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Walk, Don't Run: Mid-Year Update 2022

KKR
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Contents

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Walk, Don't Run: Mid-Year Update 2022

As we have highlighted for some time, our macro viewpoint remains that this cycle is different. Specifically, we see uneven supply constraints, higher levels of interest rates, and heightened geopolitical risks against a backdrop of slower real economic growth and sticky inflation. Overall, we believe that we have entered a regime change, where structural forces now warrant a different approach to portfolio construction. What is so challenging today for macro investors and allocators of capital alike is that the traditional relationship between stocks and bonds — where bond prices rise when stock prices fall — has broken down. Looking ahead, we are now firmly of the view that the macroeconomic narrative will soon shift from a singular focus on the impact of inflation on the global capital markets to one where investors are surprised by how unwelcome inflation adversely affects corporate profits. Importantly, we see inflation from food, oil, and services remaining robust, despite our forecast for deflation in the goods sector by 2023. Against this backdrop, our models suggest that Credit feels cheaper than Equities, and Public Equities appear more attractive than peer-to-peer Private Equity. Meanwhile, in Infrastructure and Real Estate, we do not expect prices to correct too much. Across all our portfolios, we think that a thematic bent continues to be required. Security, pricing power, de-carbonization, collateral-based cash flows, and innovation are all areas where we see significant opportunity to invest behind the 'signal' while many today are being swayed by the 'noise' of unsettled markets. Finally, from a deployment standpoint, we think that we remain in a walk, not run stance, until the Fed has inflation more under control and/or corporate profit estimates look more achievable.

A good half of the art of living is resilience.

—**Alain de Botton,** British Philosopher

Without question, current market conditions are about as choppy as I have seen during my career. The last time the Fed increased rates 75 basis points at one meeting was in 1994, when I was a young analyst covering financial stocks at Morgan Stanley. At that time, the Fed's hand was forced to act decisively in order to try to regain credibility on its inflation fighting prowess as well as to blunt surging consumer demand. Today's backdrop, while similar, feels worse. Beyond rapidly tightening financial conditions, just consider that Target, one of America's leading and best-run retailers, recently told us two months of 'surprise' freight in the first quarter led to an expense miss of fully one billion dollars, or that its inventories had ballooned 43% sequentially. However, as we show in *Exhibit 1*, Target is not alone, as Walmart, another leading retailer, is also suffering from inventory bloat. Not surprisingly, we are also seeing consumers aggressively increasing credit card balances to withstand the shock from rising inflationary pressures, including food, transportation, and energy costs (*Exhibit 2*). Unfortunately, as we detail below, we think the permanence of the war in Ukraine — and all its adverse consequences on humanity and the economy — is likely to be an enduring feature of the current recovery.

Consumers and corporations are not the only ones facing an uncertain and highly inflationary landscape where things are changing quite rapidly. Investors too are experiencing extreme upheaval. In particular, what makes today's environment so tricky for macro investors and asset allocators is that the traditional relationship between stocks and bonds — where bond prices rise when stock prices fall — has broken down. One can see this in *Exhibit 3*. This development, which we think is more structural in nature, is a big deal,

Our Out of Consensus Calls	Our View
We think oil prices could be higher for longer	At $115 and $100 per barrel for 2023 and 2024, we are materially above consensus on oil ($24 and $19 per barrel, respectively)
We see materially higher yields for the German bund in 2023	Our forecast for the German bund in 2023 is much higher than the market expects (2.0% versus 1.15%)
The market has yet to price in broad-based margin deterioration	We believe S&P 500 earnings per share will *contract* five percent in 2023 versus a consensus expectation of nine percent growth. At present, 85% of the S&P 500 is expected to have *rising* margins in 2023
Divergence between the economic and market recovery in China	China is in contraction according to our proprietary cyclical indicator, with no 'V-shaped' recovery as we saw in 2020. However, the market now seems to have largely discounted the tough economic environment we are forecasting
Tale of two consumers in Western economies	Low-end consumers will continue to experience shrinking wallets, getting hit hard by inflation that is being passed through across many industries and sectors
Inflation headwinds shifting from goods to services	We forecast goods *deflation* in the U.S. in 2023, but expect services, food, and energy inflation to remain elevated

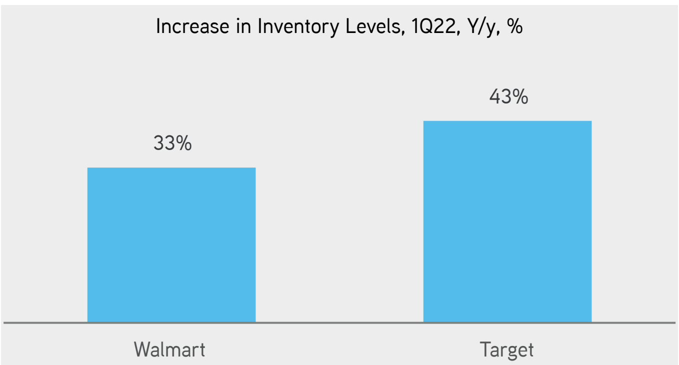
Key Changes to Our Forecasts	
GDP	In the U.S., our base case now envisions growth of 2.4% for 2022, down from 3.2% previously. **In 2023, we expect growth to stall, with U.S. GDP falling to just above one percent**. In Europe, we envision Real GDP growth of 2.3% in 2022 and 1.7% in 2023. In China, we now expect 3.8% growth in 2022, down from 4.3%. For 2023, we lower China Real GDP growth to 5.0% from 5.4%
Inflation	**We expect inflation in the U.S. to reach 8.25% for 2022, falling to 'just' 4.25%** in 2023. In Europe, we have revised our forecasts for inflation in both 2022 and 2023, to 7.3% and 3.4%, respectively. In China, we are lowering 2022 inflation to 2.3% from 2.6% but raising 2023 estimates to 2.6% from 2.3%. Consensus for inflation stands at 2.2% for both 2022 and 2023.
Cycle	Factors often cited as sources of economic resilience today, such as the strong labor market and elevated levels of household wealth, have actually been late-cycle risk factors from a historical perspective. **We come out expecting an abrupt slowdown, verging on mild recession, playing out by 2023**. Such a scenario could feel analogous to 2000–2002.
S&P 500	We are revising down our S&P 500 fair value forecast to 4,200 for 2022 and 4,350 for 2023 (from 4,575 and 4,650, respectively). **We are formally incorporating a mild earnings recession (-5% Y/y) in 2023**, which leaves 2023 EPS estimate at $219 (vs. $235 previously and consensus at $250); 2022 EPS estimate is unchanged at $230. **We assume fair value NTM P/E is approximately 17x in 2023, which is down 21% from Dec 21 highs of 21.5x**.
Oil	Our 2022 full-year price target remains unchanged at $110 versus a consensus of $102. **Looking ahead to 2023, we now assume that WTI averages around $115, up from our prior forecast of $100 and a consensus of $91 and $100 in 2024 versus consensus of $81.**
U.S. Interest Rates	Our U.S. 10-year yield target increases to 3.75% in 2022; it remains at 3.5% in 2023 and 3.0% for the longer-term. After a cumulative 325 basis points of hikes in 2022, **we see fed funds ending 2023 just below 3.625%**.
European Interest Rates	We expect the bund to reach 1.4% by year-end 2022. **Our most out of consensus call is for 2023, when we expect the German bund to reach 2.0%**, compared to a consensus estimate of 1.15%. We are now forecasting 150 basis points of ECB tightening in 2022 and calling for two 50 basis point rate hikes.

Key Investing Conclusions	We believe that the macroeconomic narrative is shifting from a singular focus on surging inflation expectations and central bank policy efforts to address them to one where inflation is adversely impacting earnings. It is a subtle but important difference. We also think investors are still underestimating most aspects of food and energy inflation. Overall, we remain in a Different Kind of Recovery mode, which suggests this is still a time to **walk, not run, on deployment**.

in our view. As a result, many investors will need to consider adding different types of investments to their traditional asset 60/40 allocation mix (see Section II; Question #6 for more details). Consistent with this view, we believe not only that forward returns are likely to be lower but that Bonds can no longer serve as shock absorbers or diversifiers when paired with Equities.

Exhibit 1

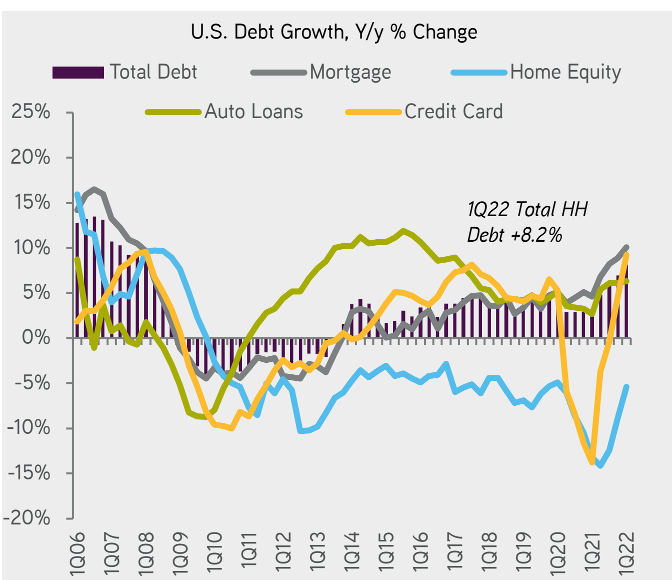
Leading Companies Have Too Much Inventory, Which Is Why We Forecast Goods Deflation in 2023



Data as at May 20, 2022. Source: WSJ.

Exhibit 2

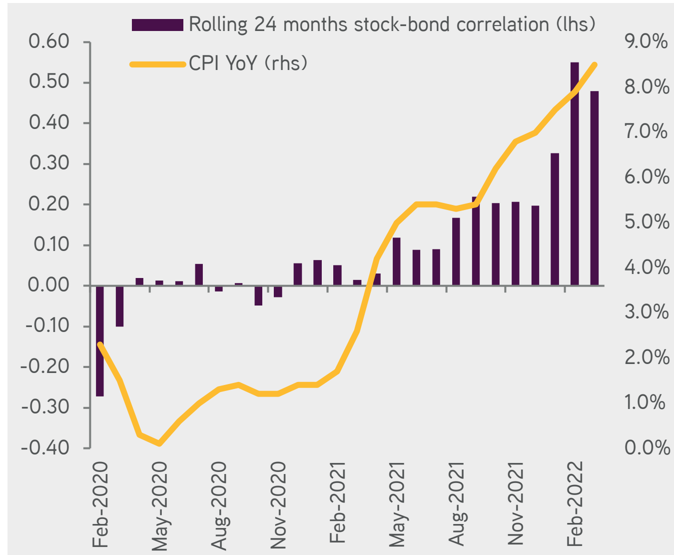
Inflation Is Hitting Consumers Hard, Forcing Them to Tap Into Their Debt Capacity to Maintain Current Living Standards



Data as at March 31, 2022. Source: Federal Reserve, Evercore ISI.

Exhibit 3

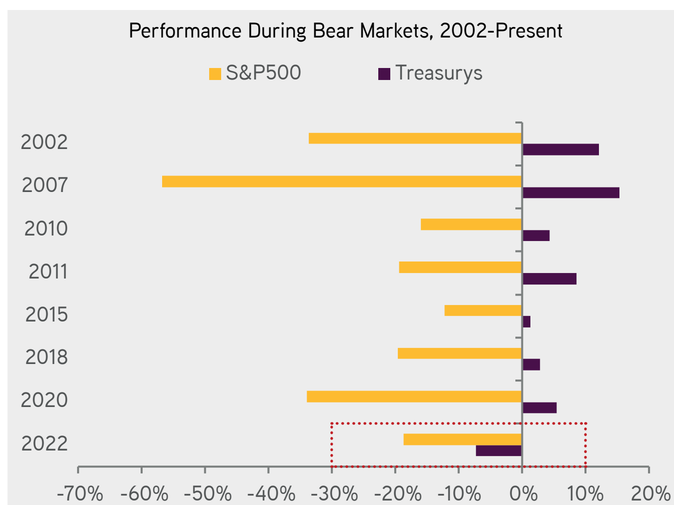
The Relationship Between Stocks and Bonds Is Changing in Today's Inflationary Environment



Data as at March 31, 2022. Rolling 24 months correlations calculated using monthly total returns of the S&P500 Index and Barclays U.S. Aggregate Index.

Exhibit 4

In Normal Markets, Bonds Rally When Stocks Go Down. Today, That Is Not Happening



Data as at May 26, 2022.Source: Bloomberg.

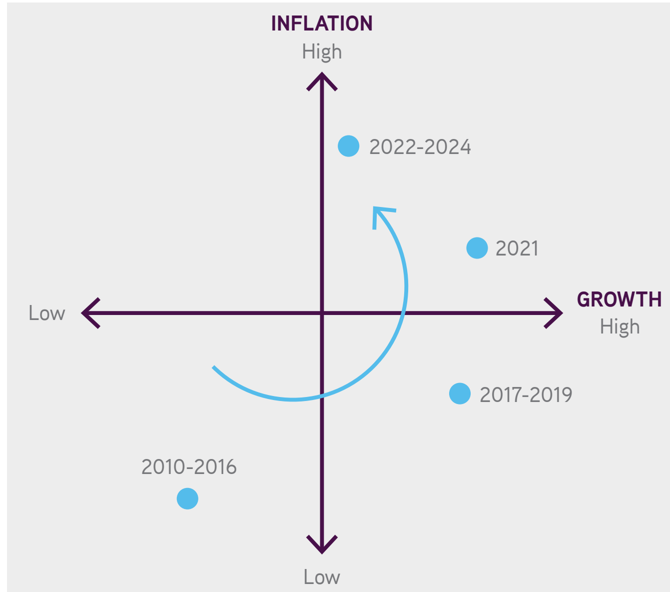
Overall, the current backdrop reinforces our larger narrative at KKR that we have entered *A Different Kind of Recovery*. Specifically, what this means is that *we think we have entered a new investing regime — and we do not make this statement lightly*. There are three underpinnings to our thesis as to why this time is different: too much stimulus, heightened geopolitical risks, and sticky supply side constraints.

Stimulus: While global central bankers and politicians spent a lot of dollars in absolute terms during the GFC, they took more of a trickle down approach to stimulus. In particular, there was little direct cash injected into the average U.S. consumer's wallet. Unemployment was 'sticky', and remained elevated for several years following the crisis as a forced de-leveraging of banks, consumers, and corporations hampered job growth. Against this backdrop, inflation remained very low. By comparison, the response to the pandemic-induced recession of 2020 was wildly different. The 'Authorities' not only over-stimulated the financial system with record amounts of quantitative easing, but they also allocated the proceeds *directly* to the consumer in size, with U.S. households receiving more than $1.5 trillion from stimulus payments, enhanced unemployment insurance, and the child tax credit. All told, there was 3.5x more spent to rescue the global economy after 2020 than there was after the 2008 downturn. This more heavy-handed approach has unleashed animal spirits that most investors in today's market have never seen. Not surprisingly, major economies, the United Kingdom and the United States in particular, are experiencing a much higher rate of nominal GDP growth than they did during the last cycle, the lion's share of which is being driven by inflation rather than by real economic activity (e.g., U.S. real GDP contracted in the first quarter of 2022, but nominal GDP grew by 6.5%).

All told, there was 3.5x more spent to rescue the global economy after 2020 than there was after the 2008 downturn. This more heavy-handed approach has unleashed animal spirits that most investors in today's market have never seen.

Exhibit 5

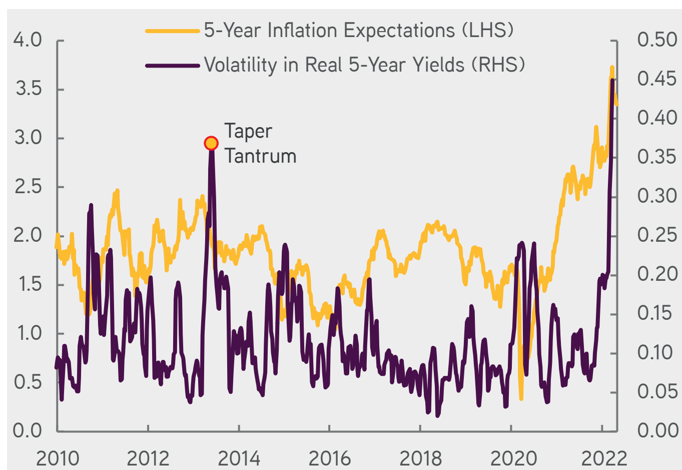
A Regime Change Is Occurring



Data as at May 20, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Exhibit 6

Not Surprisingly, Investors Are Having a Hard Time Pricing the True Real Rate of Return



Data as at May 31, 2022. Source: Bloomberg.

Geopolitical Risk: As our colleague Vance Serchuk, Executive Director of the KKR Global Institute, has been suggesting for some time, we have moved from a period of benign globalization to one of great power competition. Beyond the terrible human element of war and the uncertainty of potential conflict, there is a heavy economic toll that creates difficult-to-predict supply side shocks (which are inflationary). So, from our vantage point, Russia's attack on Ukraine does not change our narrative about *A Different Kind of Recovery*; rather, it only strengthens our view that geopolitical tensions will lead to more economic uncertainty. And more uncertainty means that the cost of capital will likely rise as risks mount.

Supply Side Constraints: During past economic recoveries, investors have largely had to deal only with demand-driven inflation. However, this time is different. We are seeing inflation driven by excess demand *and* by lower supply. There are three key areas of focus at KKR where we perceive a structural lack of supply: wages (the China-U.S. labor arbitrage has dropped from 26.4x when China joined the WTO to 3.9x at present); housing (there are too few houses to meet accelerating household formation); and commodities (unfortunately, the global energy transition is inflationary). As mentioned previously, COVID and the war are only exacerbating these issues by making the global economy less efficient than in the past.

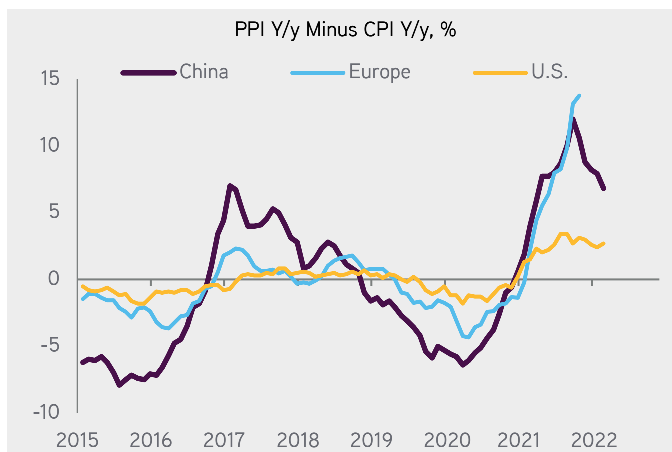
As we look ahead, we do not believe that there is a quick fix to these three headwinds, and as such, expect not only higher input prices but also more volatility around these prices. Central banks now understand the magnitude of the situation, and as a result, many are tightening fast and furiously. Unfortunately, though, this global hiking cycle comes at a time when the narrative could shift away from 'just' inflation concerns towards one of dramatically slowing corporate earnings growth caused by higher rates and higher inflation. Without question, we believe strongly that corporate earnings are poised to slow significantly more than the consensus thinks in 2023, particularly as low- to middle-income consumers both slow and shift their buying preferences. Weaker U.S. housing activity and ongoing sluggishness in China and Europe are important influences to consider as well. Further exacerbating the current state of affairs is that many companies in the goods sector overbought inventories, which will adversely affect the global macro narrative when consumers begin to retrench in the second half of the year (*see below, but note that we have goods inflation negative by 2023*).

Given our view that markets are likely to remain choppy for the foreseeable future (see Section II/Question #4), some of the bad news is now in the price, with almost 60% of the S&P 500 down 20% or more, (a level typically associated with maturing bear markets). We think the following mega themes are of paramount importance:

1 **Pricing Power:** Similar to what we saw in the early 2000s when China was building out its fixed investment, we are now living in an era where input costs, as measured by the PPI, are rising faster than output costs, as measured by the CPI. One can see this in *Exhibit 7*. This type of environment heavily favors companies with pricing power, we believe. It also means that unit volume growth will become an increasingly important part of the story. Just consider that in 1Q22, U.S. real GDP contracted 1.5%, while U.S. nominal GDP grew 6.5%, or that consensus expectations call for 85% of the companies in the S&P 500 to post rising margins in 2023, despite surging input costs. One can see this in *Exhibit 8*. Against this backdrop, we look for a major valuation differential to emerge between price makers and price takers.

Exhibit 7

Input Costs Are Rising Faster Than Output Costs, Underscoring Our Preference for Pricing Power Stories

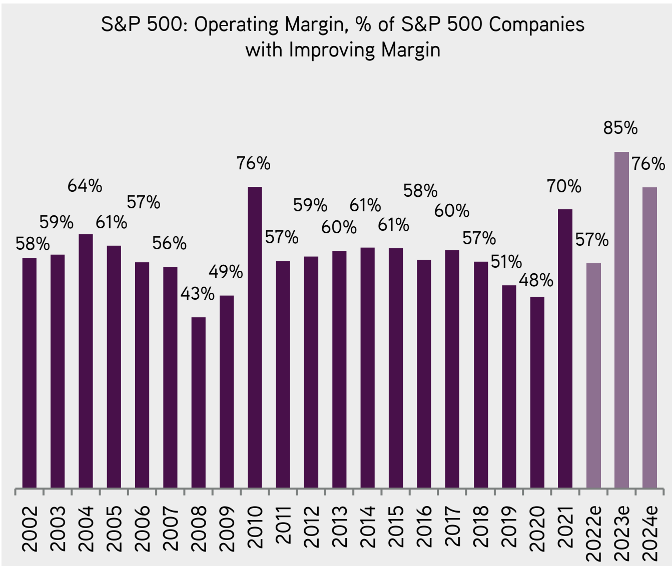


Data as at April 13, 2022. Source: Bloomberg.

Without question, we believe strongly that corporate earnings are poised to slow significantly more than the consensus thinks in 2023.

Exhibit 8

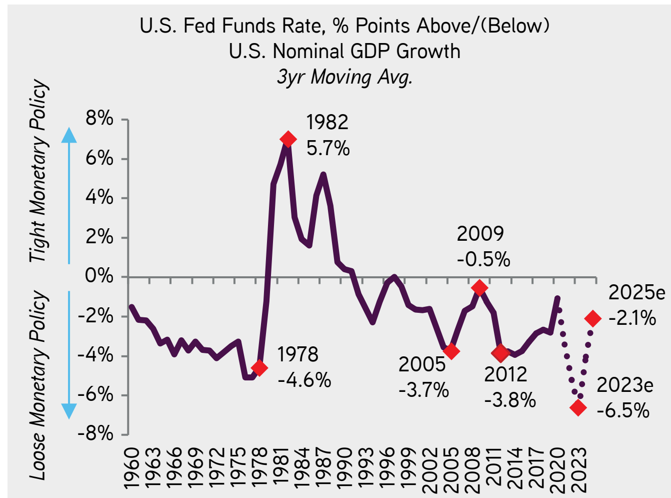
Margins Expectations for 2023 Are Still Way Too High, in Our Opinion



Data as at May 20, 2022. Source: Factset.

Exhibit 9

We Think Investing in Hard Assets With Collateral and Cash Flow Is Warranted When Nominal Interest Rates Are So Far Below Nominal GDP



Data as at June 14, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

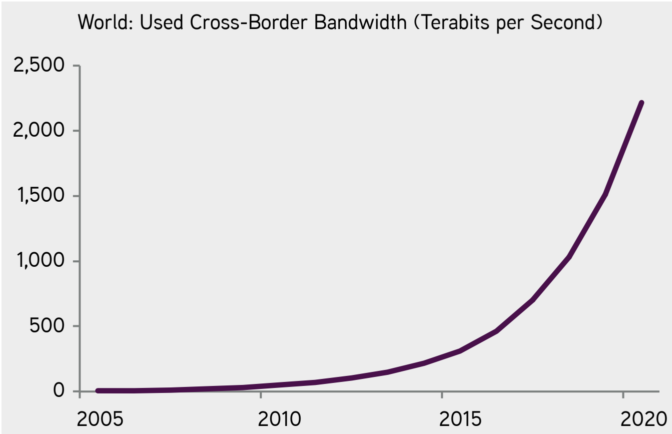
2 **Collateral-Based Cash Flows:** Given the unusual backdrop of stickier-than-expected inflation, excess stimulus, and higher commodity prices, we believe that demand for collateral-based cash flows, including Infrastructure and Real Estate, is poised to accelerate more than many investors now think. This viewpoint is also consistent with our focus on owning pricing power stories with improving unit volume growth during an era of heightened, sticky inflation. Key to our thinking is that central bankers held nominal interest rates below nominal GDP for too long. The last time policymakers ran policy so loosely was back in the 1970s. One can see this in *Exhibit 9*.

We believe that Russia's attack on Ukraine will only reinforce the notion that security of energy, communications, healthcare, and data is not only an economic priority but a geopolitical one as well. It will also impact corporate and consumer behavior.

3 **The Security of Everything:** We believe that Russia's attack on Ukraine will only reinforce the notion that security of energy, communications, healthcare, and data is not only an economic priority but a geopolitical one as well. It will also impact corporate and consumer behavior. The fragmentation of global trade and supply chains will likely add a new dimension to geopolitical rivalries that investors must consider as more industries and sectors become 'strategic' from a national security perspective. Inflation, supply chain disruption, concerns about violent crime, political and social division, cyberattacks — as well as continuing waves of COVID variants — also reinforce the sense that things feel 'out of control' too often these days. This nervousness too will spur demand for more security. In addition, these trends have the potential to reinforce populism, further accelerate institutional distrust, and cause even more political tumult, all recent trends we have written about that have significant long-term economic and social implications.

Exhibit 10

As Cross-Border Data Growth Explodes, There Will Be More Demand for Security of This Data



Data as at December 31, 2020. Source: Goldman Sachs Investment Research.

