A Market Note: Guideposts and our new HUD tools ...

Some quick numbers.

The MO portfolio returns **+10.21%** in 2022 after losing **-5.29%** in the fourth quarter.

Since 2020, the MO port has returned **+83%** compared to the S&P 500 return of 18.51%.

It was a bumpy year and a bit of a letdown after being up +31% in June. Our end-of-year results were a combination of the markets we were given as well as a number of unforced errors, sloppy management, and poor position sizing.

The team and I are going through last year's trade log, figuring out where the mistakes were made with the hopes we can learn from them and not make the same ones in the future. We'll be out with our annual performance review soon.

In this note, we cover the consensus street 2023 predictions/narratives, introduce some new HUD tools which we'll use to explore the current macro regimes, and assess the go-forward probabilities.

By doing this, we'll come away with a roadmap for the year. This roadmap will give us our critical guideposts (the signals/developments that we need to be on the lookout for to help point the way) that will help us navigate the year.

Let's kick things off by going through what the peanut gallery is saying.

I skimmed through all of the major shop annual prediction reports. It's something I do every year just to see what the popular narratives and expectations are.

Below is a summary of each of the main ones (emphasis mine).

GS: Global growth continues to slow to just 1.8% in 23'. **US narrowly avoids recession, while EU and UK don't, and China's reopening is bumpy**. Core PCE slows to 3% in late 23'. Fed hikes another 125bps to 5.25%.

The reason they're less bearish on the US? The advance GDP report showed 2.6% (annualized) growth in Q3, nonfarm payrolls grew 261k in October, and there were 225k initial jobless claims in the week of Nov 5th. And **real disposable personal income is rebounding from the plunge seen in H1** — when fiscal tightening and sharply higher inflation took their toll—to a pace of 3%+ over the next year. And while there are risks on both sides, they think **the real income upturn is likely to be the stronger force as we move through 2023, especially because the financial conditions drag will likely diminish,** assuming Fed officials do not deliver dramatically more tightening than the rates market is currently pricing.

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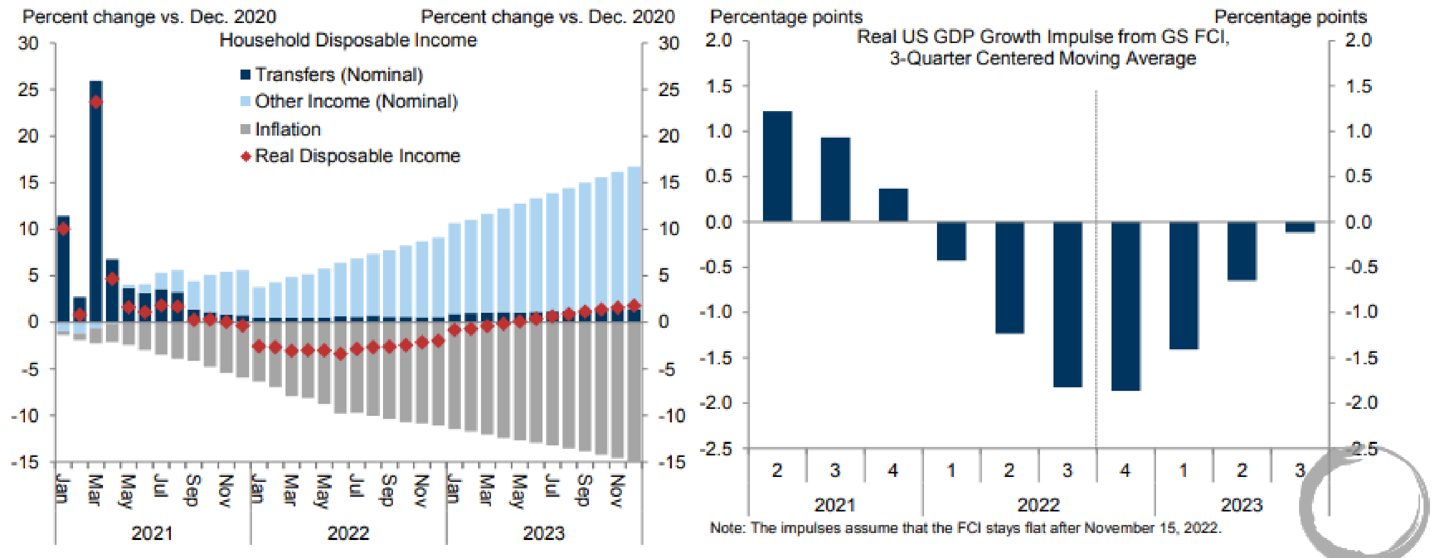

JPM: Developed economies fall into a mild recession in 2023, inflation moderates as the economy slows, labor market weakens, and supply chain pressures continue to ease. Broad-based market selloff has left some stocks with strong earnings trading at very low valuations. Expect climate-related stocks and emerging markets to outperform. **The base case is for positive returns for developed market equities as recession has largely been priced into many stocks.**

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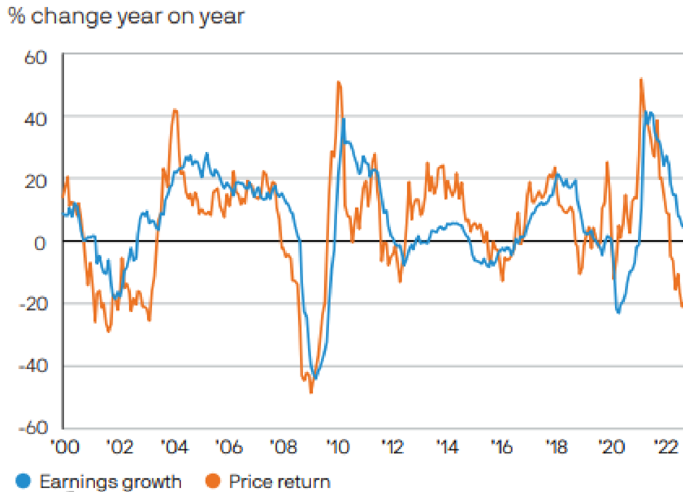
Exhibit 11: Markets often move ahead of earnings forecasts
MSCI World earnings growth and price return
% change year on year



Source: MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Earnings are 12-month forward earnings expectations. Past performance is not a reliable indicator of current and future results. Data as of 31 October 2022.

