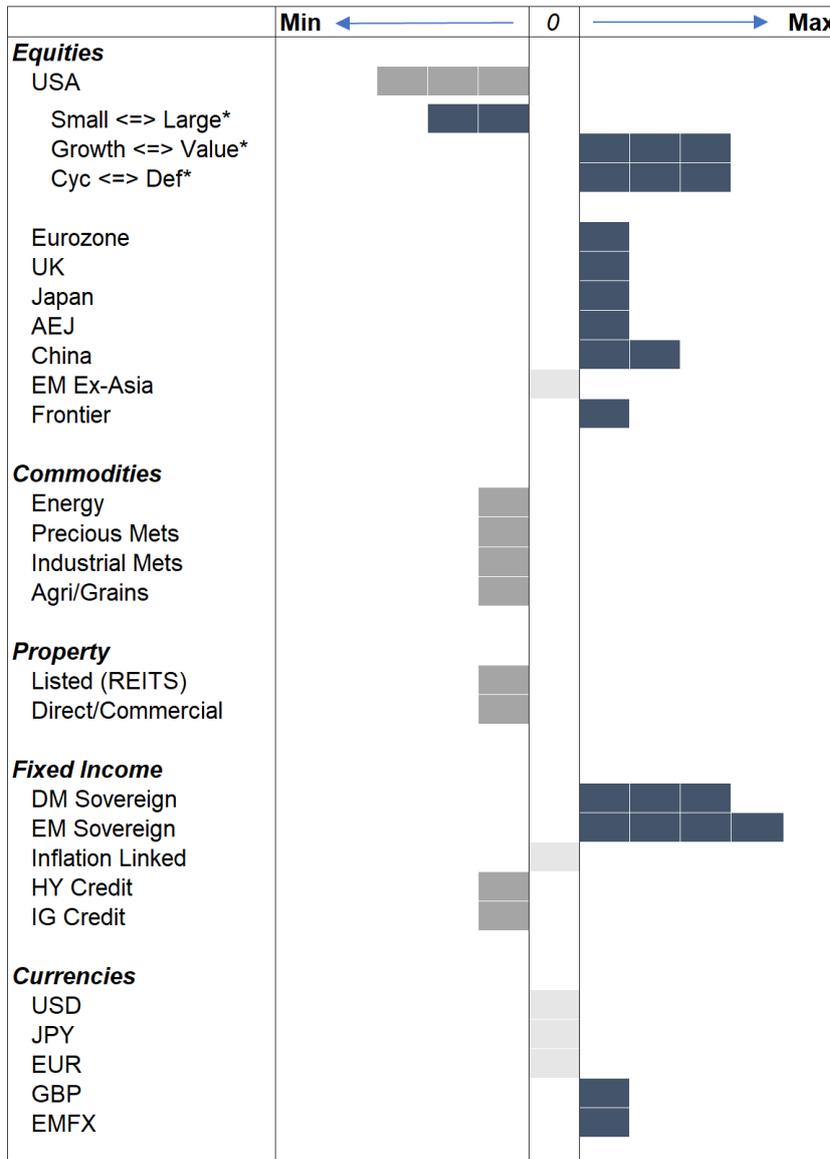
TAA Positioning Indication - Main



Asset Class Ratings



TAA Positioning Indication - Extended



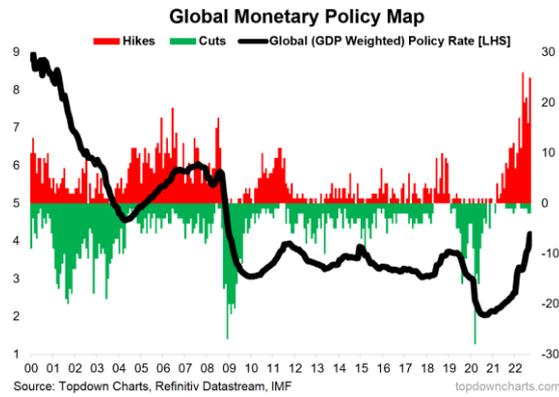
- = Short Term View (i.e. less than 1yr) (only if strong ST view)
- = Medium Term View (i.e. more than 1yr)

Asset Class Ratings:
V = Valuation
C = Cycle
M = Monetary policy
S = Sentiment/positioning
T = Technicals

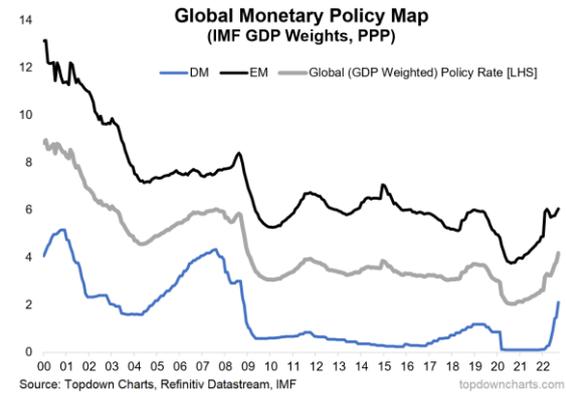
Max/Min: Qualitative ratings. Refers to overall view on that asset with 5 squares representing the highest possible conviction in either the Max (long/OW) or Min (short/UW) direction.

***XXX vs XXX:** Relative views, e.g. small vs large, interchange "min" with first mentioned e.g. for small vs large a maximum bullish view on small caps vs large caps would show as 5 boxes on the left side.

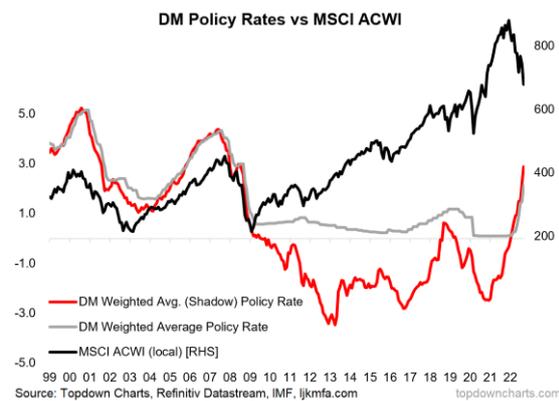
1. Global policy tides gone from panic rate cuts to basically panic/frantic rate hikes.



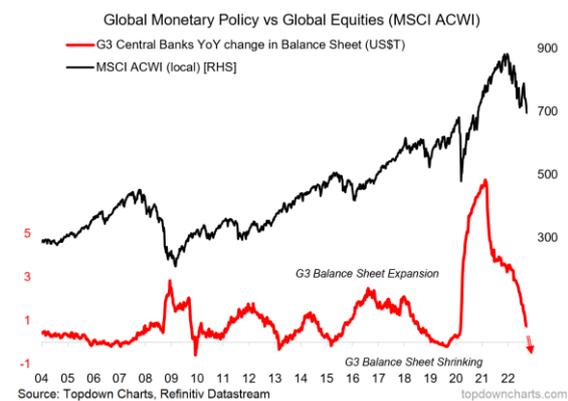
2. Short-term interest rates are trending up: DM rapidly catching up with EM.



3. Shadow policy rates (QE-adjusted) are now up almost 500bps off the low point.



4. On an annual rate-of-change basis, the pace of global QE is rapidly turning down.



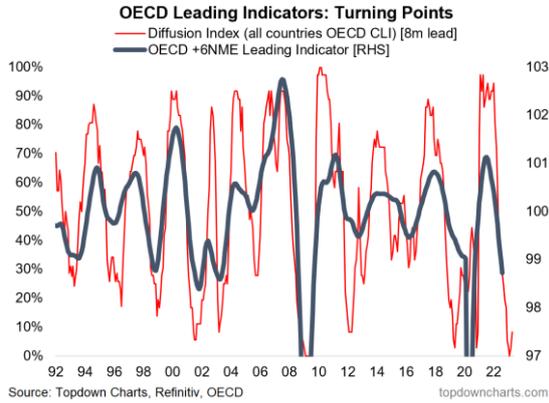
5. Risk to the economic outlook: monetary policy increasingly a headwind to growth.



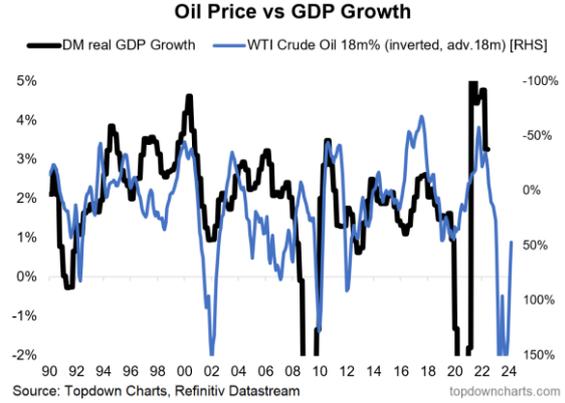
6. After a big lurch to easing, now a big lurch to tightening/stimulus removal.



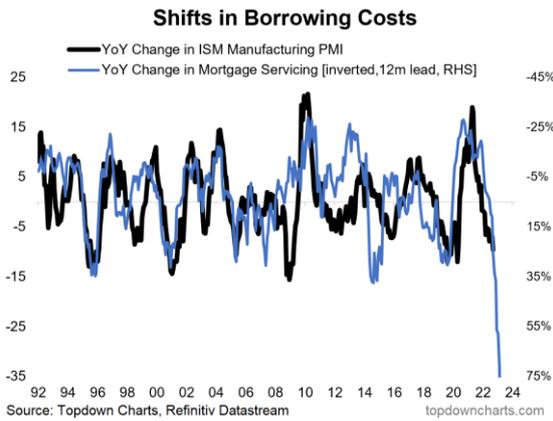
7. OECD indicators point to growth scare ahead as recovery loses momentum.



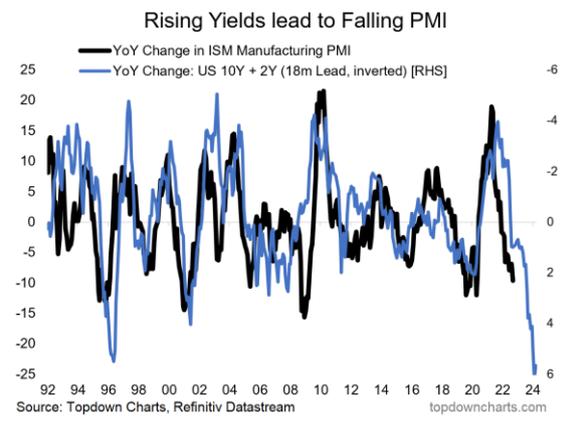
8. The sharp rise in energy costs globally presents real headwinds to growth, real incomes.



9. Mortgage servicing costs doubled off the low point: from tailwind to big headwind.



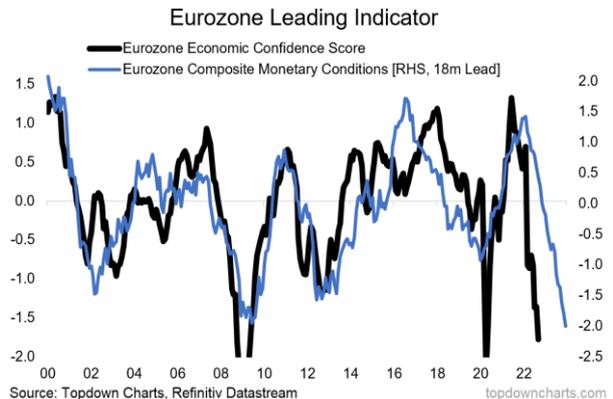
10. Changes in bond yields moved from tailwind to headwind: rising borrowing costs.



