INSIGHTS
GLOBAL MACRO TRENDS

VOLUME 12.7 • DECEMBER 2022

Outlook for 2023: Keep It Simple

KKR
GLOBAL INSTITUTE

Contents

KKR GLOBAL MACRO & ASSET ALLOCATION TEAM

Henry H. McVey
Head of Global Macro & Asset Allocation,
CIO of the KKR Balance Sheet
henry.mcvey@kkr.com

David McNellis
david.mcnellis@kkr.com

Frances Lim
frances.lim@kkr.com

Aidan Corcoran
aidan.corcoran@kkr.com

Paula Campbell Roberts
paula.campbellroberts@kkr.com

Racim Allouani
racim.allouani@kkr.com

Changchun Hua
changchun.hua@kkr.com

Kristopher Novell
kristopher.novell@kkr.com

Brian Leung
brian.leung@kkr.com

Deepali Bhargava
deepali.bhargava@kkr.com

Rebecca Ramsey
rebecca.ramsey@kkr.com

Bola Okunade
bola.okunade@kkr.com

Patrycja Koszykowska
patrycja.koszykowska@kkr.com

Thibaud Monmirel
thibaud.monmirel@kkr.com

Asim Ali
asim.ali@kkr.com

Ezra Max
ezra.max@kkr.com

Miguel Montoya
miguel.montoya@kkr.com

Patrick Holt
patrick.holt@kkr.com

Allen Liu
allen.liu@kkr.com

MAIN OFFICE
Kohlberg Kravis Roberts & Co. L.P.
30 Hudson Yards, New York, New York 10001
+ 1 212 750 8300

COMPANY LOCATIONS
New York, San Francisco, Menlo Park, Houston, London, Paris, Dublin, Madrid, Luxembourg, Frankfurt, Hong Kong, Beijing, Shanghai, Singapore, Dubai, Riyadh, Tokyo, Mumbai, Seoul, Sydney, Miaimi

Outlook for 2023: Keep It Simple

Despite all the uncertainty across today's global capital markets, we are poised to enter 2023 with a more constructive tilt, especially on many parts of Credit. Our basic premise is that it will be easier to navigate inflation's negative impact on corporate earnings and consumer balance sheets in 2023 than it was to invest with inflation continually surprising central banks and investors in 2022. However, what we are proposing will require both patience and courage – and a game plan that leverages the type of long-term frameworks we employ at KKR across asset classes and regions. At its core, our message is to 'Keep it Simple' in 2023. The massive increase we have seen in short-term interest in many instances has created attractive total return opportunities across several parts of the global capital markets without having to stretch on leverage, volatility, and/or risk. Implicit in our outlook is our strong view that now is a good time to be a lender. As such, we continue to lean towards collateral-based cash flows such as Infrastructure, Private Credit, Real Estate Credit and many parts of Asset-Based Finance. We also like some of the convexity that liquid Credit provides after the recent sell-off. Within Equities, our advice is to shift away from larger-capitalization Technology stocks in favor of smaller capitalization names with better valuation profiles. History suggests that 2023 will be a good vintage year for Private Equity. We also see the U.S. dollar's strength reversing, which means that many international assets need to be re-considered. Finally, while we see the positive relationship between stocks and bonds easing in 2023, our longer-term view remains that we have entered a regime change that requires a different approach to overall global macro and asset allocation.

Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things.

—**Isaac Newton,** English mathematician and physicist

With a higher resting heart rate for inflation amidst record stimulus, we have been cautioning for some time that we see a 'different kind of recovery', and that investors should 'walk, not run' when it comes to deployment, especially as the correlation between stocks and bonds turned positive. **No doubt, we still think the macro environment remains challenging, but we now feel more emboldened as we think about deployment entering 2023.**

Key to our thinking are the following considerations

1. **Global central banks are much further along in their tightening campaign**, As Chairman Powell said recently, rates are 'getting close' to sufficiently restrictive levels. Our work shows that the share of the top 25 central banks boosting rates will fall to 12% in 2023, compared to fully 84% in 2022. This decline is an important one to consider, we believe. We also think the chance of the U.S. dollar bull market continuing well into 2023 is now much more limited. This macro consideration is a big deal, in our view

2. **United States inflation has peaked**, though it remains quite high. In fact, with this publication, we just tweaked our inflation forecast lower for the first time in almost two years. See below for more detail, but a 'tug of war' between falling housing prices and rising labor costs now better reflects the Fed's intentions to cool the economy.

3. **Capital markets new supply (i.e., new issuance), which we track closely as a proxy for calling bottoms, has dwindled essentially to nothing**. In the United States, for example, we measure that it is now approaching the lows we saw in 2009, especially when one adjusts for the growth in GDP since then *(Exhibit 1)*.

4. **A more visible hand: We think government spending will quietly surprise on the upside in 2023**. Our travels to major political hubs such as Washington DC, Paris, and Tokyo of late lead us to believe that key initiatives like the Inflation Reduction Act (IRA, which we think could be closer to $700 billion versus the 'headline' of $370 billion) and EU Recovery Budget (€1.8 trillion over 2020-2026) will result in more spending than many folks think. Meanwhile, spending on military budgets is increasing around the world, as geopolitics is no longer a discretionary line item in most government budgets these days. Finally, in China, for example, our local research leads us to believe that further stimulus is gaining momentum to offset the headwinds created by recent property developer defaults.

5. **The technical picture is actually quite compelling**. Many allocators have de-risked their portfolios, especially allocators who likely over-emphasized the stability provided by bonds as we transitioned from QE to QT. We also take comfort that the S&P 500 has already corrected 25%, an important 'lean in' signal based on history, as well as that most High Yield bonds now trade at 85 cents on the dollar, another signal that one should add back some risks to a diversified portfolio. Importantly, our view is that the massive adjustment in the risk-free rate, not necessarily a record widening of credit spreads, will be what is remembered about the opportunity set created during this tightening cycle.

So, after what we believe will be a dismal earnings season in January, **we think investors should accelerate to at least a jog from a walk in terms of deployment budgeting for 2023 as well as lean more aggressively into the periodic bouts of dislocation we continue to forecast during the next 12-18 months**. Simply stated, the recession fears we face in 2023 are likely less ominous and more in the price than the inflation fears that surprised markets in 2022.

To be clear, though, we are not advocating a *full* 'risk-on' approach like we did after COVID roiled the markets. So, our call to arms is not to 'buy the market' with abandon. Rather, it is to be selective within and across asset classes. Key to our thinking is that:

1. **Earnings estimates are still too high**, and falling unit volume in recent months will become more apparent as inflation cools. European earnings, in particular, look to be at risk in the first half of 2023.

2. **Some parts of the market still need to correct**. Large cap 'old economy' Technology stocks, for example, are still over-owned by both institutions and individuals. This reality is also occurring at a time of increased competition and regulatory oversight. Looking ahead, we see Technology being less than 20% of the S&P 500 weighting within the next few years, compared to what we think was a peak of 29.1% in 4Q21. See below for details on our analysis.

3. **There are still some spicy capital structures, debt in particular, in challenged sectors** of the economy that will be tested in the slower growth and higher rate environment we envision. Negative operating leverage, 'layering' of old debt with new debt (a product of weak documentation during the go-go years), and refinancing risks will all be important issues to sidestep in 2023, we believe.

4. **We still don't fully understand QT**. The European and the U.S. central banks both want to shrink the size of their massive balance sheets, which now total 65% and 33%, respectively, of their GDPs. Translating this reduction into rate hike equivalents feels much more like art than science, and as such, our expectation is that this process takes longer and acts as more of an overhang on liquidity and financial conditions than in prior cycles. We also forecast that short rates do not come down as fast as the consensus expects, given that we see inflation being above the Fed's target for at least five years in a row (2021-2025e).

5. **We expect to see some unexpected provisioning around Office Real Estate and non-secured consumer lending in 2023,** which could surprise some banks and investors in the coming quarters.

So, against this backdrop, our most important message is to keep it simple and buy simplicity. Indeed, as Isaac Newton once said, "Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things." We think it is also the time to diversify across multiple asset classes — not concentrate one's portfolio the same way one would have during the 2010-2020 period.

If we are right, then Credit makes more sense to own than Equities right now across most asset classes. Indeed, given that many traditional banks are reining in their lending, now is a good time in many instances to be a provider of capital, especially to businesses that align with our key themes. Just consider that our S&P 500 target is up only marginally versus current levels, while senior Direct Lending offers returns well north of 10%. Within Credit, keep it simple. Specifically, we favor shorter duration, bigger companies, and attractive call protection features. Further, we also still favor collateral linked to higher nominal GDP growth.

If we are right, then Credit makes more sense to own than Equities right now across most asset classes. Indeed, given that many traditional banks are reining in their lending, now is a good time in many instances to be a provider of capital, especially to businesses that align with our key themes.

How Has Our Thinking Evolved	Action Item
Rate of Change Matters. While we still see a higher resting heart rate for inflation this cycle, we think that headline inflation peaked in the latter half of 2022. We expect a peak tightening of financial conditions to occur in 2023.	We recently lowered our 2023 U.S. inflation forecast for the first time in almost two years to 3.9% from 4.8%. As part of this transition, we expect nominal GDP growth to slow by fully 50% to about four percent in 2023 from 10% in 2022. As such, we expect the dollar to be less of a headwind to financial conditions in 2023. We also expect less duration risk for bonds, a notable change in our thinking about asset allocation.
Earnings. We have higher conviction in our long-held view that earnings will decline in 2023, and we see a lower than normal rebound in EPS in 2024. This backdrop means creaky capital structures will be under pressure, especially those with challenged margin expectations	It is too early to just buy all risk assets across the board. Rather, an allocator should focus on long-term attractive valuations in key areas such as Small-Cap Equities, unlevered Private Credit, Real Estate Debt, and select parts of High Yield and Investment Grade Debt. Defendable margins will be key across all asset classes.
Labor. We are growing more convinced that the worker shortage in the United States is structural in nature, given the intersection of demographic trends and pandemic-related behavioral changes. All told, in the U.S., for example, we think the labor force is missing about four million workers, with only about half likely to return at some point. So, we concur with Chairman Powell's view that the labor market is "out of balance."	This realization is part of our thesis that structurally higher inflation is the new normal and will be 'stickier' for longer. We favor automation, digitalization, and family care services, all of which help to address the current labor shortage. We also think it is more important than ever for management teams to be aligned with their workforces.
House Prices Under Pressure. Housing is one of the most direct ways that central banks have been able to slow growth. In the U.S., for example, we now forecast home price depreciation of minus five percent in both 2023 and 2024, respectively. Previously, we had assumed modest home price appreciation in our annual forecasts.	Household net worth is falling faster this cycle than any other cycle on record (*Exhibit 27*). As such, being right that unemployment does not spike is a key underpinning to our overall macro thesis. Remember we have unemployment in the U.S. increasing trough to peak by 1.4%, compared to an average of 3.7% during recessions.
Goods Deflation, Services Inflation. We have higher conviction in our goods deflation thesis; at the same time, we believe that inflation has shifted to the services arena and will stay higher for longer.	Our long exposures remain much more tilted towards Services than Goods. We continue to forecast a recession in the Goods sector in 2023, partially offset by an increase in global Services spending.
Asynchronous Recovery. It is too simplistic in our view to simply talk about one synchronized global economy. Asia's inflation and monetary policy profiles are now wildly different than the West's. Meanwhile, the U.S. is food and energy independent at a time when Europe and Emerging Markets are experiencing an unprecedented 'war shock.'	Despite our view that the U.S. dollar is peaking, our models still do *not* show Emerging Markets as a high conviction 'Buy'. As such, we continue to favor selectivity across regions. For example, we like corporate carve-outs in Korea and Japan, and we favor higher growth markets such as India and Vietnam.
Real Rates. Despite near record tightening, we see real rates staying below three percent this cycle. By comparison, the Fed brought real rates above three percent at least one time each decade from the 1960s through the early 2000s.	Our base case has fed funds reaching 5.125% in mid-2023 before settling in at 4.875% by year end. The market is much more bullish on the Fed accelerating rate cuts in late 2023/2024. Meanwhile, in Europe, we forecast the ECB to boost short rates to 3.5% in 2023 through the end of 2024. We expect a longer-term neutral rate closer to 2.25% in Europe.

We also want to mention that 2023 will feel a lot different than 2022. We note the following:

1 **The pace of central bank tightening is likely peaking.** The percentage of the top 25 global central banks that will be tightening by the end of 2023 will likely be closer to 12%, compared to around 84% in the fourth quarter of 2022.

2 **After surging to double-digit levels post pandemic, we see nominal GDP growth cooling in 2023**. We expect U.S. nominal GDP to fall to 4.2% in 2023 from 9.9% in 2022. This is a big drop and likely means that duration becomes less of a cycle risk over the next 12 months.

3 **We forecast that U.S. real wage growth will likely turn positive in 2023.** If we are right *and* unemployment lags versus other cycles, we do not envision a 2008-type downturn in the United States.

4 **We no longer see the USD as a safe haven.** We expect the recent dollar downtrend to continue in 2023, and as such, we are looking for hedges that will perform if the U.S. dollar actually weakens further than expected.

5 **The negative impact of inflation will shift from resetting upward the risk-free rate in 2022 to putting pressure on corporate profits and consumer balance sheets in 2023.** If we are right, then longer-term rates may peak temporarily as earnings disappoint.

6 **China's re-opening in 2023 helps Asia get out of its growth funk.** We have growth above consensus in both 2023 and 2024. We think China's shift in its zero COVID-policy leads to a run of better growth in Asia by the middle of next year.

Our bottom line: As we enter 2023, it is important to note that we still live in a world where both investors and corporations are struggling to accurately price the cost of capital across different parts of the economy as well as different parts of the capital structure. Therein lies the opportunity, we believe.

In terms of key signals we are watching to pick up the pace of deployment, the following three data points are top of mind. See below and SECTION III for full details, but we think that all of these may happen sometime in mid-2023:

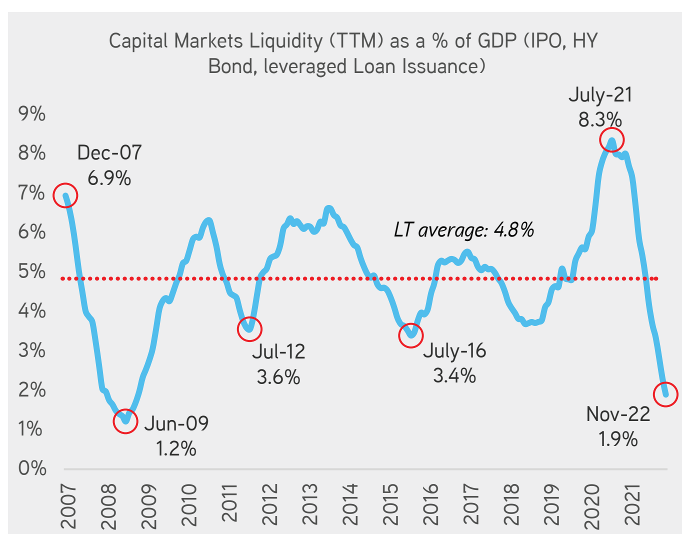
1. **The Fed stops tightening as inflation comes under control, and in doing so, it further cools the U.S. dollar** *(Exhibit 2).*

2. **Earnings estimates trough (remember though that overall earnings tend to bottom six to nine months after markets do.)**

3. **We enter a technical recession in the United States during 2023 (markets tend to bottom about half way through a recession,** see *Exhibit 90)***.**

Exhibit 1

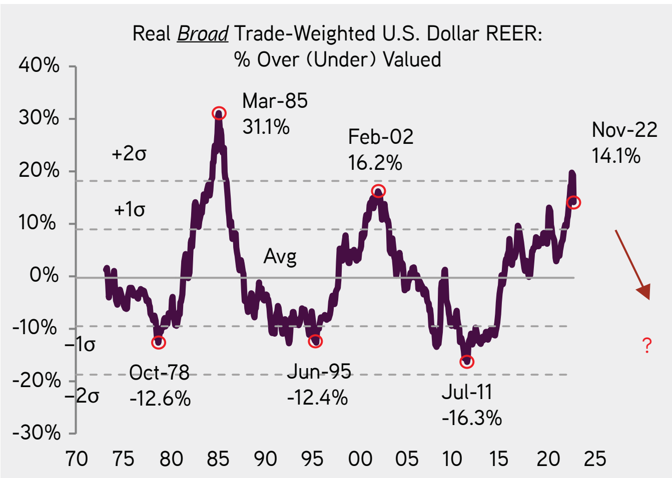
The Supply/Demand Dynamics Across the Capital Markets Have Become Quite Favorable for Lenders Who Have Capital



Data as at November 30, 2022. Source: Bloomberg, BofA.

Exhibit 2

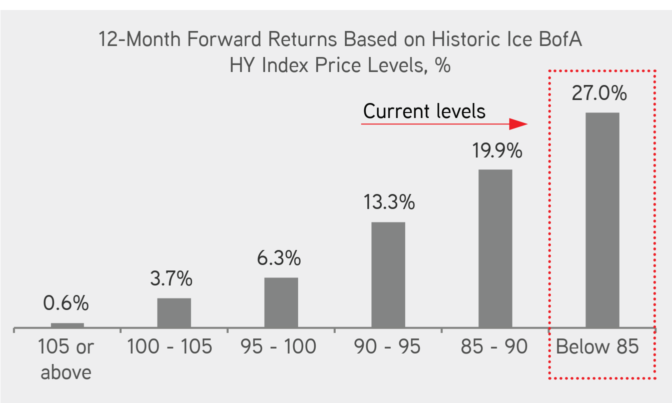
The Dollar Became Over-Extended in 2022. Its Reversal, We Believe, Will Be an Important Positive for Risk Assets Over Time



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

Exhibit 3

At 85 Cents on the Dollar, High Yield Bond Prices Are Now at Levels That Suggest Much Stronger Performance Lies Ahead



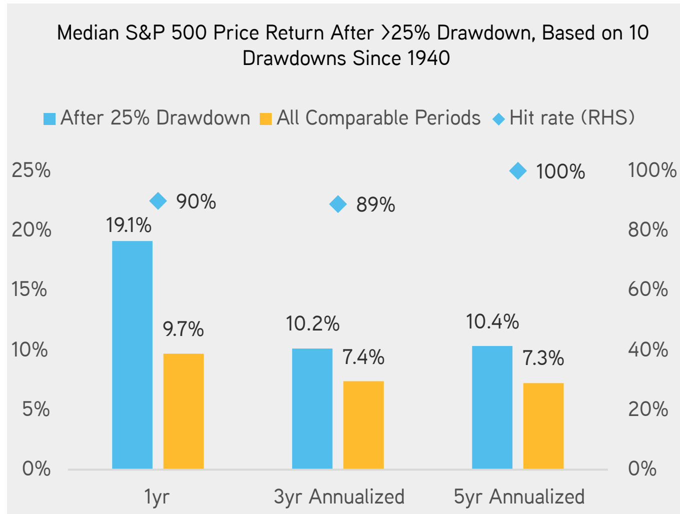
HY Index Prices Over the Past 10 Years. Number of Days at Each Range, % for Each Period

105 or above	100 - 105	95 - 100	90 - 95	85 - 90	Below 85
184 days	1,220 days	896 days	190 days	101 days	20 days
7.0%	46.7%	34.3%	7.3%	3.9%	0.8%

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

Exhibit 4

Risk Assets Typically Perform Well Once Equity Markets Have Sold Off 25% or More



Note: 3-year and 5-year annualized returns are based on nine episodes only since the 2020 drawdown was too recent. Data as at September 30, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

In terms of key themes, we note the following:

Buy Simplicity Not Complexity at this Point in the Cycle. When markets get expensive, we have often favored complexity over simplicity to avoid overpaying (see *Play Your Game: Outlook for 2020*). This current period, however, is not one of those times. When it comes to Credit, investors should buy high quality credits and mortgages where the company or collateral is cash flowing. For cross-over funds, we particularly like preferred or convertible security offerings that plug a financing hole, especially where there is an incentive to get called away within a few years and/or pay down the debt. Within Equities, small cap stocks are cheap by almost all metrics, and on a currency adjusted basis Real Estate in the UK and many sectors in Japan (banks and certain multinationals in particular) are cheap, we believe. By comparison, now is not the time to try to call the bottom on unprofitable Tech or lend to a zombie company to capture an additional 100-200 basis points of yield.

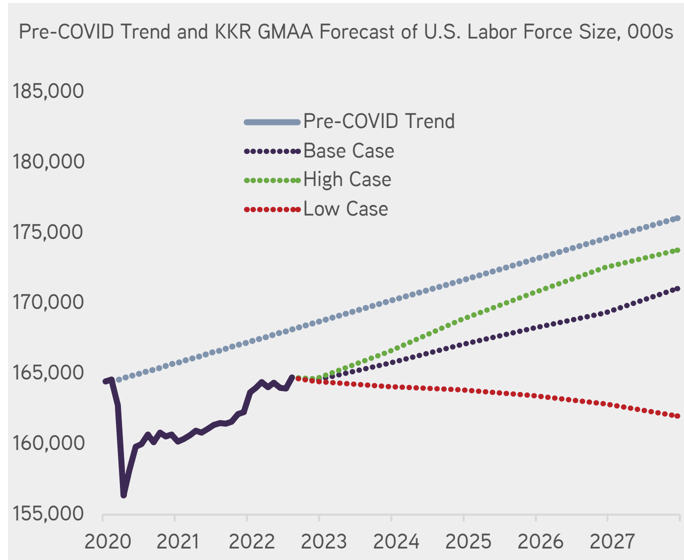
Real Assets: We Still Favor Collateral-Based Cash Flows and Continue to Pound the Table on this Theme. Our proprietary survey work suggests that because too many investors are still underweight Real Assets in their portfolios, there remains a high degree of latent demand for this asset class across insurance companies, family offices, and endowments and foundations. Moreover, the fundamentals are compelling, especially on the Energy, Asset-Based Finance, Real Estate Credit, and Infrastructure sides of the business. Also, as we detail below, we think that Real Assets, and Energy in particular, could be a really important hedge if the dollar is not as strong in 2023.

