STRATEGIC OUTLOOK

Strategic Frontier Management Q3 2022

Summer of Discontent

- Rounding out The Summer of Discontent, we have observed an unsettling US economic decline in potential real economic growth with normalizing interest rates with higher average inflation triggered by rising inflation expectations. Declining productivity and profit margins began after the Biden Administration undermined economic and trade policies in 2021. Never before have we observed such a rapid decline in key performance indicators spanning inflation and growth to profitability and margins, while dramatically undermining of individual rights and liberties, as well as free market capitalism. The multiple empirical economic lessons observed in the policy pivot of just 18 months versus the last Administration are impossible to overlook or dismiss: You break it...you own it.
- US CPI inflation is far from transitory, and likely to linger for a year or more still well above 4%, in our opinion. Sustained high inflation now exceeding 8% and now higher inflation expectations has become a key voter issue headed into US midterm elections. We discuss below why higher inflation and slower growth in the US are self-inflicted by misguided pivot in many US policies and legislation, as well as some state government policy errors, since early 2021.
- Even if the inflation rate peaks soon, the damage of sustained higher inflation rate can't be undone even if the fairy-tale of sub-3% inflation in 2023 were possible, but is unlikely to be relinquished soon. Pricing power is observed for the first time in decades. Higher inflation expectations drive labor demands for exceptional wage increases, and impacts inflation-indexed costs of Social Security benefits, Medicare, pensions, health care services, housing or rent, entitlements, and other contract costs. Higher interest costs boost federal debt, as do losses on Fed's holdings (not mark-to-market). High US debt and fiscal deficit require spending restraint.
- Thus, nondiscretionary government program costs will also soar, driving higher US fiscal deficits just as financing costs have more than doubled with 10year Treasury yield exceeding 3.5%, and that could exceed 5% in 2023. Reducing holdings by refunding maturing bonds, isn't sufficient, so Quantitative

- Tightening requires selling Treasury and Mortgage bonds at taxpayer loss given a dramatic increase in long yield. If the Fed is required to hike toward 4.5% as mandated to maintain stable prices, this too should usher in slower US growth. However, this won't undo higher cost of food, goods, and particularly services without extraordinary deflation—rarely observed in the US. So, this is the reality of explicit moral hazard of successive QE, negative real rates, and forward guidance, as we forewarned, and exacerbated by coordination with other global central bank, in this regard.
- US economic growth will continue to slow as the Fed continues to hike interest rates, and balance sheet normalization impedes money growth (credit and liquidity), which we expect will be negative (or just slightly positive) for the foreseeable future. Slower real economic growth will limit potential earnings growth and household income, which in turn limits upside to tax revenues. Think of the next two years as the wicked hangover after a decade-long flirtatious party of overly stimulative monetary policy.
- US economic indicators like retail sales, industrial production, unemployment, consumer confidence, and housing all traced similar narrow V-shaped decline and recovery, whipsawing economic and earnings growth. IInflation undermines real income and earnings, thereby risking consequences akin to return limiting 1970s poor policy-driven stagflation.
- We expect US real economic growth and margins should slow as excessive stimulus rolls off, and poor policy decisions take hold. Productivity, global competitiveness and profit margins can suffer as reckless fiscal, tax, regulatory, energy, trade, and foreign policies of this misguided Administration are judged. The US Government's binge on monetary and fiscal stimulus will end, accelerating bond losses, resulting in an epic economic hangover. Policy stimulus that pulled forward consumption for an extended period reduced potential growth. Interest burden of soaring debt and higher rates will increase fiscal deficits. The fiscal and monetary cliff could be breathtaking, fearful of the Fed's final act.

STRATEGIC FRONTIER MANAGEMENT STRATEGIC OUTLOOK

It Matters What You Believe

Investment strategy can be dictated by the phase of a business or investment cycle. Yet, given the origin of the recent self-inflicted recession, we haven't embarked on a new business or market cycle. Instead, we've observed an interrupted and still extended cycle after a transitional artificial recession due to pandemic lockdowns. Favoring an investment playbook consistent with early cycle recovery could be costly. Instead, we expect to observe later cycle conditions such as higher inflation, slowing growth, stalling productivity or even stagflation. Declining profit margins can be aggravated by backfiring fiscal, regulatory, energy, and trade policy reversals observed.

We observed progress in *US Monetary Normalization* since mid-2016, but the Global Pandemic caused central banks to slash interest rates and re-start QE bond purchases in Q1/2020. US Treasury yields have been relatively unresponsive to recovery or higher inflation over the last year. Negative real bond yields across global yield curves are not justified with no evidence of recession, particularly as global inflation rose. Debate about whether inflation is *transitory* still leaves little room for most inflation-targeting central banks. Central Banks must reverse negative real interest rates, quantitative easing, and extended forward guidance.

The Fed has indicated it soon expects to taper or slow bond purchases, which will be followed by reducing government bond holdings and then hiking interest rates. This should soon push up bond yields anticipating tighter monetary policy and rising interest rates. We expect US interest rates beginning to normalize in 1H/2022, and suspect the UK's Bank of England likely is not far behind. Most investors presume the US is leading monetary normalization, but Australia, Canada, and New Zealand have already begun tapering their QE programs, while Japan nearly halted QE without much fanfare since May.

Rising global bond yields will increase fiscal deficits as maturing and refunded bonds are refinanced at higher rates, further reducing the US discretionary budget with an increasing interest burden. Bond loses with rising yields can overshoot after years of central banks manipulating global bond markets, which compelled investors to extend average maturity and even leverage their bond portfolio. We expect global bond returns will struggle to earn a positive real return over the next 5 years. Rising interest rates also tend to limit equity returns with already stretched valuations. Lower equity and bond returns can be devastating for retirement savings, pension funds, and other asset owners depending on positive real returns.

Earnings growth exceeded 36% in 2021, but realistic future earnings of 5-8% won't be enough to correct extended valuations or provide much return.