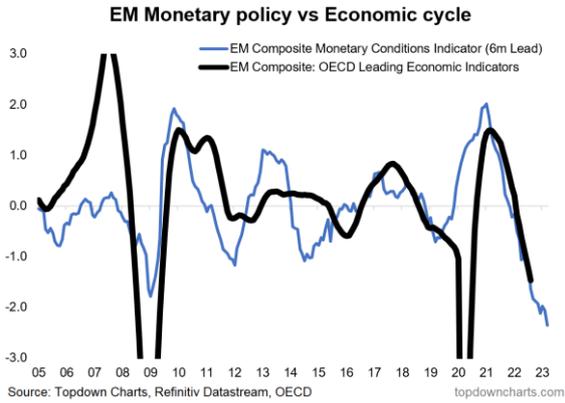
11. Global trade growth slowed significantly, trade orders choppy, but somewhat stable.



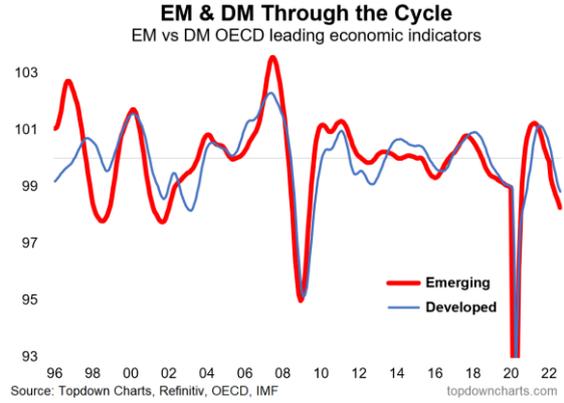
12. Invasion crash in economic confidence in Europe (slowdown brought forward)



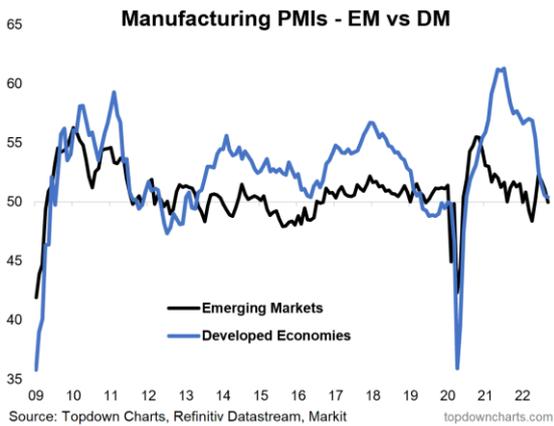
13. EM monetary conditions significantly tightening; a clear headwind to growth.



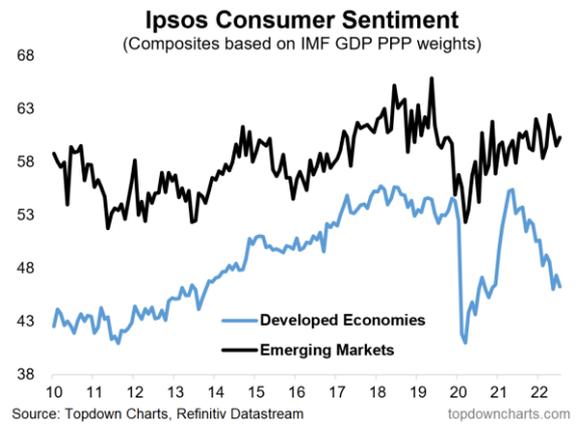
14. Both EM/DM economic indicators losing momentum, EM slightly more so.



15. DM PMI clear weakening, EM mixed to weaker, consistent with global slowdown.



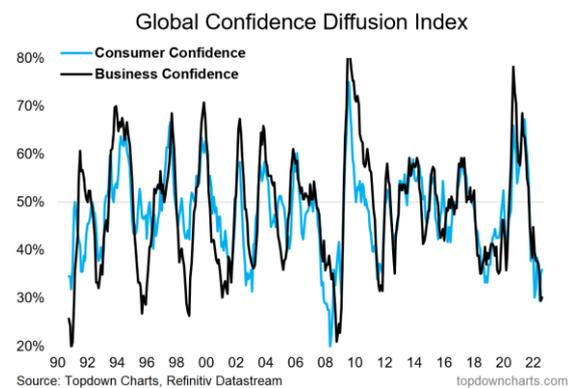
16. Consumer sentiment falling on geopolitics, rising rates, inflation pressures, volatility.



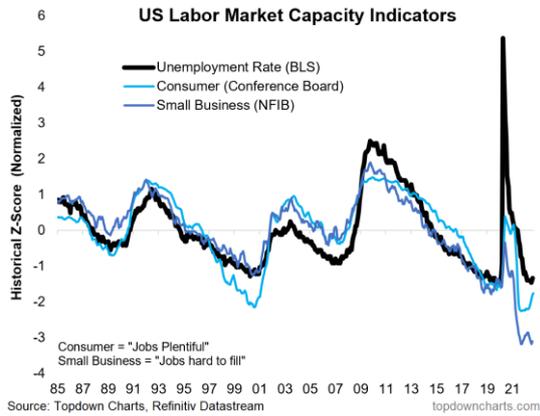
17. Business and consumer confidence down sharply on geopolitical shocks + inflation.



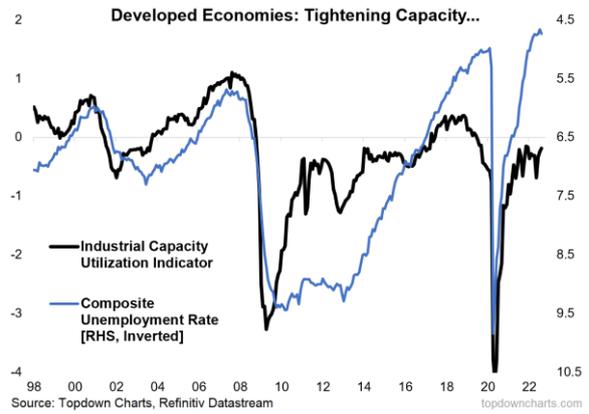
18. Diffusion indexes show pace/breadth of recovery stalled: recession likely.



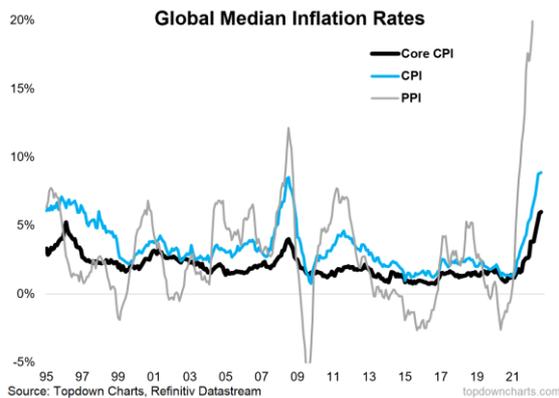
19. US Jobs market still very tight, likely to see ongoing pressure on wages/costs.



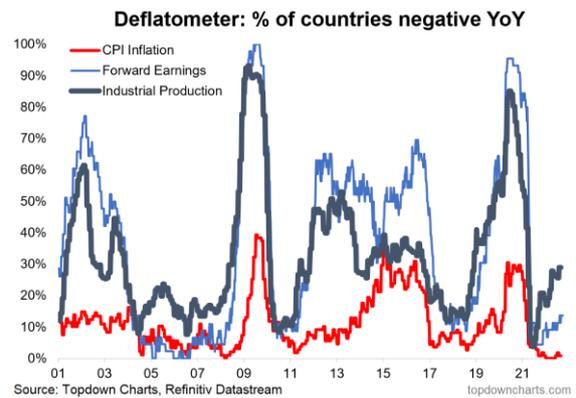
20. Labor market capacity tight, factories mixed (backlogs had been a limiting factor).



21. Inflation rates continue to drift higher globally: especially producer prices.



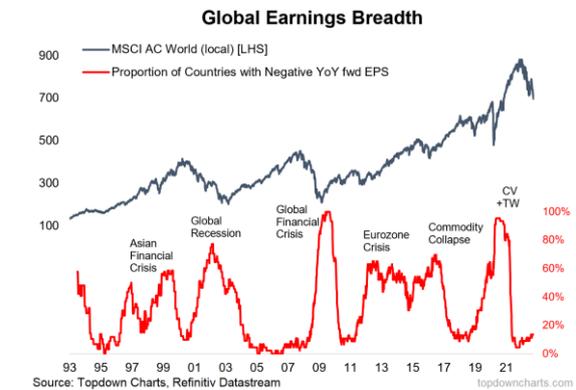
22. Emerging economic deflation as headwinds weigh, recession looms. No CPI deflation yet.



23. Earnings revisions momentum dropping steadily as equities move "ex-growth".



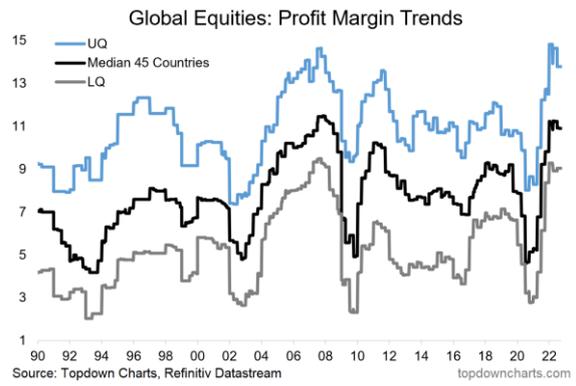
24. Global earnings downgrade climax has been and gone, new wave of downgrades?



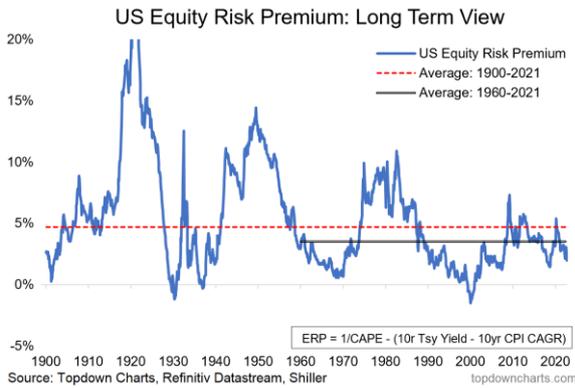
25. Global equity trailing earnings turning down the corner; base effects set high hurdle.



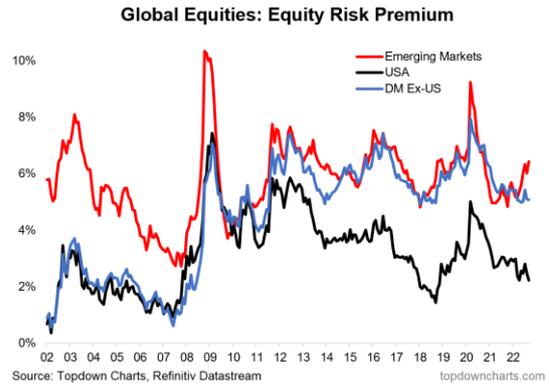
26. Profit margins rebounded, but peaking as costs bite, growth slowdown pressures sales.