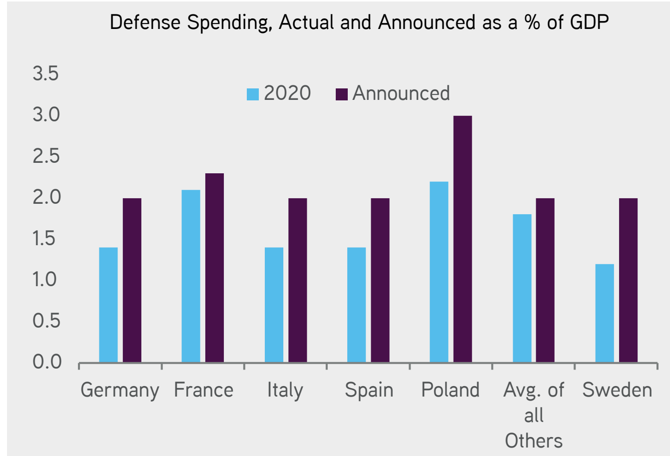
Exhibit 11

More Than Half of U.S. Manufacturers Are Exploring Reshoring or Diversifying Their Supply Chains

Data as at April 22, 2022. Source: National Association of Manufacturers, Melius Research.

Exhibit 12

An Immediate Increase in Defense Spending Is Most Countries' Response to the Russian Aggression Against Ukraine



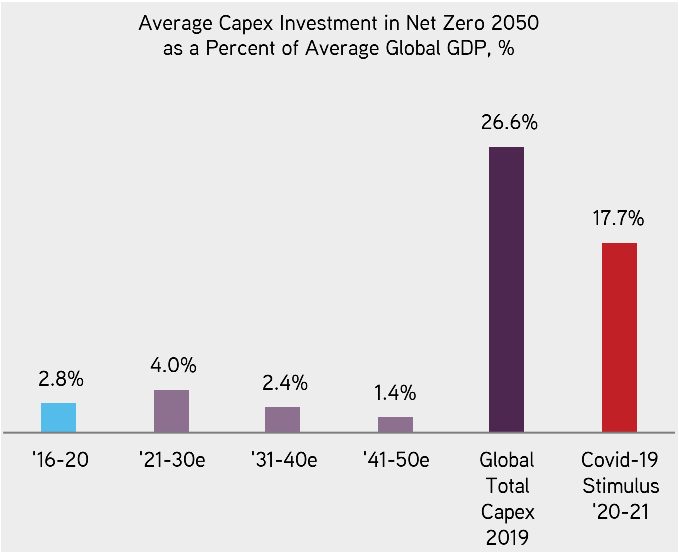
Data as at May 15, 2022. Source: Barclays, Morgan Stanley, Reuters.

'There is no energy transition without energy security.'
— Daniel Yergin

4 **Energy Transition:** This is a big, bold global trend that is likely to be bumpy along the way. All told, we think the energy transition is a $1.5-$2.0 trillion opportunity per year, with half of that spending going directly towards de-carbonization. In terms of key areas of focus, we are deploying capital behind climate action (solar, wind, batteries and storage, electric vehicles, distributed generation, energy efficiency as well as industries that manage and adapt to impacts of climate change). We also think that the need to build more resilient energy transportation (e.g., pipelines, power grids, supply chains, etc.) could create a capex super-cycle, the magnitude of which many investors are likely still underestimating.

Exhibit 13

The Average Capex Investment Needed to Achieve Net Zero by 2050 Averages One to Four Percent of Global GDP



Data as at May 31, 2021. Source: IMF, OECD, International Energy Agency (2021): Net Zero by 2050: IEA Paris, Cornerstone Macro Research, KKR Global Macro & Asset Allocation analysis.

Exhibit 14

We See the Global Energy Transition as a $1.6 Trillion per Year Opportunity for the Next Several Decades

Cumulative Investment Needed Through 2070, US$ Trillions	
Power Generation and Grids	**$57.8**
Renewables (power generation)	$47.3
Power networks	$8.8
Energy storage (batteries)	$1.7
Transportation	**$7.1**
EV and FCEV charging and fueling stations	$6.3
Biorefineries	$0.8
Industrial Processes and Building Upgrades	**$10.1**
Industry (incl. CCUS)	$7.0
Building upgrades (incl. heat pumps)	$2.7
Hydrogen pipelines	$0.4
Hydrogen and Carbon Sequestration	**$2.7**
Hydrogen plants (green and blue)	$2.2
Direct air capture & storage (DACCS)	$0.5
Natural sinks	$0.1
Cumulative less than two degrees path of investments to 2070	**$77.8**

Note: GS transportation projections only include infrastructure, not manufacturing, likely skewing total transport expenditures slightly lower than some other estimates. Energy storage (batteries) investment will also bring positive externalities for transportation. Data as at April 30, 2021. Source: Goldman Sachs.

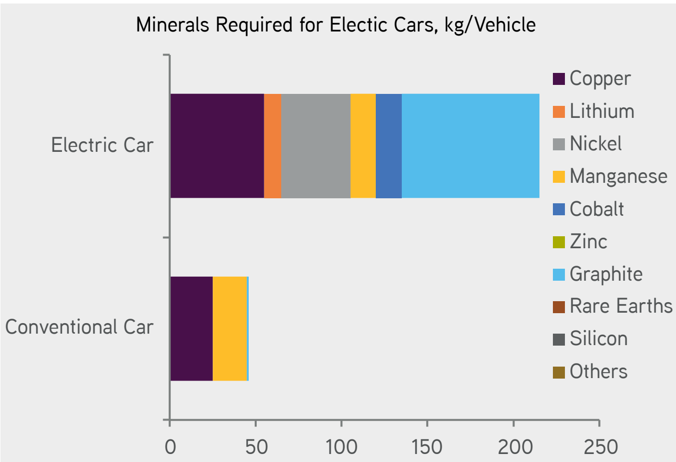
So, what's our bottom line? As we show in *Exhibit 14*, the energy transition space is an approximately $1.5–2.0 trillion per year growth opportunity. Similar to our thesis that technology is no longer a distinct sector but instead woven into the fabric of every industry in which KKR invests, so too may be the energy transition story (i.e., it will be broad-based, not with just one vertical, and **it will require more commodity inputs at a time when ESG considerations will limit production in certain instances**).

- **Opportunity #1 –** Renewable power (hydroelectric, offshore/onshore wind, and solar PV), energy networks/grids, and energy storage (batteries) will require investment of around $1 trillion per year through approximately 2060–70
- **Opportunity #2 –** Global transportation will require at least $250 billion per year in investment, doubling from around $125 billion in 2020
- **Opportunity #3 –** Industrial processes and building upgrades will require investment of more than $250 billion per year
- **Opportunity #4 –** In order to reach net zero, hard-to-predict and harder-to-price advancements in carbon sequestration will be needed and likely spread out across all sectors

We also think that the need to build more resilient energy transportation (e.g., pipelines, power grids, supply chains, etc.) could create a capex super-cycle, the magnitude of which many investors are likely still underestimating.

Exhibit 15

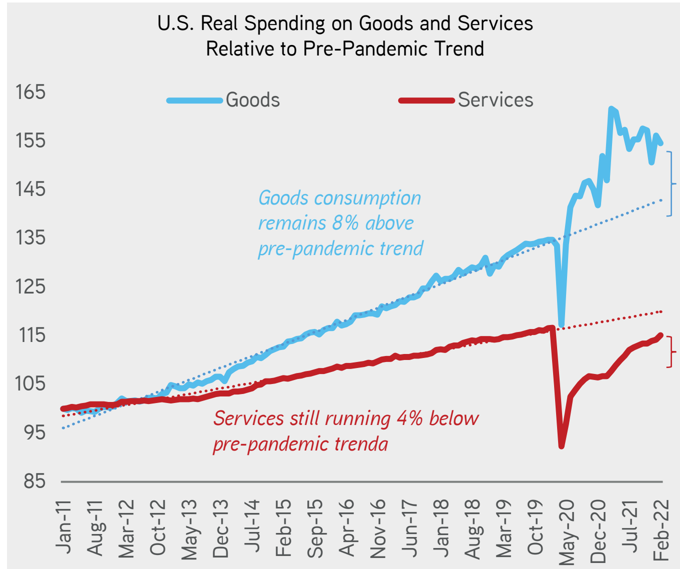
The Shift to Clean Energy Sources Will Likely Translate Into Material Demand for Metals Such As Copper, Zinc, Lithium and Cobalt



Data as at May 4, 2022. Source: IEA.

Exhibit 16

The Pandemic Catalyzed a Shift Into Goods Over Services Consumption, Which We Now Expect to Reverse



Data as at March 31, 2022. Source: BEA, Haver Analytics.

5 **Revenge of Services:** U.S. goods-buying is still running eight percent above trend (down from a peak of 29% earlier this year) while services is running four percent below trend (up from 10% below). If the behavior of the U.S. consumer is a precursor to the behavior of consumers in other economies, we think that now is the time to flip exposures to the underdog category, services. We are not bearish on all 'things' (e.g., we still think home improvement performs in line), but we do think that consumers will ramp up their exposure to 'experiences' during the next 24–36 months, as the societal tools we have to manage the spread of COVID continue to improve and we all better adapt to the new paradigm of living with the virus. We make this statement despite our belief that new variants will continue — unfortunately — to emerge along the way.

We are not bearish on all 'things' (e.g., we still think home improvement performs in line), but we do think that consumers will ramp up their exposure to 'experiences' during the next 24–36 months.

For us, key areas of focus where we want to lean in include wellness/heath, travel, leisure, financial services/guidance, and events (e.g., sports, concerts, etc.).

6 **Efficiency: Automation/Digitalization/Testing:** In a world where we are short workers and important inputs that are often only available in geopolitically sensitive parts of the world, we are predicting a boom in key areas of innovation, including automation, digitalization, and testing. We also think that both blockchain and life sciences represent important opportunities for investors to explore. Without question, the pace of disruption will accelerate, particularly as it relates to technological change across multiple industries. At the same time, though, the competitive landscape is shifting rapidly. Traditional incumbents, especially in financial services, will likely be challenged. As part of this transformation, new technologies could lead to a shift from centralization to decentralization across many established sectors, from music and healthcare royalties to loans, custody, and insurance. This shift is a big deal, and we think it warrants investors' attention.

What do these six themes/areas of focus all mean for asset allocation? We believe that no less than a complete rethinking of asset allocation relative to the prior two decades is now required. Diversification will matter more as bonds can no longer act as the shock absorbers that they once did, particularly for levered multi-asset managers. Pacing, including having the ability to lean in and lean out during periods of fear and greed, will also matter more. Our bottom line: We advocate shortening duration, leaning into collateral-based cash flows, and overweighting opportunistic vehicles across liquid/private markets.

Translating these views into our asset allocation preferences, we note the following Picks and Pans:

PICK (NEW)

At current levels, we favor Credit over Equities. In particular, we like the short end of the curve, including munis, mortgages, and CLO liabilities. Within Equities, we like secular compounders with simple unit economics and high free cash flow conversion.

PICK (NEW)

Overweight services, particularly relative to goods. Key to our thinking is that services inflation is beginning to catch up to goods inflation (and surpass it in many instances), which, coupled with greater 'real' services demand, should increase earnings for service providers that have pricing power. Preferred areas include staycations and other aspects of hospitality, events, financial services, wellness, and beauty.

PICK (SAME)

Providers of capital solutions, including convertible preferred shares or PIK/Equity structures, to private companies in innovation sectors makes a lot of sense to us. Many, though not all, of these early stage companies are already cash generative. An investor can move up in the capital structure at a time of lofty valuations and potentially still participate in some upside sharing if valuations hold and earnings come through. Media, biotech, gaming, and blockchain all potentially could be beneficiaries. We also note that many traditional banks appear less interested in extending capital to these segments of the market and/or that large allocators may not have a specific 'bucket' for this type of security. In addition, there is an attractive opportunity around emerging larger cap companies who need capital in the spicier parts of their capital structure, including second liens and mezzanine finance.

PICK (SAME)

We are overweight almost all investments linked to pricing power and collateral-based cash flows. This viewpoint is consistent with our focus on owning pricing power stories during an era of rising inflation. As such, we suggest overweight positions in Infrastructure, Real Estate, and Asset-Based Finance. Importantly, as an asset class, we still like housing, particularly in the Southeast United States and Spain, but we have modified our appreciation assumptions towards low-to-mid-single digit annual gains.

PICK (SAME)

Own select commodities. See below for details, but we still favor oil, particularly on some of the more short-dated contracts. For example, in 2023 we forecast oil to be $24 dollars per barrel higher than the consensus ($115 versus $91 for the consensus), and in 2024 our bullishness relative to the consensus only moderates modestly to $19 per barrel ($100 versus consensus at $81). We also like commodities linked to our energy transition thesis, including aluminum, copper, and lithium as well as derivative plays such as carbon credits. We are bullish too on the picks and shovels associated with the global energy transition and with resource nationalism, and as such, services linked to this business movement seem sensible.

PAN (SAME)

Price takers. Our strong conviction is that the current environment will most likely lead to multiple and earnings de-ratings for companies that have high leverage and limited ability to pass through input costs, including labor costs. For example, we think that consumer product companies with unhedged input costs could suffer. A similar story may play out for companies with large lower-wage workforces and limited pricing power, such as second-tier retailers and certain healthcare services. We are also wary of companies that could have trouble passing on higher input costs to a small and powerful base of buyers (e.g., government services or certain areas of auto parts).

PAN (SAME)

Big cap technology stocks. Our prediction for growth stocks to underperform in an era of rising interest rates has largely played out, although there is still further scope for de-rating in some unprofitable names. These stocks are still over-owned at a time when there is increased competition (e.g., streaming). They are also likely over-extended into new business initiatives, including hiring too many people for unprofitable ventures. We are also now focused on regulation: geopolitical competition will likely lead to increased scrutiny of international technology and data flows, while the potential for civil unrest in some countries — an unfortunate byproduct of rising food and energy prices — is growing and may lead governments to take a more active role in policing online content.

PAN (NEW)

Non-premium consumer discretionary goods and premium consumer staples. We think that food, energy, and shelter inflation will force most households to cut spending on nice-to-have categories, putting pressure on the discretionary goods and name-brand consumer staples that were beneficiaries during the pandemic. The current backdrop will make it much more challenging for these companies to pass along higher input costs to their target markets. Also, as mentioned earlier, we think that most consumers will rotate spending towards services and away from goods as COVID concerns ease in most of the world.

Given the unusual backdrop of stickier than expected inflation, excess stimulus, and higher commodity prices, we believe that demand for collateral-based cash flows, including Infrastructure and Real Estate, is poised to accelerate more than many investors now think.

PAN (SAME)

We again maintain the cautious flag on Turkey and Mexico. Both countries have uneven economies, including higher than expected inflation, linked to unusual government policies. Turkey is experiencing surging inflation, while Mexico still suffers from the lack of investment we think is necessary to reach its potential.

Section I: Economic Forecast Updates

In the following section, we identify our key macro changes by region. Overall, our message is one of slower growth, including recessionary conditions in some developed markets, amid stickier-than-expected inflation. We are more optimistic about near term inflation trends in Asia, though that region too could suffer from higher food and energy inputs.

United States: Sharp Slowdown Coming

For 2022, we are now using a 2.4% estimate for GDP, compared to our previous estimate of 3.2% and the consensus estimate of 2.7%. Our new U.S. forecasts reflect slower growth, higher inflation and a more aggressive Fed. We think the U.S. macro narrative is evolving from one of relatively benign 'demand-pull' inflation to one of more challenging 'cost-push' inflation that we see cooling consumer demand and challenging corporate margins over coming quarters. Our base case now envisions growth approaching stall speed in 2023, with GDP falling to just above one percent, and with S&P 500 EPS actually falling. Headwinds to growth are coming from higher energy prices and rising interest rates, which will impact the consumer, housing and exports. Partially offsetting tailwinds include still-favorable credit conditions and strong household and corporate balance sheets, which should translate into continued personal consumption growth, resilient capex, and a tight labor market going forward. Amidst this environment, we see fed funds peaking in the mid-high 3% range, and 10-year yields climbing to around 3.5-3.75%.

Exhibit 17

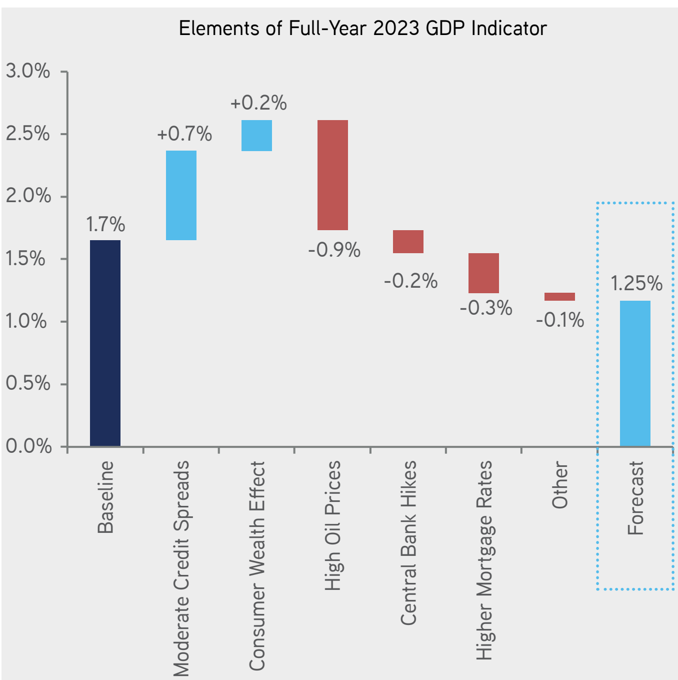
We Forecast Higher Than Consensus Inflation But Lower Than Expected Growth

	2022e Real GDP Growth			2022e Inflation			2023e Real GDP Growth			2023e Inflation		
	GMAA New	GMAA Prior	Bloomberg Consensus	GMAA New	GMAA Prior	Bloomberg Consensus	GMAA New	GMAA Prior	Bloomberg Consensus	GMAA New	GMAA Prior	Bloomberg Consensus
U.S.	2.4%	3.2%	2.6%	**8.25%**	7.0%	7.5%	**1.25%**	1.75%	2.0%	**4.25%**	3.0%	3.3%
Euro Area	2.3%	2.3%	2.6%	**7.3%**	7.0%	6.8%	**1.7%**	2.0%	2.1%	**3.4%**	2.9%	2.7%
China	3.8%	4.3%	4.5%	2.3%	2.6%	2.2%	5.0%	5.4%	5.2%	**2.6%**	2.3%	2.2%

Note: Consensus is Bloomberg. Data as at June 9, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Exhibit 18

Our GDP Model Envisions Growth Slowing to Just 1.25% in 2023, With Headwinds from High Energy Prices and Rising Interest Rates



Our GDP leading indicator is a combination of eight macro inputs that in combination we think have significant explanatory power regarding the U.S. growth outlook. Data as at May 23, 2022. Source: Federal Reserve, Bureau of Labor Statistics, National Association of Realtors, ISM, Conference Board, Bloomberg, KKR Global Macro & Asset Allocation analysis.

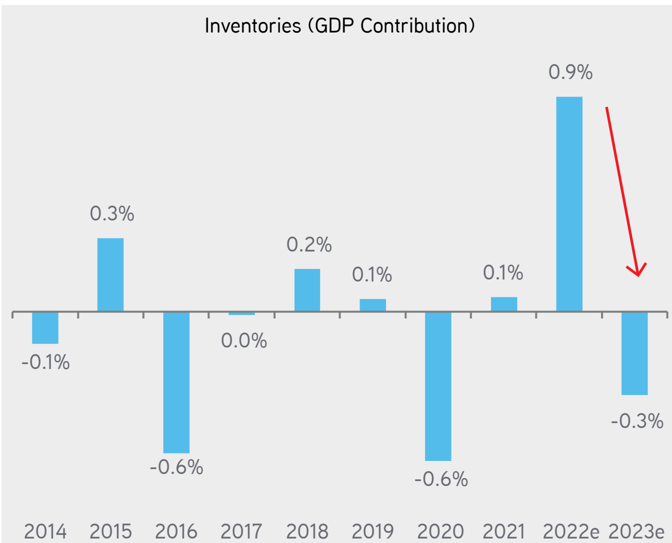
For 2023 we are now using an estimate of 1.25%, compared to our previous forecast of 1.75% and a consensus of 2.0%. Key headwinds to growth are coming from high energy prices, rising interest rates, and savings rates drifting higher from what we currently view as an unsustainably low level of 4.4%. Tailwinds include credit conditions that remain generally accommodative, and continued wealth effects arising from strong household balance sheets.

Our base case now envisions growth approaching stall speed in 2023, with GDP falling to just above one percent, and with S&P 500 EPS actually falling. Headwinds to growth are coming from higher energy prices and rising interest rates, which will impact the consumer, housing and exports.

From a pure contribution to GDP perspective, we note the following. First, we model growth of real personal consumption expenditures (PCE) to drop to 1.5%, compared to 3.3% in 2022 and down from a whopping 8.1% in 2021. Meanwhile, we also have the inventories contribution to GDP at *negative* 30 basis points versus positive 90 basis points in 2022. Finally, we continue to see capital expenditures as fairly resilient, and we anticipate 2.8% year-over-year growth in 2023, compared to 4.3% in 2022.

Exhibit 19

Inventories Go From a Tailwind to a Headwind in 2023 For U.S. GDP

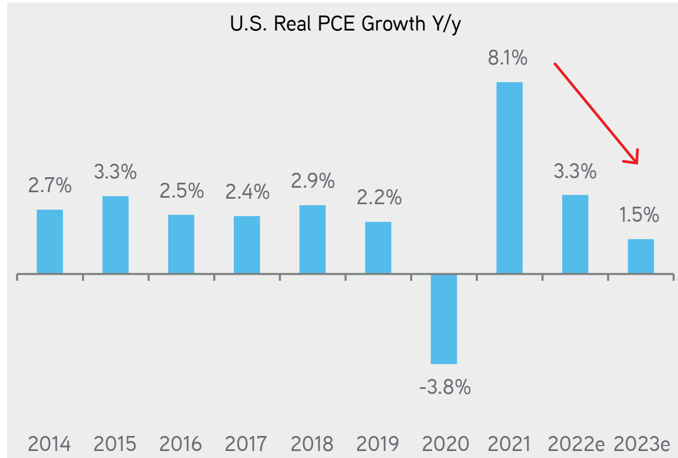


Data as at May 23, 2022. Source: Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

We believe that we are transitioning from market volatility linked to surging inflation expectations — and central bank policy response to them — to one where earnings are now adversely impacted. It is a subtle but important difference.

Exhibit 20

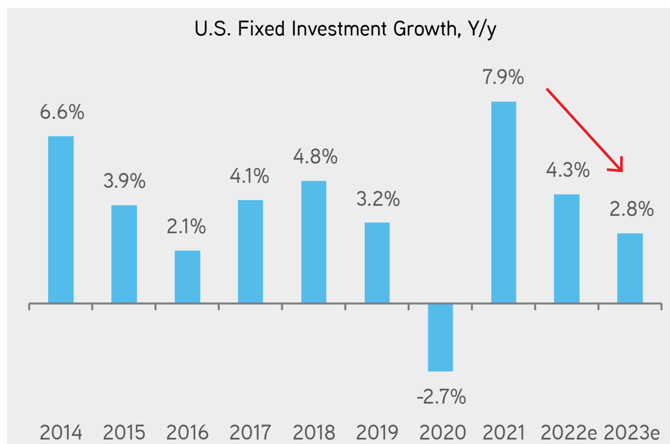
We Forecast U.S. Personal Consumption to Slow Even Further in 2023



Data as at May 23, 2022. Source: Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 21

We Forecast Capex to Remain Relatively Resilient in 2023



Data as at May 23, 2022. Source: Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Meanwhile, our U.S. CPI inflation forecasts are generally near the top end of consensus. We see CPI at 8.25% in 2022, 4.25% in 2023, and 2.5% over longer term, compared to 1.5% during much of the last cycle. **We believe the three key structural drivers of elevated inflation center on scarce labor, scarce housing, and scarce commodities:**

- **Labor scarcity: Roughly two million workers are 'missing' from the labor force due to early retirements and lost immigration during the pandemic.** The labor market is also even tighter than the 3.6% unemployment rate would imply, as workers are changing jobs so rapidly.

- **Housing scarcity: Post-GFC (2010–2019), we estimate the U.S. housing market was undersupplied by roughly 3 million units.** That supply-demand mismatch is now expressing itself in outsized home price and rent inflation. Demographics are aggravating the shortage, as millennials move into prime years for single-family housing demand. Housing inflation is critical, as it drives roughly 40% of U.S. core CPI.

- **Commodity scarcity: In today's high commodity price environment, upstream oil and gas investment is running at only 60–70% of historical norms.** Key constraints on the supply include shale producers fearful of repeating the overspending mistakes of the mid-2010 boom years, as well as heightened awareness of the coming energy transition. Labor scarcity is also a constraint on energy production.

Exhibit 22

Our Inflation Forecasts Continue to Embed a Structural Shift Higher Relative to the 1.5% Resting Rate Recorded During the Mid-2010s

	Year/Year % Changes					
	1Q22	2Q22e	3Q22e	4Q22e	Full-Year 2022e	Full-Year 2023e
Headline CPI	**8.00%**	**8.40%**	**8.90%**	**7.60%**	**8.25%**	**4.25%**
Energy (7%)	28.30%	33.50%	33.90%	22.90%	29.70%	7.50%
Food (14%)	7.90%	10.00%	11.50%	11.00%	10.10%	5.00%
Core CPI (79%)	**6.30%**	**6.00%**	**6.30%**	**5.50%**	**6.00%**	**3.90%**
Core Goods (21%)	**11.90%**	**8.40%**	**6.80%**	**3.70%**	**7.70%**	**-0.40%**
Vehicles (7%)	22.80%	13.30%	8.50%	2.50%	11.80%	-5.00%
Other Core Gds (13%)	5.30%	5.20%	5.70%	4.70%	5.20%	2.50%
Core Services (58%)	**4.40%**	**5.10%**	**6.10%**	**6.30%**	**5.50%**	**5.40%**
Shelter, Hlth, & Ed. (43%)	3.80%	4.60%	5.10%	5.00%	4.60%	4.80%
Other Core Services (13%)	6.00%	6.60%	8.80%	9.90%	7.80%	7.50%

Data as at June 10, 2022. Source: Census Bureau, Haver, KKR Global Macro & Asset Allocation analysis.

