STRATEGIC OUTLOOK

Strategic Frontier Management

Q3 2023

RESTORING NATURAL ORDER

- The divergence from *Natural Order* is in part a consequence of decade long manipulation of interest rate risk premiums, which we believe began in 2008 during the Global Financial Crisis. Since then, central bankers sought to do whatever it takes to reduce capital market volatility, cost of capital, and stimulate economic growth. What began with cutting interest rates toward 0%, extended into unconventional measures including *quantitative easing* and *forward guidance*. *Explicit moral hazard* of manipulating bond markets by central banks for an extended period has flattened yield curves, encouraged leverage and debt, which fueled financial imbalances while pulling forward consumption that sacrificed potential growth.

- We suggest there is a need for *Rewilding America* to *Restore Natural Order*, which extends beyond capital markets to economic, political, and ideological values critical to promoting productivity, innovation, and potential growth. Such national drivers of prosperity lift the *Wealth of Nations*, but all of these depend on keeping inflation in check, boosting productivity growth, and incentivizing competition. A *clash of ideologies* exposed the Administration's failing policies in a statist approach to legislating through Executive Orders, Agency regulations and new rules to *reset* U.S. economic and political organization more aligned with progressive socialism, while limiting free market capitalism, competitiveness, pursuit of happiness, equal opportunity (not equity), and inalienable rights.

- An economic hangover should be expected after hiking rates, withdrawing monetary stimulus, and slowing spending on excessive new government programs (Build-Back-Better remnants). *Quantitative Tightening* (QT, reverse of QE) will slow potential growth, with low-to-negative money growth for as long as it takes to unload $7 trillion of U.S. Treasuries (similarly for: ECB, BoE, BoJ, etc.). Meanwhile, misguided Executive Branch and some legislated policies over just the last 30 months reduced global competitiveness, potential growth, and profit margins, as well as ushered in higher inflation expectations. This likely undermined margins, and potential earnings growth. A U.S. profits recession already underway will limit tax revenue, as interest burdens increase, and increase government debt. Spending must be restrained to limit unsustainable fiscal deficits. U.S. debt now exceeds 100% of GDP.

- We expect higher economic and capital market volatility with tighter monetary policy, and liquidity issues during this period of U.S. stagflation or shallow intermittent recessions. We expect higher interest rates (>4.5%) will persist through 2024, as other countries hike rates and unload their excess central bank bond holdings. Global bonds remain overvalued, but if yield curves should steepen, global bond market losses could be significant. We prefer short maturity or floating rate debt, and cash equivalents (money market funds, T-Bills, and CDs), which are more resilient to interest rate changes.

- Global yield curves should be upward sloping, but most remain peculiarly inverted. We expect inverted global yield curve to steepen as bond supply increases with greater issuance, given real interest rate valuation and high fiscal deficits, just as the Fed begins unloading $7 trillion of Treasuries. Negative bond sentiment will reduce bond demand too. This is bizarre given economic conditions, even globally. Bond market returns should struggle for the foreseeable future. Risk of a *global debt liquidity crisis* increases with supply-demand, if not higher currency and bond volatility. We expect there is increased risk of systemic financial chaos exiting extended monetary policies.

- Our Global Tactical Asset Allocation models suggest increased capital market volatility in wider return forecast dispersion. Interest rate increases haven't been this uncoordinated in a long time. With higher bond yields and an earnings recession, as we expect, the outlook for U.S. equity and bond returns over the intermediate horizon is concerning. U.S. Smaller Companies, as well as Australian, Italian, and Danish Equities provide interesting investment opportunities.

- Our belief in *Return to Natural Order* suggests many financial and economic imbalances must be resolved, resulting in more normal risk premiums across equity and fixed income markets. *Re-wilding of American policies* can restore more rational investor behavior and moderate behavioral biases, including restoring mean reversion to fundamentals, contrarianism vs momentum, and general prudent risk aversion.

Rewilding[1] American Global Competitive Advantage

Most economic fallacies derive from the tendency to assume that there is a fixed pie, that one party can gain only at the expense of another. --Milton Friedman

The Second Law of Thermodynamics suggests that when left alone, eventually everything reverts to its natural state. We'd suggest that the U.S. economy and financial markets need to just be left alone—the *Rewilding of America* is needed to *Restore Natural Order*, and reinforce our global competitive advantage. We believe doing so can bolster potential growth back toward 2.5% (1.8% today) as incentivized productivity takes hold, which can restore profit margins and bring down inflation expectations after persistent high inflation.

The W*ealth of Our Nation* has been crippled in just two years by policies undermining global competitiveness and productivity with higher inflation, therefore potential growth. A misguided pivot in U.S. regulatory, energy, labor, economic, commerce, and trade policies reflected in Presidential Executive Orders, agency rules, and regulations, as well as egregious spending programs compromised global competitiveness of our economic powerhouse, and emerging energy independence. These abysmal policies need to be reversed to reinforce free market competition, property rights, free speech, liberty, equality (not equity), and incentivize competition. We believe *Rewilding America* to restore natural order can moderate misbehaving market dynamics and irrational investor beliefs, if not drive-up productivity thereby moderating inflation expectations.

New policies and social programs combined with low (negative real) interest rates pulled forward consumption and drove artificial aggregate demand. Supply chains struggled to maintain efficient flow of goods with new regulations and a disincentivized workforce. This had an adverse economic impact as CPI inflation soared toward 9% in mid-2022. Interest rates rose over 5¼%, hoping to moderate inflation and offset egregious government spending. When high inflation persists for an extended period, changes to economic expectations are difficult to reset. Reduced profit margins and stagflation naturally result in lower potential earnings growth. Lower earnings growth can reduce tax revenue from business profits and investor capital gains as equity returns disappoint.

A long era of disinflation is winding down with maturation of the *Fourth Industrial Revolution*. Hopes of targeting 2% U.S. inflation are unrealistic in the foreseeable future, absent a steep recession to drive inflation expectations much lower. The anticipated economic hangover is visible now with fiscal spending and monetary cliffs ahead, as excessive U.S. government spending and monetary stimulus reverse.

Many remain fixated on the inflation rate, but overall price levels rose 16.1% since January 2021. Without deflation or increasing household income, discretionary spending will be limited and the savings rate will struggle to remain positive--reduced affordability cannot be easily undone. Higher inflation expectations and unleashed pricing power will be difficult to contain. There is still a housing shortage keeping inventory low and prices higher, so housing affordability remains challenging, particularly now as mortgage rates exceed 7¼% or the highest rate since 2000—this is one of the widest spreads to U.S. Treasuries, suggesting something has to give, so either mortgage rates are too high or Treasury yields are too low.

While others focus on whether the Federal Reserve will hike or cut interest rates, we believe a more critical issue is how fast their balance sheet normalizes by reducing bond holdings, as *Quantitative Tightening* (selling or refunding maturing bonds) has only begun to reduce their $8.9 trillion balance sheet toward $2 trillion we estimate the necessary size of the Fed's balance sheet, which is still more than double what it was before 2008. The European Central Bank is similarly situated with €8.7 trillion in bond holdings. Global yield curves should be positively sloped with a *Return to Natural Order* of perverse risk premiums (i.e., value-growth and small-cap equity, illiquidity, volatility, term, inflation, etc.). Years of unconventional monetary policy has affected behavioral biases and induced financial imbalances.

If not for behavioral biases after two decades of central bank manipulation, risk premiums should have converged in a *Return to Natural Order*. The Treasury yield curve should be positively sloped given current economic conditions. Rising global bond yields will further increase fiscal deficits as refunded government bonds must be refinanced at higher rates, increasing interest burdens. U.S. Treasury should be issuing longer maturity debt, taking advantage of an inverted yield curve, before longer maturity yields rise further, but has opted for shorter maturity issuance. Thus, we expect Treasury bond returns will be negative for awhile, and rising bond yields may overshoot the longer it takes to normalize monetary policy.

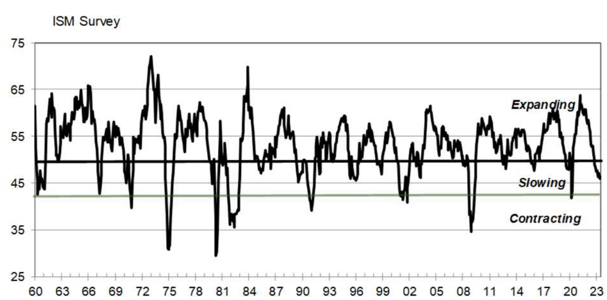
The persistence of observed financial imbalances increases risk of adverse tipping points, including a *Global Debt Liquidity Crisis*. Fitch downgrading U.S. debt should be a warning to policymakers that spending requires austerity and discipline, even as we observe the interest burden hit 14% of tax revenue. Debt service costs rising so quickly begs the question: Why is U.S. Treasury not issuing debt at the lowest future cost to taxpayers by issuing T-Bills at over 5%, rather than 10-year Treasuries at 3.8% yield at mid-year.

[1] Releasing animals into their natural habitat is called ***Rewilding***. We believe countries should *release* economic organizing animal spirits by turning back toward Free Market Capitalism from social planning of Progressive Socialism and Marxist political organizing ideologies.

U.S. equities are overvalued again, as in 2021, with a foreboding earnings recession taking hold with declining productivity and operating margins. We favor U.S. Value and Small-cap equity tilts. US growth is overvalued, particularly the *Marvelous Seven*. Non-US developed equity markets also are preferred, particularly if the U.S. dollar begins to materially weaken. Cash with US 3m T-Bills @ 5.3% and short-term bonds should be the best low-cost *alternative investment* for a 1-2 year risk-adjusted return.