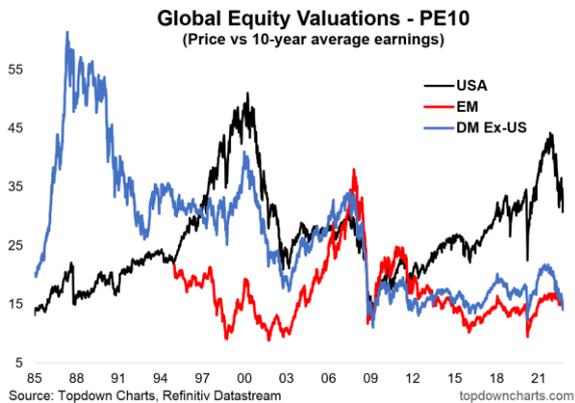
27. ERP indicator still below average of recent decades as bond yields remain elevated.



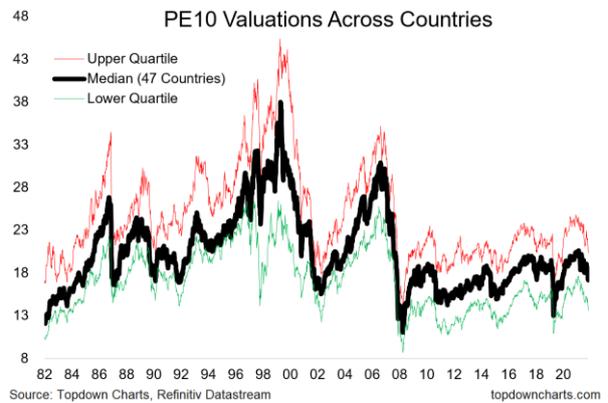
28. ERP still positive but has come down a lot since March 2020. Global ex-US = better value.



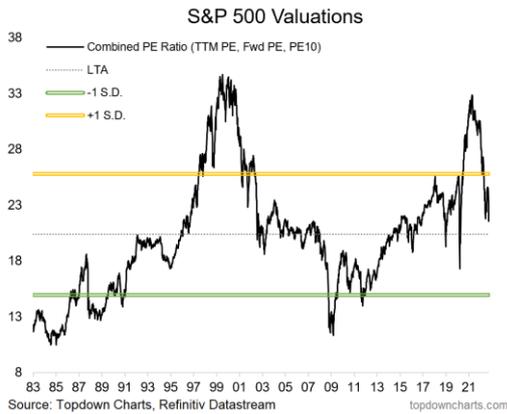
29. Significant reset in DM ex-US. USA still elevated, yet to revisit previous major lows.



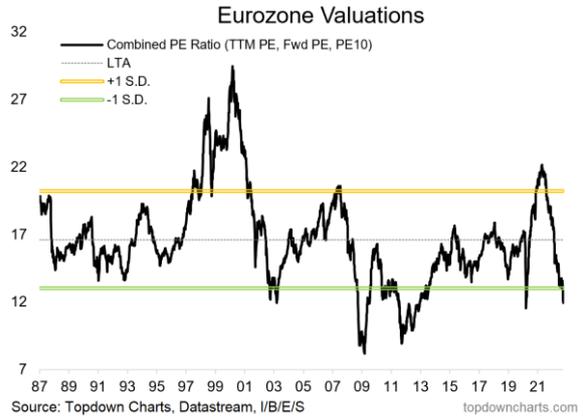
30. Global median PE10 ratio come down some, but not the same as previous bears/corrections.



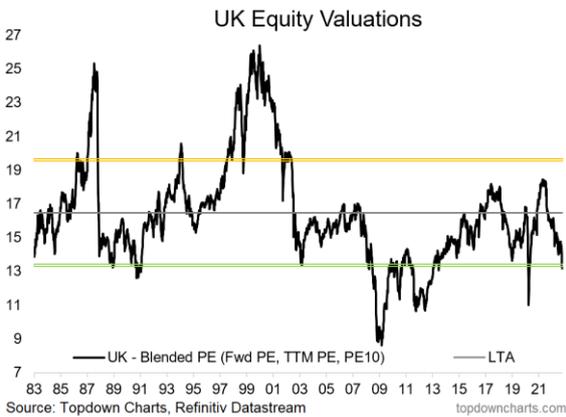
31. US equity valuations reset significantly as price down, forward/trailing EPS rebounded.



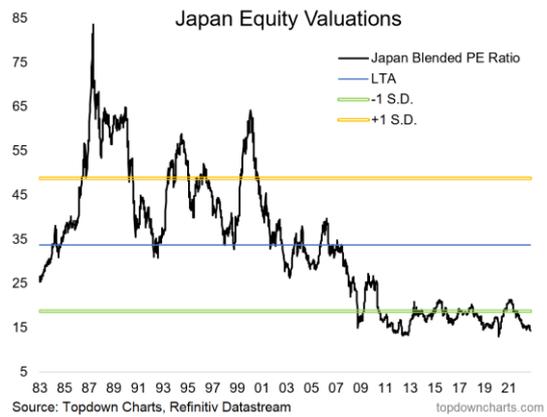
32. Eurozone equities' blended PE falling as earnings recover, prices stumble, now cheap.



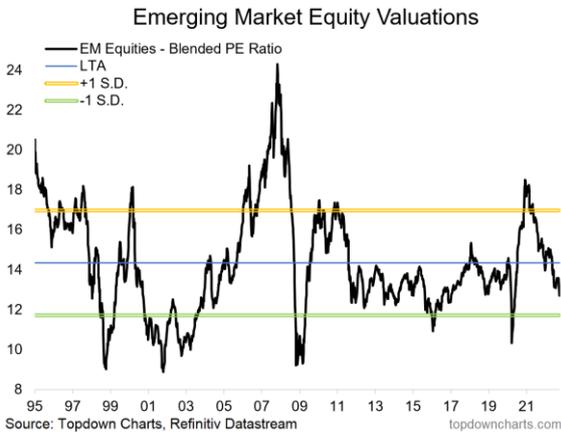
33. UK equities back to cheap as recovering earnings bring down trailing/forward PE ratios.



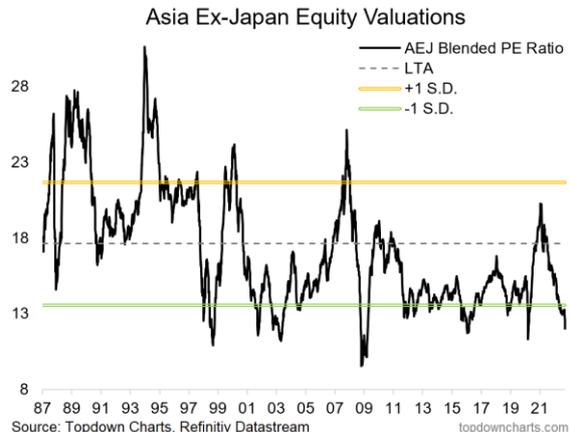
34. Japan blended PE back to lower end of the range, looks cheap vs recent history.



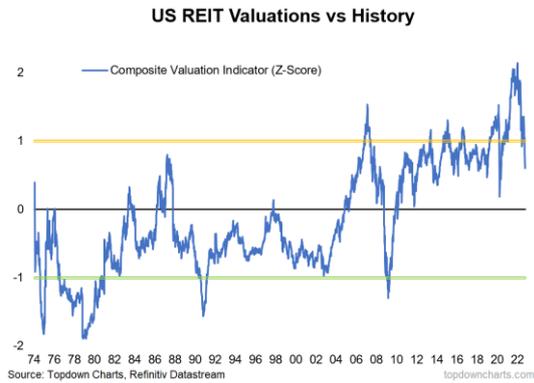
35. EM equity valuations back to slightly cheap as prices consolidate, earnings rebounded.



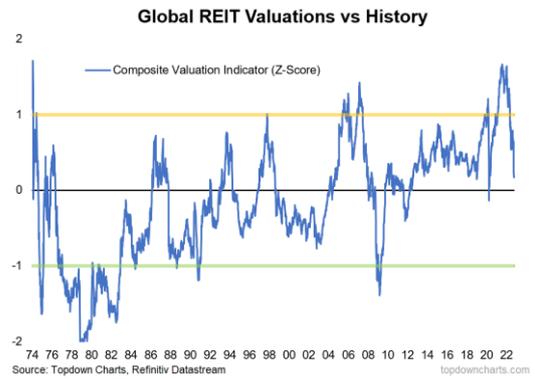
36. AEJ equity valuations improved as prices pullback, earnings recover, now cheap.



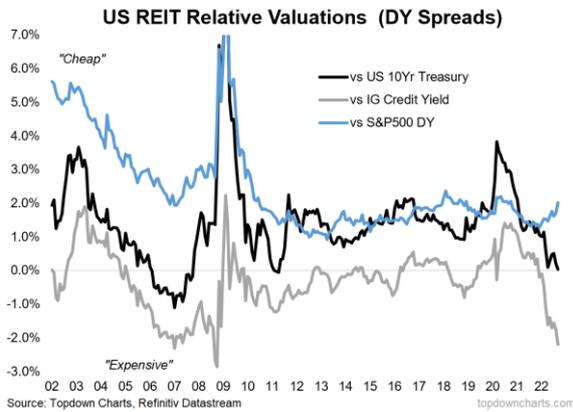
37. US REIT absolute valuations reset significantly, but still high vs longer-term.



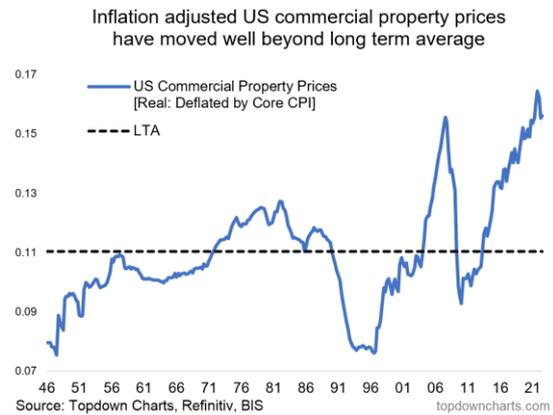
38. Global REITs almost neutral on absolute valuations after a major reset lower.



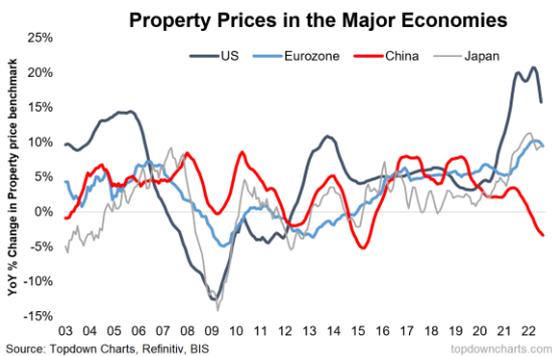
39. Rising bond yields have squeezed the dividend yield spread for REITs.



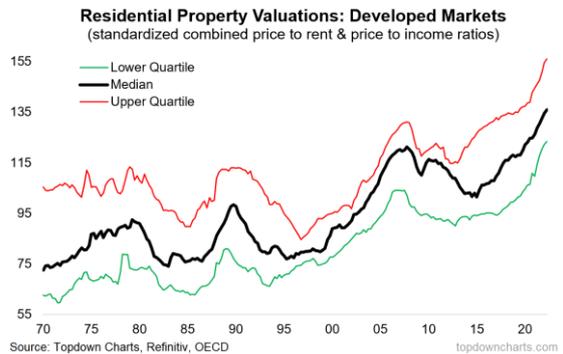
40. US commercial property real prices look extended vs history (and vs trend).



