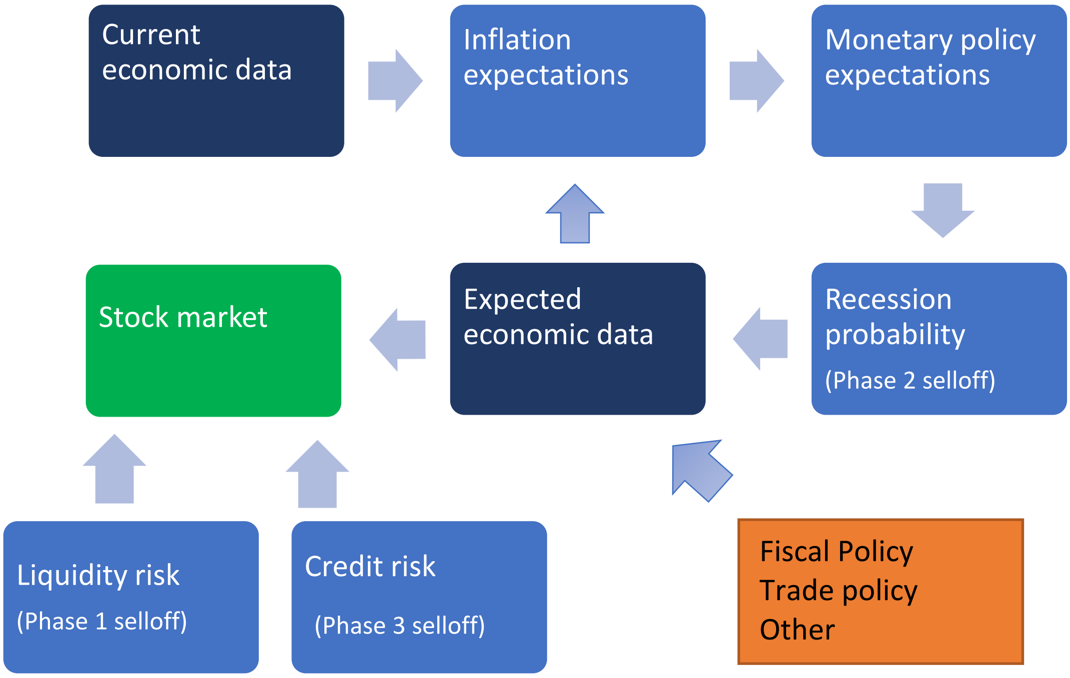
GAV S&P 500 Outlook Report

1. Fundamental Model Description:



- **Default:** stock market goes up as long as the economy is expected to grow – low probability of a recession.
- There were 13 Fed's interest rate hiking cycles since 1945, which caused a recession 10 times. Exceptions: 1994-95, 1983-84, 1965-66.

Correction and bear market triggers:

Phase 1 selloff: Liquidity shock due to expectations of aggressive monetary policy tightening. Also, any other event that causes low liquidity – technical, geopolitical, pandemic, other.

Phase 2 selloff: expectations of an immediate recession (lower earnings)

Phase 3 selloff: increase in credit risk in severe recessions (forced selling and deleveraging)

Current outlook **Bearish**: The Fed is in the hiking cycle to lower inflation. **The Phase 1** selloff ended at -24% and after the S&P500 bounced to -10%YTD. Recession expected. Wait for the first evidence of recession to short the expected **Phase 2** selloff.

2. Current economic data

GDP Growth		Inflation***		Unemployment Rate	
Q2 22	Q122	July	June	July	June
-0.9%	-1.6%	8.5% (5.9%)*	9.1% (5.9%)*	3.5%**	3.6%

*Core CPI, **cycle low, ***peak CPI 9.1% June, peak core CPI 6.5% March

High frequency data		
GDPNow	Inflation Nowcast	Weekly Initial Claims**
Q3 22: 2.5% (up from 1.4%)	Aug CPI 8.39% Core 6.25%	262K* up from 243K

*Cycle high, **cycle low 166K March 20th 22

The labor market is still very strong, but the claims point to some softening. As a result, GDP growth is still strong, but also core CPI inflation is still very high – which requires more Fed tightening.

3. Expected economic data

BE Inflation expectations and real rates			
	Nominal Yield (*last week*)	Real Rate	BE Inflation Expectations
5Y	2.96%(2.68%)	0.26%(-0.12%)	2.70%(2.80%) – 3.59% peak Mar 25th
10Y	2.83%(2.65%)	0.35%(0.09%)	2.48%(2.56%) – 3.02% peak Apr 21st

Inflation expectations are below the peak (*falling*) and within the normal range, suggesting no runaway inflation, and thus *more clarity on Fed tightening*. Real rates are back to positive (*rising*), suggesting the Fed is able to implement QT due to expectations of no an imminent recession.

Monetary policy expectations						
Front	Jan 2023	Jan 2024	High	First cut	Low	Jan 27 -long term
2.33	3.53	3.22	3.66 Apr 23	3.41 Oct 23	2.84Jan25	3.20
2.33%	3.30	2.61	3.30 Feb 23	3.02 July 23	2.32Jan25	2.68 last week
QE ended in March. QT starting in June – June-Aug $47.5 bill/month, after $95bill/month						

The Fed is in the hiking cycle to lower inflation - *more aggressive* in 22 and 23 due to the strong labor market, stops hiking later in Apr 23, and cuts later in Oct 23, by 80(100)bpt by Jan 25. Recession Oct 2023? Peak hawkishness Jun 17th (3.67% for 2022).