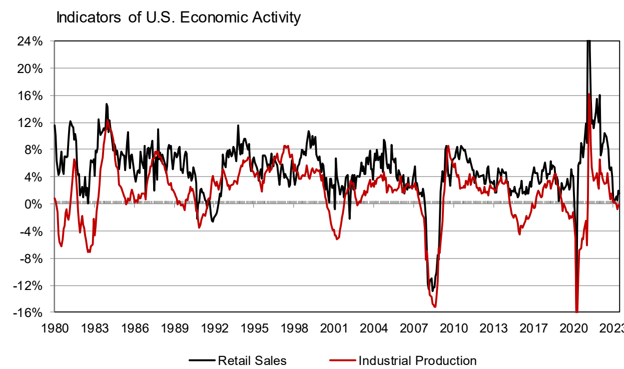
Economic Outlook and Myths That Conceal Reality

The greatest U.S. economic surprise in 2023 thus far is most likely the resilience of Real GDP. It is all the more surprising given the weakness in many higher frequency basic economic variables such as growth in retail sales, industrial production, construction, business sales, and profits. We'll discuss these in more detail below, but we conclude that without new/expanding government programs and hiring, real GDP growth should be near 0%, as other economic growth measures suggest, including the reliable ISM Survey. Observe the Spring 2021 economic peak, then steady decline since to now negligible nominal growth or negative real growth (net of inflation). How much worse would growth have been without extraordinary government spending?

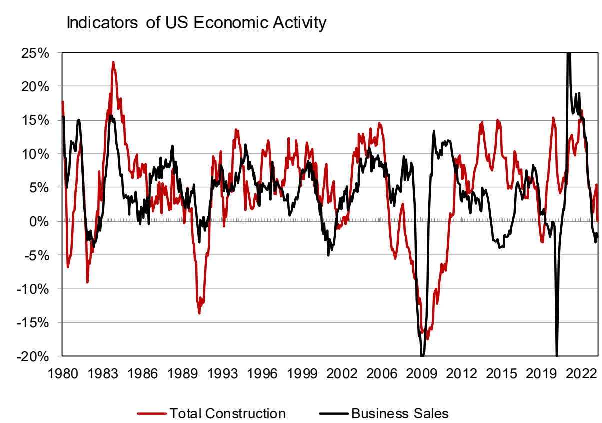


We expected and now observe a US economic hangover of stagflation after a decade-long fling with overly stimulative monetary policy, including unconventional *Quantitative Easing* and *Forward Guidance*. The Federal Reserve also kept interest rates too low for too long. When global inflation soared last year, hiking interest rates with unprecedented speed (+5%) exposed consequences of *explicit moral hazard.* Increasing financial imbalances helped trigger a U.S. banking crisis (investing reserves imprudently) in February, and a pension crisis in the United Kingdom last Fall.

Misguided policies and increased regulation triggered higher cyclical inflationary costs of energy, basic materials, resources, food, staples, transportation, labor, and housing, as well as services and imported goods. Increasing inflation becomes permanent when the inflation rate remains high for an extended period or the causes are unlikely to recede, as is the case with broad regulatory, labor, trade, and fiscal (inc. taxes) policy changes observed since January 2021. These changes were enacted mostly administratively through Agency regulations and rulemaking, as well as Presidential Executive Orders, thereby bypassing Congress. The failing policies of *Bidenomics*, including the *Build Back Better* agenda, remains very unpopular given just 37% approve of the President's *Handling of the Economy*. Gallup's dismal overall Presidential Approval (42%) also highlights weaknesses in Immigration (31%), Foreign Policy (38%), China/Russia (32-37%), and Labor (38%).



We envision an economic environment compromised by stagflation and rising cost of capital after years of policy mischief. This will be difficult to navigate for extended maturity or leveraged bond portfolios as inverted yield curves should normalize. This also can be a tipping point for equity valuations, or trigger a spiralling liquidity crisis given high fiscal deficits and extended debt (Debt/GDP >100%) as central banks unwind holdings in global government bond markets. As business and retail sales growth has collapsed, construction followed. Gallup's Economic Confidence (-32) remains unchanged versus Feb. 2022, and more consistent with the Global Financial Crisis. This outcome is a consequence of poor policies.



Inflation surged in mid-2022 to historic levels not seen in over four decades. The resulting regime shift in inflation expectations can't be easily extinguished now, even by raising interest rates. Years of disinflationary effects of the Fourth Industrial Revolution (Ref: *Future Themes*) are now waning. We believe equilibrium over the next cycle is at best 3% CPI inflation. Any implied target of

PCE inflation below 2.5% is historically irrational and economically unrealistic.

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	-1.0	5.9	7.3
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	4.75	3.50
10y Treasury Notes	0.91	1.50	3.83	5.00	5.15	4.75
S&P 500 Target	3756	4766	3840	4000	4250	4500

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

President Biden signed more Executive Orders (42) in his first 100 days than any other president since Franklin D. Roosevelt during the Great Depression (1933). In 21 EOs, he revoked 67 prior Executive Orders with power of law. Executive Orders or Directives have the effect of law, as explicit power granted to the President by the Constitution. Such Presential powers should be limited and defer to Congress on those issues reserved for the legislative branch. In bypassing Congress to impose agency rules, regulations, or executive orders and memoranda that exceed legislative intent, such policies can be just as easily reversed by a new Administration or Act of Congress. That is, if not reversed as unconstitutional, as we've observed many times already. Although liberated from some more egregious Executive Branch policies, there is more work to *Rewild America*.

General use of Executive Orders should be exercised with restraint when bypassing Congress for exceptional circumstances or simply reinforcing legislative intent—it should not trample on powers assigned to Legislative or Judicial Branches under our separation of powers. Now the President is accountable (*you break it, you bought it*) for adverse consequences of poor decisions when the economy so quickly and significantly headed into the ditch. The reversal of so many key policies in 2021, which drove the prior economic boom up to the global pandemic, has stalled US growth and resulted in terrible outcomes for the U.S. economy.

How it is possible that the US Economy, which recovered so quickly from the pandemic recession of 2020, is now flirting with recession again after a spending binge of more than $5 trillion in two years. Other than the COVID relief supplement signed by President Trump, the rest wasn't bipartisan, nor counted as constructive legislative achievement, particularly the environment grab-bag Inflation Reduction Act, which most acknowledge has noting to do with reducing inflation.

$900 billion Additional pandemic relief in *The Consolidated Appropriations Act* of FY 2021 (Dec. 2020)

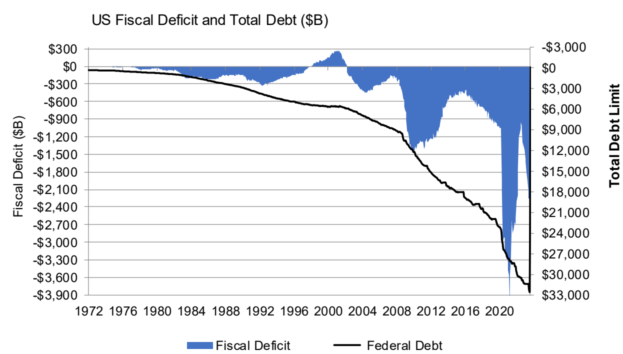
$1.9 trillion *American Rescue Plan Act* (March 2021)

$1.2 trillion *Infrastructure Investment and Jobs Act* (November 2021) unspecified grab bag for infrastructure spending through grants to state and local governments.

$750 billion *Inflation Reduction Act* (August 2022) seeks to reduce inflation, yet address climate change too.

$280 billion *CHIPS and Science Act* (August 2022)

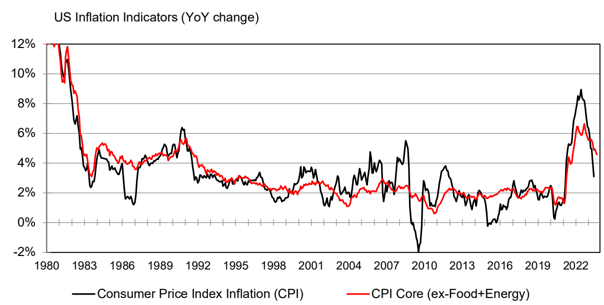
Such massive fiscal spending to be counterproductive with regard to reducing inflationary forces and even improving U.S. infrastructure, which despite the bill's title, is more focused on satisfying the Administration's failed *Build Back Better* agenda. It seems this is the reason GDP is still positive, yet the economy (consumer spending, business sales, construction, ISM Survey, and industrial production) is struggling with intermittent recession. While it seems the fiscal deficit was tamed in mid-2022, after pandemic relief sunset, it has soared again with new programs and the FY2023 Budget. U.S. Debt ***increased $4.86 trillion*** or 18% in just 30 months under this Administration—this is unsustainable and out of control. There is no MMT-fairy (Modern Monetary Theory) to rescue us by printing US$ currency to pay for unlimited fiscal deficits or without severe economic cost. And raising tax rates at this point will instead slow economic and income growth, if not disincentivize productivity and innovation, limiting tax revenue.



CPI inflation ratcheted up from 1.5% in 2020 to the highest level in 40 years of 9% in mid-2022. Cost of everything has risen beginning with higher energy prices, followed by basic materials, resources, staples (food), gasoline, heating oil, utilities (water, sewer, electricity, telecom), property, and rent, as well as transportation, services, housing, construction, and labor costs. To bring down inflation expectations and increase productivity will require higher interest rates for longer than consensus assumes.

Aggregate demand was overstimulated by unreal fiscal spending, including COVID-relief checks at great cost to taxpayers. This further boosted housing, transportation, construction, and labor costs. If not for a strong US$, inflation might have been worse, particularly for imported goods and services. Thus, we believe the trigger for igniting higher global inflation began with misguided US policies to force a green transition in American energy long before we were ready with technological advances, innovation, and alternative power sources driving up cost of everything. Only a significant change in policy could have had such impact so quickly through agency rules and regulations, plus Executive Orders to impact nearly every household and business activity.

