Strategic Frontier Management

VALUE SHRUGGED

INVESTMENT STRATEGY AND CAPITAL MARKET OUTLOOK

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ECONOMIC & MARKET FORECASTS

- ***Fiscal and Monetary Hangover:*** High inflation requires higher global interest rates and reducing QE holdings (QT), even as excessive fiscal spending stimulus runs off.
- Slowing global real growth risk flirting with moderate or intermittent recession in 2023.
- Elevated risk of a global debt crisis: rising rates (steeper yield curves) + QT + persistent inflation + high deficits + currency & bond volatility + liquidity concern + bond leverage
- Higher inflation expectations (labor, housing, services) normalizing yield curves
- ***Value Shrugged***: Value, Small-cap, Int'l Dev equity tilts outperform, and higher volatility enable Global Tactical Asset Allocation, Active Mgmt. *Countries Still Matter.*
- Competitive Advantages of EMs reversing with moderating globalization and onshoring. Emerging Market earnings growth lags with lower margins, geopolitical: China + Russia

Economic Forecasts	**2020**	**2021**	**2022**	**2023e**	**2024e**	**2025e**
GDP Growth (Y/Y Real)	**-1.5**	**6.1**	**1.0**	**0.5**	**1.8**	**2.3**
S&P500 Op Earnings Gr	**-13.8**	**49.0**	**5.2**	**1.8**	**5.4**	**6.4**
CPI Inflation (Y/Y)	**1.5**	**7.1**	**6.4**	**4.5**	**3.5**	**3.0**
Unemployment	**6.7**	**3.9**	**3.5**	**4.2**	**4.5**	**4.8**
Fiscal Deficit (vs.GDP%)	**-15.5**	**-11.2**	**-5.5**	**-5.0**	**-4.5**	**-4.0**
Fed Funds Target[1]	**0.25**	**0.25**	**4.50**	**5.50**	**4.50**	**3.50**
10y Treasury Notes	**0.91**	**1.50**	**3.83**	**5.75**	**5.50**	**5.00**
S&P 500 Target	**3756**	**4766**	**3840**	**4000**	**4250**	**4600**

Source: Strategic Frontier Management (Year-end or Y/Y change)
1. Target denotes top of published ¼% policy target range

EQUITY & BONDS—VALUE SHRUGGED

Misguided fiscal (tax, spending), regulatory, energy, trade, and monetary policies have undermined financial stability and increased uncertainty, as US competitiveness and productivity declined

Asset Valuation

- Global Stock valuations improved--depend on earnings growth (slowing)
- Global Bonds still overvalued, inverted yields must normalize after fastest rate increases, excess supply with waning demand plus QT (holdings)
- Still..*Curb your Enthusiasm for G*lobal Bonds, EM + Large Growth Equity
- Value vs Growth reversal of prolonged dystopian adverse risk inclinations

Economic Conditions

- Economic fiscal hangover of excessive government spending
- Misguided US policies reduced global competitiveness, potential growth and profit margins → lower earnings growth, financial & economic risks.
- Unrelenting fiscal deficits + high gov't debt, poor policy decisions ushered higher inflation expectations, financial + economic imbalances
- Higher inflation expectations undermine productivity; secular disinflation moderated, despite still declining *labor, resource, energy intensity*.

Interest Rates

- Negative global bond returns with interest rate hikes into 2023 and declining QE holdings. High bond convexity increases volatility, losses.
- Fed/ECB/etc*: Explicit Moral Hazard* of extended yield curve manipulation distorted risk. Reversing low interest rate & QE amplified market volatility, *Financial Debt Crisis* risk in long duration + leveraged bond portfolios.
- Adverse effect of higher interest rates on Earnings yield, interest expense

Market Interrelationships

- Rapidly changing volatility + correlation, volatility-of-volatility→higher σ,ρ
- Geoeconomic risks difficult to manage with less policy flexibility now.
- Prudent Man 60/40 as strategic policy still relevant, despite 2022 returns
- Differentiate Tactical vs. Strategic Balanced : *Countries Still Matter*

WHAT MATTERS TO INVESTORS?

Great Inflection Point Normalizing Interest Rates and Quantitative Tightening

- Adverse ***Explicit Moral Hazard*** normalizing central bank policies of low rates, QE and forward guidance manipulated global bond markets for an extended period, bonds extremely overvalued.
- Global Gov't Bonds overvalued with real yields <0% and high convexity--Negative bond returns
- Rising interest rates + negative money supply growth of QT with high debt/fiscal deficits limit potential growth, also risk greater economic volatility and ***Global Debt Crisis****.*

Asynchronous Global Expansion at a Treacherous Geoeconomic Crossroads

- Countries Still Matter--Greater country dispersion in growth, inflation, margins & currency volatility
- Forces of *secular disinflation and Fourth Industrial Revolution* taken for granted*,* but now waning.
- Varying effects of *re-tooling* and *workforce re-skilling* with re-shoring manufacturing and services.
- Tax, trade, and regulatory reform still supporting US competitive advantage with narrow Majority
- Adverse consequence of US Government policy agenda: reduced global competitiveness, US potential growth: 2.7%→2.0%, profit margins: 10%→5%, CPI inflation 2.2%→3.0%, energy costs.

US Equity and Bond Valuations Stretched despite as Low Rates Rising

- Equity rebound exceeds strong profit recovery—Value, International and Small-cap outperform,
- Large Comm/Media Tech increasing regulatory risk (Google, Facebook, Twitter, etc) likely struggle.
- Earnings recovery overshot economic rebound, but risk of monetary/fiscal policy-driven stagflation
- Global Equities still outperform Bonds, World > US Equity, Real Estate muddling through. .

How ***Policy Asset Allocations*** should differ?

- Rotation: *Simpler Smarter Approach to Investing—Shorter Duration Bonds, Avoid Alternatives*
- Opportunistic Alpha-driven: Global Tactical Asset Allocation & Currency Mgmt, Real Estate, Hedge Funds, Value and Small-cap tilts, security selection with return dispersion of greater volatility.
- Avoid Risk Parity, LDI, Gold & Crypto-commodities – subpar on risk-adjusted basis
- **Private Market/Liquid Alts** performance lag: high cost, crowded sandbox, illiquidity premium myth

EXTINGUISHING EMERGENCY MONETARY POLICY RISKS HIGHER BOND VOLATILITY, DEBT CRISIS

- Federal Reserve regime pivot from QE, low rates, forward guidance to normalization of interest rates, holdings, and inflation expectations--Fed Funds *policy* toward 5%.
- New secular regime of higher inflation and interest rate expectations as disinflation of Fourth Industrial Revolution moderates. of Emerging Markets competitive advantage diminish.
- *Inflation targeting* problematic and Fed's long-term reduced inflation and policy rate must increase. BoE, BoC and BoJ surprisingly increased ahead of Federal Reserve, Fed was more aggressive.
- US Long-run Inflation: 2% → 2.5% (CPI: 3%) & Long-run Fed Funds: 3½%.
- Extreme Interest Rate Risk with high bond convexity exceeds 1994 turmoil with extended global monetary interventions and US Debt + Deficit likely increase fixed income volatility, liquidity issues

Median Forecast									**LongRun Forecast**	
U.S. Fed %	**2018**	**2019**	**2020**	**2021**	**2022**	**2023e**	**2024e**	**2025e**	**Fed**	**SFM**
GDP	3.05	2.15	-2.40	5.90	0.50	0.50	1.60	1.80	1.80	2.00
U.Rate	3.70	3.55	6.70	4.80	3.70	4.60	4.60	4.50	4.00	4.50
PCE	1.85	1.45	3.40	4.20	5.60	3.10	2.50	2.10	2.00	2.50
Core PCE	1.85	1.50	3.00	3.70	4.80	3.50	2.50	2.10	2.00	2.50
Implied CPI	2.35	2.00	1.50	3.50	6.10	3.60	3.00	2.60	2.50	3.00
Federal Funds	2.38	1.55	0.09	0.13	4.38	5.22	4.55	3.34	2.51	3.50

Interest Rates	2018	2019	2020	2021	2022	2023e	2024e	2025e	Longer Run
FOMC Avg.	2.38%	1.63%	0.13%	0.13%	4.38%	5.22%	4.55%	3.34%	2.51%
SFM[1]	1.75%	1.75%	0.25%	0.25%	4.50%	5.50%	4.50%	3.50%	3.50%
Rate Change	0.25%	0.00%	-1.50%	0.00%	4.25%	1.00%	-1.00%	-1.00%	

1. Top-end of indicated Fed Funds range

Source: U.S. Federal Reserve (Dec 2022) and Strategic Frontier Management

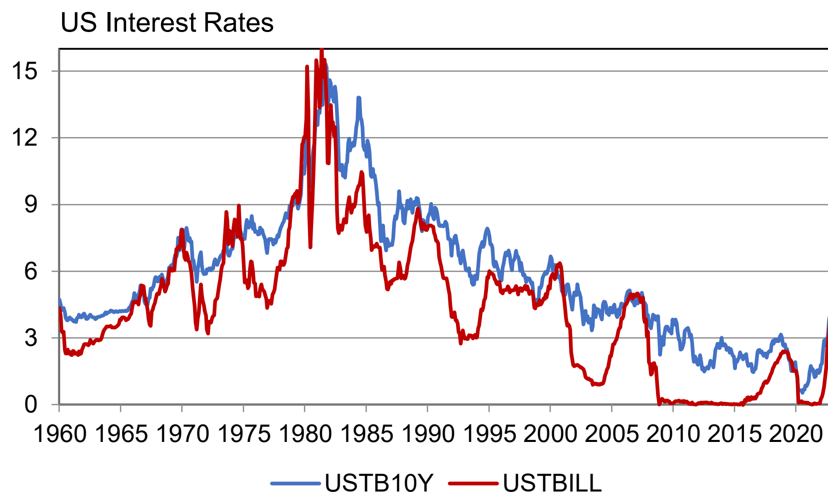
CAPITAL MARKETS—VALUE SHRUGGED DYSTOPIA

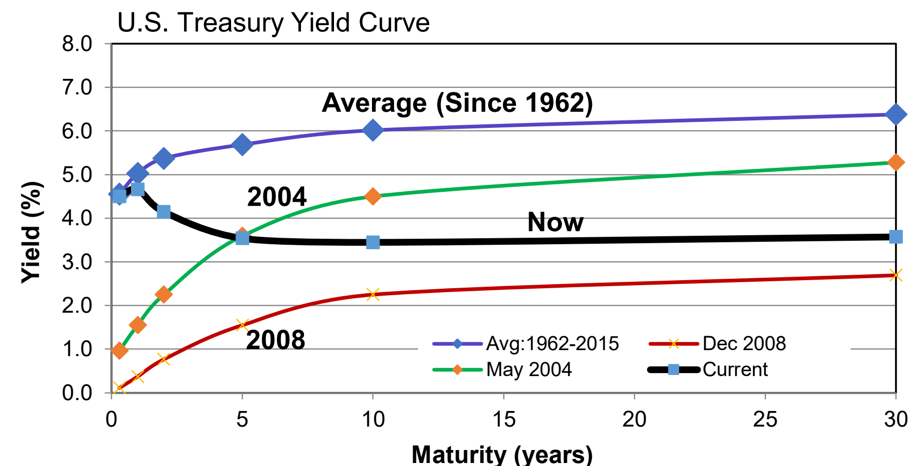
Total Return	3-mon	YTD	**1-Yr**	3-Yr	5-Yr	10-Yr	20-Yr	30-Yr
S&P 500 Index	7.6	-18.1	-18.1	7.7	9.4	11.7	9.8	9.6
NASDAQ Composite	0.1	-31.7	**-31.7**	6.0	9.4	14.0	12.6	12.0
Russell 2000	6.2	-20.4	-20.4	3.1	4.1	8.6	9.4	8.9
Russell Value-Growth	10.0	21.6	**21.6**	-1.8	-4.3	-4.5	-2.4	-0.3
Non-US (World xUS)	16.3	-13.8	-13.8	1.8	2.3	4.1	6.6	5.5
Emerging Markets	9.8	-19.7	-19.7	-2.3	-1.0	1.4	9.1	6.3
Small-cap Global	9.4	-19.6	-19.6	3.2	3.9	7.5		
US 10-Year Treasury	0.3	-17.0	-17.0	-3.0	-6.1	0.6	3.1	4.5
US Aggregate Bonds	-1.9	-13.0	-13.0	-2.7	0.0	0.9	3.1	4.5
BAML High Yield Bonds	4.0	-11.2	-11.2	-0.5	2.1	3.9	7.3	6.7
Short-term Bonds	1.2	-5.5	-5.5	-0.7	0.8	0.7	2.0	3.3
JPM Non-US Bonds	6.8	-18.3	-18.3	-6.5	-3.3	-2.7	2.3	3.2
Cash (US T-Bills)	0.9	1.8	1.8	0.8	1.2	0.7	1.2	2.2
US Dollar (TWI)	-4.7	6.4	6.4	2.1	2.0	3.5	0.0	0.7
CRB Commodity Index	4.6	22.0	22.0	15.3	8.9	-0.7	3.2	5.1
WTI Oil (US$)	0.4	6.7	6.7	9.5	5.8	-1.4	4.9	4.4
Gold (US$)	8.3	-0.6	-0.6	6.0	6.8	0.6	8.6	5.4
Bitcoin	-14.5	-64.1	-64.1	32.3	3.0	108.9		

Source: Returns as of December 31, 2022 in US Dollars. Performance exceeding 1-year annualized.