Ongoing Labor Shortages Will Only Accelerate the Trend Towards Automation/Digitalization. With labor costs soaring amidst sluggish demographics, a dearth of trained workers for key sectors, a lower participation rate and less immigration, we think that corporations will focus increasingly on technology-driven productivity gains. To this end, we recently saw robots 'working' in both Heathrow Airport and a restaurant in Tokyo. Without question, we are still in an era of innovation, and think that the pace of disruption will only accelerate, particularly as it relates to technological change across multiple industries faced with increasing labor costs. So, if history is any guide, worker scarcity will inspire another era of automation discoveries including a greater focus on worker re-training (*Exhibit 6*).

With labor costs soaring amidst sluggish demographics, a dearth of trained workers for key sectors, a lower participation rate and less immigration, we think that corporations will focus increasingly on technology-driven productivity gains.

Exhibit 5

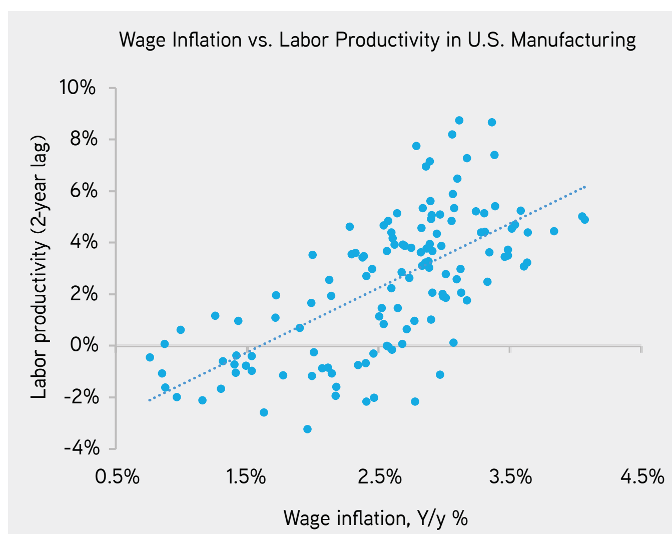
We See a Structural Labor Shortage That Emerged During COVID in Key Markets Such as the United States



Data as at December 31, 2021. Source: Congressional Budget Office, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 6

Worker Shortages Have Consistently Created New Opportunities Around Automation

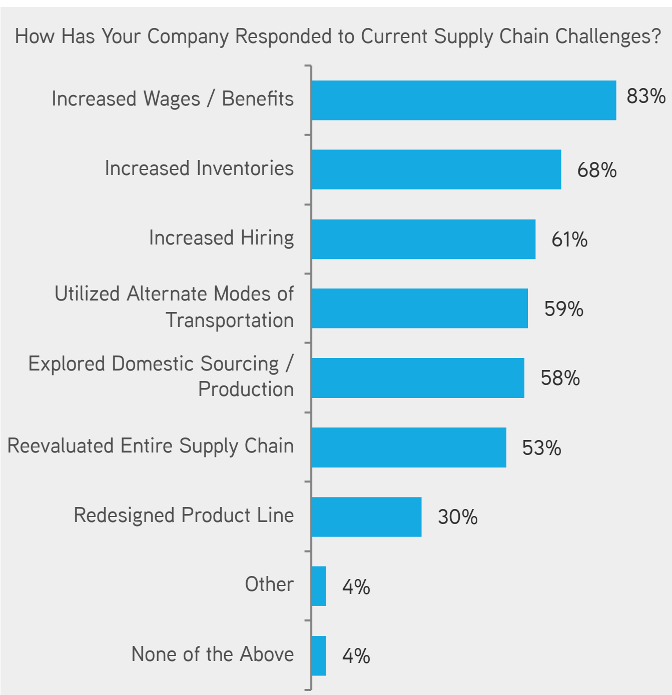


Data as at May 15, 2019. Source: United Nations, Department of Economic and Social Affairs, Population Division, World Urbanization Prospects, Haver Analytics.

Resiliency: The Security of Everything. Recent travels across Asia, Europe, and the U.S. confirm that, as my colleague Vance Serchuk often reminds me, we have shifted from a period of benign globalization to one of great power competition. This shift is a big deal, and it means that countries, corporations, and even individuals will need to build out more redundancy across not only energy but also data, food, pharma, technology, water, and transportation. These sectors and their supply chains will be subject to greater geopolitical oversight, in terms of both industrial policy intended to build national providers of these services and also scrutiny of foreign investment and resiliency of supply chains. Also, almost all aspects of defense spending are poised to surge, we believe. All told, our 'security of everything' concept represents hundreds of billions of dollars in opex and capex that may help to cushion the blow of the global economic slowdown we are experiencing.

Exhibit 7

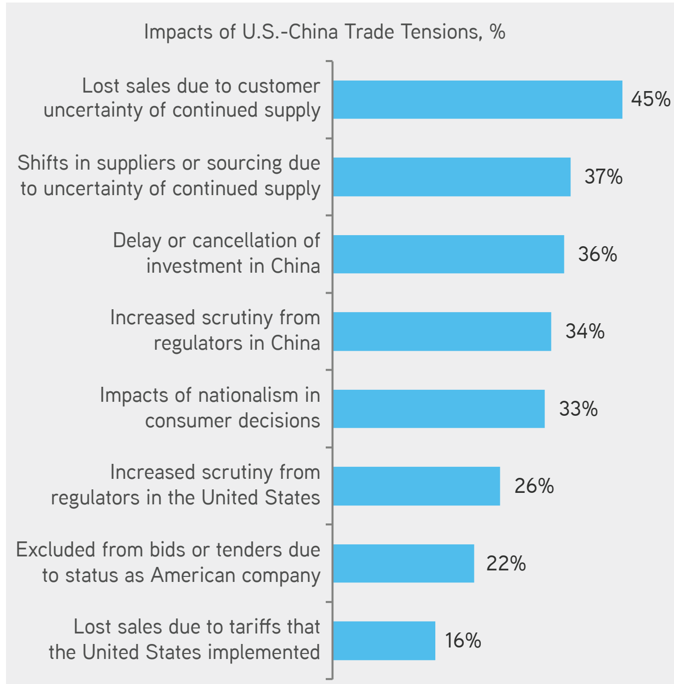
CEOs Are Actively Exploring Domestic Sourcing and Production in Their Reevaluation of Supply Chain Security



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

Exhibit 8

Global Supply Chains Will Become Both More Diversified and More Resilient

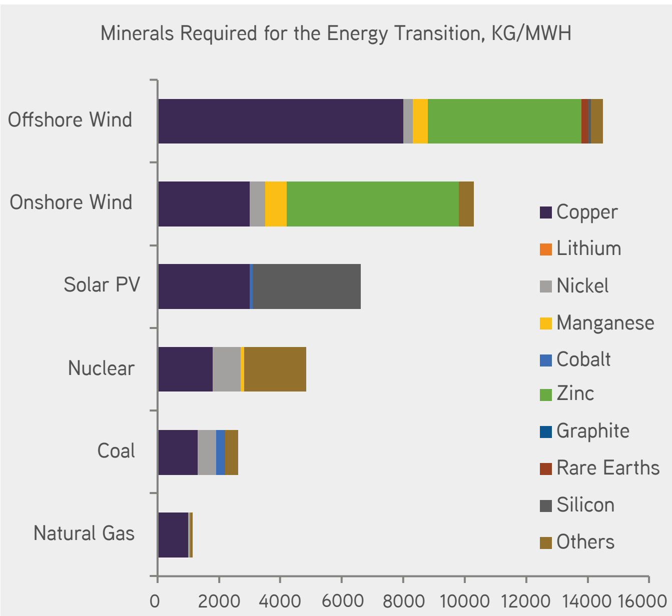


Data as at November 30, 2022. Source: 2022 U.S.-China Business Council Survey.

The Energy Transition Remains a Mega-Theme. This theme is probably as massive as the Internet opportunity was around the turn of the century. It will likely lead to the same variety of outcomes and bifurcation in results — think Pets.com's bankruptcy versus Amazon's success. Said differently, there will be both winners and losers as this mega-theme unfolds, though the generosity of the recent Inflation Reduction Act should lead to more winners than losers in the United States, we believe. Interestingly, though, *while the Internet was a deflationary global force, the energy transition is an inflationary one*. Most commodities required to support growth in onshore wind, offshore wind, batteries, etc., need a lot of energy to mine and process. Moreover, many of these commodities are sourced from unstable areas of the globe. Around 65% of the total global refining of such commodities, including lithium (72%), cobalt (71%), and manganese (99%) is now done in China at a time when U.S.-China tensions are running hot. Finally, the energy transition will need to address energy security and affordability as well as sustainability, which will impact its direction and speed.

Exhibit 9

Critical Components Needed for the Energy Transition Will Likely Make This Transition a Bumpy One

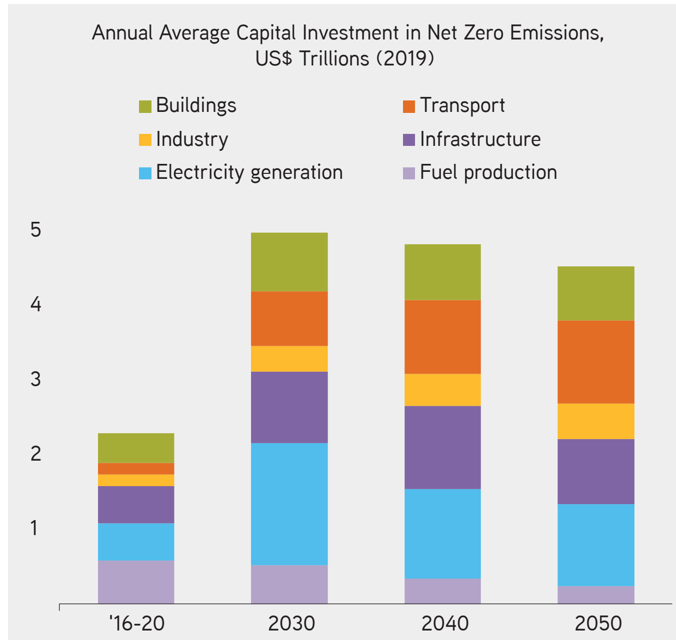


Data as at May 4, 2022. Source: IEA.

For the better part of two years now we have been suggesting that U.S. consumption would eventually normalize, with Services gaining wallet share at the expense of Goods. That call has largely been the right one over the last year, and we think it will continue to play out in 2023.

Exhibit 10

Total Annual Capital Investment in a Net Zero Global Emissions Scenario for Energy Will Rise From 2.5% of Global GDP to About 4.5% by 2030

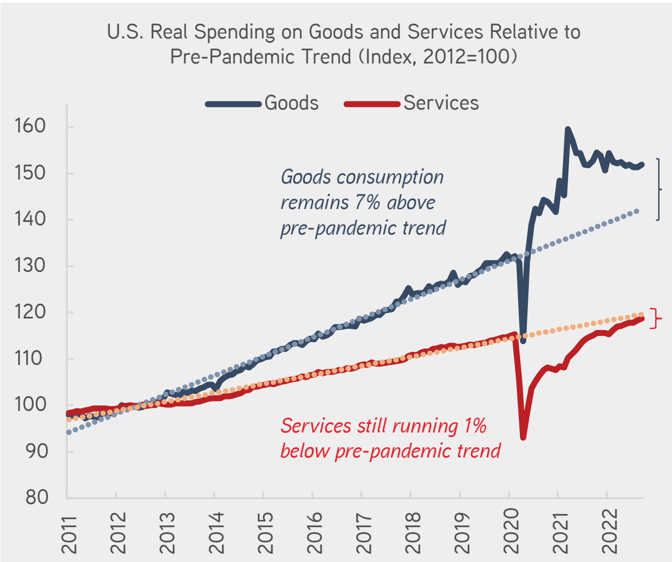


2030-2050 are estimates. Data as at April 2021. Source: Goldman Sachs Global Investment Research, IHS Global Insight.

Normalization: Revenge of Services. For the better part of two years now we have been suggesting that U.S. consumption would eventually normalize, with Services gaining wallet share at the expense of Goods. That call has largely been the right one over the last year, and we think it will continue to play out in 2023. Given that U.S. Goods buying is still running seven percent *above* trend (down from a peak of 17% in 2021) and Services is running one percent *below* trend (up from six percent below in 2021), we continue to support flipping exposures towards Services, which we now think could run ahead of trend for several more years. However, this is not just a U.S. call. In Asia, for example, the economy is now just opening up, and as a result, Services activity is still well below pre-COVID levels. As such, if the U.S. is a precursor to what other economies will experience, sectors such as tourism, health and beauty services, and entertainment still have a long way to go internationally, we believe.

Exhibit 11

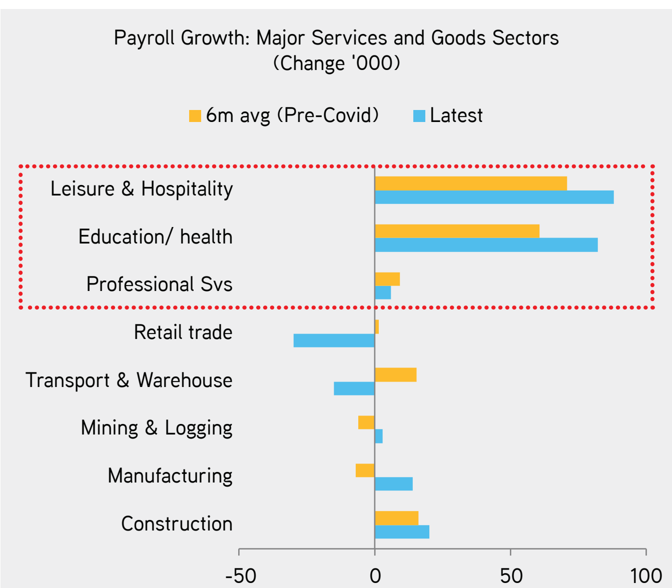
The Pandemic Catalyzed a Shift Into Goods Over Services, Which Is Now Reversing



Data as at November 30, 2022. Source: BEA, Haver Analytics.

Exhibit 12

Job Gains Are Shifting to Services



Data as at December 2, 2022. Source: U.S. Bureau of Labor Statistics, Haver Analytics.

In terms of Picks and Pans, we note the following:

PICK (SAME) **Simple Credit looks attractive to us.** True, spreads have not blown out like in 2008, but the risk-free rate now embeds a lot of bad news, and absolute yields look extremely attractive in a world that we think argues for lower overall returns for most portfolios during the next 5-10 years. At the moment we like high quality municipal bonds, mortgages, CLO IG /A-AAA liabilities, senior direct lending, etc. See our relative value discussion in SECTION III – *Question #1* for full details, but we want to be a liquidity provider when others can't.

PICK (NEW) **Distinct sector selectivity within public markets**. From a public market sector perspective, we favor Energy, Industrials (including Defense names), and Big Pharma at the expense of Large Cap Technology and any unsecured lending across Financials and/or Consumer sectors.

PICK (NEW) **The Russell 2000 is at an attractive entry point for long-term investors, in our view.** All told, the Russell 2000's next 12 months P/E ratio has fallen to 10.8x, its lowest level since 1990 and 30% below its long-term average. On a relative basis, the Russell 2000's next 12 months P/E is trading at the lowest level versus large-cap stocks since the Tech Bubble.

PICK (NEW) **International hard assets.** Many global currencies are still on sale, and as such, we think that strategic buyers are going to start shopping overseas for hard assets, especially in the Real Estate and Infrastructure sectors. Therefore, we believe allocators will need to move quickly to acquire quality Real Estate assets in key metro markets such as London, Paris, and Tokyo. We also like fiber and data plays across most parts of the world, a theme we have been aggressively playing through our Infrastructure allocations at KKR. See below for details and *Exhibit 2* above, but we view the current period as a unique opportunity where, on a dollar adjusted basis, hard assets in many parts of both Europe and Asia still look quite attractive.

PICK (NEW) 'Cyclical' hedges that might work as the dollar weakens, including select EM and Commodities, such as Oil and Copper. Our travels and conversations with CIOs lead us to believe that most investors, regardless of region, are overweight dollar-based assets. This decision has been the right one in recent years, but the technical picture makes us want to add some 'spice' in the form of out of the money copper and/or oil calls, or some beaten down EM where we like the long-term fundamentals (e.g., Vietnam).

PICK (NEW) Dividend yielding and growing Equities. As those who have followed our work know, we have been advocating owning rising earnings and rising dividend stories over different periods over the last twenty years. Now is one of those periods, we believe. To be clear, we don't favor just high dividend yields. Rather, we favor companies with rising free cash flow that allows them to consistently increase their dividends and earnings per share. See our note *The Uncomfortable Truth* for further details, but one could also just buy the Dividend Aristocracy basket and call it a day.

PICK (NEW) Non-correlated assets should be added at the expense of traditional long/short hedge funds, we believe. Too many allocators are still overweight long/short equity funds in their hedge fund portfolios. Our base view is that more CIOs should be concentrating their book in hedge fund managers that can provide non-correlated returns to equity markets. We also think that allocators should align with managers that 'stay in their lanes' in terms of liquidity. Indeed, as we learned in our recent endowment and foundation survey (see *The Times they Are a-Changin'*), many CIOs now own illiquid hedge fund portfolios in their liquid books.

PICK (NEW) Private Vintages. As we show in *Exhibit 18*, the value of the illiquidity premium tends to increase in bumpy markets. Linear deployment is essential to portfolio construction in the private markets, and one of our key messages for 2023 is to lean into both Private Equity and Private Credit right now.

PAN (NEW) Begin to sell USD. Despite the USD coming back towards earth in recent weeks, we still think the dollar is overbought and over-owned. It clearly has been the right call to own dollar assets for several years (*Exhibits 2, 99,* and *100*). However, we feel that this trade has begun to turn. We like JPY as a long against the dollar as well as some higher yielding, higher quality EM currencies. Tactically, we also think the EUR may have bottomed.

PAN (SAME) Similar to last year, we are still cautious on large cap Technology. This sector is valuation challenged at a time when fundamentals, especially around online advertising and social media, are still deteriorating and competition is increasing. At the same time, we continue to think that globally, greater government regulation of Tech is increasingly on the table at a time when global geopolitical competition is heating up. See below for details, but once a sector peaks at over 20% of an index, it tends to badly underperform over the next three to five years.

PAN (NEW) Select parts of the Banking sector, particularly those tethered to floating rate mortgages. There are several areas within the financial sector where we expect to see faster than expected deterioration in loan loss provisions. For starters, we envision tougher sledding for certain financial institutions in Canada and Australia, as many of the mortgages in those countries are floating rate (*Exhibit 14*). House prices are also likely to slip further in 2023; at the same time, higher payment rates on mortgages will coincide with slowing nominal GDP growth. Conversely, Japanese banks would benefit mightily if global GDP does not slow but inflation does ease. Meanwhile, we think that 'old' parts of commercial office space will likely create some angst as debt for large scale office complexes matures in 2023 and 2024.

PAN (SAME) Goods as consumer spending shifts to Services. As the economy cools and consumers shift their focus back towards experiences over things, we envision that the Goods sector, including the distributors of retail products, could face significant headwinds. Within Goods, as we suggested in our midyear outlook, we still see private label taking aggressive market share from branded products.

PAN (NEW) Segments of Commercial Real Estate may face incremental headwinds in 2023. In our view, certain parts of the traditional *Office* sector could face challenges in 2023, especially older properties that 1) do not have environmentally friendly footprints; 2) will need to roll their debt at higher rates; and 3) are exposed to sectors that face significant headcount reductions or work from home headwinds (e.g., large parts of the Technology sector). There is also growing concern that some banks may foreclose on office buildings at reduced prices, which could reset the entire market for commodity office buildings. Don't get us wrong, though, there are significant opportunities in Office Real Estate and we are actually believers in back to work, but one needs to be eyes wide open that using the 'old' playbook will not yield the same results as in the past. To this end, we think a significant opportunity exists in buying high quality new assets at discounts to replacement costs in high growth markets, especially as market participants may sell assets to deleverage other parts of their portfolios.

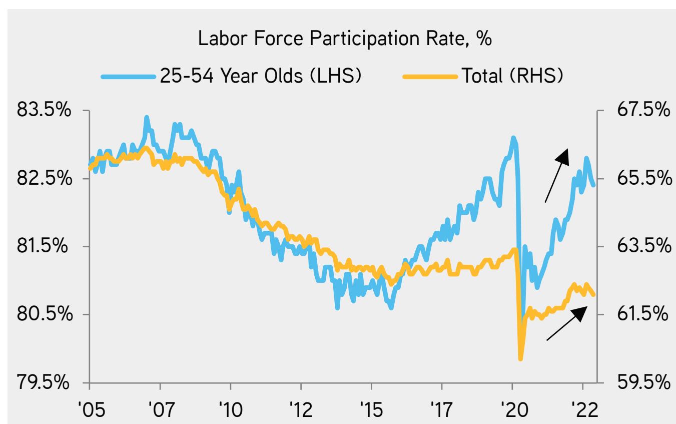
PAN (NEW) Interest rate volatility is now overstated and should be sold, particularly at the front end of the curve. Key to our thinking: the fed funds futures market won't experience a 400 basis point surprise in 2023 the way it did in 2022, and bond yields and term premia are now much closer to our targets. Against this backdrop, hedging against higher interest rates entails a more nuanced tradeoff, in our opinion, while securities with built-in call risk such as MBS should become more appealing.

In terms of risks to our overall outlook, there are four major risks where we are focused:

Risk #1: Growth Slows Sharply Towards More of a 2008-Type Downturn. Our forecasts are predicated on growth slowing but not collapsing in a 2008-like fashion. One can see this in *Exhibits 22* and *23*, respectively. There are three things to consider, we believe. First, we forecast unemployment increasing by 1.4% point trough to peak today, more akin to the 1.9% increase in 2001 compared to 2008 when unemployment surged 5.1%. Second, we also don't see the banks needing to de-leverage as much as they did during the GFC. Most leverage levels are at 10-12x, not 20-30x. Finally, we do not think that underlying equity in mortgages gets impaired, given better underwriting, tighter supply, and more equity in each deal. To be sure, we have house prices falling five percent in 2023 (*Exhibit 113)*, down from 14% appreciation in 2022, but we do not forecast a major collapse in major economies such as the U.S, France and Germany (*Exhibit 14)*. So, if the environment becomes much worse than we anticipate and we experience 2008-like stresses to the system, then our decision to steadily add risk during 2023 could be the wrong one.

