CLOCKTOWER
GROUP

June 2022

All Along the Clocktower

VOLUME I – GLOBAL MACRO & GEOPOLITICS REVIEW

False Narratives Will Cost You Money

Key Takeaways:

- The equity correction is likely over as recession is not 12 months away.
- Nominal growth remains extraordinarily high relative to Fed hawkishness. The US central bank remains “behind the curve” despite flagging 200bps of hikes by year end.
- In fact, investors are likely seeing “peak hawkishness” given likely US growth deceleration and ongoing downshift in Chinese growth.
- If we are wrong, it will be because the Fed officials pray at the altar of their False God Volcker. A recession now will guarantee higher inflation later. Guarantee it.
- Volcker is a false deity. He got lucky and benefited from a profoundly disinflationary macro-geopolitical context.
- The USD rally is likely over, with the Greenback likely to fall later this year, leading to the outperformance of ROW over US assets.
- Watch US natural gas prices, they may be poised for a long-term rally.

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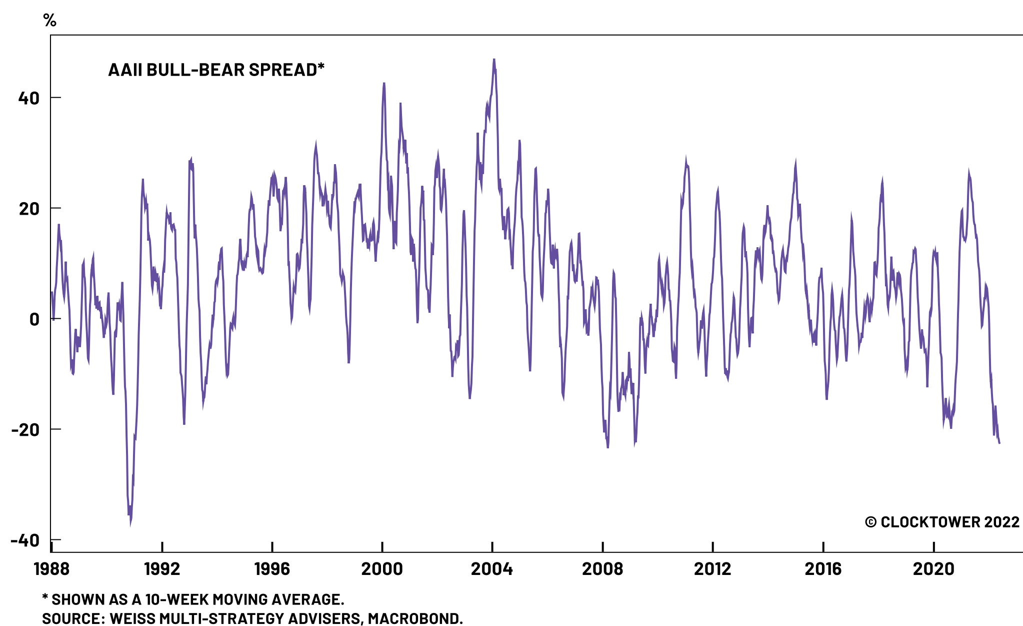
You know that recession narratives abound when Cardi B is tweeting "When y'all think they going to announce that we going into a recession?"[1] Even more pronounced is the "stagflation" hysteria. Major investment banks are publishing stagflation primers… an institutional investment client has asked us for custom research on the topic. Unsurprisingly, the bull-bear ratio very much remains skewed towards "The End of Times" (**Chart 1**), with a reading *lower* than at the height of the pandemic.

CHART 1 | Bears Are Everywhere



We are taking the other side of the bearish bet after being definitively alarmists since our November 2021 missive.[2] While stagflation is likely the end point of the current cycle, we are not there… yet. The world remains very much in a high nominal growth macro context that we have dubbed the Hydrogen Economy.[3] The gap between nominal GDP growth and the Fed's response – simulated by the T-bill yield – remains vast (**Chart 2**). Yes, the Fed is flagging three further 50bps hikes, but it is doing so off a low base with inflation expectations at multi-decade highs (**Chart 3**).

Nominal GDP growth matters. It is the price paid for goods and services. The "real" GDP only begins to matter when consumers can no longer afford to *pay* for the nominal prices. Yes, a segment of the population is starting to hurt (**Chart 4**), but not the segment that actually pays for the vast majority of goods and services (**Chart 5**).

On a macro level, cumulative personal savings are at $2.6 trillion higher than pre-pandemic trend (**Chart 6**), with consumers more than happy to eat into those savings to afford to keep pace with nominal price moves (**Chart 7**). What's more, the private sector is beginning to re-leverage (**Chart 8**) after a *decade* of deleveraging, with no sign of delinquency anywhere in the system. At these levels of CPI – and given our view that inflation is likely to ease by year end (**Chart 9** and **Chart 10**) – consumers have more than enough savings accumulated thanks to the Buenos Aires Consensus orgy of 2020-2021 to keep up with higher prices. This is *particularly* the case with gasoline, whose share of the overall consumer expenditure is much lower today than in the days when presidents won and lost their elections at the pump (i.e., the 1970s) (**Chart 11**).

[1] Cardi B, *Tweet*, "When y'all think… ," June 5, 2022. *Yes, we footnoted a Cardi B Tweet in an investment research letter.* Welcome to the "Rabid Twenties!"
[2] Please see Clocktower Group *All Along the Clocktower* Volume I, "A Cornered Fed, Transatlantic Drift, & China," dated November 2021, available on request.
[3] Please see Clocktower Group *All Along the Clocktower* Volume I, "A Battle between Stagflation and Hydrogen," dated October 2021, available on request.

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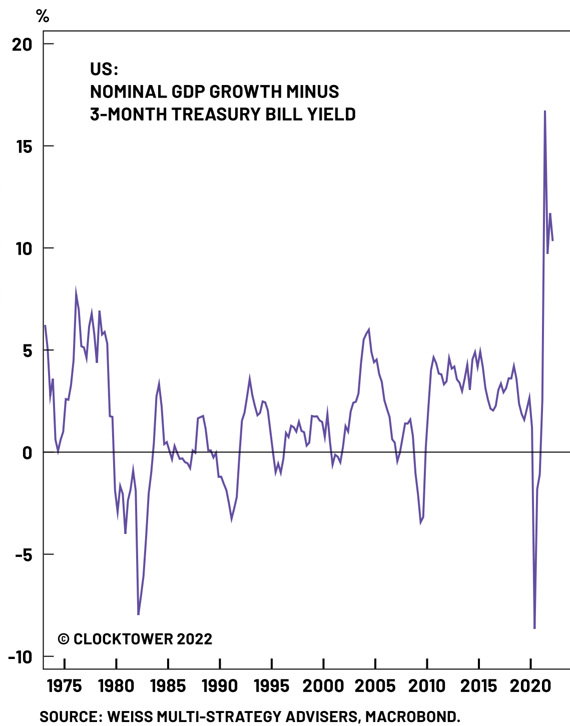
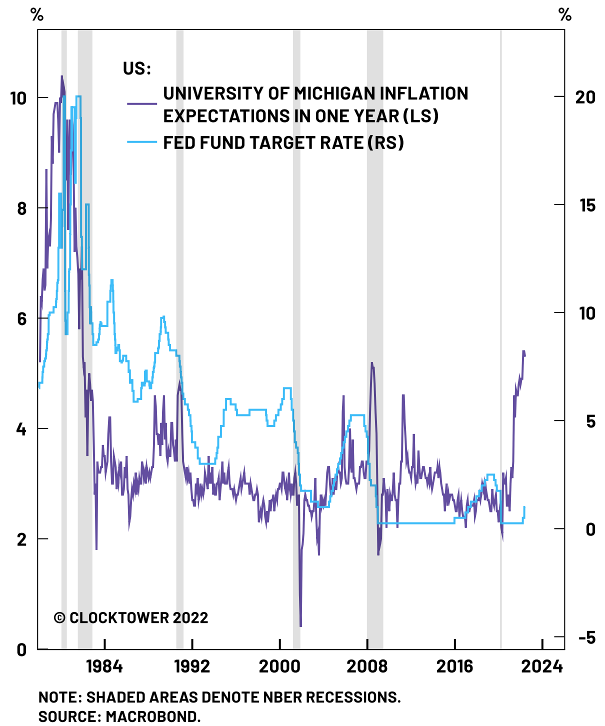
CHART 2 | The Hydrogen Economy...



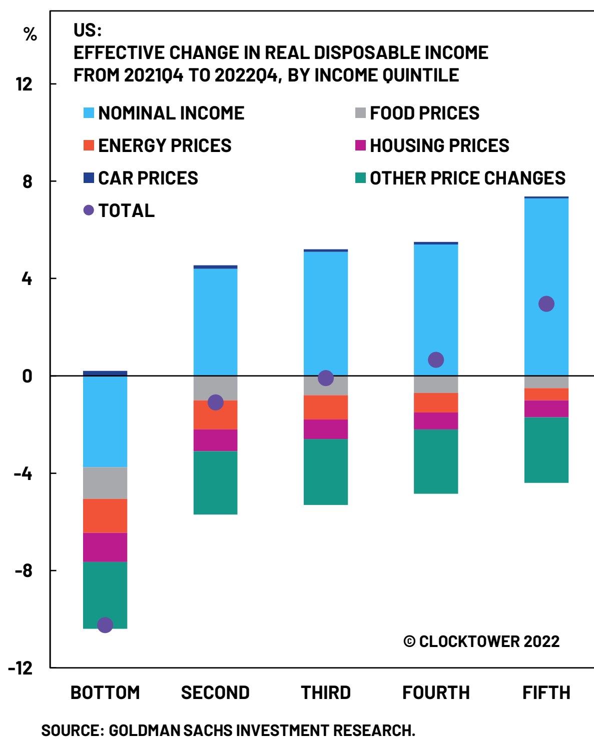
SOURCE: WEISS MULTI-STRATEGY ADVISERS, MACROBOND.

CHART 3 | ...Is Still Here



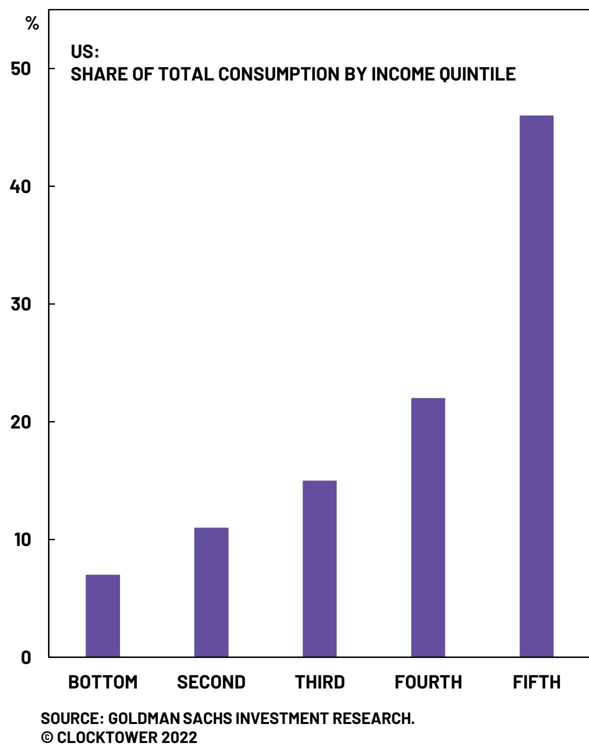
NOTE: SHADED AREAS DENOTE NBER RECESSIONS.
SOURCE: MACROBOND.

CHART 4 | Low Income Quintile Is Hurting...



SOURCE: GOLDMAN SACHS INVESTMENT RESEARCH.

CHART 5 | ...But Is Also Macro Irrelevant



SOURCE: GOLDMAN SACHS INVESTMENT RESEARCH.
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CHART 6 | Ample Stock of Savings...

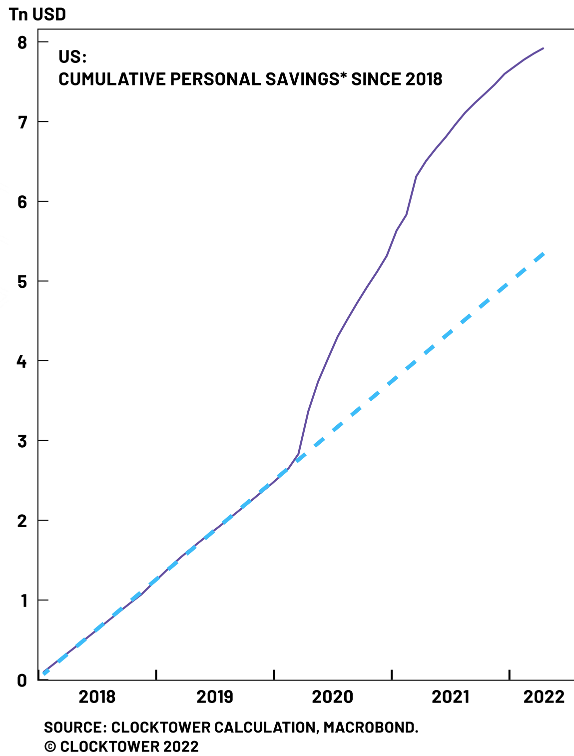

CHART 7 | ...For Consumers to Draw Down

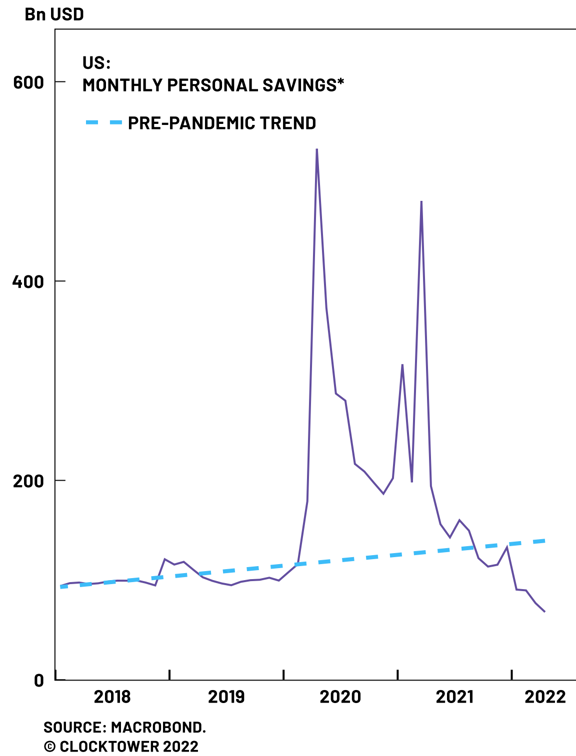

CHART 8 | Private Sector Is Re-Leveraging

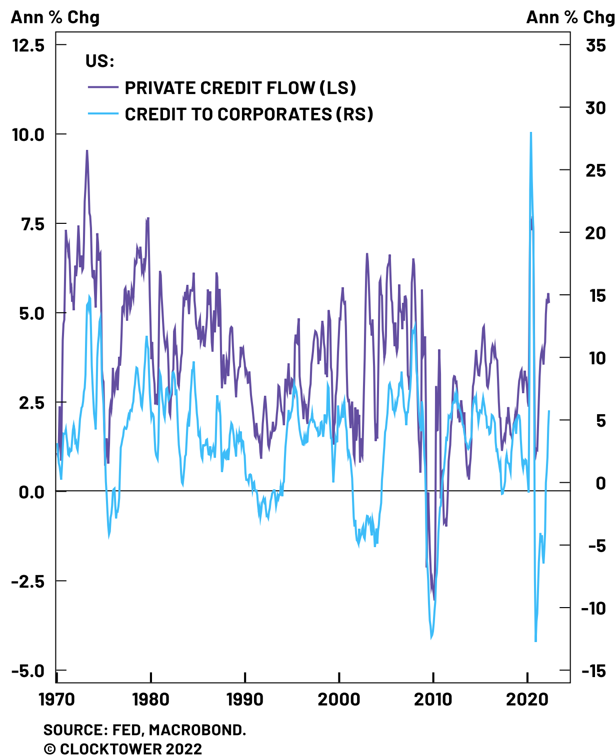

CHART 9 | Inflation Is Likely to Ease...