INTEREST RATES MUST NORMALIZE

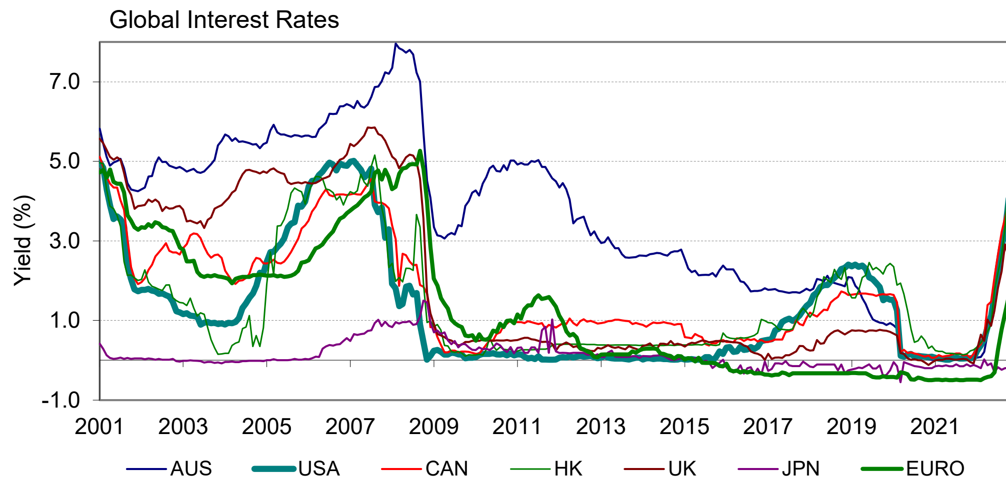
- *Great Inflection Point*: US Treasury yields declined for four decades, but manipulated rates and monetary policy (QE: $1T to $9T) unsustainable. Global interest rates too low for too long risk Explicit Moral Hazard to investors, business, and consumers with high convexity
- Interest rate *normalization* is required with rising non-transitory inflation expectations—thus expect negative real bond returns for years, as US/global yield curves steepen
- Central bank QE and forward guidance to "keep interest rates low for an extended period" regrettably induced *moral hazard,* extinguished inflation risk premium, risks crowding out
- Fixed income liquidity an increasing concern as risk variables evolve (μ σ, ρ) with excess leverage, extreme deficit boost debt issuance, manipulation thus extended bond valuation
- Credit spreads tight, so High Yield may not perform with *stagnation* + *crowding out* this time

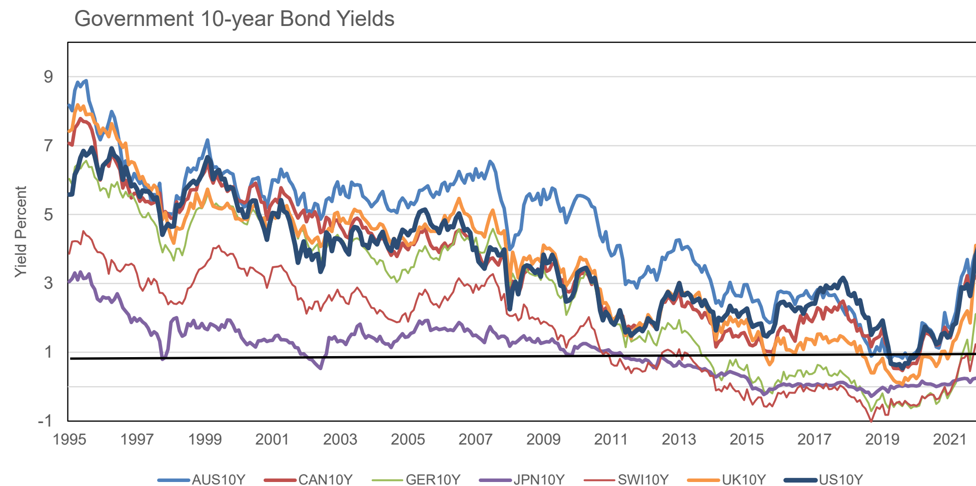




Source: Federal Reserve

GLOBAL INTEREST RATES



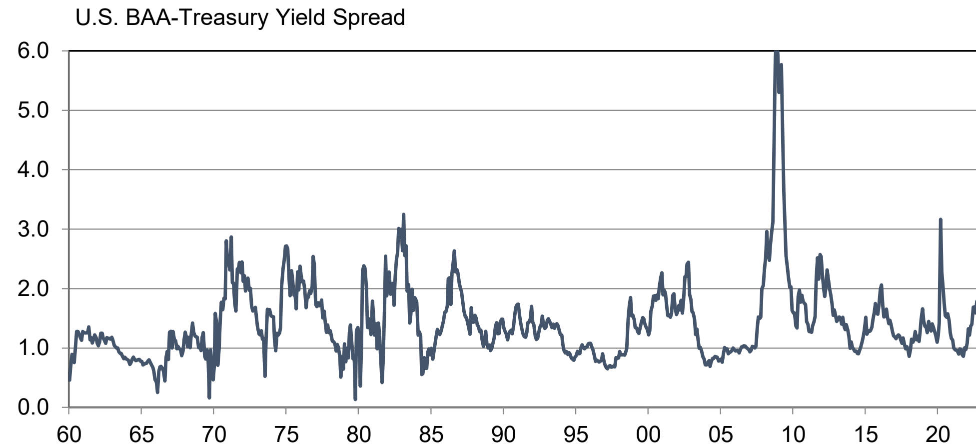


- Global policy interest rates were too low for too long. Reversing QE will further steepen yield curves, as global bond volatility increases too
- New US interest rate regime anchored at higher level of 3.5%--still the world reserve currency. Gold, oil, cryptos, and other commodities lag inflation and are not a store of value.
- No need for *emergency* monetary or fiscal stimulus any more. Extended financial imbalances, so bond yields may overshoot equilibrium.
- Central Banks of U.K., Canada, ECB, and Japan have significant work to do.

Source: Refinitiv DataStream & Strategic Frontier Management

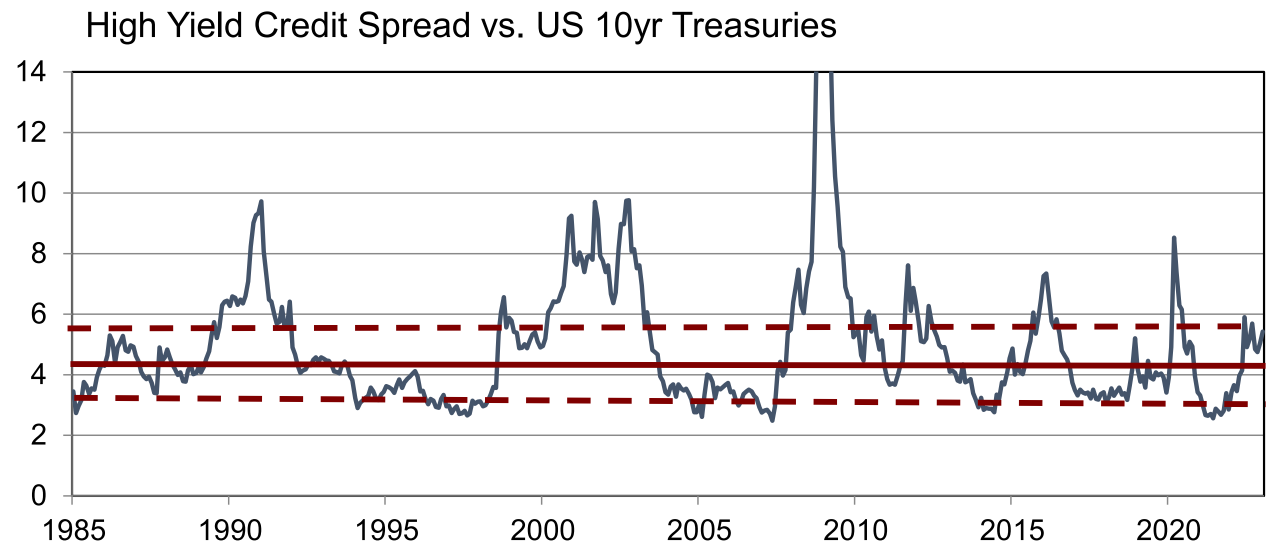
CREDIT SPREAD: CHASING YIELD AT ANY COST?

Investor demand for yield drove credit spreads to very low levels, but credit spreads have widened with recession concerns in the last 3-6 months.



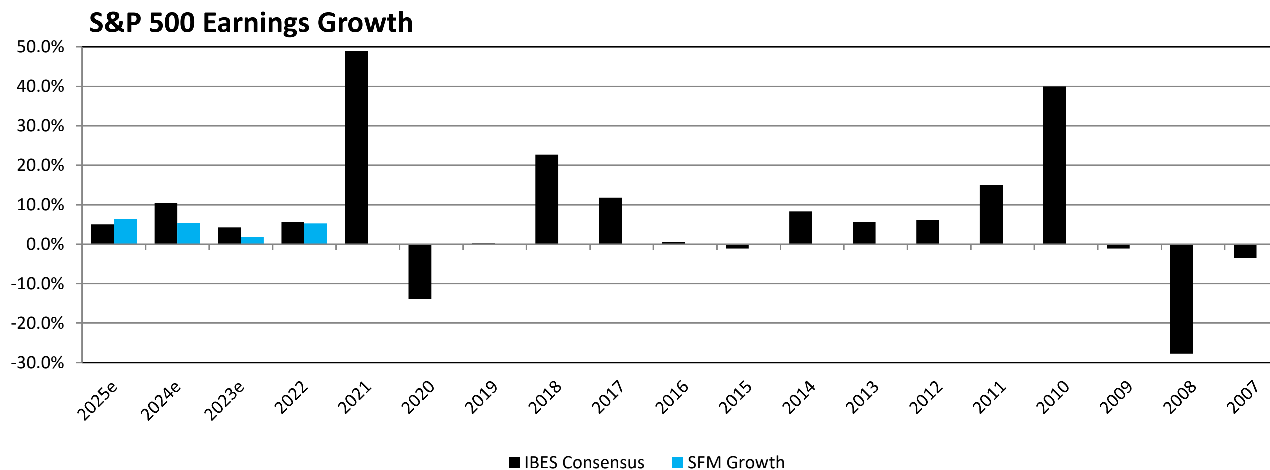
Investors were still chasing yield, at least until rates began increasing. Strangely inverted yield curve increased risk of longer duration bonds.

Credit Spreads tend to remain tight until risk of recession increases



S&P 500 EARNINGS—KEY TO EQUITY OUTLOOK

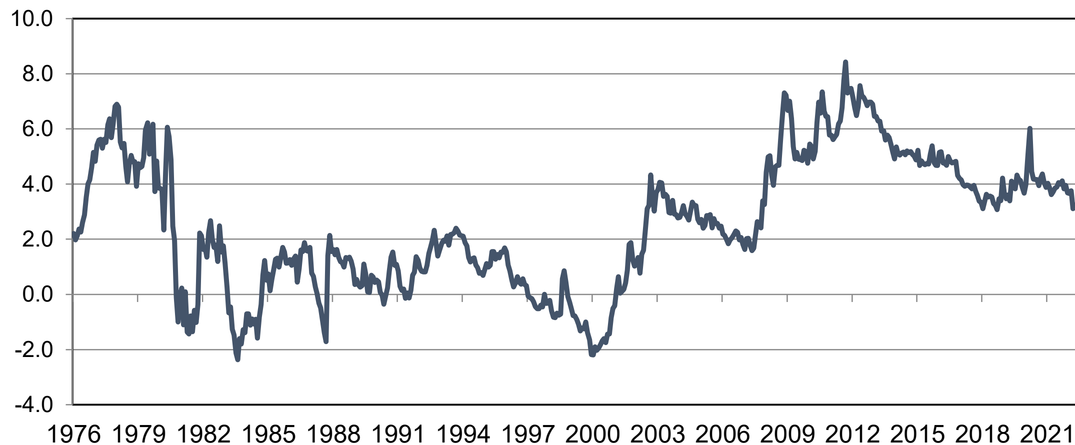
- Have US Equities exceeded earnings recovery, as extrapolating earnings disappoint?
- Valuations seem priced for V-perfection, have yet to embrace inflation or higher rates
- High inflation and monetary tightening should slow earnings growth below potential
- Policies consequences: Lower potential growth, profit margin, global competitiveness



Operating Earnings	2025e	2024e	2023e	2022	2021	2020	2019
IBES Consensus	5.0%	10.5%	4.3%	5.6%	49.0%	-13.8%	0.1%
SFM Growth	6.4%	5.4%	1.8%	5.2%			
SFM S&P500 Target	**4600**	**4250**	**4000**	**3840**	4766	3756	3231
Index Return (no Div)	8.2%	6.3%	4.2%	-19.4%	26.9%	16.3%	28.9%
Dividend Yield	1.77	1.82	1.75	1.75	1.29	1.48	1.85
S&P 500 @18x SFM TE	4500	4230	4014	3942	3746	2515	2919
SFM S&P 500 P/F12	15.4	15.2	14.3	17.2	21.8	18.0	23.1

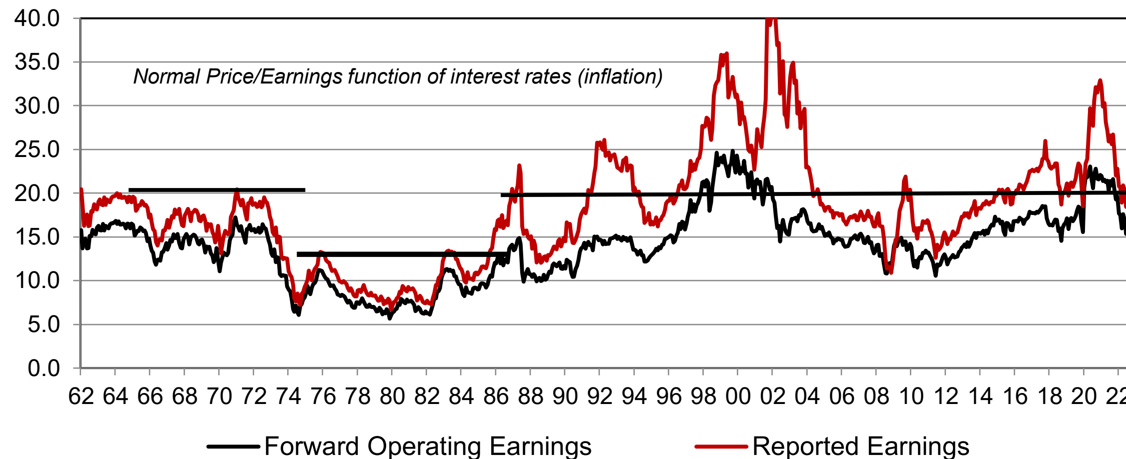
Source: Refinitiv I/B/E/S and Strategic Frontier Management estimates and actuals

US EQUITY VALUATION DEPENDS ON RATES



Earnings yield gap (E/P – T10y) declined, despite an equity correction.

Yet, dividend yields rose.