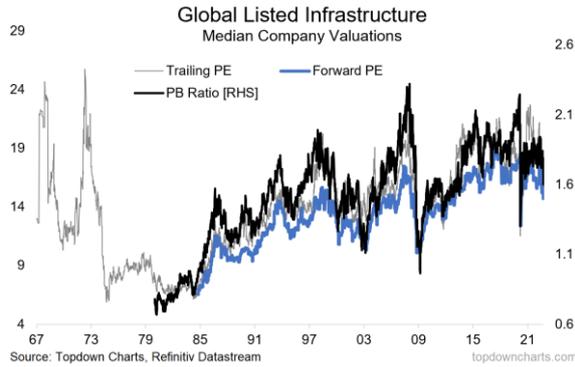
41. House prices still rising across major economies (except for China: downturn).



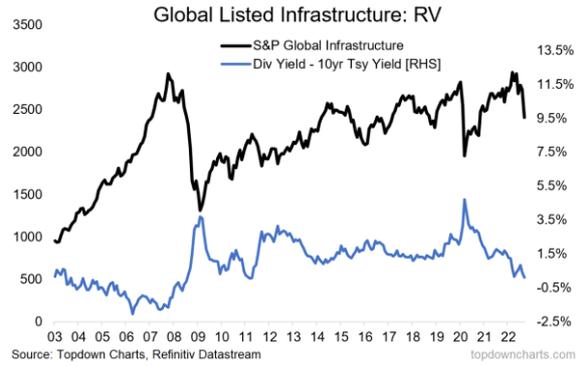
42. Across developed economies there are some historically expensive housing markets.



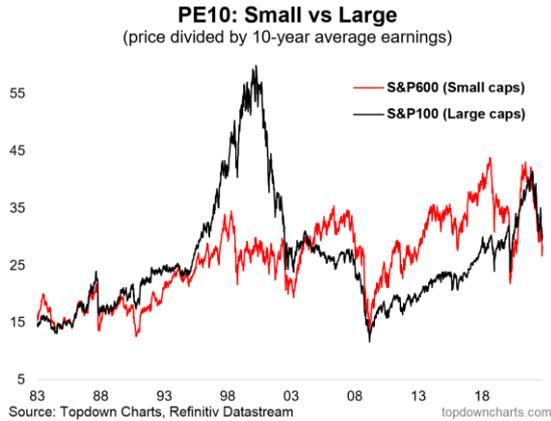
43. Global listed infrastructure (GLIF) absolute valuations elevated vs history.



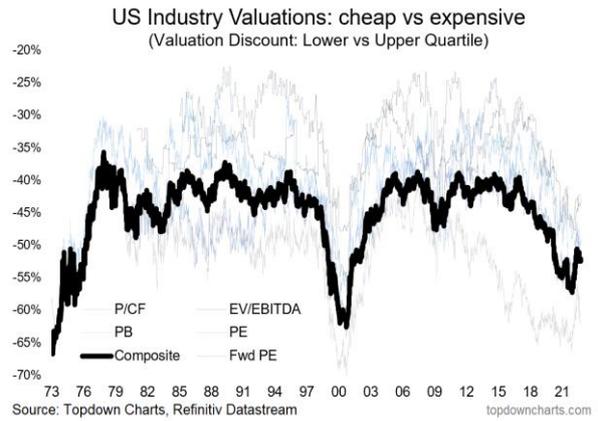
44. Bond yield surge has removed yield advantage, no longer a tailwind.



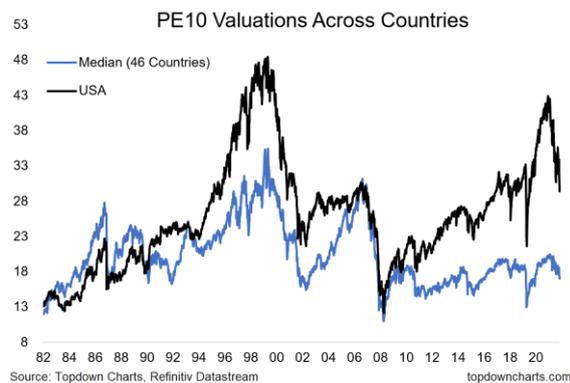
45. Small caps PE10 dipped below large caps after correction, towards lower end of range.



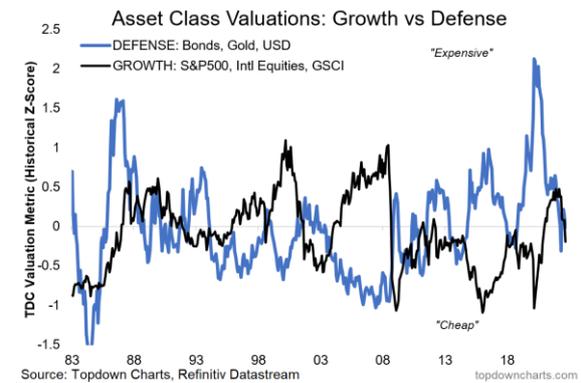
46. US Value vs Growth: cheaper end of market still cheaper than usual vs expensive end.



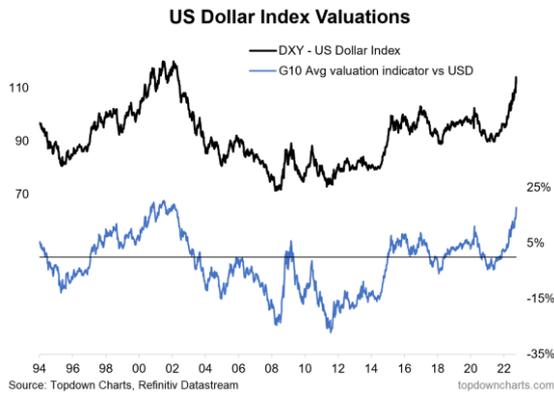
47. Global ex-US valuations reasonable vs their own history and cheap vs US equities.



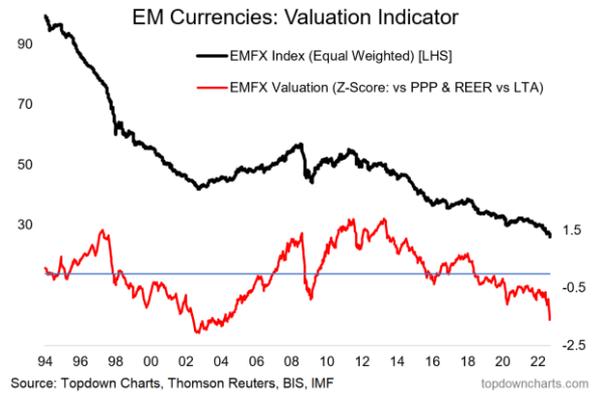
48. Both growth and defence asset baskets down to about neutral vs long-term average.



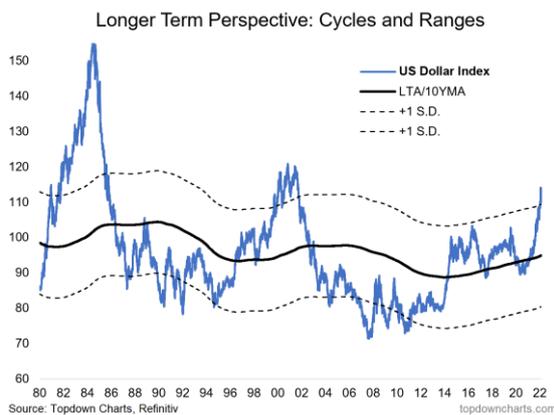
49. US dollar valuation expensive as DXY moves higher: overshoots fair value.



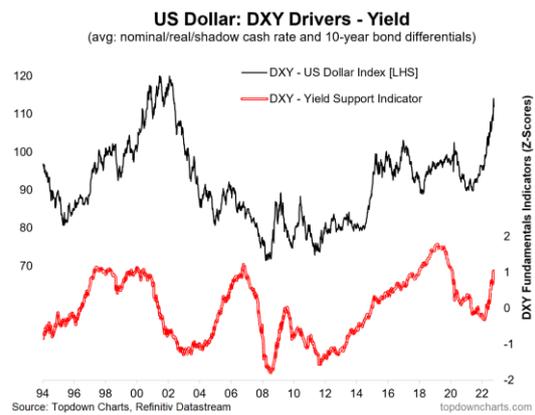
50. EMFX composite valuations still on the cheap side (especially EM ex-Asia).



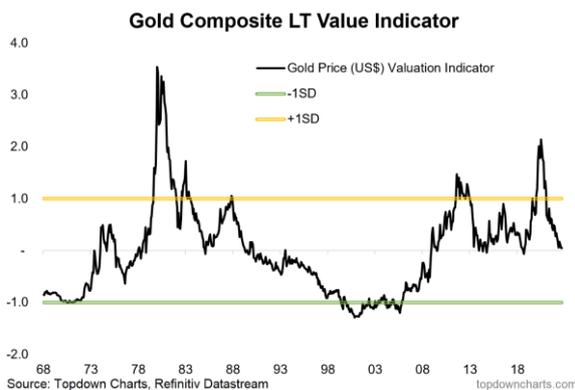
51. US dollar pushing further higher, deviating significantly from long-term average range.



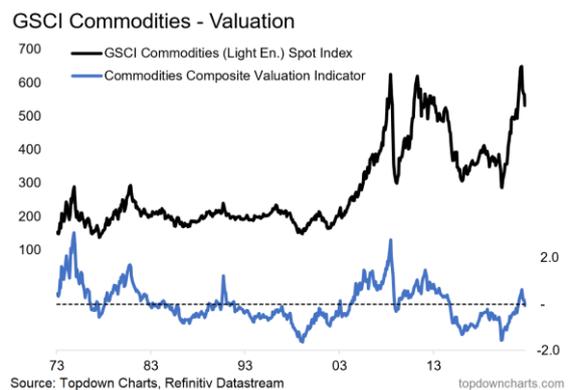
52. US Dollar yield support indicator a key pillar of USD strength (and defensive demand).



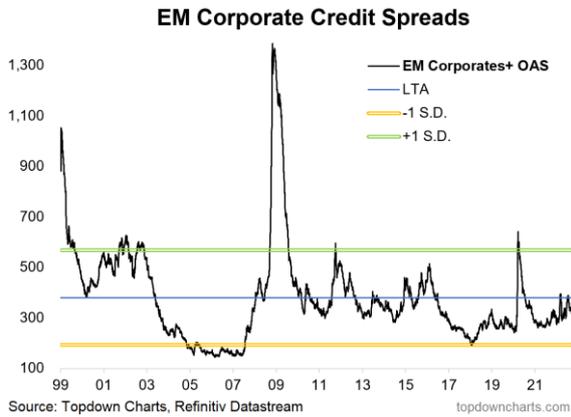
53. Gold valuation indicator undertaken a decent reset, now about neutral.



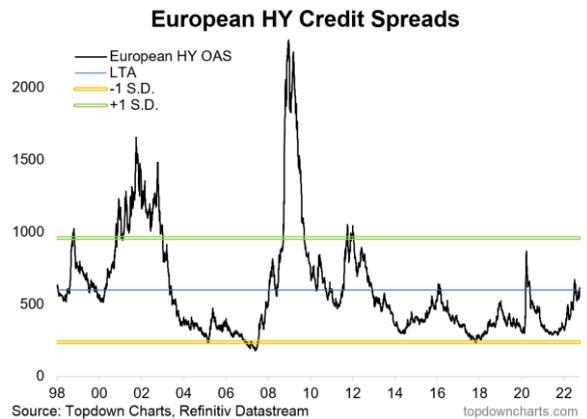
54. After sharp rise in commodities, valuations mildly expensive (following initial correction).