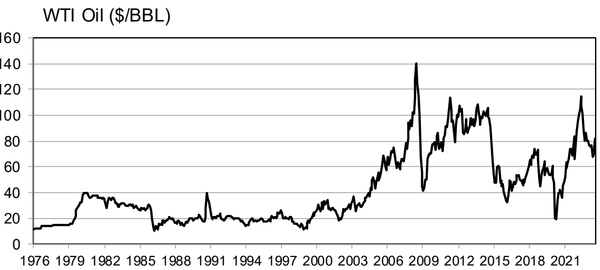
Inflation has moderated, but a lower inflation rate doesn't undo the harm done to living standards and affordability from the 16% cost-of-living increase. Only catastrophic deflation can get us back to near pre-2021 living standard. The longer high inflation persists, the more it reinforces inflation expectations. Lagged indexing of cost-of-living increases and service contract price adjustments are still flowing through, so we expect higher wage increase demands to continue at higher levels. Core inflation, excluding food and energy, hasn't experienced the volatility of CPI Inflation, but it also didn't peak as high, and declined as much either without energy exposure.



Source: Refinitiv DataStream & Strategic Frontier Management

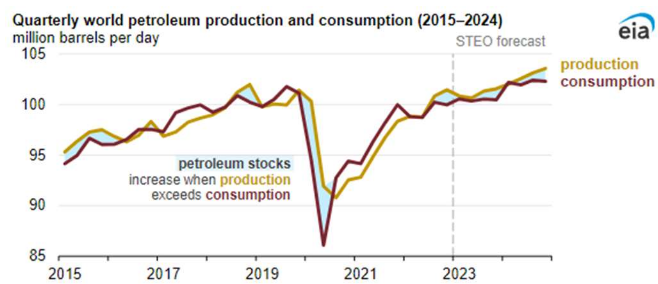
Energy and commodity prices began rising in early 2021, which was quickly compounded by supply chain and labor inefficiencies, which triggered pricing power for goods and services, as well as higher wage and benefit demands. While inflation dipped over the summer on lower energy prices, winter is approaching, and we failed to make much progress improving our electricity grid, pipelines, energy security, railways, ports, or roadways. When bottlenecks in shipping and ports arose with increased regulatory, labor, and energy costs, the result is predictably higher inflation and shortages in traded goods with cascading logistic dependencies further along supply chains. The shock from supply chain disruption simply compounded the effect of rising commodity, energy, and basic material costs. Inflationary forces that began reinforcing the U.S. inflation, then spread internationally. We also still remain vulnerable to strategic dependency on China and supply chain disruption.

The U.S. was becoming energy independent by 2019, and was building terminals to export energy, particularly natural gas. Yet, oil and natural gas prices began rising due to concerns about future energy supply with dramatic changes to US energy policy during Spring 2021. Tighter leasing and permitting of oil and gas exploration, production, and pipeline construction (distribution) has limited energy supply and increased manufacturing and transportation costs. Higher energy prices and regulatory costs drove increased electricity rates and cost of other essential services. Basic resources and commodities were similarly constrained, reducing our global competitiveness.

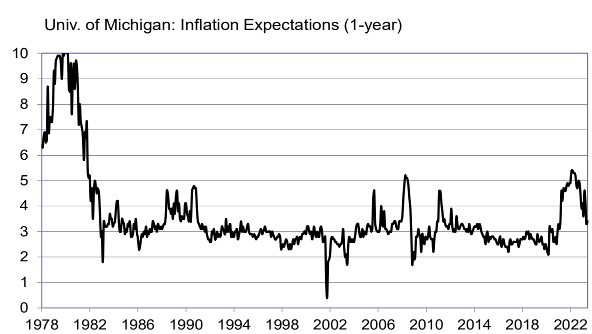


Source: Refinitiv DataStream

Transportation fuel needs lagged global growth with greater fuel economy, introduction of electric vehicles, and workforce trends that reduced commuting and business travel. We inferred fuel consumption growth would lag global growth, but we didn't expect annual miles driven to decline, as it has since 2020—oil consumption rate hasn't increased much since 2019.



Other countries were impacted to the extent basic materials, energy, and other commodities trade freely in a global market—we observe inflation effects in Europe and Asia developing after a lag. The strong US dollar and greater energy independence helped America manage inflation better, but once inflation expectations took hold, it became difficult to arrest so-called *transitory inflation*. The Administration can't deflect blame for high inflation as it spread globally if it began as a consequence of misguided U.S. policies.



Source: University of Michigan

Inflation expectations were modest since 1990, in part due to globalization and greater productivity enabled by innovation of the *Fourth Industrial Revolution*. This instilled reduced labor, basic material, and energy intensity, as foreseen in our *Future Themes* work. Resource intensity was moderating as supply efficiency increased, which was a consequence of *Conservation, Substitution, and Innovation.* Exploration, mining, drilling, and distribution became more productive—energy and resource costs fell. So, disinflation of efficiency gains masked rising aggregate demand for labor, materials, and energy. Offshoring manufacturing, and an increasing service-oriented economy helped too.

Mistaking lower inflation volatility as a *new normal*, suggests that a decline in inflation over the last decade was mistakenly assumed secular, rather than a regime shift. This may also be the root of misleading cognitive bias regarding (lower) inflation equilibrium. Inflation expectations hovered between 2-3% for most of the last 30 years. So, it will take time for memory of high inflation to wash out. By failing to contain inflation, pricing power is observed for the first time in decades, and this will propagate for some time.

The era of global disinflation is waning was symptomatic of the now maturing *Fourth Industrial Revolution* that induced hyper-competition. We expect the recent era of disinflation will sunset. We discussed this phenomenon since the early 2000s, and suggest it explains in part the extraordinary profits margin and higher potential growth with low inflation we observed. We grew accustom to disinflation, and lower inflation expectations followed, but this wasn't a new secular normal—it was a regime shift that lasted longer than most expected.

Many *Future Themes* we've discussed continue to endure: adaptive robotics, advanced materials, ubiquitous computing + big data analytics, computer-aided design, additive/3D-manufacturing, and simulation to optimize engineering and product designs reduced the time, effort, and cost to bring new products to market. It also provided for increased customization. Productivity enhancing automation of adaptive robots with advances in sensors and artificial intelligence further reduced labor and energy intensity, enhancing global competitiveness.

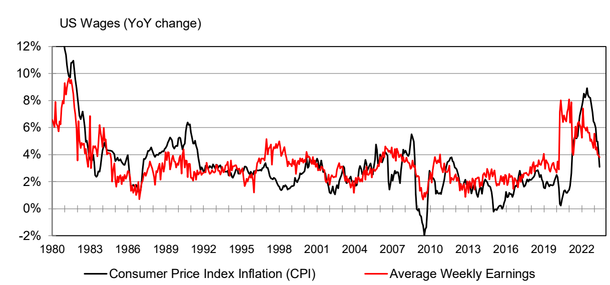
Advances in use of optimization, network theory, logistics, and other supply chain enhancements have made possible the pivot from brick-and-mortar and backordered goods to doorstep fulfillment (think Amazon-time) in days, if not hours. Inventory cost has plunged and is rarely an execution factor any more. Productivity enhancing automation of adaptive robots with advances in sensors and artificial intelligence reduced labor and energy intensity, which accelerated global competitiveness. Artificial Intelligence has become the *Latest Rage.* We have discussed the opportunities and consequences of its inevitable maturation from *Expert Systems* to *Deep Learning* with hopeful promise to extend productivity growth. Now, AI and Chatbots (Regenerative AI) are new buzzwords to unleash VC investment and drive speculative valuations.

Large Language Models (LLM) are surprising in what they can do, as much as what they can't do—as humans, we suppose these models are thinking with mastery of language, rather than just following systematic logic and optimizing statistical likelihoods. Yet, there is also concern about this powerful technology to cheaply enable darker pursuits, including ability to manipulate information, embed bias, facilitate censorship, and enable fraud or deception. Indeed, some have turned AI against criminal pursuits and evil purpose to good effect.

OpenAI ChatGPT, Microsoft Bing, or Google Bard yield profoundly different output, uncommon in computer science—all of them still yield disappointing outcomes generally. This includes too much *hallucination*, and not enough—*Sorry, I don't have enough information to answer that*. Would it be too much to grade the fitness or quality of output? Like any model (and we've built many), the output can only be as good as its input. Regenerative AI is a subset of the vast potential universe of AI capabilities, but we do find in education and writing or journalism more interesting uses of LLMs specifically.

Maybe we all struggle with defining what is *intelligence*, but AI is simply a systematic interpreter seeking to *mimic intelligence*—think of what AI is good at doing versus when it struggles to perform. The challenge is to move beyond toy parrots and enhanced search to solving real problems with practical uses. There is great potential in AI, but the excitement may be a consequence of its accessibility (mostly free) to main street, rather than just programmers, data science professionals, academics, and other similarly situated individuals. AI is a new frontier in analyzing, associating, and leveraging data and other unstructured information at tremendous speed with greater consistency than thought possible. That should extend productivity in the *Age of Automation* (aka, *C3: Command, Control, and Communication*).

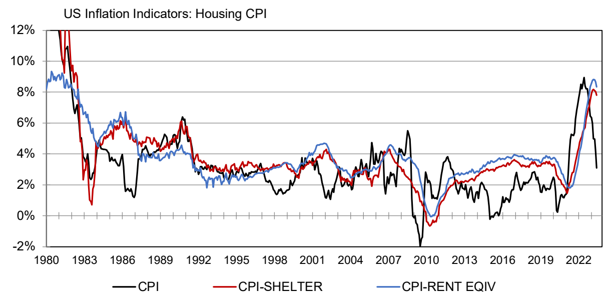
Wage growth has not kept up with household prices since 2021. Now annual employee expectations for salary and benefit increases are embedded, and round-and-round we go--labor costs increase basic resource costs, which increase inflation, thereby boosting wage expectations further. Average Weekly Earnings are up 3-4% over 12 months versus CPI increasing but employee demands for higher pay increases will likely extend for years to come.



Source: Refinitiv DataStream & Strategic Frontier Management

Given housing's contribution to CPI inflation (33% or 43% of core inflation: ex-food & energy), if follows that rising housing costs have driven inflation higher since

2012. We don't expect much housing weakness despite two years of spectacular appreciation—existing home inventories and new construction are still very low with still high demand, unlike 2008. Instead, higher building and financing costs should drive housing prices even higher with rising replacement value given limited supply.