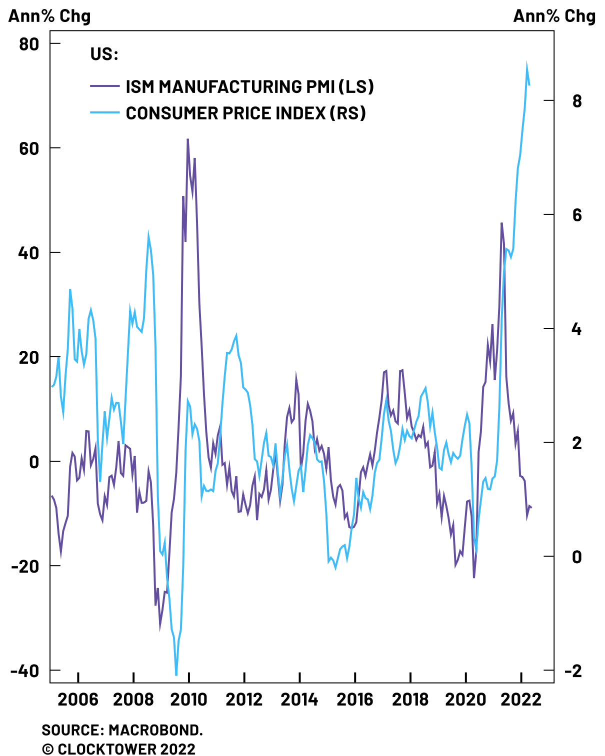

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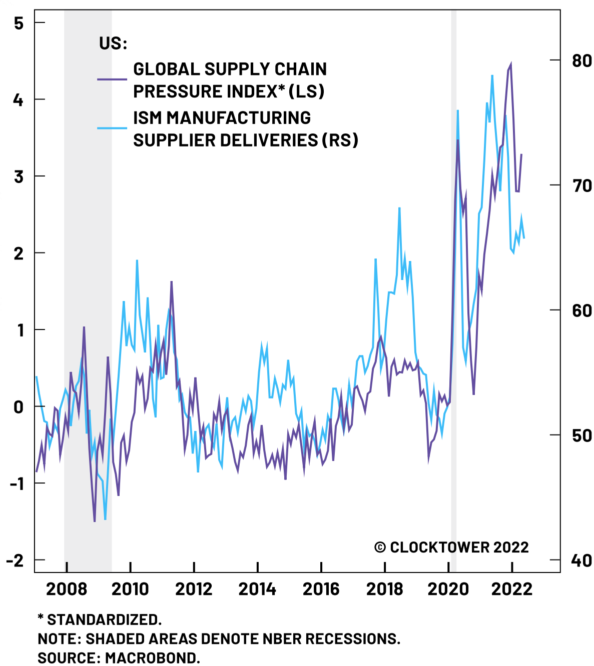
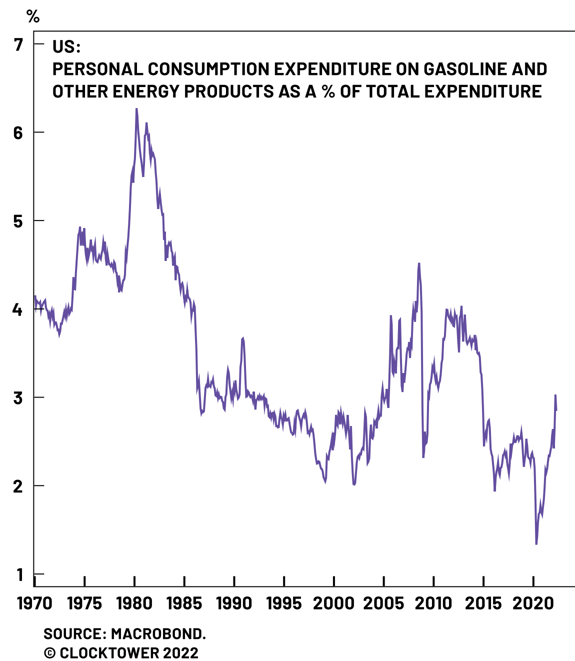
CHART 10 | ...As Economy and Bottlenecks Relent



* STANDARDIZED.
NOTE: SHADED AREAS DENOTE NBER RECESSIONS.
SOURCE: MACROBOND.

CHART 11 | Gasoline Prices Don't Matter as Much



SOURCE: MACROBOND.
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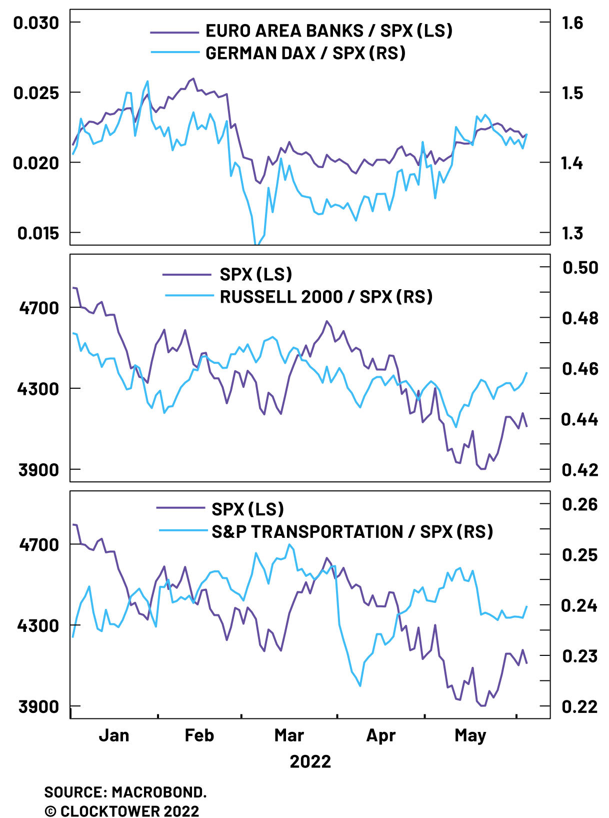
The market is already signaling the bottom, with growth sensitive indexes and sectors putting in a bottom over the past month (Chart 12). Part of the reason for the relief may also be that yields have peaked, as we have argued over the past two months (Chart 13). The too much, too fast move in the 10-year yield is likely to pause, with both the US growth slowdown and the carnage in China contributing to the moderation in yields, giving stocks room to breathe (Chart 14).

At some point, the combination of rising borrowing costs, exhausted savings, and real income decline will arrest the cycle, but we don't see that moment on a 12-month horizon. Especially with 5-year real yields still deeply negative (Chart 15) and financial conditions tightening, but still easier than the pre-pandemic levels (Chart 16).

This is where the bears would point out that the Fed is engineering a recession. That precisely because financial conditions have not tightened sufficiently, the Fed must go "full Volcker." That the Fed must raise its policy rate above neutral as quickly as possible in order to anchor inflation expectation (Chart 17).

CHART 12 | Recession Is Unlikely



SOURCE: MACROBOND.
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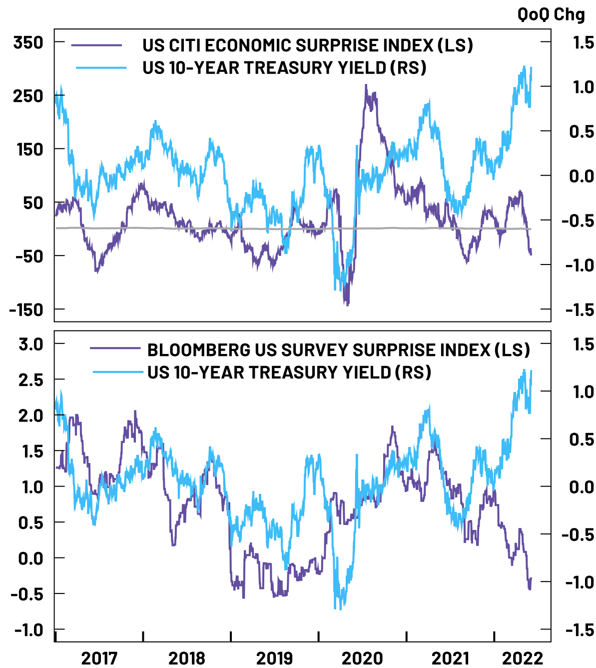
We are not Fed experts so we remain open minded about this Apocalyptic scenario. However, there are two reasons to expect the Fed to think twice about raising interest rates as fast as it has currently flagged (Chart 18).

CHART 13 | More Room for 10-Year to Fall



SOURCE: CITI GROUP, BLOOMBERG, MACROBOND.
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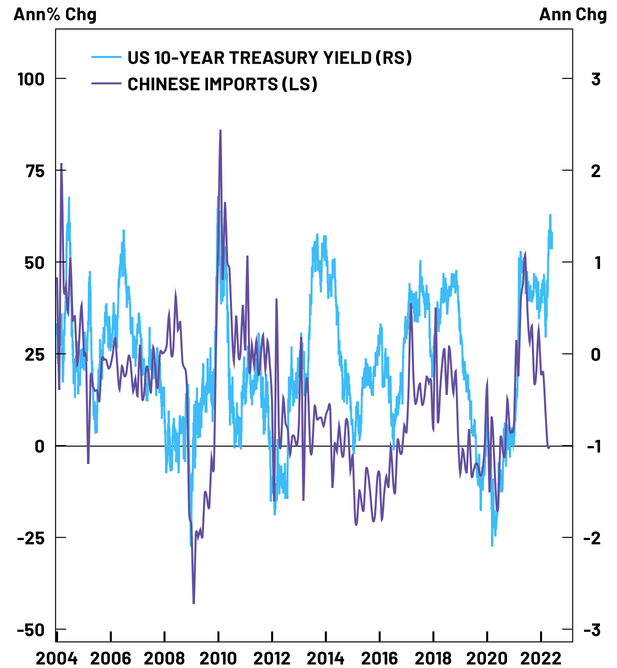
CHART 14 | China Will Restrain US Yields



SOURCE: MACROBOND.
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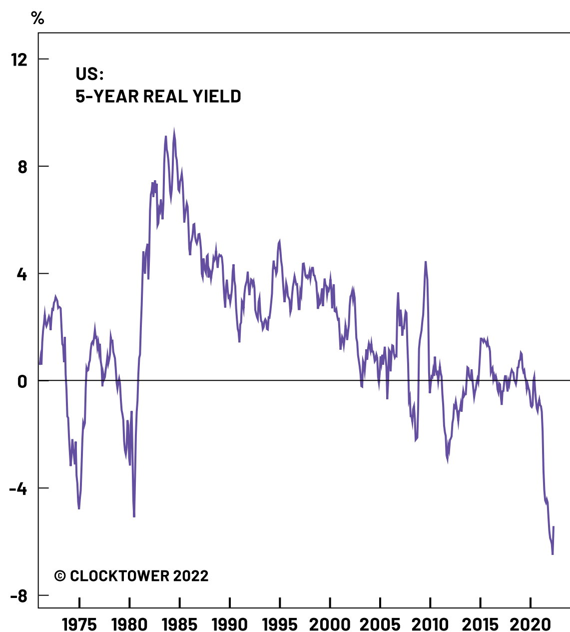
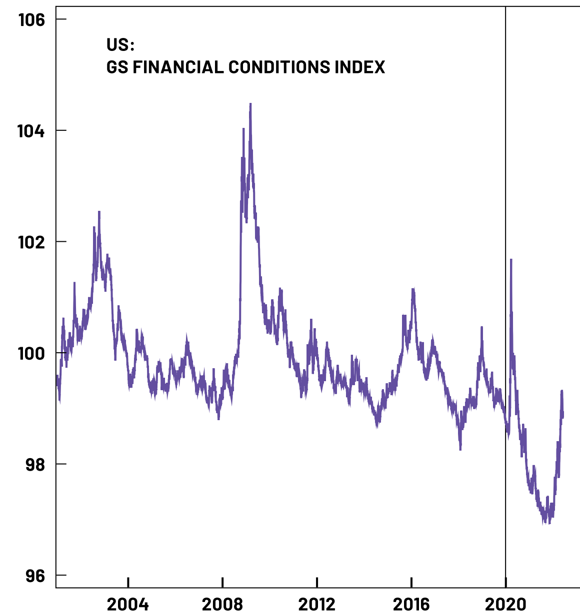
CHART 15 | Real Rates Remain Deeply Negative



SOURCE: WEISS MULTI-STRATEGY ADVISERS, MACROBOND.

CHART 16 | Financial Conditions Not *That* Tight



SOURCE: BLOOMBERG, MACROBOND.
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CHART 17 | Fed Credibility on the Line

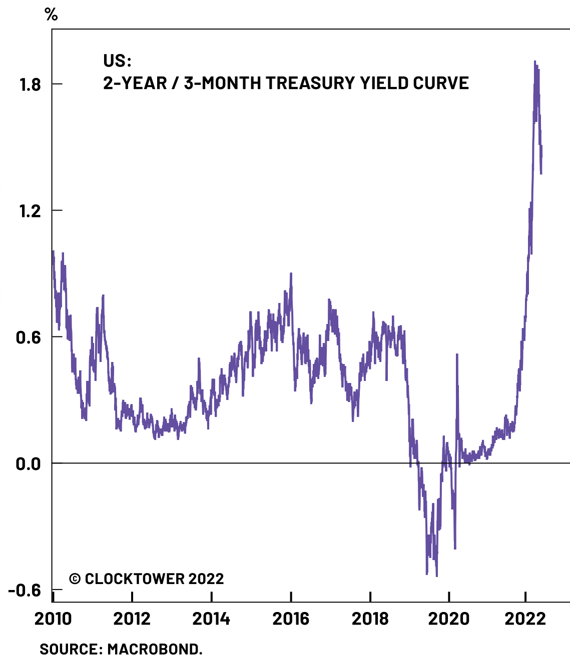
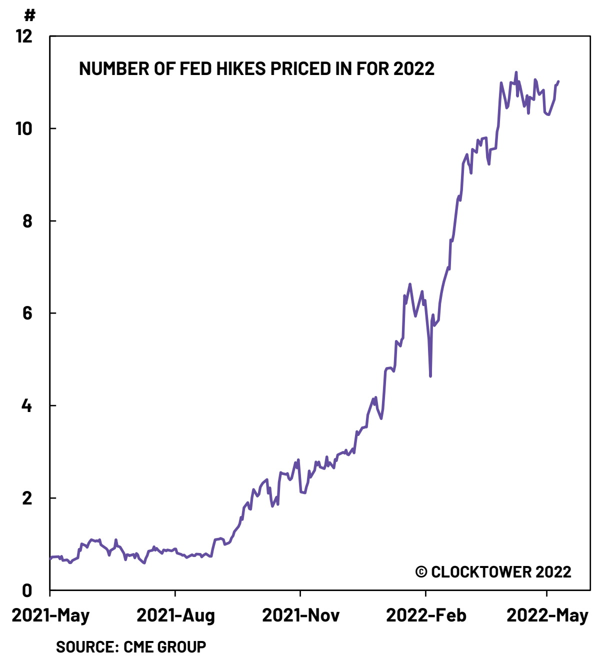


CHART 18 | Peak Hawkishness?



First, the obvious reason... the S&P 500 correction is flagging that the US economy will be *flirting* with a recession by year's end (Chart 19). Are investors supposed to believe that unelected technocrats are willing to be blamed – in this Age of Populism – for ushering in a recession (Chart 20)? (Side question: What is worse... paying $7 a gallon for gasoline out of a declining real wage or not paying $3 a gallon for gasoline because one is unemployed?)