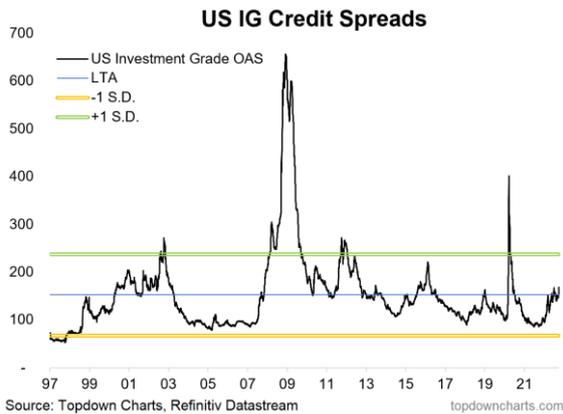
55. EM corporate credit spreads volatile, trending generally higher.



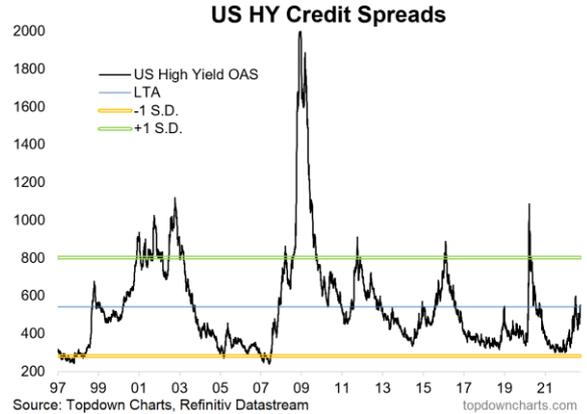
56. European high yield credit spreads trending higher, tracking around long-term average.



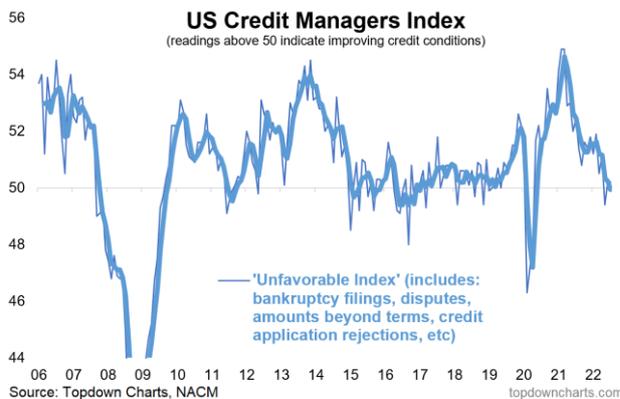
57. US IG credit spreads turning up, likely remain elevated as growth risk comes in focus.



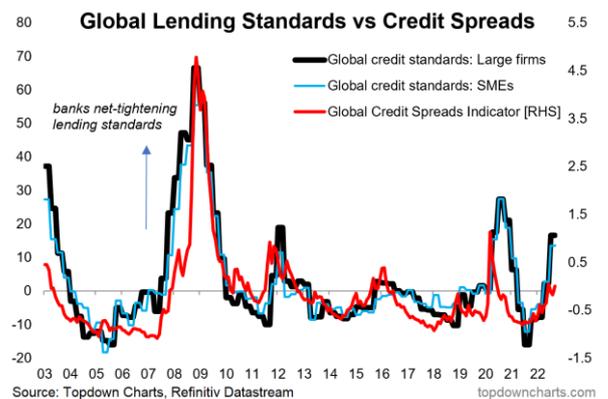
58. High yield spreads pushed higher as growth concerns start to take over vs inflation risks.



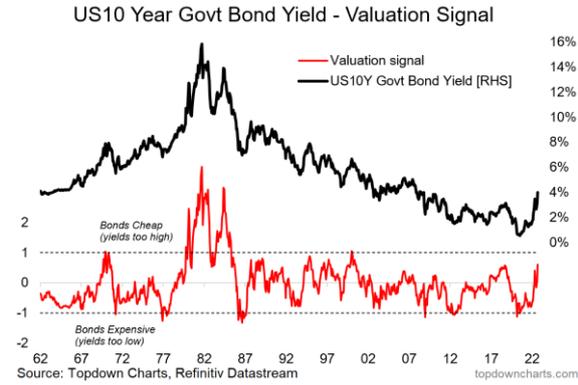
59. Credit stress indicators trending lower, signs of deterioration in credit quality/performance.



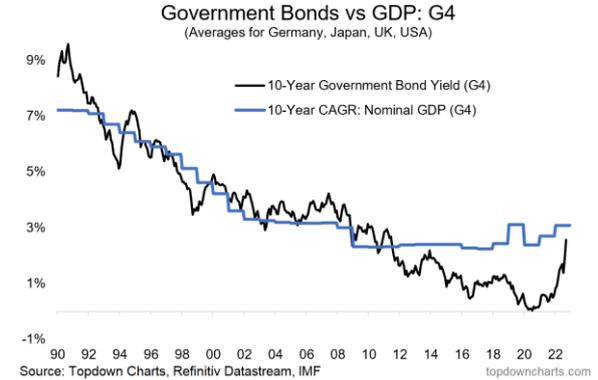
60. Lending standards starting to tighten in line with credit spreads, growth/monetary risks.



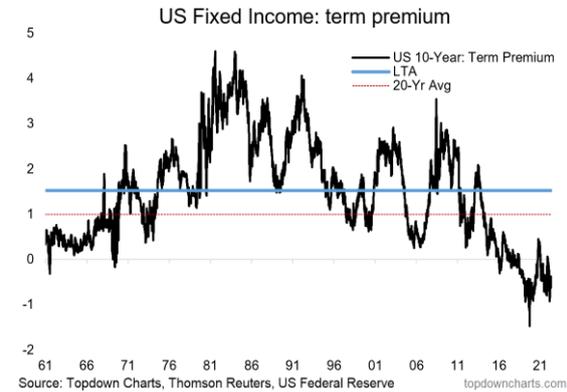
61. US Treasury valuations cheap; not extreme, but merits a bullish medium-term bias.



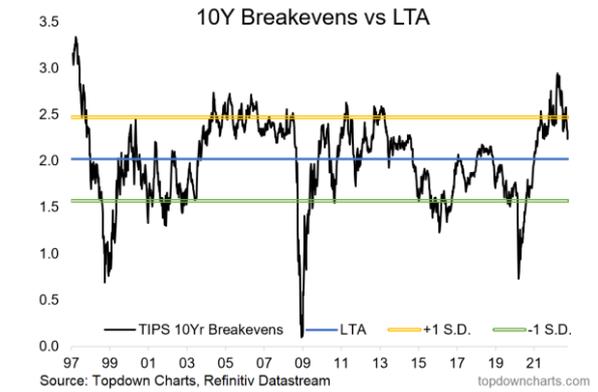
62. Major DM gov't bond yields significantly closing the gap vs nGDP implied levels.



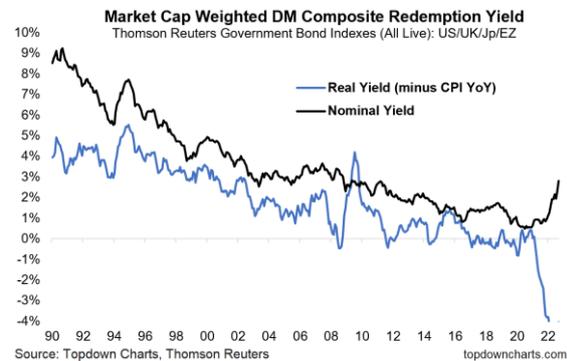
63. Term premium pushing lower, and still below long-term average.



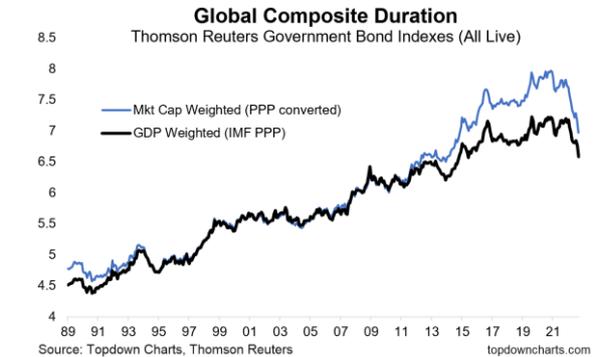
64. TIPS breakevens peaked, turning down, remain expensive, likely lower into recession.



65. Nominal yields trending higher, vs real yields reaching further record lows.



66. Higher duration across gov't bonds has meant greater pain from the rates shock.



APPENDIX: Australia & New Zealand

Economic view: Both countries are seeing ongoing inflation pressures, with much of the themes of the rest of the world applying over here also. Previously rampant house price inflation, along with tight labour markets and supply constraints, have imparted an upward drift on inflation. Globally rising bond yields and monetary policy tightening by central banks have put upward pressure on mortgage rates and are already imposing major negative impacts on demand for housing, with housing inflation rolling over sharply to deflation.

Consistent with the global outlook, recession is highly likely as monetary policy tightening and higher bond yields put the squeeze on housing (risk/reality of a housing bust in both countries is clearly rising), inflation is putting the squeeze on consumers, and weaker global growth likely dents export demand. New Zealand is slightly further ahead in this process given the earlier and more aggressive monetary tightening lift-off.

Monetary policy outlook: In response to overheating housing markets, stop-start improvement in the economy, and of course: rising inflationary pressures, both central banks have turned the corner. The RBNZ has been more resolute, hiking the OCR by a total 325 basis points to 3.50% with further hikes likely and balance sheet rundown (sales and maturities) underway. The RBA has also pushed on with its rate hiking cycle with a total 250bps of hikes to 2.60% so far and more on the way. Anticipate, like the rest of the world, a steady progression towards stimulus removal/outright tightening for both banks – and hence monetary conditions going from tailwind to increasing headwind for macro and markets.

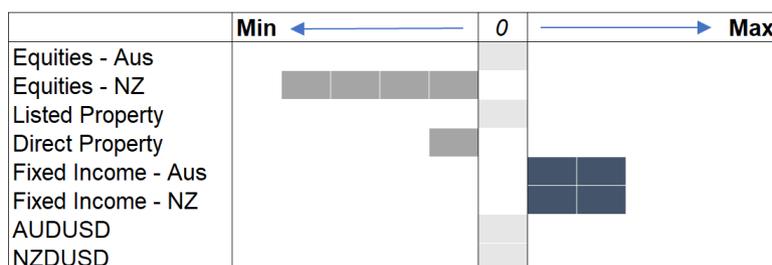
Summary view across asset classes

Note: Given many of these assets have similar drivers, the view is for “Australasia” unless specified otherwise.