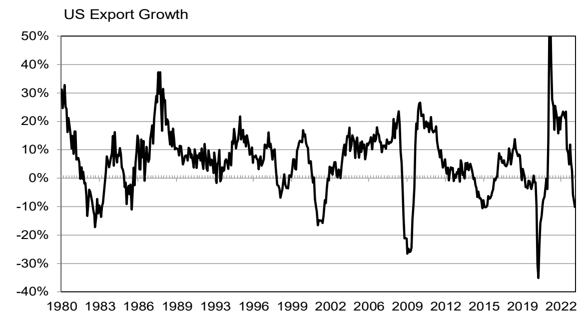
Source: Refinitiv DataStream & Strategic Frontier Management

Housing supply has been limited for some time, as housing costs increased steadily and household formation accelerated since 2021. Higher mortgage rates now approaching 7% affect affordability and defer second home purchases, but also knock out some real estate investors taking advantage of abnormally low mortgage rates. Still strong housing demand and short supply can support current home prices, so it will take awhile to correct housing supply-demand imbalances, even as housing affordability declines.

While housing demand remains robust, office, retail, and industrial property is burdened by higher vacancy (20% nationally) and low office occupancy (according to Forbes recently: <50% of workers are going to the office in San Francisco, New York, Chicago, Los Angeles, and Washington D.C.). Local economies still haven't fully adapted to commuters fleeing downtown office districts since the global pandemic, if they ever return.

Thus, property values of office buildings have plunged in particular as interest rates soared, rents declined, and leases were not renewed, if not scaled back. Downtown office space is less appealing as increased major crime and homelessness has not been addressed—it is no longer as safe to live and work in large American cities. Local retail stores and restaurants are less profitable with fewer customers, driving vacancies higher.

Inflation seems to be moderating. CPI inflation should ease toward 4-5%, but we highlight a critical paradigm shift regarding the effect of waning disinflationary forces of globalization to maturing productive effects of the *Fourth Industrial Revolution*. Transportation, energy, and labor input costs increased for imports, despite a strong US$ (cheaper imports, but less competitive exports). Rising cost of housing, energy, food, and labor with greater regulation and higher tax rates should sustain higher inflation. We expected higher inflation beginning in mid-2021, and now expect at least 3% average CPI inflation to extend over the long run. Persistent high inflation is also troubling given the strong US TWI dollar helped reduced imported goods and services costs.



Source: Refinitiv DataStream and Strategic Frontier Management

Nagging Explicit Moral Hazard + Bond Manipulation

The Federal Reserve's dual mandate is to maximize the economy's long-run potential real growth—*fostering economic conditions that achieve both price stability and maximum sustainable employment.* We believe the emerging economic regime will be more similar to historical cycles with CPI inflation averaging 3% and Federal Funds rate of at least 3.5%. Inflation will be more difficult to restrain as disinflationary forces diminish and inflation expectations revert to historical averages. Long-run Federal Reserve forecasts for equilibrium inflation and interest rates have drifted lower for 20 years.

So, the Federal Reserve has likely wrecked its credibility by delaying monetary normalization, assuming inflation was *transitory*. Fed Chairman Powell also seems in over his head with sadly limited depth of understanding—as a lawyer without any economics or finance background—during challenging global conditions, particularly how to unwind extraordinary unconventional monetary policies. We think the Federal Reserve waited too long to reverse manipulative monetary policy actions of low rates, quantitative easing (QE), and forward guidance pursued for well over a decade, well beyond *emergency needs*.

As inflation generally fell for 40 years, cognitive bias can be etched into underestimating bond risk, so investors will be likely caught off guard with regime change of higher average inflation (CPI: 3.0%) and interest rates (3.5%). Investor surprise is the Fed's greatest tool to affect behavior, thus more significant hikes than expected are necessary to bring down inflation. Too much *transparency* increases difficulty in managing the Fed's dual mandate of stable prices and full employment.

Future lower potential growth of 1.8% can't support already stretched valuations, and consensus earnings expectations should recede further through 2023-2024 without significant reversal in government agency policies, rules, and regulations. We believe the quarterly *Summary of Economic Projections* below limits the

Federal Reserve's effectiveness fighting inflation with implicit forward guidance in the table.

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	1.00	1.10	1.80	1.80	1.80
U.Rate	3.70	3.55	6.70	4.80	3.70	4.10	4.50	4.50	4.00	4.50
PCE	1.85	1.45	3.40	4.20	5.60	3.20	2.50	2.10	2.00	2.50
Core PCE	1.85	1.50	3.00	3.70	4.80	3.90	2.60	2.20	2.00	2.50
Implied CPI	2.35	2.00	1.50	3.50	6.10	3.70	3.00	2.60	2.50	3.00
Federal Funds Avg.	2.38	1.55	0.09	0.13	4.38	5.57	4.75	3.58	2.66	3.50

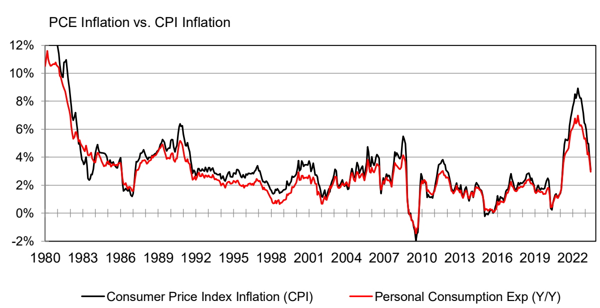
Interest Rates	2018	2019	2020	2021	2022	2023e	2024e	2025e	Longer Run
FOMC Avg.	2.38%	1.63%	0.13%	0.13%	4.38%	5.57%	4.75%	3.58%	2.66%
SFM[1]	2.50%	1.75%	0.25%	0.25%	4.50%	5.50%	4.75%	4.00%	3.50%
Rate Change	1.00%	-0.75%	-1.50%	0.00%	4.25%	1.00%	-0.75%	-0.75%	

1. Top-end of indicated Fed Funds range

Source: U.S. Federal Reserve & Strategic Frontier Management

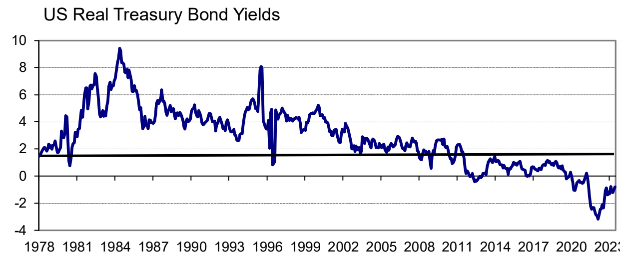
The Federal Reserve expects *PCE* inflation will revert to their *implicit* inflation target, but we believe equilibrium inflation will settle higher. PCE inflation averaged -0.5% lower than CPI inflation, but PCE lacks historical context of generations. Although the Fed desires an *implied* target of 2% PCE inflation, there is no actual U.S. inflation target. We rely on relative interest rate relationships versus the CPI index. The CPI index methodology is used globally, and is still the benchmark for cost-of-living and contract inflation adjustments. Use of the PCE index remains limited to the Federal Reserve.

We've been critical of the Fed's historically inconsistent forecasts of long-run PCE inflation (2.0%), interest rates (2.5%), and unemployment (4.0%). We believe these forecasts are all too low after being depressed by years of cognitive behavioural biases after decades of observing persistent disinflation. CPI inflation averaged 3.0%, and interest rates averaged 4.0% yielding 1% real U.S. interest rate over the last century. We also observe that 10-year Treasuries averaged 1¼ - 1½% over 3-month Treasury Bill yields—these historical relationships are strongly mean-reverting reference points generally.



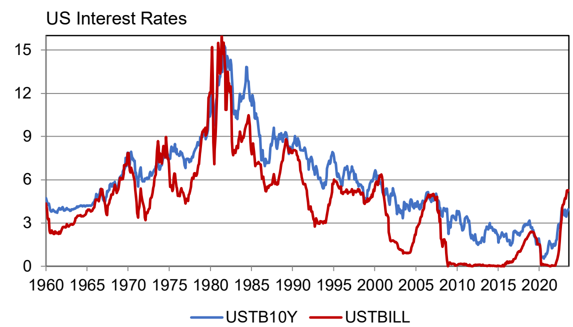
Source: Refinitiv DataStream & Strategic Frontier Management

A normal interest rate gap versus CPI inflation of 1% historically compares to the Fed's forecast of just 0.7% vs. PCE inflation. If PCE Inflation + 0.5% = CPI Inflation, would a more logical interest rate gap of 1.5% be more appropriate? Our current long-run forecast for interest rates is 3.5% or 3% CPI + 0.5% normal versus the Fed's 2.6% forecast. Given a 4.5% average over 60 years, we'd suggests 4% is more likely than 3%, in this regard. We expect CPI Inflation will average 3.0% (PCE inflation = 2.5%), and Real Potential GDP will average 1.8%, down from 2.5% we estimated in 2019.



Source: Refinitiv DataStream & Strategic Frontier Management

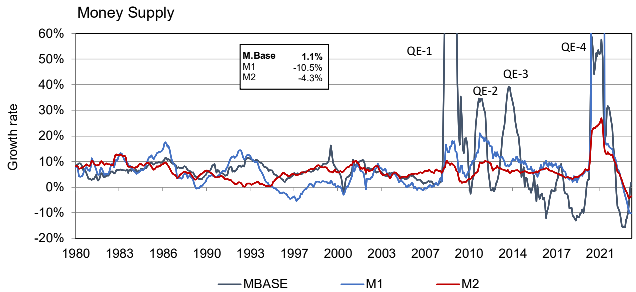
Considering the chart above, a strategist beginning their career 12 years ago never witnessed positive Real Treasury yields—how much would that affect our collective bias about yield curves and real interest rates? The bond market correction in 2022 did improve real yield valuation, but real Treasury bond yields are still negative. We conclude that risk-free cash earning over 5% and short-term bonds or credit are more prudent alternative investments at this time.