Exhibit 13

The Labor Market for Working Individuals 25-54 Remains Tight, Especially in Services

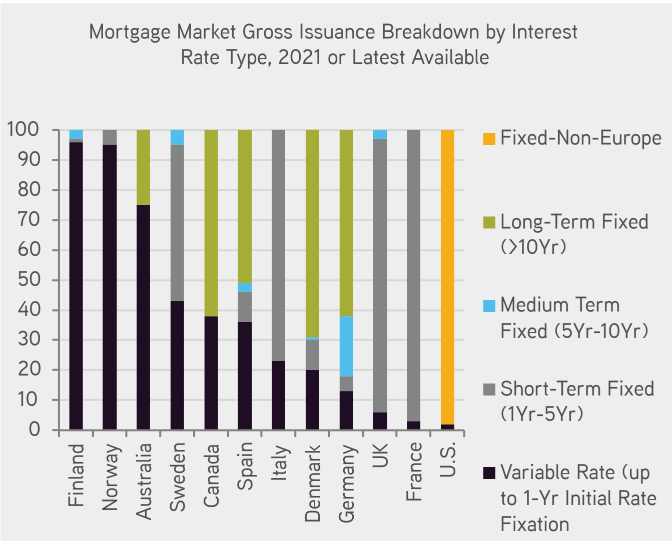


Data as at December 2, 2022. Source: U.S. Bureau of Labor Statistics, Haver Analytics.

Don't get us wrong, though, there are significant opportunities in Office Real Estate and we are actually believers in back to work, but one needs to be eyes wide open that using the 'old' playbook will not yield the same results as in the past.

Exhibit 14

While Mortgage Rates Have Increased, the Fixed Rate Component Should Help U.S. Consumers Weather the Storm Better Than Some of Their Global Peers



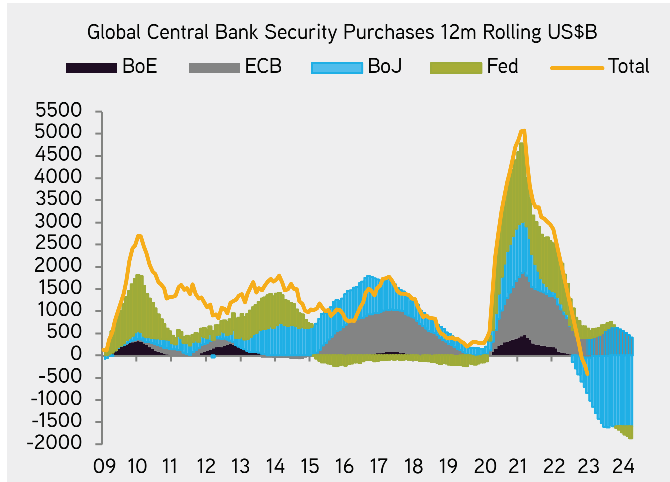
Data as at December 31, 2021. Source: European Mortgage Federation, FHFA, Australian Bureau of Statistics, Bank of Canada, Deutsche Bank estimates.

Risk #2: We Go Back to Secular Disinflation (i.e., 2010-2020). Our macro calls as well as our asset allocation positioning could be out of whack if inflation crashes towards pre-pandemic levels (i.e., we go back to the lower left quadrant in *Exhibit 16*). If this happens, then the 'right' playbook is to go back to what worked in 2010-2016 (average inflation during this period was just 1.6%). Said differently, if there is not a higher resting heart rate for inflation this cycle, then investors should lean into high growth, low cash flowing equities with big total addressable markets (TAMs), and/or own super long duration fixed income. However, given that we see wages being stickier this cycle amidst strong demand for 25-54 year old workers (*Exhibit 13*), we ascribe less than a one in five chance to this outcome.

Moreover, as we look at the bigger picture, our base view is that macro fat tails are narrowing, not widening, as we enter 2023.

Exhibit 15

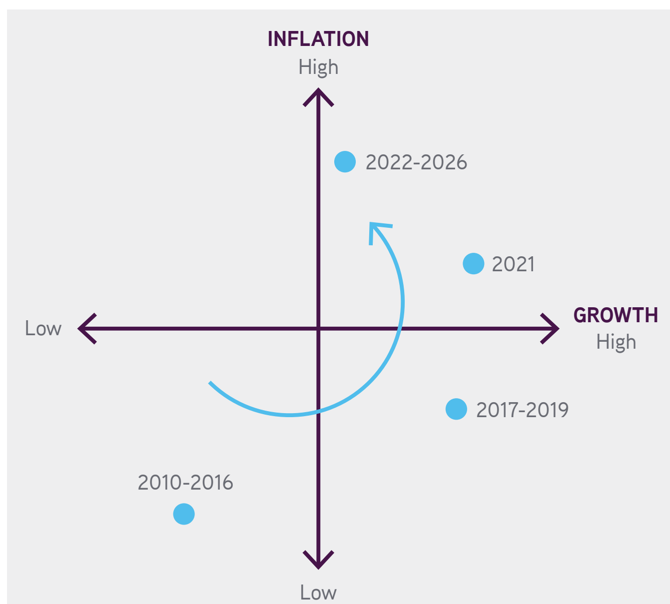
While Not Our Base Case, We Are Watching to Make Sure That Global Central Banks Do Not Tighten Us Back Into a Low Growth, Low Inflation Environment



Data as at September 30, 2022. Source: Citigroup, Federal Reserve, ECB, Bank of Japan, Bank of England, and Haver Analytics.

Exhibit 16

While 2023 Should Be a Lower Inflation Environment, We Believe a Regime Change Has Occurred



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

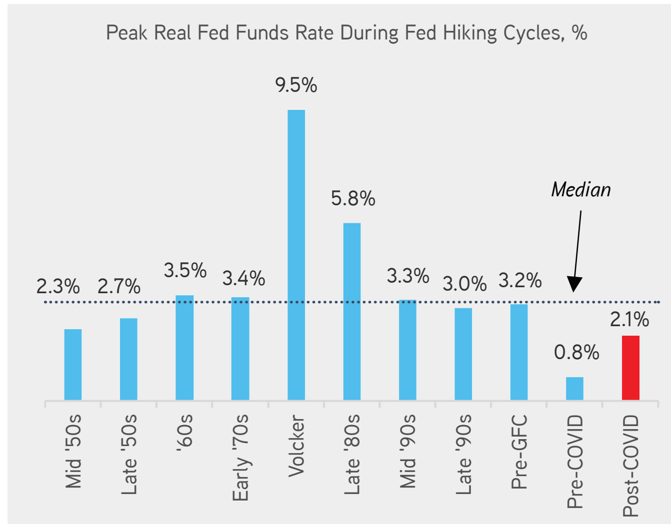
Risk #3: The Fed Needs to Do Substantially More to Control Inflation. Our current base case expects the 'real' fed funds rate (i.e., fed funds – Y/y CPI) to rise to just above two percent in 2024 (*Exhibit 17*). That forecast is materially higher than the peak of about 80 basis points on a quarterly basis during the last Fed hiking cycle, but lower than the median peak over the last sixty years (which is actually around three percent or more). Indeed, history would suggest that the Fed may end up delivering more tightening than we currently expect in order to control inflation in 2023, particularly given the fact that wage growth remains high and consumer inflation expectations remain elevated. If we are wrong about how high rates need to go this cycle to quell strong wage growth (i.e., if real rates need to rise above two percent), it could materially dent the outlook for all risk assets. However, we see the chance of this occurring at less than one in four; moreover, there are several ways to hedge these considerations in a cost-efficient manner, including through fed funds futures.

Moreover, as we look at the bigger picture, our base view is that macro fat tails are narrowing, not widening, as we enter 2023. As such, we think the possibility of very low inflation, really high inflation, or a 2008-type event is fading, not increasing. So against this backdrop, our message is to thoughtfully lean into risk using a disciplined deployment schedule, sound portfolio construction, and ample diversification across asset classes and regions in 2023.

If we are wrong about how high rates need to go this cycle to quell strong wage growth (i.e., if real rates need to rise above two percent), it could materially dent the outlook for all risk assets. However, we see the chance see the chance of this occurring at less than one in four.

Exhibit 17

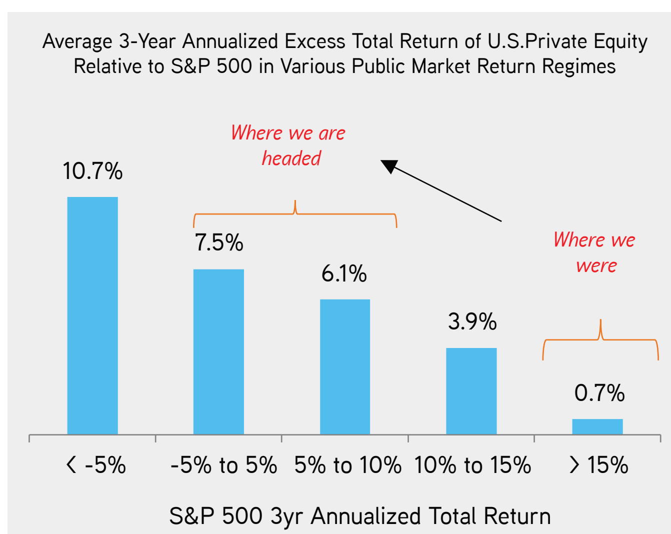
We Think the 'Real' Fed Funds Rate Will Peak Out at Around Two Percent This Cycle. If the Fed Returns to a More Hawkish Approach, the Tightening Cycle Will Be Much Harsher Than We Are Currently Forecasting



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

Exhibit 18

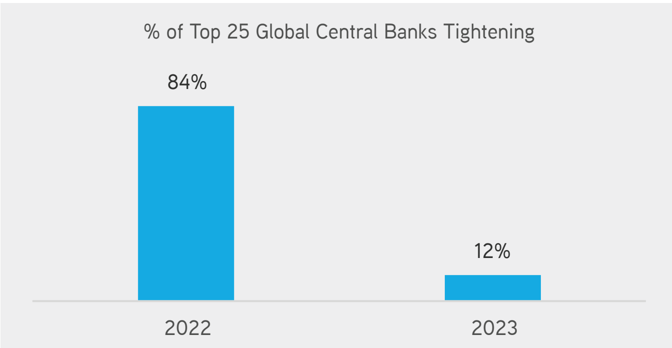
The Value of the Illiquidity Premium Tends to Go Up in Bumpy Markets



Data Observation Period = 1Q86-2Q22. Data as at December 6, 2022. Source: Cambridge Associates, S&P, KKR Global Macro & Asset Allocation analysis.

Exhibit 19

We Think That Less Tightening by Global Central Banks Could Be Helpful for Our Credit Call in 2023



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

Risk #4: Heightened Geopolitical/Political Risks Harking back to Adam Smith's famous work, it feels to us that we have entered an era where the visible hand of politics and geopolitics appears to be quickly overpowering the invisible hand that defined increased economic globalization/harmony during the past few decades. Indeed, throughout the world (U.S., Europe, China), nations that have for a generation maintained legitimacy and support by delivering strong economic growth in part via cheap money, energy, and labor are now entering eras where all of these inputs are more expensive – at a time when institutional legitimacy is at an all-time low and populism is high. Moreover, this backdrop is occurring at a moment of heightened geopolitical tensions. This combination will likely mean more unexpected political outcomes such as government shutdowns as well as more changes in approaches to government (e.g., Brexit); it also means much more FDI scrutiny and possible restrictions. On the one hand, there are real opportunities to invest as nations build domestic energy, semiconductor, and other supply chains. To this end, we remain quite bullish on our Resiliency/Security of Everything thesis, including the benefits of reshoring. On the other hand, investors will need a sharper domestic political and geopolitical lens for all investments in this new era of great power competition.

Section I: Global / Regional Economic Forecasts

Global

Our message on growth and inflation for much of the developed world remains largely the same as in prior years. Specifically, we continue to expect slowing growth and higher inflation than many developed economies experienced during the post-GFC era. What has changed is that consensus has now chopped a lot of wood in 'catching down' to this new reality. As a result, we enter 2023 with greater optimism that our conservative bent towards a de-rating of growth expectations is now more likely in the price. Meanwhile, in China we now look for better growth in both 2023 and 2024, which puts our forecasts above consensus, as consumption improves. We do see near-term risks to our China outlook as infections rise during the next several months, which will likely weigh on mobility and spending. On the other hand, increased immunity could provide a tailwind for growth in the second half of 2023 and into 2024.

In terms of important developments we are watching for, they differ by region. In Asia, we expect continued normalization in consumer activity, which should help year-over-year comparisons, especially in the Services sector. In Europe, we expect a war-induced recession, though fuel subsidies and a mild winter should help. Finally, in the United States we look for a 2001-type recession, driven by weakness in housing and inventory destocking.

Exhibit 20

Our Forecasts Reflect the Asynchronous Recovery Happening in the Global Capital Markets

	2023e Real GDP Growth		2023e Inflation		2024e Real GDP Growth		2024e Inflation	
	GMAA	Bloomberg	GMAA	Bloomberg	GMAA	Bloomberg	GMAA	Bloomberg
	New	Consensus	New	Consensus	New	Consensus	New	Consensus
U.S.	0.3%	0.4%	3.9%	4.3%	1.5%	1.3%	2.5%	2.5%
Euro Area	-0.2%	0.2%	6.3%	5.9%	1.6%	1.6%	2.6%	2.5%
China	5.2%	4.8%	2.3%	2.3%	5.4%	4.8%	2.6%	2.5%

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

In terms of important developments we are watching for, they differ by region. In Asia, we expect continued normalization in consumer activity, which should help year-over-year comparisons, especially in the Services sector. In Europe, we expect a war-induced recession, though fuel subsidies and a mild winter should help. Finally, in the United States we look for a 2001-type recession, driven by weakness in housing and inventory destocking.

However, given all the uncertainty in the global economy, we have also worked alongside our deal teams to map out a series of scenarios aimed at making sure that our capital structures are able to withstand a variety of outcomes. One can see this in *Exhibit 21*, which shows that in a downside scenario, the deepest cuts would be to Europe.

Harking back to Adam Smith's famous work, it feels to us that we have entered an era where the visible hand of politics and geopolitics appears to be quickly overpowering the invisible hand that defined increased economic globalization/harmony during the past few decades.

Exhibit 21

For 2023 and 2024, We Are Considering a Range of Outcomes, with a Nontrivial Chance of an Upside or Downside Surprise

	KKR GMAA Real GDP Forecast and Scenarios, %			KKR GMAA Inflation Forecast and Scenarios, %		
	Base	Low	High	Base	Low	High
U.S.						
2023e	**0.3%**	**-1.5%**	**2.0%**	**3.9%**	**2.0%**	**6.0%**
2024e	**1.5%**	**2.0%**	**2.5%**	**2.5%**	**1.0%**	**4.5%**
Euro Area						
2023e	**-0.2%**	**-1.9%**	**1.5%**	**6.3%**	**3.6%**	**9.0%**
2024e	**1.6%**	**-0.7%**	**2.4%**	**2.6%**	**0.0%**	**4.5%**
China						
2023e	**5.2%**	**4.7%**	**5.7%**	**2.3%**	**2.0%**	**2.5%**
2024e	**5.4%**	**4.9%**	**5.9%**	**2.6%**	**2.2%**	**3.0%**

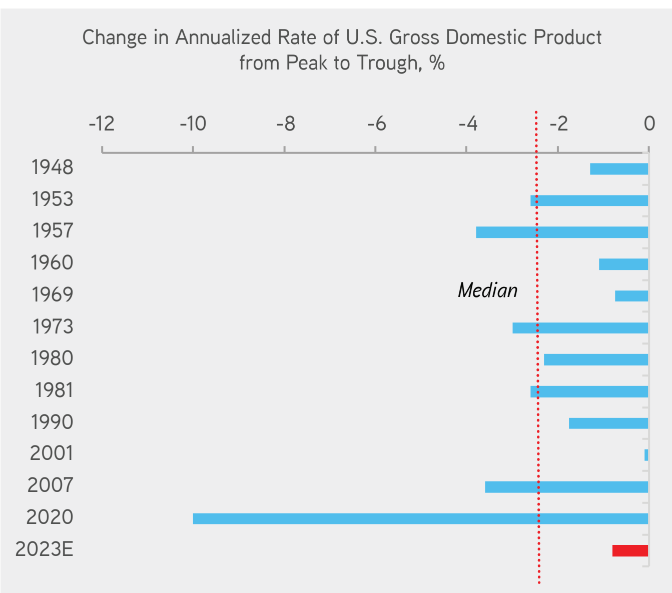
In the U.S. for 2023 and 2024 we assign a probability of 50% for the base case, 35% for the bear case, and 15% for the bull case. In Europe we assign the downside 20th percentile and the bull case 80% percentile. For China: In 2023, we assign a probability of 60% for the base case, 20% for the bear case, and 20% for the bull case. In 2024, we assign a probability of 50% for the base case, 25% for the bear case, and 25% for the bull case. Note that the bear case in the U.S. assumes a deep recession in 2023, but also assumes a bit more of a snapback in 2024. Data as at December 13, 2022. Source: KKR Global Macro & Asset Allocation analysis.

United States

U.S. GDP Outlook As we show in *Exhibit 24*, we retain a conservative outlook for U.S. GDP. Home prices have declined faster than expected this year, which leads us to take down our 2023 U.S. Real GDP growth estimate modestly from +0.5% to +0.3%. From a bigger picture perspective, we note that full-year GDP growth at that level is more consistent with a 2001-style recession than a 2008-style growth implosion. For example, we forecast monthly unemployment to increase 1.4% from a trough of 3.5% to a peak of 4.9% this cycle. That would be in line with 2001's 1.9% increase, and well below the GFC's 5.1% increase.

Exhibit 22

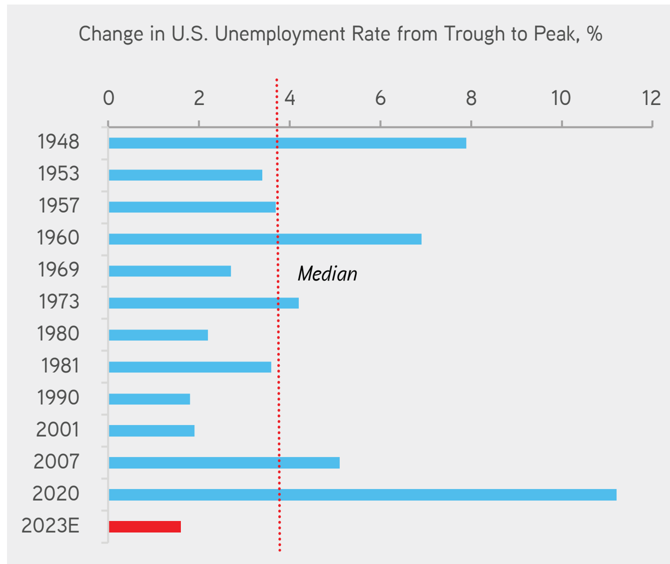
We See U.S. GDP Growth Slowing, Not Collapsing



E = KKR GMAA estimate. Data as at November 30, 2022. Source: WSJ, KKR Global Macro & Asset Allocation analysis.

Exhibit 23

We See a More Muted Unemployment Headwind This Cycle Compared to Past Ones Like the GFC



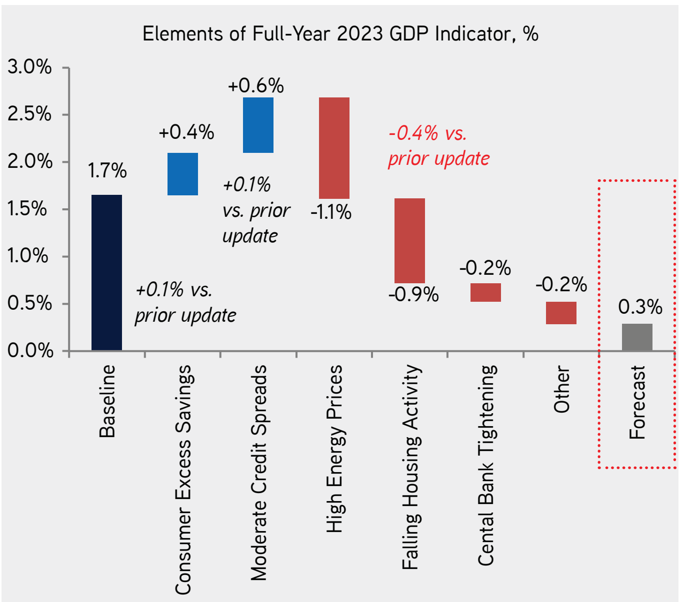
E = KKR GMAA estimate. Data as at November 4, 2022. Source: U.S. Bureau of Labor Statistics, Haver Analytics.

As our quantitative model *(Exhibit 24)* shows, consumer excess savings have been helping to sustain growth better than what one might think. On the other hand, both high energy prices as well as falling housing activity are acting as major drags. Unfortunately, given some of our recent survey work around mortgages *(Exhibit 25)*, interest rates are now at such a level that buyers will likely re-trench for some time, we believe.

As our quantitative model shows, consumer excess savings have been helping to sustain growth better than what one might think. On the other hand, both high energy prices as well as falling housing activity are acting as major drags.

Exhibit 24

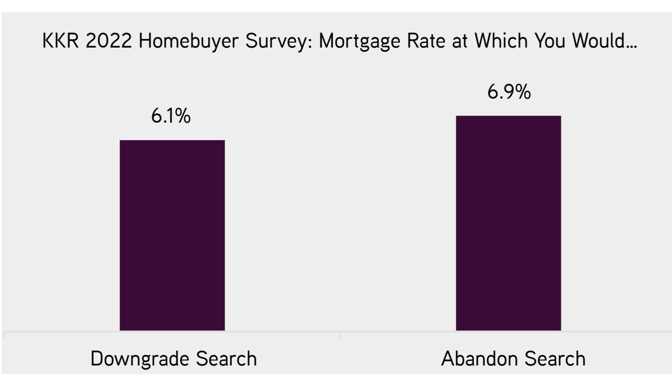
Our U.S. GDP Indicator for 2023 Has Fallen Slightly to +0.3% from +0.5% in July. High Energy Prices, Falling Housing Activity, and Monetary Tightening Remain the Key Headwinds



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

Exhibit 25

Mortgage Rates Are at 6.6%, Near the Threshold Where Homebuyers Abandon Their Searches



Data as at December 16, 2022. Source: KKR Global Macro & Asset Allocation analysis, Bloomberg.