As we have mentioned before, Russia's invasion of Ukraine does not change our narrative. Rather, it only aggravates it, supporting our call for a higher resting heart rate for inflation. The implications for the energy sector will be long-lasting as Western energy services companies pulling out of Russia constrains long-term production capacity. More generally, we think this war underscores the geopolitical shift away from globalization (disinflationary) towards great power competition (inflationary). **The good news is that supply chain shortages are starting to improve, while goods demand is starting to moderate, which is why we see inflation moderating to 'just' 4.25% in 2023 from a red-hot 8.25% this year.** Supply chain bottlenecks are also easing as more countries shift to living-with-COVID.

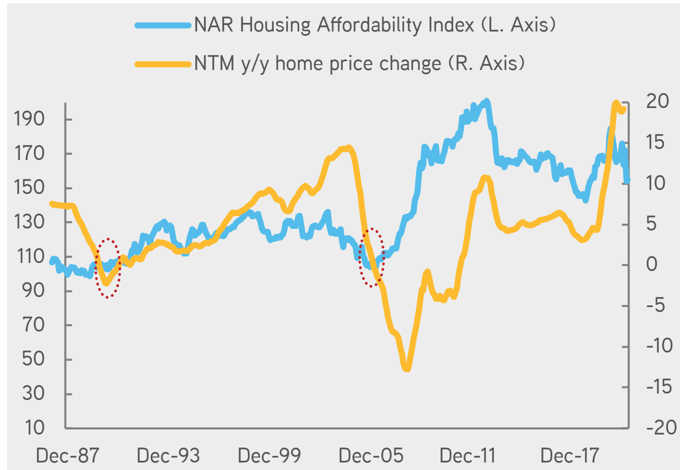
We think that the Fed will have to respond to inflation, despite slower growth, which means 325 basis points of cumulative Fed hikes in 2022. Simply put, commodity inflation will be too hot for the Fed to take its foot off the brake this year. Our forecasts call for fed funds at 3.375% by December 2022, and just a little higher at 3.625% for year-end 2023, before settling just below three percent in the longer run. What keeps fed funds from going higher in our forecast? See below for details, but we believe housing affordability is the key constraint for Fed policy this cycle.

Our thinking is that home values stalling out in nominal terms and falling in real terms would mark an important inflection point for the economy (and for the Federal Reserve too), given the implications for household wealth and confidence. Specifically, mortgage rates in the 5.8–5.9% range would drive affordability down to levels historically associated with a leveling out of home prices. So, given the typical relationships between the mortgage market and Fed policy, this level of mortgage rates translates to a mid-three percent sustainable 'speed limit' on fed funds, we believe.

We believe housing affordability is the key constraint for Fed policy this cycle.

Exhibit 23

We View Housing Affordability as a 'Speed Limit' on the Fed Tightening Campaign

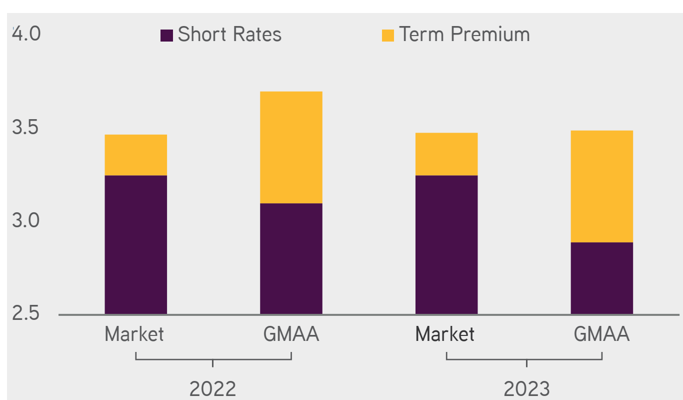


Data as at April 11, 2022. Source: Bloomberg, Federal Reserve Board.

Meanwhile, our U.S. 10-year yield targets are 3.75% in 2022, 3.5% in 2023, and 3.0% longer term. The increases in 10-year yields so far this year have been driven by a rapid spike in market expectations for Fed policy this cycle, which we think may now just be starting to creep into overshoot territory. However, we think the next leg higher towards our targets will be driven by rising term premiums, as markets embed more long-term uncertainty/volatility related both to inflation and to the Fed's balance sheet runoff. One can see this in *Exhibit 24*.

Exhibit 24

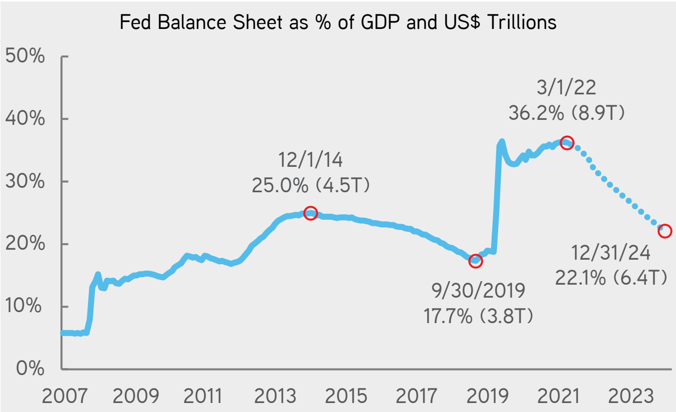
An Increase in Term Premium, Coupled With Market Repricing of Short Rates, Puts Our 10-Year Targets at 3.75% for 2022 and 3.50% for 2023



Data as at June 13, 2022. Source: Federal Reserve Board, Bloomberg, KKR Global Macro & Asset Allocation estimates.

Exhibit 25

Despite Slowing Growth, We Still Envision the Fed's Balance Sheet Shrinking Back Towards More Normalized Levels



Data as at May 23, 2022. Source: Federal Reserve Board, Bloomberg, KKR Global Macro & Asset Allocation estimates.

Euro Area: Slower Growth, Sticky Inflation

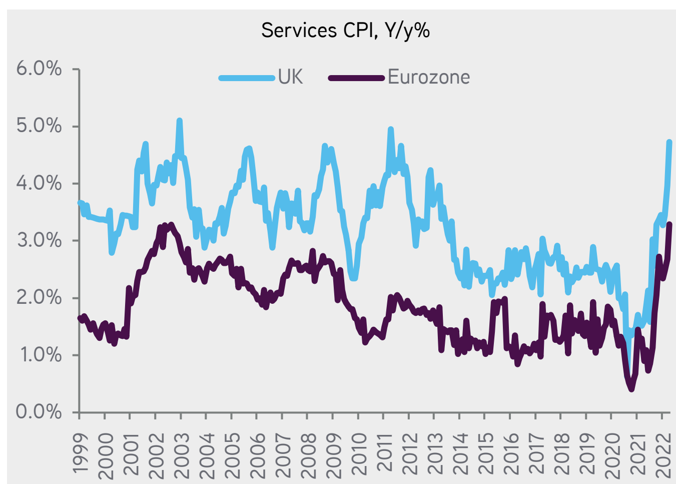
Aidan Corcoran is maintaining his 2022 Euro Area Real GDP growth forecast of 2.3%, below current consensus of 2.6%. Our base case assumption for the Eurozone economy over the rest of the year is one of weak but positive GDP growth. However, there is a clear risk of a technical recession (not less than 50% probability in Aidan's view) in the Eurozone in 2022/2023. What would tip the balance? Key swing factors include a further degradation of consumer credit trends and a sudden shut-off of Russian natural gas. Looking out to 2023, Aidan is reducing his Euro Area Real GDP growth forecast to 1.7% from 2.0%, 40 basis points below consensus.

On the inflation front, Aidan sees increased headwinds going forward and is raising his 2022 Euro Area inflation forecast to 7.3%, up from his prior estimate of 7.0% and above current consensus of 6.8%. He has also made a substantial upgrade to his 2023 Euro Area inflation forecast, taking his estimate to 3.4%, compared with a consensus estimate of 2.7%, and a prior estimate of 2.9%. Key to this forecast change is that 2023 inflation will be much *broader* in scope than 2022 inflation. This year, energy and food inflation is driving almost all the increase. Next year, by comparison, we believe inflation breadth will increase as almost every product and services company with whom we speak is actively pursuing price increases. And, given the lag in pass-through pricing that usually occurs in the corporate sector, we think these price increases will impact the economy more broadly in 2023.

Meanwhile, in Europe, we expect German 10-year bund yields to finish 2022 at 1.4%, above current consensus of 0.95% and up from 1.0% previously. Where we differ most materially from the consensus, however, is regarding our year-end 2023 expectation, which we have at 2.0% versus a consensus forecast of only 1.15% and forwards market pricing of 1.55%. As such, our forecast is now materially more hawkish than consensus estimates, as we see stickier inflation more permanently shifting sentiment around the long-end of the curve. If we are correct in our analysis (and we think we are,) higher yields will have significant implications for rate-sensitive sectors of the European economy. Aidan is also forecasting 150 basis points of ECB tightening in 2022 (up from his previous forecast of 75 basis points) and calling for two 50 basis point hikes.

Exhibit 26

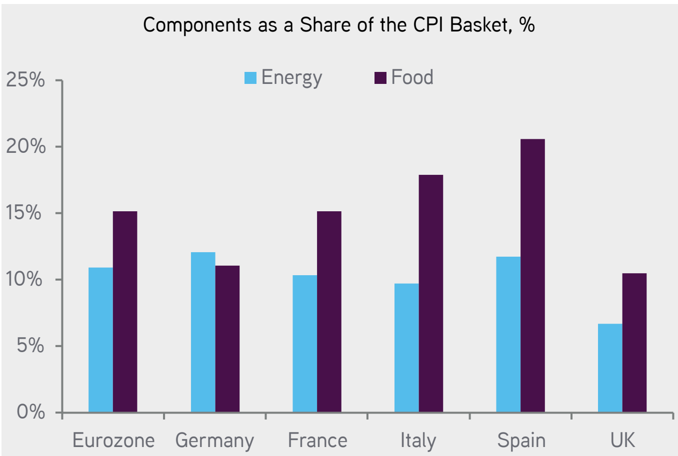
Services Inflation Is Accelerating, as Firms Pass Through Higher Input Costs From Commodities and Wages to Consumers



Data as at April 30, 2022. Source: ONS, Eurostat.

Exhibit 27

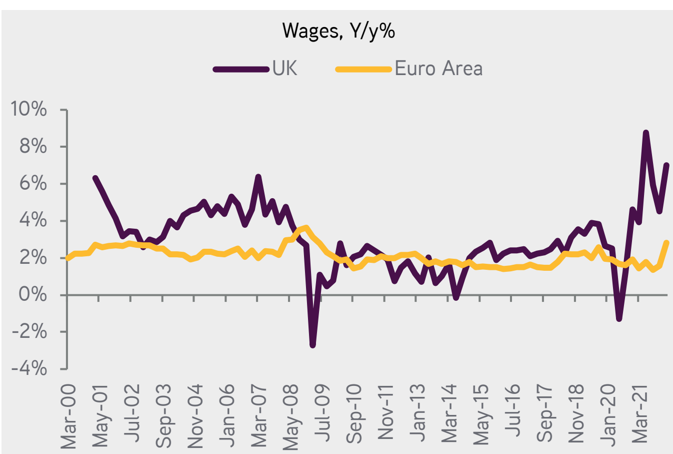
Food Makes Up 15% of the Consumer Inflation Basket (HICP) in the Eurozone, With Italy and Spain Standing Out for Above-Average Sensitivity



Note: HICP = Harmonized Index of Consumer Prices. Data as at April 30, 2022. Source: ONS, Eurostat.

Exhibit 28

Lagging Eurozone Wage Growth Suggests We Could See a Larger Hit to Households' Real Incomes This Year

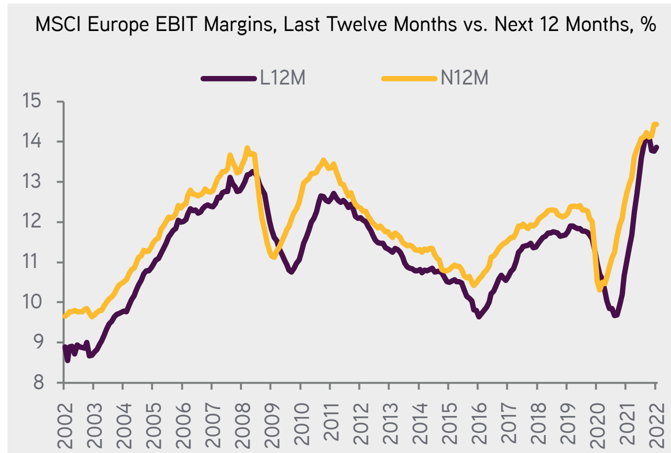


Data as at April 30, 2022. Source: ONS, Eurostat.

Key to this forecast change in the Euro Area is that 2023 inflation will be much broader in scope than 2022 inflation.

Exhibit 29

Corporate Margin Expectations Remain High, Despite a Clear Turn in Trailing Margin Data



Data as at March 31, 2022. Source: MSCI, Factset, Morgan Stanley Research.

China: No V-Shaped Recovery

We are now lowering our China real GDP growth estimate to 3.8% from 4.3% for 2022 and to 5.0% from 5.4% for 2023, due to longer-than-expected lockdowns and a worse-than-expected housing market correction. Our cycle indicator suggests that China's economy has entered a period of contraction, similar to the first quarter of 2020. Although manufacturing is much stronger today, sharp drops in land and property sales, coupled with slowing export growth and consumption, point to a downturn**. Importantly, although the worst of Omicron is over, we do not think that the impact of policy-related stimulus is convincing enough to create a 2020-style V-shaped recovery this time around**; in fact, we believe the market may actually feel more like a real GDP growth environment of 2.3%, if not worse.

Despite valiant efforts by the Chinese government and though we believe that the worst of Omicron is over, the reopening process has been very slow. Meanwhile, partial lockdowns in Beijing have been in place since April 22, 2022 as a true zero-COVID status, which we continue to view as an extremely high bar, continues to elude authorities. Other major industrial cities, such as Zhengzhou (Henan Province) and Tianjin, are also under partial lockdowns. Overall, we think the April-May lockdowns in Shanghai, Beijing, and other major industrial cities have taken a full percentage point off China GDP growth in 2022.

Exhibit 30

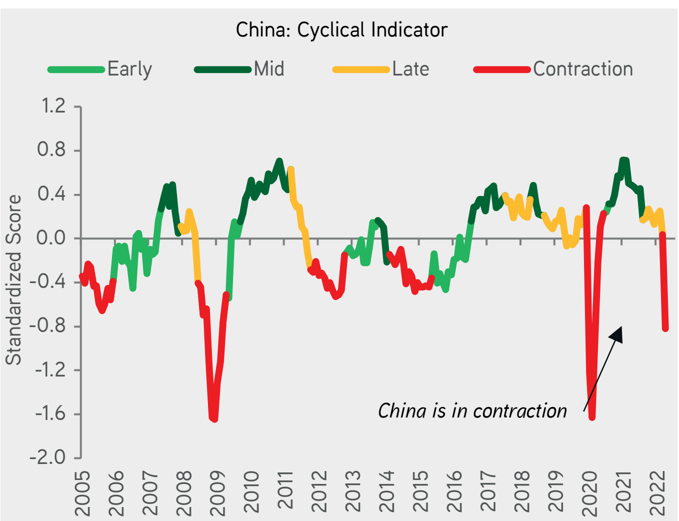
We See Sustained Slower Growth Coming Out of This Most Recent Downturn in China

China Real GDP Growth, Y/y %			
	Base	Bear	Bull
2019	6.0	6.0	6.0
2020	2.2	2.2	2.2
2021	8.1	8.1	8.1
2022e	*3.8*	*2.3*	*4.8*
2023e	*5.0*	*4.0*	*6.0*
2024e	*5.4*	*4.4*	*6.0*
2025e	*4.9*	*4.0*	*5.8*
2026e	*4.8*	*3.8*	*5.8*

Data as at May 30, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Exhibit 31

Our China Cyclical Indicator Suggests We Are Close to Peak Pain



Data as at May 26, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Adding to the challenges, recent economic activity has been far below normal levels. Despite policy easing, the May data from China did not show signs of improvement within key cyclical sectors such as property and autos. In fact, higher frequency 30-city data suggests property sales growth is deteriorating even further. Although data on traffic, flights, and freight has improved, activity is still only half of normal levels. Said differently, lingering lockdowns are impacting mobility and likely preventing a repeat of the 'V'-shaped recovery seen in 2020.

Exhibit 32

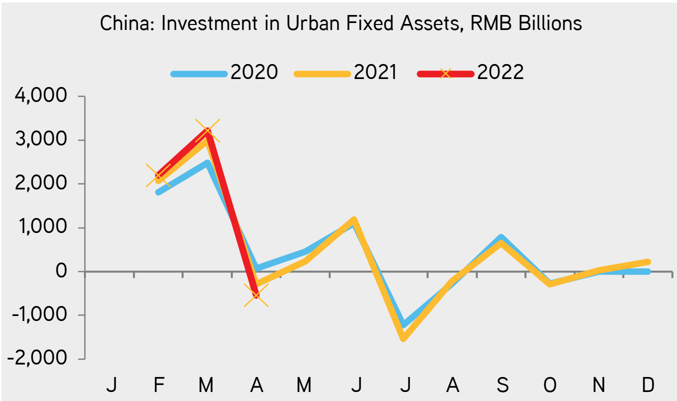
Retail Sales Impact Not as Severe as in 2020, but Expected to Last for Longer

Data as at April 30, 2022. Source: China National Bureau of Statistics, Haver Analytics.

Importantly, although the worst of Omicron is over, we do not think that the impact of policy-related stimulus is convincing enough to create a 2020-style V-shaped recovery this time around; in fact, we believe the market may actually feel more like a real GDP growth environment of 2.3%, if not worse.

Exhibit 33

We Continue to Expect a Sluggish Property Sector

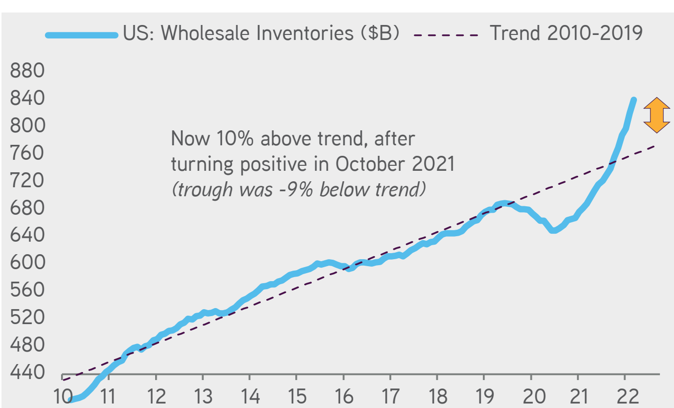


Data as at April 30, 2022. Source: China National Bureau of Statistics, Haver Analytics.

Policy support has also been more measured and fragmented compared to 2020, and it will likely take time before these efforts truly impact the economy. In a recent address to central and local officials, Premier Li suggested that the current situation in China was possibly more difficult than that in 2020. Given the somewhat restrictive nature of the central government budget, he called upon local governments to step up and do more. Thus, we think it will be important to stay alert to new local policies and watch their implementation. All told, we expect stimulus to total about three to four percentage points of GDP. That said, the impact of any easing will take time, hindering an already slow recovery in mobility.

Exhibit 34

U.S. Wholesale Inventories Are Above Trend…



Data as at March 31, 2022. Source: U.S. Census Bureau, Haver Analytics.

Exhibit 35

…Sending China Export Orders Falling Sharply

Data as at April 30, 2022. Source: China Federation of Logistics & Purchasing, Haver Analytics.

Finally, we are watching the external economic environment and associated risks for China. With both the U.S. and Euro Area being late cycle, and with high levels of inflation and tightening financial conditions globally, declines in exports could impact China meaningfully. Further, as manufacturing recovers in other parts of the world, we are already seeing shifts in supply chains due to fears of continued zero-COVID policies in China.

Oil: Higher for Longer

Since our last forecast update in mid-March, we have seen a bifurcation in key oil market developments: The EU's proposed comprehensive embargo against Russian oil is bullish, whereas the widespread pandemic lockdowns in China are bearish. We see these countervailing forces largely offsetting each other in 2022, so we maintain our full-year $110 price per barrel target (which embeds that WTI centers in the $110–120 range for the balance of the year).

What we see tightening the market further next year is Chinese demand recovering at a time when the EU embargo is beginning to bite and OPEC+ begins running low on spare capacity.

Exhibit 36

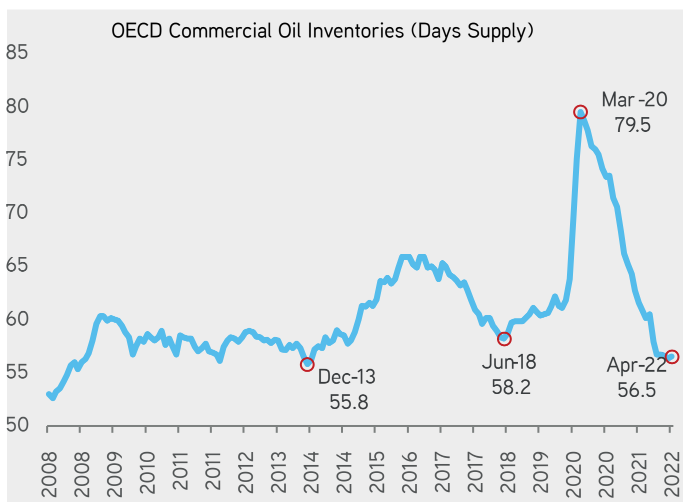
Oil Fundamentals Are Already Consistent With WTI in the $110 Range, Even Before Accounting for the Heightened Geopolitical Risk Premium

	GMAA Base Case vs. Futures			High/Low Scenarios		Memo: Prior Forecasts		
	KKR GMAA (May'22)	**WTI Futures (May'22)**	**May'22 Forecasts GMAA vs. Futures**	**KKR GMAA High Case**	**KKR GMAA Low Case**	KKR GMAA (Mar'22)	WTI Futures (Mar'22)	Mar'22 Forecasts GMAA vs. Futures
2019a	**57**	**57**	**0**	57	57	57	57	0
2020a	**39**	**39**	**0**	39	39	39	39	0
2021a	**68**	**68**	**0**	68	68	68	65	3
2022e	**110**	**102**	**8**	125	90	110	99	11
2023e	**115**	**91**	**24**	150	80	100	87	13
2024e	**100**	**81**	**19**	125	70	80	78	2
2025e	**85**	**74**	**11**	100	60	75	73	2
2026e	**80**	**69**	**11**	100	60	75	70	5

Forecasts represent full-year average price expectations. Data as at May 13, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 37

Crude Oil Inventories Have Tightened to the Lowest Levels Since 2013



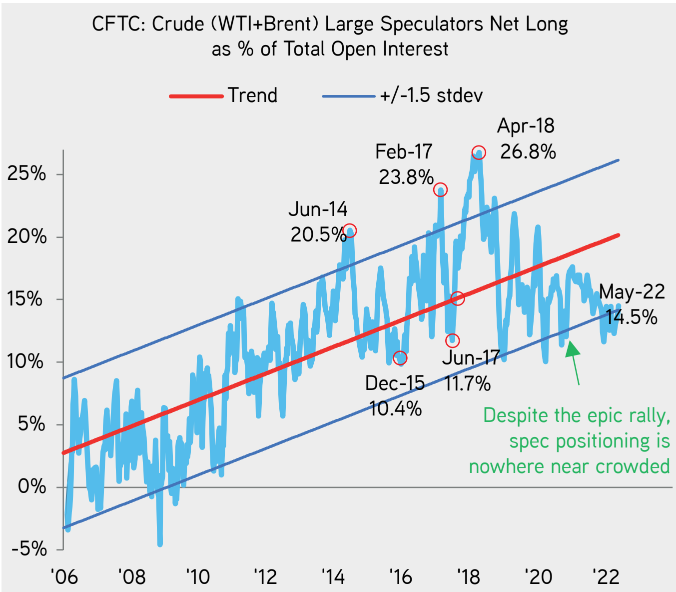
Source: Energy Intelligence, Haver, KKR Global Macro & Asset Allocation analysis. Data as at May 13, 2022.

Looking ahead to 2023, we now assume that WTI averages around $115 per barrel, up from our prior forecast of $100 per barrel. Our new forecast assumes that oil trades in a volatile range around $100–125 per barrel, as it periodically moves close to the demand-destruction levels that we think begin around $125 per barrel. What we see tightening the market further next year is Chinese demand recovering at a time when the EU embargo is beginning to bite and OPEC+ begins running low on spare capacity. If we are right, then a large delta between KKR's estimate and the consensus (about $24 per barrel) still exists that investors may want to consider. For 2024, though the delta decreases by $5 per barrel to $19, it is still quite wide we believe. Interestingly, despite the surge in oil prices of late, speculative positions remain quite subdued. One can see this in *Exhibit 38.*

The implications for the energy sector will be long-lasting as Western energy services companies pulling out of Russia constrains long-term production capacity. More generally, we think this war underscores the geopolitical shift away from globalization (disinflationary) towards great power competition (inflationary).

Exhibit 38

Despite the Historic Rally, Speculator Positioning in Crude Is Far From Crowded, Which Continues to Be a Tailwind for Oil Prices



Data as at May 20, 2022. Source: Bloomberg, COT, ICE-BofAML Bond Indices (H0EN), S&P.

Section II: Our Most Asked Questions

In this section, we dive into questions we are asked most often in regard to navigating the current environment.