CHART 19 | SPX Flagging a Slowdown

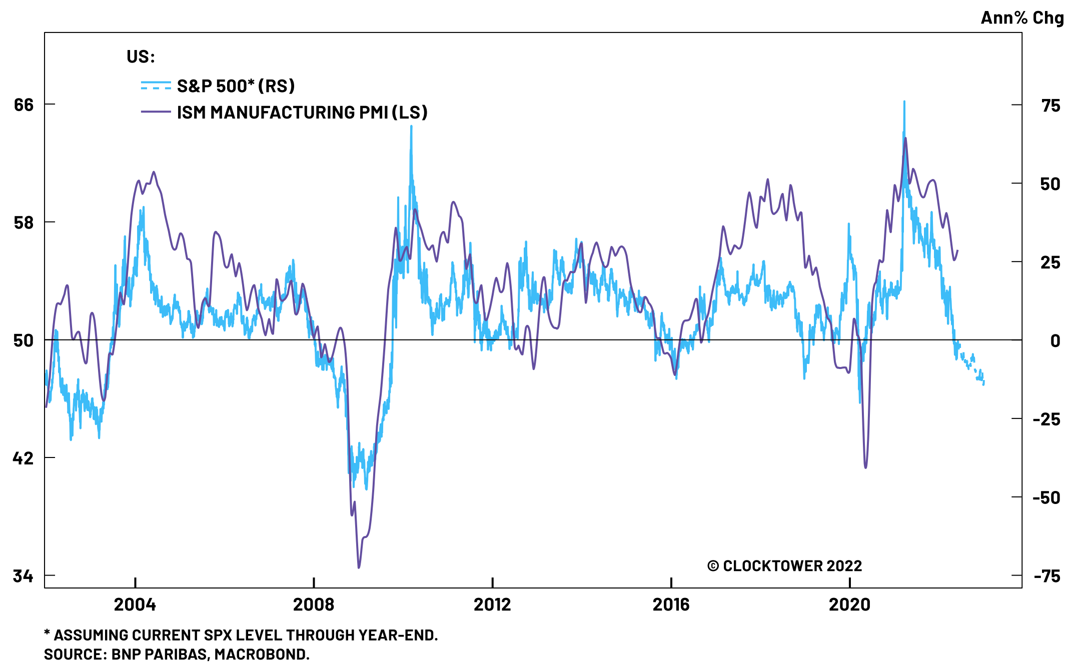


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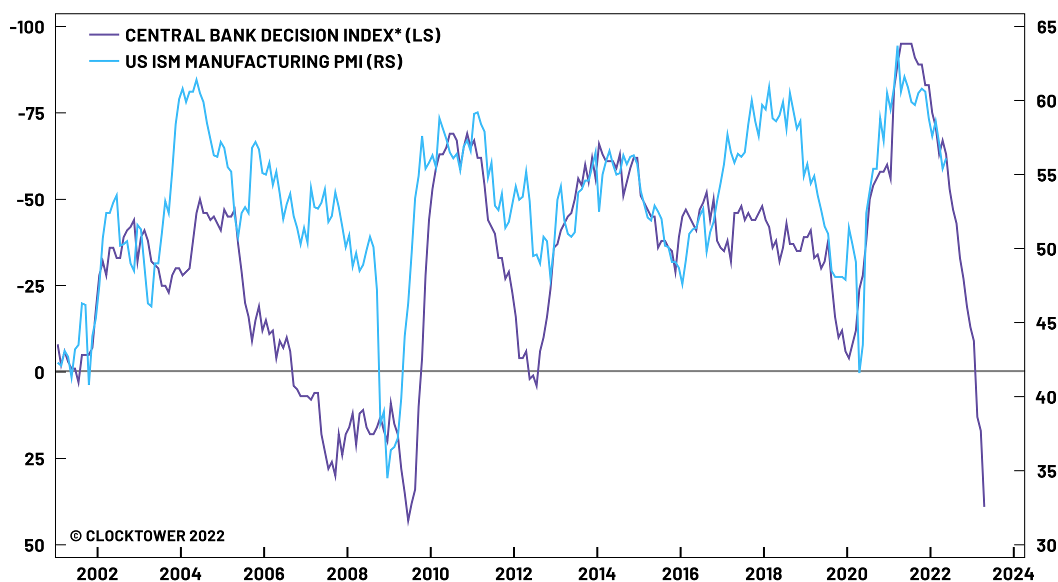
CHART 20 | Age of Populism Will Not Allow Unelected Technocrats to Cause a Recession



* BALANCE OF RATE HIKES VERSUS CUTS ACROSS 115 CENTRAL BANKS.
SOURCE: MACROBOND.

We just don't believe that the Fed has the guts to go all the way and cause a deep recession. As such, investors are experiencing peak hawkishness at this particular moment.

Second, we also don't believe that the Fed *should* raise interest rates as fast as they are flagging. Now, this is a tricky argument. "Should" is a four-letter curse word for the denizens of the Clocktower Group Strategy Team. As such, a caveat is in order. We do not mean that it is pareto optimal to run the economy "hot." Rather, we mean that if the Fed's goal is to ensure that inflation is corralled over the long term – say the rest of this decade – then causing a recession *now* would be folly. In fact, we would go as far as to *guarantee* to our readers that raising interest rates *now* and causing a recession would *ensure* that inflation spikes later in the decade.

Bottom Line: The US stock market has likely put in a bottom. We expect a rotation out of growth to value. Will S&P 500 make all-time highs by the end of the year? It is quite possible given our view that the Fed will ease the pace of rate hikes as inflation ebbs and growth slows. But we are far more excited about the rotation out of US stocks and into ROW equities, particularly once Chinese policymakers realize that they must stimulate via fixed asset investment (FAI) in order to avoid a painful recession. More on that after the next section.

Volcker Is a False God

Paul Volcker did not accomplish anything of note. In fact, a chocolate Labrador in charge of the Fed in 1979 would have tamed inflation.

There is no greater blasphemy in the financial community than disparaging the name of the Great Paul Volcker. Young investors are tucked to bed in the soft glow of their Bloomberg screens with tales of the exploits of the 6'7" Chairman. "The Fed had been woefully behind the curve for years... dragged into the vile gutter of politicization by the evil King Arthur Burns... and only the noble knight Volcker was able to wrestle its independence and credibility with a gentle kiss of 19% interest rates."

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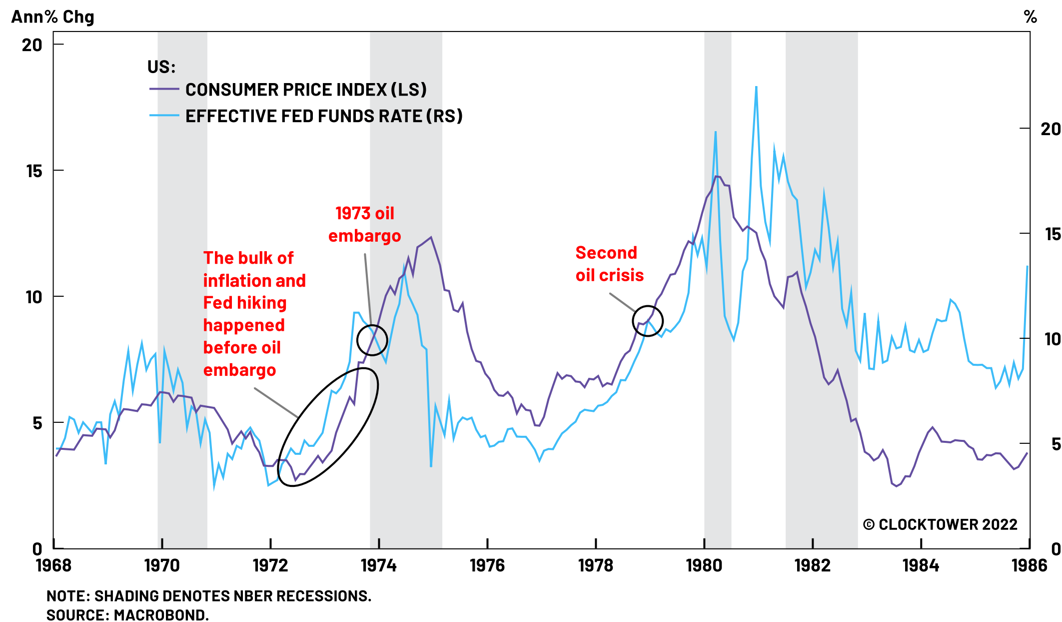
There is no falser narrative in the epistemic community we all share than this tall tale (pun intended). Paul Volcker was simply the man of the moment. What investors conveniently ignore is that Chair Burns himself tried to tame inflation. In fact, the Fed had been raising rates since 1972, causing the 1973-1975 recession (Chart 21). Inflation did fall, from a peak of 12% in 1974 to 5% in 1976. But then, it began to accelerate anew, reaching a new peak in 1980.

CHART 21 | The Fed, Under Burns, Tried to Raise Rates to Curb Inflation



The difference between Volcker and Burns is the speed of hikes and the final terminal level of interest rates. That is true. But should 600bps difference in interest rate terminal level really matter that much for both realized inflation and its long-term expectations?

In our view, the answer is a definitive no. The reason that Volcker wrested inflation has little to do with his determination and everything to do with the geopolitical, political, regulatory, technological, and the demographic contexts.

- Geopolitics: Burns was unfortunate in that his regime experienced a major geopolitical event – the 1971 Yom Kippur War – that caused a spike in oil prices. But the OPEC embargo is a footnote in the 1970s inflation. As Chart 22 illustrates, commodity prices were appreciating well before the war, only oil prices took until the embargo to rise. More significantly, the 1970s were very much an age of a bifurcated global trading system, with roughly 40% of the human population on the planet living under capitalism. What made the decade after Volcker's rate hikes so much different from Burns' effort is that by 1990, the percent of human population living under capitalism rose to 60%. And by 2000, it was at 90% (Chart 23). As China and Eastern Europe opened their doors and allowed their population to join global capitalism, Western and Japanese corporations were able to arbitrage lower labor costs on manufactured goods. This massive labor supply shock weakened union membership in the West and thus suppressed wage growth. Without this acceleration of globalization – which was almost exclusively the product of America's hegemonic moment (Chart 24) – it is unclear whether Volcker's initial success would have been as entrenched over the past forty years.

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CHART 22 | Inflation Preceded Yom Kippur

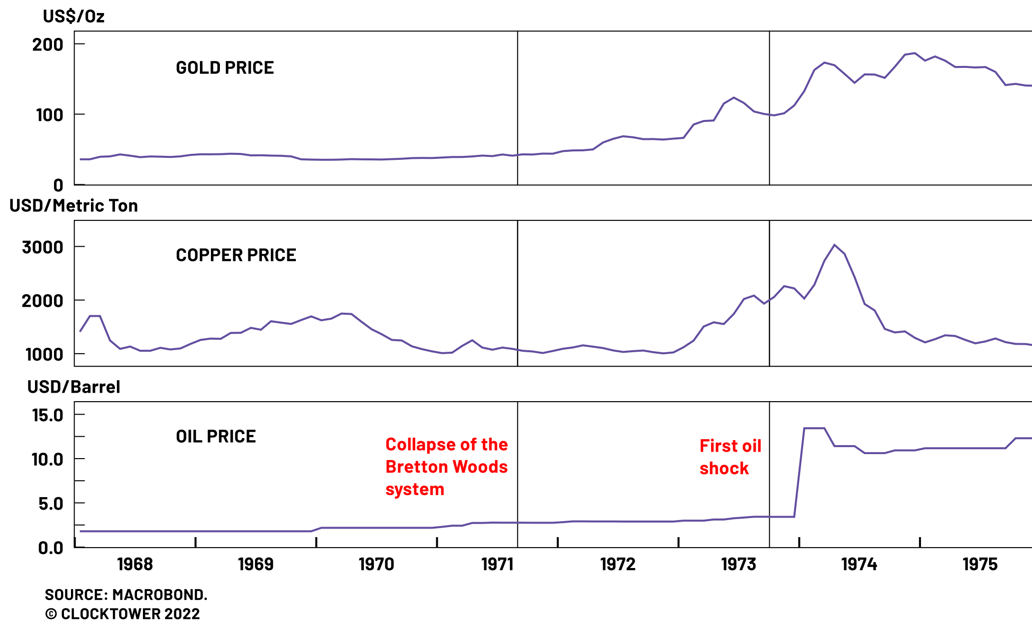
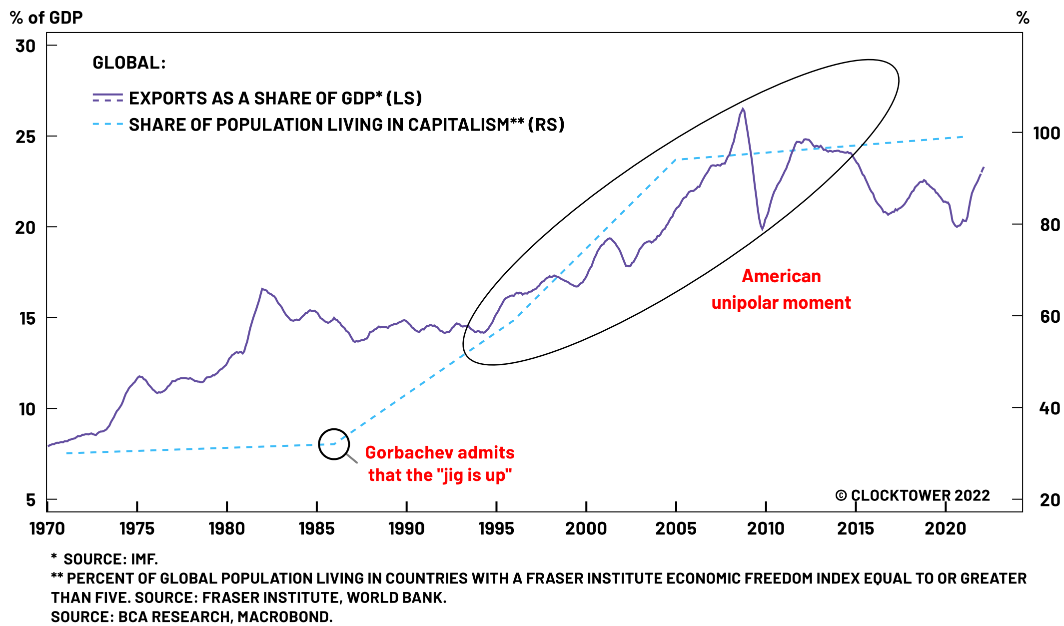


CHART 23 | Volcker Rode the Coattails of American Hegemony...



* SOURCE: IMF.
** PERCENT OF GLOBAL POPULATION LIVING IN COUNTRIES WITH A FRASER INSTITUTE ECONOMIC FREEDOM INDEX EQUAL TO OR GREATER THAN FIVE. SOURCE: FRASER INSTITUTE, WORLD BANK.
SOURCE: BCA RESEARCH, MACROBOND.