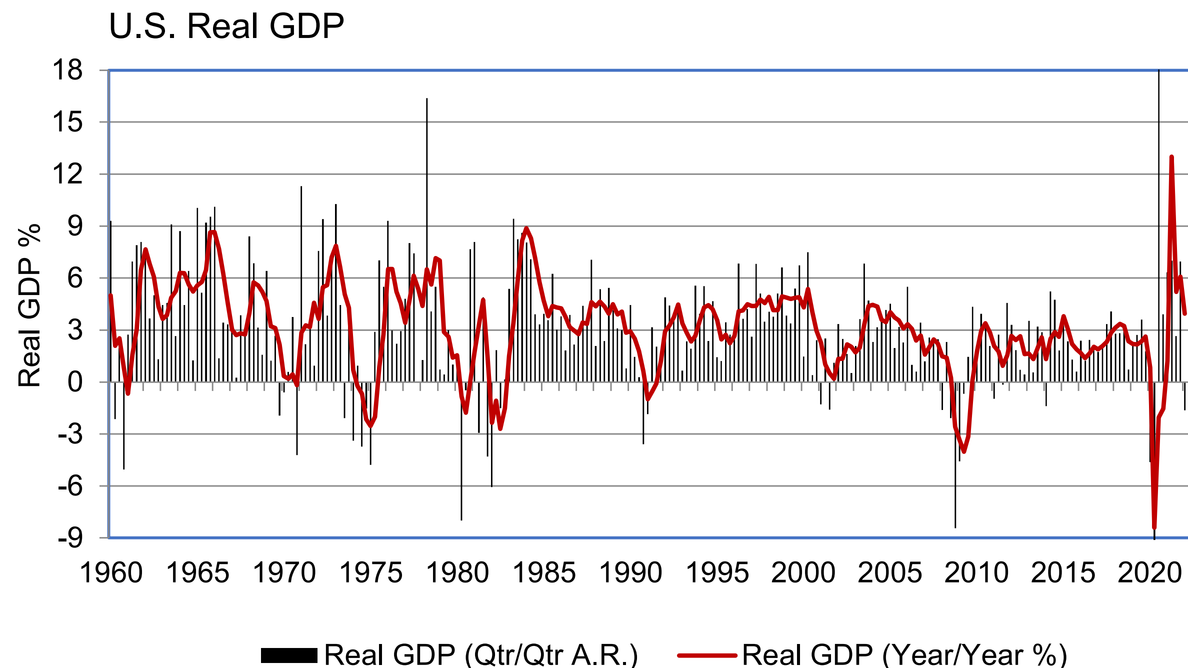


Big improvement in nominal P/E & P/FE, but this is not the case above with regard to Earnings yield given the rise in rates

Source: Strategic Frontier Management

REAL GROWTH IN GROSS DOMESTIC PRODUCT

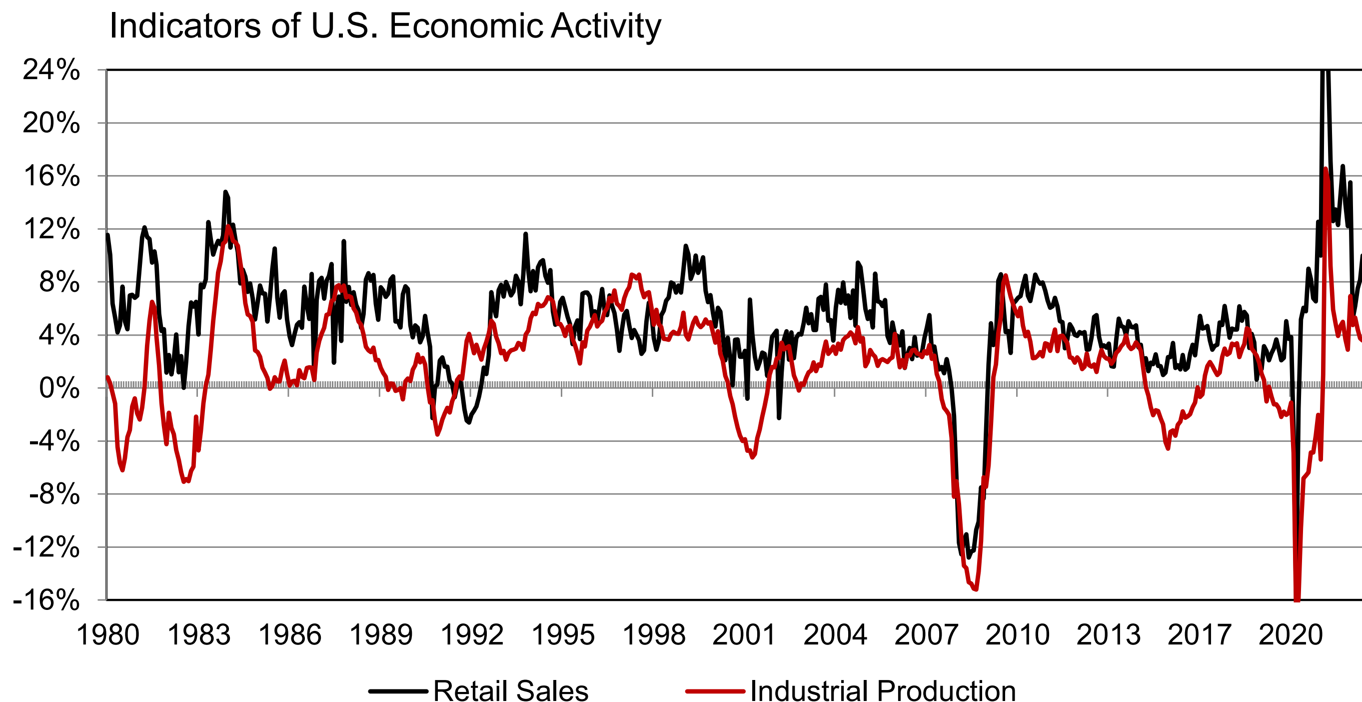
- Real GDP negative in 1H2022, but secular stagnation if not stagflation risk increasing. Expect ***Economic Hangover*** of declining economic and earnings growth (declining profit margins) from pullback of excessive fiscal & monetary stimulus. Negative money growth.
- Increasing inflation wasn't ***transitory,*** *but expect new higher inflation regime (secular inflation expectations, requiring higher equilibrium interest rates (2.5% → 3.25%), which likely will depress real economic and corporate earnings growth.*
- *US Potential Growth* downgraded (2.7% → 2.0%) with regulatory, fiscal, energy, trade policy changes in 2021-22, undermining US competitiveness, productivity, profit margins.



Source: U.S. Government Data

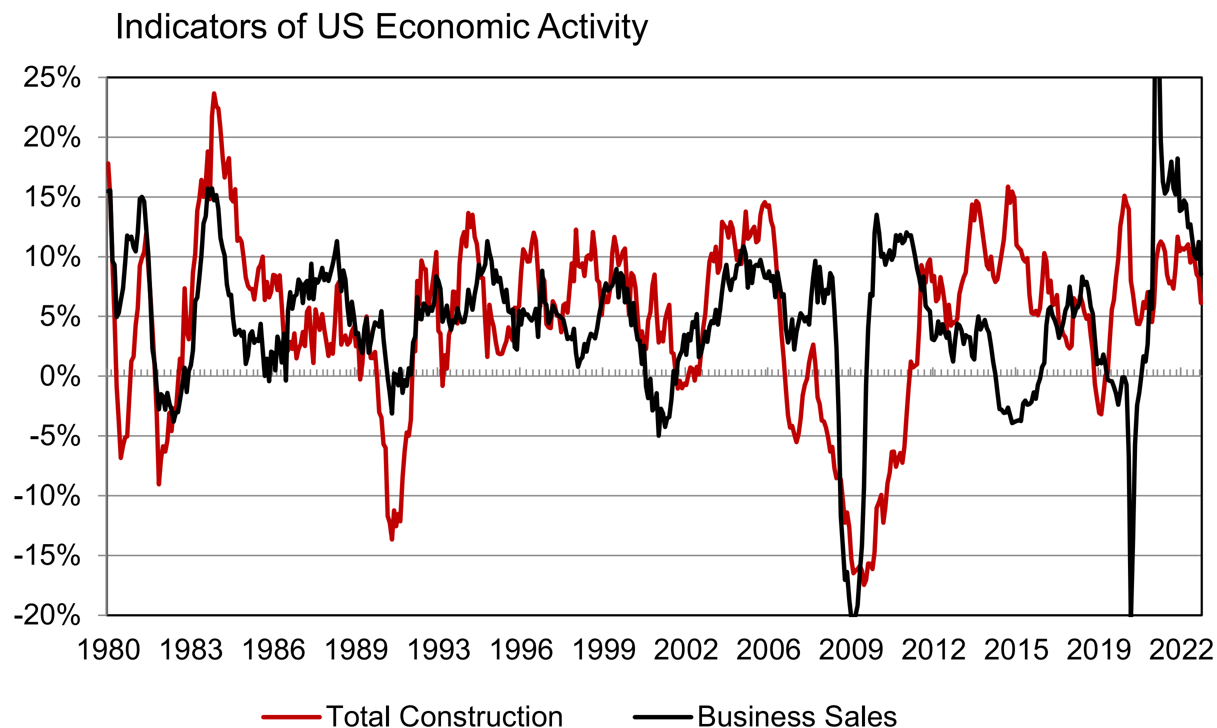
MONTHLY ECONOMIC GROWTH INDICATORS

- Fiscal and Monetary Stimulus boosted incomes and pulled forward consumption, but trade, supply chains, housing, and energy production struggles to adapt to changing disruptive demand increasing economic volatility—resulting in higher inflation.
- Hangover of overly aggressive stimulus that pulled forward demand, plus terrible fiscal (tax, spend) and regulatory policies: US Potential Growth declined to 2.0%.
- Rise in inflation expectations boosted housing, energy, and labor costs, even as poor energy policies boosted cost and price volatility of oil, natural gas, fuels, electricity.



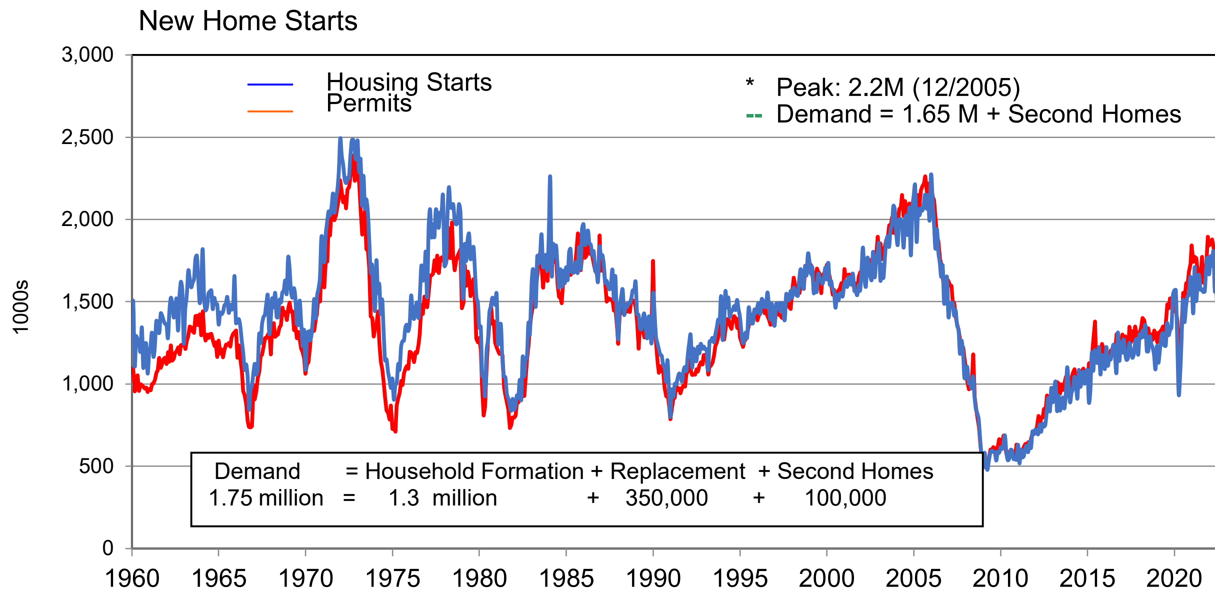
INVESTMENT AND BUSINESS ACTIVITY

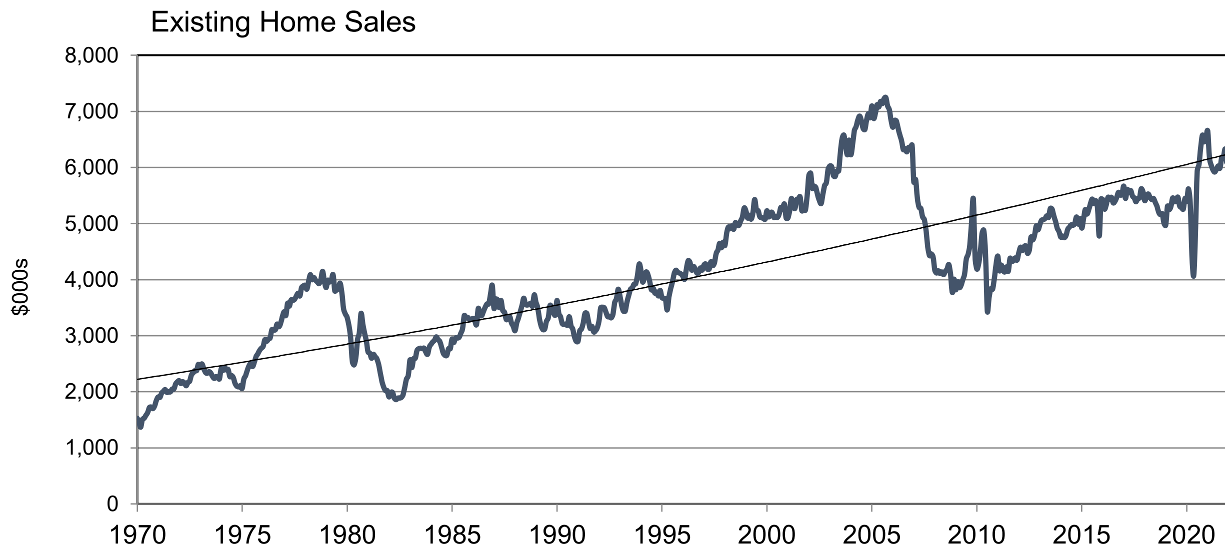
- Expect Business Sales and Construction to be more cyclical in 2023-24
- Housing deficit (post-Financial Crisis) with increasing demand (household formation, replacement, second homes) maintains stable floor to home prices
- Expect housing indicators to be volatile with varying sentiment, higher rates