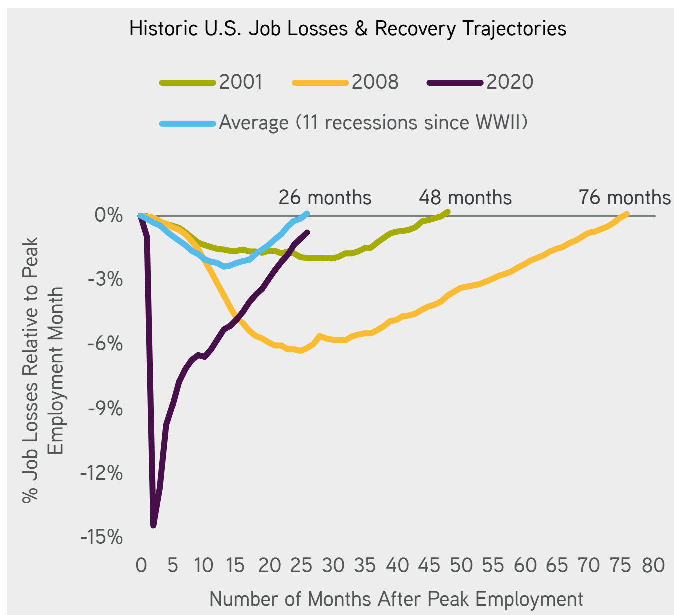
Question #1: ***Are we really in a regime change?***

As we mentioned earlier and wrote about in our recent portfolio construction note co-authored by Racim Allouani, we do think that we are in a regime change for investors. For more than a decade following the GFC, global central bankers in the developed markets were unable to meet their mandates for inflation. Indeed, the post-GFC era was highly unusual, with the Fed, BOJ, and ECB all consistently and collectively undershooting their price stability targets. The Federal Reserve, for example, only achieved its inflation target less than 10% of the time between the GFC and the onset of the pandemic. The upside to low inflation was that policymakers were able to focus on disruptions to real activity and financial markets, which made for more predictable monetary policy as well as longer economic cycles.

What created this environment? Both the globalization of supply chains and the massive bank de-leveraging that followed the Global Financial Crisis were deflationary. Job insecurity also played a part, we believe, as employment lagged pre-GFC trends (*Exhibit 39*). Also, following the 2000s capex boom, supply outpaced demand in the commodity sector for the better part of a decade. Meanwhile, technological advances created an unprecedented level of price transparency and discovery that put downward pressure on both input costs and final sale prices (*Exhibit 40*). Finally, technological advances in automation and digitalization also created skills mismatches that further kept individuals out of the workforce.

Exhibit 39

The U.S. Jobs Recovery Has Been Much Faster Post COVID Than Post 2001 or 2008

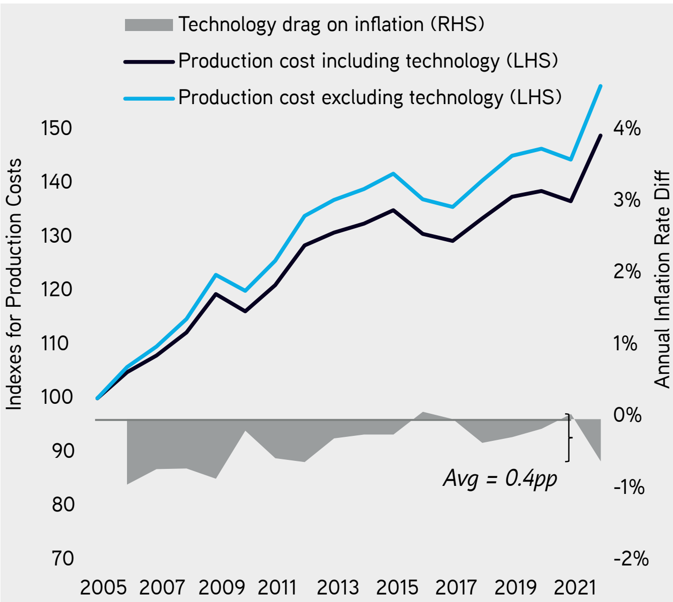


Data as at May 31, 2021. Source: Bureau of Labor Statistics Haver Analysis, KKR Global Macro & Asset Allocation.

The pace of global trade/ connectivity is slowing, or even reversing in some instances.

Exhibit 40

Technology Has Been a Drag on Inflation to the Tune of About 40 Basis Points per Annum, According to Our Estimate



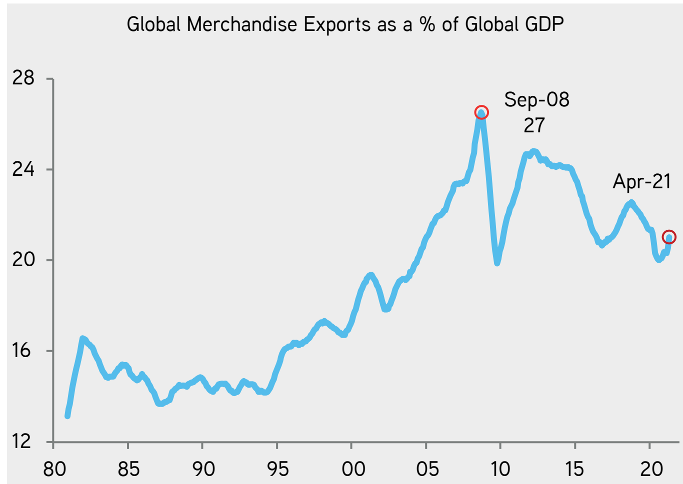
Note: Data covers 2005 through 2021. In the BEA's input-output data (I-O), we identified technology-related inputs as follows: computer and electronic products; broadcasting and telecommunications; data processing, internet publishing, and other information services; and computer systems design and related services. We identified as closely as possible Producer Price Index (PPI) series for each industry in the I-O, including all four technology inputs. The weightings were multiplied by technology's PPI to arrive at the contribution to each industry's PPI. For each industry's PPI minus technology, we subtracted the tech contribution from PPI and divided it by one minus technology's weight. Data as at December 31, 2021. Source: BEA, Haver Analytics.

Today, however, as we look ahead, many of these structural tailwinds are becoming headwinds. There are also several new forces at work that we believe investors must consider. We note the following:

Point #1: The pace of global trade/connectivity is slowing, or even reversing in some instances. One can see this in *Exhibit 41,* which shows that global trade has moderated.

Exhibit 41

Global Trade as a Percentage of GDP Actually Peaked in 2008

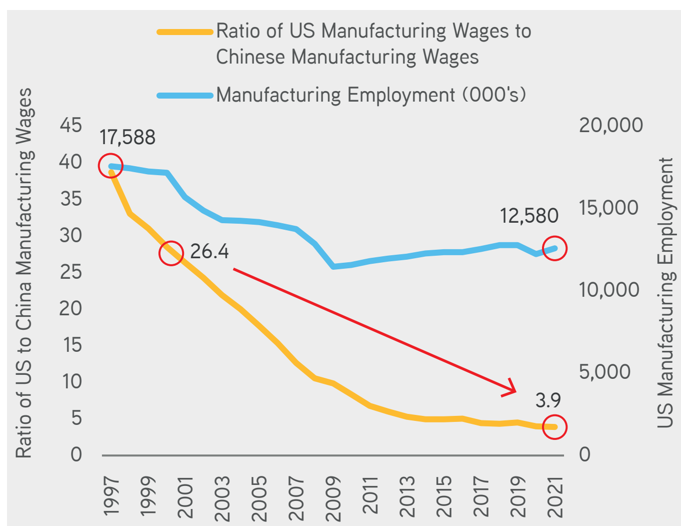


Data as at August 31, 2021. Source: IMF, Haver Analytics.

However, the wage gap has narrowed of late. In 2001, manufacturing wages in the U.S. were 26.4x those of China. By 2021, that ratio had fallen to 3.9x.

Exhibit 42

Since the Wage Gap With China Has Shrunk Considerably, U.S. Workers Are Now More Sought After



Data as at December 31, 2021. Source: BLS, Federal Reserve Bank of St Louis, University of California, Davis, Brooking Institute. https://www.brookings.edu/blog/up-front/2020/01/14/automation-and-labor-market-institutions/, Haver Analytics.

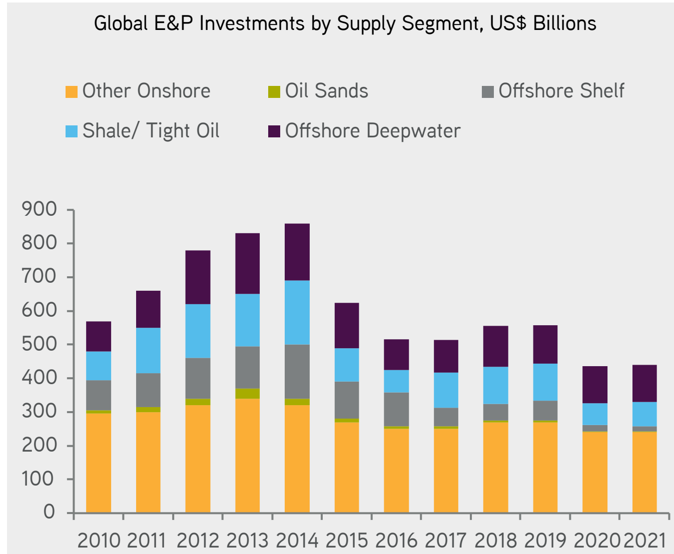
The labor arbitrage is also less of a tailwind these days. Remember that, since China's entry into the WTO in 2001, globalization and the access to outsourced cheap labor was — even until recently — distinctly deflationary. However, the wage gap has narrowed of late. In 2001, manufacturing wages in the U.S. were 26.4x those of China. By 2021, that ratio had fallen to 3.9x. One can see this in *Exhibit 42*. Against this backdrop, the value of U.S. workers is going up, particularly as more companies shift their supply chains away from China. According to a recent survey by Deloitte, about 75% of companies that experienced supply chain disruptions during the pandemic are planning to accelerate reshoring and supply chain diversification initiatives by building smart factories closer to their end markets.

Point #2: The energy transition is inflationary. Using history as a guide, the last 'transition' in the energy sector was during the twentieth century when oil replaced coal as the primary source of energy. During that transition, there were several hyperinflationary periods driven by supply/demand imbalances. While we are in the relatively early stages of this latest global energy transition, we are already dealing with increased demand for and limited supply of the goods and services that are required to facilitate this much needed transition towards a greener planet. We are also suffering from fossil fuel related supply disruptions brought about by lack of investment and the weaponization of oil and gas supplies. Oil and gas companies would normally have responded to oil over $100 per barrel with additional investment, most likely in shale, to boost supply. However, current guidance suggests that upstream capex will average just $410 billion per year over 2022–2023, compared with $480 billion in 2019 — when oil averaged just $60 per barrel.

Oil and gas companies would normally have responded to oil over $100 per barrel with additional investment, most likely in shale, to boost supply. However, current guidance suggests that upstream capex will average just $410 billion per year over 2022–2023, compared with $480 billion in 2019 — when oil averaged just $60 per barrel.

Exhibit 43

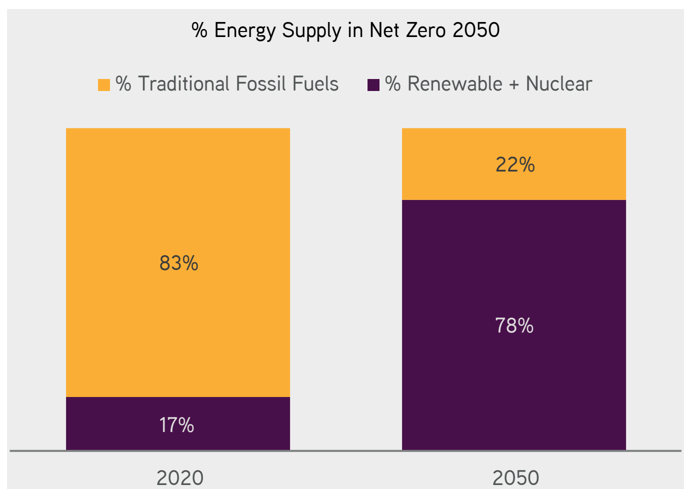
Global Energy Capex Has Crashed, Which Is Contributing to Record Tightness in Oil Supply



Data as at May 2021. Source: Rystad Energy, UCube, Citi.

Exhibit 44

Net Zero Is Not That Easily Achieved as Transitions Do Not Happen Overnight

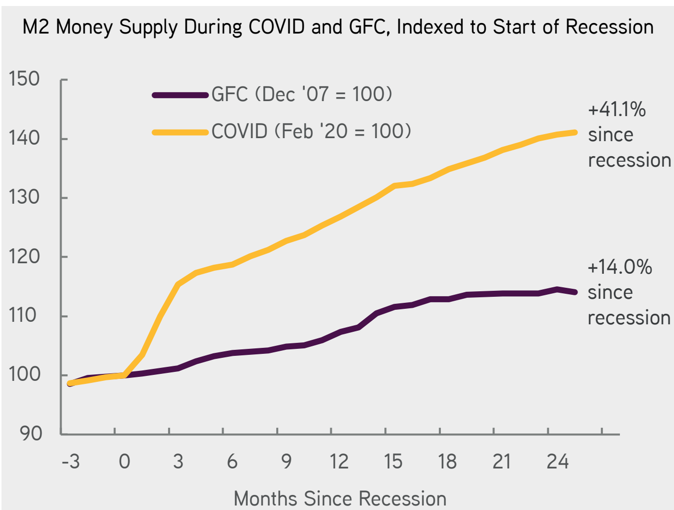


Data as at May 31, 2021. Source: International Energy Agency (2021), Net Zero by 2050, IEA, Paris: Net Zero by 2050 Scenario - Data product - IEA. License: Creative Commons Attribution CC BY-NC-SA 3.0 IGO, KKR Global Macro & Asset Allocation analysis.

Point #3: Central banks and politicians likely put too much money in the system, as the use of QE to directly fund consumers led to aggressive spending habits after the initial shock of COVID-19. In the U.S., M2 money supply increased 41% in the 24 months following the COVID-induced recession. By comparison, money supply increased only 15% in the 24 months following the onset of the GFC *(Exhibit 45).* While we do think that the rate of money creation will slow going forward, we believe that the magnitude of cash injected into the system during COVID means that spending and inflation will remain elevated in coming years. In fact, even if the money supply stopped growing today, in percentage terms annualized money growth over 2020–2025 would *still* be higher than it was over 2015–2020. In reality, we think that M2 money growth will slow, but not stop — meaning that higher inflation is here to stay.

Exhibit 45

Using Large Amounts of Direct Consumer Stimulus Has Created a Very Different Recovery

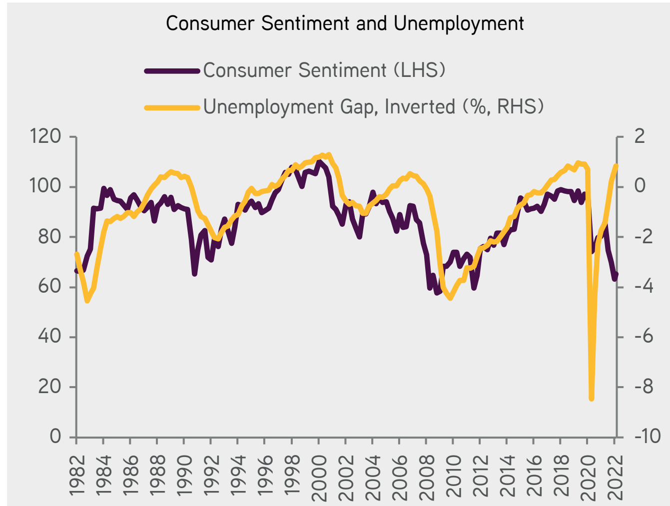


Data as at May 24, 2022. Source: Federal Reserve Board of Governors, Haver Analytics.

The current backdrop likely means that we should all be dusting off some pages from the 1970s stagflation playbook, an investing game plan that we think includes overweighting pricing power, upfront cash flows, and collateral.

Exhibit 46

Surging Inflationary Pressures Have Led Consumer Confidence to Decouple from Unemployment

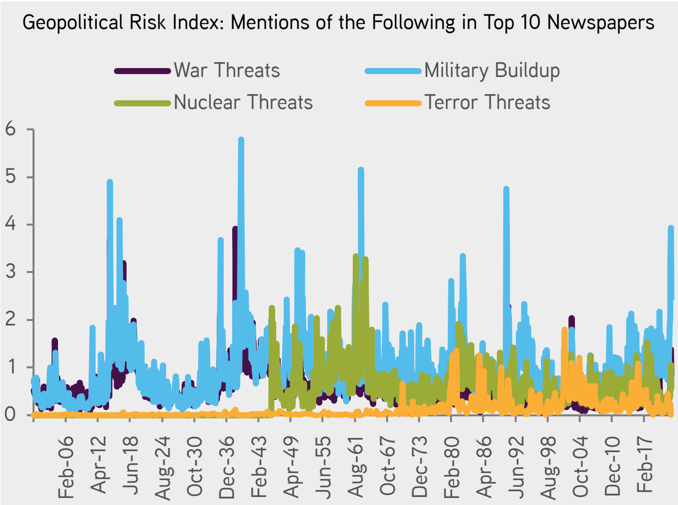


Note: The unemployment gap is the distance between the current unemployment rate and the socially efficient unemployment rate. This statistic indicates how far economic activity is from where it should be. Data as at April 30, 2022. Source: University of Michigan, BLS, Haver Analytics.

Point #4: Heightened geopolitical risk is affecting both consumer and CEO confidence. We believe that the shift towards great power competition from benign globalization means that periodic spikes in companies' cost of capital will occur more frequently as competing economic blocs build out parallel supply chains *(Exhibit 82)* and redundant industrial capacity. Indeed, as we discussed in *State of Play,* the 'weaponization' of economic policies as a result of the Russian invasion of Ukraine now means a more sustained blurring of the fault lines that once distinctly separated geopolitics from macroeconomics during the rise of globalization. Ultimately, we see some greater form of economic polarization as the most plausible outcome. This polarization will likely accelerate and intensify the dynamic between Russia and China relative to the industrialized democracies that has been building for several years, including the mutual hardening against economic and technological dependence on each other.

Exhibit 47

Geopolitical Risks Have Increased Materially, Which Is Weighing on Consumer and CEO Confidence



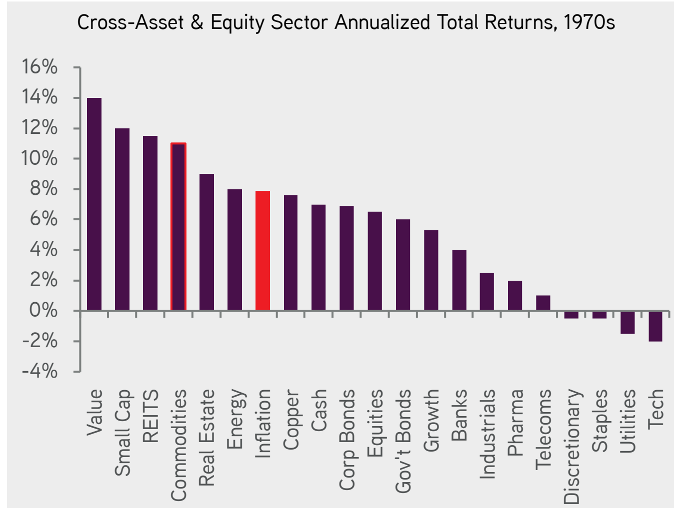
Note: Newspapers include Chicago Tribune, the Daily Telegraph, Financial Times, The Globe and Mail, The Guardian, the Los Angeles Times, The New York Times, USA Today, The Wall Street Journal, and The Washington Post. Data as at April 30, 2022. Source: Bloomberg.

Given these changes, our base view is that inflation will likely stabilize at a higher resting rate this cycle, particularly in the western hemisphere. Not surprisingly, this higher resting rate for inflation will likely lead to more volatility in rates and financial markets. The result, we think, is that inflation will once again become a key input for central banks, adding another level of uncertainty into their decision-making over the coming year. The result will be volatility in rates, inflation, and FX that, for allocators of capital, will feel more like the early 1990s than the 2010s.

What does this all mean for investing? The current backdrop likely means that we should all be dusting off some pages from the 1970s stagflation playbook, an investing game plan that we think includes overweighting pricing power, upfront cash flows, and collateral. It also means not over-leveraging as the volatility around a company's cost of capital is likely to go up, not down. Finally, we have been increasing our allocation to flexible, more opportunistic pools of capital that can provide financial capacity to good companies that have bad capital structures for the environment we are entering.

Exhibit 48

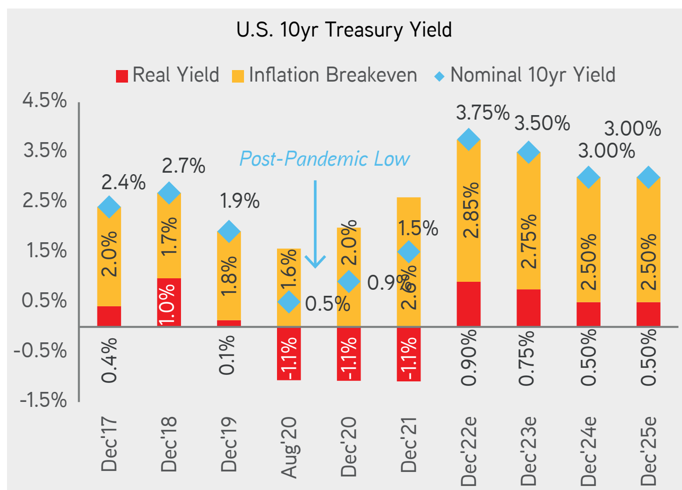
The 1970s Told Us to Get Long Pricing Power and Upfront Cash Flows in a Higher Inflation Environment



Data as at March 2022. Source: BofA Global Investment Strategy.

Exhibit 49

Despite Tightening Financial Conditions, We Still Have U.S. Real Rates Below Where They Were in 2018



Data as at June 10, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Question #2: ***How are you thinking about interest rates and the housing sector?***

Similar to what occurred after World War II as well as following the tragic events of 9/11, consumers have flocked to houses during the pandemic. This 'nesting' concept makes sense to us, as consumers tend to spend more time with friends and family at their home after a crisis. At the same time, there has been a shortage of new-home construction since the GFC. So, we believe today's housing boom is supported, for the most part, by fundamentals: There are too few houses and too many buyers. Importantly, the current supply/demand dynamic is strikingly different from the debt-driven speculation that fueled the early 2000s housing boom, when high levels of mortgage debt led to unsustainable demand for housing.

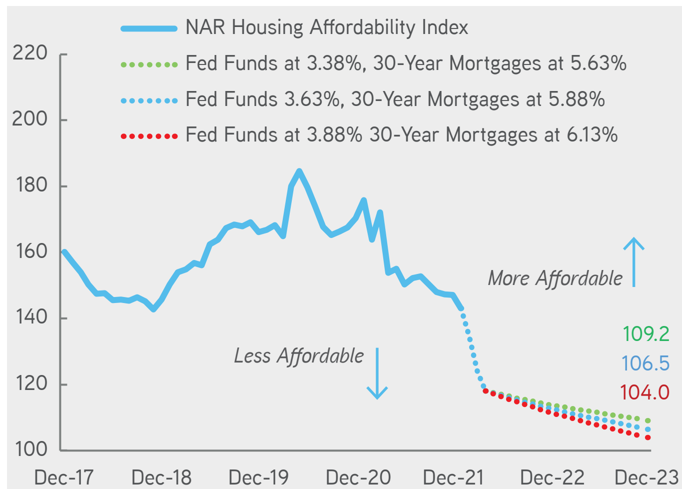
However, today's home price appreciation/inflation is not only crowding out some buyers but is also leading to higher rents for those who are not able to own a home. Not surprisingly, as part of its intention to cool demand in the economy, we believe the Fed is looking to rein-in home price appreciation through higher mortgage rates, which are highly sensitive to the front-end of the yield curve. We think this normalization process will certainly not be easy. Indeed, if the Fed over-tightens financial conditions, home price momentum will turn negative, risking a recession.

Given this backdrop, my colleagues Dave McNellis and Ezra Max have spent time trying to quantify when interest rates — and hence mortgage rates — hit a level that will cool the housing market without causing a recession (i.e., an equilibrium rate). Though there are many variables to consider, we believe a good guide is the NAR's Housing Affordability Index (HAI), which reflects household income as a multiple of monthly mortgage payments. When the HAI falls to a low enough level, new homebuyers are priced out of buying, while current homeowners with legacy mortgages cannot afford to move. As a result, home price appreciation (HPA) momentum turns negative. Historically, the 'tip-over' point for HPA has been around 110, but we think it now lies closer to 105 given the structural changes in the housing market we outline above.

Bringing HAI to a sustainable level just above this tip-over point would suggest mortgage rates peaking at 5.8–5.9% in 2023, which is our base case, compared with 5.4% today and a meager three percent a year ago. In this scenario nominal year-over-year home price appreciation would fall from around 20% today to the low to mid-single digits in 2023–25. One can see this in *Exhibit 50*. This forecast compares to slightly negative HPA in coming years in the event that the Fed over-tightens (bear case) and a 5–10% nominal HPA run rate in the event that the Fed cannot raise rates high enough to cool housing demand (bull case).

Exhibit 50

Housing Affordability Is Now Becoming a Potential Headwind at the Current Level of Interest Rates

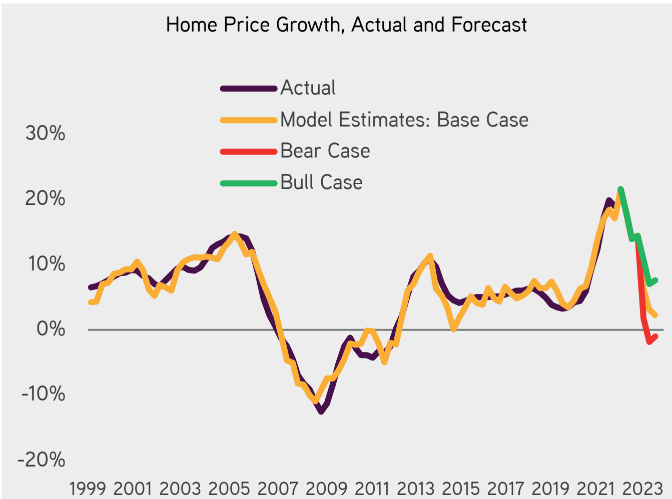


Note: A value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An increase in the HAI, indicates the consumer is more able to afford the median priced home. Data as at April 11, 2022. Source: NAR, BLS, BEA, S&P, FRED.