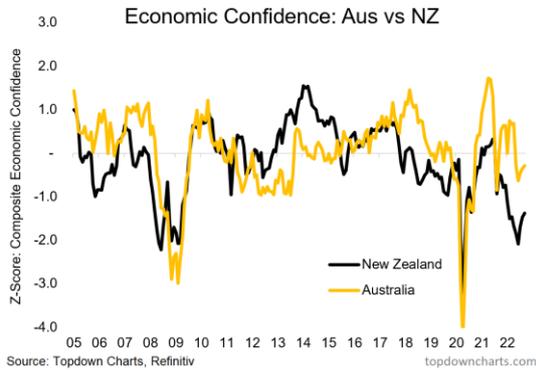
Asset Class	Short-Term View	Medium-Longer Term View
Equities	Tightening monetary conditions a risk, markets likely remain volatile as growth headwinds loom vs negative sentiment.	Valuations have come down for Aus, but New Zealand still very richly priced. Diminishing relative value vs bonds.
Listed property	While monetary policy and bond yields turned to clear headwind, valuations have reset materially now though.	Absolute valuations no longer expensive, longer term pandemic impact remains to be seen, monetary headwinds concerning.
Direct Property	Diminishing yield/policy support, uncertainties remain (short-term and long-term pandemic tenancy impacts).	Valuations/cap-rates had become stretched. Underlying risks similar, deteriorating growth outlook a concern.
Fixed Income	Global bond technicals improved, valuations reset to neutral/cheap. Duration less one-sided risk now.	Bonds retain value as a diversification asset in the event of a typical downturn, particularly given reset in yield levels.
Currency	General risk-off sentiment, commodity wobbles have taken some steam out of the FX, policy tightening likely more of a downside given divergence, risks.	Despite some undervaluation and still elevated commodities, growth risks and housing market downturn present uncertainty on outlook.

The table below reflects a notional TAA positioning indicator based purely on the above views.

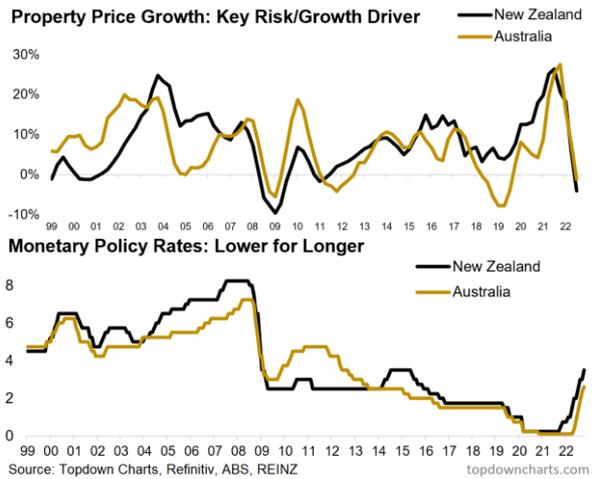
Notional Positioning Indication - Australia & New Zealand



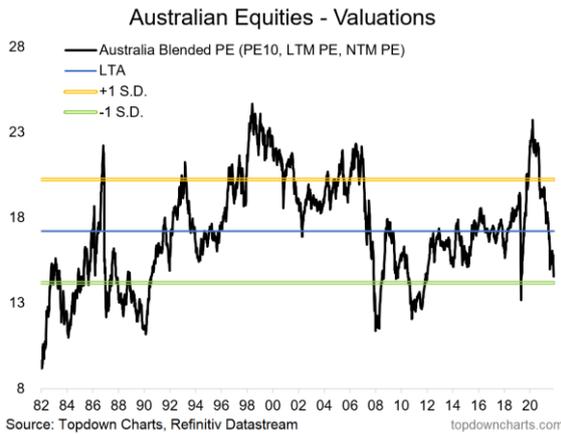
i. Economic confidence rattled by inflation pressures, volatility, softer housing.



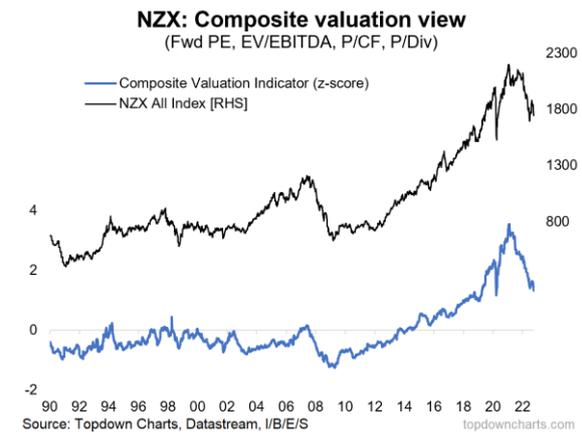
ii. Sharp pace of rate hikes triggering housing market correction in both countries.



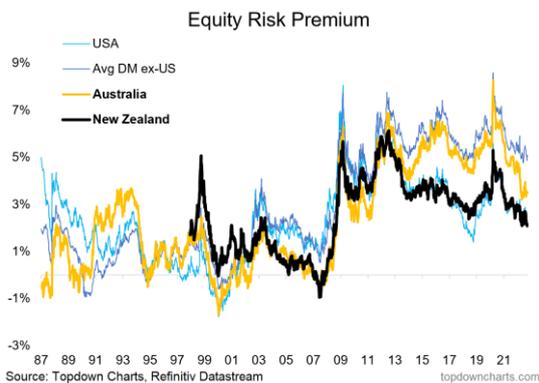
iii. Valuations mean reverting as earnings recover, stocks stumble, cheap now.



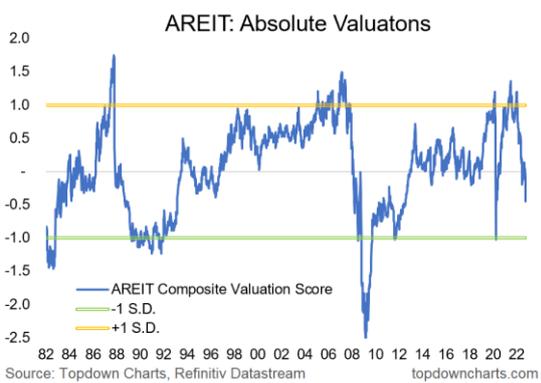
iv. NZ equity valuations have come down somewhat, but remain expensive vs history.



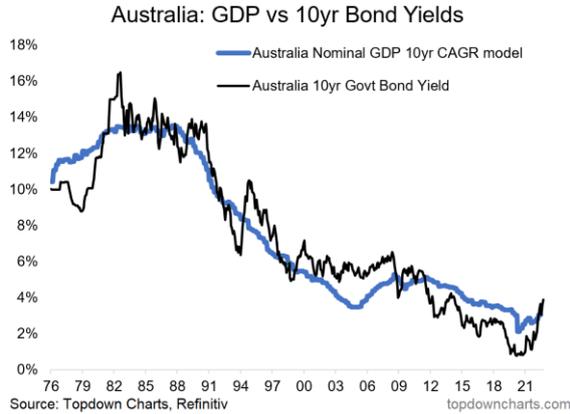
v. ERP at multi-year lows following bond yield spike, but elevated vs longer term.



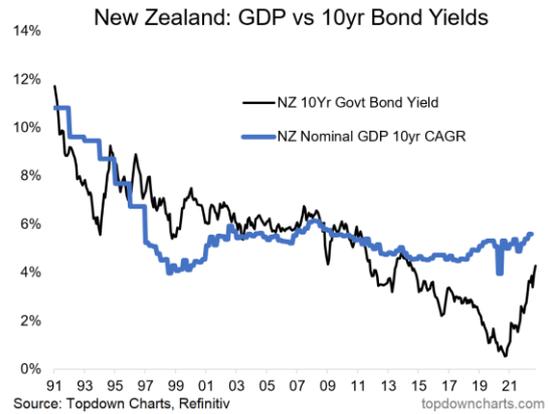
vi. A-REIT valuations back towards neutral as rate-rises inflict pain, but risks remain.



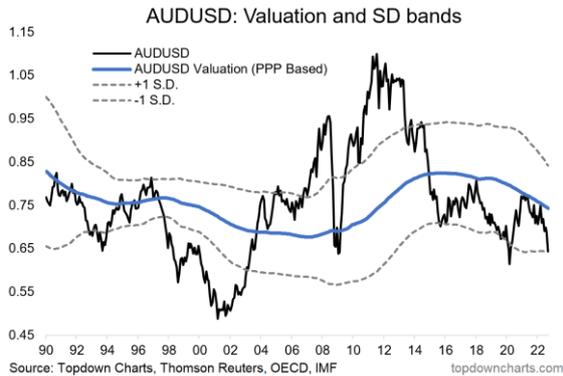
vii. Australian 10yr gov't bond yields trending higher on reopening, growth/inflation/policy.



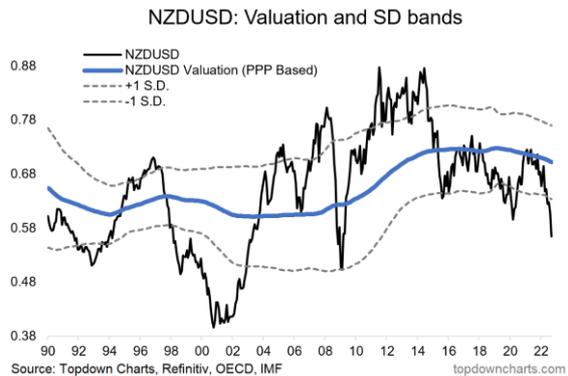
viii. NZ yields up as inflation bites, RBNZ focused on tightening (rate hikes + QT).



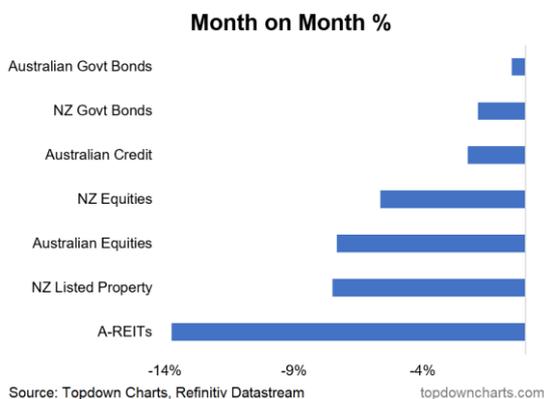
ix. AUDUSD cheaper, inflation risks likely sees string of rate hikes by RBA, but downside risk.



x. NZDUSD cheap, RBNZ aggressive rate hikes support, but housing bust increasingly weighs.



Australia & New Zealand Asset Returns



Macro/Market Highlights: Month of September

Market Highlights:

- No assets managed to close September positive across Australasia as they all finished with a loss. A-REITs were the notable worst performer down nearly -14%.