Thus, cash and short-term bonds should will be the best low-cost alternative investment over the foreseeable future. Private markets can't avoid a rerating of public equity and bond markets given their mark-to-market dependency. Any private illiquidity risk premium, if not discount, can't overcome valuation reversion to normal. In a low return environment, netalpha (net of costs) is more significant and alluring, so long-short or hedge fund (inc., global macro, tactical asset allocation, or currency management) strategies can be more appealing, even enhanced by greater market volatility. Yet, differentiating outperforming active managers or security selection strategies has always been challenging.

Economic Outlook

Misguided US policies triggered higher costs of labor, energy, food, basic resources, transportation, and housing, as well as services and imported goods. Increases in minimum wage, regulation, and tax rates can drive higher secular inflation, including regulation of energy and material production or distribution. US pricing power was absent due to the disruptive and disinflationary forces of the Fourth Industrial Revolution, boosting globalization, competition, and creative destruction, but these forces are subsiding. Nontransitory forces of inflation now triggered rising inflation expectations. A year ago, we expected US CPI inflation to exceed 5% in 2021, but settle near 3.5% by the end of 2022.

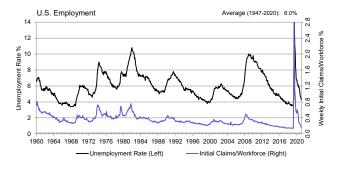
Economic Forecasts	2019	2020e	2021e	2022e	2023e	2024e
GDP Growth (Y/Y Real)	2.4	-2.5	5.5	3.0	2.5	2.3
S&P500 Op Earnings Gr	0.6	-13.1	45.3	7.2	5.4	4.3
CPI Inflation (Y/Y)	2.3	1.5	7.1	7.0	4.0	3.0
Unemployment	3.5	6.5	5.2	3.9	4.2	4.5
Fiscal Deficit (vs.GDP%)	-4.7	-14.9	-13.4	-7.0	-5.0	-4.0
Fed Funds Target ¹	1.75	0.25	0.25	3.25	3.75	3.75
10y Treasury Notes	1.92	0.91	1.50	3.75	4.50	4.75
S&P 500 Target	3231	3756	4766	4000	4500	5000

Source: Strategic Frontier Management

Our US economic and earnings growth forecasts seem encouraging, but are consistent with recovery from the transitional recession of the global pandemic. Whiplash sentiment in economic activity and equity markets reflected the transitory recession due to policymaker's lockdown (limiting travel, essential workers, etc.) of the global pandemic. Supply chain chaos reflects challenges of restarting economic activity and limited inventories, but the economy easily avoided an expected double-dip.

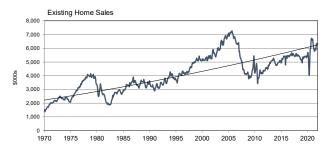
US economic indicators like industrial production, retail sales, unemployment rates, consumer confidence, and housing all traced similar narrow *V-shaped* economic decline and recovery. NBER defines recessions as two

sequential quarters of negative growth, but tells us that the 2020 recession lasted just two months (March-April) by straddling Q1-Q2 2020. Unemployment peaked at 14.8% in May 2020, but now dipped below 5%. Still, the Fed's long-run expectation for unemployment rate has declined below 4% despite averaging 6% over 70 years.



Source: Refinitiv DataStream & Strategic Frontier Management

Low interest rates encourage greater leverage, particularly in housing finance. Persistently lower interest rates fuel imbalances, but also increase moral hazard if rates rise more quickly than anticipated. Housing inventories declined as new construction slumped in 2020, but as demand increased with rising household formation coinciding with limited new and existing housing supply, building costs were increasing and volatile. Housing's contribution to CPI inflation is 33% (43% of core inflation: ex-food & energy), so is it not surprising rising housing costs continue to drive inflation higher. It will take a while for inventory to rise enough to correct the supply-demand imbalance. Residential prices jumped 10-30% or more per square foot. Emergent demand for vacation homes have led increases after a decade of marginal demand, as workfrom-home and pursuit of alternative low state tax residency (SALT havens—FL, AZ, NV, TN, TX, WA, ID) trends took hold. Low interest rates and a flatter yield curve for an extended period, which drove mortgage rates below 3%, in part explains rising housing costs. Clearly housing has more than recovered from 2020.



Source: Refinitiv DataStream & Strategic Frontier Management

Disinflation benefited from creative destruction and efficiency gains that reduced labor, energy, and basic material intensity. Conservation, substitution, and efficiency innovation not only reduced price and volume of energy and basic material consumption, these forces increased their supply too. Exploration, mining and drilling are more productive with innovation. Productivity enhancing automation of adaptive robots and artificial intelligence with advances in sensors and additive or 3D-manufacturing disintermediated human intensity and accelerated prototyping. Time, effort, and cost to bring a new product to market has declined with computer-aided design and simulation to efficiently optimize engineering and designs.

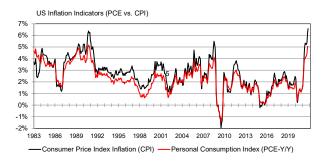
We believe disinflation was symptomatic of the now maturing Fourth Industrial Revolution driving creative destruction of technology innovation, thereby instilling reduced labor, basic material, and energy intensity. Over the last 20 years, we grew accustom to disinflation behavioural biases moderating inflation expectations. We think this explains in part why persistent easy monetary policy since 2008 hasn't triggered cyclical inflation most economists expected. However, inflation should be more difficult to restrain as disinflationary forces diminish. Thus, we must adapt to increasing inflation expectations reverting to historical averages globally.

Transitory Inflation: NOT!

We now know that government expectations for transitory inflation were terribly misguided, particularly once higher inflation expectations took hold. Many forces underpin rising inflation expectations, including cost of housing, utilities (natural gas, water, sewer, heating oil, electricity, telecom/internet), labor fuel, transportation, food, and even anticipated tax increases. Supply chains can be difficult to re-establish and new regulatory requirements contributed to marginal businesses failing recently. Low inventories take time to normalize, but other difficult challenges include getting employees back to work—vaccine mandates increased separations. Many occupations are not conducive to working remotely as business productivity still suffers.