Not surprisingly, as part of its intention to cool demand in the economy, we believe the Fed is looking to rein-in home price appreciation through higher mortgage rates, which are highly sensitive to the front-end of the yield curve. We think this normalization process will certainly not be easy.

Exhibit 51

Our Base Case Suggests Home Price Appreciation Will Moderate to Around Three Percent by 2024



Data as at May 31, 2022. Source: Standard & Poor's, Case-Shiller, National Association of Realtors, Bureau of Labor Statistics, Census Bureau, Federal Reserve Board, Urban Institute, Bureau of Economic Analysis, KKR CREM Analysis.

So, our punch line is that housing is poised to cool materially, but the current backdrop is not 2007. Fundamentals, not leverage, are driving home price appreciation, and we believe that COVID, similar to the shocks that followed WWII and the tragic events of 9/11, has increased demand for housing in key markets such as the United States, Spain, and the United Kingdom.

Question #3: ***How is the health of the consumer?***

We often get asked questions about the health of 'the consumer' at the aggregate level. For our nickel, the state of the U.S. consumer, as one example, feels pretty good. In addition to low unemployment, net worth is bouncing around record highs, and spending remains above-trend. That's the good news.

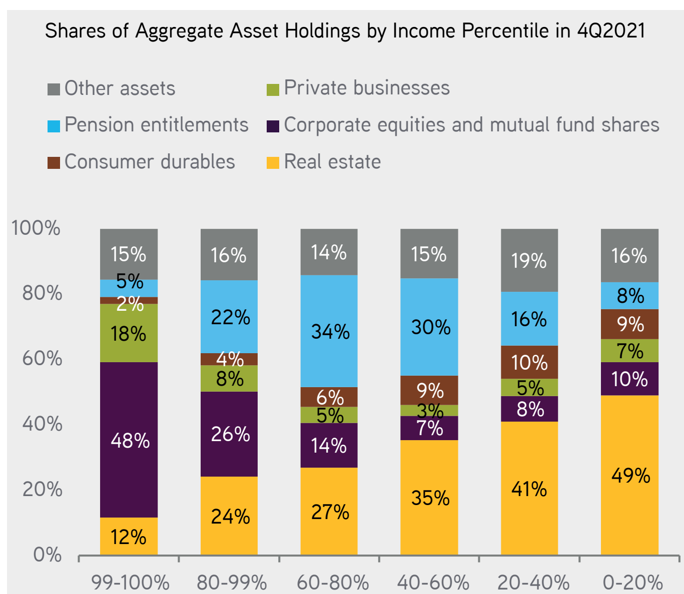
The bad news is that there is not 'one' consumer, and we are forecasting — unfortunately — a widening gap between those at the high-end of the income spectrum and those at the low-end. As *Exhibit 55* shows, not only are the top 20% of Americans by income flush with cash, but so too are the second quintile (20–40%). In fact, the second quintile of households in the U.S. now have more cash in their bank accounts than the top quintile did before the pandemic. By contrast, the bottom 20% of consumers have less cash in their accounts today than they did at the end of 2019. Many also now have a *negative* rate of savings, meaning that their spending is already exceeding their income — and more inflation is coming.

Why has this happened? In short, asset appreciation and inflation have affected high-end and low-end income consumers very differently. We note the following:

High-Income Consumers High-income consumers have seen home prices and stock portfolio values rise in both real and nominal terms during the pandemic. In 2021, the average U.S. house appreciated by $53,000, which was $3,000 more than the average U.S. household income. High-end consumers tend to own homes, whereas low-end consumers tend to rent. Said differently, home ownership has become one of the most striking determinants of wealth status — likely more important than employment status — coming out of the pandemic.

Exhibit 52

Equities Account for Almost 50% of Asset Holdings for the Top One Percent of U.S. Households

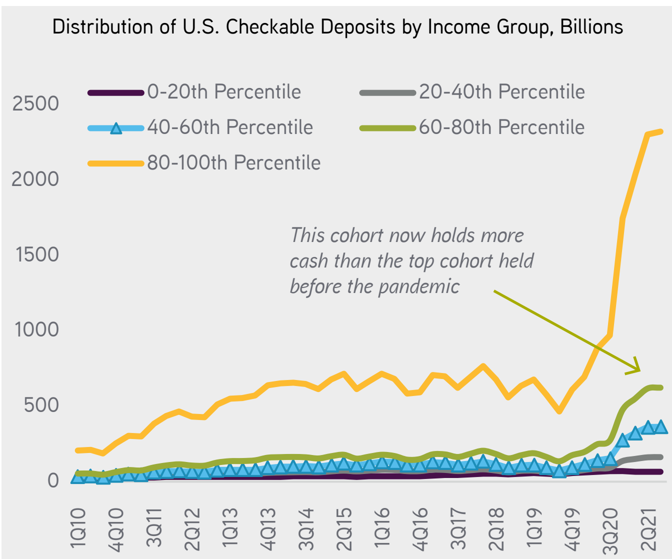


Data as at December 31, 2021. Source: Federal Reserve Board, KKR CREM Analysis.

Meanwhile, the value of U.S. households' stock portfolios increased by $7.6 trillion over 2021. As *Exhibit 52 shows,* these equity market benefits have overwhelmingly gone to high-end consumers. On the liabilities side, inflation has lowered debt servicing costs on existing mortgages, with the average mortgage payment falling from 7.2% of disposable income at the onset of the GFC to just 3.8% today. These shifts have allowed high-end consumers to build cash balances, despite paying higher prices for their homes.

Exhibit 53

Checkable Deposits Grew $2.9 Trillion to a Sizeable $3.9 Trillion by 4Q21. However, the Lion's Share of This Increase Went to High-End Consumers

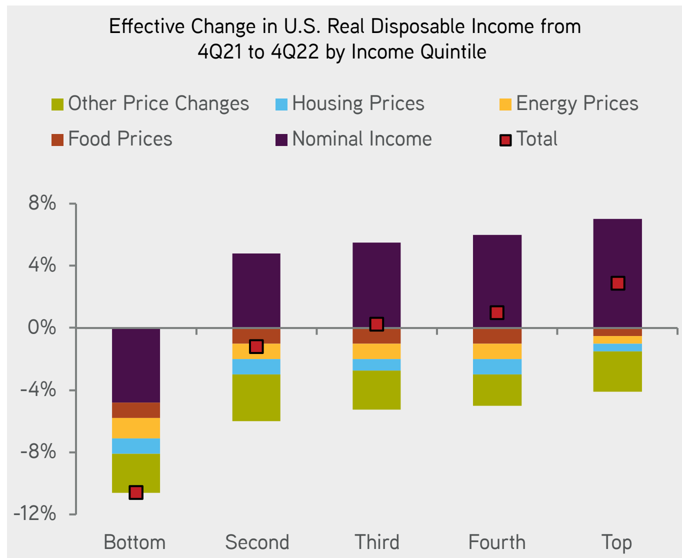


Data as at December 31, 2021, Source: Federal Reserve Board, EvercoreISI Research.

Low-End Consumers For low-end consumers, the story has been very different. By and large, these households do not benefit from housing or stock market gains and instead depend on labor income to support spending. And while wages have posted impressive gains during COVID, the surge in inflation meant that real wages actually *fell* 0.5% over 2021 and have been roughly flat since February 2020. Maybe more importantly, headline inflation probably understates the inflation experienced by low-end consumers, who devote a greater share of their spending to food and energy. One can see the headwinds this segment of the market is facing in both *Exhibits 54* and *55*, which show a decline in real incomes as well as negative savings for the lowest quantile of U.S. consumers. Finally, while inflation lowers real mortgage payments and boosts property values for homeowners, it increases shelter costs for renters.

Exhibit 54

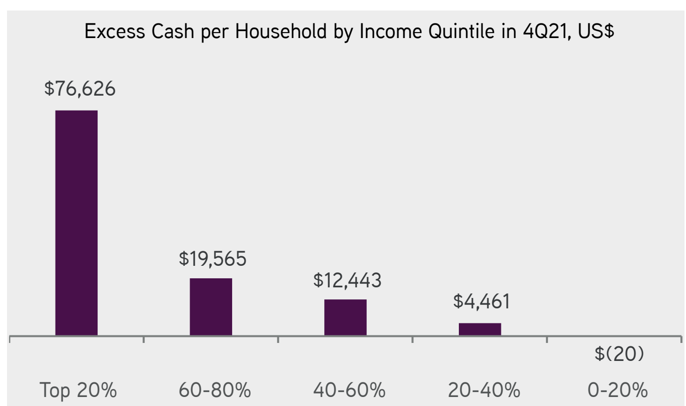
Pressure on the Low End Consumer Will Continue to Mount in 2022, We Believe



Data as at April 22, 2022. Source: Goldman Sachs.

Exhibit 55

Top Income Groups Still Have Excess Cash Relative to the Pre-Pandemic Period, While Lower Income Groups Do Not

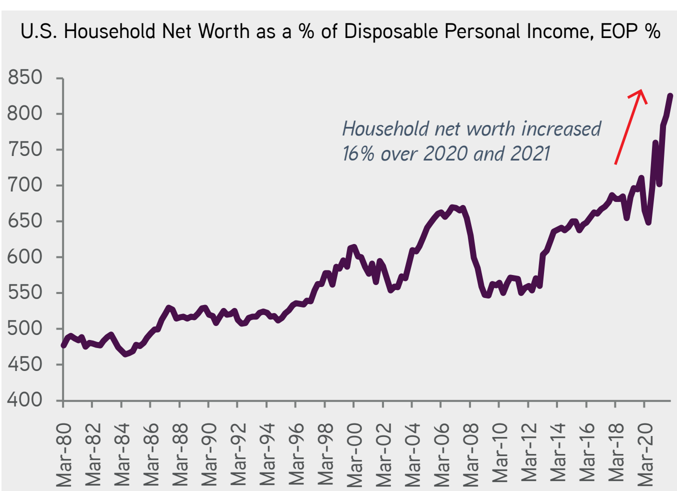


Data as at December 31, 2021. Source: Federal Reserve Board.

Looking ahead, our base view at KKR is that high-income consumers — who represent the majority of U.S. consumption — will continue to spend over the next few years, supported by strength in home prices and strong balance sheets. This backdrop should soften the impact from low-income consumers tightening their spending, and in turn, keep the U.S. economy on track. Nonetheless, the shift in the composition of consumer spending from low- to high-income households, should have important implications for the U.S. economy. In particular, we think that high-income consumers are likely to favor spending on experiences over things, a notable reversal from the post-pandemic goods buying frenzy. Just consider that the top two-fifths of consumers account for about 55% of groceries spending versus 61% of restaurant spending, or 55% of at-home entertainment purchases versus 75% of ticket sales. Meanwhile, we also think that pandemic-era trade-ups favored by low-income consumers are likely to come under pressure. As such, some of the major consumer staples brands may have a harder time passing input costs on to customers than many investors assume (which is why we have many parts of the consumer stock food chain as a PAN).

Exhibit 56

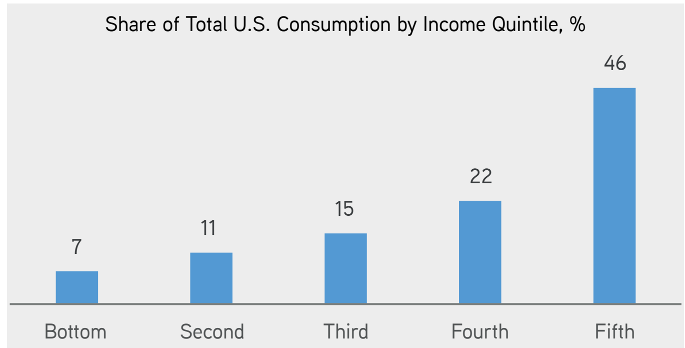
Although Consumers Will Struggle with the Rapid Rise in Inflation, There Has Been a Massive Increase in Household Net Worth that Can Act as a Buffer



Data as at December 31, 2021. Source: BEA.

Exhibit 57

The Bottom Income Quintile of Consumers Accounts for Less Than 10% of Total Consumption

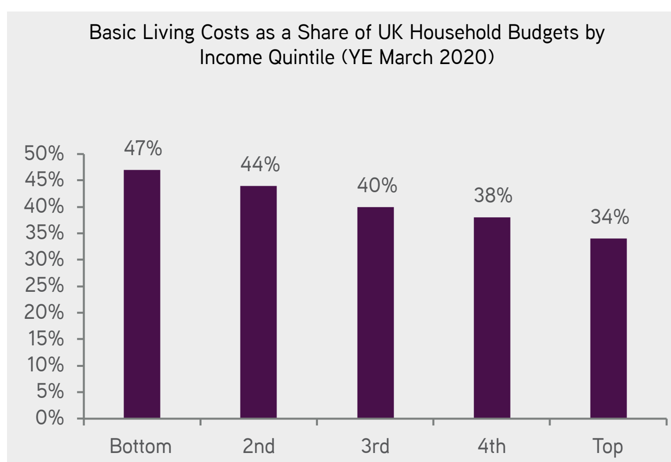


Data as at April 22, 2022. Source: Goldman Sachs.

In Europe we see similar, if not more extreme trends of consumer bifurcation. In the U.K., for example, even before the Russian invasion of Ukraine, basic living costs accounted for 47% of household budgets for the lowest income consumers versus 34% for top earners. Further compounding the issue is that there is now little savings to act as a buffer. Indeed, as *Exhibit 59* shows, the lion's share of excess savings is concentrated amongst high-income households.

Exhibit 58

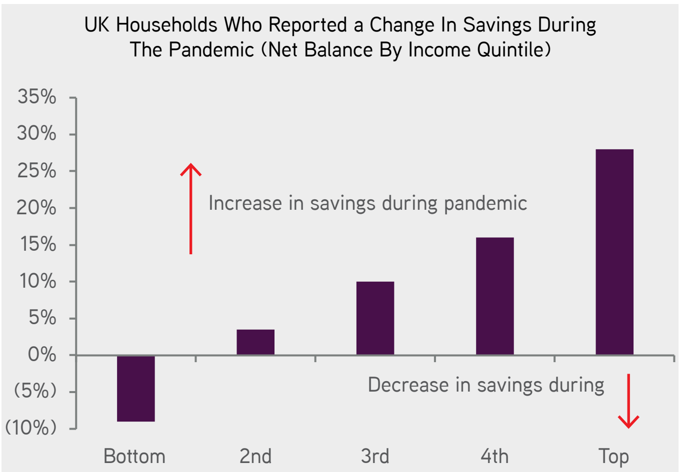
The Lower-Income Cohorts Are Most Vulnerable to Rising Prices, as Basic Living Costs Make Up a Greater Portion of Their Household Budgets



Note: Basic living costs includes housing, fuel, power, food, transport. Data as at March 31, 2020. Source: ONS.

Exhibit 59

While Many Consumers Have Amassed Savings During the Pandemic, Lower Income Households Were Unable to Increase Savings in the United Kingdom



Data as at May 15, 2022. Source: BoE.

So, what does all this mean for investing? In our view, the current backdrop is likely unsustainable. For starters, high earners should carry the economy from a spending perspective, including spending aggressively on services as we exit the pandemic, but are more at risk from a policy perspective. At the other end of the spectrum, low-to middle-income consumers are likely to trade down, including more staycations, private label goods, and greater use of credit. Worker retraining, and political stability issues due to income inequality will likely both get caught up in the wealth argument. Ultimately, we see labor gaining share at the expense of capital in instances where corporate executives cannot create true long-term alignment with their employees.

Question #4: ***What are your latest capital market assumptions?***

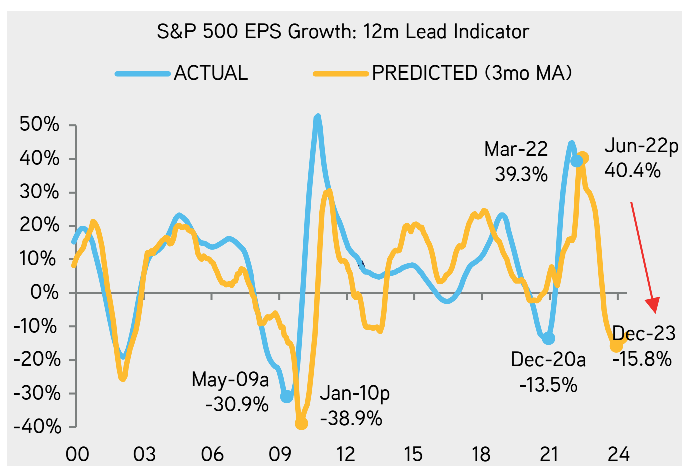
We are lowering our S&P 500 target to 4,200 for this year and 4,350 for next year, down from 4,575 and 4,650, respectively, in 2022 and 2023 to align with our call for an increasingly challenging macro outlook of higher interest rates in the face of slowing GDP growth and an earnings recession.

We are formally incorporating a modest earnings recession into our outlook, which assumes EPS falls five percent Y/y to $219 per share in 2023 (down from our prior estimate of $235 per share and significantly below consensus at $250/share). A synchronous downturn across our trusted lead indicators is driving the fundamental downgrade. Specifically, **a)** our Earnings Growth Lead Indicator (EGLI) is worsening not improving on the back of higher energy prices; **b)** our macro proxy for corporate margins is rolling over; **c)** we have increasing conviction that the ISM index will fall below 50 into contraction territory; and **d)** we are at the start of an earnings revisions downgrade cycle.

Despite an overall solid 1Q22 earnings season, we expect the double whammy of decelerating top-line growth and persistent wage/input cost inflation to start pressuring margins and corporate earnings heading into the 2H22. Notably, we see a diminishing ability to pass-through ever-higher input costs to consumers before demand destruction kicks in. Against this more difficult backdrop, we think that the consensus remains too complacent in their expectation for fully nine percent Y/y EPS growth in 2023, which assumes that 85% of S&P 500 companies will improve their operating margins on a Y/y basis in 2023.

Exhibit 60

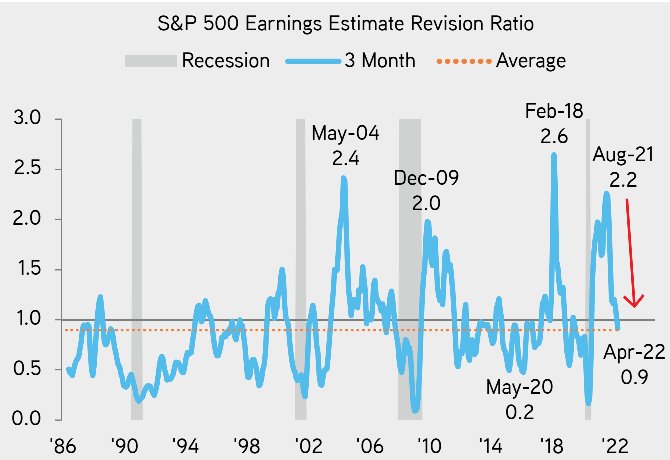
Our Earnings Growth Lead Indicator (EGLI) Is Now Calling for a Negative Growth in 2023, Driven by Higher Energy Prices, Tighter Financial Conditions and a Stronger Dollar



The Earnings Growth Leading Indicator is a statistical synthesis of seven important leading indicators to S&P 500 Earnings Per Share. Henry McVey and team developed the model in early 2006. a = Actual; p = model predicted. Data as at May 25, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 61

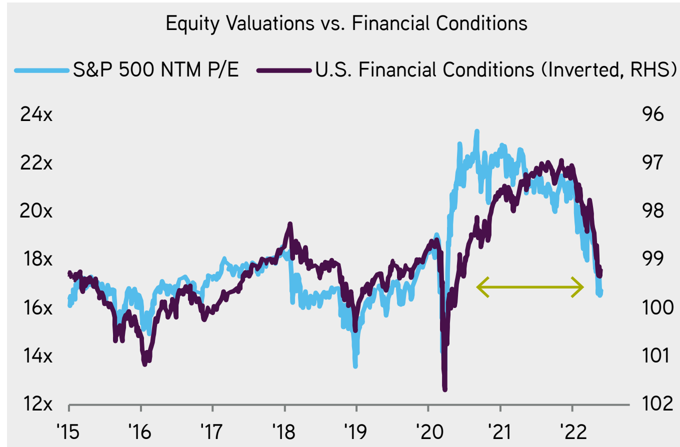
Earnings Revisions Recently Turned Negative for the First Time Since the Pandemic, Foreshadowing the Start of a Downgrade Cycle



Data as at May 31, 2022. Source: S&P, Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 62

The Multiple on the S&P 500 Has Responded to Tightening Financial Conditions



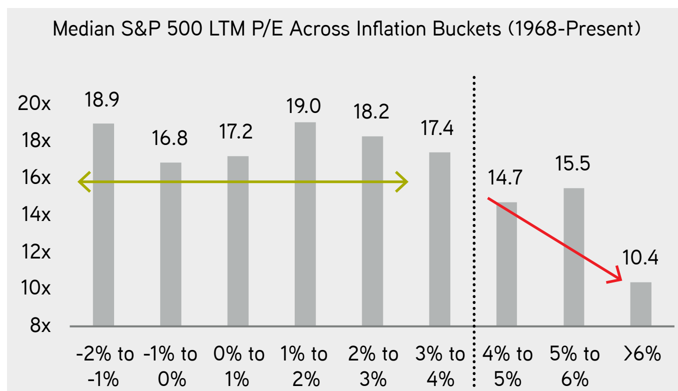
Data as at May 25, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

On the back of sharply higher interest rates, S&P 500 NTM P/E has already decreased around 23% peak-to-trough to 16.4x, which is actually lower than pre-pandemic levels (*Exhibit 62*). Taking into account our higher 10-year rates forecast of 3.75% in 2022 and 3.5% in 2023 (up from 3.25–3.5% previously), our DCF-based framework pegs fair value NTM P/E multiple at approximately 17x in 2023, which is down from the December 2021 high of 21.5, but just above where we are today.

Ultimately, the market needs to have line of sight on inflation getting back towards the Fed's two percent target before valuation multiples can again inflect higher on a *sustained* basis, in our view. One can see this in *Exhibit 63.* The good news is that we do see inflation coming off the boil somewhat and falling back around four percent again. However, because we see a higher resting heart rate for inflation this cycle, we expect long-duration secular growth names in particular to stay under pressure, which is consistent with our PAN call on Big Tech remaining in place for the second half of the year.

Exhibit 63

Rising Inflation Turns Into a Headwind for Equity Valuations When Inflation Exceeds 4% or So



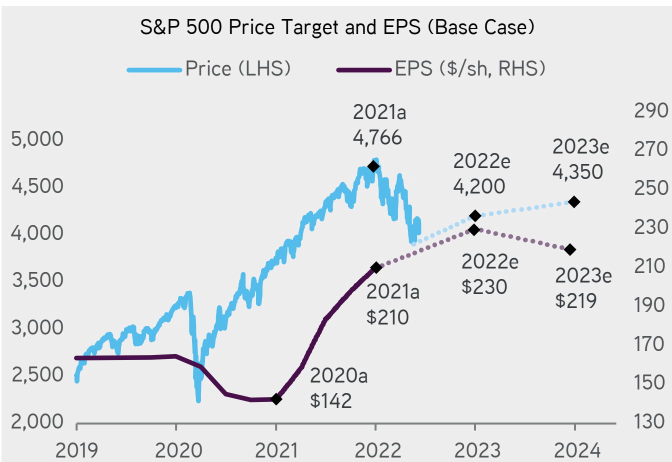
Data as at May 25, 2022. Source: Bloomberg, S&P, KKR Global Macro & Asset Allocation analysis.

So, our new outlook for EPS and P/E multiples implies S&P 500 price targets of 4,200–4,350 for this year and next (down from 4,575–4,650 previously). Said differently, the near-term upside for Equities looks modest and we expect public markets to trade in a volatile, sideways range so long as rampant inflation is forcing the Fed to hike into a slowing economy (*Exhibit 64*).

What could go wrong? Plenty. So given the rising risk of a downturn, we are introducing a downside case where a Fed-induced stagflation scenario leads to a full-blown earnings recession (-15% Y/y in 2023) that is compounded by significantly higher 10-year U.S. rates (4.25% from 3.3% today) and an elevated equity risk premium (5.2% versus long-term average of 4.7%). Under this scenario, which we assign a 20% probability or so, the S&P 500 fair value would fall towards 3,250, which is approximately 15–20% below today's level (*Exhibit 65*).

Exhibit 64

Our New Base Case Has the S&P 500 Fair Value in the 4,200–4,350 Range in 2022-23 (Down From 4,575–4,650 Previously)



Data as at June 10, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Against this more difficult backdrop, we think that the consensus remains too complacent in their expectation for fully nine percent Y/y EPS growth in 2023, which assumes that 85% of S&P 500 companies will improve their operating margins on a Y/y basis in 2023.

Exhibit 65

We Look for Both Earnings and Multiples to Contract in 2023

S&P 500 Base Case Outlook

		Y/y % Change
2021 Year-End	**4,766**	-
P/E on 2022 EPS	20.7x	-
2022 EPS	$230	-
2022 YE Price Target	**4,200**	**-11.9%**
P/E on 2023 EPS	19.2x	-7.2%
2023 EPS	$219	-5.0%
2023 YE Price Target	**4,350**	**3.6%**
P/E on 2024 EPS	17.1x	-10.7%
2024 EPS	$254	16.0%

Data as at June 10, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Tactically speaking, despite downbeat fundamentals, current market conditions look ripe for a bear market rally in the near-term. Our reasoning is threefold: **a)** the peak-to-trough decline already matches the average non-recession drawdown of about 20%; **b)** close to 60% of S&P 500 companies are down by 20% or more, a threshold that has signaled prior market troughs outside of recessions; **c)** our global cross-asset indicator suggests sentiment is close to washed-out territory, which would be contrarian bullish (*see Exhibits 66* and *67*). For investors, we suggest taking advantage of these pockets of strength and re-positioning portfolios with a more defensive tilt to hedge against a deteriorating macro environment.