Source: U.S. Government Data

HOUSEHOLD FORMATION DRIVES HOUSING





Source: U.S. Government Data

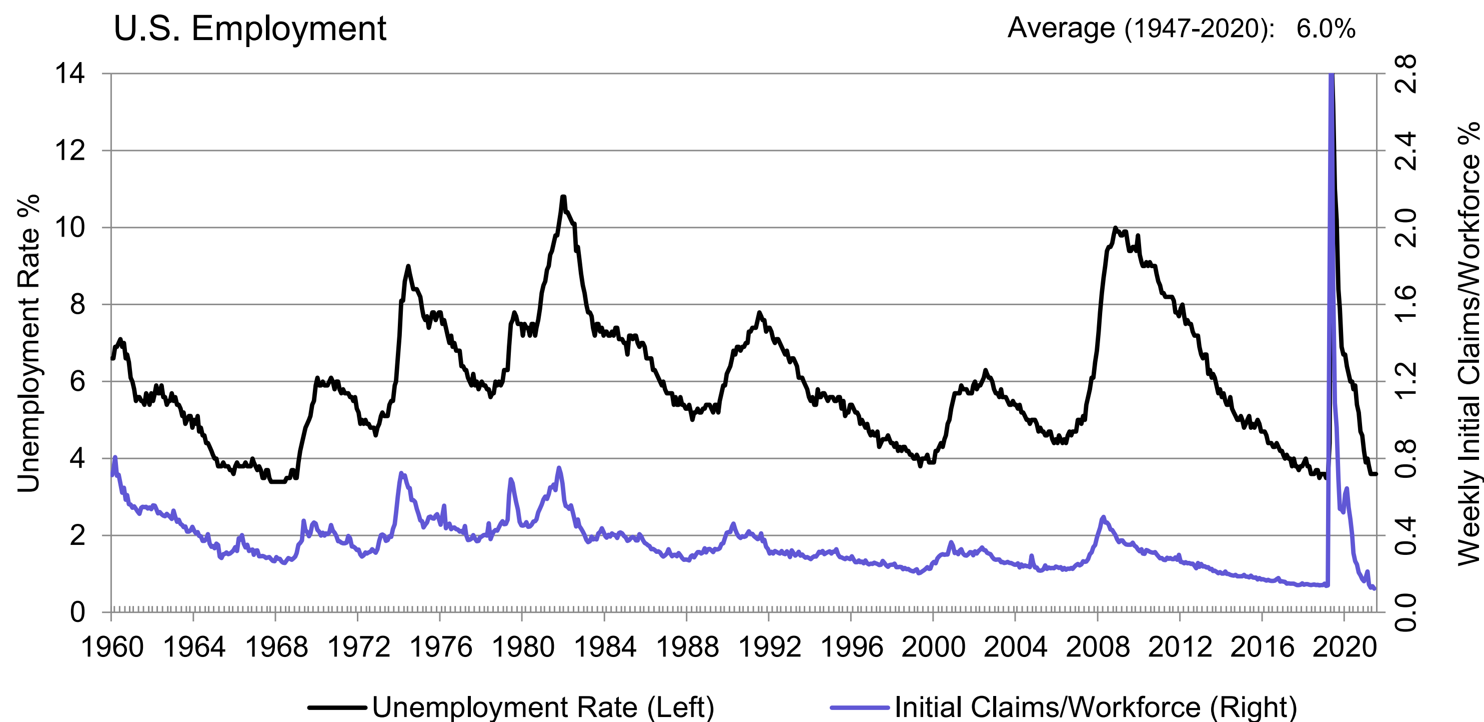
Sales and Starts have been slowing, but demand grows as supply still limited

Limited new starts can't support household formation plus replacement (fire, flood, old)—(New) Second home demand growth coincides with low inventory levels.

Why is it surprising housing inflation remains resilient? Basic resource inputs, labor costs, energy prices coincide with low inventory of new and existing homes for sale.

UNEMPLOYMENT KEY TO FED OUTLOOK

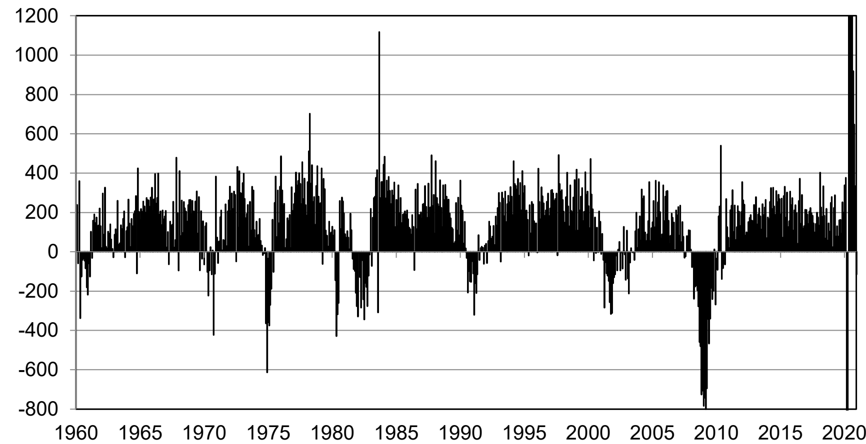
- Unemployment peaked over 14% (April 2020), but now 3.5% vs. 6.0% historical avg. Further evidence US Stimulus (2021-2022) was not needed, only fueled higher inflation
- Secular change affected nature of work, also education and evolving skill needs. Higher inflation expectations + minimum wage increases drive even higher labor costs. Cheap Energy + Investment vs. Declining Labor Intensity: *Race Against the Machines*

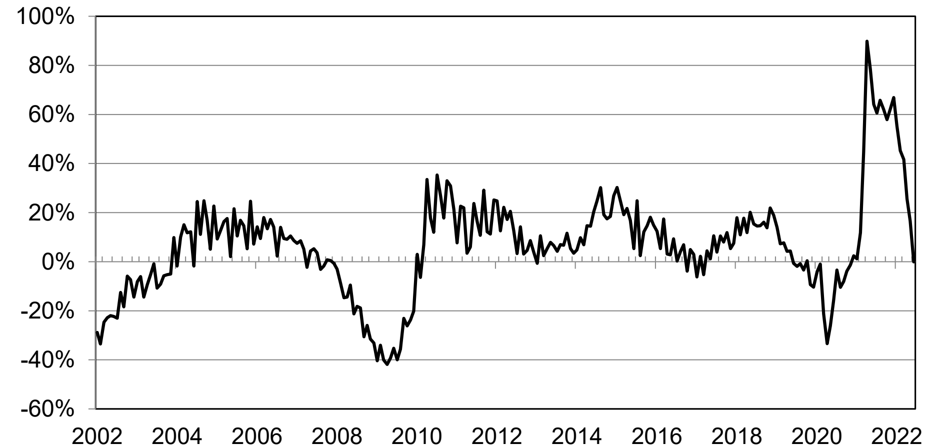


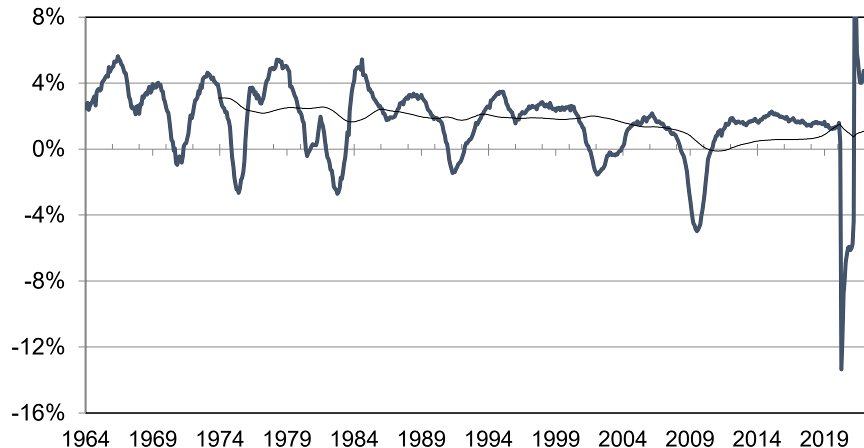
Source: U.S. Government Data

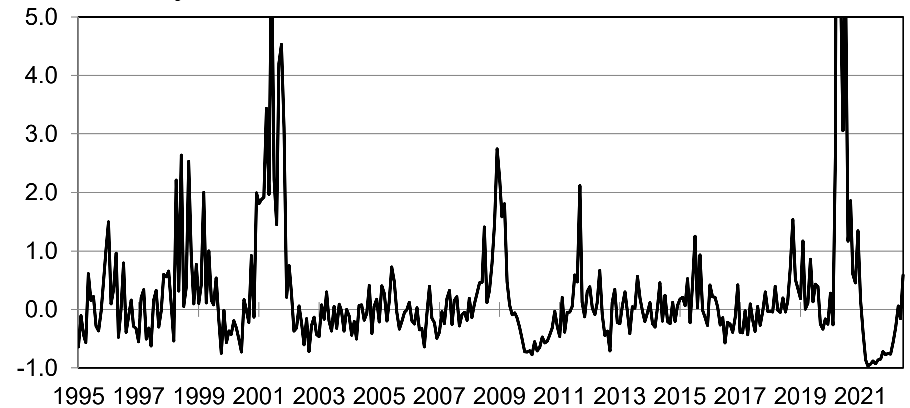
U.S. EMPLOYMENT CONDITIONS

Recession Likelihood Very Low Given US Labor Conditions





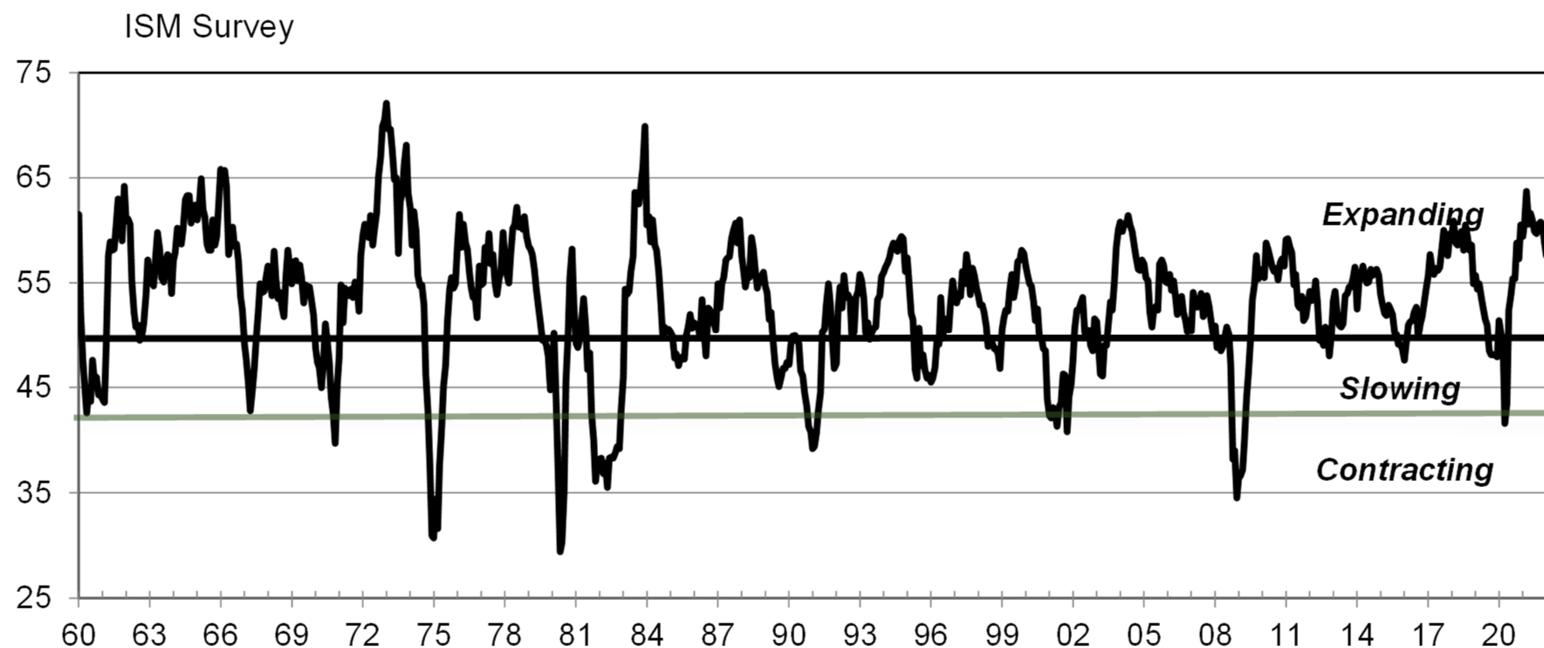




Source: U.S. Government Data

U.S. MANUFACTURING TRENDS

ISM rolling over from year-end peak, but still near recent highs. We expect US real growth to moderate as interest rates rise and ongoing inflationary supply chain issues and labor shortages hamper more robust real activity.



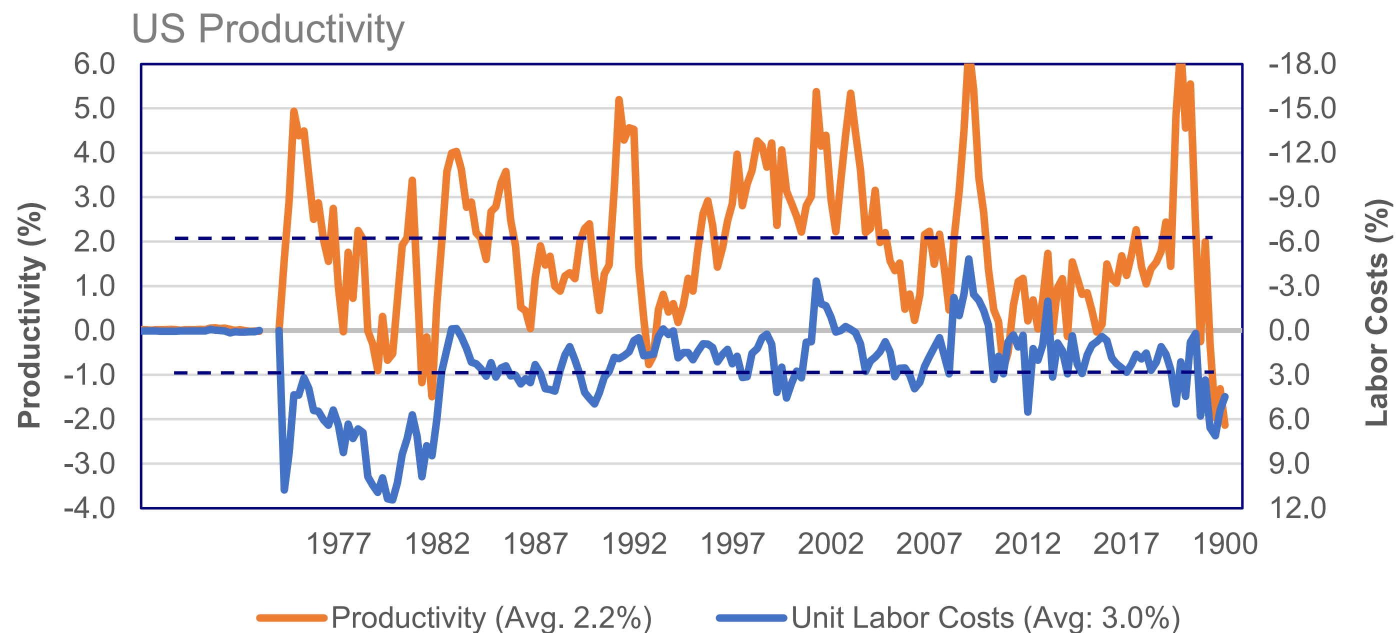
Source: ISM

ISM Purchasing Managers Survey is one of the most timely and best predictors of the business cycle. "50" equates to potential growth (~2.7%) over the next year, 50-42 suggests slowing economy, and below 42 suggests contraction or recession.

PRODUCTIVITY AND UNIT LABOR COSTS

Real GDP = G + C + I + T = Workforce Growth + Productivity

Labor Costs undermining productivity, combined with slowing economic real growth.