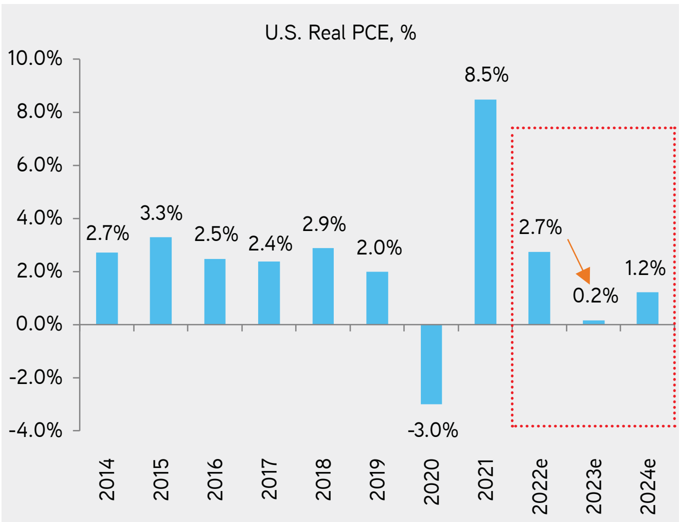
In terms of specific components to GDP, my colleague Dave McNellis forecasts consumer PCE growth falls to almost zero in 2023, down materially from +2.7% in 2022. He does see some improvement thereafter, as the benefit of positive real wage growth eventually flows through the system. At the same time, however, Dave has a stronger forecast for capital expenditures, which one can see in *Exhibit 28*. The Inflation Reduction Act could surprise on the high side in terms of spending, we think, while our conversations with CEOs lead us to believe that capex and opex will not fall off as much as during prior downturns. This tailwind should help to offset weaker consumer spending as well as ongoing inventory de-stocking (*Exhibit 26*).

Looking out to 2024, our expectation is that GDP growth re-accelerates only modestly to 1.5% from 0.3% in 2023. Importantly, we see the hangover of a soft U.S. housing market continuing into 2024, given that we expect Fed policy will remain tight and mortgage rates elevated. We also think that goods-related consumption spending will be slow to recover following what was a surge of pandemic-era buying in 2020-21. These headwinds offset other positives that we see potentially emerging as we look out into 2024, including resilient commercial capex spending and improvements in net exports as Europe and Asia start to emerge from economic soft patches.

The Inflation Reduction Act could surprise on the high side in terms of spending, we think, while our conversations with CEOs lead us to believe that capex and opex will not fall off as much as during prior downturns. This tailwind should help to offset weaker consumer spending as well as ongoing inventory destocking.

Exhibit 26

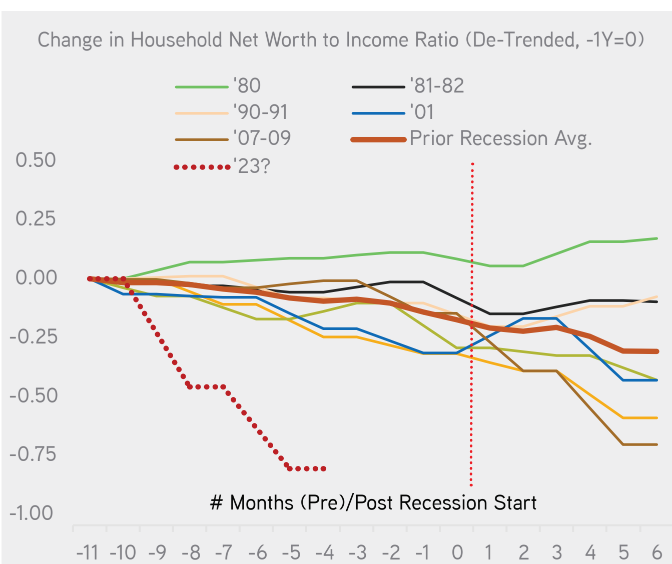
U.S. Real Consumer Spending Growth Is Expected to Fall Meaningfully in 2023 Before Rebounding Slightly in 2024…



Data as at November 30, 2022. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 27

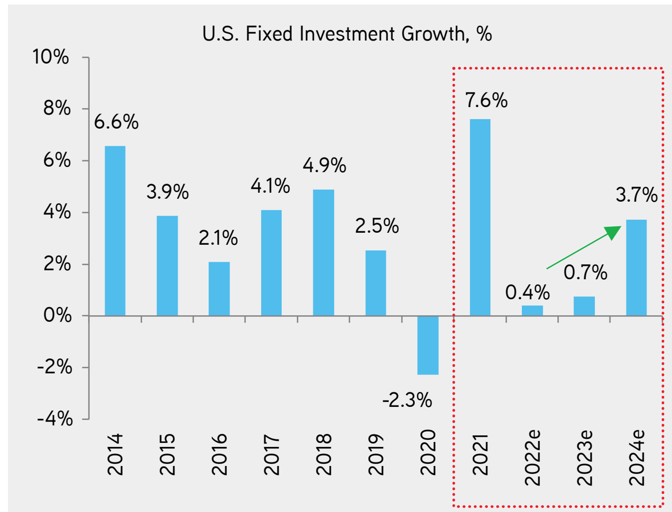
…Reflecting a Large, Front-Loaded Hit to Household Net Worth



Data as at November 30, 2022. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 28

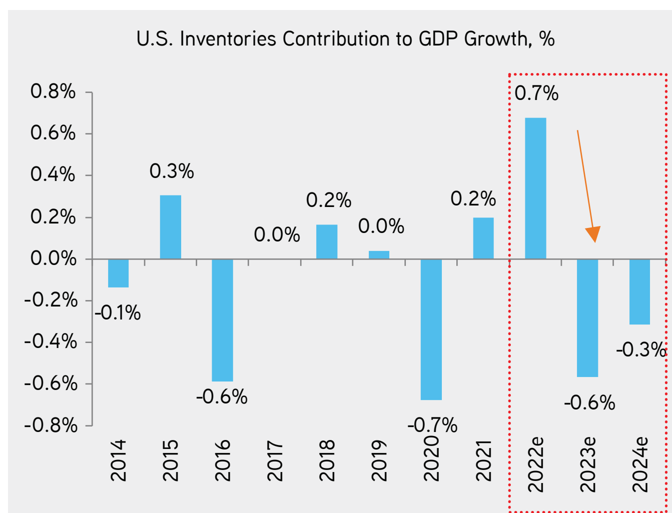
U.S. Capex Growth Remains Below Trend, Bogged Down by Continued Softness in Residential Investment



Data as at November 30, 2022. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 29

Inventories Go From Tailwind to Headwind in 2023



Data as at November 30, 2022. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

U.S. Inflation Outlook We are revising down our 2023 full-year U.S. CPI forecast to 3.9% from 4.8% previously. Notably, this is the first time we have taken down an inflation forecast since 2021. We think the back-to-back downside surprises in October and November U.S. CPI were indeed significant, as the details showed a convincing pattern of peaking shelter inflation, cooling medical inflation, and falling goods prices, consistent with our longstanding thesis on deflationary goods and inflationary services. While these developments do not make us want to lower our outlook for fed funds (in fact, we are raising our December 2023 forecast +25 basis points to 4.875%), they do cause us to assign less weight to our high case Fed scenarios (See U.S. Rates section, below, for more details).

Without question, the road ahead will still be bumpy, with durable goods potentially cooling in a nonlinear manner and government data catching up to the rent growth that is already incorporated into our proprietary leading indicators. Moreover, we continue to expect CPI to settle at a higher resting rate this cycle, most notably because labor costs and consumer expectations remain inflationary. However, the good news is that the direction of travel has definitely improved, which gives us more confidence that the U.S. will avoid our worst-case scenarios for inflation and Fed tightening this cycle.

Key U.S. Inflation Takeaways

1 We have higher conviction that goods inflation will be negative on a year-over-year basis in 2023. That being said, we do not expect goods prices to cool in a linear fashion as some companies have pushed through price increases even as real consumer demand has stagnated.

2 Services inflation appears to be stabilizing, albeit at levels that remain much too high. Importantly, within Services, shelter inflation is in the process of peaking, we believe.

3 Labor costs are the single most inflationary input into our KKR Core CPI indicator. While we think that overall inflation has likely peaked, the combination of higher incomes and a higher tolerance for inflation raises the risk of periodic re-accelerations in CPI over the course of this cycle.

4 Corporate margins will remain under pressure in 2023. The reality of higher labor costs amidst slowing nominal GDP will create a backdrop that further dents margins for businesses.

Bottom line: We now have greater conviction that core inflation has peaked, which diminishes the odds of a worst-case scenario when it comes to peak fed funds. At the same time, we continue to be guards-up about earnings as wage growth rises above CPI inflation and goods prices turn negative year-over-year. Said differently, the focus is shifting from 'how high inflation goes in 2022' to 'how high inflation stays in 2023 and beyond', meaning that defendable margins are becoming more important as price growth cools heading into next year.

Exhibit 30

We Still See Higher Inflation in 2023, Despite Goods Prices Falling

	U.S. CPI Inflation, %							
	4Q22e	1Q23e	2Q23e	3Q23e	4Q23e	Full-Year 2022e	Full-Year 2023e	Full-Year 2024e
Headline CPI	**7.2%**	**5.5%**	**3.8%**	**3.2%**	**3.1%**	**8.0%**	**3.9%**	**2.5%**
Energy (8%)	13.5%	2.2%	-6.6%	-2.7%	1.6%	25.7%	-1.4%	0.0%
Food (14%)	10.8%	9.7%	7.9%	5.8%	4.6%	10.0%	7.0%	4.5%
Core CPI (78%)	**6.0%**	**5.2%**	**4.2%**	**3.4%**	**3.0%**	**6.1%**	**3.9%**	**2.4%**
Core Goods (21%)	**3.7%**	**0.7%**	**-0.7%**	**-2.6%**	**-2.6%**	**7.7%**	**-1.3%**	**-1.3%**
Vehicles (9%)	3.9%	-0.5%	-3.2%	-6.3%	-6.1%	12.5%	-4.0%	-3.0%
Other Core Goods (12%)	3.5%	1.5%	1.1%	0.2%	0.1%	4.7%	0.7%	0.0%
Core Services (57%)	**6.8%**	**6.8%**	**6.1%**	**5.6%**	**5.1%**	**5.6%**	**5.9%**	**3.7%**
Shelter (31%)	7.3%	7.8%	7.7%	7.1%	6.5%	5.8%	7.3%	4.5%
Medical (8%)	4.3%	2.1%	0.0%	-2.5%	-3.0%	4.0%	-0.9%	2.5%
Education (3%)	3.1%	3.3%	3.3%	3.1%	3.1%	2.7%	3.2%	3.0%
Other Core Services (15%)	8.0%	8.2%	6.6%	7.6%	7.4%	6.8%	7.4%	3.0%

Data as at December 13, 2022. Source: BEA, Bloomberg, Haver Analytics.

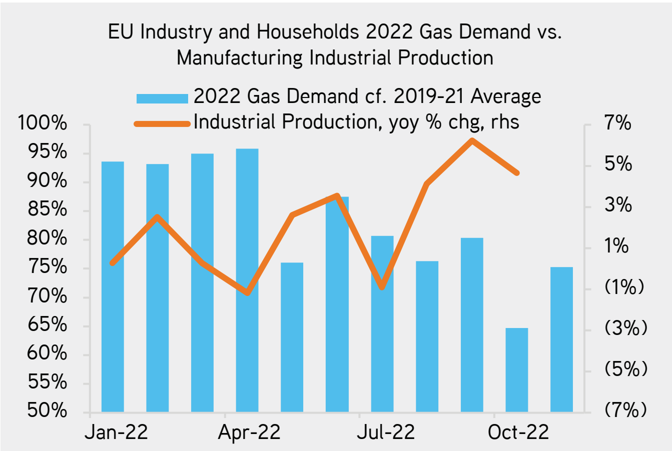
Europe

Euro Area GDP Outlook We revise up our estimates for growth in 2023 from -0.5% to -0.2%, primarily reflecting a less severe energy shortage due to the unseasonably mild start to the winter in 2022-2023, and introduce a forecast for 1.6% growth in 2024. We also note that despite a roughly 25% fall in gas consumption across the economy, industrial production has thus far held up well compared to pre-war norms. Finally, the level of fiscal support offered by governments has surprised to the upside, most notably in Germany, where the economic 'defense shield' alone makes €200 billion available to offset the impact of the current energy shock. Despite these positives, we still expect the Euro Area economy to contract due to tighter financial conditions caused by restrictive monetary policy (not just reflecting higher rates, but also quantitative tightening), alongside higher inflation depressing household spending power and impacting corporate earnings. As such, we believe asset allocators should continue to avoid cyclical exposure and remain invested behind structural growth areas such as labor market solutions, industrial automation, and energy security.

As such, we believe asset allocators should continue to avoid cyclical exposure and remain invested behind structural growth areas such as labor market solutions, industrial automation, and energy security.

Exhibit 31

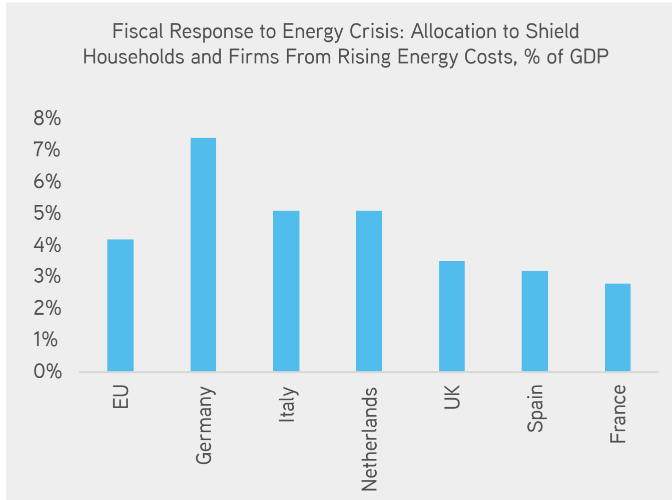
Industrial Production Has Held Up Well, Despite Gas Demand Running Meaningfully Below the Historical Average



Data as at December 12, 2022. Source: Bruegel, Haver Analytics.

Exhibit 32

Fiscal Support Has Been Substantial



Data as at November 29, 2022.Source: Bruegel.

Key Euro Area GDP Takeaways

1. We expect high energy costs to curtail household purchasing power as well as force some manufacturers to curb production. However, fiscal support should provide some cushion.

2. Tighter financial conditions will likely be a drag on business investment. Weaker global demand could hurt export growth for Europe in 2023 despite a weak euro.

3. Uncertainty around gas supply is the key downside risk to GDP. Further disruption to gas markets (e.g., adverse weather conditions or a complete halting of Russian gas flows) puts GDP and our mild manageable recession forecast at risk. In this scenario, we model a more severe recession lasting into 1Q24, with a peak to trough fall in GDP of 2.5%.

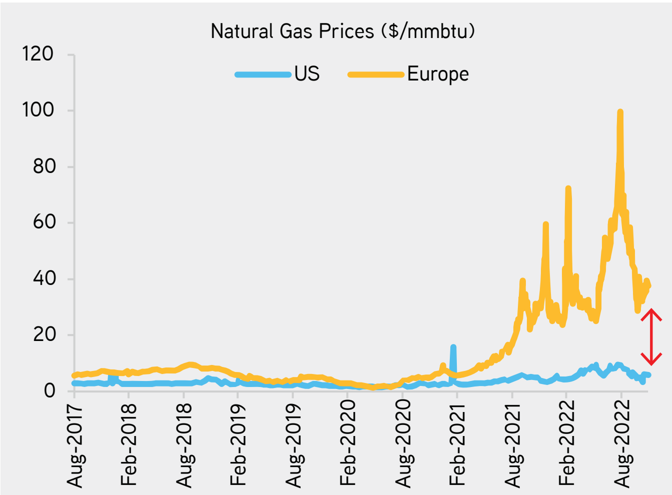
4. Our bull case is based on the assumption of a gradual relaxation of tension in global energy markets and easing inflation concerns, leading to Eurozone GDP growth in 2023 of 1.5%.

5. We expect labor markets to remain more resilient than in previous crises due to structural tightness in labor supply and consequent reluctance of employers to cut workers.

Bottom line: We believe investors should plan for the Eurozone economy to contract by 0.2% over the next twelve months before entering a period of moderate recovery, with growth of 1.6% in 2024.

Exhibit 33

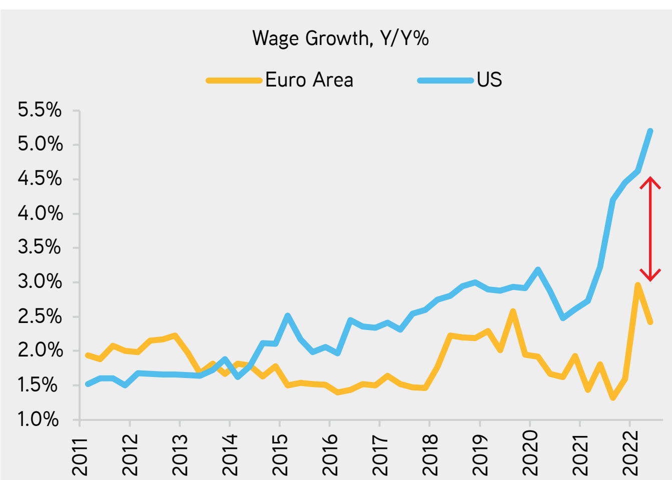
European Natural Gas Prices Remain 6x U.S. Prices



Data as at November 14, 2022.Source: Haver Analytics.

Exhibit 34

Wage Growth in the Eurozone Remains Tepid, Pointing to a Meaningful Squeeze in Real Disposable Income



Data as at November 14, 2022. Source: Eurostat, Goldman Sachs Investment Research, Gfk, Eurostat, U.S. Bureau of Labor Statistics, Bruegel, UBS estimate.

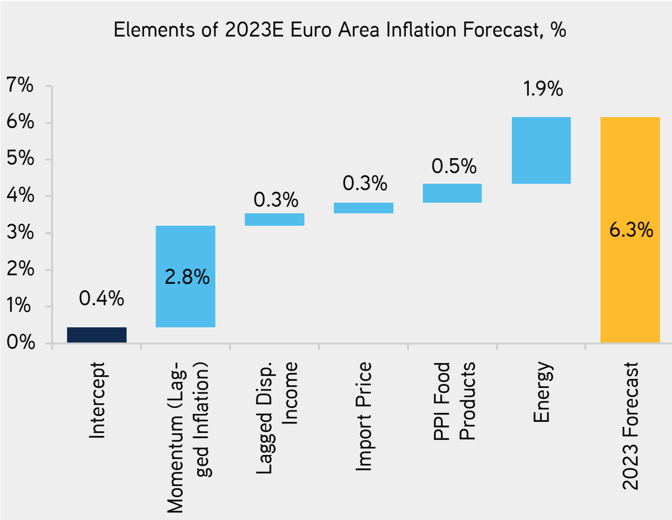
Euro Area Inflation Outlook We revise up our inflation forecast for 2023 to 6.3% from 5.5% compared to a consensus of 5.9%. For 2024, we expect inflation to cool to 2.6% versus a consensus estimate of 2.5%. The impetus for our revision remains higher energy and food prices, both largely compliments of the ongoing war in Ukraine. However, we also see underlying core inflation proving stickier than anticipated, as firms continue to pass on higher production costs to consumers. What are the upside risks to our forecasts? While not our base case given supplies have largely been filled for this winter, further disruption to gas supplies would likely increase inflationary pressures in the Euro Area, as would adverse weather considerations, and tighter gas markets, particularly if/when Chinese LNG demand returns towards normal.

The other key area of focus for investors is wage growth. So far, households have been taking meaningful real wage cuts, amidst surging inflation. However, if employers are forced to step up their compensation, there is the additional risk of a wage-inflation spiral, further embedding inflationary pressure.

We revise up our inflation forecast for 2023 to 6.3% from 5.5% compared to a consensus of 5.9%. For 2024, we expect inflation to cool to 2.6% versus a consensus estimate of 2.5%. The impetus for our revision remains higher energy and food prices, both largely compliments of the ongoing war in Ukraine. However, we also see underlying core inflation proving stickier than anticipated, as firms continue to pass on higher production costs to consumers.

Exhibit 35

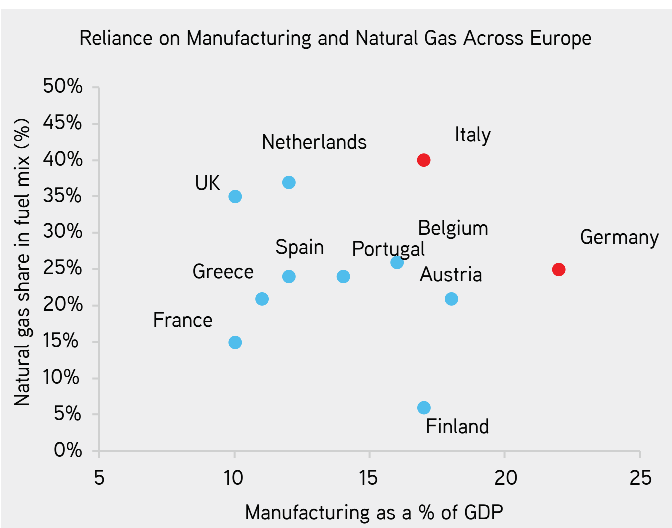
Our Euro Area Inflation Forecasts in 2023 Are Driven by Continuing Energy Inflation, as Well as the Lagged Effects of Energy Inflation in 2022



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

Exhibit 36

Germany and Italy Face the Greatest Challenge Given Their Large Exposure to Manufacturing and High Gas Dependency



Data as at November 14, 2022. Source: Eurostat.