- Politics: A decade of stagflationary outcomes led to a political revolution in the West, led first by the election of Margaret Thatcher to the UK premiership in 1979 and subsequently by the 1980 electoral victory for Ronald Reagan in the US. But to get to this "small government" revolution, built on a promise of painful – but sorely needed – structural reforms, it took over 15 years of sub-optimal policy outcomes. We would mark the beginning of the populist turn with the demand-driven policies of the 1960s, including pro-cyclical fiscal policy in the US (Chart 25), a policy not repeated until the President Trump tax cuts of 2017. As the 1970s ended, median voters moved away from populism and towards the *laissez-faire* "right." The successes of Regan and Thatcher then encouraged left-

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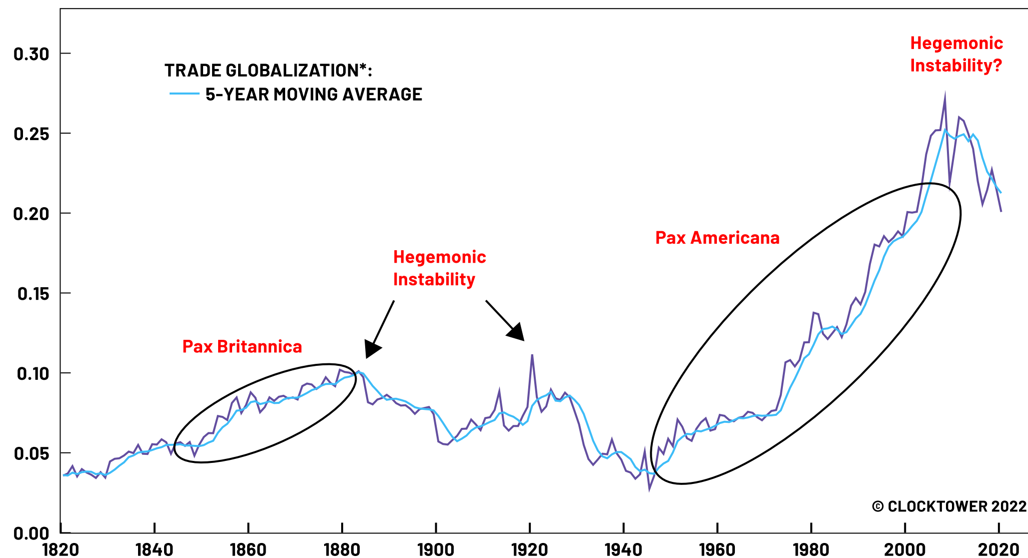
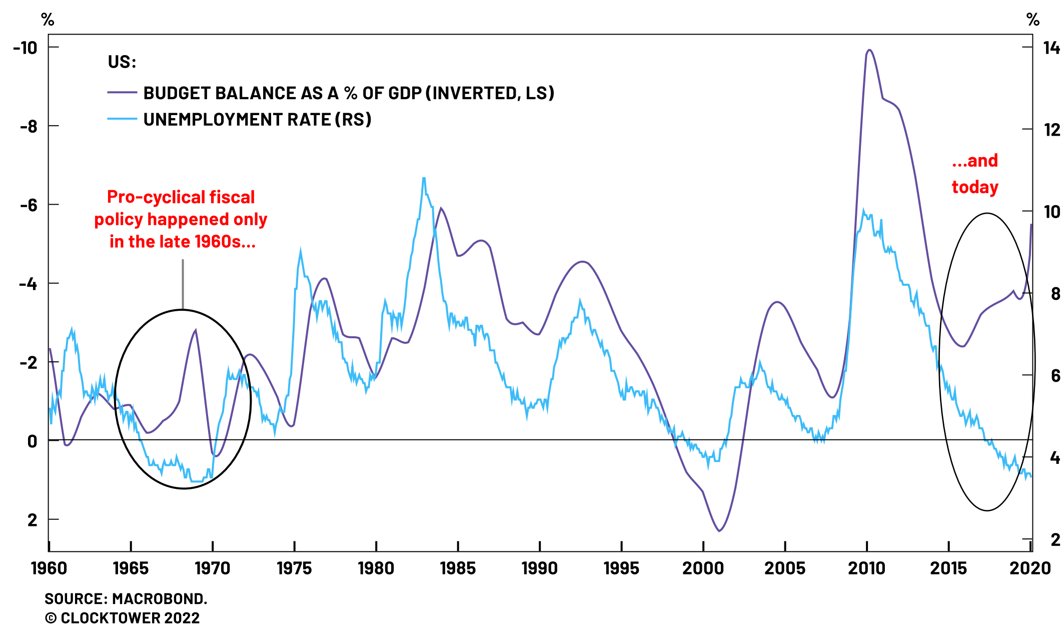
leaning parties *everywhere* to move away from the Socialist-Democratic model and towards the "Third Way" of Tony Blaire, Bill Clinton, Gerhard Schröder, Jean Chrétien, etc.

CHART 24 | ...As Globalization Accelerated



* TRADE GLOBALIZATION IS MEASURED BY IMPORTS AS PERCENTAGE OF GDP WEIGHTED BY POPULATION.
SOURCE: MACROBOND, BCA RESEARCH, CHASE-DUNN C., KAWANO Y., AND BREWER B., "TRADE GLOBALIZATION SINCE 179 WAVES OF INTEGRATION IN THE WORLD SYSTEM," AMERICAN SOCIOLOGICAL REVIEW, VOL. 65, NO. 1 AND CLOCKTOWER CALCULATIONS SINCE 1994.

CHART 25 | The 1970s Changed Politics



SOURCE: MACROBOND.
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- Regulation: Part of that political change was not just the embrace of privatization, free trade, counter-cyclical fiscal policy, and central bank independence. A key feature was to get the government out of the regulation business. Ronald Reagan's America regulated its economy at a historically low level (Chart 26), arresting the inexorable increase in regulatory effort for a decade (Chart 27). Burns was not so lucky. He had to contend with a

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semi-populist Carter administration, which came to power in 1976 with a still-*dirigiste* view of the government's role in the economy.

CHART 26 | Supply Side Regulatory Revolution

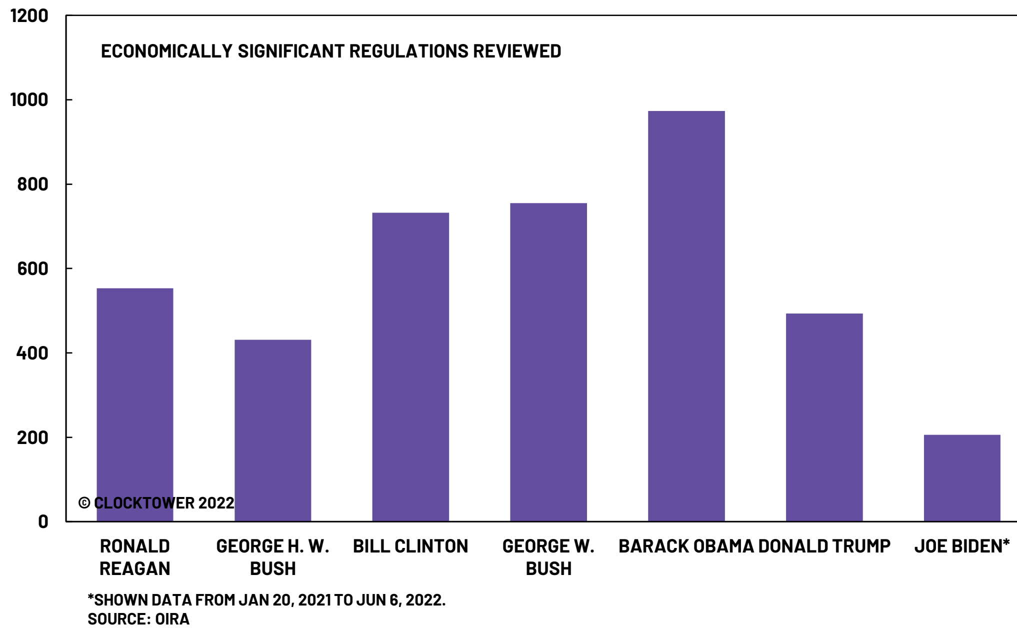
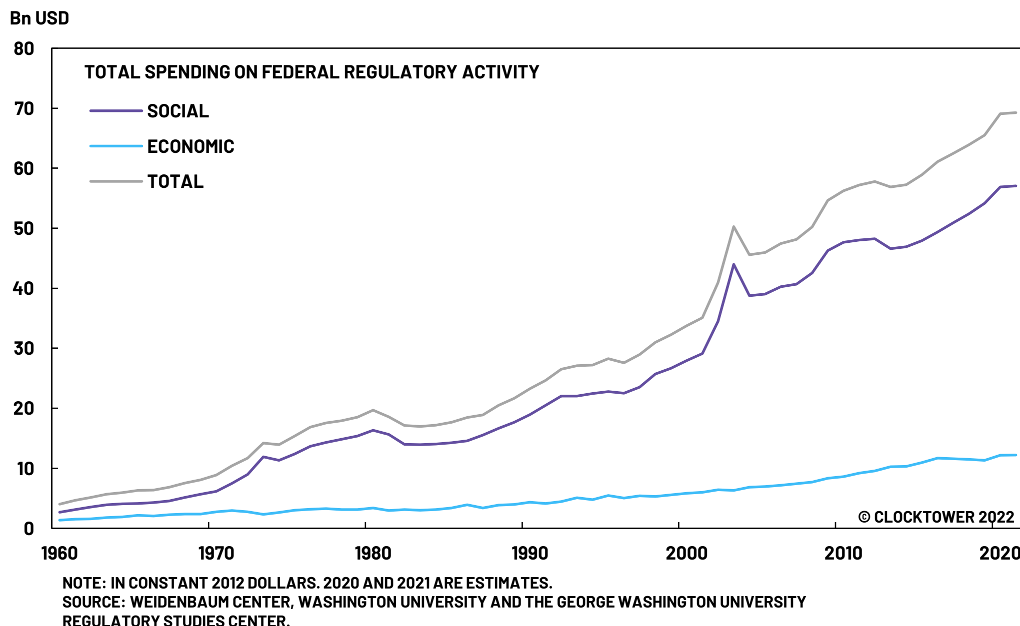


CHART 27 | Reagan Administration Arrested the Almost Ever-Present Increase in Spending on Regulation



- Technology: High levels of government R&D spending throughout the 1960s and 1970s culminated in the total factor productivity boom (Chart 28) that eventually ushered in the computer age, right in the middle of the Reagan presidency (Chart 29). The irony of this concept is significant. The end of the Cold War ushered in the massive labor supply side shock that helped tame inflation in the post-Volcker era. And yet the government R&D largesse

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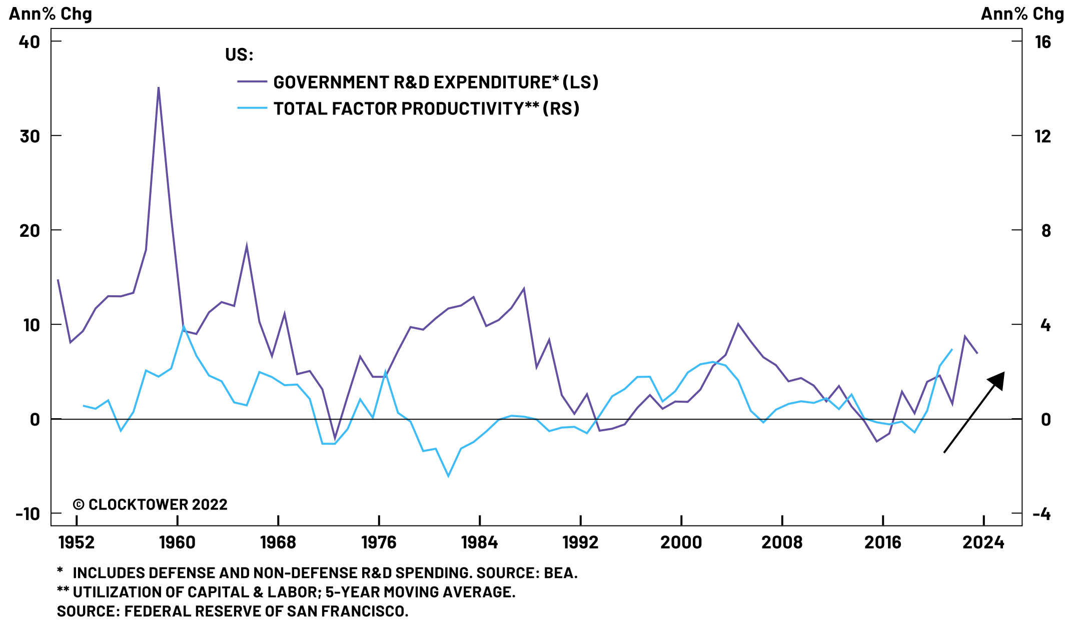
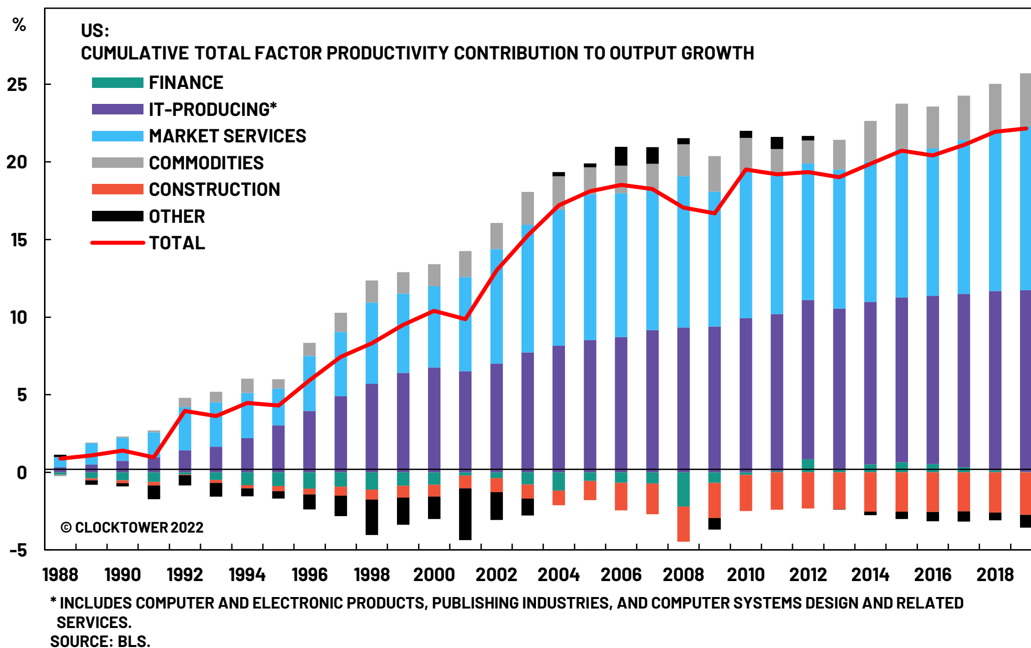
of the Cold War allowed technological progress and TFP growth of the post-Volcker era. Volcker, in other words, got the best of both the advent and the end of the Cold War! Burns, on the other hand, got nothing but pro-cyclical fiscal policy of semi-populist politicians and a headache of a tight labor market.

CHART 28 | Cold War Spurred Government R&D...



* INCLUDES DEFENSE AND NON-DEFENSE R&D SPENDING. SOURCE: BEA.
** UTILIZATION OF CAPITAL & LABOR; 5-YEAR MOVING AVERAGE.
SOURCE: FEDERAL RESERVE OF SAN FRANCISCO.

CHART 29 | ...Which Ushered in Massive TFP Growth



* INCLUDES COMPUTER AND ELECTRONIC PRODUCTS, PUBLISHING INDUSTRIES, AND COMPUTER SYSTEMS DESIGN AND RELATED SERVICES.
SOURCE: BLS.

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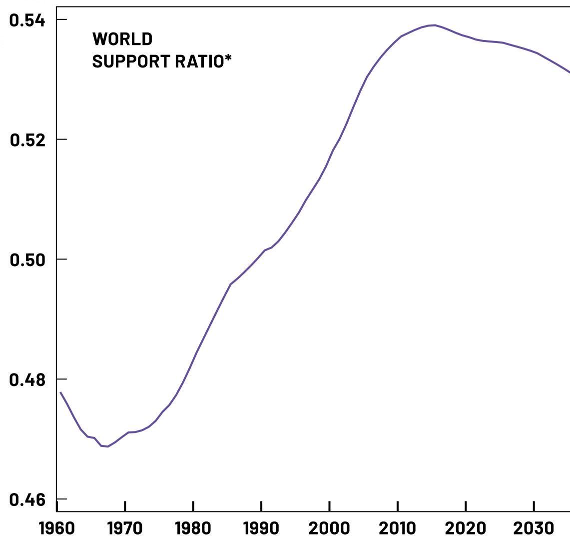
- **Demographics**: Finally, Volcker got lucky as Baby Boomers entered the labor force in gusto, with the global support ratio – the number of workers relative to the number of consumers (**Chart 30**) – accelerating just as he got the Chair. What followed was one of the greatest expansions of the global labor force in human history, greatly reducing the negotiating power of labor relative to the owners of the means of production. The subsequent outcomes were a global savings glut – as Baby Boomers entered their most productive age (**Chart 31**) – and ballooning corporate profits at the expense of wage earners (**Chart 32**).