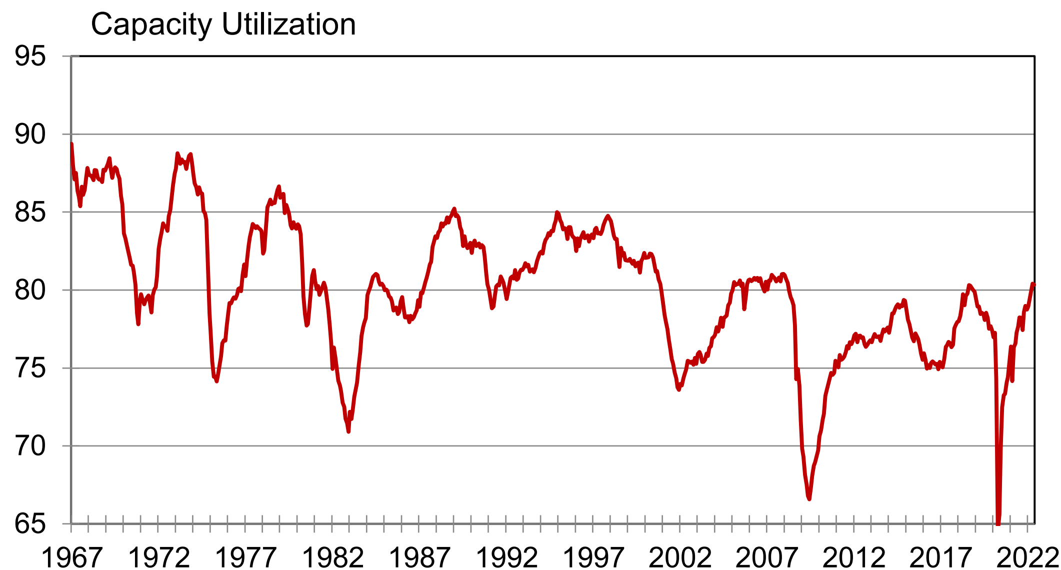


G = Gov't Spending
C = Consumption
I = Investment
T = Net Exports (Trade)

Source: U.S. Government Data

RISING CAPACITY UTILIZATION

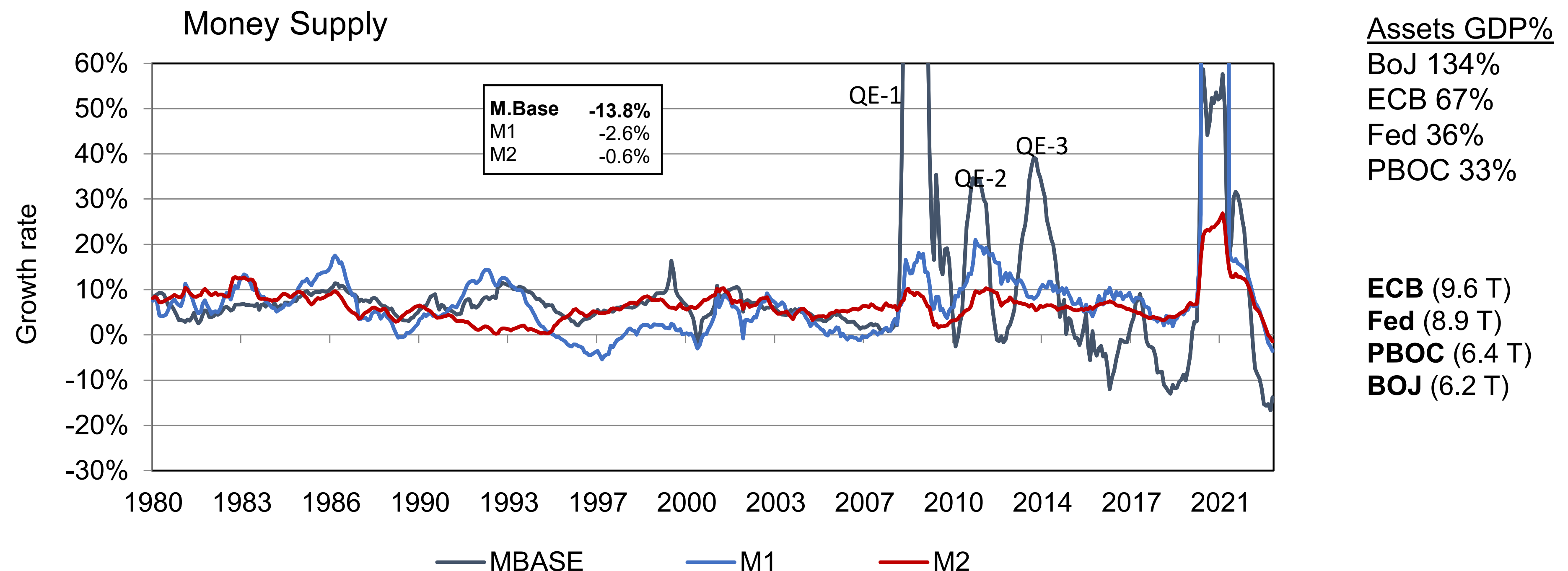
- Higher Capacity Utilization Drives Inflation and Investment, but…forces of secular disinflation and *Fourth Industrial Revolution* long taken for granted, are now waning.
- Offshoring/globalization trends reversing with automation reducing labor intensity – transportation, energy, and basic material costs more critical than labor costs, thus competitive advantages playing a greater role, affecting China and others most.
- Innovation and Creative Destruction still lowering basic resources, energy, and labor intensity tending to moderate inflation (or secular disinflation)
- Increased share of Services tends to limit concern when above 75-80%



Source: U.S. Government Data

MONEY SUPPLY VOLATILITY INCREASES EQUITY VOL, BUT HARDLY HELPS ECONOMY

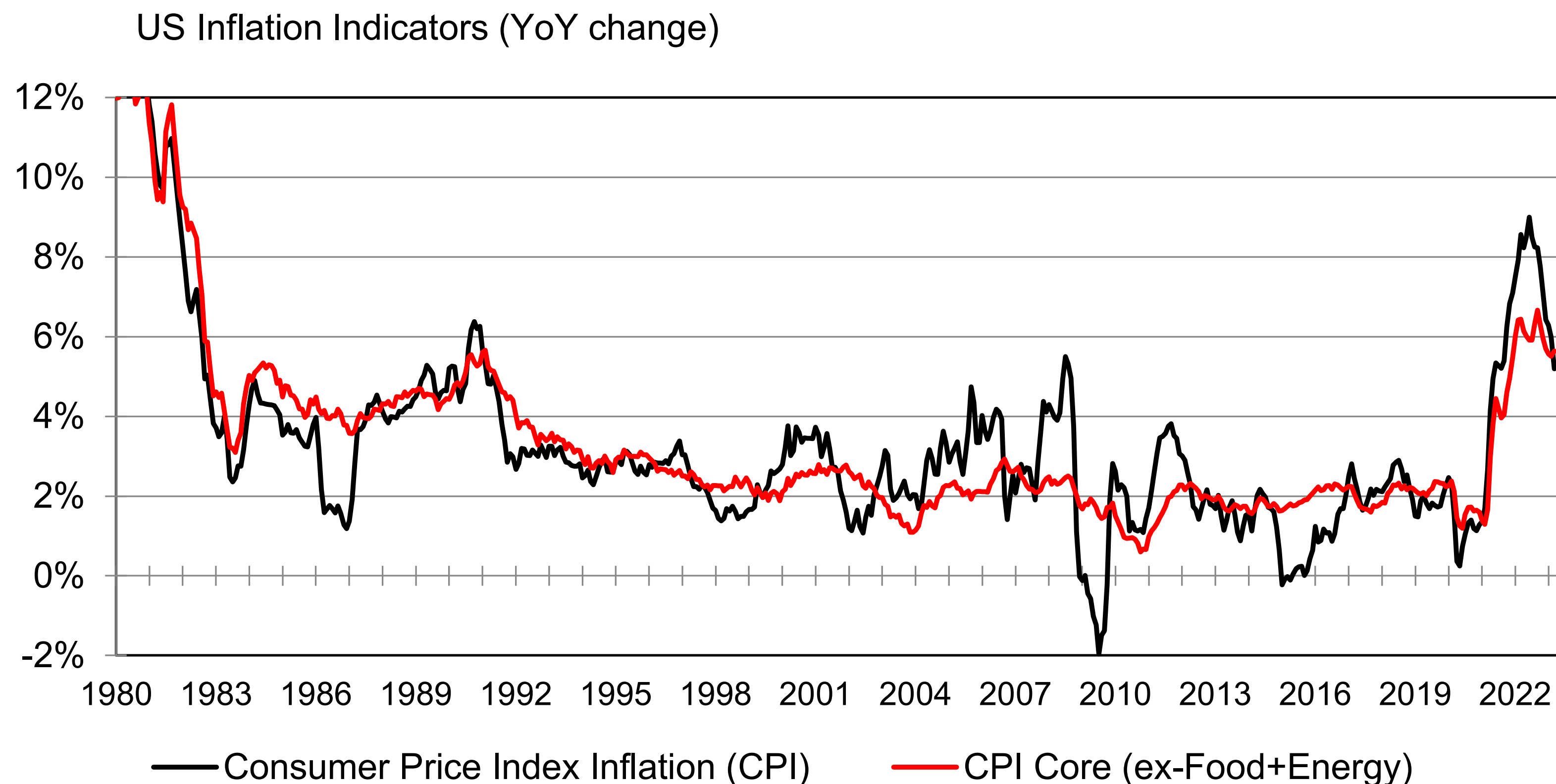
- Massive money growth and low rates for an extended period manipulated bond markets and increased moral hazard—thus, many adverse consequences, difficulty normalizing
- Doesn't appear excess liquidity helped economy in QE-2, QE-3 or QE-4 (2020)…
- Normalization of monetary policy needed to minimize imbalances, including inflation
- Reversing QE (central bank bond holdings) as rates increase will slow money growth (hangover effect), as ability to respond to the next real crisis remains compromised



Source: U.S. Federal Reserve

US CPI INFLATION WILL SETTLE HIGHER ~3%

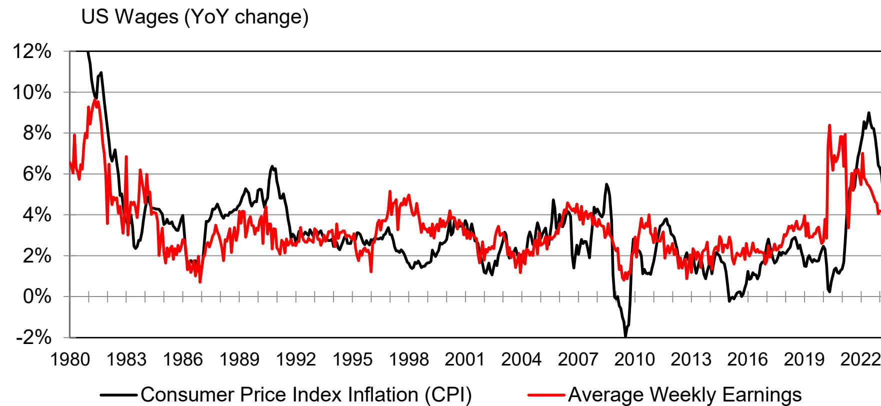
- Inflation rate finally rolled over, but many inflationary forces still remain (housing, labor)
- Higher *inflation expectations* persist, supporting labor, housing and transportation costs
- Cyclical inflation transitory, depending on commodities, resources, materials, energy
- Yet, *secular disinflationary forces* receding (EM/globalization, innovation, comparative advantages, creative destruction) after poor US policy decisions in energy, labor, housing, welfare, fiscal (inc. tax), trade, and regulation boosted inflation expectations.

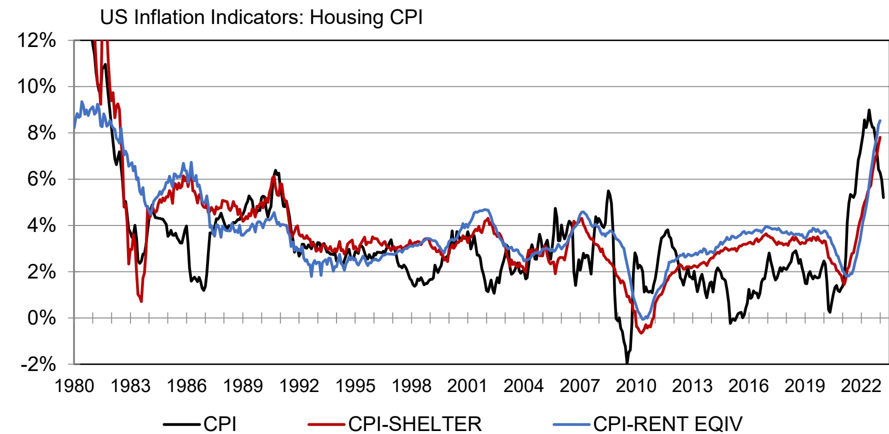


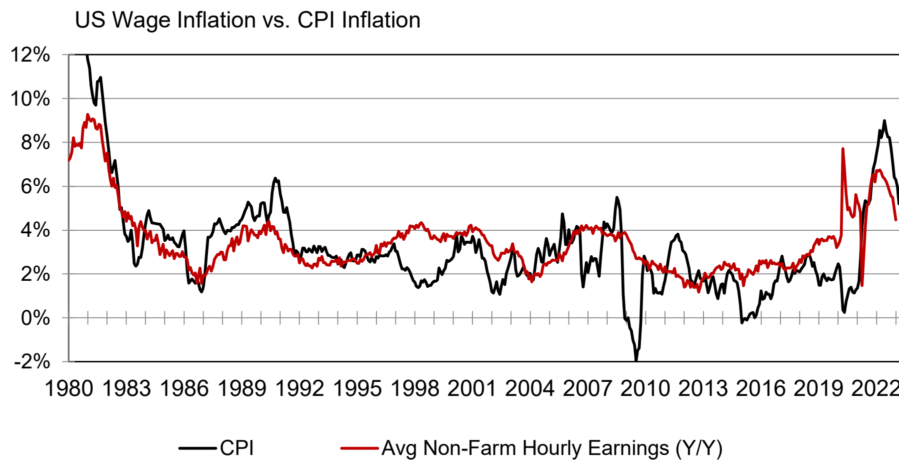
Source: U.S. Government Data

BROAD-BASED INFLATION SPREADING GLOBALLY

Broad-based US Inflation accelerating since Jan. 2021 has spread globally. Clearly it isn't transitory, impacting more than energy, basic resources, and commodities. Rising inflation expectations embedded in labor and housing.