China

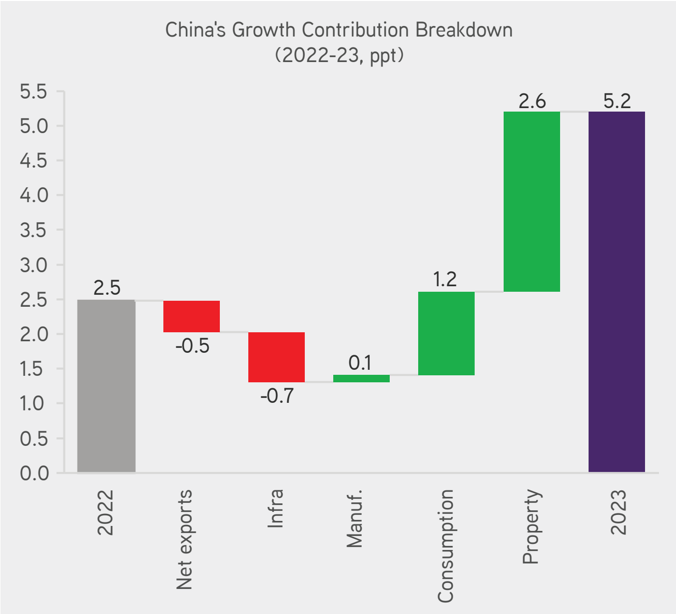
China GDP Outlook We forecast that China GDP growth will improve to 5.2% in 2023 and 5.4% in 2024, up from 2.5% in 2022. These estimates are higher than the consensus forecast of 4.8% for 2023 and 4.8% for 2024, respectively. Key to our thinking is that China's exit from zero-COVID and reopening will help bring consumption back to trend in 2023-24, while looser fiscal policy and infrastructure investment will help support broader activity. At the same time, we see signs that the property sector is bottoming, helped by government policy aimed at disarming liquidity and default risks, with housing sales likely stabilizing at a low level following a dismal 2022.

In the near term, how China navigates the COVID reopening process remains a key area of focus for us. Three years into the pandemic, China is finally abandoning its rigid COVID controls and aligning its approach to the virus with the rest of the world. But with only a 40% booster rate for the 80+ year-old population, and limited immunity from previous infections, we continue to think that China is likely to experience a medical resource shortage in the coming months. Said differently, even though restrictions intended to combat the virus have been lifted, the virus itself may impact both domestic activity and global supply chains in the near term.

The good news, however, is that we expect these dislocations to be short-lived, with a clearer recovery starting in 2Q23 once the current surge in infections fades and immunity improves. In particular, we think that China's consumer economy is primed for a strong recovery, especially in categories like travel. To this end, we note that total retail sales in China are still running about 12% below the pre-pandemic trend, while excess cash deposits now total RMB22 trillion, which equates to fully 51% of 2021 retail sales. Importantly, the experience of other regional economies suggests that consumer spending can recover quite robustly after reopening – for instance, Korea and Japan's easing of COVID restrictions in 2021 has led to consumption at or above pre-pandemic trends in 2022.

Exhibit 37

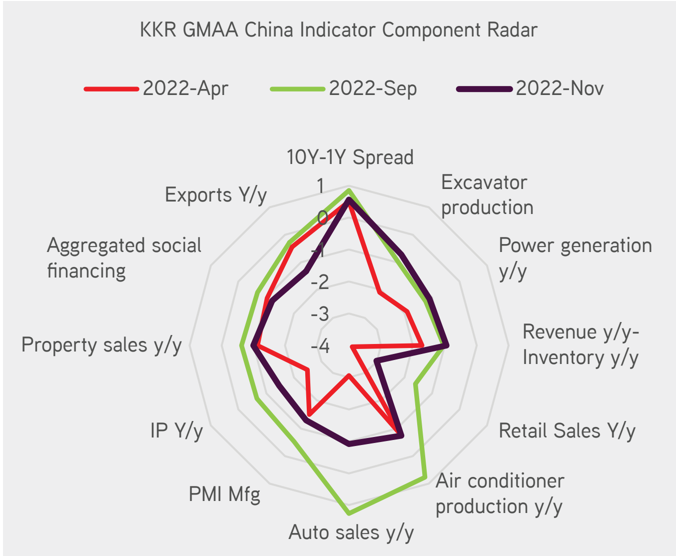
With a Smaller Drag From the Property Sector and Zero-COVID Policy, China GDP Growth Should Re-Accelerate in 2023



Data as at December 15, 2022. Source: WIND, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 38

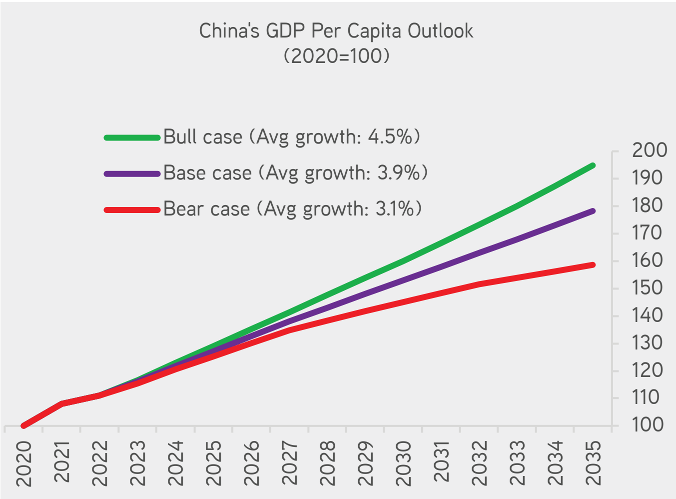
Retail (Incl. Auto) Sales and Home Appliance Production Have Turned Weaker of Late, Headwinds We Expect to Ease in 2023



Data as at December 15, 2022. Source: Wind, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 39

China's GDP per Capita Growth Will Slow to the Four Percent Range as the Economy Shifts Focus Towards Services



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

Maybe more importantly, China's share of global exports has increased to 15.0% today from 12.9% in May 2018. In other words, decoupling from China is proving more challenging than the rhetoric, and implementation of more regional supply chains will take time. According to the U.S.-China Business Council's 2022 survey, China remains a priority for doing business for 97% of respondents, and a top five priority for 77% of respondents.

Exhibit 40

Growth Is Slowing Across Most of Asia, With Korea, China, and Indonesia Closest to Recovery

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

We also wanted to flag that, despite all of the rhetoric around U.S.-China tensions and decoupling between East and West of late, China has actually become more integrated into the global economy in many instances. Indeed, when former President Trump imposed tariffs of 15% to 25% on China's exports to the U.S., trailing 12 months U.S. imports from China amounted to $526 billion. As of 3Q22, that amount stands at $568 billion, an increase of eight percent. *Maybe more importantly, China's share of global exports has increased to 15.0% today from 12.9% in May 2018*. In other words, decoupling from China is proving more challenging than the rhetoric, and implementation of more regional supply chains will take time. According to the U.S.-China Business Council's 2022 survey, China remains a priority for doing business for 97% of respondents, and a top five priority for 77% of respondents.

Exhibit 41

U.S. Imports From China Have Actually Increased Eight Percent Since the Start of the U.S.-China Trade War

As at Sep 30, 2022. Source: U.S. Census Bureau, IMF, Haver Analytics.

Exhibit 42

China's Share of Global Exports Has Increased by +220 Basis Points Since May 2018. A Similar Story Can't Be Told in the United States

As at July 31, 2022. Source: IMF Direction of Trade, Haver Analytics.

Key Big Picture China and Asia Takeaways

1	Many factors weighing on China have reached peak pain and should begin to improve from here, including an exit path from zero-COVID and less of a drag from the property market (-0.5 ppt in 2023 vs. -2.9 ppt in 2022) now that the Authorities have stepped in.
2	Consumption should also begin to improve from near record low levels, as mobility increases (retail sales are currently 12% below trend).
3	In Japan, valuations are attractive (30% of companies trading below book value) on a long-term structural basis and the economy is about half way through the growth slowdown. The weak yen has improved competitiveness for Japanese products and services. Despite the recent strengthening, the yen is still extremely cheap at 40% below its average real effective exchange rate.
4	From a valuation perspective, Asia looks attractive as P/E is down approximately 60% vs. 'just' 40% in the U.S. Overall earnings are flat in Asia, but China credit growth has turned positive, which likely means the rest of Asia will soon follow. Revisions too are now turning positive.
5	However, geopolitical risks remain an overhang across the region and as such necessitate an added risk premium when thinking about returns. Aligning with long-term government objectives, particularly in China, remains important.

Section II: Key Macro Inputs

U.S. Rates

In our view, Fed policy in 2023 will be defined by how the FOMC balances two competing imperatives: 1) cooling what remains an overheated labor market, versus 2) managing the potential adverse impacts of further tightening on the housing market, which is already showing overt signs of weakness. On the one hand, the U.S. worker shortage is getting worse on a secular basis, in our view, which means that the Fed will likely need to deliver more tightening over the course of this cycle than markets currently expect. On the other hand, we do not think the housing market can tolerate short-term rates holding above five percent on a sustained basis.

Our base case envisions the Fed 'threading the needle' between these two constraints, with rates rising modestly in the near term, but then staying higher for longer as policymakers seek to contain inflationary impulses in the labor market. We think this approach would be consistent with Chairman Powell's recent comment that policymakers are focused on effecting 'persistent moves', rather than 'short-term moves', in financial conditions.

Specifically, we see the Fed hiking rates to the low five percent range next year before cutting slightly as inflation and GDP slow heading into year-end. More precisely, we forecast short rates peaking out at 5.125% in 2Q23 and ending 4Q23 at 4.875%. Thereafter, our base case envisions the Fed's policy rate drifting toward a higher resting 'neutral' level, hitting 4.125% at year-end 2024 and 3.375% at year-end 2025 before settling around 3.125% in 2026 and beyond.

How do we arrive at these forecasts? Our models suggest that fed funds holding above the low five percent range on a sustained basis would push mortgage rates into the mid-seven percent range – which is above the seven percent threshold that our proprietary KKR 2022 Homebuyer Survey indicated would lead most active homebuyers to abandon their searches. Mortgage rates at that level would also put more pressure on housing affordability, which is already at a 40-year low *(Exhibit 44)*. In that scenario, we think that homebuyers stepping back from the market would flow through into materially lower home prices and weaker consumer balance sheets, increasing the risk of a more jarring U.S. economic downturn. As such, housing market dynamics imply a 5.125% 'speed limit' for fed funds this cycle, we believe.

On the other hand, we think that the Fed is increasingly concerned about what Chairman Powell called a 'structural labor shortage' putting sustained downward pressure on U.S. unemployment, as a demographics-driven slowdown limits the number of young people joining the labor force, while the effects of early retirements during COVID continue to impact the availability of older workers. Said differently, it seems likely that U.S. wage growth has experienced a level-shift higher during the pandemic, which means that the Fed will need to hold rates higher for longer to meet its dual mandate of low unemployment and low inflation, in our view. That aligns with our analysis in *Exhibit 46*, which suggests that the Fed will need to hold rates near five percent through late 2023 in order to bring inflation closer to its two percent target.

If we are right, then the good news is that the 'fat tails' of much higher or much lower rates are narrowing. However, there are still serious upside risks to consider, particularly for the next 12-18 months. To capture these risks, we have built a detailed scenario analysis for our deal teams. One can see this in *Exhibit 43*, which shows that we still see a cumulative 35% chance that the Fed raises rates to the high-five percent range next year (i.e., higher than our base case of 5.125%, which we assign 55% weighting). We believe a more aggressive Fed tightening cycle could occur either:

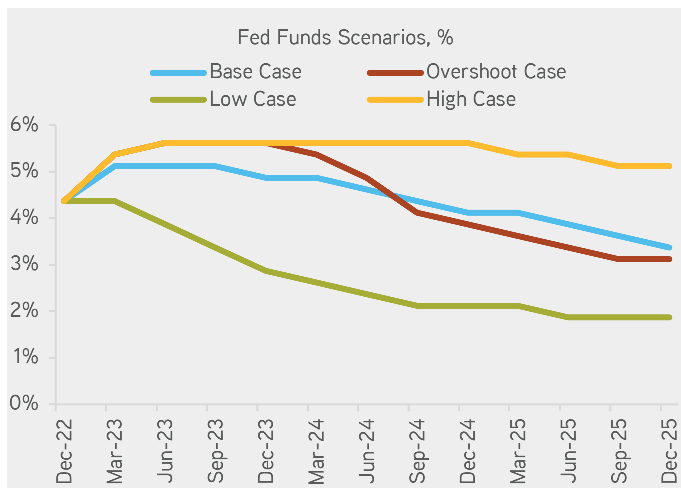
1. Because the relationship between housing markets and interest rates is weaker than we expect and higher rates are required to cool inflation (our 'High' case); or

2. Because the Fed overtightens in the near-term and is then forced to cut as the housing market deteriorates (our 'Overshoot' case).

Both of these risks demand serious consideration, which is why we encourage investors to hedge exposure to higher rates in the near term if possible. Importantly, though, our framework suggests that upside risks to our base case should diminish over time, particularly as the lagged effects of balance sheet policy begin to play out in the real economy. As a result, the term premium on U.S. bonds, which compensates investors for longer-term uncertainty, should diminish, too.

Exhibit 43

Our Forecasts Show a Wide Dispersion in the Path of Fed Funds, Especially Over the Next 12 Months



Data as at December 17, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Both of these risks demand serious consideration, which is why we encourage investors to hedge exposure to higher rates in the near term if possible.

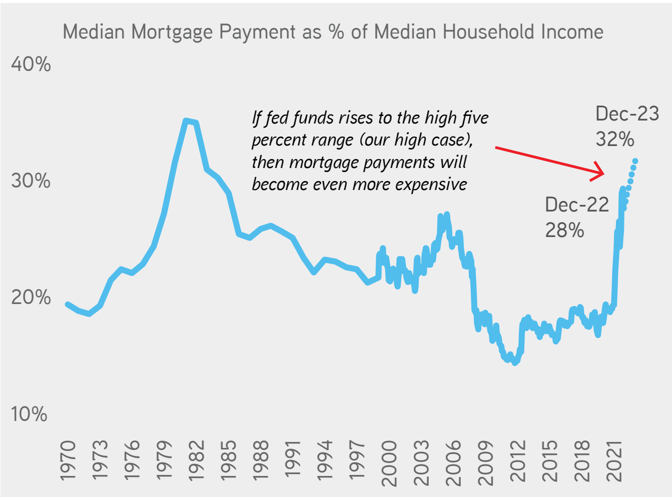
Fed Funds Scenarios, %

Scenario	Year-End 2023 FF	Year-End 2024 FF	Year-End 2025 FF	Longer-Run	Comments
Base Case (55% chance)	4.88%	4.125%	3.38%	3.13%	• In our base case, the Fed continues to hike rates through mid-year 2023, peaking just above five percent and ending the year slightly lower in the high four percent range. • In 2024 and 2025, the Fed has room to cut rates modestly in response to falling inflation and motivation to do so from a housing-market slowdown, but policymakers still ride the brake with a higher 'neutral' rate for fed funds at 3.125% in 2026 and beyond.
Overshoot Case (15% chance)	5.63%	3.88%	3.13%	3.13%	• A re-acceleration in inflation and consumer inflation expectations lead the Fed to continue hiking aggressively in 2023 even as the U.S. economic backdrop softens. • Ultimately, the Fed hikes too far in a slowing GDP environment and is forced to cut aggressively in 2024 as financial/ economic conditions worsen and home prices turn over.
Low Case (10% chance)	2.88%	2.13%	1.88%	1.13%	• We assume a worsening recession that cools inflation significantly by the end of 2023, with services activity falling along with goods. • In this case, we are wrong about a 'different kind of cycle' and return to an environment of secular stagnation, with the Fed chasing nominal GDP growth lower.
High Case (20% chance)	5.63%	5.63%	5.13%	4.88%	• Similar to the overshoot case, inflation/ employment pick back up next year, and the Fed continues to hike aggressively in 2023 to prevent a wage-price spiral. • Unlike the overshoot case, the housing market proves resilient to higher rates and we avoid a severe recession, meaning the Fed holds rates much higher than markets expect both in the near and long run to control very sticky inflation.

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

Exhibit 44

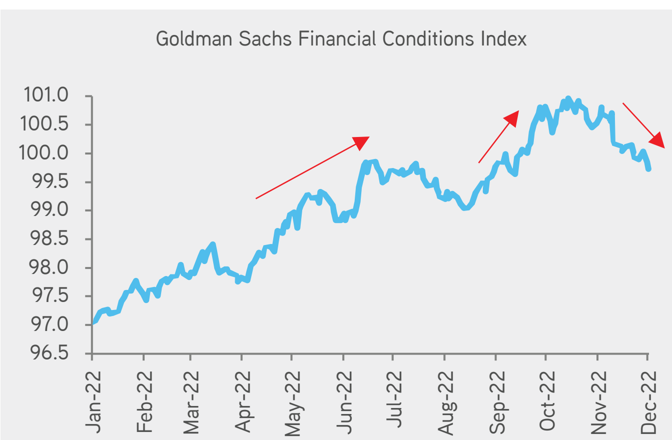
Existing Mortgage Owners Are in Far Better Shape Than Those Now Looking to Secure One



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

Exhibit 45

Financial Conditions Have Actually Eased Since the October CPI Print, Even Though Fed Communications Have Been Hawkish

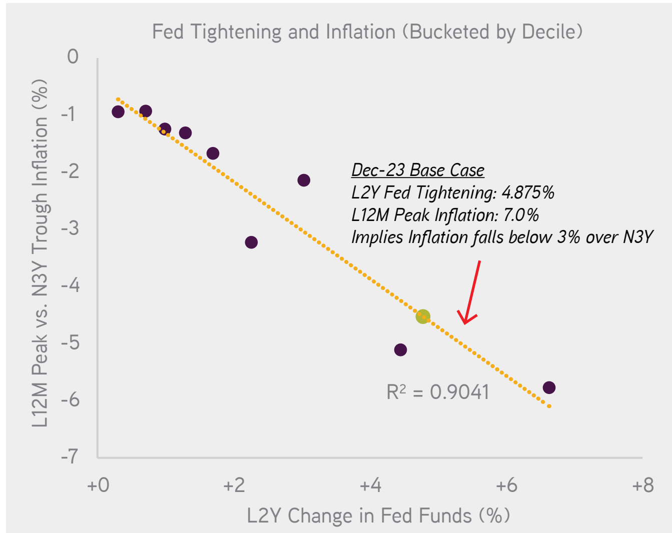


Data as at December 2, 2022. Source: Bloomberg.

In thinking through the upside risks to rates, the key area of focus for investors is wage growth.

Exhibit 46

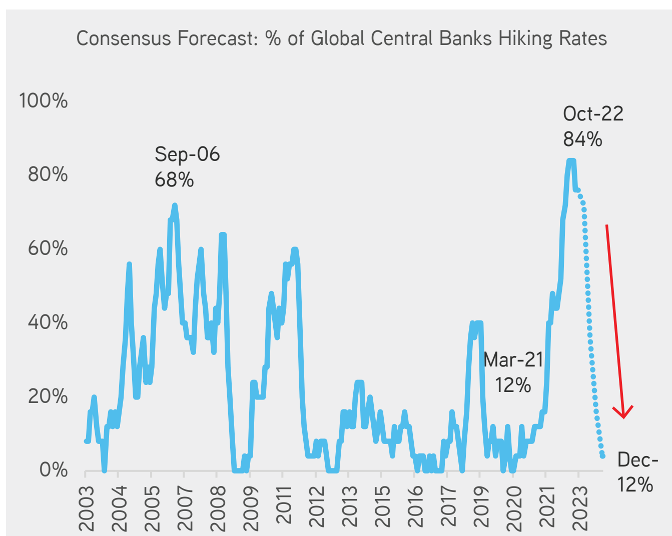
Cumulative Fed Tightening of 4.875% in Two Years, If Sustained Through 2023, Should Push Inflation Down Towards Three Percent



Data as at November 7, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 47

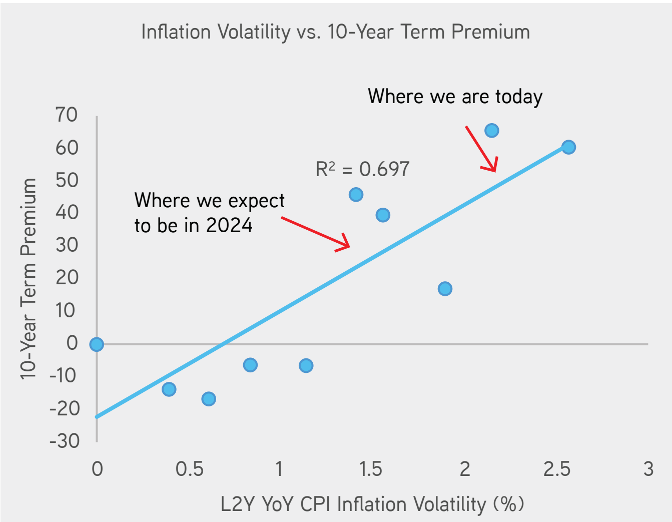
Global Central Banks Have Chopped a Lot of Wood and Are Likely Close to the End of Their Tightening Campaign



'Hiking' defined as an increase in the policy rate over the last three months. Uses Bloomberg consensus forecast for top 25 global central banks excluding the Federal Reserve. Data as at November 27, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 48

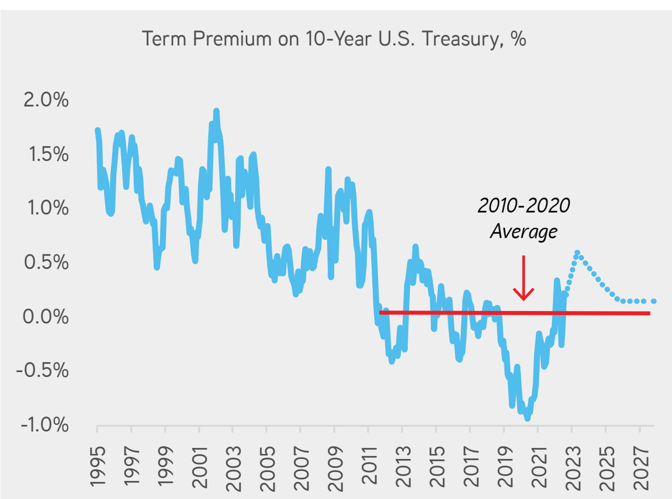
Inflation Volatility Would Suggest the 10-Year Term Premium Should Rise to 50 Basis Points This Cycle Before Drifting Lower



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

Exhibit 49

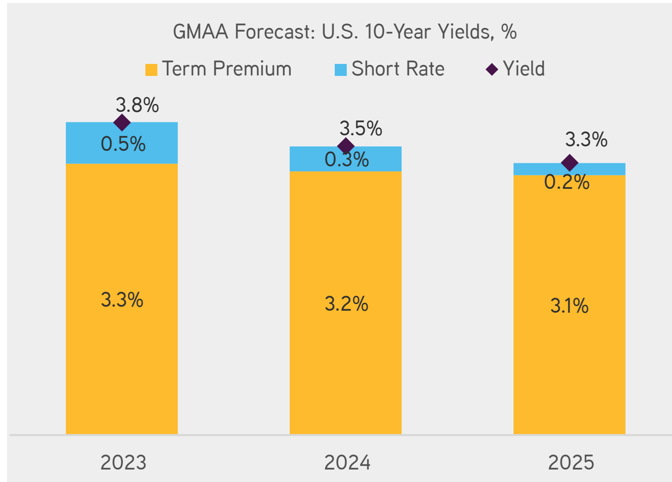
Bigger Picture, We Think the Term Premium Will Remain Elevated Relative to Recent History



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

Exhibit 50

Our Forecasts Show 10-Year Yields Settling at 3.25% in 2025 and Beyond



Data as at December 13, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Accordingly, at the long end of the curve, my colleagues Dave McNellis and Ezra Max think 10-year treasury yields will end 2023 at 3.75%, versus 4.25% in our previous forecast. Thereafter, we have 10-year yields drifting towards 3.25% over the longer-term. One can see our forecasted progression for long-term rates in *Exhibit 50*. The key input here is our expectation for the term premium to rise toward 50 basis points in the near term to reflect heightened uncertainty around the path of fed funds, before gradually drifting toward 20 basis points through 2025 (which is still well above the 2010-2020 average of just 1.5 basis points, as shown in *Exhibit 49*). Their call for a higher average term premium this cycle reflects several factors, including 1) the fact that inflation remains elevated and volatile, 2) the larger outstanding stock of U.S. debt, particularly in light of Fed QT, and 3) structurally lower investor appetite for duration as a 'shock absorber' following what has been the worst 60/40 portfolio performance in roughly 100 years.