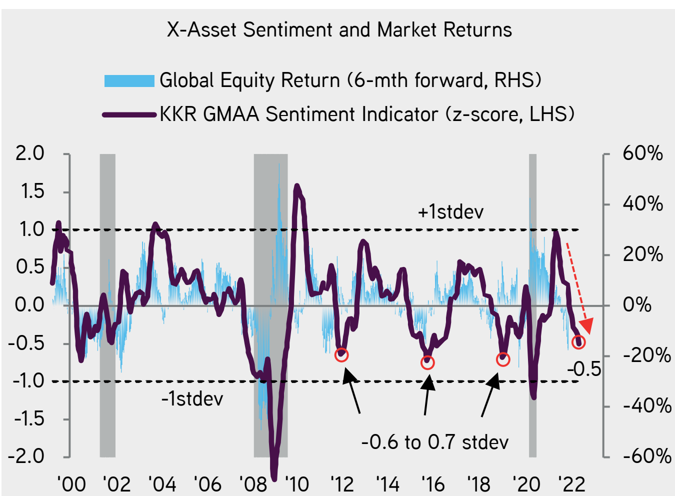
Exhibit 66

Approximately 60% of SPX Stocks Are Down 20% or More. Historically, These Types of Sell-Offs Have Been Good Entry Points for Long-Term Investors

Data as at May 25, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 67

Our Cross-Asset Indicator Suggests Investor Sentiment is Close to Bottoming-Out, Which Would be Contrarian Bullish



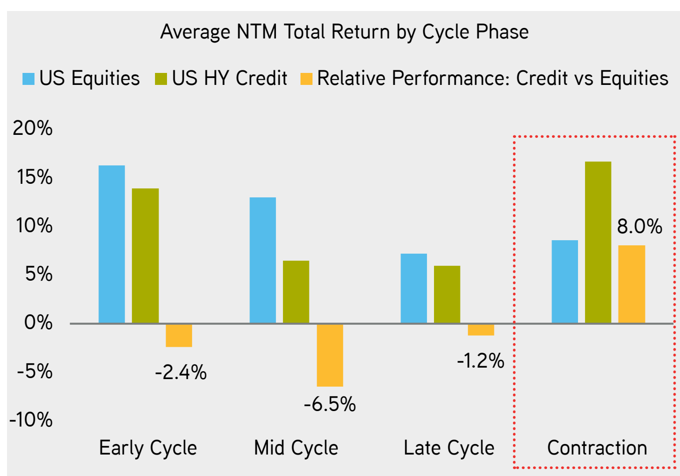
Data as at May 25, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

So, our macro outlook is pointing to an increasingly stagflationary environment of slowing growth, rising rates, and persistent commodity/labor cost inflation that we believe will continue to pressure margins and multiples heading into 2023. As such, we think investors should position their portfolios more defensively, with a focus on pricing power and high cash flow conversion.

Credit vs. Equities: We currently favor Credit over Equities on a relative basis for several reasons. First, our business cycle framework suggests that U.S. High Yield credit tends to outperform U.S. equities in the 12 months following economic contractions (*Exhibit 68*). While the U.S. economy is still technically in the 'late-cycle' phase, we see a growing risk of a sharp slowdown as the Fed continues to hike rates towards neutral territory. Second, the yield on HY BB-rated credit now exceeds the S&P 500 dividend yield by the widest margin since 2011 (460 basis points); likewise, our risk premium framework — which compares the market-implied cost of equity to the yield on HY credit — shows that the current excess return offered by equities is well below the post-GFC average *(Exhibits 69* and *70)*. Third, while both Credit and Equity valuations have retreated significantly year-to-date, equity multiples remain elevated versus history (in the 65-85th percentile); on the other hand, HY credit spreads have already widened back towards their long-term median (*Exhibit 71*).

Exhibit 68

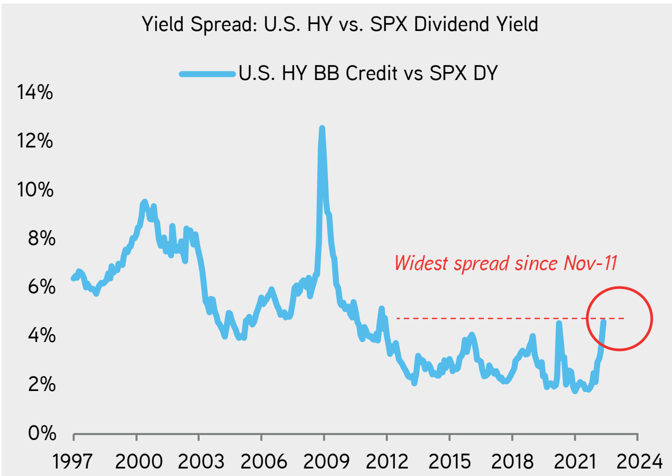
The Contraction (and Late-Cycle) Phase of the U.S. Business Cycle Tends to Favor Credit Over Equities



Data as at May 18, 2022. Source: Bloomberg, Factset, Haver, KKR Global Macro & Asset Allocation analysis.

Exhibit 69

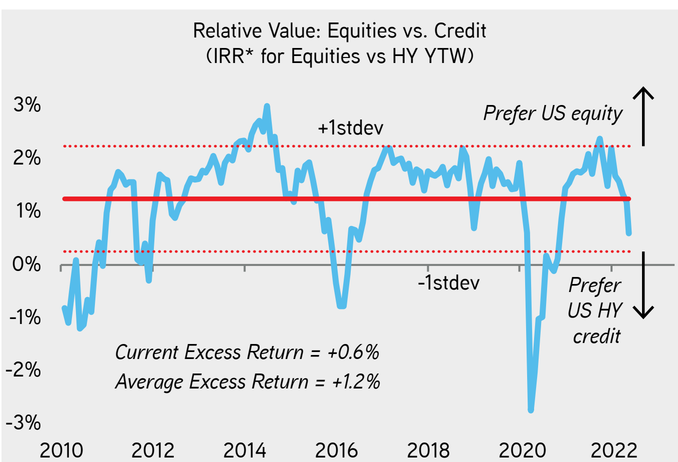
The Yield on HY BB-Rated Credit Now Exceeds the S&P 500 Dividend Yield by the Widest Margin Since 2011



Data as at May 18, 2022. Source: Bloomberg, ICE-BofAML Bond Indices, KKR Global Macro & Asset Allocation analysis.

Exhibit 70

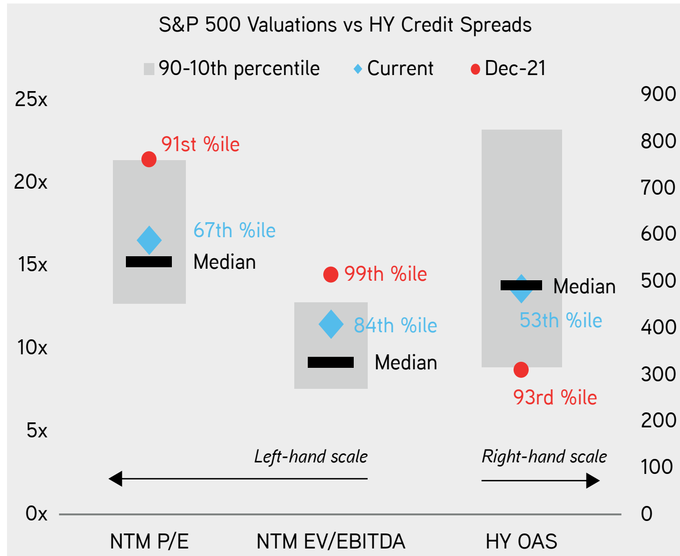
The Current Excess Return Offered by Equities Is Well Below the Post-GFC Average, Which Suggests HY Credit Offers Better Value Than Equities



* Internal rate of return is the discount rate at which the present value of all future dividends is equal to the current market level. We use a 2-stage DDM. Data as at May 18, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 71

Despite the Sell-Off, Equity Multiples Remain Elevated vs. History, Whereas Credit Spreads Have Already Widened Towards Their Long-Term Median



Data as at May 18, 2022. Historical valuation data since 1990. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

In short, our bottom line is that Credit looks more attractive than Equities after accounting for the current phase of the business cycle, relative yield pick-up and valuations versus history. The caveat is that the two asset classes have become highly correlated in recent years, which suggests neither Credit nor Equities would be immune from further weakness should markets start pricing in a significant downturn or recession.

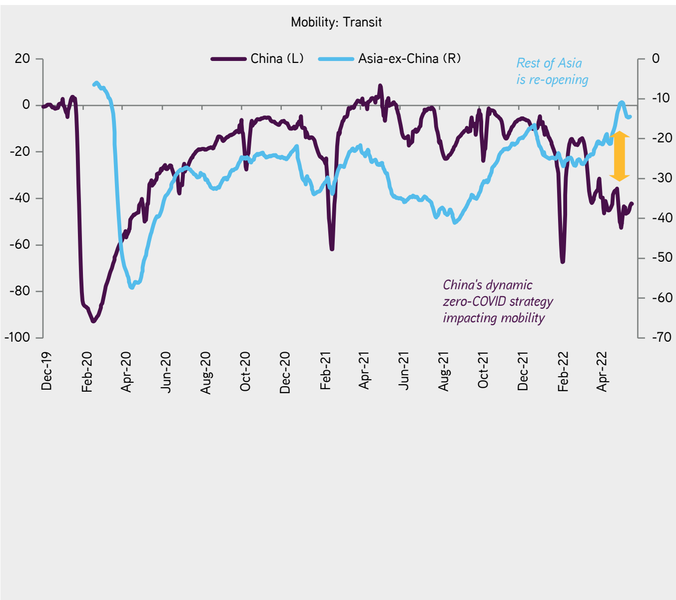
Question #5: *What is your latest thinking on Asia, China in particular?*

While China's zero-COVID policy continues to weigh on overall global growth, the rest of Asia is actually a story of both re-openings and recoveries (*Exhibit 72*). In fact, many countries like Singapore, Malaysia, and Indonesia are removing COVID testing requirements, while others like Thailand are making them optional. To put this growth in context, our colleagues Frances Lim and Deepali Bhargava suggest that the Asia ex-China backdrop is similar to that of the U.S. reopening in the second half of 2021 when household incomes rose in line with the recovery, while strength in household savings supported consumption.

As we look ahead (and as we mentioned in the GDP forecast section), China will ultimately reopen, albeit with a lag to the rest of Asia. If there is good news, any China rebound in 2023 from such depressed levels could actually be positive for the region, as the rest of Asia by that point will likely be in the more mature phase of its recovery and could benefit from China's pent up demand as well as any increase in mobility.

Exhibit 72

Most of Asia Is Re-Opening, Except China

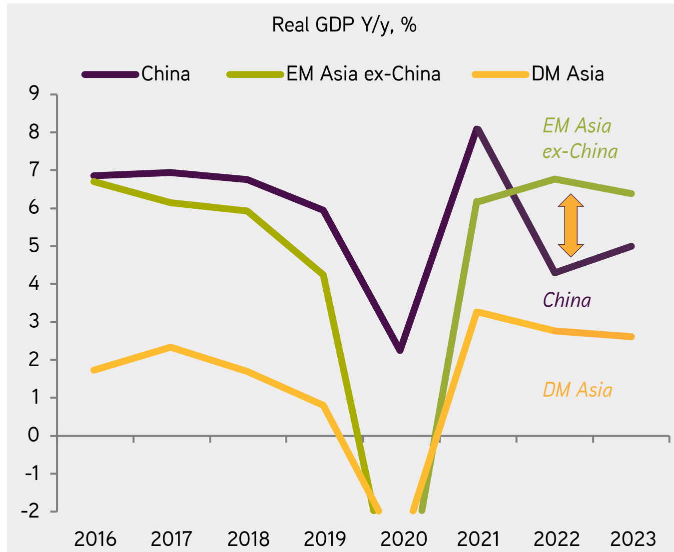


Data as at May 23, 2022. Source: Weibo Metro Daily Passenger Volume for China, Google Transit Mobility for other countries, Bloomberg, OurWorldinData.org.

So, unlike the Fed, Asian central banks will be able to act at a more measured pace as they confront inflation. In our view, this conservatism is a good thing, as the pace of rate hikes does influence risk premiums.

Exhibit 73

Three Distinct, Concurrent Phases of Growth in Asia: Late Cycle (China), Mid-Cycle (DM Asia), Early Cycle (EM Asia)

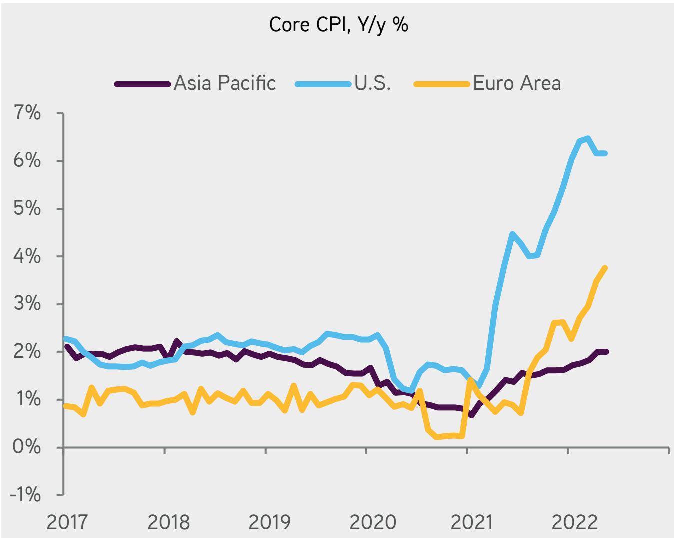


Data as at May 23, 2022. KKR Global Macro & Asset Allocation estimates for China, IMF estimates for other Asia Pacific countries, nominal GDP weighted. Source: IMF, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

On the inflation front, the story actually contrasts sharply with what consumers and central bankers are seeing in the West. Specifically, Asia is not experiencing the levels of inflation 'pain' that are occurring in the U.S. and Europe. Specifically, not only is inflation in many Asian economies still below trend, but there is still capacity to provide a fiscal buffer through subsidies to support consumers. So, unlike the Fed, Asian central banks will be able to act at a more measured pace as they confront inflation. In our view, this conservatism is a good thing, as the pace of rate hikes does influence risk premiums. That said, the Philippines and India are the two countries in Asia most at risk of overheating, we believe, as they are among the region's largest commodity importers, and as such, they have high food and energy inflation exposure. Moreover, demand in these countries is driven by the domestic economy, not the challenged and slowing export economy. So, there is no natural economic hedge of a balanced economy (i.e., they are overly dependent on consumption relative to exports) as we often see in other countries in the region. One can see this in *Exhibit 75*.

Exhibit 74

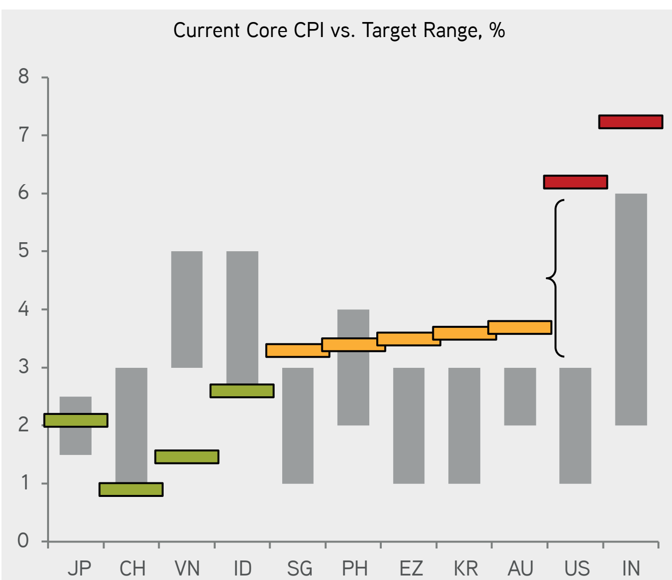
Lower Core Inflation in Asia Than in the U.S. and Euro Area



Data as at April 30, 2022. Source: Bloomberg.

Exhibit 75

India Is the Asian Country Where Inflation Is Furthest Above Its Target. We Are Also Watching the Philippines

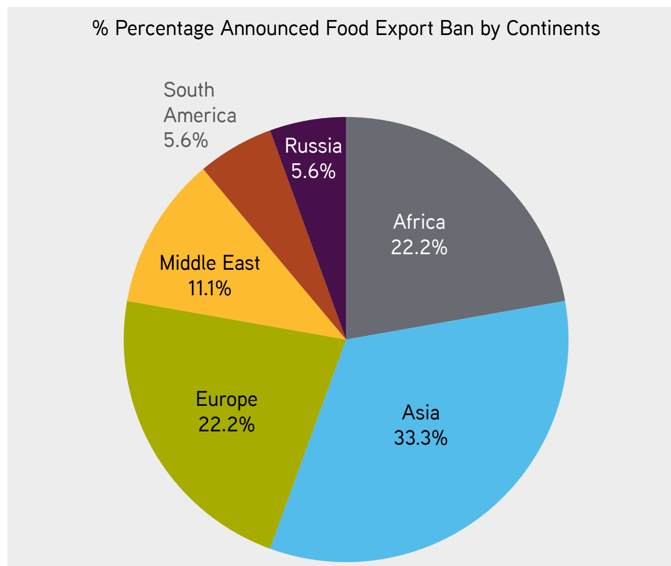


Data as at May 31, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

As we look ahead, Frances and Deepali are particularly focused on food inflation as a wildcard for the region. Food is a topic of national security for most countries, but post Russia's invasion of Ukraine, food protectionism has increased. For example, India and Malaysia have banned the exports of wheat and poultry, respectively. All told, there have been some 70 announced food export bans since the start of the Russia-Ukraine war. These export bans are concerning, and pose the risk of causing additional market inefficiencies that might ultimately push global food prices even higher.

Exhibit 76

Most of the Food Export Bans Are Coming From Asia, Africa and Europe



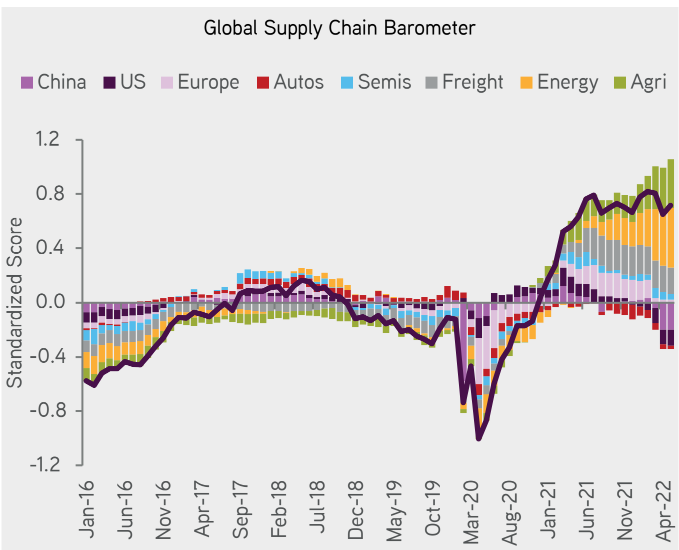
Data for Mar 9, 2022 to May 24, 2022. Source: International Food Policy Research Institute (IFPRI), KKR Global Macro & Asset Allocation analysis.

We are also still watching supply chains across all of Asia. To state the obvious, supply chains are only as strong as their weakest link and the longer the chain, the higher the risk of a weak or 'broken' link. Recently, supply chain links splintered due to the pandemic. However, in March of this year, the pain point shifted to Russia's invasion of Ukraine. Further cracks appeared in April and May of 2022 because of China's zero-COVID policy. Some of those cracks are now beginning to lessen as factories, ports and offices are operating in 'bubbles' at fairly high levels with aggregate output relatively steady.

At the moment, our supply chain indicator, which looks at global demand as well as select global supply chains, suggests global demand is beginning to soften as China experiences recession-like growth. European and U.S. growth is slowing too, while demand for goods is falling as U.S. consumer preferences shift towards services (e.g., travel, restaurants, and entertainment). Furthermore, the shortage of oil and gas exports from Russia has put some countries' climate goals on hold for now, so incremental demand from energy transition construction has a temporary reprieve in certain instances.

Exhibit 77

Global Supply Chains Are Still Stressed...

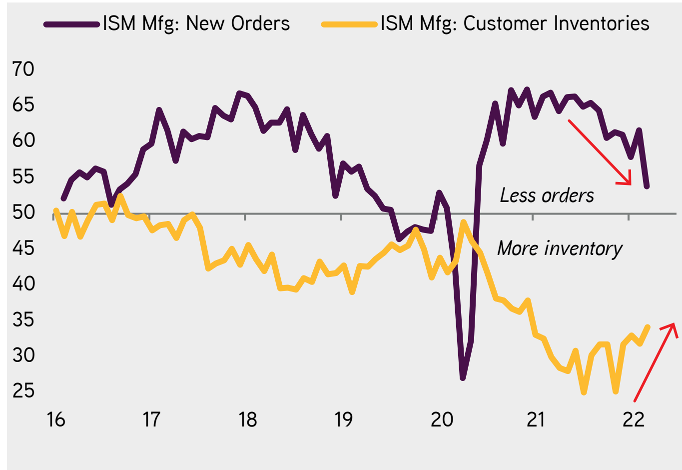


Equal-weighted normalized indicators for US goods demand, European goods demand, China goods demand, auto demand, semi supply chain, freight supply chain, energy, and agriculture sectors. Data as at May 25, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

All told, there have been some 70 announced food export bans since the start of the Russia-Ukraine war. These export bans are concerning, and pose the risk of causing additional market inefficiencies that might ultimately push global food prices even higher.

Exhibit 78

...But Goods Demand Is Starting to Cool



Data as at March 31, 2021.Source: U.S. Institute for Supply Management, Haver.

Our bottom line is that, despite potential food and supply chain challenges, we believe there are still many interesting investment opportunities in Asia, Southeast Asia in particular. Said differently, Asia is not just a China story. Indeed, market share winners such as Vietnam are an increasingly attractive destination for capital. Some of the larger economies, including Japan, India, and China, are all experiencing nuanced recoveries that require a customized approach to understanding both growth and inflation trends (many of which differ materially from what we are seeing in the West). Finally, it is worth reiterating that given China's sizeable influence, its lagged rebound in 2023 could prove helpful to overall growth in the region following a difficult 2022.

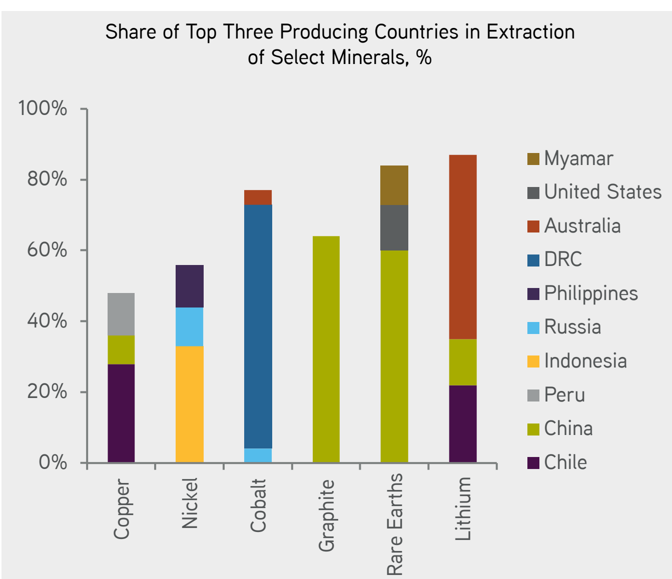
Question #6: ***How will the shift from benign globalization to an era of great power competition impact the definition of 'security'?***

As mentioned earlier, we believe that the one-two punch of COVID-19 and the Russian invasion of Ukraine have fundamentally changed the way both CEOs and political leaders think about the inter-connected global economy. Specifically, we think that intensifying geopolitical rivalries will lead most — if not all — major economies to broaden their definition of security to include not only defense, critical infrastructure, resources and energy but also supply chains, payments, communications, and data. If we are right, then there will definitely be compelling investment opportunities around the surge in both capex and OpEx that will accompany this paradigm shift.

However, this opportunity will not be easy. In particular, the difficulty for companies and governments, we think, will be to navigate the political choices involved in untangling complex and layered trade relationships. Consider, for instance, Europe's intention to replace Russian gas imports with new green energy capacity, the build out of which requires significant mineral resources including cobalt, nickel, and rare earths. The bulk of these resources are currently sourced from Russia and China, which exposes critical mineral supply chains to COVID- and Ukraine-related risks. Although metal ore could be secured in Africa or the United States, China is still predominately relied upon for processing of that ore (*Exhibit 80*). While Europe could build out the capacity to process these minerals, reshoring dirty and energy-intensive industrial processes would run counter to Europe's stated political and environmental goals.

Exhibit 79

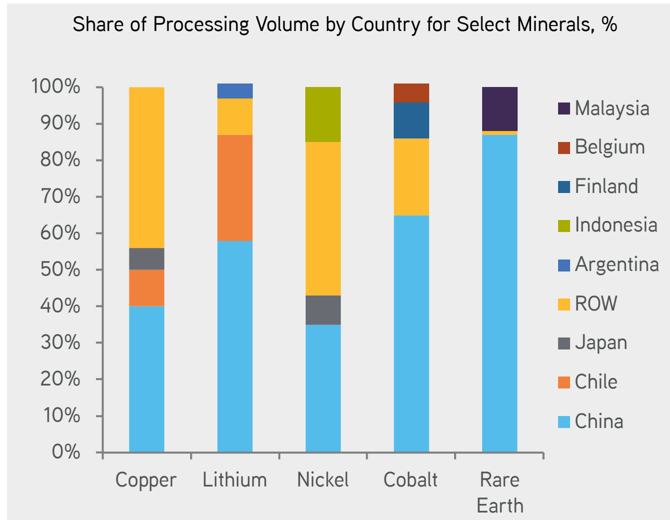
Alternative Sourcing Will Likely Now Be Required to Fund The Energy Transition, Particularly Amidst Heightened Geopolitical Tensions



Data as at May 6, 2021. Source: IEA.