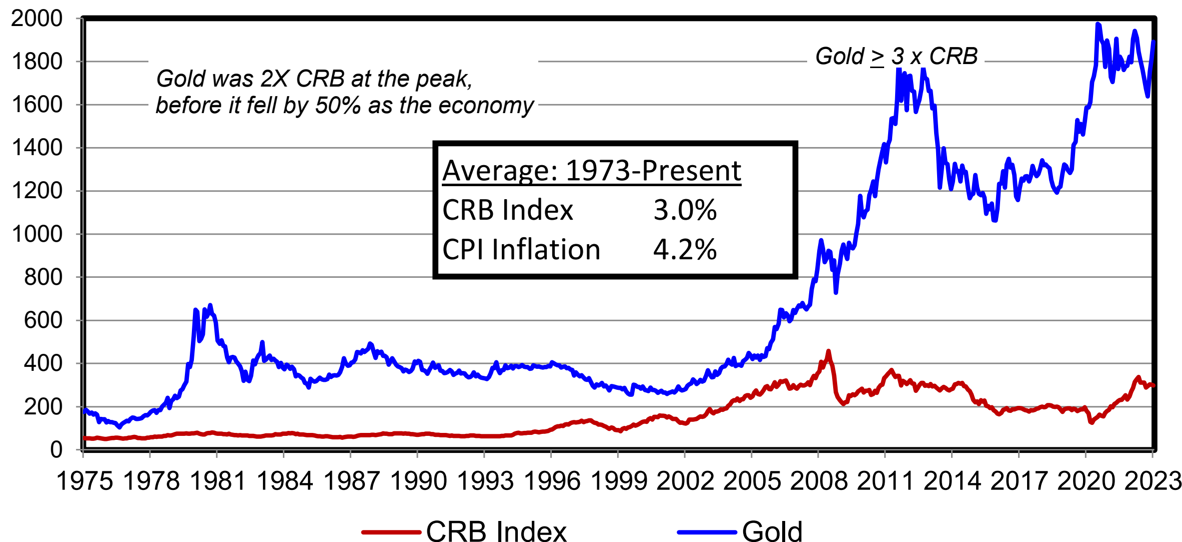




Global Inflation Tracking (CPI)	
United States	6.4%
Europe (EMU)	14.4%
United Kingdom	12.8%
Australia	6.2%
Canada	7.5%
Japan	4.1%

BASIC RESOURCES INTENSITY DECLINING

- Gold too volatile to be *store of value* and will likely lag inflation as interest rates rise.
- Input costs can't exceed output prices, thus commodity returns can't exceed inflation.
- Commodity return = Inflation – Holding costs, so given volatility are not a prudent strategic allocation. Exposure adds to portfolio risk more than is diversified.
- *Cash* is a better store of value and better market hedge than Commodities or Crypto.



Correlation	Commodity	Gold
S&P 500	18%	1%
UST 10yr	-24%	3%
Cash	-9%	-3%
Inflation	25%	21%

Note: Monthly returns for 1s3-2017 CRB Index

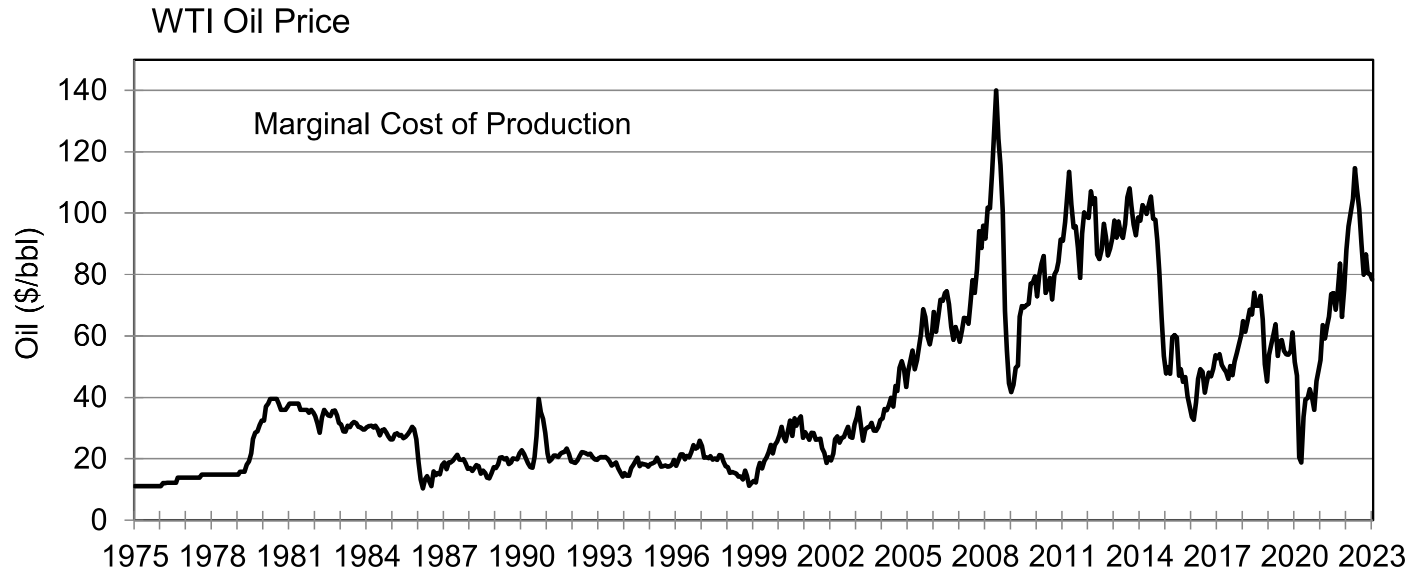
Commodity Returns:
1871 – 2007: Goldman/The Economist/IMF: Real return = -0.4%
1900 – 2020: Credit Suisse 2.6% vs. 2.9% inflation Real return = -0.3%
1973 – 2009: 4.75% vs. 4.5% (inflation) Real return = 0.25%

Source: Refinitiv DataStream & Strategic Frontier Management

WHAT IS THE EQUILIBRIUM OIL PRICE?

Balancing global growth and peak oil concern vs. offsetting demand destruction from triple threat of *Conservation, Substitution, Innovation* (C-S-I). WTI Oil range-bound.

- *That Which Is Measured Is Managed…so,* must address both *Supply* & *Demand*
- Efforts to limit exploration, production, and pipelines (transport) drive higher prices
- Energy innovation: new engines, lighter vehicles, reduced subsidies, efficiency
- Growth in oil consumption limited by CSI and declining energy intensity
  - Conservation efforts reduce energy intensity, as fracking increased gas/oil supply
  - Alternative power + extraction efficiency lower energy costs, increase capacity
  - Increasing US CAFE standards educed overall demand, even with growth (miles/yr)

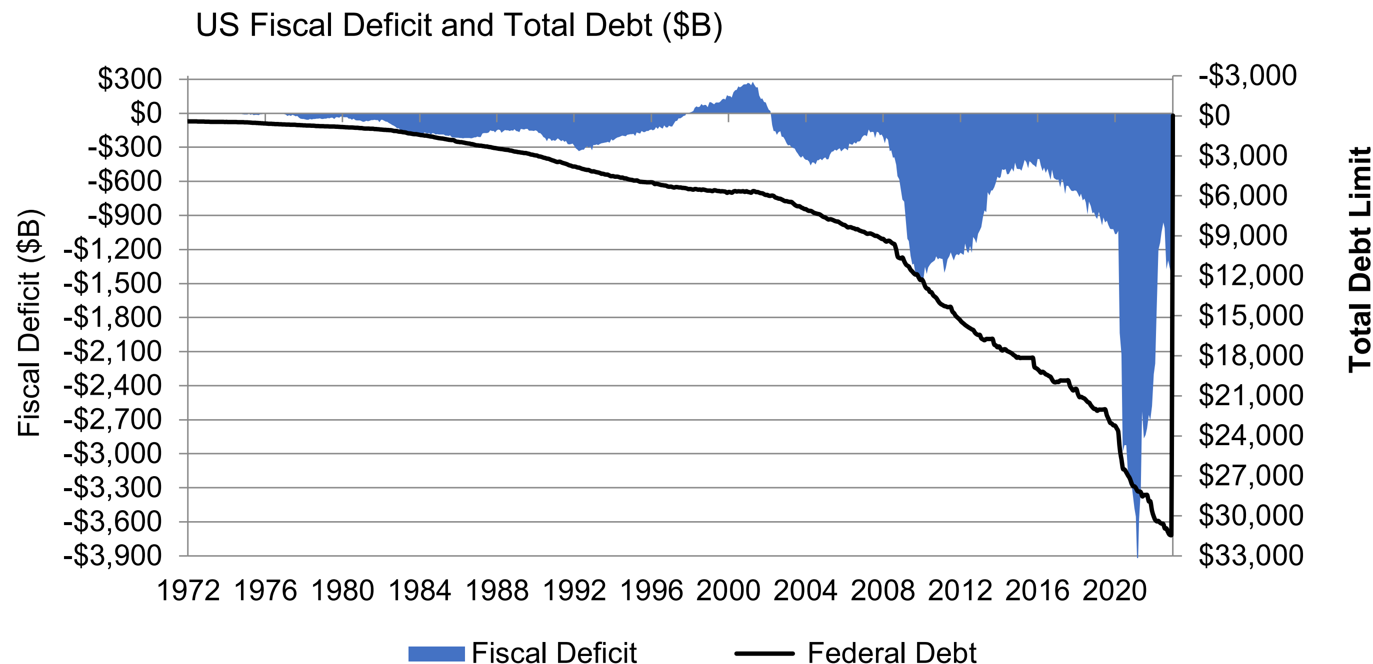


Source: EIA

We believe normal equilibrium price for WTI is $55-60

US FISCAL DEFICIT (ROLLING YEAR)

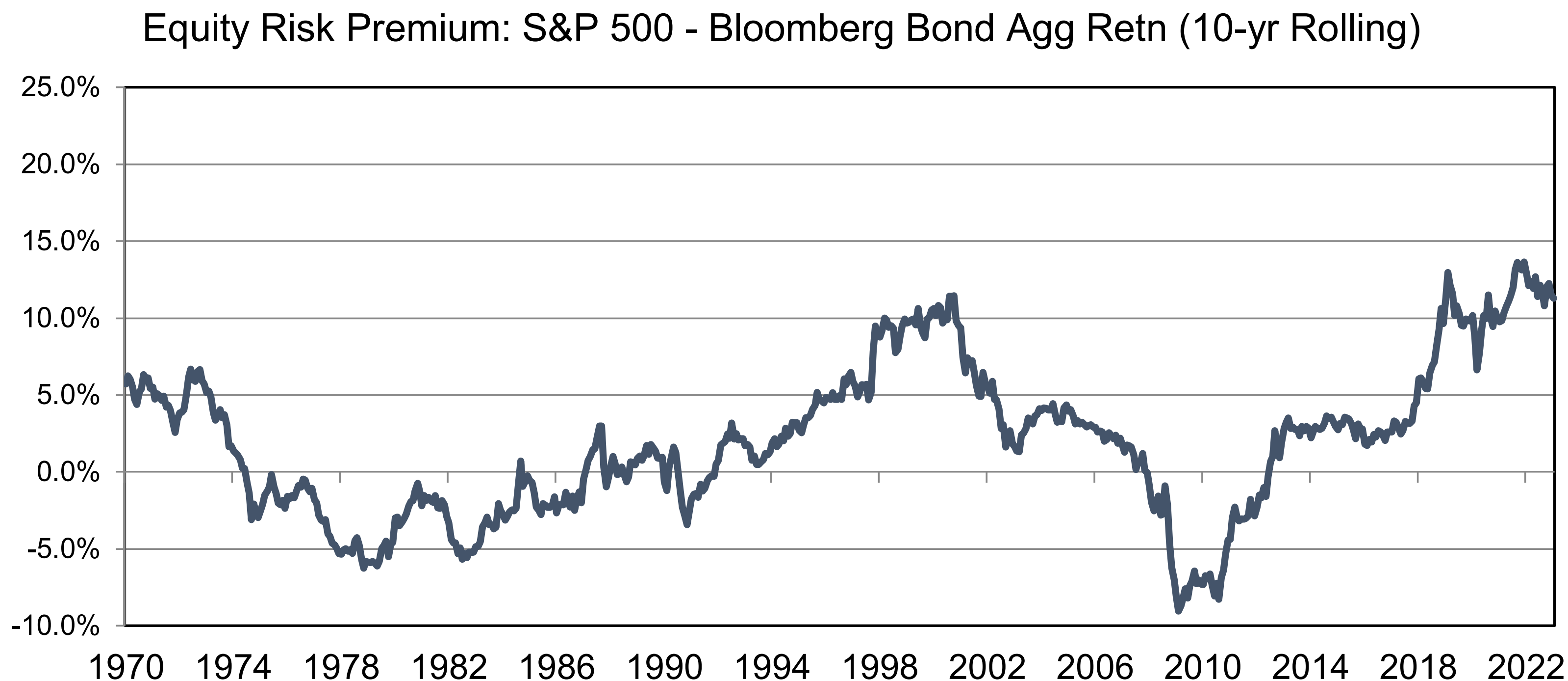
- US Fiscal Deficit is Unsustainable with soaring nondiscretionary liabilities on top of reckless, wasteful, unnecessary, and inefficient stimulus spending programs
- Rising interest rates can trigger Bond Vigilantes RE: Federal Debt & Deficits as interest expense soars. Regret for *Big Stimulus* (2021: $1.9T, Total: $5T) likely politically pivotal
- Republican House control provides leverage for some changes—increasing debt ceiling provides opportunities for compromise on spending, IRS expansion



Source: US Government, OMB

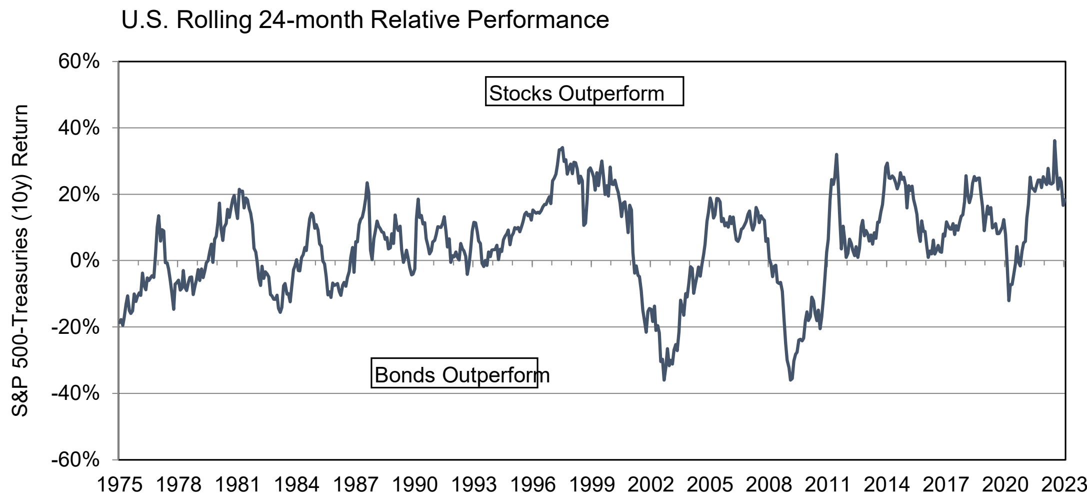
ROLLING 10-YR STOCK VS. BOND RETURN

- Outperformance of equities reinforces equity sentiment, similarly so for large-cap and growth equity tilts despite relative valuation extremes
- US Treasuries overvaluation can trigger an Asset Allocation rotation. But what happens when both equities and bonds decline?