Chairman Powell has suggested high inflation is only *transitory*. Six months later, inflation is even higher across all inflation indices, including: CPI (6.2%), PCE (4.3%), PPI (25%), and GDP deflator (4.5%). Nothing about our charts below suggest inflation is *transitory*. The Fed continues to rely on their unique but inferior PCE inflation index, used only by the Federal Reserve, and inconsistent with inflation indices in other countries. CPI has been in use for generations to index price increases for contracts and wage or benefit cost of living increases. PCE also seems to consistently lag changes in CPI and averages about a 0.5% lower inflation rate.



Given a significant rise in *inflation expectations*, which tends to encourage increased pricing power, how can inflation be *transitory*? We thought it inconceivable that CPI inflation could persist below 3% or 10-year US Treasury yields would remain below 3-4%, particularly if inflation rose back above 3%. We forecast a Treasury yield of 1.8% by year-end and 2.6% next year, which is still far less than our inflation forecast, rather than typically 2.0-2.5% greater than inflation.

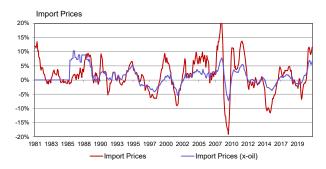


Source: University of Michigan

Startling CPI inflation over 6% is <u>NOT</u> Transitory, in our opinion, although it should moderate somewhat. The idea of transitory inflation began as a forecast in March, but soon became a political hope by summer. Even higher inflation is now a bad nightmare that will extend for at least a year. Inflation has spread globally and now is imbedded in US inflation expectations. Debate about defining transitory in terms of horizon or magnitude is simply futile now. Central banks are under increasing

scrutiny to deal with rising inflation—those who target inflation have little choice but to end QE and raise rates.

Labor and regulatory cost advantages are being marginalized and offset by rising transportation costs. Chinese workers seek higher wages and automation is indifferent to geographic location—that suggests reshoring (opposite of offshoring) should accelerate with ubiquitous innovation and creative destruction. Import prices have increased reflecting global inflation, albeit a little less so if we exclude oil.



Source: Refinitiv DataStream and Strategic Frontier Management

If you wonder how soaring inflation can coexist with such low interest rates and speculative overvalued markets, look no further than explicit moral hazard of central banks manipulating the fixed income markets for over a decade, which fueled financial imbalances. Negative US real interest rates cannot be sustained as economic growth has normalized and inflation surged beyond 8%, while boosting inflation expectations that drive longer trends of wage and housing inflation. Increasing US Treasury yields can still double again from current levels (rising from 1.5% to 3%), which will drive higher interest burdens for government debt with still increasing fiscal deficits. Other international bond markets should follow suit.

An arising thesis for us in 2006 as commodity and oil supercycles were emerging was that moderating energy and basic material demand intensity, plus greater production supply was a consequence of Conservation, Substitution, and Innovation. We inferred this thesis would limit consumption growth to below global growth, but also boost supply-most obviously affected was oil, although other basic materials realized it too. Our investment conclusion was to avoid commodity and energy investments that depended on higher commodity and oil prices—that long-term view served us well in strategic asset allocation since 2007, whereas: input costs can't exceed output costs, thus commodity returns can't exceed inflation. Long term empirical returns to commodities going back to 1900 confirm:

Commodity Returns = Inflation - Holding Cost

This relationship theoretically should also hold for Gold. Real assets with no income will struggle to beat cash, but with much higher return volatility. Cryptocurrencies are also commodities without income, nor correlation to inflation, as speculative virtual security that are too volatile to be a store of value and vastly inferior to cash, particularly once interest rates normalize.



Transportation fuel needs slowed with increased fuel economy, more electric vehicles, and workforce trends—accelerated by the pandemic—that reduced commuting and business travel. Miles driven likely reset at a lower level, but increased energy supply in recoverable oil and gas reserves boosted US energy independence, yet is being undermined by misguided new energy policies limiting exploration leases, production, and distribution.



Source: Refinitiv DataStream

The recent rise in oil prices is the result of recovery from depressed levels, but that is hardly reason to tap the US Strategic Petroleum Reserve (SPR) and a bad precedent considering previously authorized SPR sales included: Operation Desert Storm in 1991, Hurricane Katrina in 2005, and Libyan Civil War in 2011. The SPR was not intended to manipulate global oil prices, even if gasoline hovers near a seven-year high. When global oil prices soar 88% in a year, we expect gasoline, heating oil, and natural gas prices to rise.

Energy, commodity and basic resource prices recovered faster than expected, as supply chain chaos erupted with increased regulations. Purchasing power rose as household incomes jumped with stimulus checks, plus extended and enriched unemployment benefits. The US Government is running out of excuses for repeated governing failures, other than their own actions and decisions—US Treasury Sec. Yellen would like us to believe various *impossible things*:

- COVID-19 pandemic caused record inflation
- Inflation will retreat to normal (2%) by end of 2022
- Build-Back-Better will reign in Inflation

Stranger still is blaming energy companies for rising gasoline prices, as oil jumped 88% in a year. US energy independence has suffered, but pleading for OPEC to increase production, at the same time pipeline projects and oil production leases are suspended, seems ill-advised. And should the FTC investigate anticonsumer behavior of energy companies, as President Biden requested? Reversing fiscal, trade, energy, and tax policies that encouraged innovation and productivity gains had unintended adverse consequences—there is a lot of that going on and the political cost measured in balance of power will be high in the future, we expect.

Lower Energy costs due to greater efficiency and substitution (alternative energy, electric cars, etc.), coinciding with resilient supply from new exploration and production innovation has run into higher costs of greater regulation seeking to marginalize energy production distribution infrastructure. and Environmental efforts to limit E&P infrastructure projects, including pipelines (Keystone, Enbridge-Line 5, etc.) or land leases increase reliance on foreign oil. Limiting oil, gas, and fuel pipelines to reduce energy supplies tends to drive up consumer costs and increase environmental risks of increased rail tanker and trucking traffic. Such policy decisions have backfired with adverse consequences, including higher inflation, beginning with greater utility costs for natural gas, electricity, heating oil and gasoline.