CHART 30 | Fed Credibility on the Line



*NUMBER OF WORKERS RELATIVE TO NUMBER OF CONSUMERS.
CALCULATED BY USING AGE DEPENDENCY RATIO
SOURCE: WORLD BANK, CLOCKTOWER CALCULATION
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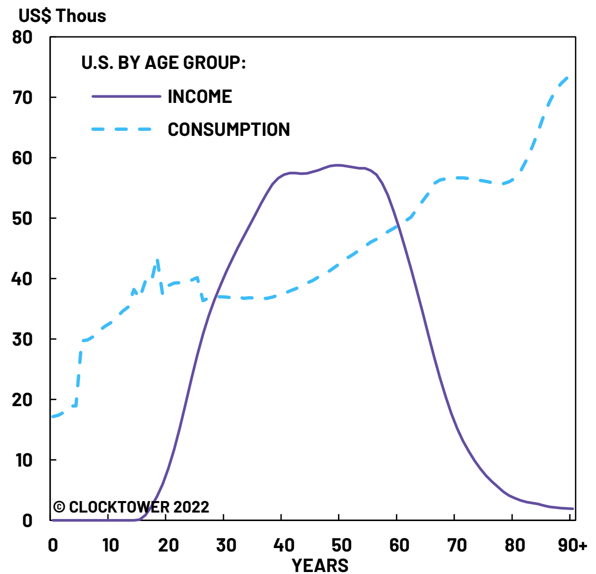
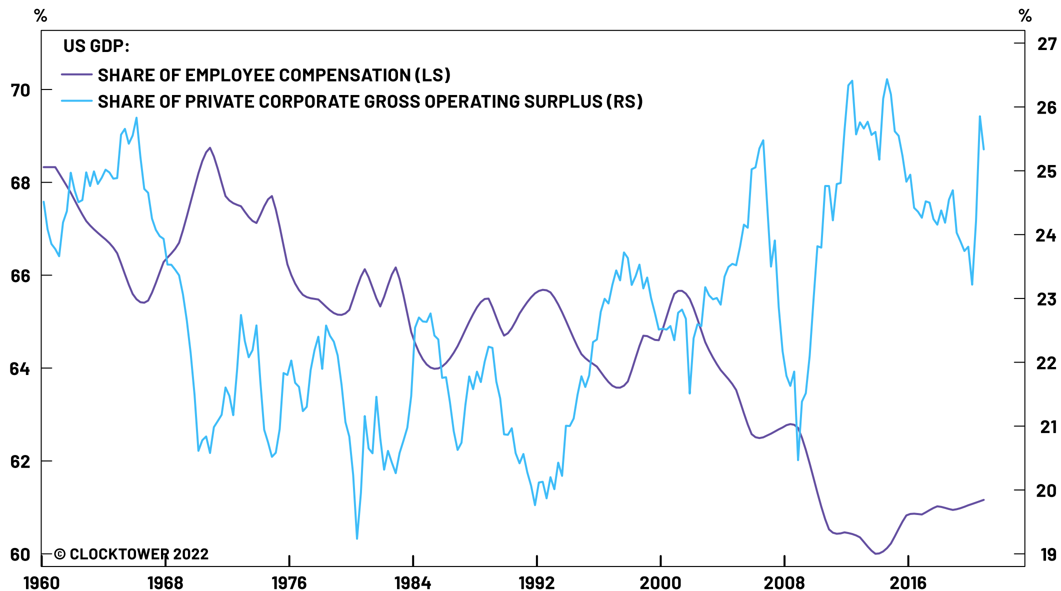
CHART 31 | Fed Credibility on the Line



SOURCE: UNITED NATIONS, NATIONAL TRANSFER ACCOUNT

CHART 32 | Corporate Profits Ballooned



SOURCE: BEA, DG ECFIN AMECO, MACROBOND.

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Most investors we speak to are blissfully unaware or purposefully ignorant of this macro-geopolitical context that allowed Volcker to become the Greek Bronze God of Finance. Instead, the financial industry – emboldened by the academic discipline of economics – repeats the myth that Volcker, and Volcker alone, tamed inflation by crushing long-term inflation expectations through his sheer power of will, endowing the US central bank with the mythical power of "credibility."

We find this preceding paragraph to be so full of absolute mumbo jumbo that we cannot believe that serious men and women working in finance hang their hat on something as ludicrous as "credibility." The difference between Volcker and Burns was not credibility. Afterall, Burns caused a recession of his own! Rather, it was the macro context that followed their decisions to raise rates.

This brings us to our assertion that the Fed should *not* cause a recession to tame inflation. First, the macro-geopolitical context is almost exactly the opposite of the one that Volcker faced. But, perhaps more importantly, the world needs capex – and lots of it – in order to deal with a multitude of supply problems. Afterall, it is not only energy prices that have caused US inflation to appreciate, all imports are going up in cost (Chart 33).

We are on record predicting both the post-pandemic inflationary regime and that it would remain entrenched.[4] The reason is that "geopolitics is not transitory."[5] What we mean is that global policymakers have not only responded to the pandemic with stimulus, but they have done so at the same time that they have decided to triple down on protectionism to reroute global trade away from China and quadrupled down on the green energy transition that will require the re-wiring of the entire planet. Together, these efforts either would need to be dramatically reversed – by which we mean that China-West tensions would have to end overnight while policymakers accepted Climate Change as inevitable – or the world is going to need the most capex-fueled cycle in history.

So far, we are getting the latter (Chart 34). Corporates and governments are responding to the policy choices and inflation with a surge in capex not seen since the 1970s cycle. This is positive and should give investors solace that the current bout of inflation will not last beyond this decade. In fact, the decisions to re-wire supply chains away from *one* country and thus build resiliency of supply and to diversify energy away from dinosaur bones seems like intelligent moves that will eventually sow the seeds for a disinflationary Goldilocks in the 2030s.

However, a Fed-induced recession due to the mistaken read of Volcker's supposedly deity-like accomplishments would do nothing to accelerate this process. In fact, a recession *now* would delay the public and private capex response, deepen voter sympathy for populists, and guarantee that inflation would return with gusto post-recession when the demand normalized, ***precisely what happens to Burns and Co. in the mid-1970s post the 1973-1975 recession!!!***

In fact, we will go further and *guarantee* to our readers,[6] right here and right now, that if we are wrong about the Fed and the Jay Powell regime actually careens the economy into a deep recession over the next 12 months, that inflation will be *much* higher over the latter part of this decade. A recession *today*, will almost certainly guarantee that the capex response suffers and thus delivers higher inflation *later*.

As an aside, this discussion is a good example of what investment-relevant geopolitical analysis *should* look like. Yes, generating *geopolitical alpha* by betting against market pricing of events such as Brexit, elections, or Russian aggression is fun and potentially wildly profitable. However, getting the *geopolitical beta* correct is far more relevant for long-term investors charged with stewarding long-term capital.

[4] Please see Clocktower Group *All Along the Clocktower,* Volume I, "Transitory Shmansitory," dated May 2021, available on request.
[5] Please see Clocktower Group *All Along the Clocktower*, Volume II, "Geopolitics Is Not Transitory," dated November 2021, available on request.
[6] In a Charles Berkeley voice no less!

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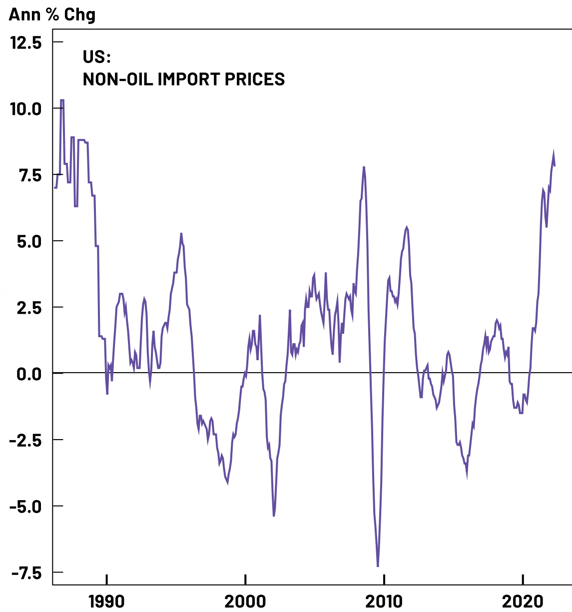
CHART 33 | More than an Energy Crisis



SOURCE: BLS, MACROBOND.
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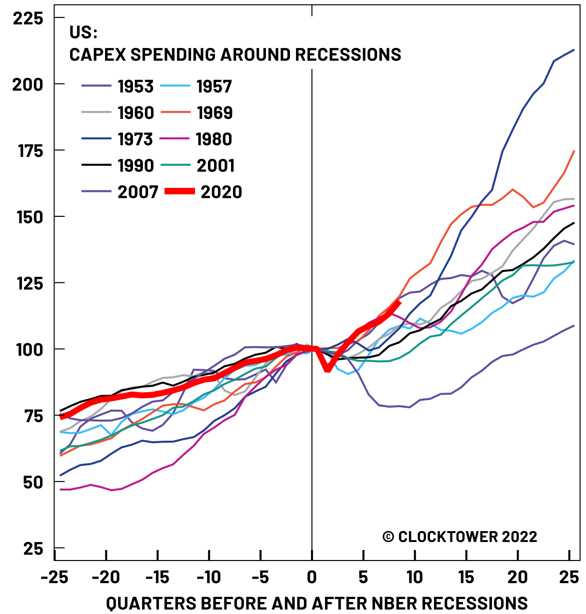
CHART 34 | Capex-Led Cycle



* REBASED THE START OF RECESSION = 100.
SOURCE: MACROBOND.

If we are correct, inflation almost certainly *has* to be higher over the course of the decade, particularly in the latter half that is captured by the – currently laughingly low – 5y/5y forward (Chart 35). In the scenario where the Fed officials stop being economics nerds worshiping at the altar of their False God Volcker and realize that capex is necessary to resolve the heterogenous inflationary environment (i.e., not a product of demand alone), then inflation expectations will likely become unanchored as the economy and inflation run hot for a year or two.

CHART 35 | The 5y5y Forward Has Lost its Mind, Inflation Will Be Much Higher Than 2.2%, 2027 Onwards

SOURCE: MACROBOND.
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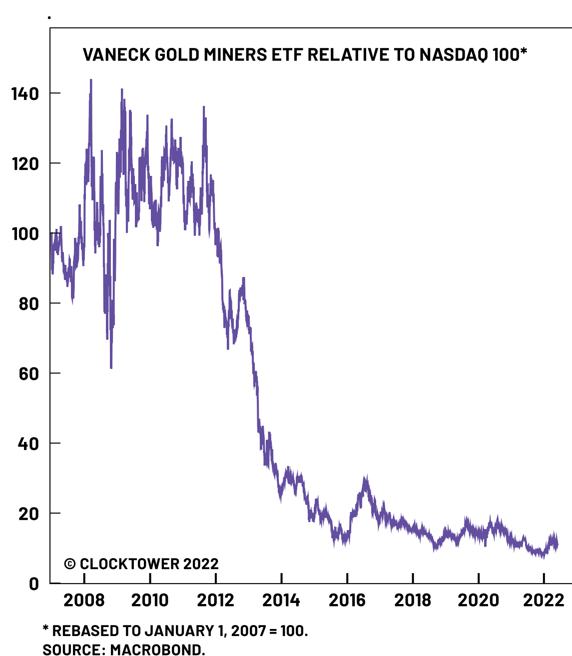
In the scenario where we are wrong and the Fed officials careen the economy off the cliff as a sacrifice to the False God Volcker, then inflation expectations will remain well anchored, with headline CPI falling precipitously as demand gets crushed. However, capex cycle will collapse, leading to insufficient supply side response over the rest of the decade, guaranteeing that the current 5y/5y forward is almost definitely mispricing the future.

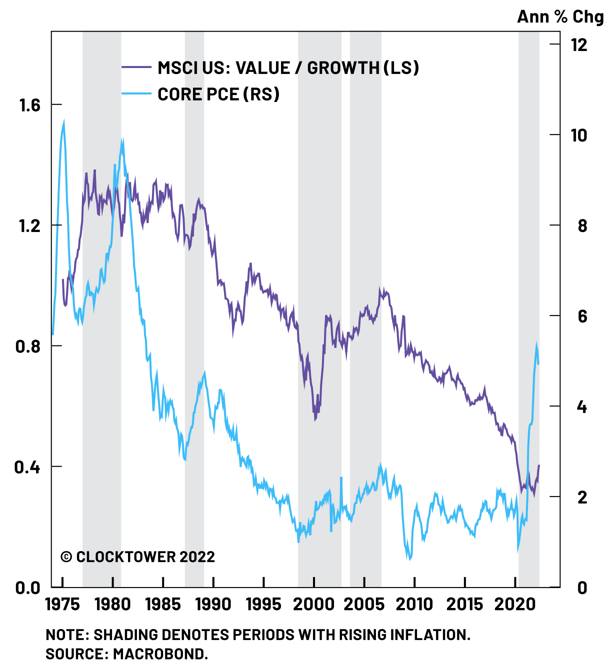
Either way, we are in a *structurally* profoundly bond bearish environment that will almost certainly be good for commodities relative to risk assets (Chart 36) and value relative to growth (Chart 37).

CHART 36 | Bet on Commodities Relative to Tech



* REBASED TO JANUARY 1, 2007 = 100.
SOURCE: MACROBOND.

CHART 37 | Bet on Value Relative to Growth



NOTE: SHADING DENOTES PERIODS WITH RISING INFLATION.
SOURCE: MACROBOND.

Bottom Line: The Fed cannot fix a supply problem. As such, if Fed officials are truly worshiping Volcker and dreaming of deity status decades from now by crushing the current expansion, they are almost certain to end up being panned like the Burns Fed. Why? Because the world needs gargantuan amount of capex to deal with the extraordinary challenges self-imposed by policymakers on a number of different, quite epochal, fronts. From fighting Climate Change to diversifying global supply chains away from China, to ensuring onshoring for domestic, populist, reasons, the world either needs to reverse these policy trajectories (unlikely) or douse the inflationary flame with extraordinary level of capex. The good news is that the capex has been strong thus far. The bad news is that the Fed officials may actually revere Volcker as a God.

The Dollar Rally Is Over

The past cycle has seen the world load up on US assets thanks to three broad macro trends (Chart 38).

First, genuine technological innovation in the 1990s and 2000s led to an explosion of innovation in the US. While the pace of productivity and innovation slowed in the 2010s (Chart 39), the incumbents learned how to evolve from innovators to oligopolies, becoming extraordinarily profitable businesses (Chart 40).[7]

[7] Please see Clocktower Group, "Is Technological Progress Dead?" dated October 2020, available on request.

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CHART 38 | US-Led Cycle

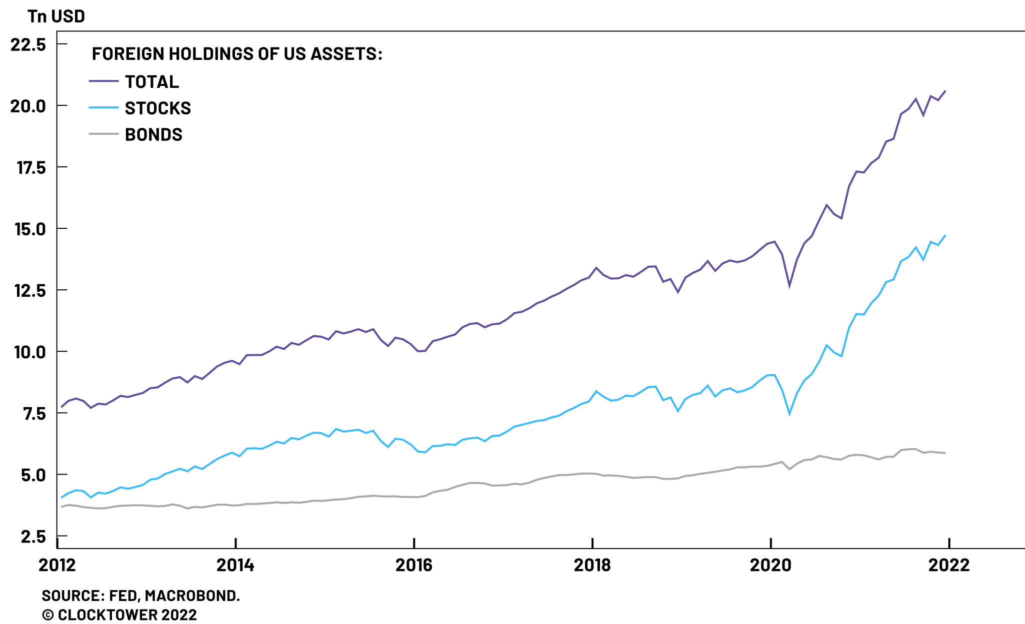


CHART 39 | No Productivity...