So, what's our bottom line? The good news is that we think central banks are getting closer to the ultimate peak level of interest rates this cycle, led by the Fed (*Exhibit 47*), which helps take some of the worst-case scenarios for equity multiples off the table. On the other hand, both short rates and bond yields will likely remain higher on the other side of this hiking cycle than most market participants are used to. Said differently, our summary expectation is that the U.S. rates outlook will stop being a headwind for markets over the next 6-12 months, though we do not envision Fed policy becoming a tailwind the way it has in recent cycles.

European Rates

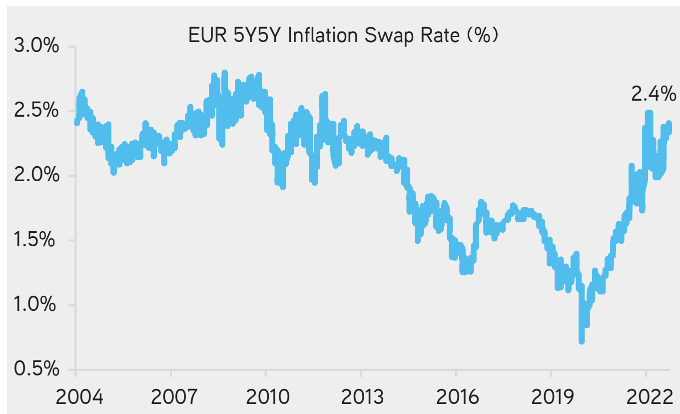
We see the ECB deposit rate topping out at 3.5% in 2023, and then we have it remaining there through the end of 2024. By contrast, market pricing currently implies a depo rate peak at around 3.25% in 2Q23, with the first rate cuts in 2Q24. We also believe the 10-year bund yield will rise to three percent in 2023 and stay there through 2024. This view continues to be an important area of differentiation for us, as the consensus for the 10-year bund is for two percent at end-2023 and end-2024.

It's important to note that our forecasts imply 50 basis points of yield curve inversion from the depo rate to the German 10-year. This forecast reflects our assumption that the long-term neutral rate for the depo rate is 2.25%, and that the ECB will be forced to cut rates to that level starting in 2025. Given this, the 10-year rate is likely to stay below the depo rate, but we believe only about 50 basis points below, as quantitative tightening will keep upward pressure on rates at the long end of the curve.

Importantly, the ECB is also about to begin quantitative tightening, or QT, as early as March, as President Lagarde guided in the December meeting. QT is particularly challenging in Europe, we believe, because there are 19 bond markets for the central bank to consider. Some peripheral markets, notably Italy, have inherent weaknesses that may drive rates there above what the ECB desires for monetary policy reasons. Policymakers do have a couple of levers under the QT umbrella and will likely not apply QT to the ECB's entire bond portfolio at once (likely stopping the reinvestment of maturing securities in the Asset Purchase Program – representing 60% of the total volume of bonds it holds – but continuing to reinvest under the Pandemic Emergency Purchase Program – which holds 40% of QE bonds).

Exhibit 51

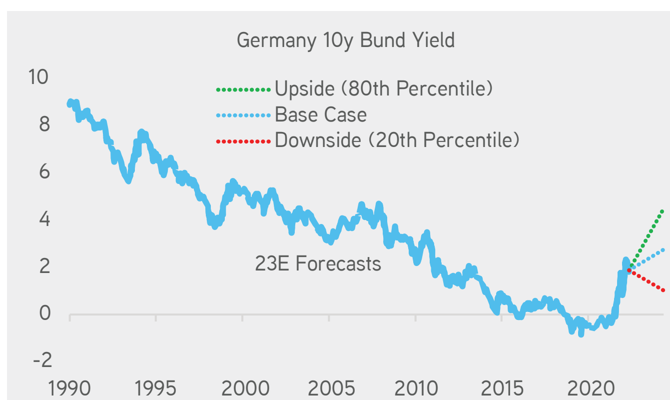
Inflation Expectations Have Not Become De-anchored



Data as at December 12, 2022. Source: Bloomberg.

Exhibit 52

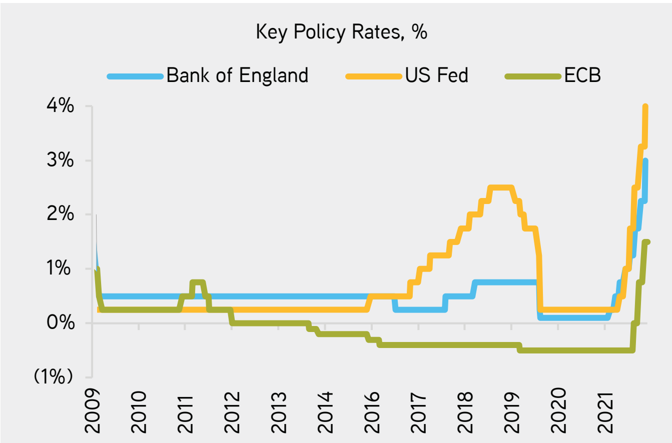
We Believe the Upward Inflection in Bund Yields Has Further to Go



Data as at December 12, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 53

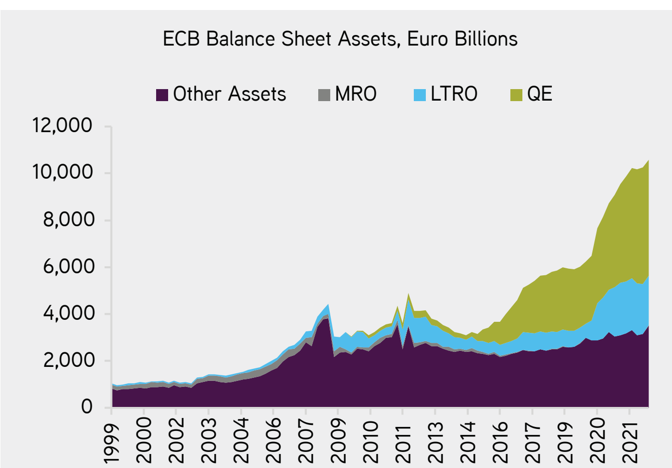
The ECB Has Ended Eight Years of Negative Interest Rate Policy. Alongside Its Global Peers, the ECB Is Now Reversing Course on Its Short-Term Rate Strategy



Note: UST refers to U.S. 10-year Treasury Bond. Data as at November 25, 2022.
Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 54

The ECB Balance Sheet Has Nearly Tripled Since the Eurozone Debt Crisis



Data as at November 8, 2022. Source: ECB.

Bigger picture, regarding ECB policies, there are two opposing forces at play: 1) the risk of a de-anchoring of inflation expectations (i.e., a cycle in which higher consumer expectations become self-fulfilling) and 2) flagging economic activity. Importantly, industrial output has held up better than feared this year despite higher energy costs, while governments have unrolled large, un-targeted fiscal stimulus to help protect households. We believe these developments will give the hawks the upper hand to enforce a focus on #1, and to try to control inflationary concerns by erring on the side of more restrictive policy.

In thinking through the upside risks to rates, the key area of focus for investors is wage growth. So far, households have been taking meaningful real wage cuts amidst surging inflation. However, if employees begin to demand wage growth well in excess of inflation in 2023, then we would expect a strong hawkish reaction from the ECB. On the other hand, our dovish scenario rests on a deeper-than-expected recession increasing slack in the economy and opening up the possibility of medium-term weakness in inflation.

S&P 500

How are we looking at the path forward for the S&P 500? We expect a bumpy ride towards our year-end 2023 S&P 500 price target of 4,150. Our frameworks still point to an earnings recession next year, as the full impact from the Fed tightening cycle this year is still working its way through the economy. Even so, we recommend buying into market dislocations that arise in coming months, as risk assets will likely start discounting a recovery in 2024 by the second half of 2023, in our view. While U.S. large-cap equity valuations are not unambiguously cheap, their long-term expected returns have already improved significantly since the start of the year (to six to seven percent per annum from one to two percent in December 2021). In addition, our analysis of significant market breaks since 1940 suggests that investors with patient capital are generally rewarded over the next three to five years for leaning into dislocations of the magnitude we have seen this year (*Exhibits 3* and *91*).

Exhibit 55

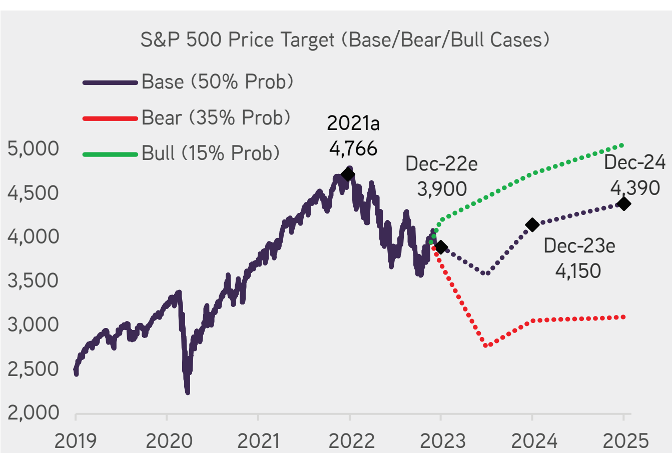
Given the Highly Volatile Macro Environment, We Include a Bear Case and a Bull Case to Account for a Wider Range of Outcomes

S&P 500 Price Target Scenarios				
	Base (50% Prob)	Bear (35% Prob)	Bull (15% Prob)	Weighted Average
Current = 3,950				
2023 Year-End Target	**4,150**	**3,060**	**4,730**	**3,855**
P/E on 2024 EPS	17.7x	15.1x	18.6x	17.0x
2024 Year-End Target	**4,390**	**3,100**	**5,060**	**4,039**
P/E on 2025 EPS	17.3x	14.2x	18.6x	16.5x
2021a EPS	$209	$209	$209	$209
2022e EPS	$222	$221	$224	$222
2023e EPS	$200	$182	$238	$200
2024e EPS	$235	$202	$255	$227

Data as at November 21, 2022. Source: KKR Global Macro & Asset Allocation analysis, Bloomberg, Haver Analytics.

Exhibit 56

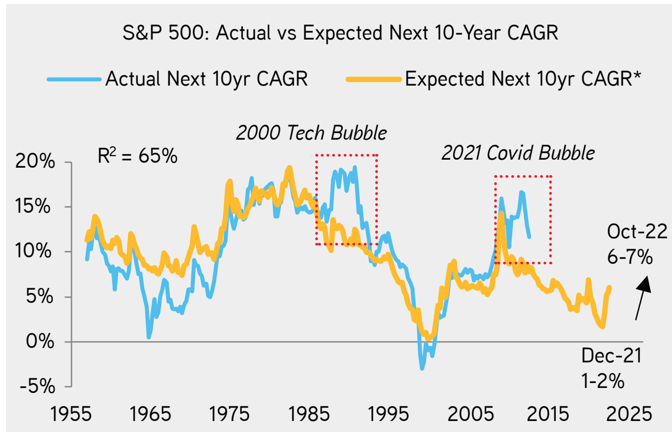
Under Our Base Case, We Expect the S&P 500 to Deliver Moderate Returns Over the Next Two Years, Ending 2023 and 2024 at Around 4,150 and 4,390, Respectively



Data as at November 21, 2022. Source: KKR Global Macro & Asset Allocation analysis, Bloomberg, Haver Analytics.

Exhibit 57

A Simple Cyclically-Adjusted Price-to-Earnings (CAPE) Model Suggests the S&P 500 Can Return 6-7% Per Annum Over the Next 10 Years, a Big Improvement From 1-2% Back in December 2021



*Shows the expected next 10-year annualized total returns for the S&P 500 based on cyclically-adjusted price-to-earnings model (CAPE). Data as at November 30, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Our Base Case (50% probability): We assume a central bank-induced U.S. recession – albeit a modest one – leads to a 10% earnings decline in 2023 (with EPS falling to $200 per share), which we think is an outcome that the market has not yet fully digested, particularly given that the bottom-up consensus still expects plus four percent growth. Key to our thinking is the following:

1. Increasing conviction that the ISM manufacturing index will fall further into contraction territory next year (*Exhibit 58*).

2. The typical post-war earnings decline during mild U.S. GDP recessions has been around 10% on average (*Exhibit 59*).

3. With 30 year fixed mortgage rates having risen above six percent from a low of around three percent in late 2021, home purchase affordability has deteriorated at a record rate. As such, we expect housing-related economic activity—which accounts for roughly 20% of U.S. GDP—to slow significantly next year.

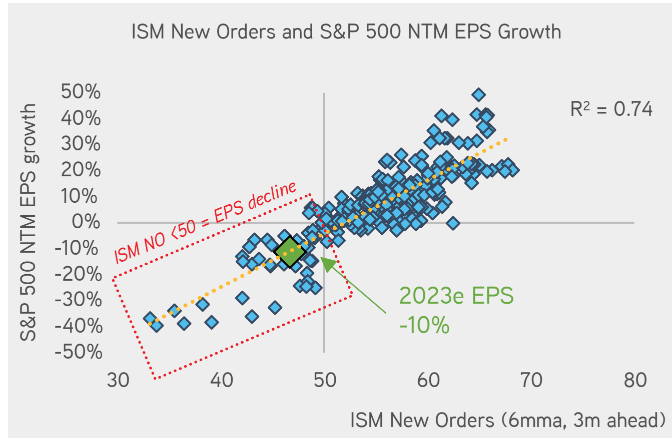
From a fundamental perspective, we expect margins to come under pressure as a sharp slowdown in nominal GDP growth is likely to coincide with sticky wage inflation and weaker labor productivity (*Exhibit 60*). This backdrop, we believe, will limit how much companies can continually raise prices to offset elevated input cost pressures. Moreover, as we have been highlighting for some time, our Earnings Growth Lead Indicator (EGLI) suggests that earnings will be challenged in 2023. In fact, as *Exhibit 62* shows, our forecast for -10% earnings growth in 2023 is actually less aggressive than the model, given our view that the energy input might be overstated.

Against this backdrop, we are publishing our 'official' price target for the S&P 500 of 4,150 for 2023 and 4,390 for 2024. **Included in these forecasts are target multiples of 17.7x for 2023 and 17.3x for 2024, respectively**. To be sure, these targets represent only moderate upside from current trading levels. However, we do not think investors should expect a raging equity bull market under almost any scenario in the current macro regime, which now reflects a combination of higher real interest rates, more competitive yields on Credit and Real Assets, and a Federal Reserve that remains comfortable with tighter financial conditions, given stickier and more volatile inflation. All these factors will continue to keep a lid on valuation multiples, in our view.

From a fundamental perspective, we expect margins to come under pressure as a sharp slowdown in nominal GDP growth is likely to coincide with sticky wage inflation and weaker labor productivity. This backdrop, we believe, will limit how much companies can continually raise prices to offset elevated input cost pressures.

Exhibit 58

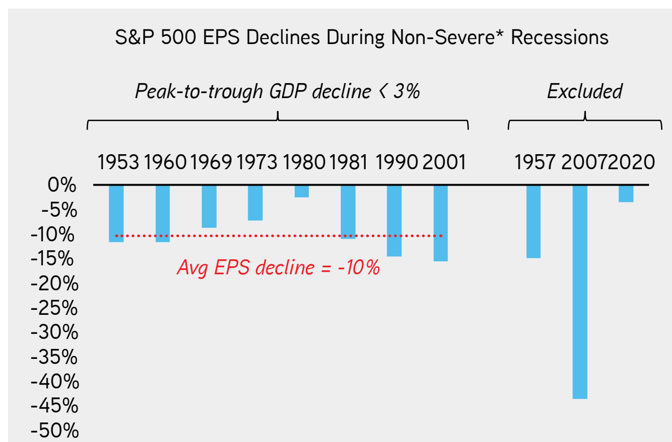
We Expect ISM New Orders to Fall into the Low 40s Next Year, Which Is Consistent with Around 10% EPS Contraction



Data as at November 30, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 59

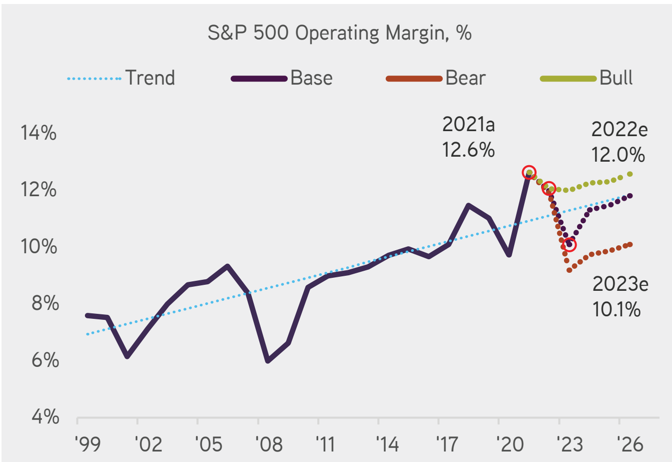
Since World War II, Mild U.S. GDP Recessions Have On Average Resulted in About 10% Peak-to-Trough EPS Drawdowns



We define a mild U.S. recession as a peak-to-trough GDP decline of 3% or less. Data as at November 30, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 60

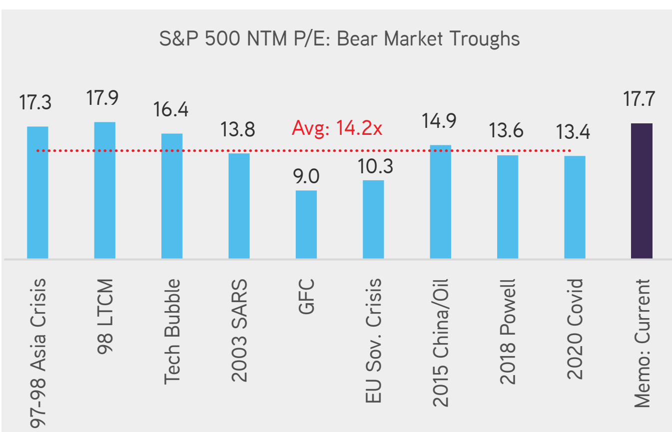
Fundamentally, Our S&P Outlook Is About Slowing Nominal GDP Growth, Flagging Labor Productivity and Sticky Wage Inflation Driving Margin Degradation in 2023



Data as at November 30, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 61

During Prior Bear Market Troughs, S&P 500 NTM P/E Has Traded Down to 14-15x on Average



Data as at November 30, 2022. Source: Bloomberg, MS Research, KKR Global Macro & Asset Allocation analysis.

We also augment our base case with probabilistic bear and bull cases *(see Exhibit 55)* to account for the more volatile macro environment:

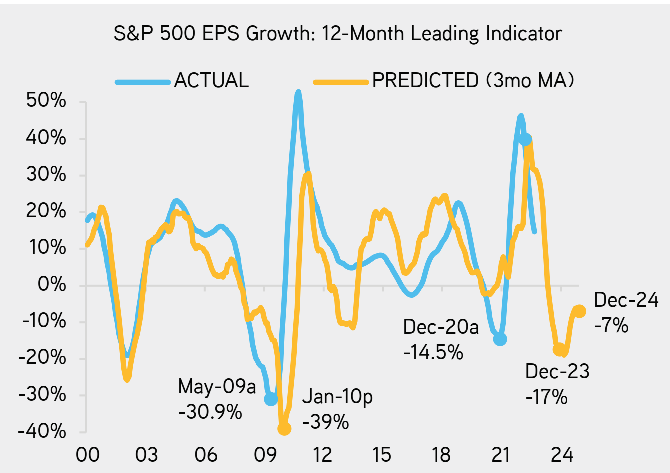
Our Bear Case (35% probability) assumes that an aggressive hiking cycle drives the U.S. economy and the housing market into a more severe economic recession. The Fed is unable to pivot and keeps the terminal rate higher for longer owing to un-anchored inflation expectations and persistent realized inflation. Corporate margins collapse to 10-year lows, driving an 18% earnings decline in 2023. In the face an elevated risk premium and a higher discount rate, the S&P 500 fair value would be closer to 3,050-3,100 in 2023 and 2024, which is in-line with prior bear market troughs of 14-15x NTM P/E –*Exhibit 61*.