Exhibit 80

Meanwhile, Processing of Many Key Minerals Is Largely Dominated by China



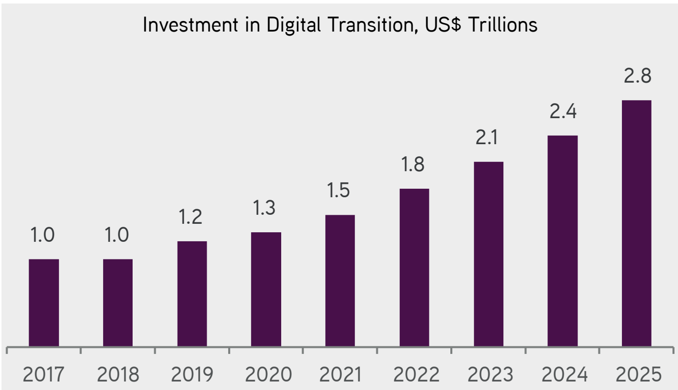
Data as at May 6, 2021. Source: IEA.

Amid such difficult political and economic tradeoffs, there is likely no one-size-fits-all approach to the new 'security of everything' paradigm we are suggesting. Instead, there are likely several guiding principles that will determine how states, firms, and investors can navigate the blurring of geopolitics and macroeconomics that we envision.

Most importantly, we believe t**he system of global trade heralded at the creation of the WTO will be replaced by 'like-minded blocs' to better ensure security of resources and supply chains.** The invasion of Ukraine has highlighted the risk of a critical commodity being weaponized, whether by a rogue actor or in the court of public opinion. At the same time, we think that experiences from the early days of the pandemic, as well as the recent wave of Omicron cases in China, have highlighted the fragility of global supply chains. These events, we believe, are leading many nations to replace trade policies based on economic efficiency with trade policies built on geopolitical alliances.

Exhibit 81

Manufacturing Accounts for Around 30% of Total Digital Transformation Investment, Which Should Be in Aggregate Almost a $3 Trillion Opportunity by 2025



2022-2025 are KKR GMAA estimates. Data as at May 31, 2022. Source: Statista, IDC, KKR Global Macro & Asset Allocation.

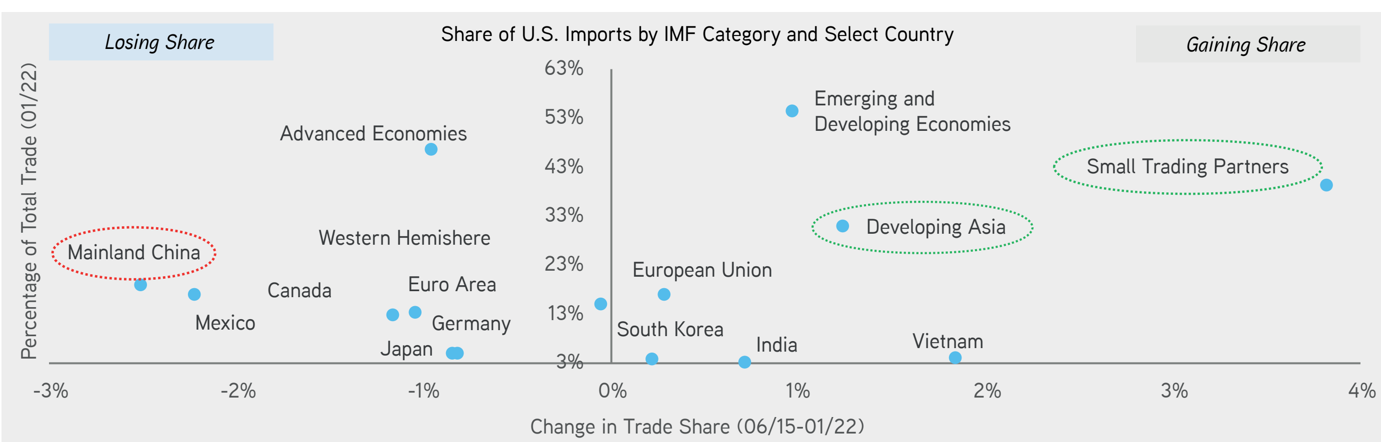
We think, however, that these like-minded blocs will not be economically self-sufficient. The benefits of a globalized economy — in which different countries can draw on one another's competitive advantages — will be too hard to reproduce within any single group of politically-aligned states. Rather, competing blocs will likely trade less with one another, and more with nonaligned third parties, we believe. Examples include U.S. firms supplementing Chinese production by sourcing from ASEAN under a 'China-plus-one' strategy, and European governments replacing Russian pipeline gas with Middle Eastern LNG. Within the corporate world, we think there will be a new emphasis on 'just-in-case' logistics, rather than 'just-in-time', as firms hold more inventory and seek to diversify their supply chains.

This paradigm shift should fuel a lasting capex boom, we believe. As major economies import more from non-aligned countries, those countries will need to bring new industry, export capacity, and technology online. At the same time, diversified supply chains and higher inventories will mean more cargo containers, more voyages, and more complex logistics operations for a given imported good, which should create new opportunities in shipping infrastructure and advanced logistics software spending. In some cases, countries will need to produce more essential goods domestically — for instance, when food supplies are threatened by trading partners' export bans, as recently happened when India and also Egypt banned the export of wheat. This unfortunate reality will require new investment in domestic industry and infrastructure, as well as efficiency gains from new or existing technologies such as GMO crops.

Overall, we think that opportunities in the security space will be centered on **national security, supply chain security, and resource and energy security**. However, not all the spending will be capital expenditures. Rather, we also think that OpEx spending will be essential as cybersecurity increasingly impacts all aspects of companies' operations. Around the GFC, software private investment as a percentage of GDP surpassed that of industrial equipment and has continued accelerating. One can see this in *Exhibit 84*.

Exhibit 82

The U.S. Has Been Importing More From Developing Asia (India, Vietnam) and Smaller Trading Partners

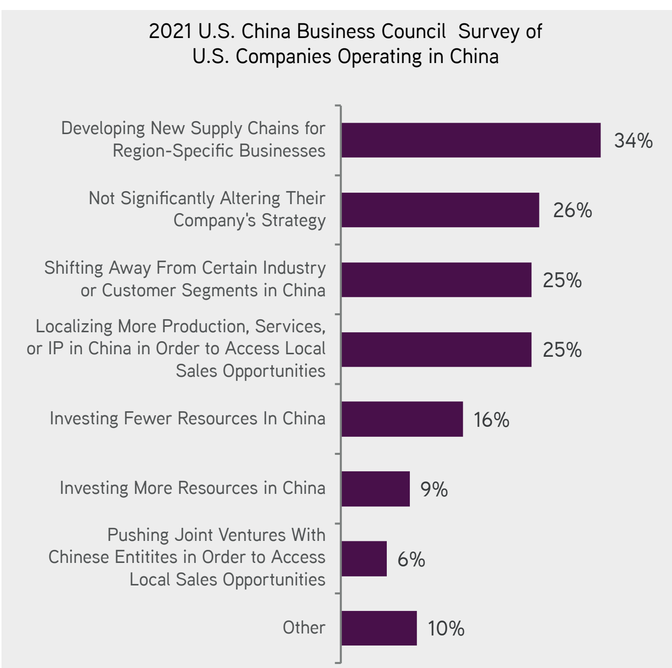


Data as at January 31, 2022. Source: IMF, Bloomberg.

Looking ahead, we actually think the pace of spending could accelerate meaningfully. Just consider how the costs associated with cyberattacks have increased in recent years. All told, the Center for Strategic Studies and McAfee estimated that prior to the war in Ukraine, more than USD one trillion was spent on cybersecurity and lost due to cybercrime per year. This total is more than one percent of global GDP. However, given the heightened tensions we now see across Russia, Europe, the United States, and China, we expect this total to increase meaningfully in the next few years, unfortunately. We believe that the expansion and development of firms' digital resources will increasingly go hand-in-hand with cybersecurity spending, as companies seek to protect themselves and their data. This backdrop is likely bullish for best in class cybersecurity and IT services providers. New technologies related to supply chain management, including IoT and advanced telematics, will only up the ante for companies seeking to protect themselves, we believe.

Exhibit 83

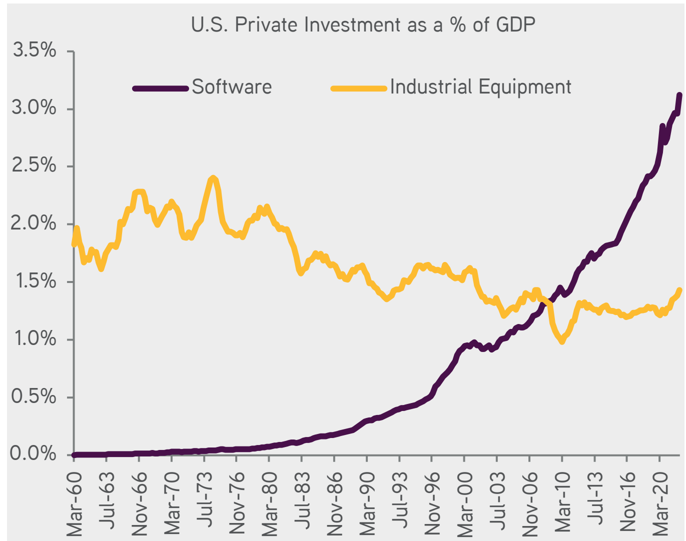
Adapting Supply Chains Has Become of Critical Importance to U.S. Companies Doing Business in China



Data as at June 30, 2021. Source: Statista: US-China Business Council, Brown Advisory.

Exhibit 84

The Proportion of Private Investment Going to Software Surpassed That Going to Industrial Equipment a Decade Ago in the U.S.



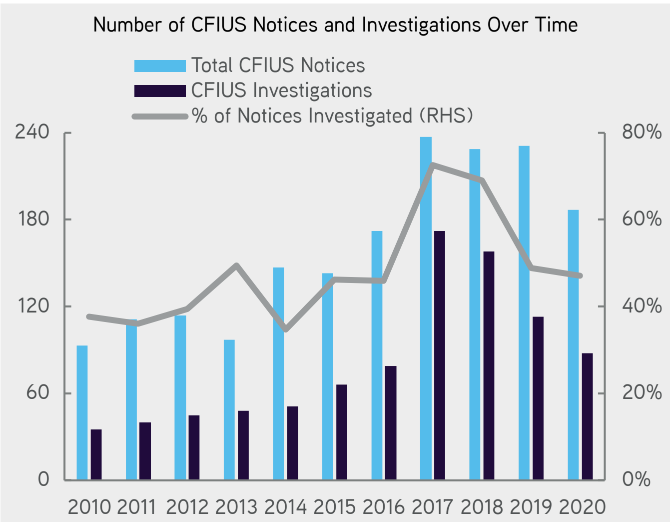
Data as at March 31, 2022. Source: Haver Analytics, Goldman Sachs Global Investment Research.

So, how do we tie all of this together? Ultimately, we see a world with more fragmented economic spheres, driven by sometimes controversial leaders who, in certain instances, represent a new era of 'strong men.' More restrictions and scrutiny on the transfer of capital, technology, and data are also likely to occur, as economic warfare becomes an increasingly critical tool in the era of great power competition (*Exhibit 85)*. Consistent with this view, we expect to witness a further rise of more restrictive FDI regimes and potential for outbound restrictions. If we are right, how and with whom investment managers partner to deploy capital will become a major input in almost any transaction, we believe, on a go-forward basis, as the 'weaponization' of economic levers becomes a more prevalent part of the political arsenal.

More restrictions and scrutiny on the transfer of capital, technology, and data are also likely to occur, as economic warfare becomes an increasingly critical tool in the era of great power competition.

Exhibit 85

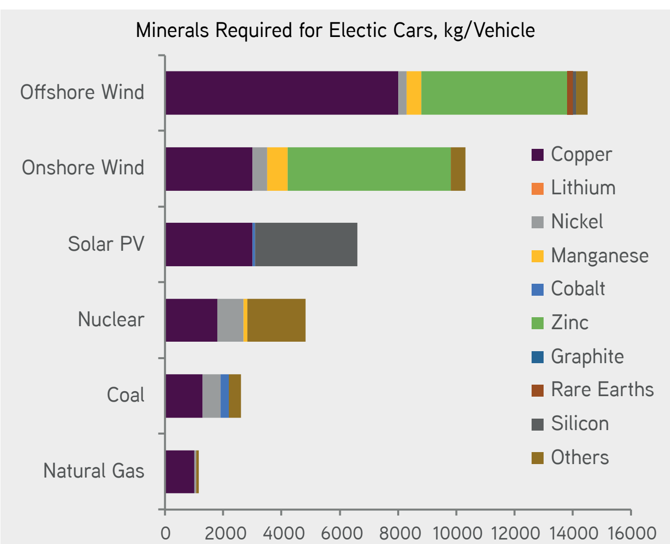
Restrictions On and Scrutiny of Transfer of Capital Will Continue…



Data as at December 31, 2020. Source: Haver Analytics.

Exhibit 86

…as Could the' Weaponization' of Critical Components Needed for the Energy Transition



Data as at December 31, 2021. Source: IEA.

Question #7: ***What does this all mean for Asset Allocation?***

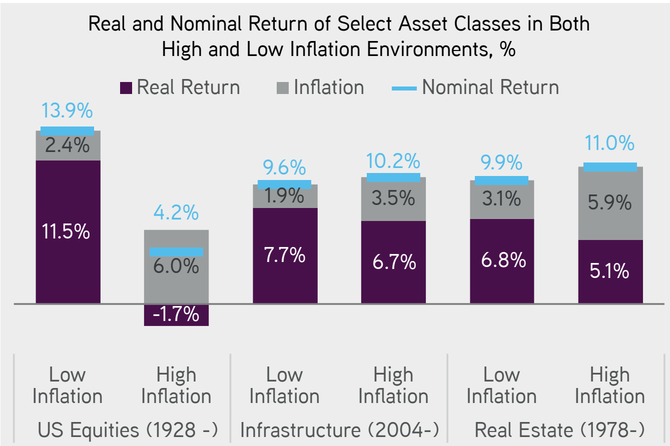
In today's world of heightened uncertainty in the global capital markets, the normal propensity for an asset allocator might be to go back to what has worked, or seemed 'safe' in the past. To many investors, the 'safe' impulse would definitely be to migrate one's existing portfolio to the traditional '60/40' mix of assets, which comprises 60% equities and 40% bonds.

Importantly, as we look ahead, our macro and portfolio construction work at KKR suggests that we are entering a new environment for investing. In particular, we see rising interest rates, higher levels of inflation, and heightened geopolitical risks amidst a backdrop of slower real economic growth. As such, we firmly believe that we have entered a regime change, where structural forces now warrant a different approach to portfolio construction, including re-examining the merits of '60/40' allocation. **Key to our thinking, and as we discuss below in more detail, is that the structural relationship between stocks and bonds, particularly during volatile markets, is changing**. Specifically, we think that not only are forward returns likely to be lower but also that bonds can no longer act as important 'shock absorbers' or diversifiers when paired with equities (*Exhibit 3*).

The invasion of Ukraine has highlighted the risk of a critical commodity being weaponized, whether by a rogue actor or in the court of public opinion. At the same time, we think that experiences from the early days of the pandemic, as well as the recent wave of Omicron cases in China, have highlighted the fragility of global supply chains.

Exhibit 87

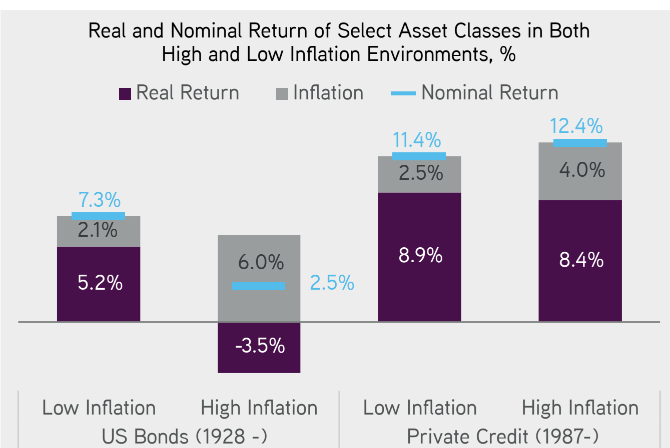
Public Equities Yielded Negative Real Returns in Inflationary Environments, While Private Real Assets Have Shown Higher Resiliency (Albeit On a Shorter Timeframe)



Annual total returns from 1928 to 2021 for the S&P500 from 1978 to 2021 for Real Estate and from 2004 to 2021 for Infrastructure. Real returns calculated as [(1+nominal return)/(1+Y/y Inflation) -1]. Inflation component of the asset class return calculated as the difference between nominal and real return over the given period of time. US Public equities modeled with S&P500 Index. Private Infrastructure modeled using the Burgiss Infrastructure Index. Real Estate modeled using the NCREIF Property Levered Index.

Exhibit 88

U.S. Bonds Yielded Negative Real Returns in Inflationary Environments, While Private Credit Has Shown Higher Resiliency (On a Shorter Timeframe)



Inflationary environments defined as years where inflation was above the median level of 2.7% and increased over the year by more than one percent. Using annual total returns from 1928 to 2021 for U.S. Bonds and from 1987 to 2021 for Private Credit. Real returns calculated as [(1+nominal return)/(1+Y/y Inflation) -1]. Inflation component of the asset class return calculated as the difference between nominal and real return over the given time period. Private Credit modeled using the Burgiss Private Credit All Index. Bonds modeled using a mix of 50% US T. Bond and 50% Baa Corp Bond annual returns, computed historically by Professor Damodaran (NYU Stern).

Given this view, we believe that investors may need to add different types of investments to their '60/40' mix to protect their purchasing power in the new environment we envision. At KKR, we traffic mainly in private investments, and as such, we have created some alternative asset allocation strategies, which we describe below in more detail, that we believe can be value-added, especially if we are right about the correlation between stocks and bonds breaking down. If there is good news, our research shows that there are opportunities to add value on *both* the equity and bond parts of the '60/40'. One can see this in *Exhibits 87* and *88*. Our bottom line: It is not business as usual in the investment management business, and now is the time for all investors to revisit their asset allocation game plane on a prospective basis.

Our work shows that there is a significant opportunity to not only protect but also potentially enhance the equity sleeve of portfolio returns by adding Real Assets, including Private Real Estate and Private Infrastructure. Meanwhile, we believe that adding Private Credit can also help enhance returns on the fixed income side of the ledger. Importantly, we think that the merits of a '40/30/30' portfolio relative to the traditional '60/40' are valid in most environments, though they shine in a more inflationary environment.

Why do we think this? To illustrate *(Exhibit 89)*, we ran a traditional '60/40' portfolio against our suggested '40/30/30' portfolio in three different environments: low inflation, high inflation, and all periods (regardless of inflation). We substituted 20% of the Public Equities sleeve with a combination of 10% Private Real Estate and 10% Private Infrastructure, and replaced 10% of the traditional Bond allocation with 10% of Private Credit. Noting that the observation period for private asset classes is shorter than for public stocks and bonds, the private alternatives enhanced '40/30/30' portfolio significantly reduced portfolio volatility while maintaining or improving returns in all environments. In low inflation environments, volatility is reduced by 2.5% and returns reduced by a mere 50 basis points, significantly increasing the expected Sharpe ratio. More importantly, in high inflation environments, volatility in the '40/30/30' portfolio was reduced by 3.7% while returns were enhanced by 2.8%, improving the Sharpe ratio by almost 0.4x.

Exhibit 89

We Think That Macro Professionals and Asset Allocators Need to Diversify Their Portfolios to Drive Better Returns in This New Environment We Envision

	All Periods		High Inflation		Low Inflation	
	60/40	40/30/30	60/40	40/30/30	60/40	40/30/30
Return	9.3%	9.6%	1.5%	4.3%	11.0%	10.5%
Volatility	12.7%	9.6%	12.5%	8.8%	11.5%	9.1%
Sharpe Ratio	0.73	1.00	0.12	0.49	0.96	1.16

Portfolio returns and volatility modeled using annual total returns from 1928 to 2021 for the S&P500, from 1978 to 2021 for the Real Estate, from 2004 to 2021 for Infrastructure, from 1928 to 2021 for Bonds, and from 1987 to 2021 for Private Credit. Assumes continuous rebalancing of the portfolios. US equities modeled using the SP500 Index. Bonds modeled using a mix of 50% US T.Bond and 50% Baa Corp Bond annual returns, computed historically by Pr. Damodaran (NYU Stern). Real Estate modeled using the NCREIF Property Levered Index. Private Infrastructure modeled using the Burgiss Infrastructure Index. Private Credit modeled using the Burgiss Private Credit All Index.

So, in today's world of heightened macro and geopolitical uncertainty, we suggest that allocators of capital revisit whether the underlying characteristics of their existing portfolios may be changing. From our perch at KKR, we firmly believe that what has worked in the past, particularly in the last decade of returns being enhanced by the negative correlation of stocks and bonds, will not be as effective in the new macroeconomic environment we envision. As such, there is the potential to enhance the traditional '60/40' mix of assets by using Real Assets and Private Credit to bolster both the performance and the durability of one's overall portfolio, including maximizing the potential for an increase in its reward per unit of risk. Moreover, given the increasing democratization of alternative asset classes, we see an increasing opportunity for all investors to capture the value of the illiquidity premium in a potentially more thoughtful way than in the past.

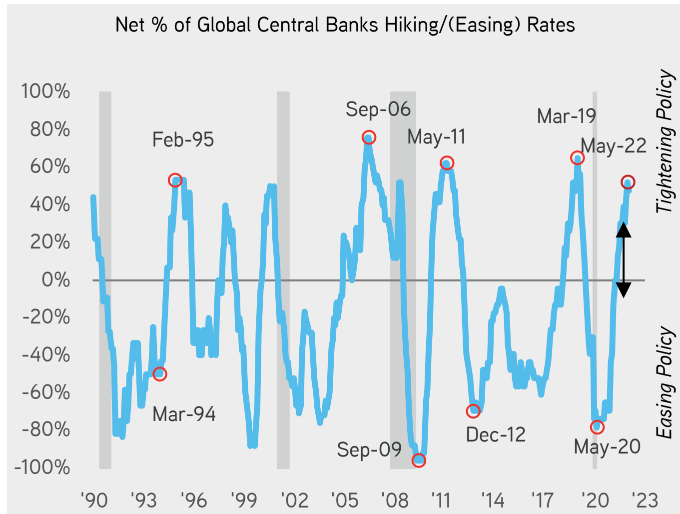
Section III: Risks

Risk #1: It's the 1970s again and central banks, the Fed in particular, can only cool inflation by inducing a recession

Given the cross currents of low unemployment, rising inflation, and aggressive central bank tightening, there is — without question — heightened risk of a policy error. Monetary policy tools are crude instruments, and it is far from certain that the Fed and its peers can cool inflation without disrupting the labor market or housing. We think what is especially worrisome for investors is the potential for a replay of policy actions from 1970s, when the Fed had to induce a recession in order to stabilize prices.

Exhibit 90

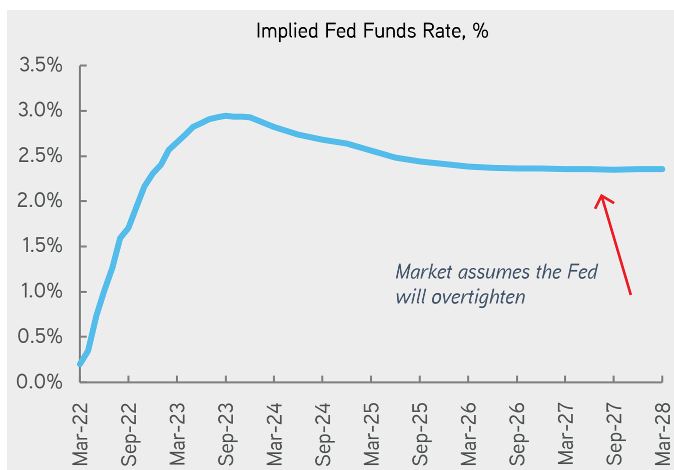
We Are Already Well Into a Global Central Bank Hiking Cycle



Data as at May 15, 2022. Bloomberg, Deutsche Bank.

Exhibit 91

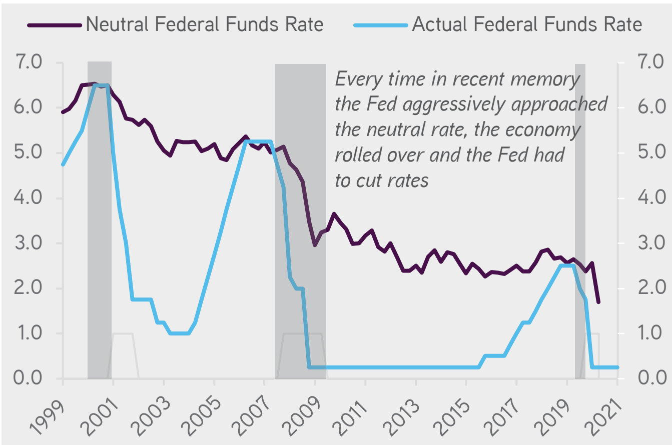
Investors Appear to Think the Fed Will Overtighten



Data as at March 25, 2022. Source: Bloomberg.

Exhibit 92

Raising Fed Funds Towards the Neutral Rate Can Often Lead to Bumpy Outcomes



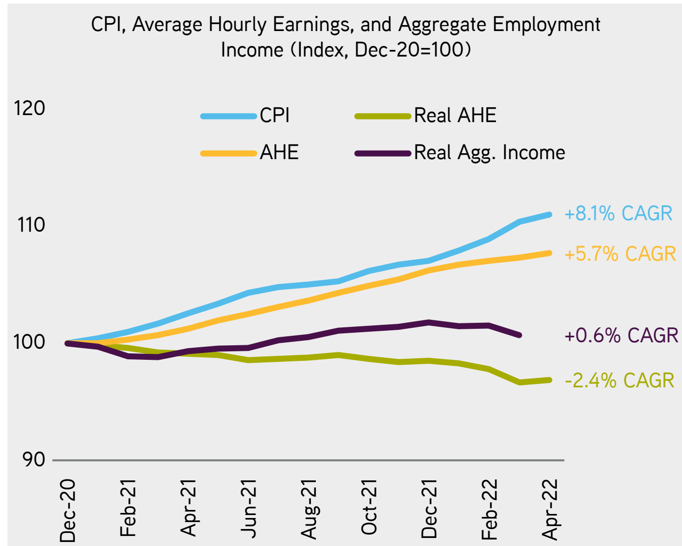
Data as at December 31, 2021. Source: Piper Sandler, Bloomberg.