Source: Refinitiv DataStream & Strategic Frontier Management

Given the 40-year decline in interest rates and decade-long manipulation of bond yields, investors likely have become too complacent about risk of bond market loss. However, investors are surely growing weary of persistent losses on bond portfolios, and we expect bond yields will increase further in 2023-2024. If long-term CPI inflation averages 3%, then 10-year Treasuries should exceed 5% in 2023 on the way toward 5.5-6.0%, as global yield curves should steepen. Thus, a normal term rate risk premium can infer a Treasury 10yr - 3mo. slope of 1.5%. Given 5.25-5.5% Fed Funds rate, we believe 10-year Treasuries should trend toward 6.5-7.0%.

Low interest rates pulled forward consumption by lowering financing costs and reduced interest expenses for mortgages, businesses, and even government, but sacrifices future economic growth potential. Now we must reckon with extreme volatility in money supply after years of QE must be unwound. Money supply growth has fallen below 0%, knowing less than 5-6% will limit U.S. potential growth. We expect to similar issues globally.

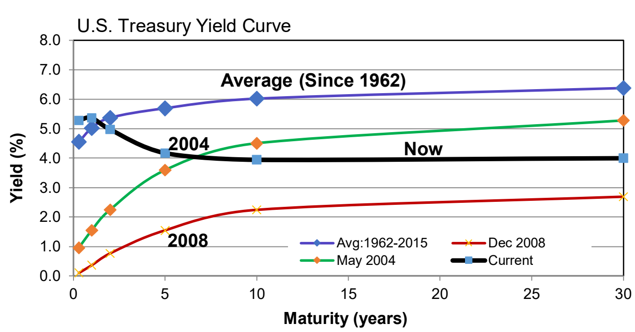


Source: Refinitiv DataStream & Strategic Frontier Management

A sustained contraction in money growth—necessary to reverse QE—can trigger bond liquidity issues or even a financial crisis, if not limiting potential growth for years. Accelerating draw-down of central bank holdings should indeed have a far greater impact on achieving the Fed's goals—this is where Chairman Powell's lawyer instincts are of little help with complex economic or financial challenges in the uncharted realm of managing unwinding unconventional monetary policy.

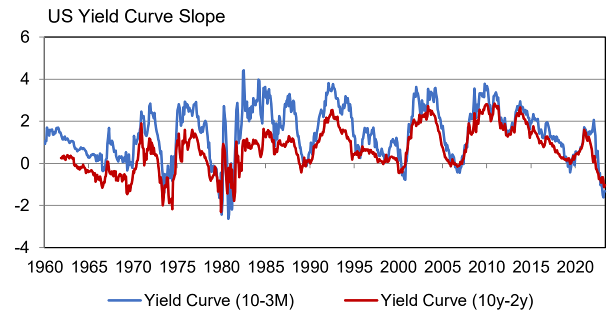
Slower economic activity and limited credit are a likely consequence of reversing emergency policies extended beyond their usefulness resulting in low to negative money growth. Further interest rate hikes may be necessary, although we are likely close to a peak, yet we don't expect a pivot to cutting rates before mid-2024. Other central banks also waited too long to begin unwinding monetary stimulus, and have a ways-to-go before their rates peak.

While investors are fixated on rising interest rates, normalizing the Fed's balance sheet may have a greater effect on steepening the yield curve, and risk causing a global financial (liquidity) crisis due to overreliance on unconventional monetary policy. Government bond yields should increase to reflect a term risk premium (10y-1y = 1.5%) reflected in yield curve slope. If interest rates exceed 5%, then 10y Treasury yields should exceed 6.5%. If interest rates average 3.5% vs. CPI inflation averaging 3.0%, why is the yield curve inverted now given economic conditions? Global yield curves should steepen. resulting in extended bond market losses. Consider how much the yield curve differs from May 2004 (start of rate hikes: 10y-3m = 3.5% or Dec. 2008 (10y-3m=2.2%) during the Global Financial Crisis.



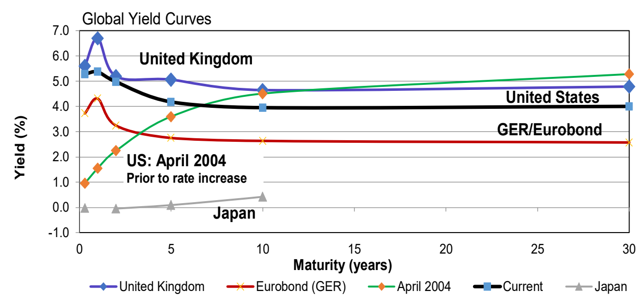
Source: Refinitiv DataStream & Strategic Frontier Management

A flat yield curve is inconsistent with high inflation that still is not contained, and uncertainty about how high rates must go. A global bond correction, after a decade of manipulation, could trigger the next financial crisis. We expect greater economic, currency, and bond volatility with flatter yield curves that need to steepen significantly.



Source: Refinitiv DataStream & Strategic Frontier Management

Most other non-US central banks have inflation target mandates that limit their ability to defer rate increases—so, inflation targeting central banks have a whole lot of catch-up to do. The Bank of England, Canada, Australia, New Zealand, Switzerland, and the European Central Bank, as well as Japan are lagging behind in hiking interest rates. Investors still resist the need for an upward sloping US Treasury yield curve. The Bank of Japan is holding significant Japanese Equity ETFs that must be unloaded too, suggesting Japanese equities may remain a value trap.



Normalizing global yield curves could result in even greater losses for bond investors from sovereign wealth funds to retirement plans and pension funds, as well as insurance companies (i.e., DB risk transfer) with long average maturity or leveraged bond holdings. Cash or short-term and floating rate bonds are better cheap alternative investments for the intermediate term.

We remain concerned about further downside risk for US bonds. Rising bond yields may overshoot after years of central banks manipulating bond markets, which has compelled investors to extend bond portfolio maturity, or even leverage their portfolio, hoping to enhance return. Leveraged bond strategies are more common now, even among conservatively-run pension funds and insurance companies, engaged in risk transfer of pension liabilities.

Failing Banks

Banks were surprised by how fast the Fed pivoted from exceptionally low rates for the foreseeable future and harrowing cyclical inflation is only *transitory* to the most aggressive U.S. interest rate increase in 40 years. Banks backing deposits with imprudent extended maturity bond portfolios as bond yields plunged toward 1%, and underwriting speculative loan quality (payment in equity of start-up companies) with limited credit (spread) risk premium for unrated/junk debt. Rapid tightening aimed at curbing the highest inflation rates since 1970s put pressure on financial institutions, resulting in the largest bank failures (#2: SVB & #3: First Republic) since 2008.

Insolvency may arise if its liabilities exceed the worth of its assets, such that loans experience higher defaults or must be written down. Similarly, other assets held to secure deposits—such as government bonds decline in value, and must be sold to redeem depositors concerned about potential losses and withdraw their funds, causing a bank run. Unprecedented bank withdrawals could still trigger sale of securities worth less then current value (i.e., Treasuries held-to-maturity, not mark-to-market).

The *2023 Banking Crisis,* beginning with Silicon Valley Bank, could have been much worse if the yield curve had normalized, rather than inverting as it did. Just 4.2% 10-year Treasury yield was problematic for many banks, yet imagine if the yield curve hadn't inverted and 5¼% Fed Funds Rate actually drove Treasury yields toward 6¾% vs. 3¼% observed? An additional 3.5% increase in 10-year Treasury yield to 6.75% would've resulted in a 25% greater loss in market value, and exposed many other banks similarly to insolvency.

More than 92% of Silicon Valley Bank's deposits in excess of $250K/account were uninsured by FDIC. Concern about SVB's asset losses on longer maturity bond holdings and unrated private debt resulted in significant withdrawals exceeding assets held-for-sale. This led to SVB's collapse, and spread to similarly situated banks. Some estimates suggest US banking liabilities may exceed $2tn, if held-to-maturity securities were marked-to-market. Banks may earn interest by depositing excess reserves at the Fed, but SVB chose to invest in longer maturity Treasuries, attempting to enhance yield. SVB mistakenly assumed interest rates and bond yields would remain low. If the inverted yield curve normalized, insolvency could rapidly expand.

SVB's interest rate risk exposure was critical given its disproportionate share of uninsured deposits (exceeding $250K threshold). This exposed SVB to the risk of its held-to-maturity portfolio, which had declined in value, and needed to be sold at a loss. Once this information became known, a bank-run ensued. SVB didn't have a chief risk officer for most of 2022, which also is being probed. Are greater regulatory rules required, or was there a breakdown in regulatory supervision that monitors systemic risks.

Consequences of *explicit moral hazard* for investors, businesses, and households engaged in borrowing, lending, or investing arose again in the belief that interest rates would remain low for the foreseeable future (peril of forward guidance), and bad decisions followed. We know interest rates must normalize and yield curves are usually upward sloping. Bank managements failed to respond to rising bond yields before it was too late.

First Republic and Signature Bank were also seized by the FDIC. They, among others, suffered a similar fate as SVB. When a bank is insolvent, adding short-term liquidity is unlikely to salvage most situations. The U.S. Treasury directed the Federal Reserve to back all uninsured deposits of failing banks to prevent contagion. This was expensive for taxpayers, and compounded the mistake of explicit moral hazard after years of wayward (*No Easy Way Out*) monetary policy. The terrible precedent of providing a safety net by insuring losses has transferred moral hazard risk from uninsured depositors (>$250K threshold) to taxpayers. Sometimes losers need to lose for the price of risk to be recognized, rather than being bailed out time-and-again.

Earnings

Earnings growth and profit margins have been core principles driving our global tactical asset allocation research for over three decades. *Economic growth* translates *revenue* into *earnings* growth through *profit margins*. It is this multi-step translation that investors often fail to fully appreciate in their investment process—today equity investors seem fixated on high economic growth, but overlook differences in margins, currency effects, and even translation of revenue to earnings.