Our Bull Case (15% probability) assumes that inflation eases faster than expected, allowing the Fed to engineer a soft landing for the U.S. economy. Robust household balance sheets prop up consumer spending, while an acceleration in re-shoring activity boosts investment and productivity. Corporate margins stay near highs, with earnings growing approximately five percent in 2023, helping to drive a swift decline in the equity risk premium. Under this scenario, the S&P 500 could rally back towards 4,730 by end-2023 and new highs of 5,060 by end-2024 (consistent with 18-19x NTM P/E).

So, our bottom line is that Equities, as measured by the S&P 500, represents modest value in today's market. By comparison, small cap stocks and Credit appear much more attractive. See SECTION III for more details on relative value. That said, for longer-term investors, we think that 25% or more corrections, which we recently just experienced, should be bought, not sold, and as such, we continue to advocate for steady deployment throughout 2023, especially if we are right that markets become choppy during earnings season in the first half of the year.

Exhibit 62

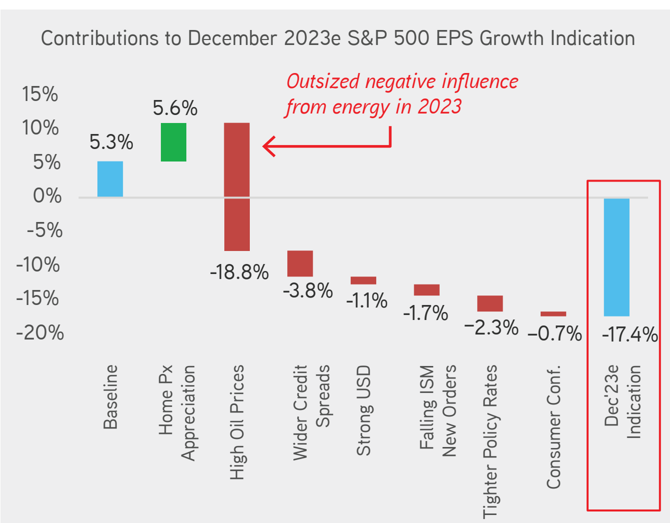
Our S&P 500 Earnings Indicator Points to an Extended Period of Negative Growth



Our Earnings Growth Leading Indicator combines seven macro inputs that we believe in combination have significant explanatory power regarding the S&P 500 EPS growth outlook. Data as at November 15, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 63

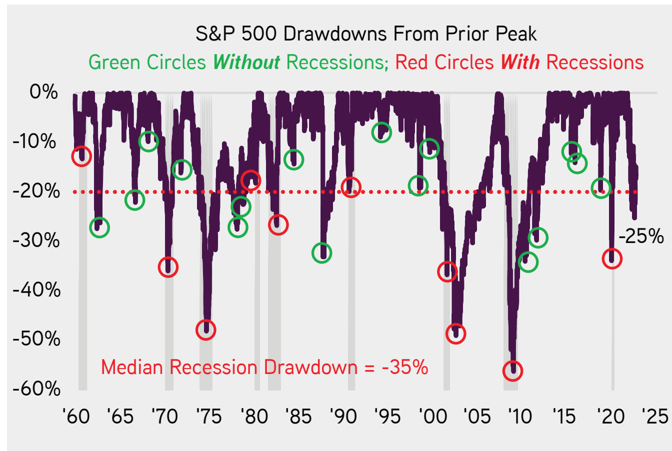
Energy Has an Outsized Negative Influence on the Model for 2023



Our Earnings Growth Leading Indicator combines seven macro inputs that we believe in combination have significant explanatory power regarding the S&P 500 EPS growth outlook. Data as at November 15, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Exhibit 64

Barring a Banking Crisis, We Think the Market Has Largely Discounted a Mild Recession in 2023



Note: Based on data from the prior 12 equity bear markets going back to the 1940s. Source: KKR Global Macro & Asset Allocation analysis, Bloomberg, Haver Analytics.

As we look towards 2023, our expectation is that more volatility lies ahead, as we transition from the adverse impact of inflation on multiples towards its negative impact on earnings growth, margins in particular. Interestingly, as we looked to forecast earnings for 2023, our fundamental, historical and quantitative approaches all suggested around a 10% decline in earnings. The good news, however, is that, with the market having sold off meaningfully in 2022, we think the current environment actually provides an attractive entry point for long-term investors. Moreover, there is also a relative game to play too. Specifically, we see a significant opportunity for allocators to invest behind companies with defendable margins and/or sectors like Big Pharma, Energy, and Industrials that are not over-owned by institutional and individual investors at a time when multiples look more reasonable than earnings forecasts.

Oil

Even amidst fundamental headwinds related to slowing economic growth, a strong dollar, and shifting consumer behavior in response to high prices (e.g., U.S. gasoline demand has dipped down to levels last seen in the immediate aftermath of pandemic lockdowns in 2H20), we remain constructive on the outlook for energy and energy-related investments in 2023 and longer term. As shown in *Exhibit 65*, we look for an average WTI crude price of $82.50 in 2023 and $80 over the longer term in 2024-26. These estimates are well above futures strip pricing, which embeds $72 on average in 2023 and around $65 over the longer term.

Looking at the details, global crude inventories remain notably lean (*Exhibit 66*), which leaves the market without a good buffer against a number of upside risks for oil in 2023. These upside risks include 1) potential shortfalls of Russian supply related to EU embargoes; and 2) potential outruns of oil demand if global jet fuel consumption (which remains around two million barrels per day below 2019 levels) and/or Chinese demand (which is still about one million barrels per day below peak levels) come back more quickly than expected. These risks loom at a time when little swing supply is available, given that OPEC is already producing near peak capacity, and the U.S. Strategic Petroleum Reserve has fallen to the lowest levels in 40 years on a demand-adjusted basis.

Exhibit 65

We See Upside to Futures Pricing for 2023, and Think Long-Term Average Prices May Now Run Closer to $80, vs. $50-60 Pre-Pandemic

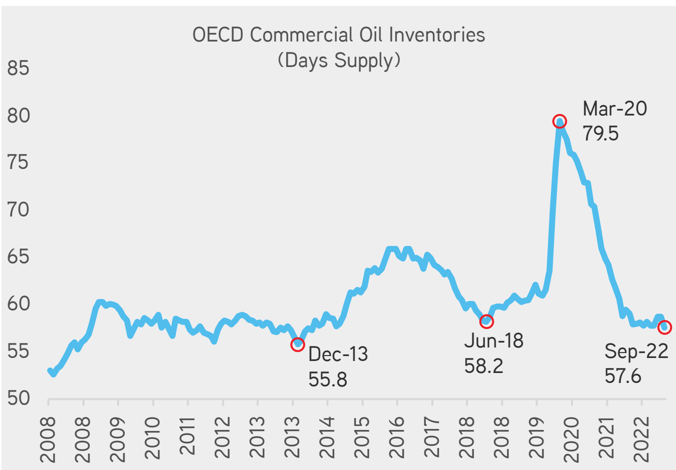
	GMAA Base Case vs. Futures			High/Low Scenarios		Memo: Prior Forecasts		
	KKR GMAA (Dec'22)	WTI Futures (Dec'22)	Dec'22 Forecasts GMAA vs. Futures	KKR GMAA High Case	KKR GMAA Low Case	KKR GMAA (Nov'22)	WTI Futures (Nov'22)	Nov'22 Forecasts GMAA vs. Futures
2019a	**57**	**57**	**0**	57	57	57	57	0
2020a	**39**	**39**	**0**	39	39	39	39	0
2021a	**68**	**68**	**0**	68	68	68	68	0
2022e	**94**	**94**	**0**	96	92	96	95	1
2023e	**83**	**72**	**11**	125	55	95	81	14
2024e	**80**	**70**	**10**	100	60	80	74	6
2025e	**80**	**68**	**12**	100	60	80	70	10
2026e	**80**	**65**	**15**	100	60	80	67	13

Latest forecasts as of December 8, 2022. Prior as of November 1, 2022. Forecasts represent full-year average price expectations.

Our bottom line for 2023 is that we think WTI crude continues in a wide and volatile trading range, but one that skews higher than the $72 average currently embedded in market pricing. Overall, we expect pricing to oscillate between $70-110, averaging around $82.50. We view $70 as a near-term support level, as OPEC seems inclined to defend this price, and because the Biden administration has also committed to prop up global demand by refilling the SPR at around this level. These factors create important support at a level we might otherwise think the market could breach, given what remains a fundamentally weak backdrop for demand *(Exhibit 67)*. Meanwhile, we use $110 as the high end of our range, because that is a typical level for oil at times of lean inventories and geopolitical-related risks such as those discussed earlier. $110+ is also an approximate level where we see more pronounced demand destruction risks.

Exhibit 66

Crude Oil Inventories Have Tightened to the Lowest Levels Since 2013, But…

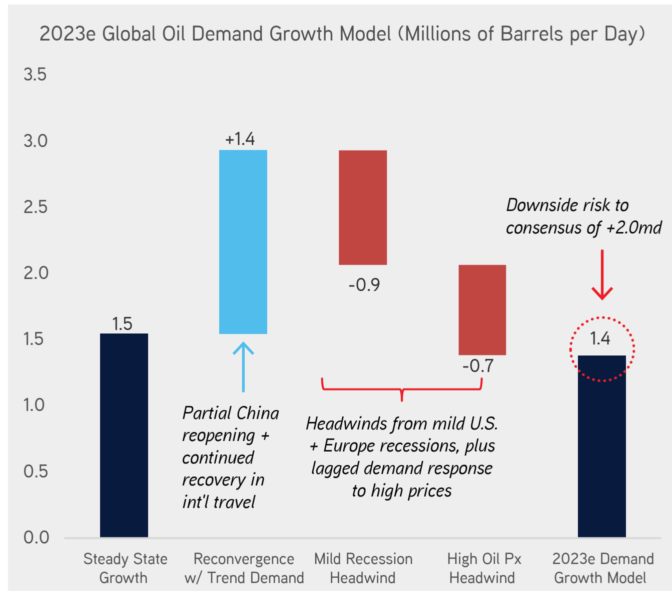


Data as at September 23, 2022.Source: Energy Intelligence, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Looking beyond 2023, we think of $80 as being the 'new' mid-point of the long-term trading range for oil, up from the approximate $50-60 range that generally prevailed in the pre-pandemic era. What has changed, in our view, is that the marginal cost of U.S. shale production – which we think remains the key driver of incremental global supply – has shifted higher. We see several factors driving this structural shift, including: 1) a higher cost of capital, given uncertainty around how the energy transition will shape regulation and long-term demand, 2) a higher cost of drilling, given scarcities of equipment and labor, and 3) a higher premium placed by the market on firms that return capital versus reinvest it.

Exhibit 67

….Our Demand Growth Model Suggests Potential Downside Risk to Consensus Estimates



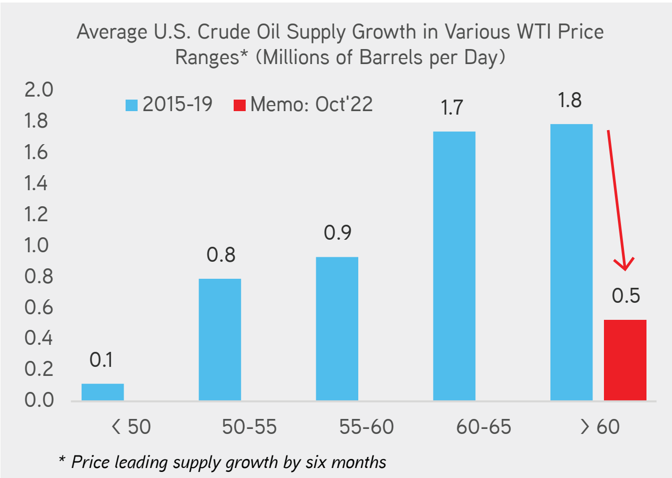
Data as at September 21, 2022. Source: EIA, UBS Research.

Given these considerations, we now see U.S. oil production running well below what one would normally expect in the recent elevated environment for crude prices *(Exhibit 68*). We see this as having constructive implications for energy and energy-related equities, which in many cases continue to price at double-digit free cash flow yields that look sustainable as long as oil can hold in the constructive range that we envision.

Looking beyond 2023, we think of $80 as being the 'new' mid-point of the long-term trading range for oil, up from the approximate $50-60 range that generally prevailed in the pre-pandemic era. What has changed, in our view, is that the marginal cost of U.S. shale production has shifted higher.

Exhibit 68

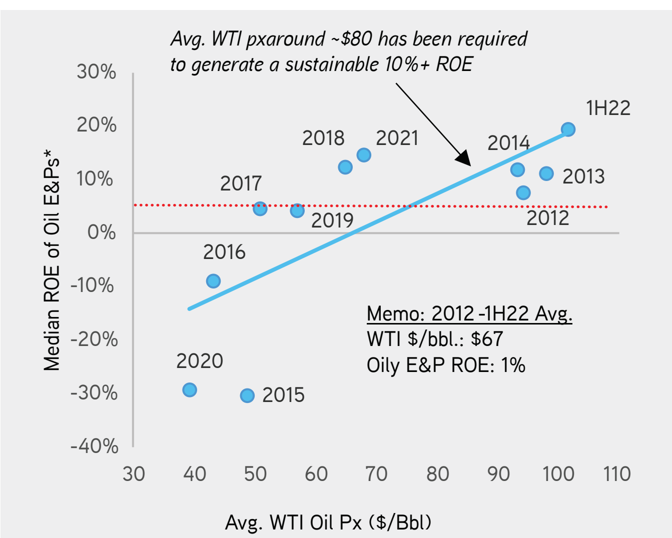
U.S. Production Growth Is Running Far Below What One Would Normally Expect in an Elevated Price Environment



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

Exhibit 69

In a World Where Shale Producers Are Disciplined About Return on Capital, We Think WTI Prices Are Likely to Average Around $80 Over the Longer Term



* Median of COP, EOG, PXD, OXY, FANG, APA, PDCE, MGY, MUR, DEN, CIVI, CRC, SM, CDEV, TALO. Data as at August 2, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

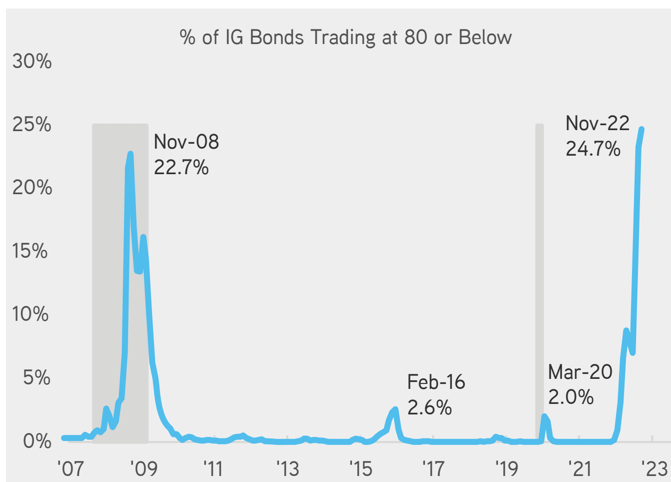
Section III: Our Most Asked Questions

Question #1: How are you thinking about relative value, including Credit versus Equities?

In recent months we have spent a lot of time as a team alongside our portfolio managers looking at relative value across both Equities and Credit. Overall, our models tell us that now is the time to begin to lean into risk assets. Indeed, as we show in *Exhibits 70* and *71*, a fair amount of bad news has been priced into markets unless one thinks a 2008-style banking collapse is imminent. We don't see that type of de-leveraging, and as result, we are suggesting going from a 'jog' to even a 'run' in terms of deployment by the end of 2023.

Exhibit 70

Credit Has Traded Down Materially Based on Inflation Fears

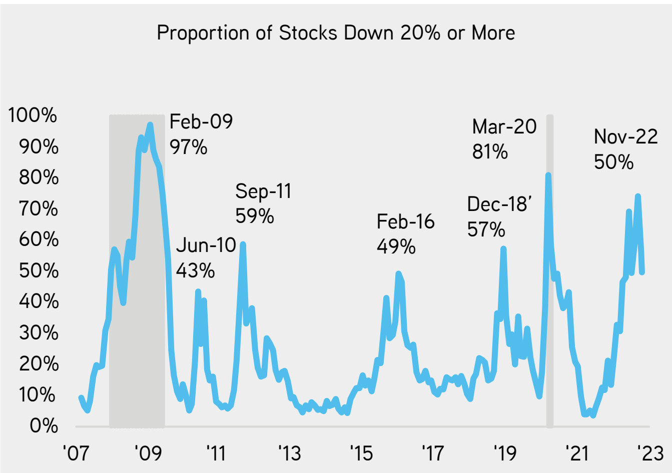


Data as at November 17, 2022. Source: Bloomberg.

Overall, our models tell us that now is the time to begin to lean into risk assets.

Exhibit 71

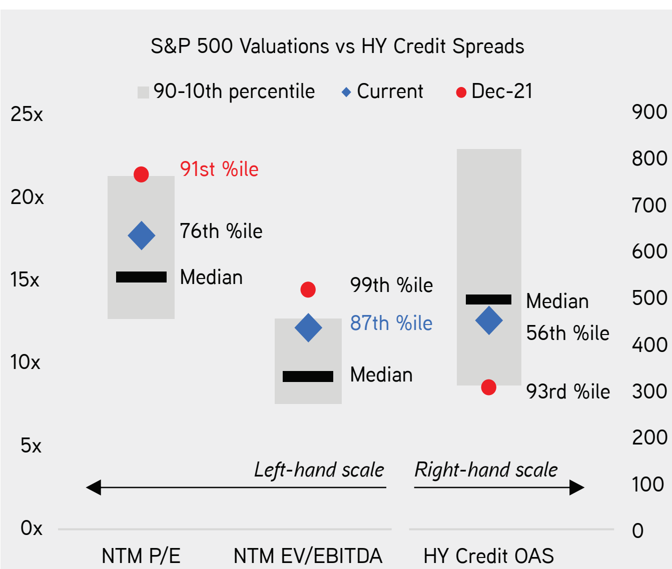
Equities Too Have Been Beaten Up in Recent Months Towards Levels Where One Typically Wants to Add Some Risk



Data as at November 17, 2022. Source: Bloomberg.

Exhibit 72

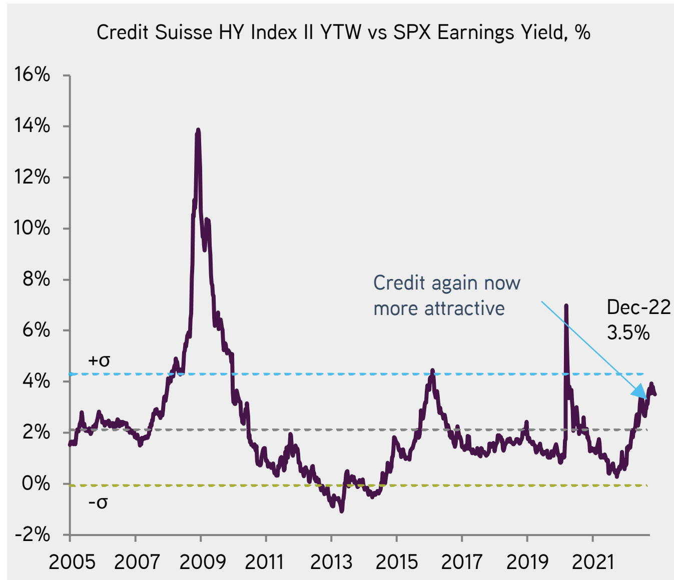
Equity Multiples Remain Near Historic Norms, Whereas Credit Spreads Are Above Long Run Averages



HY OAS is ICE BofA U.S. High Yield Index. Data as at 1Q90 to November 30, 2022. Source: Bloomberg.

Exhibit 73

Said Another Way, Credit Is Cheap Relative to Stocks



Data as at December 2, 2022, Source: Bloomberg.

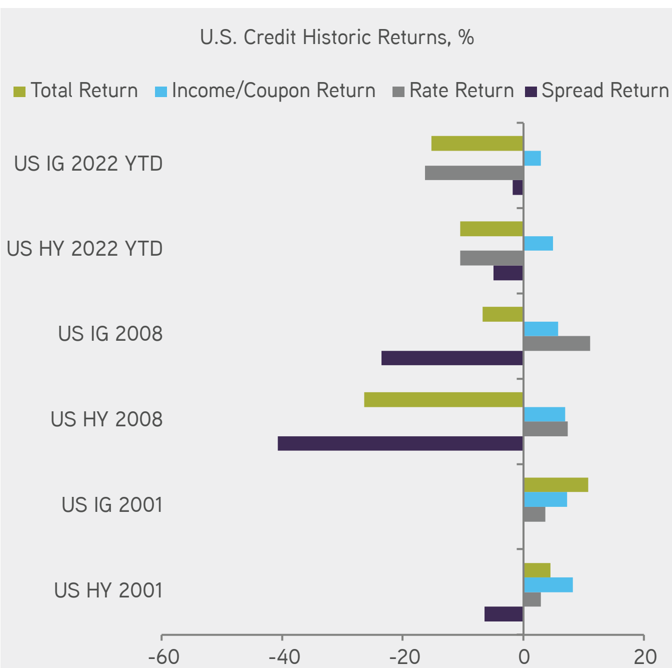
Importantly, though, as we start picking up the pace towards increased deployment, we favor being a lender at first. Said differently, our models today suggest Credit is the better buy at current levels, especially if an allocator has the ability to build a broad-based portfolio across both private and public markets.

We see several factors at work. First, many large bank lenders are 'hung' with loans, which is preventing them from extending credit as much as in the past. Second, tighter capital standards by regulators and higher loan loss reserves are forcing financial institutions to hold more capital and issue fewer loans. Additionally, after the Fed and other central banks bought up a huge amount of government issuance as part of their pandemic-era QE programs, things are starting to move in reverse, with government securities displacing riskier debt on bank balance sheets. All of these factors have helped push credit yields to their highest levels relative to S&P earnings yields since COVID.