Our take, however, is that there are important differences between the inflation of the 1970s and what we are experiencing today. *In the 1970s, real wage growth was positive, allowing most consumers to absorb the higher prices. Today, by contrast, real wage growth is negative, which means that consumer budgets are not keeping pace with inflation*. The upshot, we think, is that average hourly earnings growth (AHE) will act as a speed limit for overall price growth going forward, with CPI falling below AHE as real wage gains turn positive.

If we're right, the good news for the Fed is that by the end of 2023 annualized CPI should settle at around three percent and annualized AHE should settle at around four percent, without the need for a severe increase in unemployment. The bad news is that CPI and AHE are likely to stay at those levels, as a structurally tight labor market keeps them both elevated. That will likely leave the Chairman Powell Fed facing the same dilemma as the Chairman Volcker Fed. However, we think that, unlike 50 years ago, today's policymakers will live with somewhat higher inflation rather than create a painful, sustained dislocation in the larger economy.

Exhibit 93

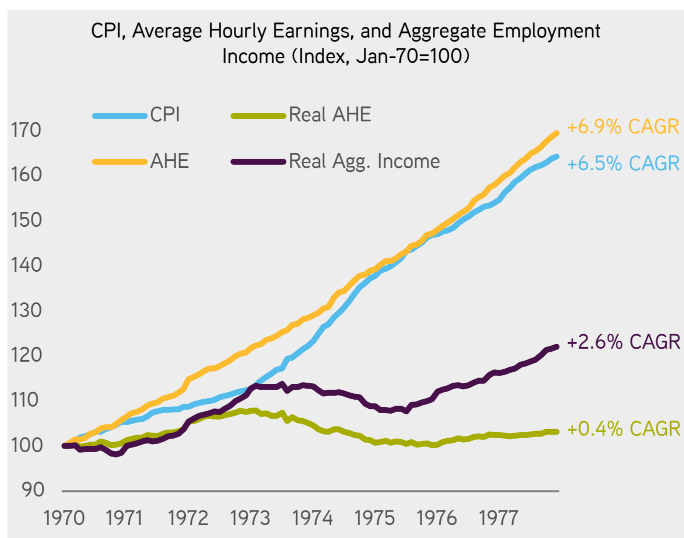
This Cycle Wages Have Been Falling in Real Terms, as Hourly Earnings Fail to Keep Pace With Inflation…



Data as at May 23, 2022. Source: Bureau of Labor Statistics, Haver, Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 94

…Which Is a Very Different Backdrop vs. the 1970s, When a Wage-Price Spiral Served to Keep Inflation Elevated



Data as at May 23, 2022. Source: Bureau of Labor Statistics, Haver, Bloomberg, KKR Global Macro & Asset Allocation analysis.

Why do we feel this way? For one thing, three percent inflation is much more tolerable than the double-digit inflation experienced during the 1970s. More importantly, we believe that the Fed learned a valuable lesson during the GFC about how disruptive the combination of rising unemployment and falling home values can be to American society. With that memory still fresh, our view is that the Fed will not risk a deep and painful recession. Instead, they will keep rates roughly in-line with CPI inflation — i.e., not slam the brakes, but not hit the accelerator, either — which supports our call for above-target inflation and fed funds in the high two percent range over the longer term.

Of course, Fed policy preferences are not set in stone, and it will be important to carefully consider Fed communications going forward in order to understand how they are navigating this challenging tradeoff. Moreover, as *Exhibit 92* shows, even successful Fed tightening campaigns can be uncomfortable for most investors. Therefore, investors should be prepared for more disruptions in financial markets going forward. There is no easy way directly to hedge this risk, and as such, we think the best hedge is a diversified portfolio. So, as we described in our *Regime Change* note, we favor more of a 40/30/30 portfolio relative to the standard 60/40.

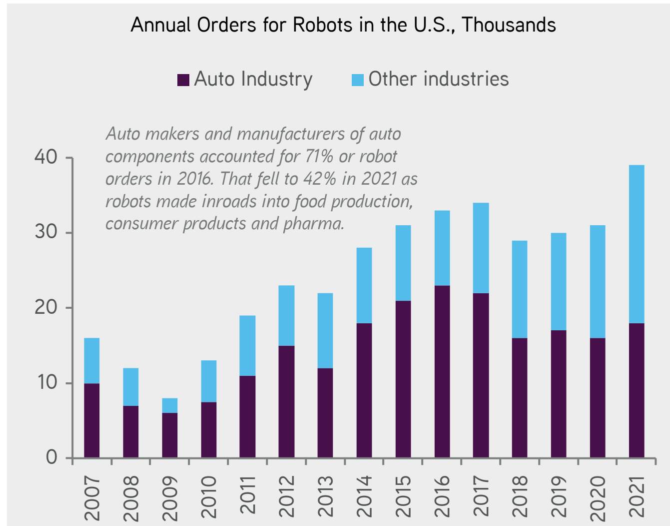
Risk #2: Stagflation leading to a fall-off in productivity would be a major issue

At a recent CIO meeting in the United Kingdom, a place where inflation is clearly running too hot, the discussion focused on what 'bad' looks like from a macroeconomic perspective. Without hesitation, these best in class CIOs described 'bad' as stagflation, or any period where central banks are easing to stimulate growth, despite high inflation. We tend to agree, as any period where the magnitude of the liabilities is being artificially boosted by non-conventional central bank policy, despite higher-than-expected inflation hitting risk assets (which reduces pricing power), is a 'bad' outcome.

The truth is that, as high as inflation has been of late, it could have actually have been worse if productivity had not been booming.

Exhibit 95

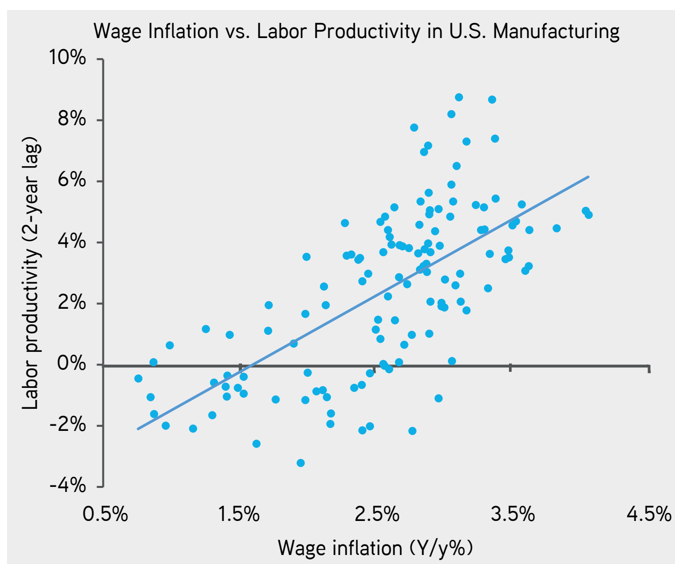
Automation Is Expanding Rapidly Beyond the Autos and Components Sectors



Data as at December 31, 2021. Source: Association for Advancing Automation.

Exhibit 96

The U.S. Worker Shortage Creates New Opportunities Around Automation



Data as at May 31, 2022. Source: BofA Quantitative Research.

What could further exacerbate this situation would be if productivity declined and/or the trend towards automation, which we show in *Exhibit 95*, lost momentum. The truth is that, as high as inflation has been of late, it could have actually been worse if productivity had not been booming. All told, we believe that technological gains are helping to reduce inflation by upwards of 100 basis points each year. So, in 2023, when base effects start to reduce the overall level of inflation, it is hugely critical that productivity gains, including important advances in innovation, automation, and digitalization (*Exhibit 95* and *96*), continue to flow through the system. If this does not occur, then our view that inflation is poised to come off the boil could be in jeopardy, which would apply further downward pressure on profitability beyond what we are already expecting.

For those who are concerned about the risk of stagflation, we suggest 6-month payer swaptions on the 5-year swap rate, which we believe will outperform nicely if inflation does overshoot and the Fed has to hike rates at an even more rapid clip than anticipated. This strategy would be 'breakeven' should 5-year swap rates increase by at least 30 basis points over the next 6 months. In the event where 5-year swap rates were to rise by 100 basis points over the next 6 months (not a crazy scenario in the event inflation remains robust), expected gross payout for a 6m5y at-the-money forward payer swaptions would be 3.0x multiple of money.

Risk #3: Risks surrounding geopolitics

While the Biden Administration is taking a different approach to the U.S.-China relationship by trying to create more of a global 'coalition of the willing' to balance China's influence, its intentions are not dissimilar we believe to those of the Trump Administration. Specifically, we think that there is consensus in Washington today for being tough on China as an emergent/emerged competitor capable of threatening the United States' status as a superpower. This mentality is probably best exemplified by Secretary of State Antony Blinken's stated construct for bilateral relations with China: the U.S. will 'compete where needed, confront when necessary, and cooperate where possible.' However, this approach is not simply a U.S. — China issue. Many other countries and regions including Australia, Japan, India and the European Union are reexamining political and economic partnerships/cooperation as well as regulatory and data privacy issues as they try to navigate and balance a shifting world order.

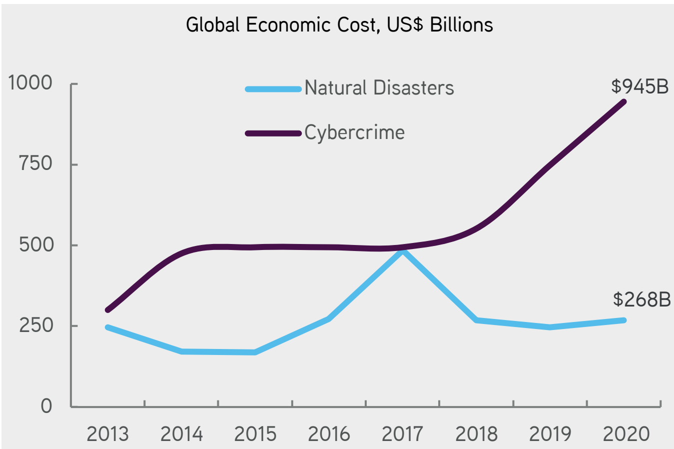
There are also no easy answers. Already, rule of law issues and data concerns have become increasingly tense across a wide swath of countries, but we acknowledge that the scope of these issues could widen even more. For example, we expect supply chains to splinter further, particularly in key areas such as 5G, data, semiconductors, and healthcare. That said, there are still trade-offs, including low-cost production, that must be considered before moving aggressively. Just bear in mind that an AmCham China 2021 white paper found nearly 85% of members are actually not considering relocating manufacturing or sourcing away from the China market.

In terms of capital flows, our base view remains that capital will continue to move across borders, albeit with greater oversight and approval requirements. The reality is that China needs foreign inflows into its capital account to sustain its growing consumption economy as its current account balance moves into deficit. At the other end of the spectrum, many countries not only rely on China's exports but also want access to its large consumer market.

So, how does one hedge rising geopolitical risks? We start with the base premise that global investors should not be wildly over-committed to China — or to any country for that matter. Consistent with this view, we have seen an increasing number of advisory boards encouraging CIOs to agree to a more diversified Asia-Pacific portfolio, including deploying capital in 'new' markets such as the Philippines, Vietnam and Indonesia. Moreover, within allocations to more complicated markets like China, we also favor investing with local players that understand the nuances of the Venn diagram that we detail below in *Exhibit 98* and can align themselves with China policy.

Exhibit 97

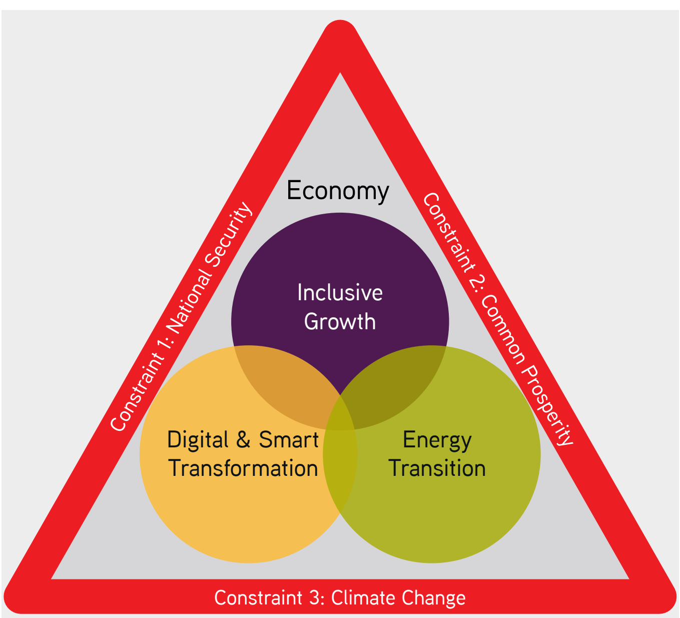
Geopolitical Competition and More Decentralized Networks Will Make Cyberattacks an Urgent Concern for Enterprises and Governments



Data as at December 31, 2020. Source: IoT Analytics, Statista, Accenture, AON, HP Wolf Security, Australian Cyber Growth Network.

Exhibit 98

Competing Goals and Multiple Shackles for the Chinese Economy Underscore the Need for New Growth Drivers



Data as at November 30, 2021. Source: KKR Global Macro & Asset Allocation analysis.

Risk #4: The rise in commodity prices leads to instability

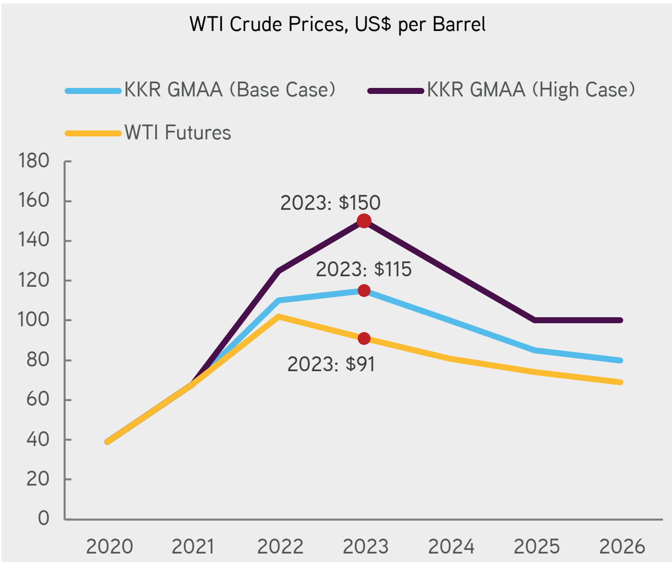
As we discussed earlier, we believe that global commodity prices will remain elevated, driven by both higher demand and structurally low supply. Our base case for oil is already above consensus, with WTI averaging at $115 per barrel in 2023 versus the $91 per barrel priced by futures markets. Nonetheless, despite these robust forecasts, we still think there is a substantial risk that oil prices move even higher. We represent this risk through our bull case, with oil peaking at $150 per barrel in 2023 *(Exhibit 99)*.

$150 per barrel would represent the high end of our estimated $125–150 range where we think high oil prices start to create short-term demand destruction. What could lead to this scenario? Our base case assumes that Russian oil exports are only partially curtailed, with supply being rerouted to buyers outside of the U.S. and Europe. As a result, the global oil market remains tight but adequately supplied overall, supporting $115 per barrel. By comparison, our $150 per barrel estimate, or our high case, assumes explicit removal of Russian barrels from the global market via either targeted Russian production cuts, or more globally biting sanctions, with either case creating an outright shortage of global supply. Not surprisingly, if oil prices did reach these levels, we think the risk of a recession in the U.S. and Europe would be something of an inevitability. Importantly, because energy prices feed through to headline CPI, higher oil prices would add further upside to our inflation forecasts and leave central banks struggling to balance higher inflation and negative growth.

Meanwhile, in the developing world, we are actually more concerned about soft commodity impacts, particularly food prices, which have exploded since the start of 2022 *(Exhibit 100)*. The loss of agricultural exports from Russia and Ukraine have left the global food system stretched quite thin, while COVID lockdowns in China and climate-related events such as droughts in sub-Saharan Africa have only increased the pressure.

Exhibit 99

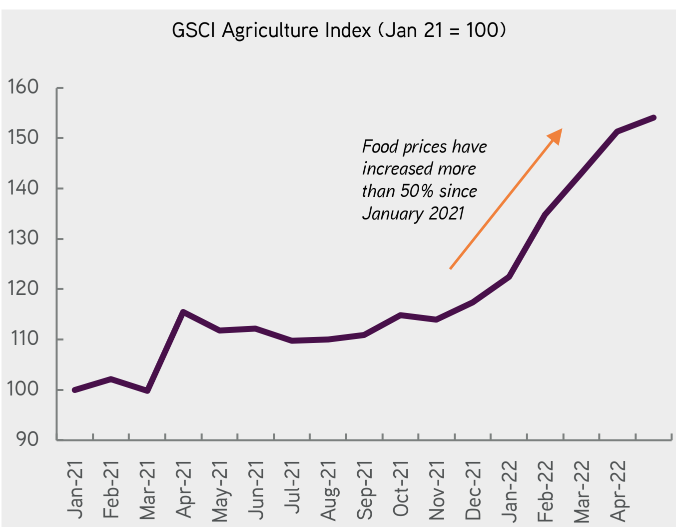
Oil at $150 per Barrel Could Lead to a Recession in Much of the Developed World...



Data as at May 31, 2022. Source: Bloomberg.

Exhibit 100

...While the Developing World Is Most at Risk for Food Instability



Data as at May 24, 2022. Source: Bloomberg.

We remain hopeful that efforts by governments and international bodies can offset the potential crisis. Nonetheless, we could be facing a situation where 'everything needs to go right' for the agricultural sector. If things do go wrong and a food crisis occurs, the human toll as well as the economic impact could be catastrophic, including potential political upheavals in many emerging markets.

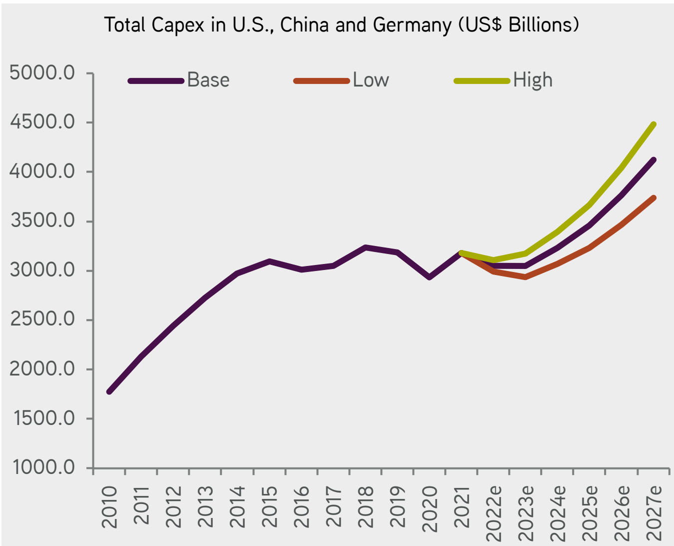
Section IV: Conclusion

During this time of heightened uncertainty and an unsettled macro backdrop, we believe that there are several important structural forces at work that warrant investor attention. Specifically, we think we are shifting to a higher nominal GDP environment that will be defined by a 'higher resting heart rate' for inflation this cycle. However, the nearer-term narrative is likely to focus investor attention more on the earnings growth slowdown that inflation is causing rather than just inflation itself.

Complicating factors include starting an earnings slowdown with interest rates being raised at an aggressive pace relative to history. Meanwhile, the pace of globalization is slowing, and in some instances it is reversing, as we shift from a period of benign globalization to one of great power competition. This transition is important because it could mean that global economic efficiency begins to wane. Meanwhile, in tandem with lower global connectivity, we see heightened geopolitical risks. As a result, the importance of all things security-related, including defense spending, energy, data, and food, will grow meaningfully, we believe. This reality will fuel a massive capex cycle as supply chains are reorganized, with production and delivery of goods and services that are inherently more localized and decentralized.

Exhibit 101

Our 'Security of Everything' Thesis Leads Us to Believe That Capital Expenditures Will Remain Robust



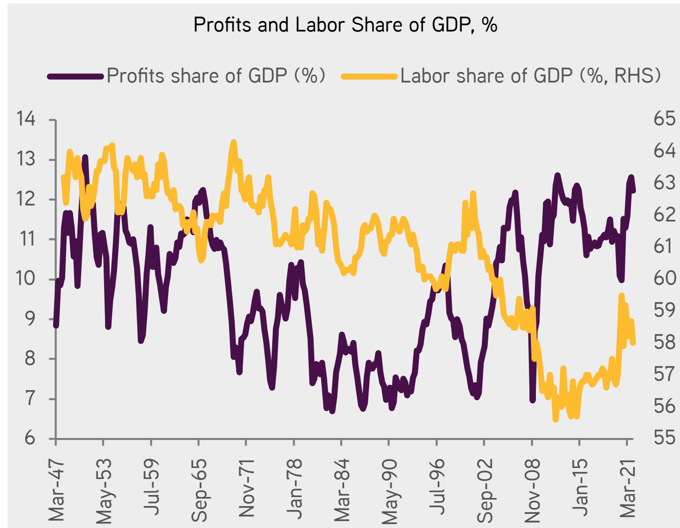
Data as at May 31, 2022. Source: Haver Analytics, KKR Global Macro & Asset Allocation analysis.

From an asset allocation perspective, Credit feels cheaper than Equities, and Public Equities appear more attractive than peer-to-peer Private Equity. Given that we are forecasting slowing growth, we expect to see more corporate carve-outs, more public-to-private transactions, and more capital solutions (preferred, convertibles, etc.). Meanwhile, in Infrastructure we do not look for prices to correct too much, as most investors are underweight in the asset class — an asset class we believe should be overweight in portfolios. As such, sourcing and complexity will remain important features of any manager's thoughtful deployment. Finally, within Credit, we like the shorter duration mortgages and parts of High Yield in the Liquid markets, while we think that non-correlated assets (e.g., music rights, NPLs), Asset-Based Finance, and rescue capital for growth companies are all potentially emerging opportunities to consider.

In terms of key risks, we think that stagflation and/or a policy mistake represent clear and present dangers this tightening cycle.

Exhibit 102

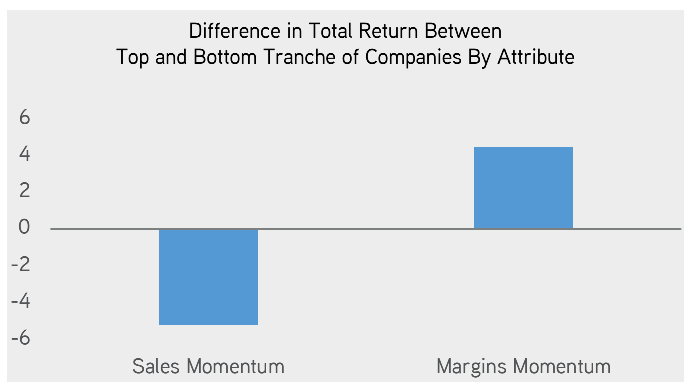
Globalization Led to a Boosting of Profits at the Expense of Labor. We Now See This Reversing



Data as at December 31, 2021. Source: Goldman Sachs Global Research.

Exhibit 103

Margin Improvement Is Now More Valuable Than Sales Growth in Today's High Inflation Environment



Data as at June 7, 2021. Source: Credit Suisse, Thomson Financial.

We also need to stay thematic. Indeed, despite all the turmoil around the world, many key structural themes are intact or even strengthened by the current environment. For example, security, de-carbonization, and innovation are all areas where we see significant opportunity to invest behind the 'signal' while many are being swayed by the 'noise.' We also believe that large markets such as European Private Equity remains a compelling way to arbitrage public equity markets that are underweight innovation and overweight complexity across financial institutions, industrials, and consumer conglomerates. For opportunistic capital, we believe the coming quarters will offer good opportunities to invest in structural themes at reasonable prices. Finally, we remain bullish on Infrastructure, including data, data storage, power generation, and select parts of transportation.

In terms of key risks, we think that stagflation and/or a policy mistake represent clear and present dangers this tightening cycle. To hedge against this concern, we believe in a diversified allocation with shorter duration that can lean into volatility. As we have been saying for some time, this is a different kind of recovery, and as such, investing behind it requires a new approach to macro/asset allocation.

Investors too are experiencing extreme upheaval. What makes today's environment so tricky for macro investors and asset allocators is that the traditional relationship between stocks and bonds — where bond prices rise when stock prices fall — has broken down.

Important Information

References to "we", "us," and "our" refer to Mr. McVey and/or KKR's Global Macro and Asset Allocation team, as context requires, and not of KKR. The views expressed reflect the current views of Mr. McVey as of the date hereof and neither Mr. McVey nor KKR undertakes to advise you of any changes in the views expressed herein. Opinions or statements regarding financial market trends are based on current market conditions and are subject to change without notice. References to a target portfolio and allocations of such a portfolio refer to a hypothetical allocation of assets and not an actual portfolio. The views expressed herein and discussion of any target portfolio or allocations may not be reflected in the strategies and products that KKR offers or invests, including strategies and products to which Mr. McVey provides investment advice to or on behalf of KKR. It should not be assumed that Mr. McVey has made or will make investment recommendations in the future that are consistent with the views expressed herein, or use any or all of the techniques or methods of analysis described herein in managing client or proprietary accounts. Further, Mr. McVey may make investment recommendations and KKR and its affiliates may have positions (long or short) or engage in securities transactions that are not consistent with the information and views expressed in this document.

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