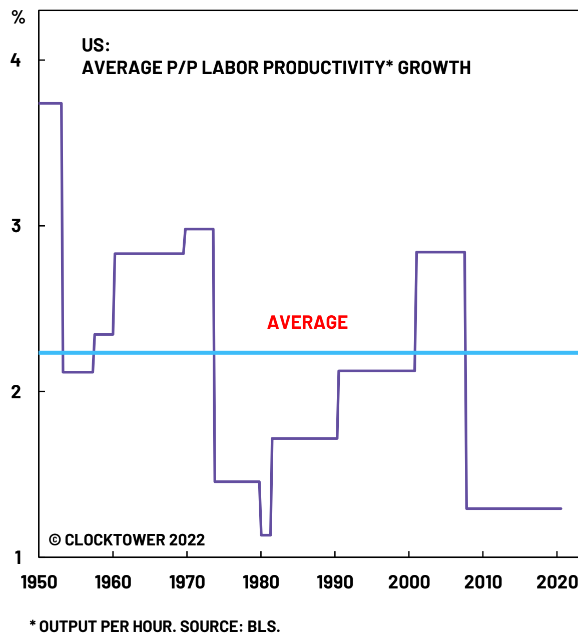
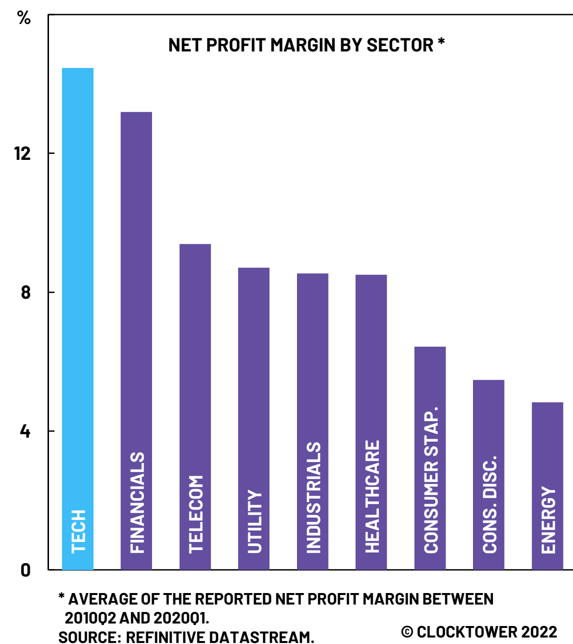


CHART 40 | ...All Profits



Second, tech companies have come to dominate the US market cap (Chart 41) to a degree much greater than their contribution to the GDP (Chart 42). This has increased the appeal of US equity market in a profoundly disinflationary cycle where investors ploughed into the longest duration assets they could find. Further, investors bet throughout the 2010s that while tech company market cap far outweighed their proportion of US GDP, the potential TAM of those companies was global given the ease of scaling software businesses.

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CHART 41 | Tech Dominates Market Share

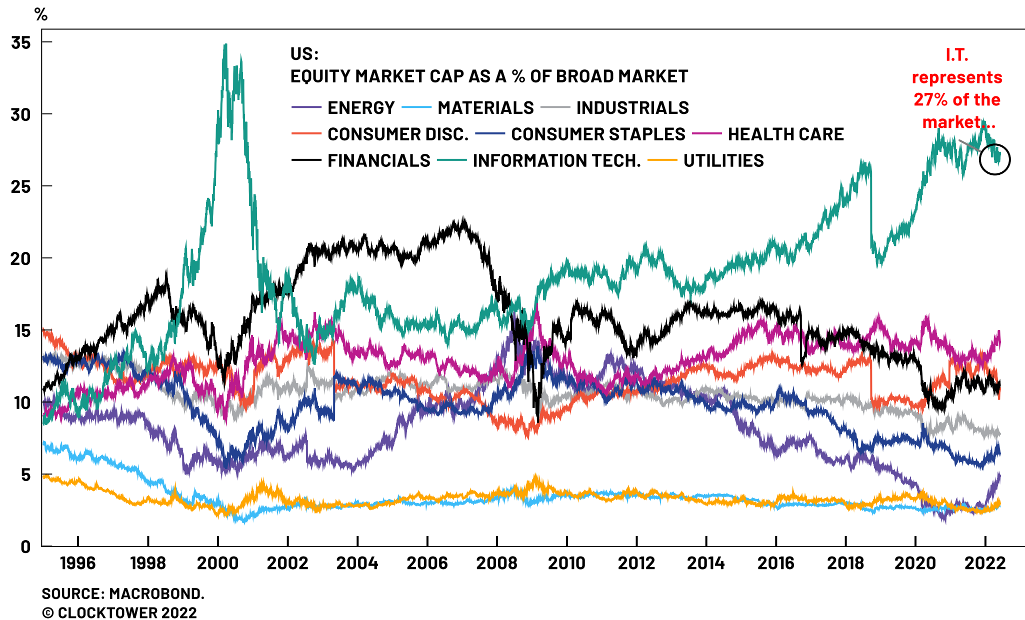
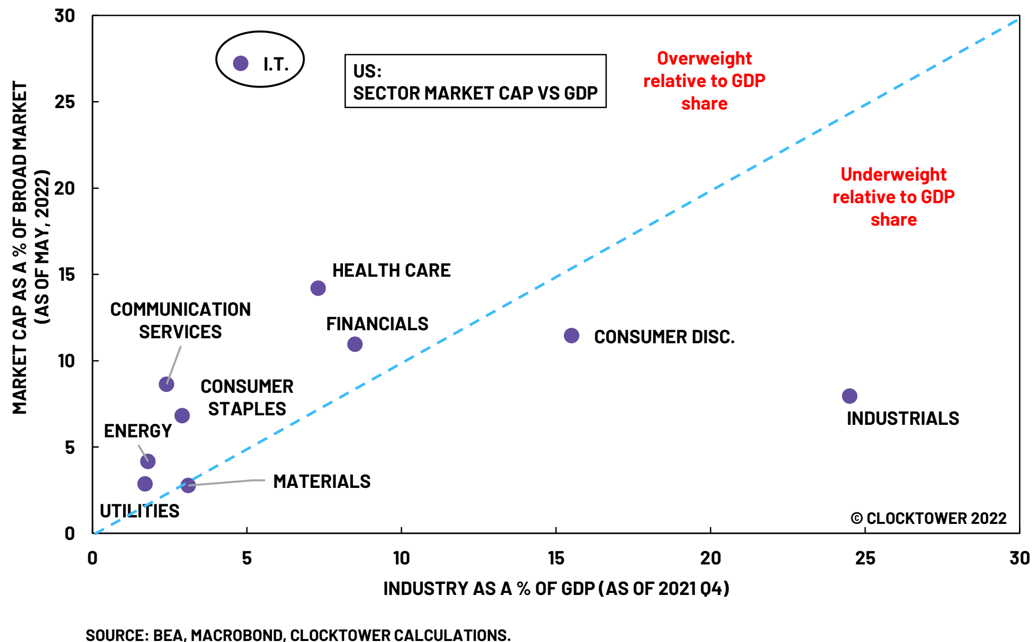


CHART 42 | ...Even Though the Share of GDP Is Paltry



SOURCE: BEA, MACROBOND, CLOCKTOWER CALCULATIONS.

Third, China pivoted over the course of the past decade away from a fixed asset investment (FAI) growth model to a private sector leverage model (Chart 43). This decision caused commodity demand to flatten out and disappoint the lofty expectations of the 2000s cycle. Investors pivoted away from EM and commodity plays and into tech plays, both US and Chinese.

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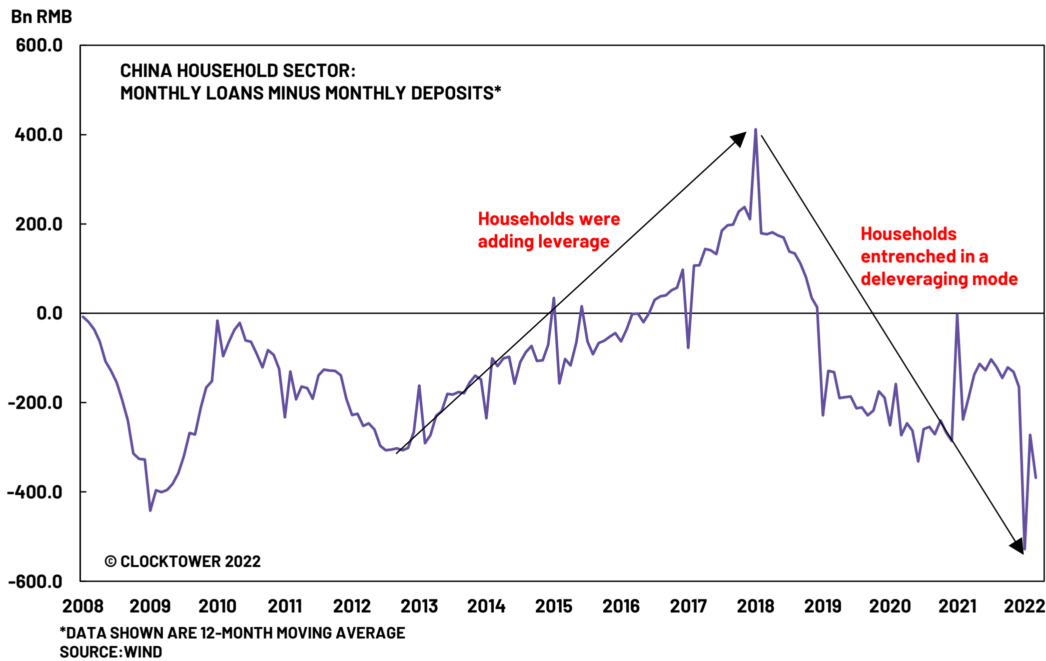
CHART 43 | China Shifted Its Growth Model in 2012



Going forward, we believe that the macro context has dramatically changed. Investors are no longer in a disinflationary cycle that favors long duration plays. The rise of the 10-year yield signals this shift away from tech (Chart 44). Competition is beginning to erode the incumbency status of many tech companies – such as streaming platforms – while trade wars and non-tariff barriers to trade are starting to erode investor expectations of the global nature of tech company TAMs.

CHART 44 | No More Disinflation

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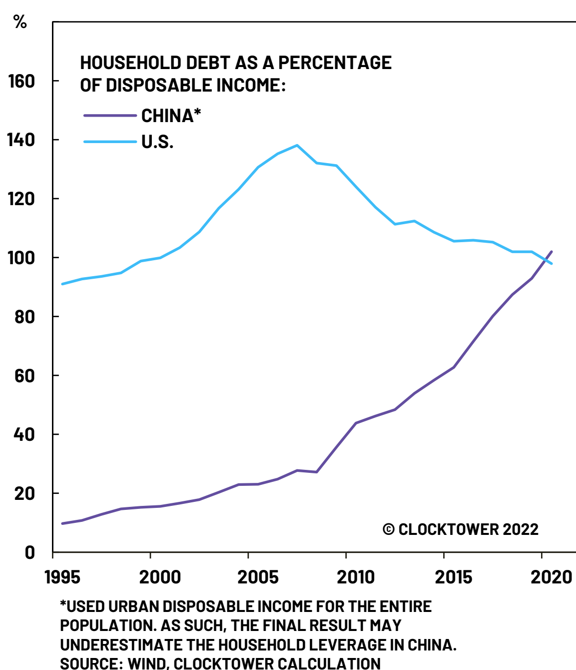
The final piece of the puzzle, however, is China. We remain bearish on Chinese economy and don't expect significant stimulus to be imminent for a number of reasons. We have detailed these reasons in several *China Macro Watch* reports, but two are worthy of repeating here. First, China's private sector can no longer be leveraged as it has reached the peak of its debt supercycle (Chart 45). As such, Chinese policymakers are pushing on a string and are going to fail to revive private-led growth. The middle-class story in China is dead, or at least in a coma for the rest of this decade.

Second, the current administration prides itself on the deleveraging accomplished since 2017 and clearly visible on Chart 43. As such, serious stimulus effort will only come when the economic crisis hits extreme levels and will likely need a leadership transition to be complete. A full 180 degree turn from deleveraging as a priority to stimulus would be seen as a dramatic loss of face for the current policymakers and thus can only be accomplished once they have a new five-year term to work with.

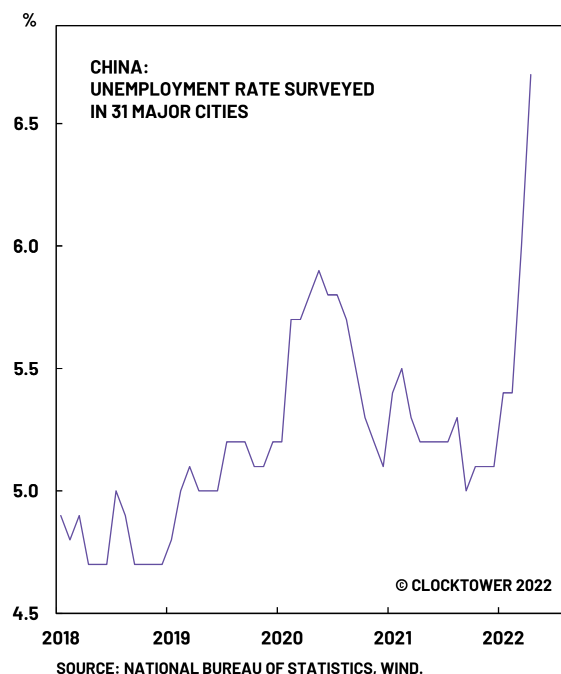
Those "extreme levels" of economic pain are nigh. Chinese economy is falling off a cliff, households are unwilling to re-leverage, and unemployment is rising (Chart 46). Eventually, China will have to stimulate with gusto, relying on its 2000s FAI-led growth model (Chart 47).

CHART 45 | The End of Chinese Debt Supercycle



*USED URBAN DISPOSABLE INCOME FOR THE ENTIRE POPULATION. AS SUCH, THE FINAL RESULT MAY UNDERESTIMATE THE HOUSEHOLD LEVERAGE IN CHINA.
SOURCE: WIND, CLOCKTOWER CALCULATION

CHART 46 | Unemployment Is Rising



SOURCE: NATIONAL BUREAU OF STATISTICS, WIND.

The timing of this shift is difficult to ascertain. Our best-case guess is that the shift in Beijing's thinking will come either following the annual leadership summer retreat at Beidaihe in July, or at the leadership transition in early November. Until then, the market may struggle to be convinced of policymakers' commitment to infrastructure-led stimulus.

When Beijing blinks, the new cycle will begin in earnest. It will signal the end of the US growth differential advantage, which has buoyed the Greenback for most of this cycle (Chart 48). But as the US loses the growth differential lead, it will retain the inflation differential (Chart 49), which for most of this cycle has had no impact on the dollar. Essentially, investors ploughed into US assets – particularly equities – betting that US tech companies would continue to be the best game in town and that inflation would, indeed, be transitory. At some point, when US inflation proves to be quite entrenched, foreign investors will have to re-domicile or seek assets that outperform in an inflationary regime (read: not tech).