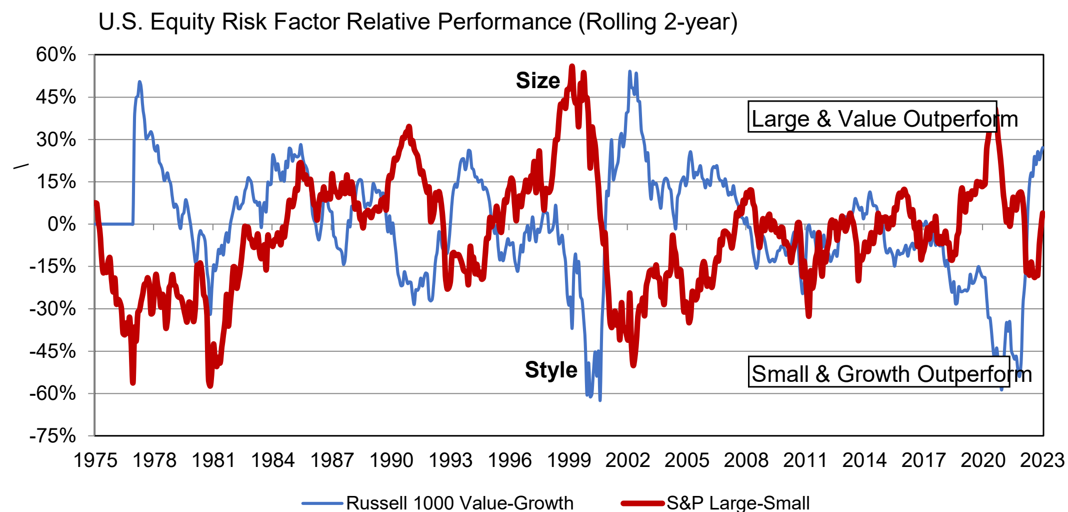
Source: Strategic Frontier Management, Standard & Poor's, Bloomberg-Barclays Indices

RELATIVE ROLLING 2-YR PERFORMANCE



U.S. Stocks vs. Bonds

Returns diverge and risk varies, but Stocks outperform Bonds over long term horizons.



U.S. Equity Styles

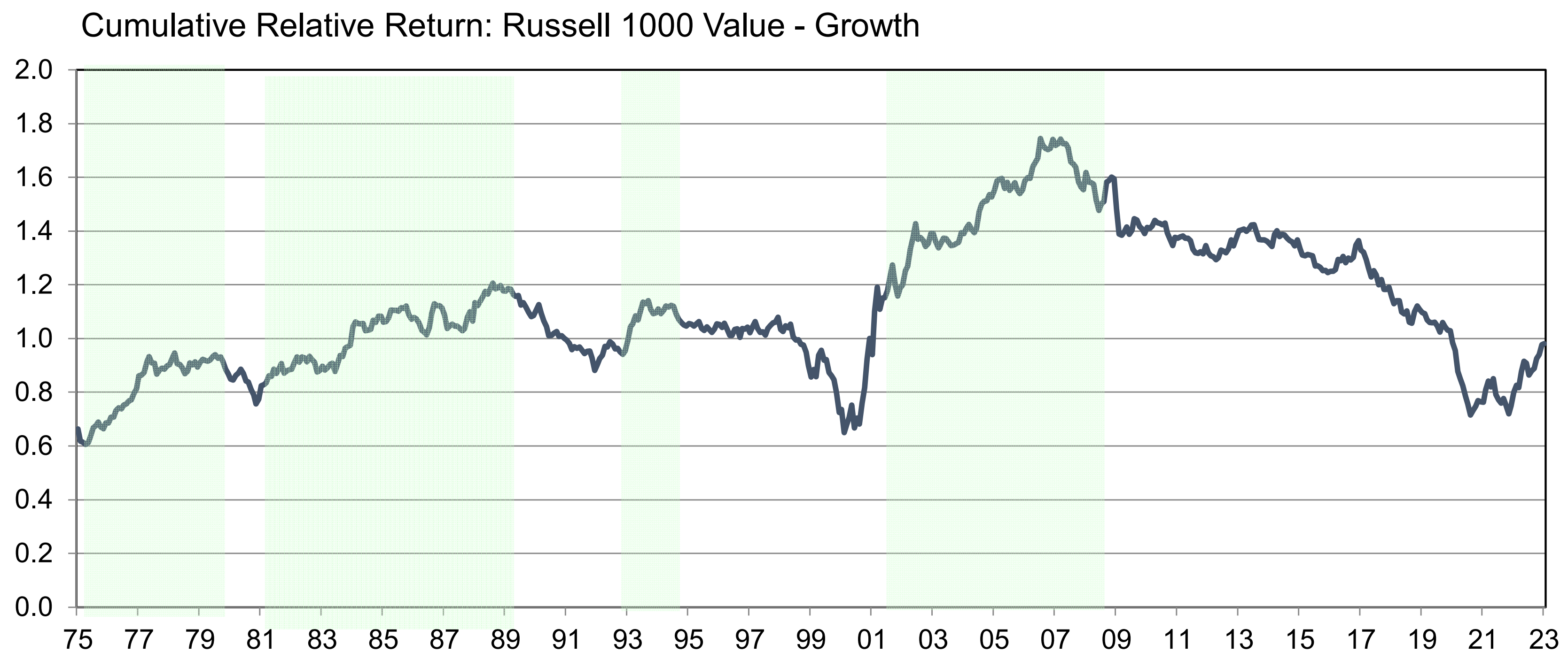
Equity style investing can benefit from differential returns, and often cycles are not synchronized—small-cap is expected and has begun to rebound

Value and Small-cap tilts have outperformed over the really long-run

Source: Refinitiv DataStream & Strategic Frontier Management

VALUE INVESTING MIA SINCE 2007-QUANT QUAKE

- Historical advantage of a tilt toward *Value* absent since Financial Crisis…it (plus, small-cap risk premium) must rebound for active management to be revived
- Smart-Beta also suffered as Size and Value premiums undermined
- Long-term risk premiums such as Value-Growth and Small Size (large vs. small) are cyclical, but also can be exploited tactically. Other risk factors similarly cyclical.



Source: Refinitiv DataStream & Strategic Frontier Management

S&P 500 SECTOR TOTAL RETURNS

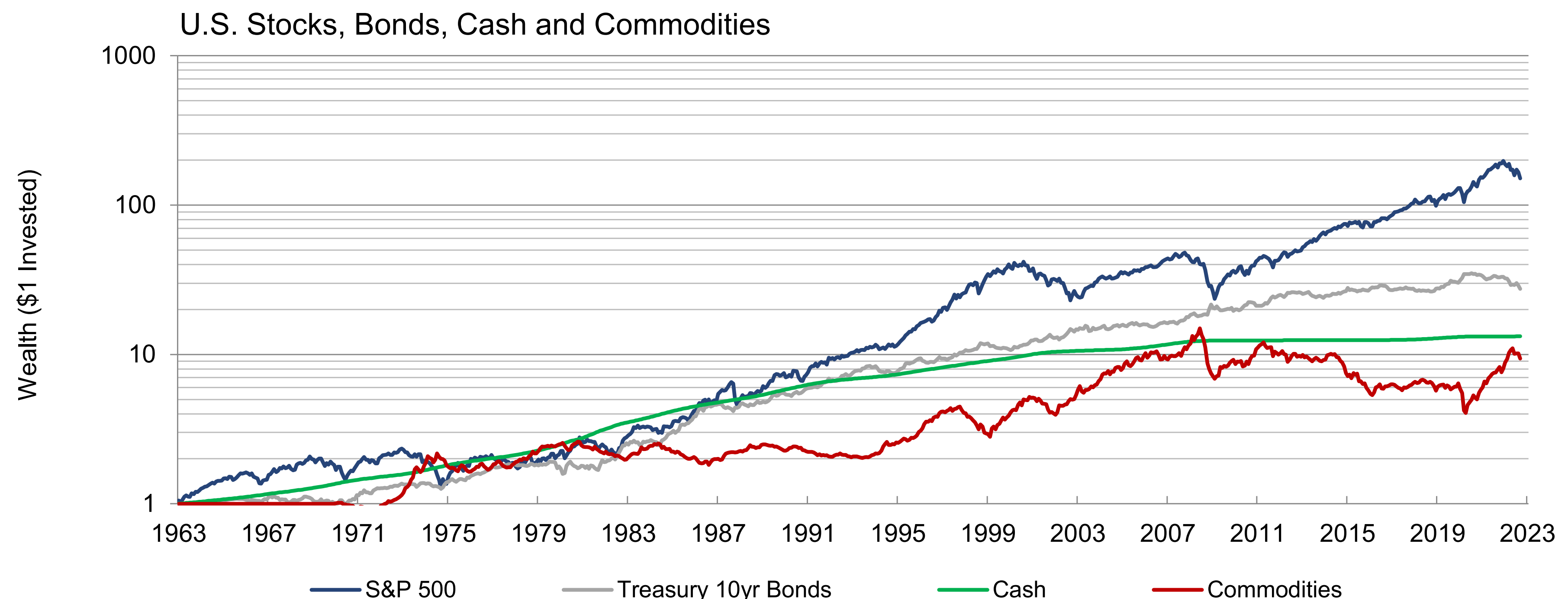
- Many interesting observations and comparisons
- Sectors: Technology vs Communications and Con.Discretionary (Nasdaq: -32%)
- Energy reflects oil + gas price increases, boosting revenue, reserves—years of loss
- Banks should benefit from steepening yield curve, rising rates
- Rotation from overvalued Glamourous Growth to Value and Dividend stocks

S&P 500 Sector Return	3 mo	YTD	1-Year	3-year	5-year	10-year	20-year	30-year	U.S. Dollars
Energy	22.8%	65.7%	65.7%	19.3%	9.3%	6.0%	9.7%	9.7%	SPENGY
Utilities	8.6%	1.6%	1.6%	6.3%	9.6%	11.1%	10.8%	7.9%	SPUTIL
Consumer Staples	12.7%	-0.6%	-0.6%	9.3%	8.8%	11.0%	9.8%	9.6%	SPCONS
Health Care	12.8%	-2.0%	-2.0%	11.9%	12.5%	15.0%	10.5%	11.3%	SPHCAR
Industrials	19.2%	-5.5%	-5.5%	8.3%	7.4%	11.9%	9.9%	9.6%	SPINDU
Financials	13.6%	-10.5%	-10.5%	5.9%	6.4%	12.2%	5.6%	8.2%	SPFINL
Materials	15.0%	-12.3%	-12.3%	10.5%	7.5%	9.8%	9.5%	8.1%	SPBASIC
S&P 500	**7.6%**	**-18.1%**	**-18.1%**	**7.7%**	**9.4%**	**12.6%**	**9.8%**	**9.6%**	**SP500RI**
Real Estate	11.1%	-18.7%	-18.7%	7.1%	4.8%	9.7%	9.2%	7.7%	SPREIT
Technology	4.7%	-28.2%	-28.2%	11.6%	15.8%	18.3%	13.4%	13.1%	SPINFT
Consumer Discretionary	-10.2%	-37.0%	-37.0%	1.5%	6.1%	11.7%	10.4%	9.4%	SPCAPG
Communication Services	-1.4%	-39.9%	-39.9%	-3.3%	1.0%	4.3%	6.0%	4.9%	SPTELE
S&P 500 Quality	9.3%	-22.7%	-22.7%	6.6%	10.4%	13.6%	10.8%	10.9%	Quality
S&P 500 Low Volatility	9.8%	-9.2%	-9.2%	5.1%	8.6%	11.9%	10.1%	9.9%	Low Vol
S&P 500 Low Vol+Hi Div	15.1%	-3.6%	-3.6%	6.5%	7.3%	11.3%	9.4%		Low Vol + Hi Div
Invesco Revenue Wgt ETF	10.6%	-6.0%	-6.0%	10.2%	9.5%	12.6%			Rev Weighted
S&P Global Infrastructure	11.0%	-0.2%	-0.2%	1.7%	3.9%	6.5%	9.5%		Infrastructure
S&P Global Property	7.4%	-23.4%	-23.4%	-4.5%	-0.1%	3.7%	7.8%	7.6%	Property

Source: Refinitiv DataStream and Strategic Frontier Management
Note: Market returns as of Dec 31, 2022. Performance longer than 1-year is annualized.

LONG-TERM ASSET CLASS RETURNS

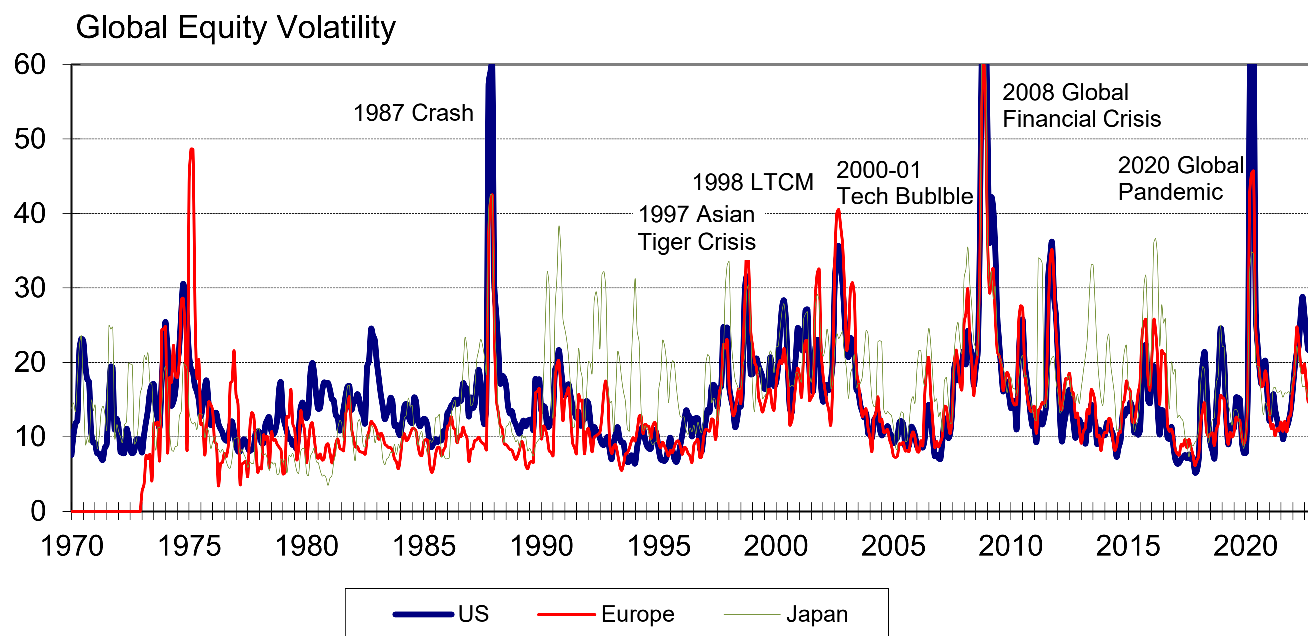
- Global Equity is the best way to stay ahead of inflation, particularly as overvalued bonds struggle with normalization (raising rates, reducing bond holdings)
- Commodities lag both cash and inflation by definition over longer horizons.
- Cryptocurrencies are speculative commodities, and too volatile to be a store of value, without benefit of yield (interest), intrinsic value, or inflation support.
- Cash is and has been a better store of value than volatile Commodities or Gold, and has a better risk-adjusted return with greater liquidity than many alternative assets.