Recent poor economic policy and regulatory decisions reinforced rising inflation expectations and boosted basic material, energy, and producer prices. It will take time for a rise in commodity prices to wash out, but inflation expectations tend to linger. Labor expects to at least keep up to observed inflation, and this is why once past the transitory stage, inflation is more difficult to contain without staunch monetary policy—by this we mean the Fed has to sufficiently surprise bond investors with more significant hikes than expected. When fighting inflation, too much "guidance" is not sufficient to change behavior, but in doing so we should expect the yield curve to steepen significantly on greater interest rate risk. This is why we think the Fed is still lagging behind the curve.

Increased inflation expectations reflected in the University of Michigan survey data suggest workers will continue to demand ever higher wages for some time—until we get positive real interest rates across the yield curve, sill higher prices will drive higher wages, leading to... higher prices, and so forth. So, a flattening is still a long way from disinflation needed to provide some indication of when the Fed will cease to raise rates.

CPI inflation may eventually ease toward 4.0%, but we highlight our critical shift in thinking regarding the effect of disinflationary forces from creative destruction to globalization, and waning free market competition. As transportation, energy, and labor input costs increase for imported goods disinflationary forces are diminishing. Tightening regulation limit production, shipping, and pipeline transport of goods, basic resources and commodities, including oil and gas. Manufacturing costs have risen too as wages also increase and capacity utilization returns to almost normal.

Disinflation extended because rising aggregate demand for labor, materials, and energy never really exceeded the increase in economic growth between efficiency gains and offshoring manufacturing with an increasingly service oriented economy. As disinflationary forces recede, naive policymakers will pay a price for extended monetary and fiscal stimulus that boosts inflation expectations, requiring interest rates rise sooner and more than anticipated.

Changes in inflation expectations were modest over the last two decades. Benefits of the *Fourth Industrial Revolution* enabled greater productivity and creative destruction of innovation since 2005, yet many still mistake lower cyclical inflation as a *new normal*, ignoring beginning decline of disinflationary tailwinds. Secular changes are emerging that suggest merchant pricing power increased and housing supply will take years to build given recent household formation.

Key inflationary forces from housing and food to labor, transportation, and imports are already embedded in inflation expectations. Rising inflation expectations tend to drive price and cost increases typically tied to CPI. Once inflation expectations rise, companies pass through expected labor, basic material, and tax cost increases, but the Federal Reserve is already well behind the (yield) curve, soon scrambling to normalize monetary policy without triggering a *taper tantrum*.

There are key forces driving inflation beyond simply commodity prices and supply chain chaos. Tighter job markets--low unemployment, minimum wage increases, expected recruitment bonuses, licensing costs, energy and food prices, rising commuting costs, expenses, and benefit (health care, retirement, paid leave) costs drive labor cost inflation. Expected increasing minimum wages up to \$15/hour affect many more than those below \$10-15/hour. Anticipating income tax increases reinforces various inflationary forces discussed below. Average Weekly Earnings are up 5.8% over 12 months, and a bit more over 6 months annualized. Employee demands for higher pay increases will likely extend for years now.



Source: Refinitiv DataStream & Strategic Frontier Management

We have observed higher housing costs for almost a decade or since 2012 and forewarned of our concerns. Although existing home sales plunged last Spring to the lowest level since 2008-2011 (about 4 million annually), they rebounded since July 2020 to the best level since 2005—about 7 million purchases annually. Housing costs have been increasing for a decade, but jumped with lower mortgage rates, demand for urban housing, and shortage of new construction during 2020. Household formation increased as Millennials needed a home or a bigger home, and second (vacation) home demand also increased with remote work, after being forsaken since 2008. Strong housing demand and short supply drove residential home prices, and it takes time for sufficient housing construction to catch up or until higher mortgage rates (bond yields) limit affordability.



Source: Refinitiv DataStream & Strategic Frontier Management

We have argued in favor of secular disinflationary forces for the better part of the last two decades---growth in money supply and fiscal deficits had little economic effect, it seems. Our secular future themes dominated the classic fundamental sources of cyclical inflation, limiting inflation expectations to 2.0-2.5%. Significant costs were marginalized by innovation and competition, which moderated demand intensity of commodities, energy, and labor. *Emerging Market* industrialization, urbanization, and irrepressible demand were key themes implying greater global growth, yet limited import prices.

American Infrastructure Boondoggle

Government programs have and will continue to suffer from historically massive inefficiency, fraud and waste. The ever-narrowing share of the discretionary budget (<25%) should trigger need for federal spending and entitlement reform, combined with greater oversight targeting waste, fraud and abuse of all programs. Yet, falling interest rates for 40 years diminished adverse consequences of larger fiscal deficits, but in a rising rate regime, fiscal deficits tend to matter more as interest debt burdens soar.

Last June 2021 we published a Strategic Insights titled: *America's Infrastructure Boondoggle.* What a shame to waste so much money on successive stimulus bills without considering the desire for an additional massive infrastructure boondoggle costing up to \$4.5 trillion. Eventually, it was carved up into: \$2.3 trillion *American Jobs Plan*, plus \$400 billion in "paid for" environmental tax credits, and \$1.8 trillion *American Families Plan* for caring infrastructure (social entitlement programs) and environmental (climate change) investment. Further government spending on infrastructure, social welfare, and environmentalism will be wasteful and inflationary.

After various iterations recognizing legislative limitations, the Infrastructure Investment and Jobs Act (American Jobs Plan) emerged appropriating \$1.2 trillion, of which \$550 billion addresses infrastructure projects for highways, mass transit, ports, airports, and railways. Notably absent are electrical power plants (heating and transportation fuel displacement) or pipelines, which are the most efficient, safest, and cleanest means of transporting oil, natural gas, and fuels. The rest of the original ask was rolled up into the highly progressive Build Back Better Act, initially estimated to cost over \$3.5 trillion—this was scaled back, including accounting tricks like sunsetting entitlements, IRS expansion, and tax credits to get it below \$2.5 trillion, but the CBO score has taken time given the complex 3000-page bill.

Initially, public support for infrastructure investment was bipartisan, but visibility about the actual details was not flattering. Politicians like to embrace investment spending, seeing an opportunity to direct spending for the benefit of constituents. Since there is no need to build back anymore, Build Back Better is little more than a catchy recycled political justification for expanding socialist entitlement programs, plus an environmental agenda. Increasing government dependency is problematic for society, but particularly for capitalist incentive-based free market economies.