Economic/Political Developments:

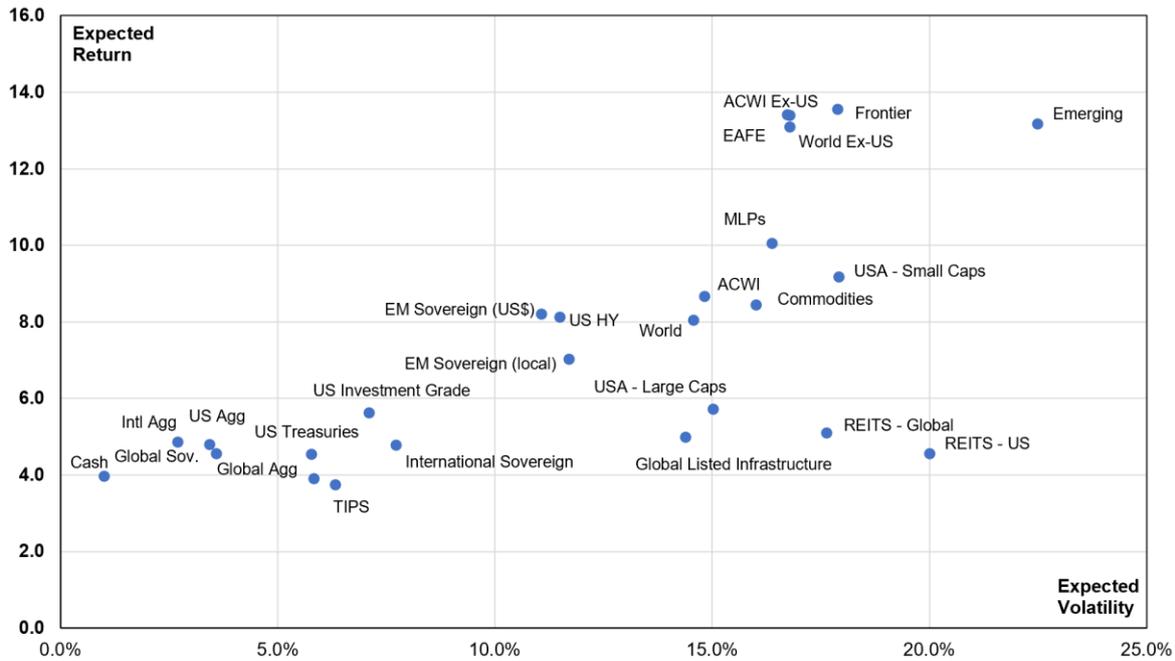
- The RBA made another 50 bps interest rate hike last month, the third consecutive, raising the cash rate to 1.85%.
- Similarly, the RBNZ made a fourth consecutive 50bps hike to the official cash rate to bring it up to 3.0%. Both countries like the rest of the world are still dealing with elevated inflation.

APPENDIX: Capital Market Assumptions

The following pages provide the latest updated Capital Market Assumptions data, and include a couple of extra pages of charts which provide colour on the inputs, changes, and trends.

Assumptions/principles at also included, but do get in touch if you have any questions (or requests).

Topdown Charts: Capital Market Assumptions



Source: Topdown Charts

www.topdowncharts.com

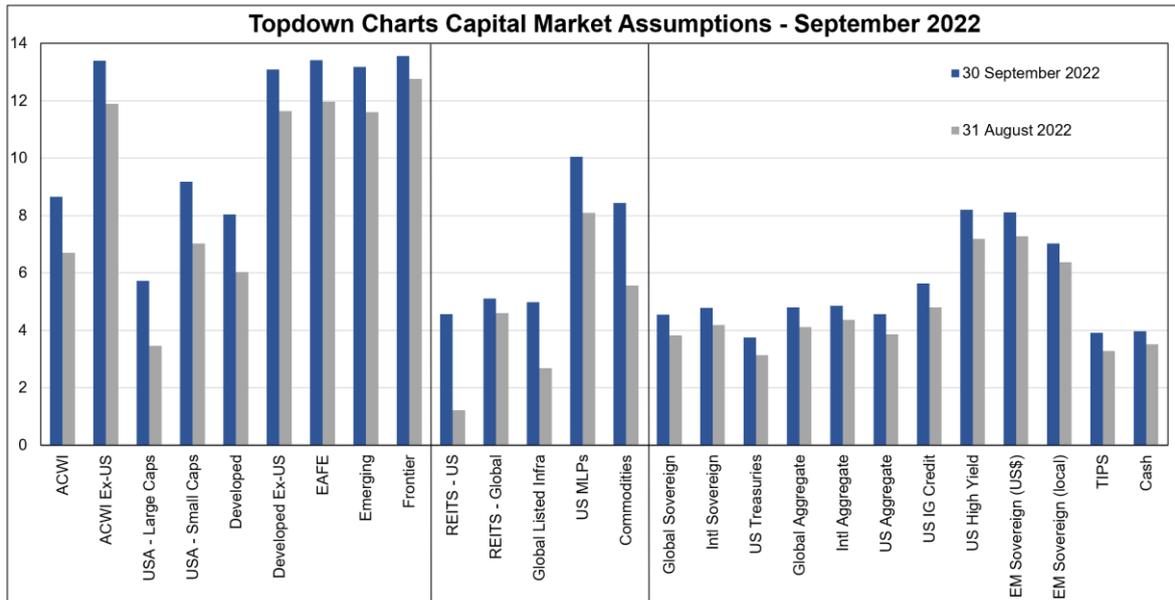
Projections as 30 September 2022, based on expected trend earnings growth, dividend yield, valuation mean-reversion adjustment, hedging and FX changes, yield to maturity, trend nominal GDP. Figures are subject to change and are not a guarantee of performance or offer of securities.

Full table of capital market assumptions.

Let us know if you require these in another currency and/or if you need additional inputs/asset classes.

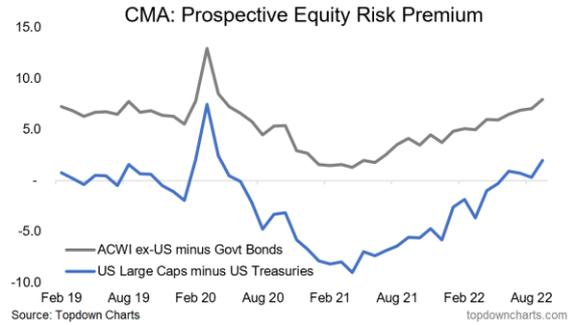
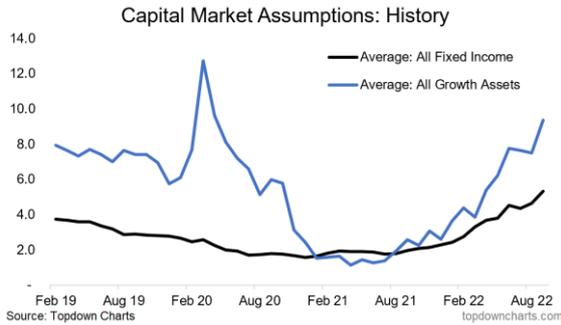
Topdown Charts Limited - Capital Market Assumptions				Components/Breakdown						Volatility	
Currency	Asset Class	Sub Class	Index	Expected Returns	Yield	Growth	Valuation	FX	US\$/Unhedged	Local/Hedged	
USD (hedged)	Equities	All Countries	MSCI ACWI	8.67	2.48	4.63	1.14	0.42	14.8%	13.6%	
USD (hedged)	Equities	All Countries Ex-US	MSCI ACWI Ex-US	13.39	3.55	3.94	4.80	1.10	16.8%	14.3%	
USD	Equities	USA - Large Caps	S&P 500	5.72	1.81	5.05	- 1.14	-	15.0%	15.0%	
USD	Equities	USA - Small Caps	S&P 600	9.18	1.72	5.25	2.21	-	17.9%	17.9%	
USD (hedged)	Equities	Developed	MSCI World	8.04	2.32	4.51	0.63	0.57	14.6%	13.6%	
USD (hedged)	Equities	Developed Ex-US	MSCI World Ex-US	13.09	3.43	3.39	4.51	1.76	16.8%	14.2%	
USD (hedged)	Equities	EAFE	MSCI EAFE	13.41	3.45	3.24	4.64	2.08	16.7%	14.2%	
USD (hedged)	Equities	Emerging	MSCI EM	13.18	3.57	6.34	4.38	- 1.12	22.5%	21.3%	
USD (hedged)	Equities	Frontier	MSCI Frontier	13.56	3.90	8.86	3.69	- 2.90	17.9%	16.9%	
USD	Liquid Alt.	REITS - US	Dow Jones US REIT	4.56	3.81	2.75	- 2.00	-	20.0%	20.8%	
USD (hedged)	Liquid Alt.	REITS - Global	FTSE EPRA/NAREIT	5.10	4.02	2.46	- 1.71	0.33	17.6%	17.1%	
USD (hedged)	Liquid Alt.	Global Listed Infrastructure	S&P Global Infrastructure	4.98	3.88	1.80	- 1.08	0.38	14.4%	11.6%	
USD	Liquid Alt.	US MLPs	Alerian MLP	10.05	7.97	1.80	0.29	-	16.4%	16.4%	
USD	Liquid Alt.	Commodities	GSCI Light En.	8.45	3.97	3.59	0.89	-	16.0%	16.0%	
USD (hedged)	Fixed Income	Global Sovereign	FTSE G7 Government Bond	4.55	3.13	-	-	1.42	5.8%	5.8%	
USD (hedged)	Fixed Income	International Sovereign	S&P International Sovereign	4.78	2.48	-	-	2.30	7.7%	7.7%	
USD	Fixed Income	US Treasuries	ICE US Treasury 7-10yr	3.75	3.75	-	-	-	6.3%	6.3%	
USD (hedged)	Fixed Income	Global Aggregate	BBG Global Aggregate	4.80	3.61	-	-	1.19	3.4%	3.4%	
USD (hedged)	Fixed Income	International Aggregate	BBG International Aggregate	4.86	2.90	-	-	1.96	2.7%	2.7%	
USD	Fixed Income	US Aggregate	BBG US Aggregate	4.56	4.56	-	-	-	3.6%	3.6%	
USD	Fixed Income	US Investment Grade	Markit iBoxx USD Liquid IG	5.63	5.63	-	-	-	7.1%	7.1%	
USD	Fixed Income	US High Yield	Markit iBoxx USD Liquid HY	8.21	8.21	-	-	-	11.1%	11.1%	
USD	Fixed Income	EM Sovereign (US\$)	J.P. Morgan EMBI	8.12	8.12	-	-	-	11.5%	11.5%	
USD	Fixed Income	EM Sovereign (local)	J.P. Morgan GBI-EM	7.02	8.14	-	-	- 1.12	11.7%	11.7%	
USD	Fixed Income	TIPS	BBG US TIPS	3.91	3.91	-	-	-	5.8%	5.8%	
USD	Fixed Income	Cash	(3m T Bills)	3.97	3.97	-	-	-	1.0%	1.0%	

A: Expected returns increased across the board as valuations moved lower, dividend yields and interest rates moved higher, natural impact of a month where just about every asset lost ground.