Source: Refinitiv DataStream and Strategic Frontier Management

GLOBAL EQUITY MARKET VOLATILITY

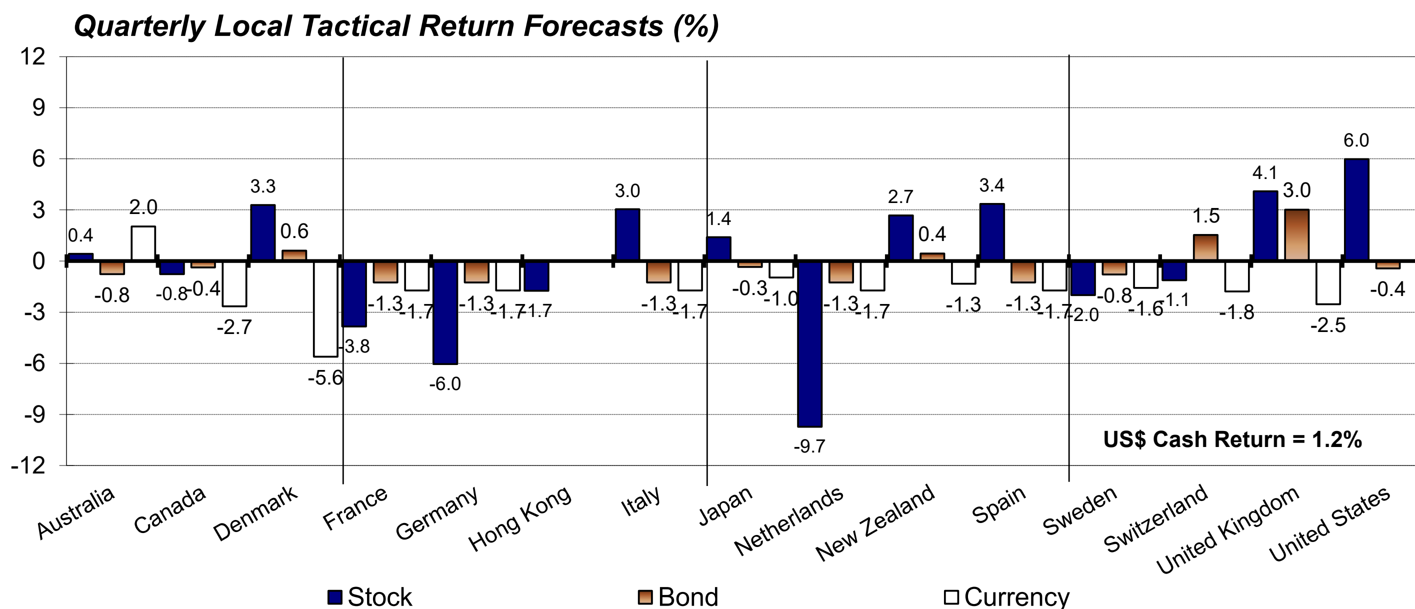
- Correction of valuations across global equity and bond markets as inflation rose and so did earnings—2023 risks: earnings recession, persistent inflation, declining productivity and profit margins, global debt crisis—interest burdens, liquidity, leverage, margin calls
- Rogue thematic products, narrow and exotic ETFs, crypto-commodities, swings in investor sentiment (sentiment of losses), destabilizing LDI/Risk Parity strategies
- Adapting/getting familiar with new equilibriums—rates, secular inflation, potential growth
- Higher volatility with *volatility-of-volatility* in Equities, Bonds, Commodities & Currencies
- Nature of market volatility changed, so have correlations. Expect US Equity: 14-17.



Source: Strategic Frontier Management

	US	Japan	Europe
201712	5.5	9.7	6.8
201812	24.4	24.9	15.5
201912	7.8	8.5	9.0
202012	15.8	14.0	17.2
202112	13.8	15.8	13.0
202212	24.5	13.8	12.5

GLOBAL TAA FORECASTS FAVOR EQUITIES, GREATER RETURN DIVERGENCES EXPECTED



Global Tactical Asset Allocation Quarterly Forecasts(%)

MSCI	WrldGvt	Jan 2023	Local Markets Equity	Local Markets Bond	In (US$) Stock	In (US$) Bond	US$ Currency
100%	100%	World	3.6	-0.5	**3.1**	**-1.3**	-0.6
20%	34%	Europe	-2.1	-0.6	**-4.0**	**-3.2**	-2.2
10%	19%	Pacific Basin	0.9	-0.4	**0.6**	**-1.1**	-0.3
35%	55%	Non-US World	-0.9	-0.5	**-2.5**	**-2.0**	-1.6
65%	45%	US	6.0	-0.4	**6.0**	**-0.4**	
		Cash		1.2		**1.2**	

	Lg-Sm	Va-Gr	High Yield - 10yT
US Style	-3.4%	-1.4%	-3.4%
	Small -	*Growth*	*10yTs*

Source: Strategic Frontier Management - Global TAA Models (Jan 1, 2023)

ASSET CLASSES: LONG-TERM (10-YEAR) RETURN

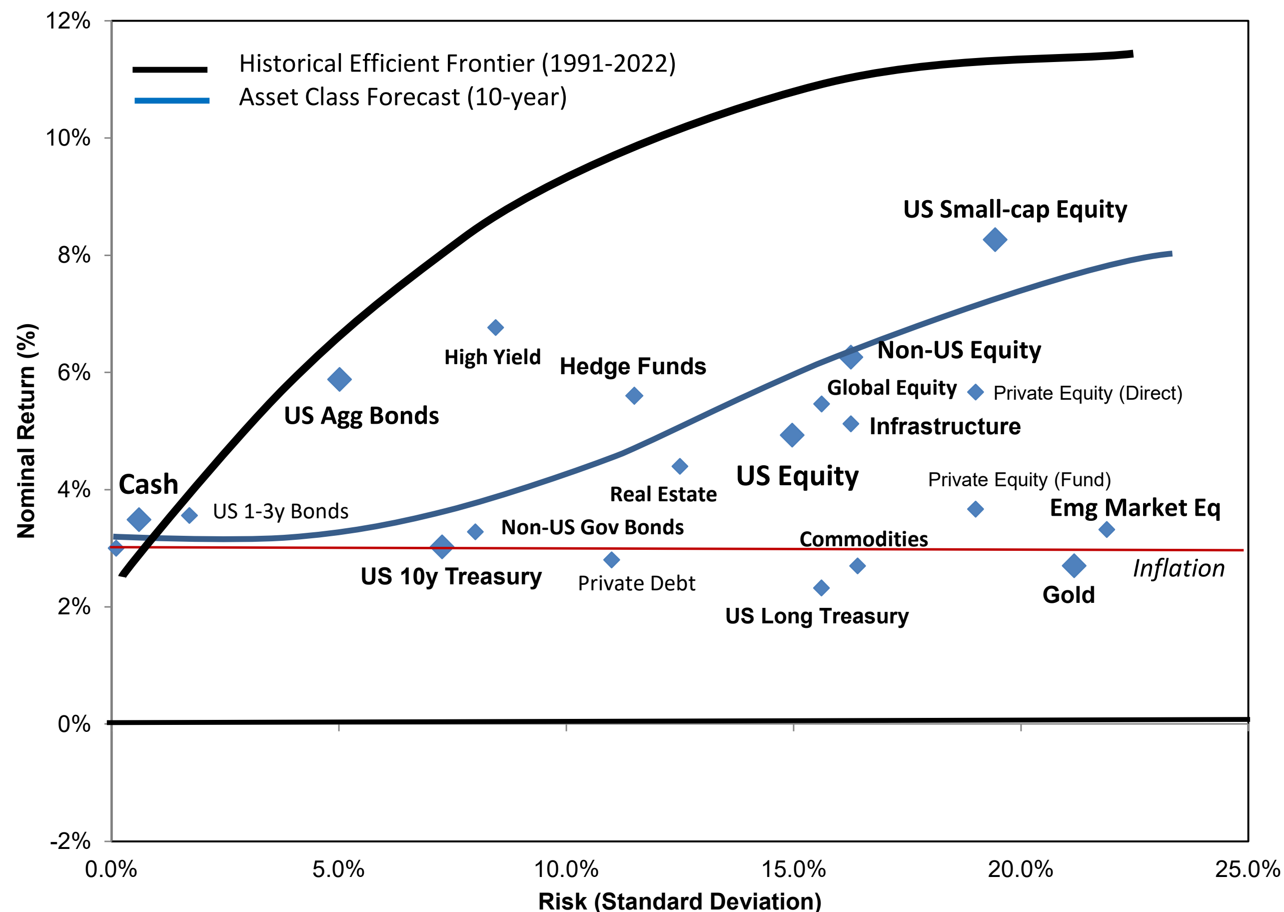
		10-year Returns[3]		30-Year Returns[3]		1900-2020[2]	10-year Forecast		Sharpe	
Ref Index	Asset Class	Return	Risk	Return	Risk	LT Return	E[Return][1]	Risk	Ratio	2022
S&P 500	U.S. Stocks (S&P 500)	12.6%	13.5%	9.6%	15.0%	9.7%	4.9%	15.0%	0.10	-18.1%
Russell 2K	U.S. Small-cap	9.0%	18.9%	8.6%	19.4%	-.-	8.3%	19.4%	0.25	-20.4%
MSCI Wx	World (ex-US)	5.1%	15.0%	6.2%	16.3%	6.1%	6.3%	16.3%	0.17	-13.8%
MSCI EEM	Emg. Market Equity	1.8%	17.7%	6.4%	21.9%	6.8%	3.3%	21.9%	-0.01	-19.7%
US10Y Treasuries	U.S. 10Yr Treasury	0.8%	7.4%	4.5%	7.3%	5.0%	3.0%	7.3%	-0.06	-17.0%
US BBG Agg	US BBG Agg Bond	1.1%	4.1%	4.6%	3.9%	-.-	5.8%	3.9%	0.61	-13.0%
US BBG G/C 1-5	US BBG Gov/Cr 1-3y	0.8%	1.7%	3.4%	1.7%	-.-	3.6%	1.7%	0.04	-5.5%
BoA/ML HY	US High Yield (ML/BoA	3.9%	7.5%	6.8%	8.4%	-.-	6.8%	8.4%	0.39	-11.2%
JPM Non-US Bond	JPM Non-US Bond	-1.8%	8.0%	3.7%	8.0%	-.-	3.3%	8.0%	-0.03	-18.3%
CRB	Commodities (CRB)	0.2%	17.0%	5.4%	16.4%	2.6%	2.7%	16.4%	-0.05	22.0%
Gold	Gold (US$)	0.9%	14.6%	5.8%	15.3%	3.7%	2.5%	15.3%	-0.06	-0.6%
3m Tbills%	Cash (T-Bills)	0.8%	0.4%	2.3%	0.6%	3.7%	3.5%	0.6%		2.2%
CPI	US Inflation (CPI)	2.6%	1.1%	2.5%	1.0%	2.9%	3.0%	1.0%		7.1%
Global 60/35/5	Global Multi-Asset	5.7%	12.5%	6.6%	13.5%	4.0%	5.5%	13.5%	0.15	-14.6%
MSCI World Infra	Infrastructure	8.1%	16.3%				5.1%	16.3%	0.10	-7.4%
Private Equity	Private Equity[4]	15.0%	18.9%	14.7%	19.4%		3.7%	19.0%	0.01	
	Small-cap Equity	-3.6%		-1.0%		-.-	3.3%			-2.3%
	Stock-Bond	11.7%		5.2%		4.7%	1.9%			-1.1%
	Stock-Cash	11.8%		7.3%		6.0%	1.4%			-20.3%
	Bond-Cash	0.0%		2.2%		1.3%	-0.5%			-19.2%

(1) Expected return as of January 1 2023 refers to long-term return over an investment cycle
(2) 1900-2020 annualized data from Credit Suisse Global Investment Returns Yearbook
(3) Periods greater than 1-year are annualized. Returns as of Dec 31, 2022

Source: Strategic Frontier Management. Additional Sources: Refinitiv DataStream, 2020 Credit-Suisse Yearbook)

STRATEGIC 10-YEAR EXPECTED RETURNS

- Disappointing Gov't Bond returns in near term with normalizing interest rates, reversing QE
- Cash is preferred low risk store of value, not Crypto-commodities or Gold
- Emerging Market, Commodity, Gold forecasts suggest inefficient risk-adjusted allocations
- More normal *strategic frontier* (in 3 years) after global correction in equities, bonds, and rates



Forward looking information and forecasts contained herein are the opinion of Strategic Frontier Management. Future market returns may differ significantly from our expectations. As of January 1, 2022.

RECOMMENDED GLOBAL ASSET ALLOCATION

- Global economic and market valuation headwinds with higher inflation expectations suggest you *Curb Your Enthusiasm*---likelihood balanced portfolios exceed 4-5% are slim. US/Global bonds: Negative returns in 2023, if not neg. real returns for 2-3 years.
- Later cycle behavior of higher inflation, lower growth, weak profit margins aggravated by adverse fiscal, regulatory, energy policies with tightening global monetary conditions, including negative money supply growth.
- Favor US/Global small-cap and Value tilts, Non-US Developed equities. Non-interest rate sensitive, but also avoid communications/Media mega-tech (social networks, etc.)
- Best hedge for inflation, normalizing monetary policy : *Cash & Alpha (inc: hedge fund).* Avoid Gold, Cryptocurrencies, illiquid private funds (high fees, low returns).

Asset Class Model Targets

Global Equity	Neutral
Global Bonds	Underweight
Cash	Overweight

Overweight

- US, UK, SP, NZ, IT equities
- Industrials, Financials
- UK, SW Bonds
- A$, U$

Neutral

Underweight

- Bonds: US, EU, JP
- EU Equities
- Euro, C$, GBP, Yen
- Gold, Crypto, Commodities

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