Excessive benevolent spending is a solution of political convenience in search of a problem—calling this plan infrastructure is a convenient need, but lacks meaningful initiative and well-specified plan scope.

Crisis-fostered stimulus permitted chronic fraud, corruption, and theft with insufficient oversight and mismanagement.

Legislation seeking to transform America should require broad bipartisan support, rather than barely a slim and tenuous majority of Congress. Delay only undermined public support for even the \$1.2 trillion *Infrastructure Investment and Jobs Act*, but we think skuttled chances for another progressive *Build Back Better* boondoggle of another \$3.5 trillion or more. In the House, the \$1.75 trillion BBB will increase the federal debt by \$367 billion according to CBO, but the Tax Foundation said debt will increase by \$675 billion (inc. interest) assuming programs all sunset as CBO scored.



The \$1.9 trillion American Rescue Plan passed March 11, 2021 now appears to be a colossal mistake—driving inflation and limiting future ability to address other crises or even infrastructure needs. It was unnecessary, as is the \$1.2 trillion Infrastructure Investment and Jobs Act. Any remaining recession output gap was closed by Q1/2021—well ahead of the 2008 Global Financial Crisis recovery. Real GDP of -2.5% in 2020 was so modest a decline that it didn't justify more stimulus beyond the initial CARES Act-similarly for emergency monetary policies beyond last Fall.

Massive fraud, waste, and inefficiency were exposed in the US government's \$5 trillion stimulus scheme, but its not surprising given the US Government's poor track record managing spending and entitlement programs. The crisis mindset nearly 18 months after the recession's trough leaves little fiscal or monetary capacity for future crises, and risks ever greater financial and economic imbalances, which boost economic and market volatility.

The US fiscal deficit has jumped to 12% of GDP as our public debt/GDP has soared to 123%, before off-budget unfunded liabilities. Government debt of less than 60% is considered prudent and sustainable, but the US Government exceeds twice that level, limiting our ability to address an inevitable future crisis. Also, concern about risk of debt cancellation with central bank

holdings over \$6 trillion arises with soaring interest burdens as debt exceeds 100% of GDP, and interest rates begin to rise. We can't just spend our way out of debt or deflate it away. Instead, we need prudent and meaningful fiscal spending reform, rather than debating how to expand existing and create new costly programs. We need to drive the fiscal deficit into fiscal surplus while the economy is doing well and remains resilient, and even moderate inflationary forces.

However, the Biden Administration thinks more misguided spending and higher taxes trump freedom, liberty, and competition, which bolster creativity and innovation that yields productivity growth, efficiency, and disinflation. The proposed \$3.5 trillion of additional social and environmental spending should fail to muster support. It is unnecessary and encourages greater fraud, waste, and abuse without effective controls to manage new programs. Any tax increases or increased debt burden to pay for it will be an economic drag that fuel further financial imbalances and inflation. Tax code simplification will generate far more additional tax revenue and limit tax avoidance schemes, rather than hiring legions of IRS agents for little marginal benefit, according to the CBO scoring and other analysis.

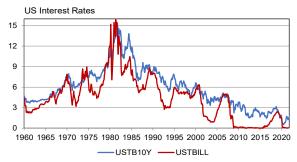
Adding new or renewing entitlements have replaced earmarks to curry political favor of constituents, even as soaring government debt exceeded 100% of US GDP. Payroll-funded Social Security & Medicare trusts are nearly depleted. Such unanticipated increases only exacerbate the shortfall. Clinton Treasury Secretary Larry Summers thinks the US will pay the price of the least responsible imprudent macroeconomic policy in 40 years. A hangover of rapid economic failure can set in after reversing such excessive stimulus that extended more than a year after the global recession's trough.

Waning credibility of the Administration is evident in its plunging Presidential approval rating---political capital is now limited, unlike the last Administration that seemed able to manage many policy issues simultaneously without political capital limitation. Consequences of misguided political policy decisions are plaguing Joe Biden's Presidential Job approval, which has plunged from 57% to 42% (Gallup). Rasmussen Reports observe just 28.5% believe America is on the right track, failing most in immigration (28%), foreign policy (35.8%), and the economy (37.6). For a candidate that claimed to be a uniter, President Biden has been as polarizing as President Trump. After 36 years in the Senate without much accomplishment, other than co-authoring the 1994 Crime Legislation as Senate Judiciary Chairman, he was elected with little demonstrated leadership ability. VP Kamala Harris also struggles with 28.7% job approval in a USA Today poll vs. 38.7% for President Biden.

Chronic energy shortages, loss of foreign oil independence, ruinous inflation, rising crime and looting--defunding police, media censorship, household insecurity, government indebtedness, election fraud, high federal debt and budget deficits, radical public school teachings, illegal immigration, supply chain chaos, and foreign policy debacles (Afghanistan, ISIS Caliphate, Iran, Russia, China, derailed Abraham Accords and trade agreements) are just a few of the adverse policy consequences. Administration's Foreign, Domestic, and Economic policies believing Impossible Things is undermining American values, productivity, competitive advantages, prosperity, and our global leadership. Progressive MMT fantasies lack any legitimate support.

Will Interest Rates Rise Again?

We have long suggested that interest rates are being artificially manipulated by central banks globally for the last decade–following recovery from the 2008 Financial Crisis. We seemed to be on the right track since 2016, at least until COVID-19 pandemic sucker punched us and politicians triggered a global recession unlike any other. We've also been critical of the Fed's evolving long-run economic forecasts regarding PCE inflation (2.0%) and unemployment (3.8-4.3%).

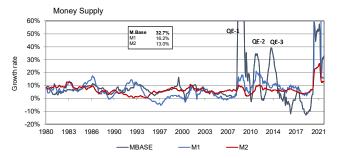


Source: Refinitiv DataStream & Strategic Frontier Management

Moral hazard unwinding extended manipulation will be tricky and likely increase volatility. Risk of a global financial crisis is rising, as is potential for bond yields overshooting equilibrium as the yield curve steepens. Central banks now have little capacity to respond as credibility diminishes. US Treasury debt from excessive stimulus now exceeds 128% of GDP with projected fiscal deficit still in excess 10% of GDP.