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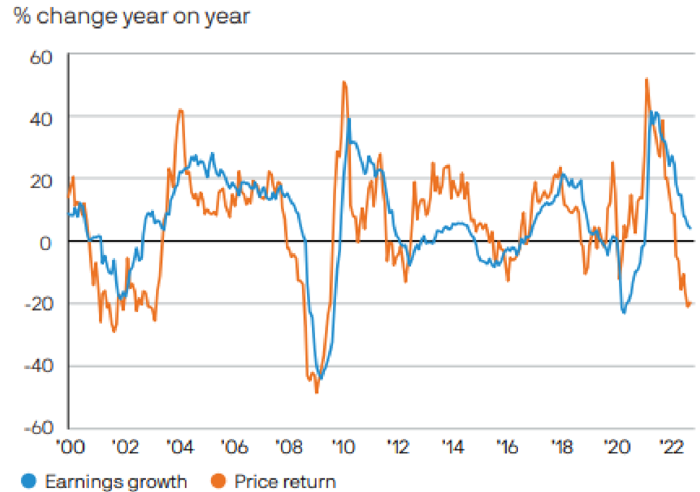
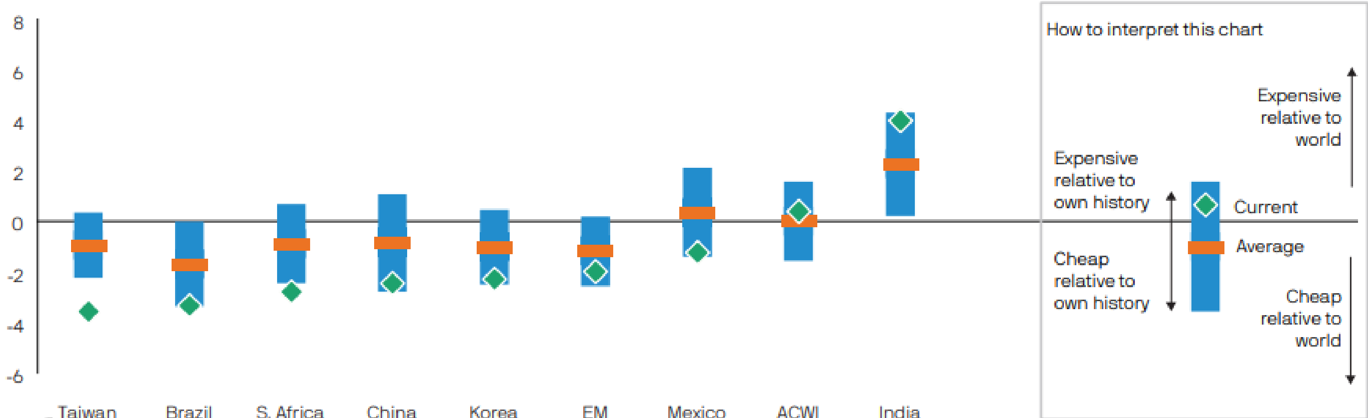


Source: MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Earnings are 12-month forward earnings expectations. Past performance is not a reliable indicator of current and future results. Data as of 31 October 2022.

Exhibit 15: Emerging market valuations are increasingly attractive
Emerging market valuations
Standard deviations from global average