More realistic future earnings of 5-8% won't be enough to correct current extended valuations. Unfortunately, we are entering a period of falling margins as economic growth slows, and we've already observed negative sequential quarterly earnings growth. We now expect a decline in 2023, albeit just -1%, but it could get much worse. Other than 2021, which benefited from a post-pandemic rebound, including earnings of energy and basic material producers recovering from 2020 losses, earnings growth seems anemic.

Operating Earnings	2025e	2024e	2023e	2022	2021	2020	2019
IBES Consensus	6.0%	12.6%	-0.4%	4.8%	49.0%	-13.8%	0.1%
SFM Growth	6.5%	6.5%	-1.0%	4.8%			
SFM S&P500 Target	4600	4300	4000	3840	4766	3756	3231
Index Return (no Div)	7.0%	7.5%	4.2%	-19.4%	26.9%	16.3%	28.9%
Dividend Yield	1.74	1.75	1.67	1.75	1.29	1.48	1.85
S&P 500 @18x SFM TE	4410	4140	3888	3926	3746	2515	2919
SFM S&P 500 P/F12	15.0	15.0	13.9	17.8	21.9	18.0	23.1

Source: I/B/E/S and Strategic Frontier Management

We expect further decline in earnings estimates will increase downside risk. Persistent higher inflation combined with significantly higher interest rates could further undermine equity and bond investments. A normal earnings multiple should also adjust lower with higher inflation, higher interest rates, economic uncertainty, and greater equity volatility. If the US economy slows and margins decline, US earnings growth should be limited. With rising interest rate burdens, zombie enterprises and over-indebted nations deserve additional scrutiny with higher cost of capital.

Coveted Reserve Currency Status of U.S. Dollar

For some time now, others have talked of a multipolar world, or even complete demise of the U.S. Dollar as the world's reserve currency—why should America alone benefit richly from *transcendent value* attributable to the *exorbitant privilege*, of being the world's reserve currency? China, Russia, and many OPEC nations are fed up with preference for the US$, but what do they offer instead? The only alternative is the Euro, but it isn't in a better position to serve that role. Warren Buffet recently observed that *there's no option for any reserve currency, other than the U.S. dollar*. Larry Summer's suggested that *You cannot replace something with nothing* (likelihood of de-dollarization) in 2019.

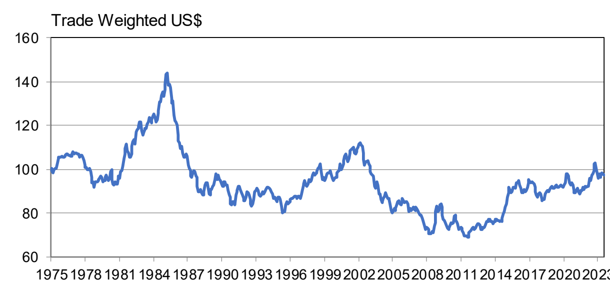
Consider the allocation of Global Foreign Exchange Reserves is dominated by the US$ over all the rest by over 2-to-1 margin. According the Bank of International Settlements, the share of global transactions still *exorbitantly* favors the US$, which remains steady at 80-90% of global transactions since 1989. Unseating the US$ would require evolutionary change over a long period of time, but there is no evidence of US decline yet.

Strategists, academics, and other globalists predicted an emerging *multipolar world* years ago. The case seemed compelling after a long period of a Unipolar World favoring the United States, given economic and financial (vs. military) supremacy transacted through the US$. This followed a bipolar Coldwar as America and Russia faced off for miliary supremacy. Could it be China will succumb to a similar fate Russia suffered militarily.

Europe has struggled during a period of economic compromise, slower growth, and loss of competitiveness (i.e., higher labor costs without sufficient innovation to reduce energy, resource, and labor intensity). In theory, European membership should foster transactional efficiencies by encouraging free movement of people, goods, services, and money across European borders. Instead, economic inefficiencies and compromised sovereign interests are necessary for the greater good of the region. This undermines global competitiveness, comparative advantage, productivity, and profit margins without greater fiscal and political integration beyond a shared currency. Supranational government of the European Union can conflict with sovereign interests. Consider the fortuitous outcome of the United Kingdom foregoing European Monetary Union (Euro: Jan. 1999), then exiting European Union (Jan 31, 2020)—real case study. Europe lacks the unifying commitment of the United States to economic organization under Free Market Capitalism rooted in property rights (pursuit of happiness), individual liberty, other inalienable rights, and equal opportunity, promoting entrepreneurialism and rapid creative destruction of innovation versus flirting with political organization (social planning) under progressive liberalism and democratic socialism.

After a long period of appreciation—much as we expected over the last decade—the US$ may experience greater volatility with increased uncertainty about relative economic and interest rate differentials (Note: Our tactical currency forecasts are dominated by several such relative relationships). However, unlike rigidity of a gold standard featuring fixed prices over long periods, the reserve banking system tends to have elastic and mean-reversion characteristics rooted in economic and financial market fundamentals of relative value (i.e., purchasing power or interest rate parity, etc.). Currency effects impact earnings translation and global competitiveness. Currency weakness can benefit global competitiveness of exports, but increase cost of imports, which boosts inflation.

We should expect more volatility in the US$, although the trade-weighted US$ was unchanged vs. 50 years ago. Foreign demand for US Treasuries hinged in part on stability of the US$, as well as its reserve currency status driving yields a bit lower—we never expressed much concern about China reducing Treasury holdings.



Cryptocurrencies are not currencies or a store of value, but instead are speculative virtual securities we equate to commodities without intrinsic value, like gold or other commodities. We have opposed investment in cryptocurrencies, including Bitcoin, because they are highly volatile and provide little benefit, if any, to portfolio diversification, nor are they an inflation hedge. Regulators including the Federal Reserve have been cautioning lenders for months about the risks of dealing in digital assets. If currencies have 0% expected return, setting aside interest rate differentials, then why would one expect cryptocurrency returns to exceed inflation, albeit with higher volatility than commodities?

Bitcoin was created to enable transactions without the intervention of a trusted third party, such as a central bank or financial institution. Many assume anonymity with Bitcoin, and scarcity given the hard cap of 21 million coins. That didn't limit creation of Ethereum, BNB, XRP, and many others, as well as hard forks of Bitcoin (i.e., Bitcoin Cash, Bitcoin Gold), and so-called stablecoins that hover close to $1, such as Tether.

Bitcoin and other cryptocurrencies are now preferred for illicit activities, such as ransomware attacks or extortion, as it enabled the darknet of illegal commerce. Bitcoin transactions became cumbersome, slow, and expensive (est. $59/transaction) with crypto reliance on wallets—all issues it was supposed to overcome. Crypto transactions are not anonymous, but they are pseudonymous, implying an unidentified name or wallet address can be traced to a transaction history or even the blockchain. The government's success in tracking and retrieving ransom payments suggests that cryptocurrency transactions are traceable. Confidence that it is a secure store of value was shattered by its persistent volatility, and repeated failures, such as: collapse of FTX/Alameda Research, BlockFi, Terra, and Luna, as well as Celsius, and Three Arrows hedge fund.

As with Currencies, the long-term expected return of cryptocurrency is 0%—Bitcoin is inferior to cash, particularly as risk-free interest rates rose over 5¼%. Higher interest rates increase the hurdle for cryptocurrencies vs. cash yields, so cryptocurrencies decline in real value as interest rates rise. Thus, if higher inflation drives up interest rates, how can cryptocurrencies be a good hedge for inflation, or stocks or bonds for that matter?

The Federal Reserve has been evaluating creation of its own Central Bank Digital Currency, as have many other central banks. It may seem the purpose is to facilitate transactional efficiency, reduce fraud, and enhance economic activity. The justification for suppressing cash seems to be to inhibit crime, terrorism, money laundering, counterfeiting, drug trafficking, and tax evasion. CBDCs enhance government control with ability to monitor transactions at will, and capability to freeze or seize their accounts. There is no reason that the world's reserve currency need transition to CBDC—it begs the question, what more would a CBDC (if not, loss of privacy) offer over existing stablecoins, such as Tether or USD Coin?

Loss of privacy by forcing payments through a digital currency financial system, expand government's ability to track private financial dealings. The *end of cash* would mean less privacy for individuals. A CBDC deposit would become a central bank liability, rather than a commercial bank liability, as a member of the Federal Reserve. In phasing out cash, these new deposit liabilities converted from cash would now be interest bearing debt, paid by the central bank. Commercial banks might still be responsible for customer-facing activities, such as storing wallets and distributing CBDCs, as well as to execute and record transactions, but who would be accountable for lending, credit, and underwriting decisions? Individuals would be unable to withdraw larger cash amounts, including to avoid losses if interest rates were set to be negative.

The theoretical notion of eliminating paper currency is not based on evidence of measurable benefit, increased revenue, or greater economic growth by phasing out cash. Central bankers and some economists are intrigued with the notion of reducing or eliminating paper currency, but most if not all the benefits of blockchain technology can be achieved through alternative and targeted policies. Suffice to say, we don't recommend strategic allocations to cryptocurrencies, believe there is a tactical return forecast other than 0% (vol = 161%), or support the notion of Federal Reserve Digital Currency.