12-Month Recession probability – very high in 12-24 months		
10Y-2Y spread	-0.41% (-0.23%)	Inverted **–** *deeper: very high recession probability*
10Y-3mo spread	0.31% (0.04%)	Widened **–** *to invert by Oct 22* (rec. by Oct 23)
2Y-3mo spread	0.72% (0.56%)	Widened **–** *no an imminent recession*, Fed still behind

An imminent recession is still not expected. Very higher probability of recession in 2023 (Oct?)

Fiscal Policy, Trade, Regulations
De-globalization is the key variable, it will produce higher inflation and lower growth – stagflation. Russia-Ukraine war, China-Taiwan conflict promote deeper de-globalization.

Note: The Inflation Reduction Act – not significant

Expected economic data
Expected unemployment rate: to increase as consumer spending slows due to higher interest rates – housing market slowdown is the key (housing bubble burts) **Expected inflation:** to remain elevated well above the 2% level due to de-globalization. Russia-Ukraine war to persist, and China-Taiwan tensions to keep the trade tariffs on. **GDP growth**: the Fed induced recession, starting possibly by October 2023.

4. Stock market outlook

Phase 1 selloff: The ultra-hawkish Powell IMF speech on 4/21 reduced the market depth in short term bonds, which caused the liquidity shock in S&P 500 futures and burst in speculative bubbles 1) tech stocks, 2) meme stocks, 3) cryptocurrencies. S&P 500 sold of by 24% from Jan 1, 2022 when the expectations of monetary policy started to increase, to June 17th when the monetary policy expectations peak at 3.67% for 2022. The peak in inflation expectations and the *likely* peak in CPI inflation reduced the liquidity risk as the Fed policy become more predictable.

The bounce post the Phase 1 selloff bottom: The easing liquidity shock has caused less selling and more short covering, which boosted S&P500 performance to **-10%** YTD. <u>The bounce is likely to continue until the first signs of the expected recession emerge</u>. *Watch for the inversion of 10Y-3mo curve by Oct (Sep Fed meeting).*

NEXT - <u>Expected Phase 2 selloff</u>: potential signs of an imminent recession 1) rise in initial claims, 2) 10Y -3mo inverts, 3) expectations of Fed cutting interest rates sooner and more aggressively (2Y yields), technical as the bounce reaches 200dma given the widely expected recession expectations.

Potential Phase 3 selloff: increase in credit spreads to over 3% level. The housing market bubble burst due to higher interest rates and higher unemployment rate. The housing market bubble highest ever Price/Rent at 139.

VIX – Volatility (fear)	Credit risk - BBB-10Y	Case-Shiller Housing Index*
19 down from 21 (sub 20)	2.29% (2.42%)	20.5% (May) 21.2% (April)

*highest ever increase 21.2% (April 2022), and also highest even Price/Rent ratio at 139 – bubble.

Technical analysis

- Downtrend – bounce to the top of the channel range.
- Support 100dma/Resistance 20dma
- S&P500 Valuation: PE ratio = 22 (*overvalued)*.

5. **S&P500 Strategy**

- **Short the Phase 2 an imminent recession selloff**
  - Wait for technical resistance at 200dma (almost there)
  - Wait for economic data signs of recession – sharp rise in claims
  - Wait for market-based signs of recession – inversion on 10Y-3mo curve (by Oct)
- Also, higher than expected inflation (new peak) could restart the Phase 1 selloff.
- **Risk:** Sharply falling inflation (due to any reason) causes the Fed to pause before the 10Y-3mo inverts, which would reduce the chance of Phase 2 selloff.
- **Current position:** None

6. **Cross asset analysis**

Cross-asset analysis		
Bonds		
Bund	**0.99%** (0.81%)	TY-Bu=**1.84%** (1.84%) – steady
ECB 0%	Positive 0.33 (0.38) Dec 22 **1.20** (1.21) Dec 23 **1.60** (1.23)	Positive ECB hiking cycle to lower inflation
Stocks	The Bounce	
FTSE100	Range – bounce – near top.	Weaker commodity prices? – recession?
STOXX50	Downtrend – bounce: 100 breakout going to 200dma – top range	Recession in EU? Russia-Ukraine war and price of energy.
EEM	Downtrend – bounce – 50dma bo – going to the key res 100dma	Resembles EUR chart – strong dollar
Currencies	The bounce	
EUR	Downtrend – bounce to 50dma	Fed more aggressive than ECB, Ukraine
AUD	Downtrend **–** bounce to 100 dma	Global recession – not yet
Commodities	The bounce	
Gold	Sub 200dma – bounce at 50dma	Recession 2023 and Fed cuts
Copper	Sharp selloff **–** bounce to 50dma	Global recession
Oil	Bottom of channel – at 100dma supp	Supply – sanction on Russia vs recession

Note: 1) higher interest rates (real rates), 2) Weaker USD (liquidity shock eases), 3) bounce in copper and oil (recession - USD), 4) stock markets bounce (short covering).

The *bounce in S&P500* as Phase 1 selloff ended resulted in *the bounce in EUR and commodities* (weaker USD). Persistently elevated inflation due to de-globalization could prevent the Fed to aggressively ease during the expected recession, which could continue to push USD higher during the Phase 2 selloff. Commodities likely to selloff with stocks during Phase 2 selloff.