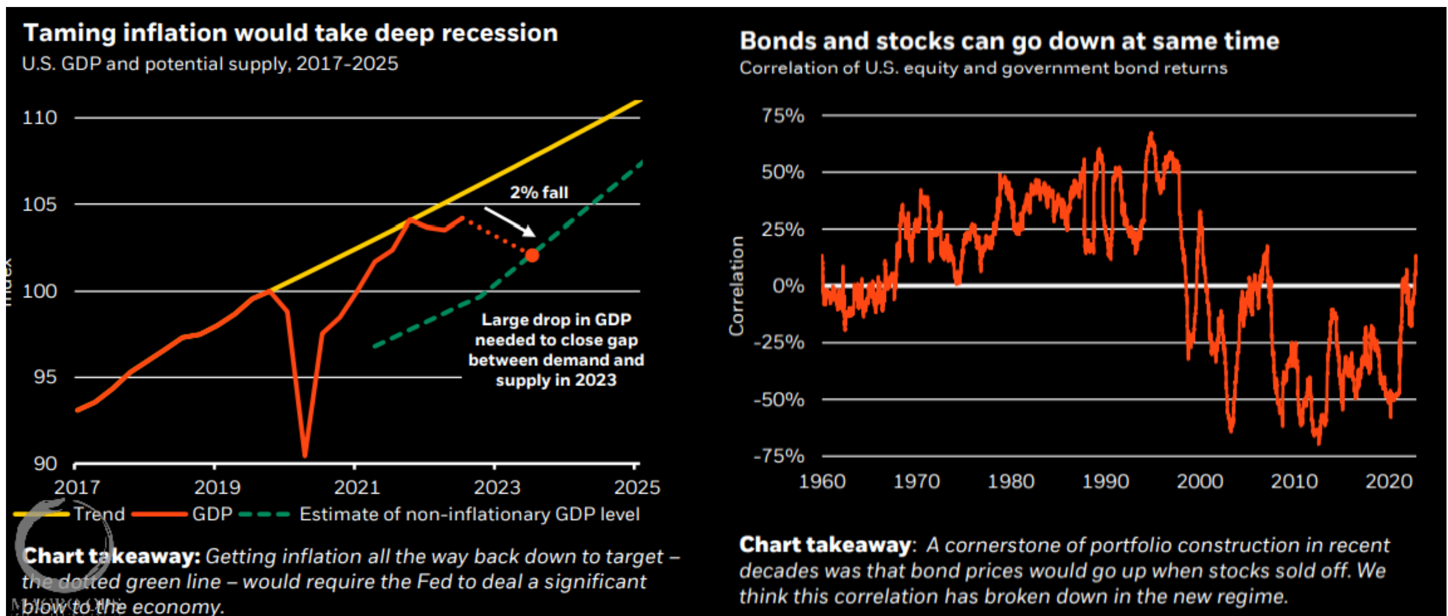


Source: MSCI, Refinitiv Datastream, J.P. Morgan Asset Management. Each valuation index shows an equally weighted composite of four metrics: price to forward earnings (P/E), price to forward book value (P/B), price to forward cash flow (P/CF) and price to forward dividends. Results are then normalised using means and average variability since 2004. The blue bars represent one standard deviation either side of the average relative valuation to the All-Country World index since 2004. Past performance is not a reliable indicator of current and future results. Data as of 31 October 2022.

MS: Expects a strong first half of 2023 due to strength in historical intermarket leads (Financials, industrials, and materials outperforming last few months), which is not bearish. **The economy will remain more resilient than what's currently expected, and earnings will not collapse** as many expect. Mega tech stocks keep underperforming, and **non-US markets begin outperforming the US helped by a bearish USD and a reopening China.**

BofA: 2023 should be a story of two halves. **The U.S., Euro Area, and UK are all expected to see recessions next year, and the rest of the world should continue to weaken, with China a notable exception**. The recession shock likely means corporate earnings and economic growth will come under pressure in the first half of the year, while at the same time, China's reopening offers a reprieve for certain assets. **But markets turn "risk on" by mid-2023 with inflation, USD, and Fed hawkishness peaking in the first half of the year.**

Blackrock: **Central banks will deliberately cause a recession this year by overtightening. And equity valuations don't yet reflect the damage ahead.** We like short-term government bonds and mortgage-backed securities for the yield. **We are in a new inflation regime** as long-term drivers such as an aging workforce, geopolitical tensions rewiring global supply chains, and transition to net zero mean DMs can't produce as much as before without creating inflation pressure.



Barclay's: **2023 may well be one of the slowest years for global growth in decades. Our analysts expect the world to grow at 1.7% next year**, a big slowdown from the 6%+ growth of 2021 and a significant drop from the 3.2% growth expected for 2022. Inflation will likely fall slowly, with consumer prices worldwide rising at a 4.6% average next year.

Advanced economies are heading into a recession, led by the euro area and the UK. But the US will also likely contract across 2023 as the lagged effects of a super-fast hiking cycle finally hit the

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economy.

Despite 2022's drawdown, our analysts believe that global equity markets have room to drop further. They observe that **US stocks tend to bottom out 30-35% below peak in the middle of a recession. That suggests fair value of 3200 on the S&P500 sometime in H1 23.** European valuations look more reasonable, but that is offset by a considerably worse macro outlook than in the US.

The more popular/consensus narratives amongst these banks seems to be:

1. **Europe and UK enter a recession this year**
2. **US either narrowly avoids one or has a very mild recession**
3. **The USD has topped and international markets should outperform the US**
4. **Stocks will have a bumpy but positive year**

Here is the aggregate 2023 SPX forecasts put together by *Fortune*. For perspective, the median 22' SPX target of these shops was 4,950. Out of the group of 24 below, only four shops are calling for another year of declines. And these are only for mild sell offs from current levels.