Persistence of emergency monetary policy measures purchasing \$120 billion/month in government and MBS agency bonds, while maintaining near 0% Fed Funds rate only reinforces explicit moral hazard of unnecessary bond market manipulation for households, businesses, and investors. Overreliance on unconventional monetary policy stimulus increased financial imbalances and compromised ability to address future crises. Eventually the Federal Reserve balance sheet exceeding \$8 trillion must decline toward

\$2 trillion with tapering imminent, but such a contraction can trigger liquidity issues with sustained negative money supply growth expected.

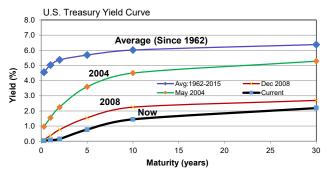


Source: Refinitiv DataStream & Strategic Frontier Management

Monetary stimulus sought to pull forward consumption with lower financing costs, but diminishes future economic growth potential. Extending QE for a fourth time in a decade, more than doubling Federal Reserve holdings, suggests there is little future consumption to pull forward. Very low interest rates fuel speculative imbalances, consumption, and encourage leverage in portfolios acquiring assets (i.e., property, stocks and bonds, private investments, or other illiquid assets). Low-cost debt encourages excessive consumption and investment leverage chasing yield, thus foster financial imbalances in portfolio lending and debt burdens.

Further bond market manipulation resulted in a flatter yield curve than free markets dictate, increasing financial imbalances. Forward guidance hasn't provided any measurable effects in a decade. Central banks believed they should support financial liquidity in 2020, but emergency stimulus ceased to be needed a year ago.

Global bond yield curves should steepen anticipating rate increases, so short-term fixed income and cash are more prudent alternative investments. Consider how much the yield curve differs from May 2004 (before rate hikes) or 2008 during GFC.



Interest rates and central bank holdings must normalize as economic conditions normalize, but what is normal? Historically, if CPI inflation averaged 3.0%, then policy interest rates should average 4.0% (1% real rate), and 10-year Treasuries should average over 5%--this is why

an inflation reference index is critical. Divergence in this regard suggests decision making likely suffers from misguided *confirmation* or *anchoring cognitive biases* in published forecasts of the Board of Governors. Federal Reserve Economists sill expect *PCE* inflation will revert to their *impossible implicit* 2% inflation target, or about half the inflation rate of the last 50 years.

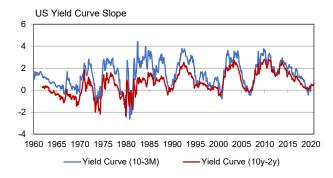
Median Foreca	ıst							LongRun	Forecast
U.S. Fed %	2018	2019	2020	2021e	2022e	2023e	2024e	Fed	SFM
GDP	3.05	2.15	-2.40	5.90	3.80	2.50	2.00	1.80	2.00
U.Rate	3.70	3.55	6.70	4.80	3.80	3.50	3.50	4.00	4.50
PCE	1.85	1.45	3.40	4.20	2.20	2.20	2.10	2.00	2.50
Core PCE	1.85	1.50	3.00	3.70	2.30	2.20	2.10	2.00	2.50
Implied CPI	2.35	2.00	1.50	3.50	3.00	3.00	3.00	2.50	3.00
Federal Funds	2.38	1.55	0.09	0.13	0.29	0.89	1.64	2.46	3.50

Interest Rates	2018	2019	2020	2021e	2022e	2023e	2024e	Longer Run
FOMC Avg.	2.38%	1.63%	0.13%	0.13%	0.29%	0.89%	1.64%	2.46%
SFM ¹	1.75%	1.75%	0.25%	0.25%	1.00%	2.00%	3.00%	3.50%
Rate Change	0.25%	0.00%	-1.50%	0.00%	0.75%	1.00%	1.00%	
Top-end of indicated Fed Funds range								

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

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 similar to traditional historical dynamics with CPI inflation averaging 3% and Federal Funds rate of at least 3.25%. The Fed loses further credibility when it suggests sustainable unemployment should average 4.1%, rather than a 6% average over 60 years.

Bond volatility increases with even minimal changes in low interest rates due to greater convexity. Monetary and fiscal Keynesianism can giveth easily, but always taketh away more, and then some when reversed. A global bond correction with such high convexity (change in interest rate risk) given low interest rates after a decade of manipulation could trigger the next financial crisis. Bond market risk increased exponentially as interest rates compressed toward lower bound of 0%.



Is it rational for investors to assume such interest rate or inflation risk without being compensated for it, or even pay interest to lend money with negative rates? We expect normalizing bond yields will eventually result in colossal losses for bond investors from sovereign wealth funds and central banks (taxpayers) to family offices, endowments/foundations, and retirement plans, particularly pension funds—including those with leveraged bond holdings. We prefer short-term corporate credit or even leveraged loan securities, which can be more resilient to interest rate increases.

When interest rates mostly fall for 40 years, bond risk tends to be underestimated across the board and many investors may be caught off guard with regime change. This is one form of explicit moral hazard due to extended forward guidance with higher bond convexity. We seem to have forgotten the lessons of Orange County's 1994 bankruptcy triggered by rising rates with leveraged Treasury bond holdings. We caution maturity extended and leveraged bond investors chasing yield, particularly asset owners adopting LDI and risk parity strategies.

We think the Federal Reserve waited too long to reverse its manipulative monetary policy actions of low rates, QE, and forward guidance more-or-less pursued for nearly a decade. Extended and leveraged bond investors are exposed to significant risk as normalization will wreck havoc on portfolios, including retirement savings, pension funds, endowments, and sovereign wealth funds—even central bank holdings are at risk of material losses. Can this be why the Fed was so hesitant to normalize knowing potential bond loses flow through the federal budget, thus impacting taxpayers? Should the US dollar weaken, it can boost US inflation too.

Global government bond markets remain overvalued as inflation spreads globally, as a result of central banks' extended bond market manipulation across the yield curve. Cyclical basic material price increases coincide with labor and production cost demand increases, boosting inflation expectations. Most other non-US central banks have inflation target mandates that limit their ability to hold off rate increases. It seems to us that the Bank of England must follow suit, if not jump ahead of the US Fed. Canada, Australia, and New Zealand could be forced to move sooner too, but the European Central Bank will hold to hold on as long as markets allow. Fiscal deficits persist, so interest burdens will rise with higher bond yields—yet, sovereign credit ratings hardly seem to mater.