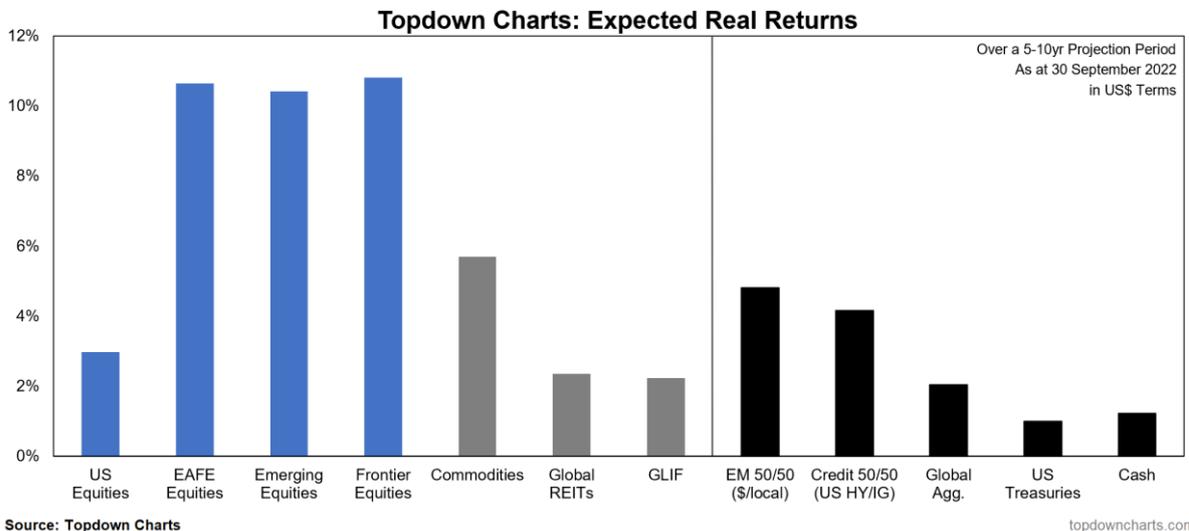


Source: Topdown Charts
 Projections as 30 September 2022, based on expected trend earnings growth, dividend yield, valuation mean-reversion adjustment, hedging and FX changes, yield to maturity, trend nominal GDP. Over a 5-10yr Projn. Period. Figures are subject to change and are not a guarantee of performance or offer of securities. Full details on methodology available on request. www.topdowncharts.com

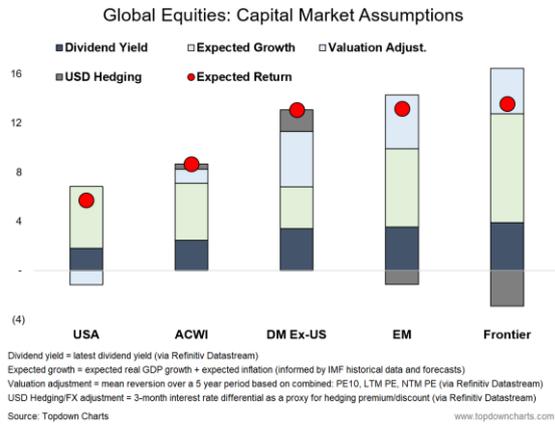
B: History of Estimates Across Asset Classes. C: Prospective ERP (Using Expected Returns).



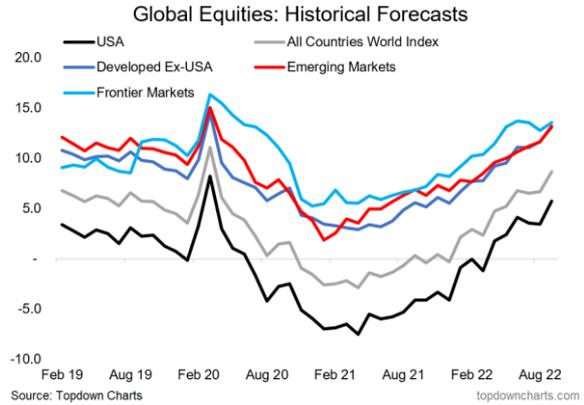
D: Expected *Real* Return Summary (inflation adjusted using US long-term expected inflation).



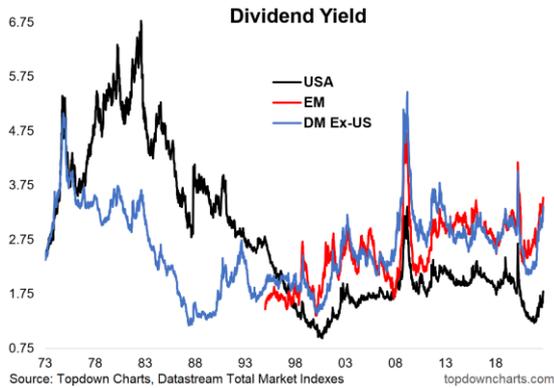
E. Expected return breakdown across global equities: better prospects for global ex-US.



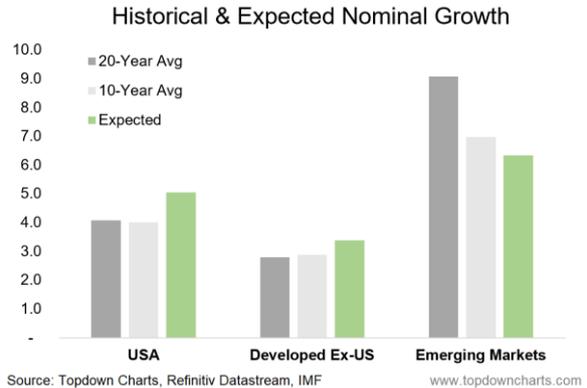
F. Historical path of forecasts: rising trend across most regions, but clear divide.



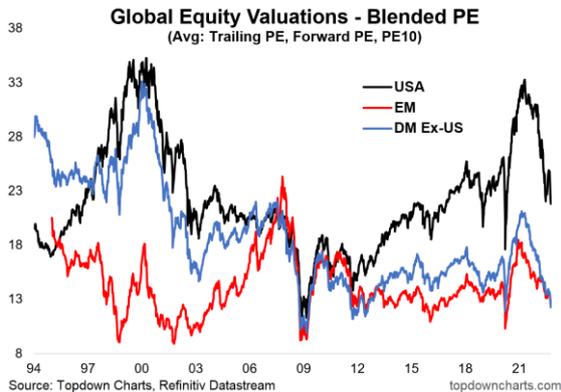
G. Components: dividend yield up across the board as equities decline, widening gap.



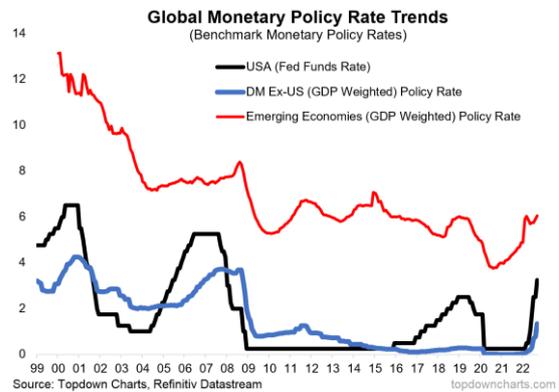
H. Components: historical context for current long-term nominal growth assumptions.



I. Components: valuations come down on earnings rebound and mixed market returns.



J. Components: policy convergence reduced hedging premiums/discouts.



Key Assumptions and Elements of Expected Returns

Equities	Dividend yield + capital growth (expected nominal trend GDP growth; aggregated for regions/global) + valuation change (assume mean reversion over a 5 year period) + FX adjustment (hedging premium based on 3m interest rates)
REITs	Same approach as equities, but growth = inflation
GLIF	Same approach as equities, but growth = world real GDP growth with a beta of 0.5 (assume infrastructure has some sensitivity to economic growth)
US MLPs	Same approach as equities, but growth = commodities growth estimate with a beta of 0.7 (assume MLPs have relatively high sensitivity to commodities)
Commodities	Yield (cash assumption (i.e. expected return on collateral) + growth (world real GDP growth (commodity price changes have strong sensitivity to global growth)) + Composite valuation proxy mean reversion.
Fixed Income	Using an index consistent with the forecast time horizon (5-10 years), assume buy & hold; therefore expected return = current yield to maturity + FX adjustment where relevant (hedging premium based on 3m interest rates)
HY Credit	Same as other fixed income except with an adjustment for expected defaults (based on current/expected probability of default and loss given default)
EM Debt Local	Same as other fixed income except with an adjustment to FX (negative rates differential toned down due to currency undervaluation)
Cash	Weighted average: 60% current cash rate and 40% nominal trend GDP growth (expect current short-term rate to prevail and then normalize towards trend nominal GDP)
FX Adjustment	Note: the FX adjustment for hedging can be used for either hedged (FX hedging premium/discount) or unhedged (where UIP is assumed, and therefore it becomes the expected FX change)

Data Sources: Thomson Reuters/Refinitiv, MSCI, IMF, (and general research, judgement, and internal workings)

Other Principles and Comments

Key principles

1. Expected returns should be as quantitatively driven as possible/practical.
2. Prefer the minimum moving parts (would rather be approximately right vs precisely wrong)
3. The core drivers of investment returns are yield and growth.

Important beliefs

Believe that CMA should drive SAA/long-term benchmark allocation decisions.

Believe that strong views on a short-medium term view should be incorporated via DAA/TAA (where they alter the expected risk/return from when SAA was set and are expected to run over a shorter time frame)

To this end, tactical valuation views on rates and FX would preferentially be expressed in DAA/TAA vs in the CMA (i.e. SAA)



Report by Callum Thomas, Head of Research (Founder), Topdown Charts

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Phone: +64 22 378 1552

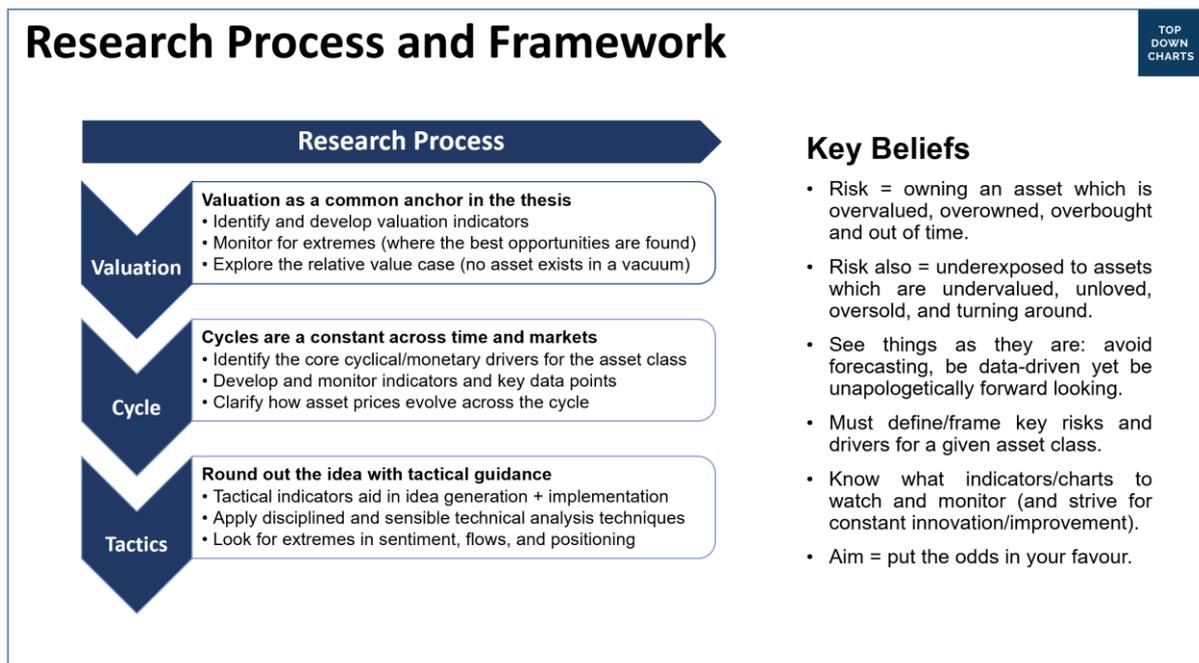
About Topdown Charts

Topdown Charts provides chart-driven independent research across a global macro and multi-asset universe. The service has been designed specifically for multi-asset portfolio managers, active asset allocators, and macro-driven fund managers. The perspective is that of a buy-side strategist and the key deliverables of the reports are: investment idea generation, top-down global macro insights, risk management input, and asset allocation research.

About the Market Cycle Guidebook

The Market Cycle Guidebook focuses on the cycle/monetary and valuation factors of our research framework (with the global cross asset market monitor focusing on tactical considerations i.e. sentiment and technicals). The Market Cycle Guidebook is designed to be a key resource for active asset allocators in helping them do their day to day job and form medium-term views for constructing multi-asset portfolios.

The slide below outlines our overall research process/framework:



If you have any questions about the content of this report or in general please contact us.

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