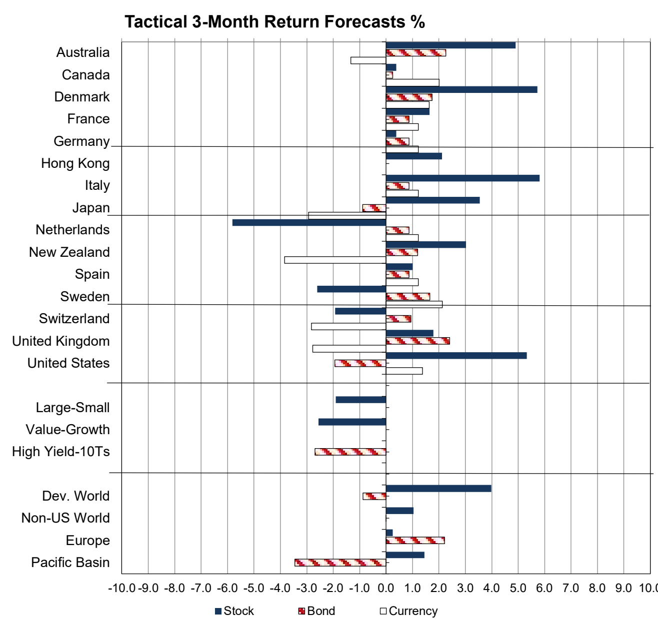
Global Tactical Asset Allocation Strategy

Asset allocation remains the critical determinate of long-term wealth. Our outlook reflects mean reversion of global bond and equity valuations, both which are stretched, as well as normalization of interest rates with improved economic and earnings growth. Long-term volatility and correlation expectations continue to evolve, which has implications for our strategic asset allocation. Investors should expect higher equity, bond, currency, and commodity volatility as interest rates and monetary policies normalize globally. Increased volatility within and across asset classes suggests expanded global tactical asset allocation opportunities. We believe that relative fundamentals will become more important and that *Countries Still Matter*, as do sector and risk factor exposures with varying cyclical economic forces again.

Global Tactical Asset Allocation Quarterly Forecasts(%)

			Local Markets		**In (US$)**		US$
MSCI	WrldGvt	Jul 2023	Equity	Bond	**Stock**	**Bond**	Currency
100%	100%	World	4.1	-0.6	**4.0**	**-0.9**	-0.1
19%	34%	Europe	0.4	1.1	**0.3**	**2.2**	-0.1
9%	19%	Pacific Basin	3.7	-0.7	**1.4**	**-3.5**	-2.5
31%	55%	Non-US World	1.4	0.5	**1.0**	**0.0**	-0.4
69%	45%	US	5.3	-1.9	**5.3**	**-1.9**	
		Cash		1.4		**1.4**	

	Lg-Sm	Va-Gr	High Yield - 10yT
US Style	-1.9%	-2.6%	-2.7%
	Small -	*Growth*	*10yTs*



Source: Strategic Frontier Management, July 2023

Even as equity markets declined in 2022, there wasn't much improvement in valuations as interest rates rose. We expect low-to-negative earnings growth will eventually be recognized by investors, particularly if high inflation continues to undermine productivity and margins. We think US equities will struggle to return 5-6% over the next decade. Higher interest rates, greater volatility, and lower earnings growth should limit equity earnings multiples (P/E: 14-15x vs. 18-20x). Global stocks should outperform Treasury bonds, but on a risk adjusted basis, with wide dispersion across countries and currencies, cash and cash-equivalents with low interest rate risk (low duration) will be a valuable holding. Small-cap and value equity tilts may be more appealing after the surprising 1H rebound in Large Growth Equity.

In fixed income, we recommend favoring shorter maturity and floating rate debt. Short-term bond funds with higher credit exposure enjoy higher current yield without much interest rate risk, particularly after credit spreads widened. We don't expect much volatility in the US dollar. We remain overweight cash, which is the only true safe haven for investors—not gold or bitcoin. Money market funds still charge high fees, but Treasury Bills can be owned on TreasuryDirect.gov. We prefer minimal interest rate risk of short-term bond index funds or cash.

Cash can be a prudent risk-reducing portfolio diversifier and better store-of-value than gold when tactical equity forecasts suggest reduced upside, alternatives are costly with marginalized expected return, increasing commodity supply exceeds demand, and global bonds are still overvalued. As interest rates rise in an asynchronized fashion between countries, global asset allocation opportunities should expand with volatility.

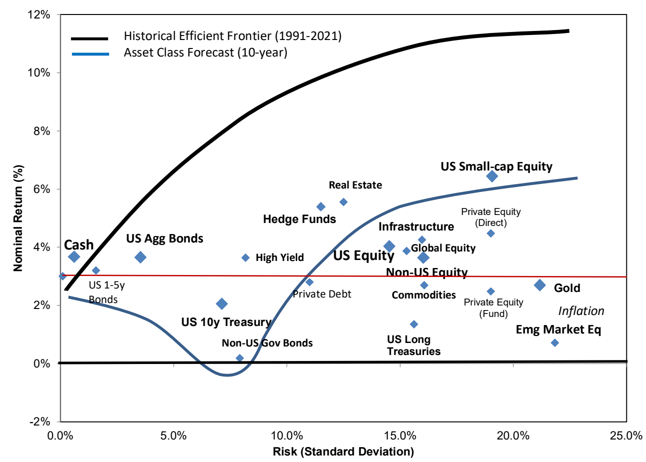
We suggest active management can be a constructive *alternative investment*, providing greater diversification, while enhancing return, but at lower cost and increased transparency than hedge funds. Value added of active strategies is often enhanced by greater market volatility and higher interest rates, including security selection and global tactical asset allocation or currency management strategies. Security selection strategies have struggled for years, as have value and small-cap factor tilts. If value index tilts aren't paying off, is it surprising fundamental analysis struggled, but we observe opportunity in widening valuation dispersion.

Strategic Asset Allocation

Balanced 60/40 strategic asset allocations may need some tactical tuning (i.e., shorter fixed income maturity, limited Emerging Market equity, and fewer alternatives), but pension funds continue to struggle to keep up with the classic 60/40 prudent man balanced strategy. Our proprietary strategic asset allocation frontier always included less risky short-term bonds as a dedicated asset class, which can exceed US bond allocations in more conservative portfolios, thereby minimizing cash.

Our strategic allocation forecasts reflect similar valuation, inflation, and interest rate concerns of our global tactical forecasts. We revised US potential real growth lower toward 1.8% last year. Global bond markets remain overvalued with negative real yields. Extended mispricing of risk can have adverse systemic financial consequences. Cash or short-term and floating rate bonds are better cheap *alternative investments* than any other public or private capital market.

We expect negative real bond returns for Treasuries over the next five years. The need to normalize yield curves suggests there is further downside for bond market returns. Alternative investments continue to be a drag on simple global balanced strategies on a risk-adjusted basis net of fees. Low volatility equity anomaly broke down during the pandemic—for those seeking refuge, it didn't work. If returns to equities and bonds are low or negative, returns of alternative strategies should be even lower, particularly without low interest rates and lower cost of capital.



Source: Strategic Frontier Management

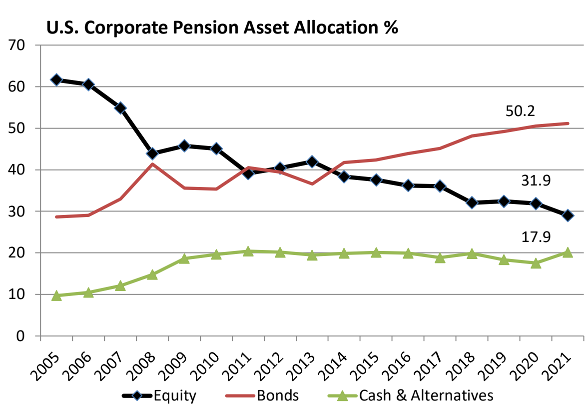
Retirement savings and dismal pension funding ratios will continue suffer if high inflation persists and we can't lift productivity, potential growth, and earnings growth. Retirement savings plans (i.e., 401(k), 403(b), 457, IRAs, etc.) were trashed in 2022 given negative global equity and bond market returns, plus high inflation that ravaged real purchasing power. The S&P 500 tumbled over -18%, as Treasuries declined -16.5%. Emerging Market Equities sunk over -30%, as we had forewarned and continue to question. While U.S. large growth stocks recovered somewhat in 2023, declining productivity and profit margins suggest equity returns will likely struggle given further extended valuations, high interest rates, and negative earnings growth expected.

We concluded long ago commodities, gold, and particularly cryptocurrencies are *imprudent* strategic asset allocations. Our investment conclusion has been to avoid commodity investments—that long-term view served us well for more than a decade on a risk-adjusted basis: *input costs can't exceed output cost, therefore commodity returns can't exceed inflation.* Long term empirical returns to commodities going back to 1900 confirm this relationship:

Commodity Returns **=** Inflation **–** Holding Cost (½%)

A 2.5% average return for commodities with a 15% volatility is way off the efficient frontier—no amount of diversification can offset that, even if commodities weren't positively correlated with equities. This relationship should also hold for Gold. Real assets with no income will struggle to beat cash, but with much higher return volatility.

Financing short-term or floating rate debt to increase longer duration bond holds can quickly sour. Orange County's 1994 default triggered by a leveraged Treasury strategy financed short-term. Other similar instances involving leverage remain a concern. Last Fall, the Bank of England needed to support a liquidity crisis among pension funds that extended maturity and even leveraged holdings in Liability Driven Investing[2] strategies. We have expressed concern about increasing bond leverage in global public and private pension funds implementing LDI and risk parity strategies with leverage, as championed by investment consultants as *risk mitigation* or volatility dampening of *pension funding ratios*. We witnessed in the United Kingdom last Fall how quickly a liquidity crisis can affect pension funds—Canada and the U.S. could experience similar problems, in our opinion adopting strategies with increasing derivative use to facilitate bond leverage



Pension plans are considered prudently healthy if their Funding Ratio = Assets / PV(Liability) exceed 80%. The chart above is worrisome given our expectations for negative real bond returns over the foreseeable future. Consider how the *prudent man* standard of 60/40 (i.e., 60% equity) balanced strategies have changed in the last 15 years, and what effect 2008 had on *investment policy statements*, for portfolio strategy. Given returns over this period, how much better off plans would have been in a 60/40 portfolio? We have observed how public and private pension funds lagging simple balanced portfolios (no alternatives, commodities, etc.) over the last decade. Expanding holdings of illiquid alternative investments, have been disappointing net of management costs and fees, yet individual investor still fear missing out on illusive gains.

We have cautioned maturity extended and leveraged bond investors after significant manipulation of global fixed income markets, particularly asset owners adopting *Liability Driven Investing* (LDI) and *Risk Parity* strategies. How can pension funds expect to meet long-term return objects, which still exceed 5-6% with portfolios so dominated by bonds, rather than equities?