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. Darlings of social media and technology are trading at sky-high sector multiples again relative to the market.

Soaring stock prices overshot pre-COVID highs as economic and earnings growth recovered, but we expect US companies will struggle to grow into their current valuations, particularly if interest rates begin to rise with higher inflation. It is hard to imagine much upside to prices despite 2021 earnings growth. An unexpected rise in bond yields or slowing of earnings growth extrapolated by irrational sentiment sets up investor disappointment.

Operating Earnings	2023e	2022e	2021e	2020	2019	2018
IBES Consensus	236.48	220.76	201.35	139.72	162.17	161.93
Growth	7.1%	9.6%	44.1%	-13.8%	0.1%	22.7%
Strategic Frontier Mgmt Growth	225.00 7.1%	210.00 10.5%	190.00 36.0%	139.72 -13.8%	162.17 0.1%	161.93 22.7%
S&P 500 @18x SFMTE	4050	3780	3420	2515	2919	2915
SFM Target S&P 500	4350	4150	4000	3756	3231	2507
SFM S&P 500 P/F12E	18.07	18.47	19.05	19.77	23.12	15.46

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

Despite good growth in earnings and GDP expected in 2021, P/E valuations on trailing and forward earnings are still stretched. As long as interest rates remain low, the S&P 500 earnings yield may not be as concerning, but any meaningful increase in bond yields can flip valuation more quickly. We think 2022 earnings can disappoint and a 20X-plus forward operating earnings multiple will prove too rich as growth slows and rates rise.



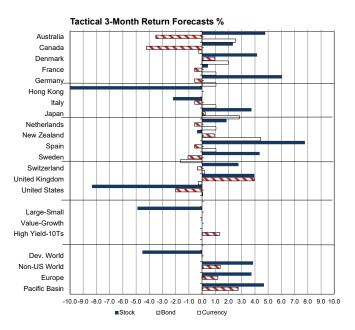
Source: Strategic Frontier Management

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.

Our global tactical equity model forecasts deteriorated further with declining equity valuations. Any further recovery in earnings will hardly be sufficient to justify such high S&P 500 index valuations, despite a strong global earnings recovery. US equities will struggle to return 8.8% annual return observed for the S&P 500 over the last 60 years with low dividend yield and likely P/E contraction.



	Global Tactical Asset Allocation Quarterly Forecasts(%)										
			Local M	1arkets	In (US	US\$					
MSCI	WrldGvt	Dec 2021	Equity	Bond	Stock	Bond	Currency				
100%	100%	World	-4.8	-0.9	-4.5	0.0	0.3				
18%	38%	Europe	3.2	0.	1 3.7	1.2	0.6				
9%	20%	Pacific Basin	2.2	-0.	1 4.7	2.7	2.8				
31%	59%	Non-US World	2.8	-0.	1 3.9	1.4	1.0				
69%	41%	US	-8.3	-2.0	-8.3	-2.0					
		Cash	0.0)	0.0					
			Lg-Sm	Va-Gr	High Yield -	10yT					
		US Style	-4.9%	0.0%	1.3%						
			Small - Value		HighYld						

Source: Strategic Frontier Management, October 2021

Global tactical return forecasts offer objective guidance in challenging periods. Advisors rightly caution don't time the markets, but global tactical asset allocation (GTAA) and currency management not *market timing*— a practice of jumping in and out of equity exposure is different than a fundamental discipline of varying tactical active exposure vs. a strategic multi-asset policy benchmark. These practices also are complementary to systematic rebalancing disciplines. There is still value in trying to forecast asset returns and risk—the discipline of doing so is both instructive and

insightful. Direction can be valuable, even if magnitude and timing are allusive. Extreme equity volatility, as recently observed, can provide tactical allocation opportunities.

Our decade-long tactical overweight of global equities has declined to the lowest level since the turn of the century (1999), favoring short-term fixed income and cash, rather than bonds. We also favor global small-cap and US value tilts within equities, tilting toward developed non-US equities, but are concerned about Emerging Markets, particularly countries such as China and Russia. Maturing Emerging Markets will struggle with lower earnings margin and slower growth that continue to disappoint investors, with greater risk of relative currency devaluations—China most concerning, coinciding with our tactical forecast for Hong Kong.

We still expect global stocks to outperform Treasury bonds, but we highlight an important change in our view. US equities and bonds will likely struggle to beat inflation over the foreseeable future. Our tactical equity forecasts also suggest wide dispersion across countries and currencies. Depending on still uncertain changes to US policies, the downside risk to US equities hasn't been greater in a long time. Small-cap and value risk premiums may run further, but both should outperform if inflation rises and the US dollar firms.

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 as 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, and certainly not commodities. These speculative securities are neither a store of value, nor do provide for costless exchange like classic currencies with the benefit of a *fixed income* (interest). Money market funds still charge high fees given such low interest rates. We prefer higher yielding minimal interest rate risk of short-term bond index funds, assuming rate hikes are limited to ½-½% in 2021.

We expect negative real (if not nominal) bond returns for 10-year Treasuries over the next five years with rising inflation and increasing government debt of fiscal deficits, as bond refunding of central bank holdings exacerbate a correction in overvalued global bonds. Normalizing Treasury bond yields should rise beginning from negative real yields. The hiatus from monetary normalization that began in 2016 should get back on track in 2021, beginning with two rate hikes and suspending bond purchases.

We believe in the future investors should expect higher equity, bond, currency, and commodity volatility. As interest rates rise in an asynchronized fashion between countries, global asset allocation opportunities should expand with volatility. We believe there is increased risk of systemic financial chaos (moral hazard) exiting extended emergency monetary policies. Japan is of particular concern with its national debt exceeding 266% of GDP and QE holdings (government bonds and Equity ETFs). Low volatility anomaly should continue breaking down, beginning during the pandemic—for those seeking refuge, it didn't work.