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CHART 47 | China Will Have to Turn to FAI-Led Growth Model Again

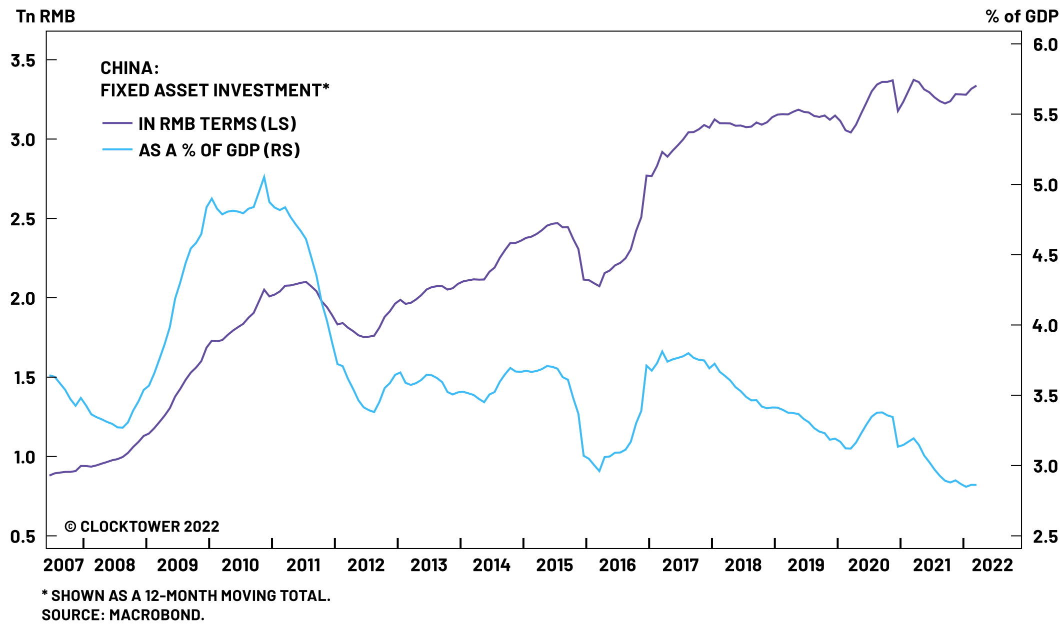
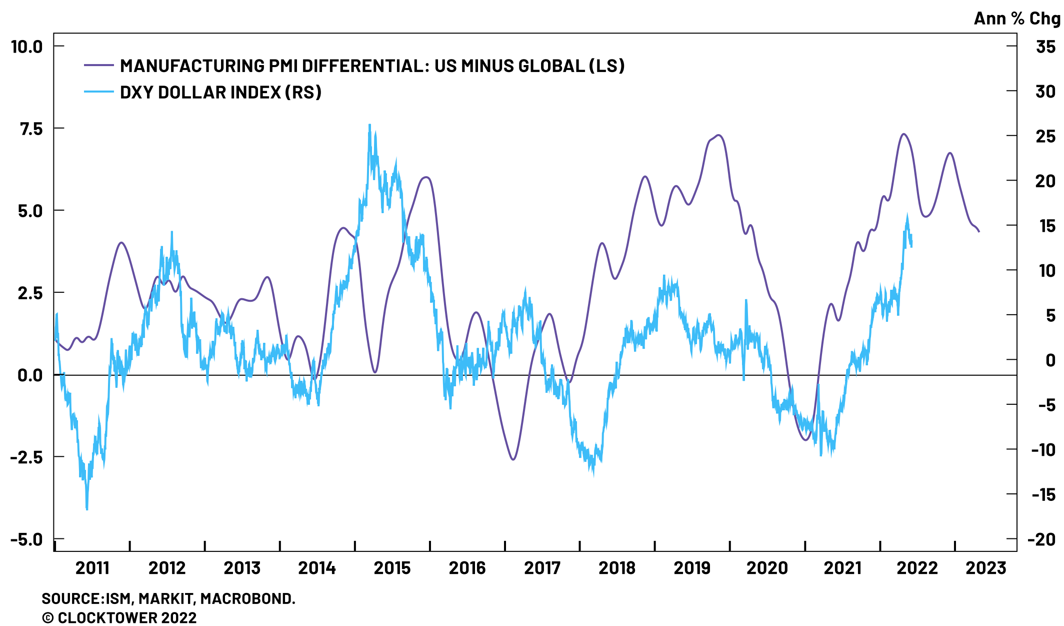


CHART 48 | The US Growth Differential Will Ease



Already, US inflation is proving to be far more heterogenous and multifaceted (Chart 50) than inflation in Europe, which is mainly energy-led (Chart 51), and Asia, which is basically non-existent. This speaks to the fact that US inflation is a product of a domestic pandemic-induced stimulus that dwarfed those of other economies. While more such stimulus is not on the horizon, we also do not foresee a political shift in the US in favor of austerity. The Democratic Party will face steep losses in the midterms, that is true, but Republicans will not impose austerity on President Biden the way they did on President Obama. There is no political appetite in the US for austerity. The median voter has embraced the Buenos Aires Consensus.

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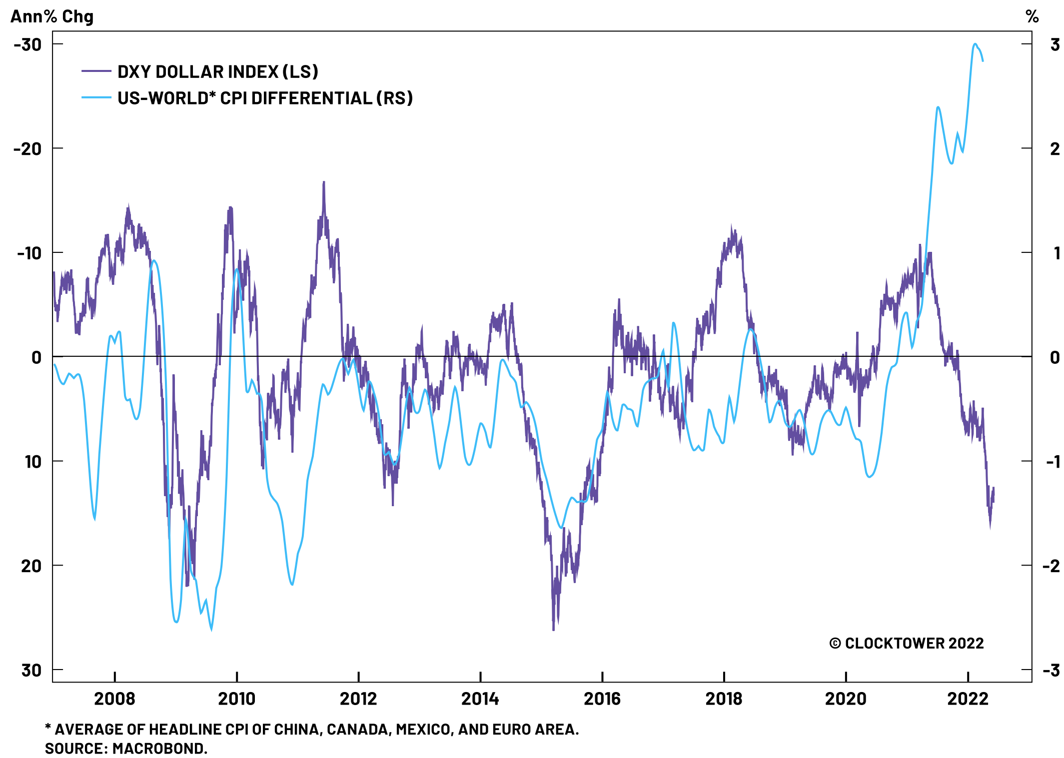
CHART 49 | Inflation Differential Will Not



* AVERAGE OF HEADLINE CPI OF CHINA, CANADA, MEXICO, AND EURO AREA.
SOURCE: MACROBOND.

CHART 50 | Inflation in the US Is More Broad-Based...

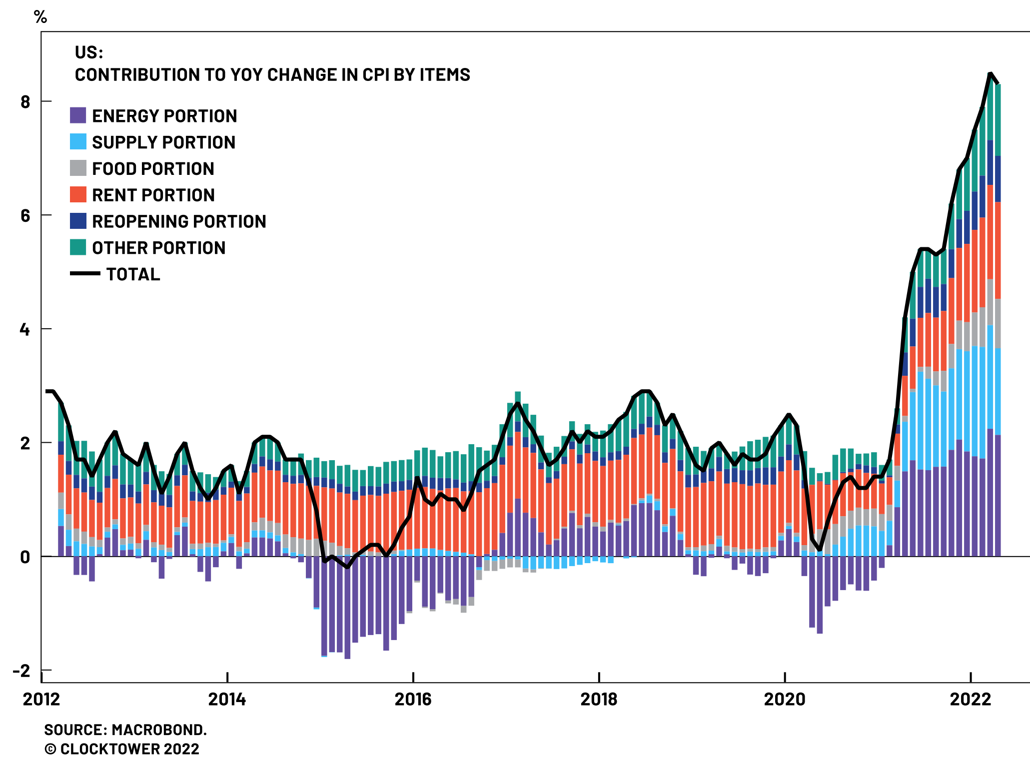


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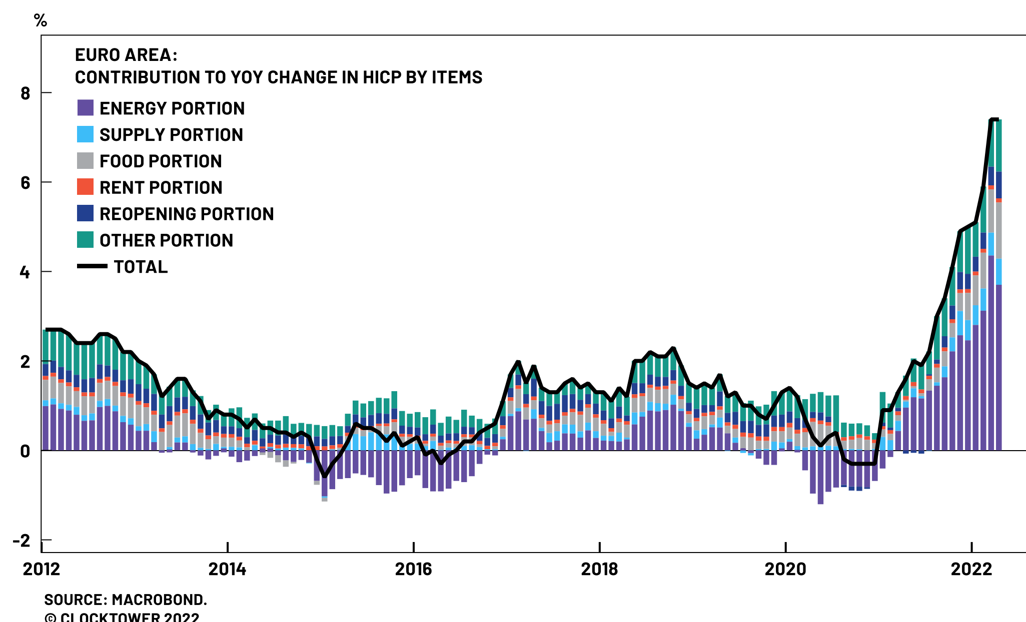
CHART 51 | ...While Inflation in Europe Concentrates in Energy



Bottom Line: When the US economy loses the growth race, the inflation differential will cause the USD to tumble. Meanwhile, the macro context has turned against tech, causing foreign investors to move away from long-duration assets and into other sectors. This should favor equity sectors with far less exposure to tech, such as Japan and Europe. Emerging Market exporters, particularly Latin America – our favorite pick since late 2020[8] – should outperform with gusto.

An American Gas Crisis

An "American Gas Crisis" is emerging as a major investment theme within our macro universe. Despite surging gas prices and growing industrial paralysis in Europe, the US has thus far managed to stay away from the crisis, with the Henry Hub gas trading at a 70% discount to European TTF gas (**Chart 52**). However, the combination of increasing commitment to LNG exports and stagnating shale gas production is likely to push the US natural gas market from structural surplus to a deficit, auguring a sharp convergence between the US and international gas prices.

Ever since the 2010 shale revolution, the US oil and gas production has exploded, transforming America into a net petroleum exporter (**Chart 53**). The US has surpassed both Qatar and Australia to become the world's largest LNG exporter over the past six years. For the US government, promoting LNG exports is a strategy that brings both economic and geopolitical benefits.

On the economic front, rapidly growing LNG exports are considered by the US government as a promising tool to rebalance its enormous trade deficit with both China and Europe. The Phase One trade deal signed between Washington and Beijing in early 2020 envisaged China buying an additional $52.4 billion of US energy products over the course of 2020 and 2021 on top of the 2017 baseline. While the deal has been labelled a "historical failure" – China bought only 57% of the US exports it had promised to purchase — the LNG trade between the two has surged, with the US emerging as China's second largest LNG supplier in 2021 (**Chart 54**). Moreover, despite a significant increase in geopolitical tensions, Chinese companies have

[8] Please see Clocktower Group *All Along the Clocktower*, Volume II, "The Winner of A Multipolar World: Latin America," dated October 2020, available on request.

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started to sign long-term LNG contracts with US suppliers. LNG trade has thus become one of the few arenas where the two superpowers still share common interest.

CHART 52 | US Discount Is Over?

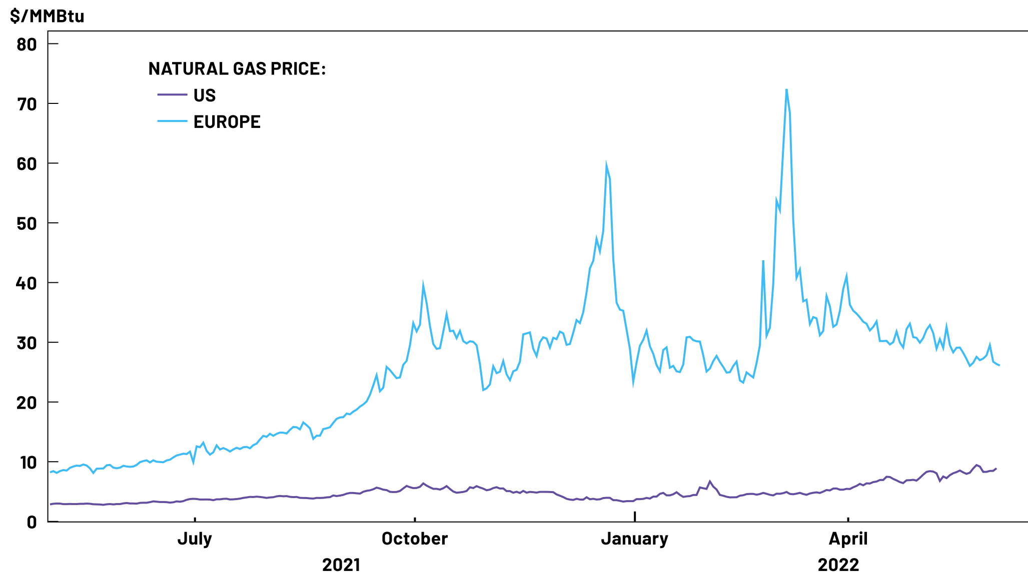


CHART 53 | A Surge in US Petroleum Production

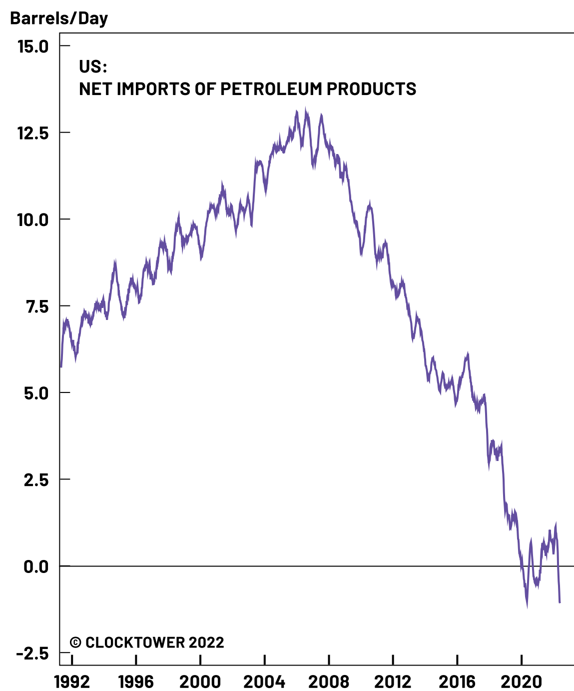
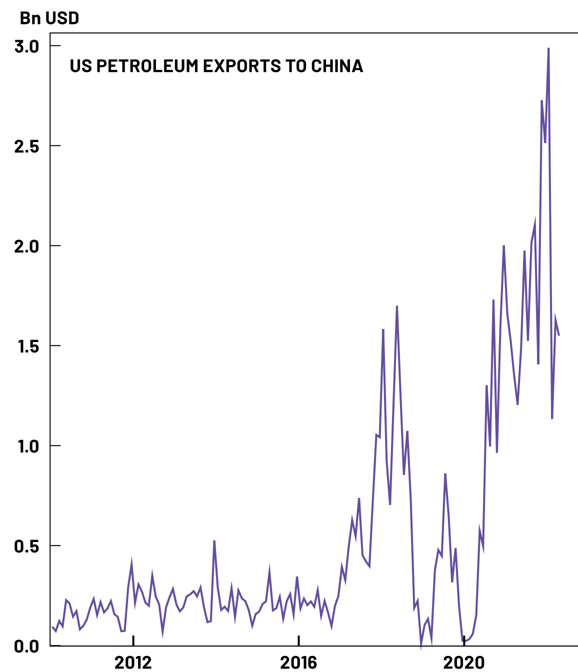


CHART 54 | China Has Benefited



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On the geopolitical front, the US commitment to providing more LNG to Europe will play a critical role in strengthening the Transatlantic Alliance as well as weakening the Russian stranglehold on Europe over the medium to long-term. According to the White House statement on March 25, the US will ensure additional LNG volumes for the EU market of at least 15 bcm in 2022 and of 50 bcm/year throughout 2030. As such, given both economic and geopolitical considerations, the US LNG exports will likely continue their trajectory of rapid growth in the coming years.