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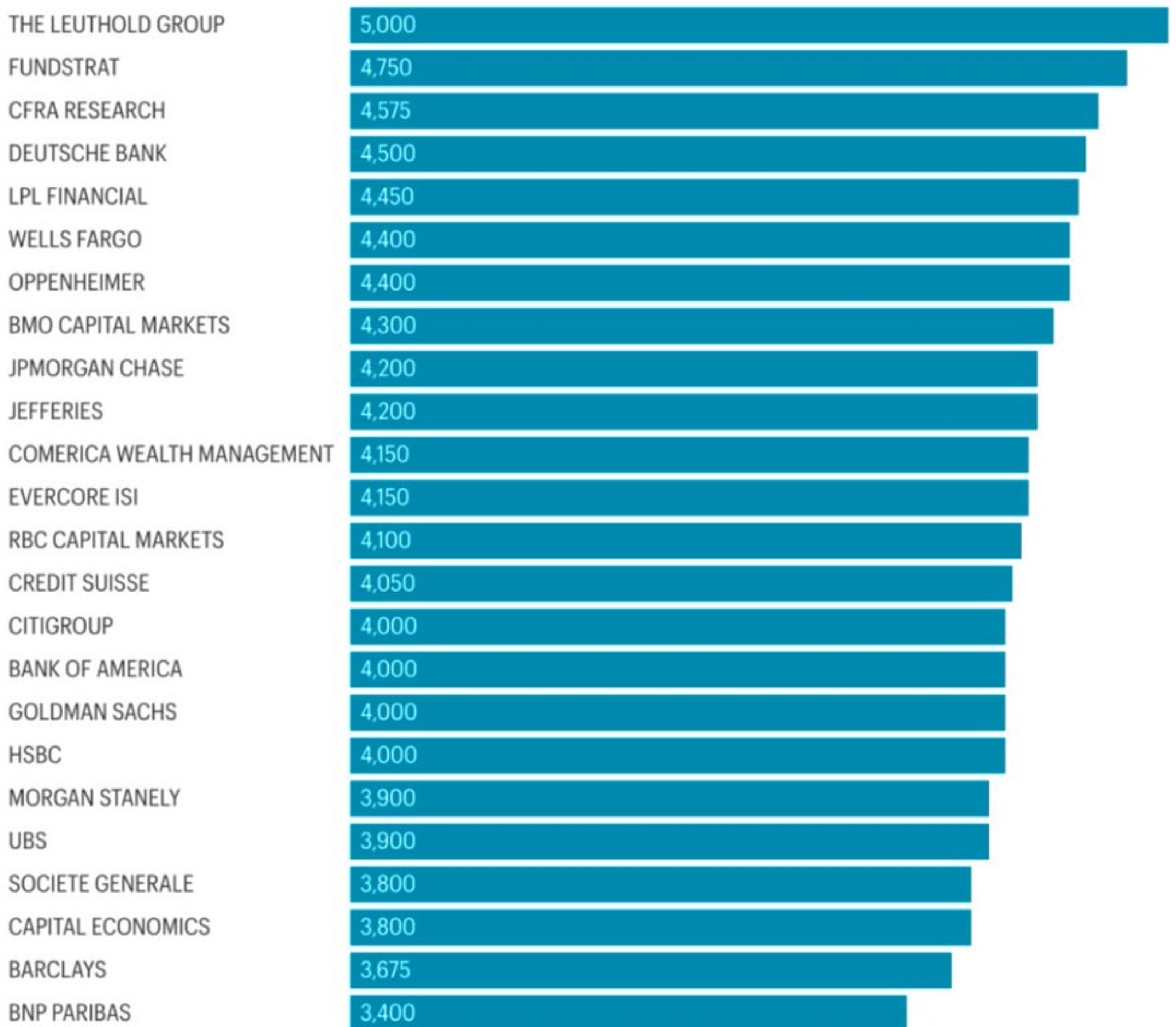

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Out of all of the shops, our '23 base case expectations are probably most closely aligned to those of Blackrock and Barclays. Before we run through why that is, let me first cover a quick philosophical point.

In my experience, most people -- investors, market commentators, what have you's -- approach markets first with a bias. Typically this bias is informed by a smart catchy narrative which they heard from someone else, or a few people who they think are intelligent or "in the know."

They then unconsciously cherry pick data to support their prior. They become invested in the story. Their "investment bias" informs their analysis and their trading decisions. It's one of the primary reasons why the majority of people suck at markets. They don't have a simple, logical and tested operating framework.

That's a very dangerous game, especially in a world like ours where we face information overload and cheap opinions.

I touched on how simplicity trumps complexity in my ***Market Note: The Game Has Changed,*** writing:

1. When noise vs signal is high and the cone of probabilities is wide, we'd do better by limiting our intake of information to what we know is true, to what we know works. At MO, these are the few macro variables that are central to our process, technicals, and respecting the tape. **Tracking sentiment**, **positioning**, and **narrative developments**.
2. Embrace our fallibility and understand that overconfidence encourages the type of *get-taken-out-of-the-game-for-good* risks that we really want to avoid.
3. **Follow a tested process, with tested inputs, that inform us when we deserve to have conviction and when we don't.**

Let's key off number three and go through some of our new updated HUD tools/upgrades. We're in the process of testing and gathering historical returns data for each of the major assets and equity factors.

Take the Growth Composite Lead, for example. It comprises eleven hard/soft econ data points, financial and liquidity indicators, and intermarket relationships. This gives us the 30,000ft picture of the economy at large. It tells us whether the tide of economic momentum is going in or out.

You'd do well enough going uber long when this indicator is positive (above zero) and flattening your book when it flips into the red.