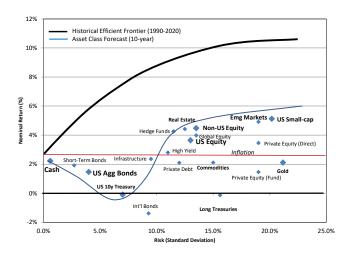
An emerging new regime of generally rising interest rates and central banks reducing bond holdings globally (even *contraction of money*) will increase volatility of monetary aggregates, which should boost economic volatility and market volatility-of-volatility. If asset managers seem to make the same mistakes again and again, should we expect others to behave differently managing their IRAs or 401(k)s? Extended mispricing of risk can have adverse systemic financial consequences.



Source: Strategic Frontier Management

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 awfully overvalued. We believe active management can be a familiar new alternative investment providing greater diversification seeking to enhance return, but at lower cost and increased transparency—is that not what active hedge funds is all about, but without higher cost?

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 2% this year. Foreign bond markets also remain overvalued with negative real yields. Cash or short-term and floating rate bonds are better cheap alternative investments than any other public or private capital market. Retirement savings and dismal pension funding will suffer if equities and bonds lag inflation, as we expect.



Source: Strategic Frontier Management

Portfolios including significant alternative strategies (inc., private equity, venture capital, private debt, real hedge fund, infrastructure, commodities) haven't performed any better than a mix of listed global stocks and bonds, but limited by management fees and higher transaction costs, foregoing any rebalancing opportunity with limited liquidity. Net returns remain inferior on average to simple global balanced portfolios on a true risk-adjusted basis. Lack of timely marked-to-market valuations of private market securities heighten anxiety of wealth uncertainty. The myth of positive illiquidity and unlisted/non-public risk premiums remains illusive, never visible or diversifiable for capacity constrained private market assets, as discussed in: Alternative Reality.

We think relative fundamentals will become more important and that *Countries Still Matter*, as do sector and risk factor exposures when volatility of cyclical economic forces. We expect steeper yield curves (inflation + interest rate risk), declining potential growth, outperformance of value-growth and small-cap risk premiums, valuation reversion of equity and bond market indices, and lower productivity and profit margins.

A key theme of Strategic Frontier Management since beginning of last year was withering of Emerging Market Advantages. Such export-driven economies provided lower cost consumer goods and services to developed countries. Increasingly, China has provided dominant market share of strategic production of electronic components, parts, pharmaceutical ingredients, chemicals, aluminum, and steel, for example. When shipping and ports face bottlenecks with increased regulatory, labor, and energy costs, the result is predictable dependency on China for strategically critical parts and components, exposed during the pandemic.

A critical concern about China, reliant on its competitive advantage for low-cost labor, access to commodities, and minimal regulation (even environmental issues), is reversing due to increasing competition and global innovation. Higher energy costs increase transportation costs, as labor intensity declines. China's government is clamping down on business ownership and rolling back its laissez-faire central panning with plans to reform taxes, increase regulation, and increase financial control seeking to reduce inequality, but liberty. foregoing individual China's Communist government has tried to correct inequality and power shortages, combined with supply chain dysfunction, which increased production costs and lead times.

Balanced 60/40 strategic asset allocations may need some tuning (i.e., shorter maturity, less overvalued large-cap growth), but investment managers of alternative products suggesting the balanced portfolio are dying or dead begs the question, what is the alternative? How can alternative products exceed return of public market asset class combinations, off which they're priced and to which they are correlated? There is no alternative asset allocation that has beaten a global balanced strategy on a risk-adjusted basis, certainly net of all fees and costs. Even if future returns to equities and bonds are likely to be lower, so will likely returns of all alternative strategies.

Many Impossible Things Distracting Investors

Higher inflation undermines already stretched bond valuations. We caution maturity extended and leveraged bond investors chasing yield, particularly asset owners adopting LDI and risk parity strategies. Given the need of other central banks to follow suit, the risk of a Global Debt Crisis and much steeper yield curves will have various consequences. We have expressed concern about leveraged bond holdings all too common among global pension funds and hedge funds with adoption of LDI and risk parity strategies—normalization will further drive steeper yield curves necessary to unwind QE and finance still high fiscal deficits.

Who might have imagined in mid-2020 that we would be grappling with a CPI inflation rate exceeding 8%, or even 4%. Policymakers hoped US inflation would be transitory, but their reluctance to take it seriously triggered even higher inflation expectations, which are now more difficult to contain. Our concerns about the

forces driving inflation, including housing, labor costs, power, and transportation, were unlikely to be subdued, even with aggressive rate increases. We cautioned that the longer inflation is dismissed, the greater the effect of moral hazard and need to increase rates further well beyond inflation.

Extended unwarranted monetary stimulus limits future potential growth (slower money growth required) and drove higher inflation, risking stagflation. Interest rates must also eventually normalize, and central banks have few alternatives to address a future crisis. What is nagging most is that the Administration believing in so many impossible things ushered economically illiterate progressive socialist policies seeking to undermine our founding principles of individual liberty, capitalism, free market competition, and equal opportunity. Monopolies and oligopolies still increase as market share leaders swallow small innovative and enterprising companies marginalized by unnecessary regulatory hurdles and unfair tax code complexity.

America's retirement savings is still insufficient with ever increasing life expectancy, and ever more dependent on future equity and bond returns looking increasing at risk. Populist activism seeking to increase income taxes and reform tax-deferred retirement savings plans, including introducing unconstitutional wealth taxes, are foolish and economically disastrous. New government run savings plans are not designed well to increase savings rates, so as defined benefit plans are increasingly scarce, self-reliance in saving and investing prudently for retirement has never been so critical. Meanwhile, spending more than we can afford on new government entitlements prosperity, ability to address future crises, and opportunity of future generations, stuck with a bill they can't afford to repay.

Extended equity and bond valuations focuses our need to *Curb Your Enthusiasm*. If you are wondering how soaring inflation can coexist with such low interest rates and, speculative overvalued markets, look no further than explicit moral hazard of central banks manipulating the bond market for over a decade, which fueled increased financial imbalances. Leveraged and extended maturity global bond portfolios are most at risk, but higher yields can also be a tipping point for global equity valuations, particularly large growth stocks.

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