This comes precisely at a time when there is a growing concern that the US shale gas production may start to slow earlier than many expect. Production has largely been concentrated in just three fields since 2010 – The Marcellus, Hayneville, and Permian have accounted for over 50% of total US gas output (Chart 55). And a third of production comes from the Marcellus alone. What is concerning is that these fields may soon begin to exhibit the first signs of exhaustion, similar to what happened with the Barnett and Fayetteville formations already (Chart 56).

CHART 55 | But Gas Production Has Peaked...

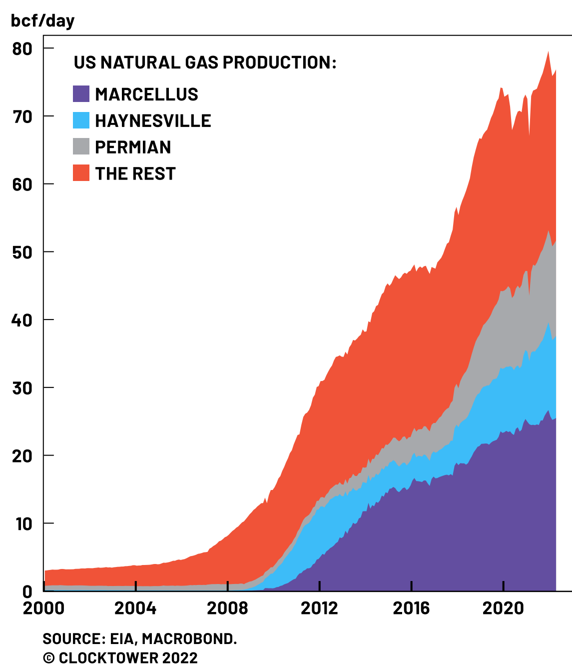
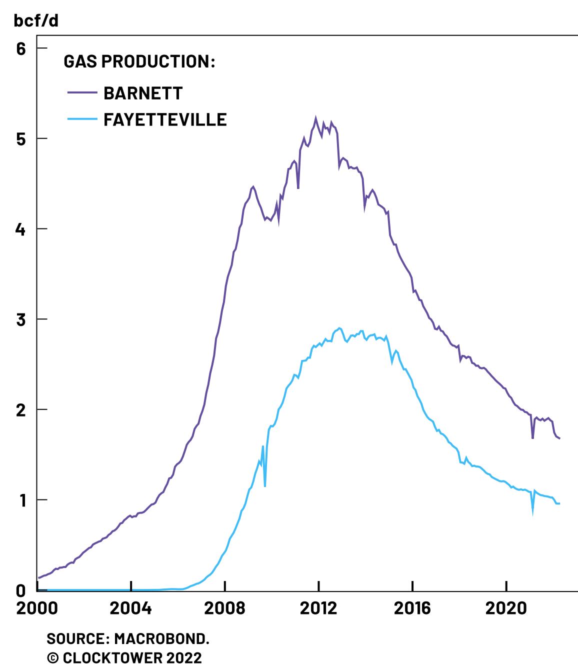


CHART 56 | Particularly in Barnett and Fayetteville



While Barnett and Fayetteville were the first, unconventional gas shales to be developed, both fields exhibited the profile defined by the "Hubbert Curve," which indicates that gas fields would peak in production once half of their recoverable reserves were withdrawn (Chart 57). It appears that Marcellus, the largest shale basin in the US, has thus far produced 65tcf of the estimated 130tcf of total recoverable reserves, hitting the threshold of its Hubbert Curve (Chart 58). Therefore, the Marcellus gas production will likely peak in the next six to twelve months.

In addition, Goehring & Rozencwajg, a commodity research firm whose research we highly recommend investors add to their reading list, found that the production in both the Barnett and Fayetteville rolled over once 60% of their Tier-1 locations were developed. According to their research, the Marcellus and Haynesville have completed 45% and 47% of their Tier 1 wells respectively. Marcellus will likely stop growing within the next 12 months and experience a steep decline in 2025. The anemic growth in rig counts does not body well for Marcellus' future production either (Chart 59).

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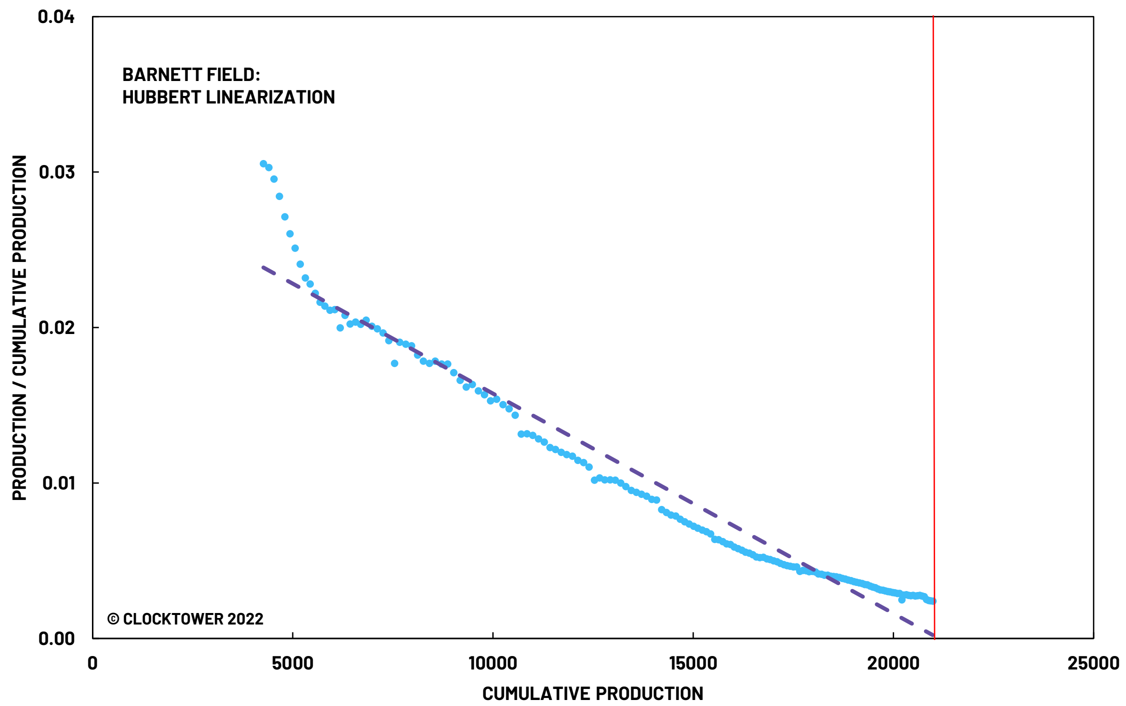
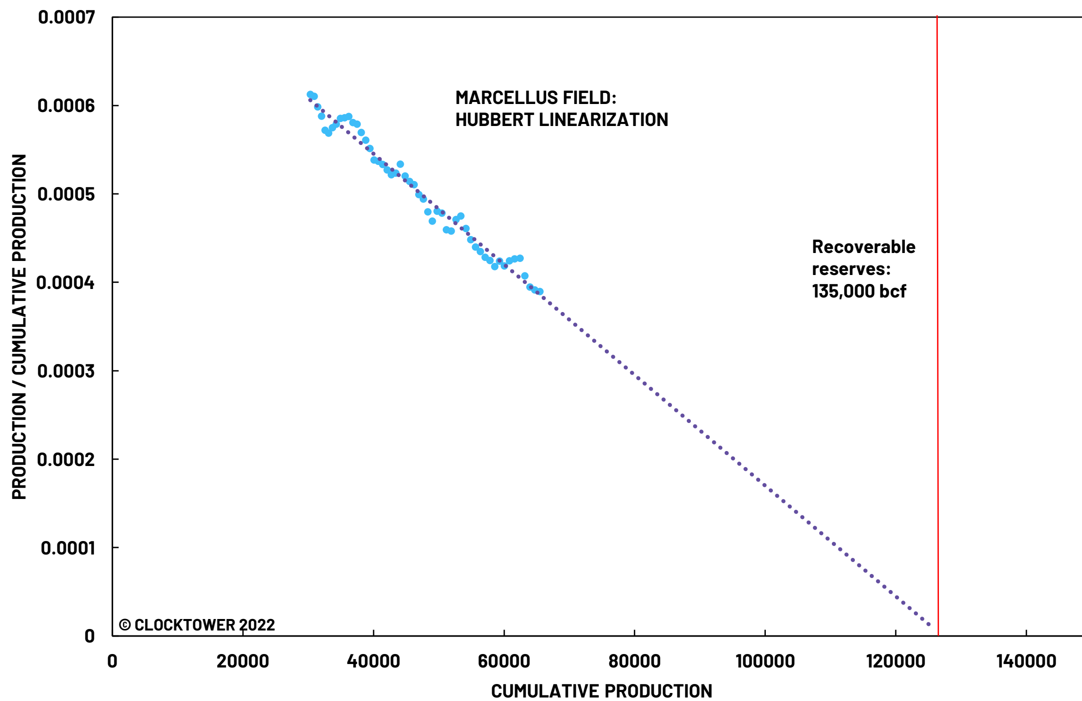
CHART 57 | Barnett Field Closely Followed the Hubbert Curve...



SOURCE: NATURAL RESOURCE INVESTORS, EIA

CHART 58 | ...Suggesting that Marcellus Is the Next



SOURCE: NATURAL RESOURCE INVESTORS, EIA

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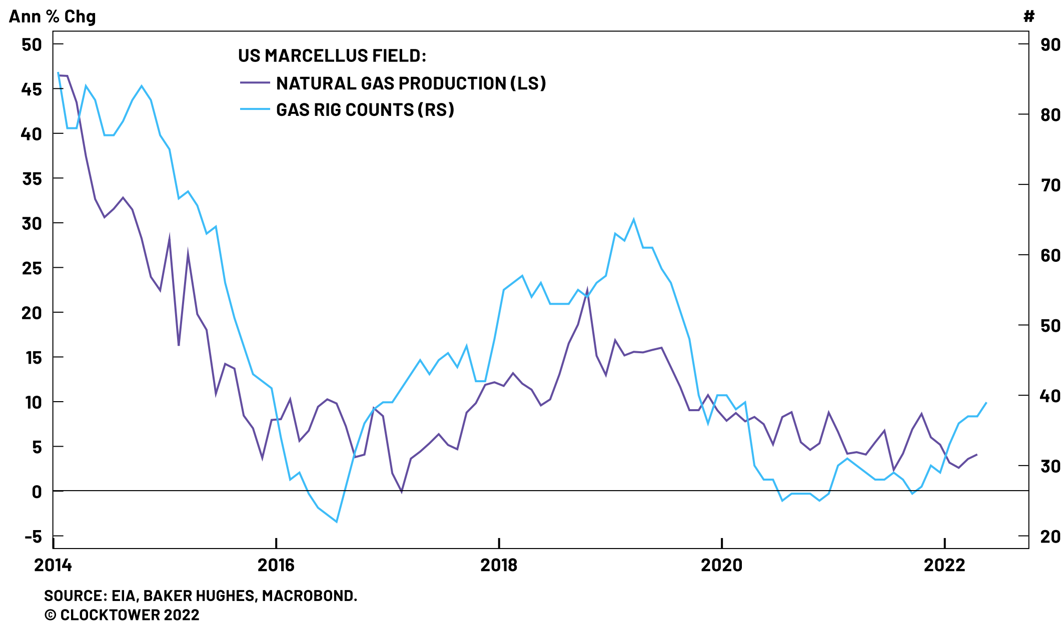
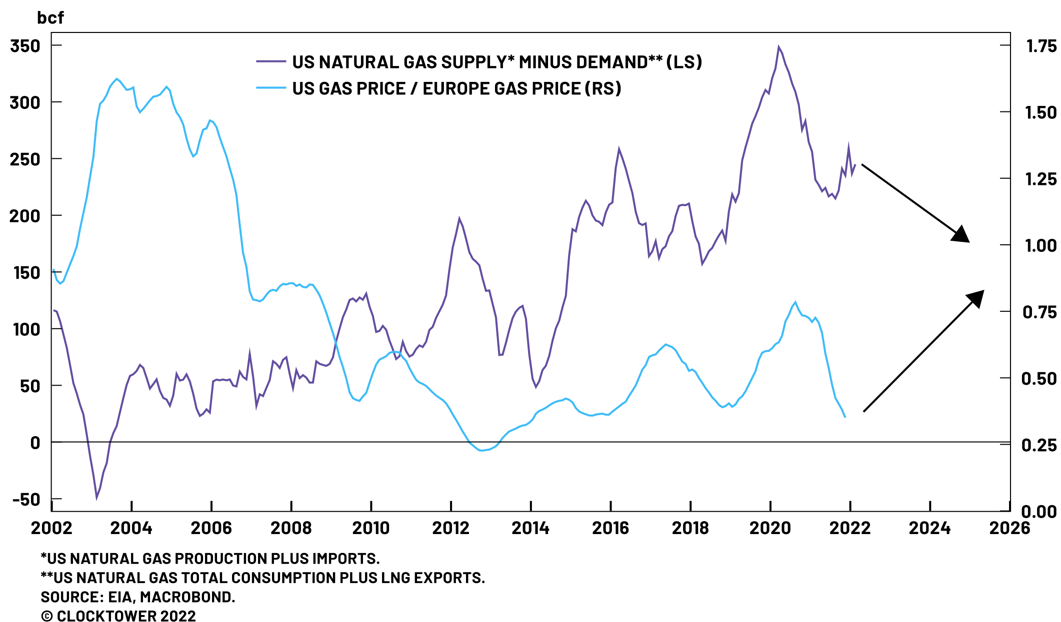
CHART 59 | Anemic Rig Count Recovery Is Concerning



Bottom Line: The sooner-than-expected peak in the shale gas production, coupled with the accelerated US integration into the international gas market via LNG exports, is likely to sharply narrow the US gas surplus, if not tipping it into an outright structural deficit. Historically, there is a clear negative correlation between the US gas surplus and its price discount to European gas (Chart 60). With the structural surplus set to decline, investors should expect the price gap to close rather quickly. An outright gas deficit scenario would indicate a four-to-six-fold upside in US gas prices.

CHART 60 | US Surplus Decline Will Close the Gap in Global Prices



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