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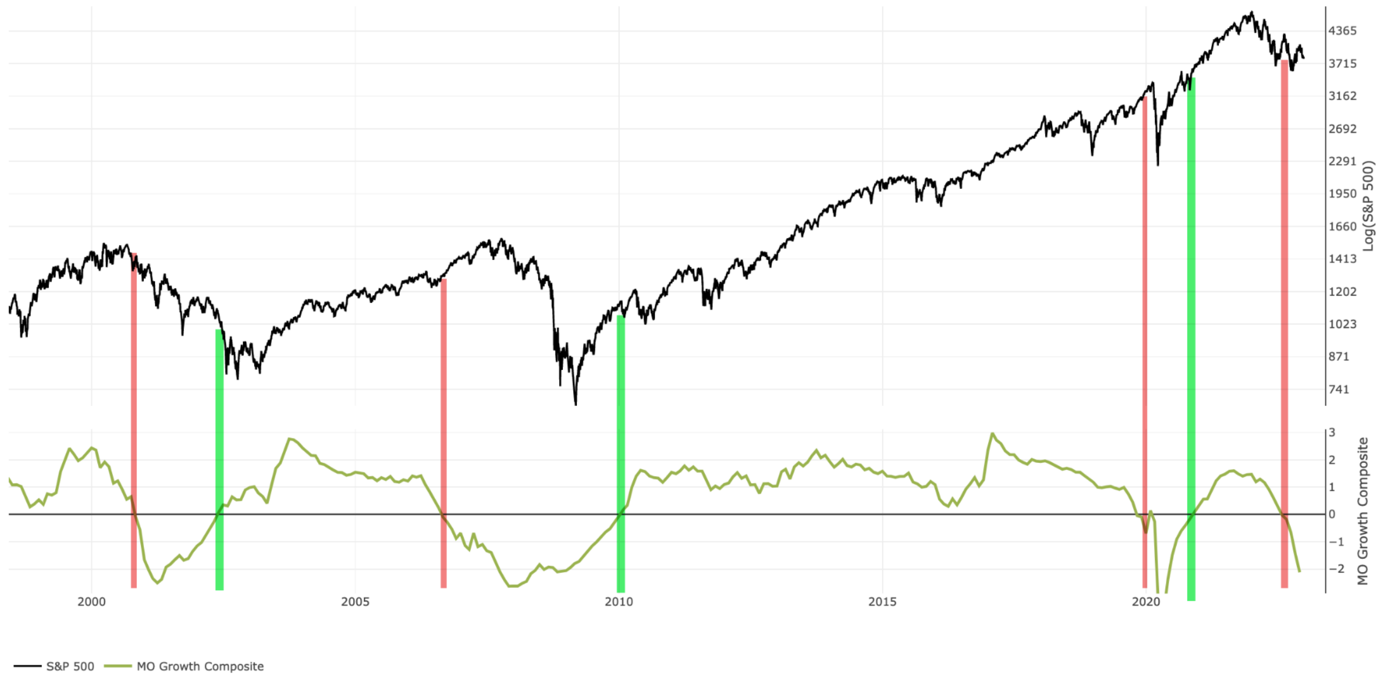

I've written extensively about how our cognitive wiring allows us to solve difficult problems. But our brains are also inherently lazy and energy conscious.

And when they're confronted with large conflicting data flows they tend to tunnel and jump to often wrong, but easily digestible conclusions. You can read more about this phenomenon and how we work to overcome it at MO in *Treed By A Chihuahua.*

The HUD gives us the minimum effective dose (MED) of information. Enough high signal data points to help us make positive expected value bets. But not too much data that it causes paralysis by analysis, dangerous overconfidence, and confirmation bias.

Our new Market Regime indicator sits below the Growth Composite in its time frame granularity. This indicator looks at the **slope and rate of change** of the eleven growth composite inputs, then factors them into four different macro regimes.

You can see the chart below.

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The red dots pinpoint Expansionary regimes, also known as the highest returning regimes for risk assets.

Blue dots signal Slowdowns, which are the second best-returning regime for risk assets. However, they come with higher average volatility and drawdown risk.

Recovery regimes (in orange) come with a high dispersion of returns and high average volatility. They typically mark major cyclical bottoms.

And lastly, the green dots are Contraction regimes (I know our color coding scheme is backward, we're changing that). These are the lowest returning periods where cyclical bear markets occur.

We've been in a Contraction Regime since October. We entered a Slowdown regime on January 1st of last year, which was a good signal to turn defensive. You can find return tables for the major assets below.

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Average Monthly Returns by Regime

	Contraction	Expansion	Recovery	Slowdown
MSCI Cyclicals	−0.31%	0.84%	−0.53%	0.53%
DAX	−0.31%	0.88%	0.28%	0.38%
MSCI Defensives	0.42%	0.35%	−0.71%	0.61%
MSCI Emerging Markets	0.49%	0.78%	1.22%	0.12%
Eurostoxx 50	−0.55%	0.35%	−0.27%	0.79%
Gold	1.62%	0.17%	−0.17%	0.30%
Nasdaq 100	−0.27%	1.02%	0.57%	1.50%
Nikkei	−0.91%	0.96%	0.13%	0.55%
Russell 2000	−0.14%	0.67%	1.57%	0.80%
Silver	1.32%	0.19%	−0.18%	0.07%
S&P 500	−0.44%	0.73%	0.85%	0.69%
Topix	−0.90%	0.79%	−0.05%	0.60%
VIX	0.84%	0.49%	−1.21%	−0.46%
Treasury 10y Return	0.25%	−0.15%	0.35%	0.20%

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Average 6 Month Returns by Regime

	Contraction	Expansion	Recovery	Slowdown
MSCI Cyclicals	−2.33%	5.10%	−3.80%	3.21%
DAX	−2.18%	4.66%	1.80%	2.82%
MSCI Defensives	0.02%	3.55%	−4.54%	3.21%
MSCI Emerging Markets	2.73%	2.83%	6.18%	2.26%
Eurostoxx 50	−4.96%	3.23%	−3.89%	4.59%
Gold	7.84%	2.46%	−1.16%	1.62%
Nasdaq 100	0.71%	8.00%	−0.63%	7.70%
Nikkei	−5.15%	4.55%	−0.06%	4.53%
Russell 2000	1.68%	3.80%	6.89%	4.57%
Silver	3.50%	0.97%	0.73%	1.78%
S&P 500	−0.67%	3.87%	3.42%	4.20%
Topix	−5.38%	3.89%	−0.69%	4.72%
VIX	9.40%	−2.43%	−2.14%	0.02%
Treasury 10y Return	1.30%	−0.42%	2.70%	0.65%

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There are many ways to examine and utilize this data.