A *Strategic Frontier* theme beginning in 2021 was withering of Emerging Market comparative advantages. Russia, China, and Brazil are among the largest market capitalizations, but economically Socialist countries are in decline losing comparative advantages by limiting free market competition. China increased dominant market share of cheaper and strategic exported basic materials (i.e., aluminum, steel, chemicals, etc.), consumer goods, electronic components, pharmaceuticals, and parts, many of which were labor intensive and/or nationally strategic to importing countries.

China powered its economic growth by building factories, skyscrapers and roads, as farmers moved to the cities. The model produced exceptional economic growth, but was powered by state-controlled and subsidized companies that exported an ever-increasing amount of goods and strategic materials. It lifted many families out of poverty, and liberalized capital markets. Yet, the model was not sustainable. The government debt problem observed today is concentrated in low-return state-owned enterprises, which expanded in the Xi Jinping era. Public debt in local government financing vehicles fueled excesses in the property market with runaway land sales as economic power pivoted from private sector back toward CCP/state sector under Xi.

Comparative advantages have been fading for Emerging Markets with automation and higher transportation costs. Emerging markets had benefited from lower labor costs, limited regulation, state sponsorship (managed trade), and lower tax rates, as many that pegged their currency to the US$. We've long observed urbanization, industrialization, emerging culture of credit, and irrepressible demand were key themes supporting greater economic growth. However, globalization has been increasingly restrained by concerns about strategic resources and services, including supply chain reliability,

[2] Liability Driven Investment: Investment strategy introduced as a solution to a problem created by international accounting standards, which drove pension plans to focus more on present value of liabilities, dependent on a given discount rate, rather than expected future values of plan assets and liabilities. By seeking to hedge current estimated funding deficit volatility with longer duration bonds, including use of leverage, they borrowed short-term debt to boost long duration (interest rate sensitive) bond portfolios without regard to unusually low interest rates/inverted yield curves or effect of long-term risk-adjusted expected return.

quality, and exposed trade dependencies. The forces of the *Fourth Industrial Revolution* have undermined the competitive advantages of Emerging Markets, resulting in lower global competitiveness, productivity, and other comparative advantages due to increasing adaptive automation and reshoring of manufacturing.

Labor and regulatory cost advantages enjoyed by Emerging Markets over three decades are increasingly marginalized by rising energy and transportation costs as technology innovation reduces labor and resource intensity—it's becoming more cost effect to manufacture locally in the US with greater quality control and oversight, than offshore production. Changing currency levels may provide some competitive advantage in the short-term, but is not sustainable long-term. China's yuan devalued by 13% since January 2021, but real growth is still languishing due to declining productivity, and profit margins, as we've discussed.

Our concerns in avoiding China since 2021 have only become more critical given declining competitive advantages of low-cost labor, commodities, and energy, with minimal regulation. Developed nations now seek to reduce import dependency on strategic goods and services from China. The Commerce Department also has been reviewing Chinese goods manufactured by state enterprises linked to the CCP that may present unacceptable threats and national security risks to US citizens, institutions, businesses, and essential services.

China, and lesser extent in other Emerging Market economies, aren't able to sustain subsidies, or limit rising labor, energy and commodity costs as they deplete natural resources. Globalization and offshoring began years ago, as we discussed. Robotic automation is indifferent to geographic location, thus labor intensity declines with innovation and lower labor costs cease to be a comparative advantage. Re-shoring will accelerate further with ubiquitous innovation. Even if Emerging Market growth rates exceeded some developed countries, productivity and profit margins are lower, so the translation to earnings growth remains poor.

China is experiencing much slower growth without real innovation, unfavorable demographics, trade disputes, reversal of financial liberalization (capital outflows), and a widening geopolitical divide with the West, jeopardizing foreign investment. Exports are declining, although once the primary engine of China's economic growth. Rather than just a period of cyclical weakness, we believe this could be the sunset of a secular era of Emerging Market growth. What worked when China was playing catch-up, leveraged access to Western innovation and education, makes less sense now as the country is drowning in debt, conceded its comparative advantages (i.e., labor costs, lax regulatory overhead, cheap capital, resources, etc.), and thus losing export market share it can no longer afford to fund through SOEs.

Finally, an emerging military and economic alliance between Russia and China is a new challenge to America, but remains unlikely to challenge the reserve currency status of US$ without further financial liberalization, an open capital account, and ending capital controls in both countries. China may seek to be a lender of last resort, and may achieve some traction therein--particularly with regard to *Belt-and-Road* efforts, but few developed nations need what China offers. Its partner Russia (at war with Ukraine) can't be trusted. China's weaponization since the global pandemic of strategic trade in critical basic materials, resources, and other essential goods, predominately produced by China has alarmed U.S. allies. It begs the question, if *multipolarity* requires a global financial or economic system dominated by multiple countries or regional blocs, who is truly able to carry that burden, and what changed to bring that about vs. America?

What Matters Most

The divergence from *Natural Order* is that the Federal Reserve and other central banks manipulated global fixed income markets for 15 years, since the Global Financial Crisis. The effect has to been to flatten yield curves through quantitative easing and forward guidance, then driving the whole yield curve lower on average by holding reference rates (Federal Funds Rate) near 0% for too long. We have long suggested that global bond returns will struggle to earn a positive real return for an extended period.

Policymakers played fast and loose for a decade with lower than appropriate interest rates for an extended period, extending QE, and pressing forward guidance of policy interest rates. It took too long for the Federal Reserve to realize delaying monetary tightening was reckless as CPI inflation rose from 1.5% in 2020 to 8.9% by mid-2022 believing inflation was *transitory*. Policymaker reluctance to tighten monetary policy triggered even higher inflation expectations. Interest rates rose a remarkable 5%, yet inflation is still grinding away purchasing power and retirement savings.

Poor policy decisions of this Administration have crippled economic growth by undermining productivity and incentive that drive American entrepreneurial spirit. Misguided Economic, Energy, Trade, Labor, and Foreign policy changes while believing in too many *Impossible Things* undermined American productivity, competitive advantages, prosperity, national security, and global competitiveness. Who imagined such a radical change in policy, which would cause such a rapid deterioration in U.S. economic fortune with CPI inflation approaching 9% in under two years? Labor and housing costs are particularly difficult to bring down once they increase without severe deflation, if not recession or depression. With more than 60% of government spending indexed to CPI inflation, the US Budget is more susceptible than ever to stagflation of slower economic growth and higher inflation. High interest burden of debt with rising bond yields will make it worse. U.S. dollar strength has limited inflation, but any US$ weakness may drive higher import prices. Energy prices remain volatile too. Thus, an equilibrium S&P 500 P/E of 14-15x is more likely vs. 18-20x assumed.

We are now deeply indebted without a fiscal safety net to support us in a crisis. We have sacrificed energy independence and border security as crime rates soared in cities managed by inept progressive bureaucrats. The speed which this happened was breathtaking, but only possible with administrative statism emboldened by authoritarian controls post-global pandemic, combined with Executive Orders and Executive Branch control over agencies that manage regulations and rules. Much of it can be quickly dismantled with a change in Administration.

Perception of Bidenomics, and the Administration's dismal track record for managing the U.S. economy increases likelihood of *Re-wilding America* with a new Administration. That is the risk of reliance on wielding a *pen-and-phone (ref: President Obama beginning second term)*, rather than patience of working through Congressional legislation.

US pricing power and manageable labor costs were generally absent over the last two decades with persistent disinflationary forces of the *Fourth Industrial Revolution* and globalization. Instead, inflation jumped to over 9% by June 2022. Non-transitory inflationary forces boosted secular inflation expectations, and we expected to observe later cycle conditions such as higher inflation, slowing real growth, and stalling productivity for years to come as a result of increased policy-driven economic inefficiencies and unleashed inflation expectations.

Unrelenting fiscal deficits with high government debt will drive increasing interest burdens of higher interest rates required to battle inflation. This has exacerbated financial and economic imbalances to amplify market volatility. Slowing economic growth and lower margins have caused a U.S. earnings recession, as credit rating agencies express concern about U.S. Treasury debt. A reckoning of government spending must address unsustainable fiscal deficits, as rising interest burdens coincide with rapidly increasing bond supply and faltering investor demand increases risk of a global debt liquidity crisis given increasing financial instability.

Negative equity and bond returns have devastated retirement savings, pension funds, and other asset owners' portfolios depending on investment returns in excess of inflation. However, despite a correction in both stock and bond markets in 2022, valuations are still stretched—even more so for US Growth Equities, which have been roaring back---although still not at new highs. We believe even higher bond yields will further undercut speculative global equity valuations.

US equity earnings yield hasn't improved given much higher interest rates now and flat to negative growth in earnings. Inflation is persistently higher than we expected, so real yields are still negative and the yield curve is inverted. We believe the Treasury 10-1yr curve needs to steepen as much as 2.5%, even as short rates continue to rise. The Fed is also reducing bond holdings, but there still has been little adverse impact on employment. With declining productivity and material non-transitory inflation that boosted inflation expectations, we expect there is still greater downside risk to the US and global equity markets in the near-term.

Risk of a global bond liquidity or financial crisis was enhanced by manipulating free markets for an extended period. Central banks globally are under increasing scrutiny to deal with rising inflation—those who explicitly target inflation little choice, but to reduce bond holdings (QE), and raise interest rates until inflation is contained closer to its respective inflation target. Emergency monetary stimulus ceased to be needed at least a year ago, as economic conditions normalized. Naïve policy stimulus presumed without consequences increased risk of recession due to needed normalization.

Free Market Capitalism as an economic organizing system has enabled incredible economic and social progress, while lifting global living standards in the developed world. The answer to society's current ills is incentivizing competition, free markets, and greater economic freedom. Capitalism, as an economic organizing force, delivered on reducing poverty, inequality, exploitation, class conflict, undue suffering, and unproductive behavior. Belief that the free-market capitalist system no longer works for average people, and increases inequality is historically nonsense, and begs the question of what did progressive socialism and Marxism deliver as a political and social organizing system over generations.