We're working on backtesting markets and building out regime-specific stats from which we can construct investment decision rules and build fully quantified trading strategies. This type of work is our main focus this year and we're excited about our project pipeline.

But to keep things simple for now, the practical takeaways are that:

- **We want to be whole hogging it in Expansion regimes**
- **Comfortably long in Slowdowns**
- **Nibbling but hedged in Recovery regimes**
- **Hoarding cash while playing net short with tactical swing longs in Contraction regimes**.

We're talking specifically about equities here.

Also, we want precious metals exposure in Contraction regimes as it's the best performing regime for those assets.

We'll have more on this in a future note as we continue iterating these tools.

The next new tool we recently launched is our MO Liquidity Indicator.

Liquidity drives everything; growth, risk preferences, asset returns, etc… Our liquidity indicator is a composite of a number of Z-scored RoC Yield, credit spreads, and financial stress inputs. Positive

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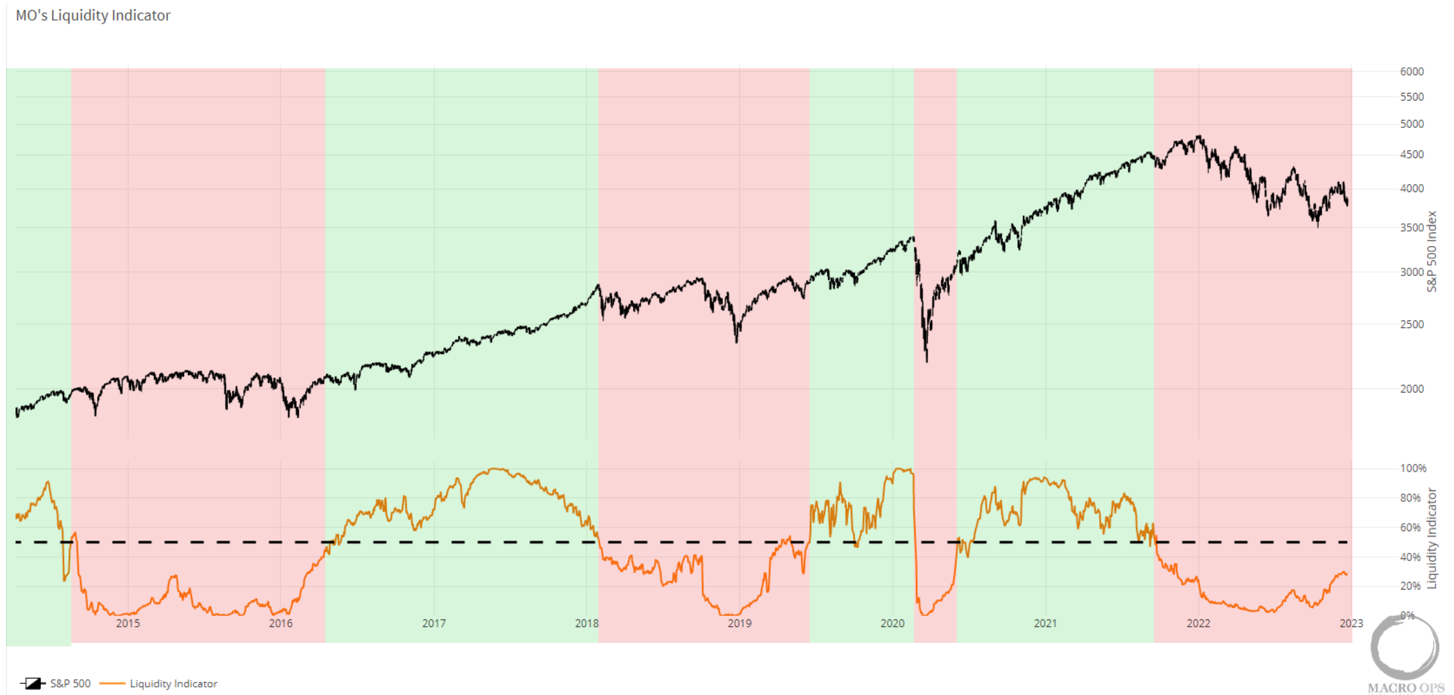
(green) means liquidity is flush and negative. Red means increased instability and financial tightening.

This tool will typically have a longer lead on inbound volatility. It flipped negative in September 2021 and has stayed deeply negative ever since.



We shouldn't consider a cyclical market bottom until this indicator flips green. For that to occur, we need to see the Fed aggressively reverse its course on rates and easing financial conditions. And it's going to take a recession for that to happen.

Which is a high probability over the next 12-months as all of our major recession signals have triggered.

Some of these, like the Philly Fed State Coincident Index, are at levels that have preceded a recession every single time over the 60-years for which we have data.

Nothing in markets is a sure thing. An event with a 95% probability of occurring still means there's a 5% chance it doesn't. That's always the case with these things, even more so in today's world.

China's economy is still waking up from its draconian COVID measures, central banks are communicating that they need to jam the economy into recession to calm inflationary pressures, and investors are still working off the after-glow effects of four decades of easy monetary policy and an implied Fed put.

So, we must humbly hold our opinion of recession -- and a 23' recession is very much our base case -- while remaining open to incoming data like our Liquidity tool and breadth thrusts tab, that suggests something different. These are the Guideposts we'll need to watch be watching.

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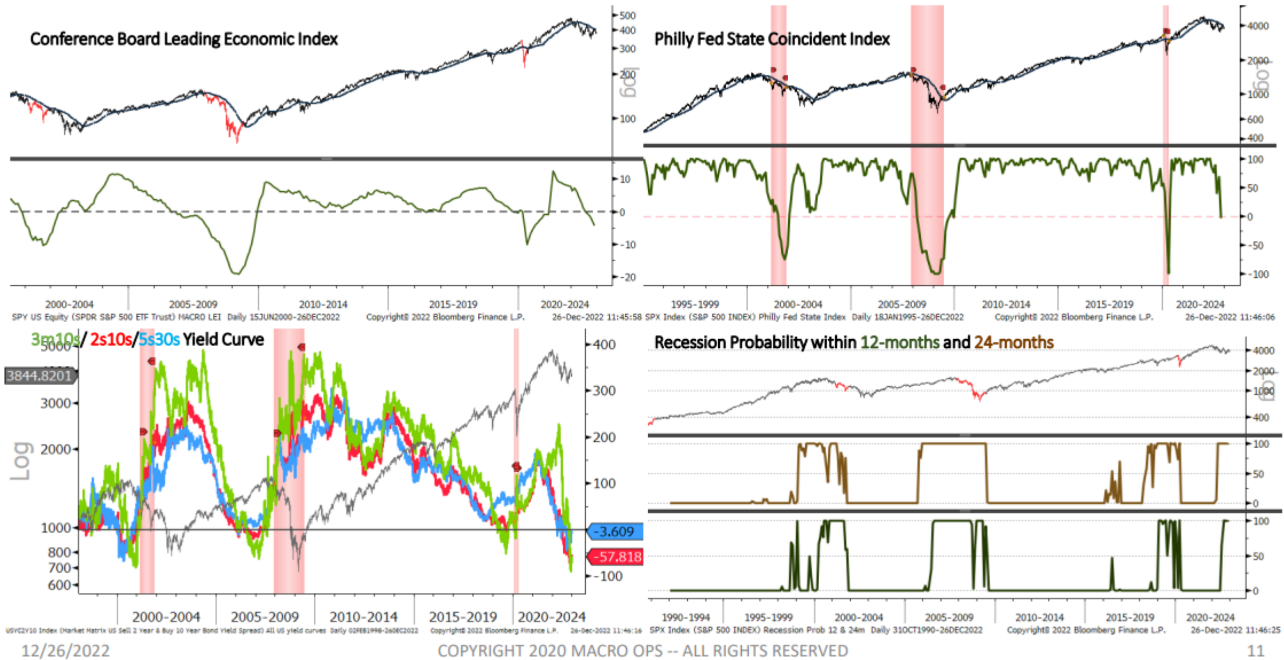

And since a recession this year is our base case, we can key off the market's historical tendencies around recession.

Here's some historical context of S&P 500 bear markets (20%+ price declines since 1929):

- Peak-to-trough P/E compression of 18x to 12x (we are at 20x)
- Median peak-to-trough price decline of -30% (we have seen 27%)
- Bear markets last on average 18-months (it's been 12-months)
- EPS recessions (which have not occurred in every bear market) have seen an average 20% peak-to-trough decline.

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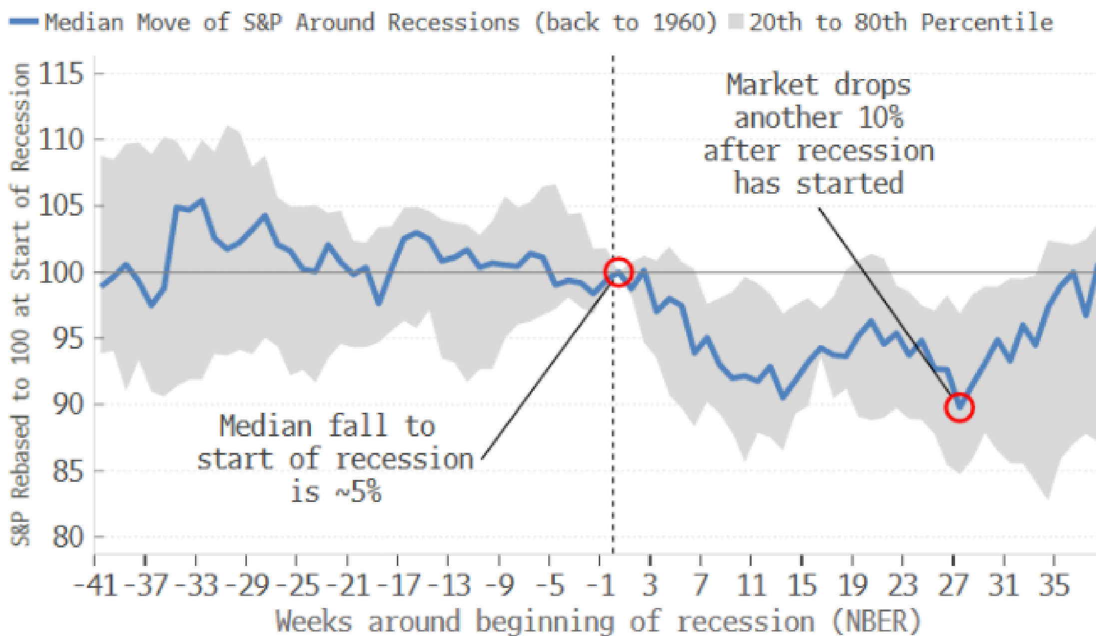
Table 1: S&P 500 Bear Markets

	1929-32	1937-38	1946-49	1956-57	1961-62	1966-67	1969-70	1973-74	1980-82	1987	1990-91	2000-02	2007-09	Median	Avg	Avg. ex-2007-09
S&P price at peak	31.86	18.67	19.25	49.74	72.64	94.06	108.37	120.24	140.52	336.77	368.95	1527.46	1562.47			
S&P price at trough	4.4	8.5	13.55	38.98	52.34	73.2	69.29	62.28	102.42	223.92	295.46	776.76	676.53			
Peak to trough % decline	-86%	-54%	-30%	-22%	-28%	-22%	-36%	-48%	-27%	-34%	-20%	-49%	-57%	-34%	-39%	-38%
Quarter of S&P peak	3Q29	1Q37	2Q46	3Q56	4Q61	1Q66	4Q68	1Q73	4Q80	3Q87	3Q90	1Q00	4Q07			
Quarter of S&P trough	2Q32	1Q38	2Q49	4Q57	2Q62	4Q66	2Q70	4Q74	3Q82	4Q87	4Q90	4Q02	1Q09			
Length of bear market in qtrs	11	4	12	5	2	3	6	7	7	1	1	11	5	5	6	6
Trailing 4-qtr EPS at S&P peak ($/sh)	1.61	1.11	0.84	3.46	3.19	5.34	5.76	6.80	14.82	18.57	23.57	51.02	84.56			
Trailing 4-qtr EPS at S&P trough ($/sh)	0.41	0.97	2.40	3.37	3.47	5.55	5.52	8.89	13.64	20.50	22.48	47.98	55.72			
Change in EPS (%)	-75%	-13%	186%	-3%	9%	4%	-4%	31%	-8%	10%	-5%	-6%	-34%	-4%	7%	11%
# of qtrs from S&P peak to EPS peak	n/a	2	18	-2	-9		3	6	4		-5	2	-2	2	2	2
Forward 4-qtr EPS ($/sh)	0.44	0.71	2.54	2.89	3.84	5.33	5.32	7.96	13.30	24.12	18.48	55.51	68.90			
Trailing 4-qtr PE at S&P peak	19.8	16.8	22.9	14.4	22.8	17.6	18.8	17.7	9.5	18.1	15.7	29.9	18.5	18.1	18.7	18.7
Trailing 4-qtr PE at S&P trough	10.7	8.8	5.6	11.6	15.1	13.2	12.6	7.0	7.5	10.9	13.1	16.2	12.1	11.6	11.1	11.0
Forward 4-qtr PE at S&P trough	10.0	12.0	5.3	13.5	13.6	13.7	13.0	7.8	7.7	9.3	16.0	14.0	9.8	12.0	11.2	11.3
Quarter of S&P trailing 4-qtr EPS trough	1932	3Q38	3Q52	3Q58	2Q61	3Q67	4Q70	4Q75	1Q83		4Q91	1Q02	3Q09			
Trough EPS ($/sh)	0.41	0.62	2.34	2.88	3.03	5.30	5.13	7.76	12.42		18.48	44.19	50.84			
Peak to trough EPS (%, chg)	-75%	-49%	-18%	-22%	-12%	-5%	-13%	-15%	-19%		-28%	-23%	-45%	-21%	-27%	-27%
Quarter of recession start	1930	3Q37	1Q49	4Q57	3Q60		1Q70	1Q74	2Q80		4Q90	2Q01	1Q08			
Quarter of recession end	1932	2Q38	4Q49	2Q58	1Q61		4Q70	1Q75	4Q82		1Q91	4Q01	2Q09			
# of qtrs from S&P peak to recession start		2	11	5	-5		5	4	-2		1	5	1	3	3	3
Quarter of GDP trough	1933	4Q38	2Q49	1Q58	4Q60		4Q70	1Q75	3Q82		1Q91	1Q01	2Q09			
Peak to trough Real GDP (%, chg)	-26.3%	-3.3%	-1.7%	-3.6%	-1.3%		-1.1%	-3.1%	-2.6%		-1.3%	-0.3%	-4.0%	-2.6%	-4.4%	-4.4%

Source: Haver Analytics, BofA US Equity & US Quant Strategy

And the worst drawdowns tend to occur after the economy tips into a recession (chart via BBG's Simon White).

The Worst Drawdown Happens After Recession



Source: Bloomberg

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The odds highly suggest another negative year for the S&P.

A reopening China may or may not put a temporary bid under growth and markets. We don't know how that'll play out. But two recent comments from two people very much worth listening to have been front of mind for me. This one from David Tepper on CNBC:

> *I'm leaning short on the equity markets. I think the upside/downside [risk here] just doesn't make sense to me when I have so many central banks telling me what they are going to do, This is a tough level [for the S&P 500] to talk about robust returns. [Central banks] are going to keep rates high for a while… Don't ignore what these guys are saying*.

And this one from the great veteran market technician Walter Deemer:

> *When a new bull market is launched it is *not* typically widely accepted or believed at the outset. A new bull market needs a "wall of worry" to climb. So rather than cheering for a Fed Pivot, sentiment should turn deeply skeptical of the Fed's efforts: "The Fed will be pushing on a string" rather than "Yippee; the Fed Pivot is just around the corner."*

The Fed is telling us they're not going to pivot but that they're going to force a recession. Yet, the popular chatter sure seems to be saying, "Yippee; the Fed Pivot is just around the corner."

Regardless of who's right, we'll use our tools to read the Guideposts as they appear and adjust fire accordingly.

Your Macro Operator,

Alex

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