Against this backdrop, it feels like a pretty good time to build positions across 1) Private Credit, as unlevered returns are now in the low double digits; 2) Liquid Credit, given the convexity the asset class offers at current levels. We have heard pushback that spreads need to widen a lot more to make the opportunity as attractive as it was in the past. We don't necessarily agree, as the issue this time is inflation. As a result, the risk-free rate, which we view as the proper mechanism for capturing higher than expected inflation trends, has increased materially. For spreads to widen in an inflationary environment, we would generally need to see some deterioration in corporate margins (particularly when the term structure of corporate debt looks relatively benign). That would make it unlikely that we see spreads widening without nominal GDP slowing sharply and risk-free rates falling simultaneously. Said differently, we think that yields today are at quite attractive levels, which have historically made good entry points for longer-term investors.

Exhibit 74

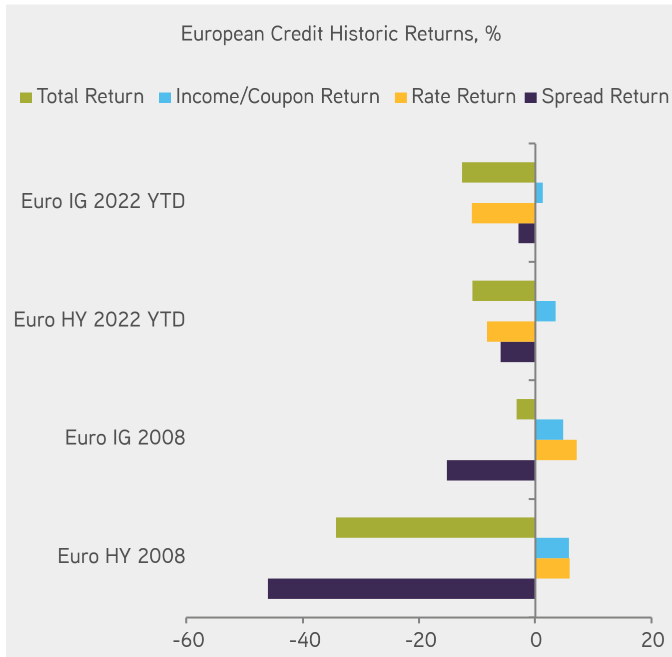
The Widening of Spreads Have Been Far More Muted This Go Round…



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

Exhibit 75

…With Interest Rate Re-Adjustments Causing the Majority of the Dislocation



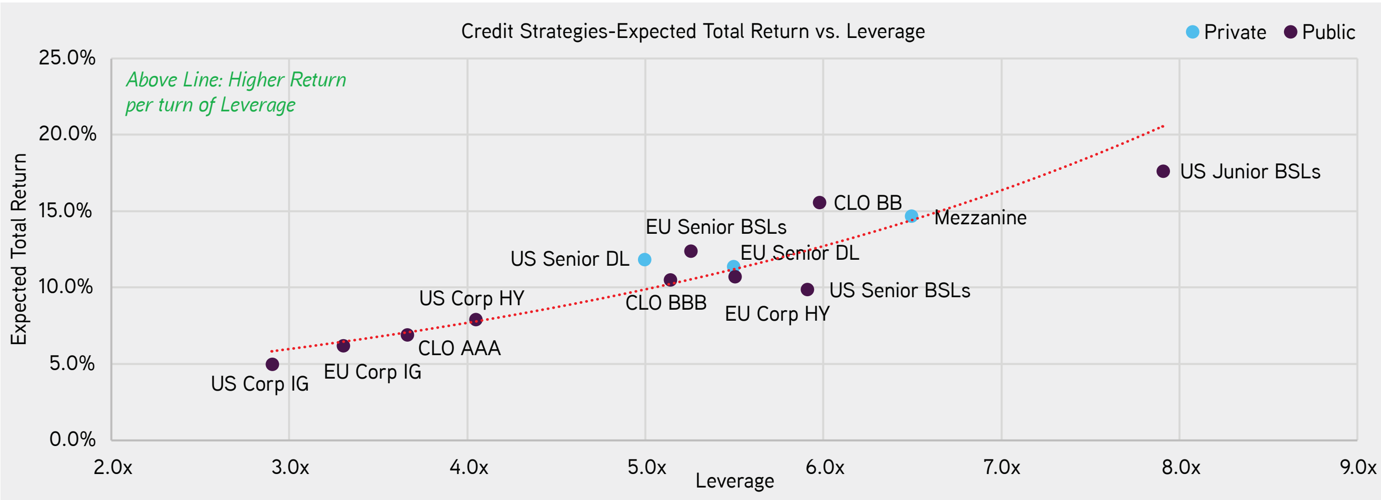
Data as at November 30, 2022. Source: Bloomberg.

Importantly, within Credit, we are espousing our Keep It Simple thesis. Said differently, we prefer moving up in the capital structure, keeping duration in check, and not stretching on leverage. To this end, we favor the highest quality CLO AAA liabilities, senior Direct Lending, and some High Yield. One can see this in *Exhibit 76*. We also continue to like collateral linked to nominal GDP growth, including e.g. Real Estate Credit. Importantly, given the different convexities of the products (i.e., HY is trading at a material discount to par), we think that a multi-asset class Credit solution, including both private and liquid securities, could make a lot of sense in the macroeconomic environment we are envisioning.

Importantly, within Credit, we are espousing our Keep It Simple thesis.

Exhibit 76

Private Credit Offers Higher Expected Return Per Unit of Leverage



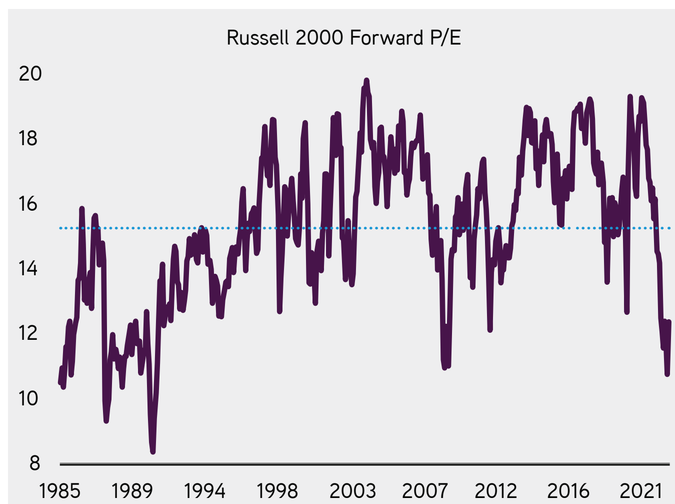
Returns figures assume securities held to maturity. For private markets, our return figures reflect proprietary data on direct lending; for more 'typical' private market returns, see our work on expected returns below. Data as at October 31, 2022. Source: Bloomberg.

Meanwhile, we are seeing similar themes take place in Real Estate Credit. Ongoing volatility has caused a pullback in large sources of real estate debt financing, including banks and the CMBS market. Many debt funds and mortgage REITs are on the sidelines due to the inability to source cost efficient financing. This backdrop has created an opportunity for those with available capital to move up the capital structure and lend on high-quality assets owned by top institutional sponsors and located in growth markets at attractive all-in yields, lower leverage levels, and with more protective covenants.

To be sure, even though overall Credit as an asset class looks more attractive in relative terms, we also see emerging value in Equities. We are particularly cognizant of the fact that the Russell 2000, which is where many large-cap buyout firms play, looks attractively priced relative to large-cap U.S. equities. In fact, we believe that small caps will finally begin to outperform the S&P 500.

Exhibit 77

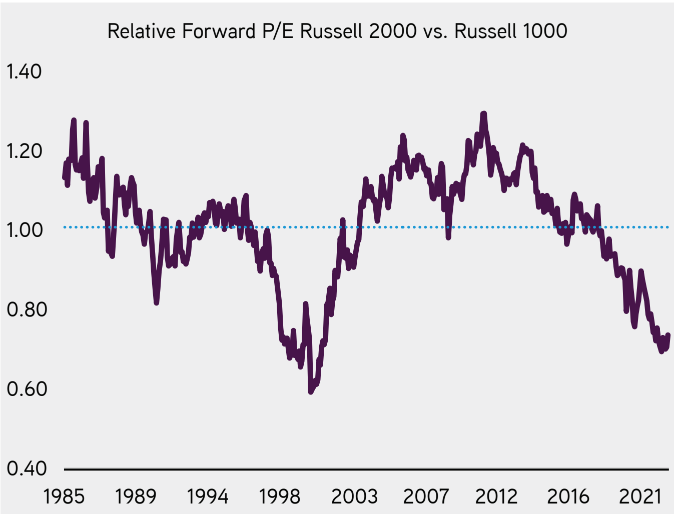
Small Cap Forward P/E Is Well Below the Long-Term Average



Data from 1985 through 3Q2022. Data as at October 31, 2022. Source: Factset, BofA U.S. Equity and Quant Strategy.

Exhibit 78

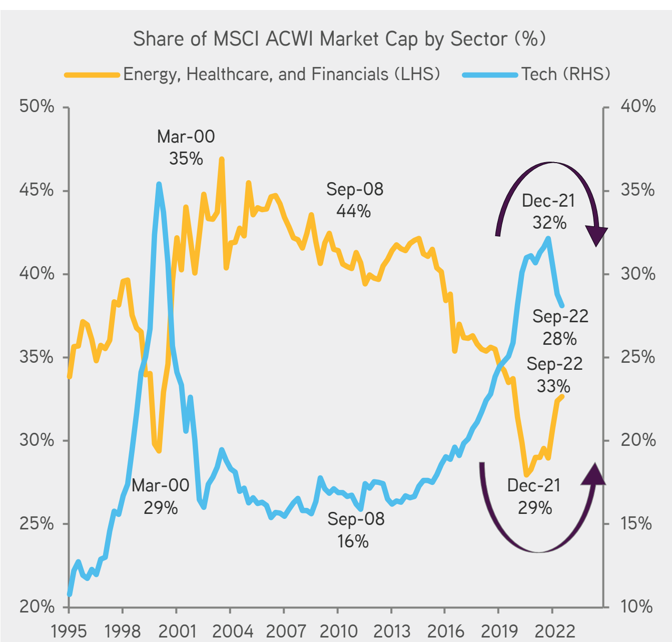
Small Caps Are Historically Cheap vs. Large Caps



Data from 1985 through October 31, 2022. Source: Factset, BofA U.S. Equity and Quant Strategy.

Exhibit 79

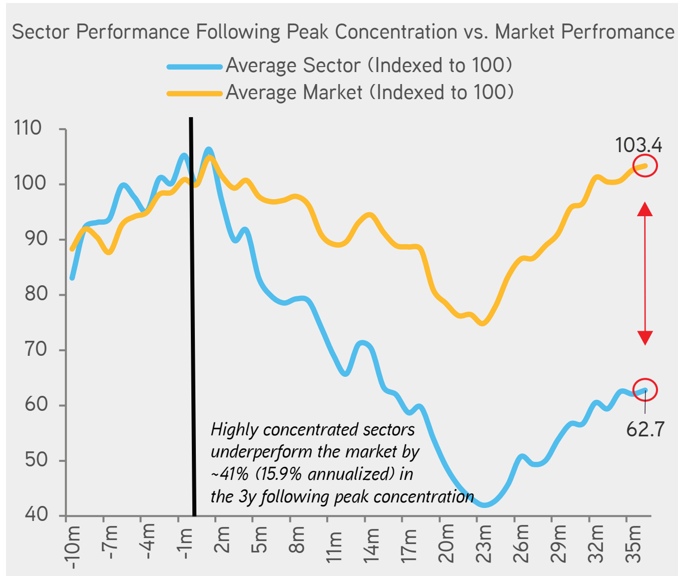
A Rotation Into Old Economy Sectors at the Expense of Tech Is Happening



Data as at November 22, 2022. Source: Bloomberg.

Exhibit 80

Tech Was 29.4% of the S&P 500 in November 2021. History Suggests a Sharp Decline in Its Leadership Positioning Is Likely



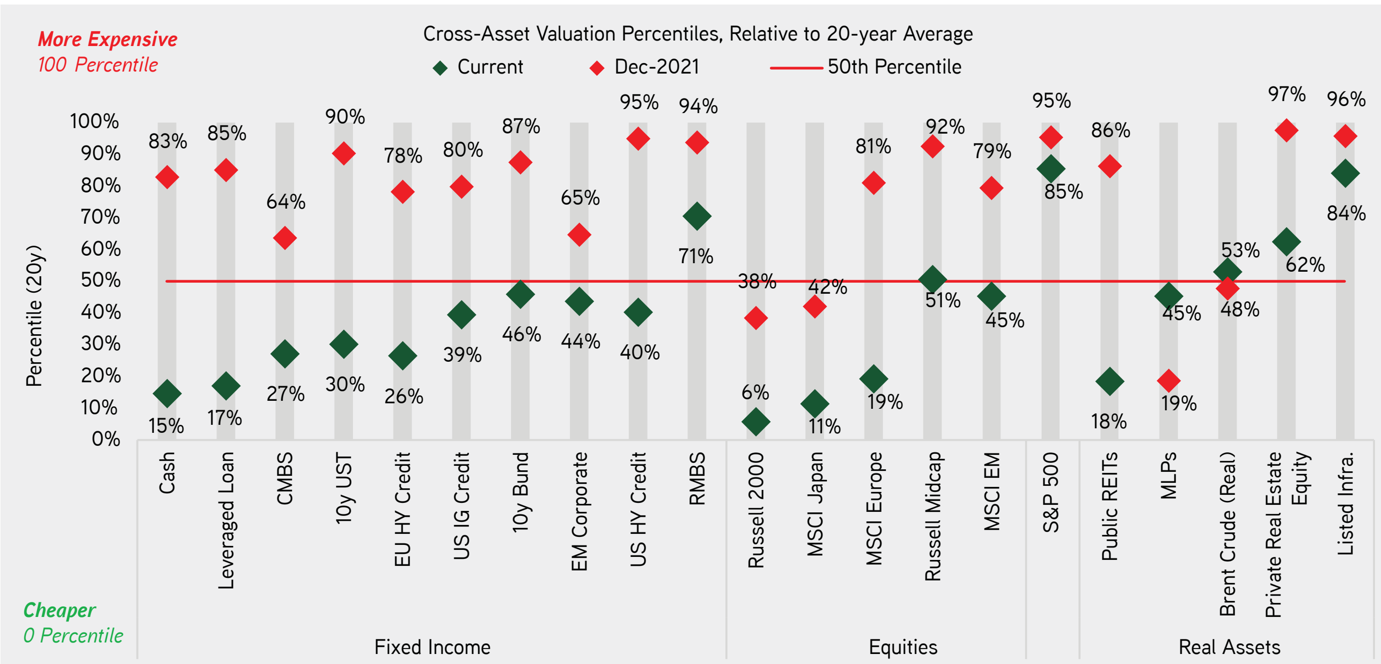
Peaks in market concentration include Energy 8/1980; Tech 09/2000; Financials 3/2007. Data as at October 31, 2022. Source: Factset, Bloomberg.

In terms of sector preferences across Equity indexes, we like Energy as a structural long against Technology, as the index weightings rebalance over the next few years. Our work shows that when sectors become larger than 20% of the S&P 500, they tend to lag. One can see this in *Exhibit 80,* which shows the collective underperformance that began for Energy in the early 1980s, Technology in 2000, and Financials starting in 2007. Beyond Energy, we also believe that Industrials and large cap Pharmaceuticals will perform well on both an absolute and relative basis *(Exhibit 79).*

Looking at the bigger picture, we think that now is the time to diversify more across asset classes. Central to our thinking is that we are leaving a period of low growth and low inflation in favor of lower real GDP and higher nominal GDP, albeit with more volatility. If we are right, then *Exhibit 81* represents an excellent way of discerning pockets of value. In our view, we think asset allocators should be overweight Small Cap Equities, Mortgages, High Yield, high quality CLO liabilities, and opportunistic Private Capital.

Exhibit 81

Valuations for Real Assets (Listed Infra, Private Real Estate) and Large-Cap Equities Still Look Less Compelling Compared to Credit



Notes: Equity indices refer to NTM P/E; UST, bunds, cash (t-bills), infra and MLPs refer to nominal yield; credit indices refer to spreads; public REITs and private real estate refer to nominal cap rate; Brent refers to real prices. Data as at December 7, 2022; percentiles from 2002-date where available; leveraged loans and infra from 2007-date. Source: KKR Global Macro & Asset Allocation analysis, Bloomberg, Haver Analytics, ICE-BofAML Bond Indices, GreenStreet, S&P, MSCI.

Question #2: Do you think we are still in a regime change, given the recent improvement in U.S. inflation?

Since the onset of COVID, we have been talking about a different kind of recovery, or a different regime that would require a new approach to asset allocation. Key to our thinking has been that volatile inflation would impede central banks' ability to step in and provide ample support during periods of dislocation. Importantly, in this current cycle, demand-side inflation, which many investors are used to seeing, would actually be super-ceded by supply-driven inflation. We note the following supply-side constraints:

1. **The energy transition is actually inflationary**, as it requires many hard to find inputs in volatile parts of the world, while most of the processing of these commodities occurs in China, which provides its own unique set of challenges. Cobalt, for example, is mined in scale in the Congo, while most of the Manganese in the world comes from South Africa. Moreover, fully 65% of the total global refining of such commodities, including lithium (72%), cobalt (71%), and manganese (99%) is now done in China.

2. **Geopolitics creates supply chain headwinds**, requiring redundancies that are structurally more inflationary in nature, as the world becomes less globally integrated. In fact, since we last wrote about this topic in our midyear outlook, we have seen more examples of major companies building out duplicate supply chains with an eye toward geopolitical risks, rather than focusing solely on manufacturing costs. All told, in 2022 U.S. companies

have revealed plans to reshore nearly 350,000 jobs, compared to 110,000 in 2019.

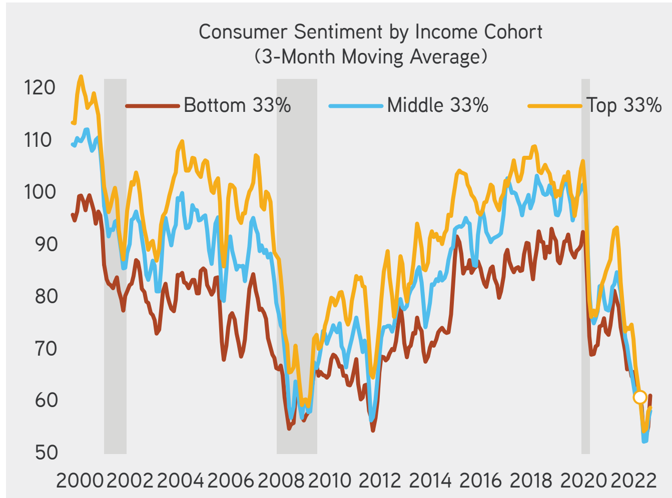
3. **Labor shortages, especially in the developed markets, fuel faster wage growth than in the past.** In the U.S., for example, our research suggests that the labor shortage will get worse – not better – in coming years, amidst a backdrop of lower participation for older workers and a demographic slowdown impacting the number of younger workers. The latest employment data confirm these trends, as the participation rate for 25-54 year olds is back near pre-pandemic levels, despite companies still having to pay out materially to retain workers.

4. **Lack of housing supply and rental properties in a period of accelerating household formation could lead to upward pressure on inflationary inputs**. While home price appreciation has slowed of late, there is still a considerable mismatch between the supply of new homes and the number of new households that have been formed since the GFC. Somewhat perversely, higher rates hurt, rather than help, the housing supply issue that we have been identifying. As a result, we still see annual rental costs, which account for nearly one third of CPI, remaining stubbornly high well into 2023.

Geopolitics creates supply chain headwinds, requiring redundancies that are structurally more inflationary in nature, as the world becomes less globally integrated. We have seen more examples of major companies building out duplicate supply chains with an eye toward geopolitical risks, rather than focusing solely on manufacturing costs.

Exhibit 82

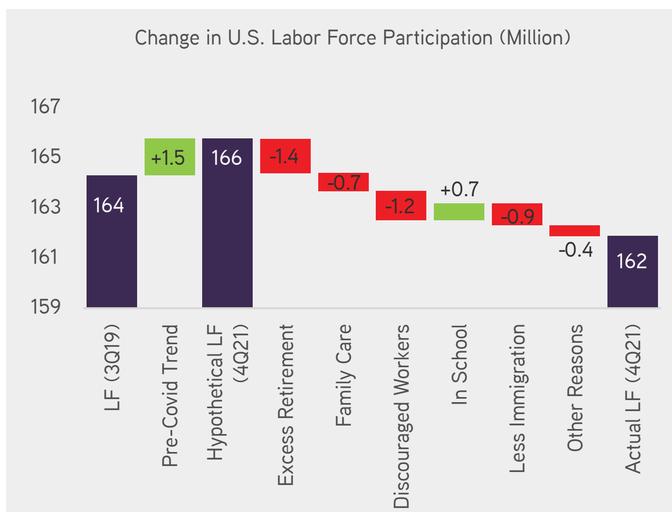
High-Income Consumer Sentiment Has Now Fallen to Levels In-Line With Overall Consumer Sentiment



Data as at November 11 2022. Source: University of Michigan.

Exhibit 83

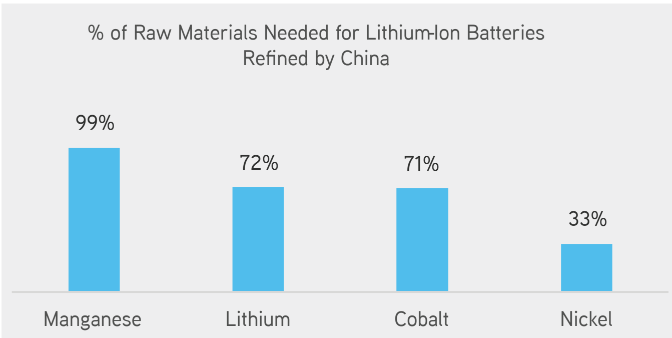
Excess Retirement, Discouraged Workers, Less Immigration, and Family Responsibilities Have Been the Main Drivers of the Labor Force Participation Shortfall Relative to the Pre-Pandemic Trend



Data as at December 31, 2021. Source: U.S. Census Bureau, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 84

China Dominates the Processing of Materials for Use in Batteries as Well as Many Parts That Go Into the Batteries Themselves



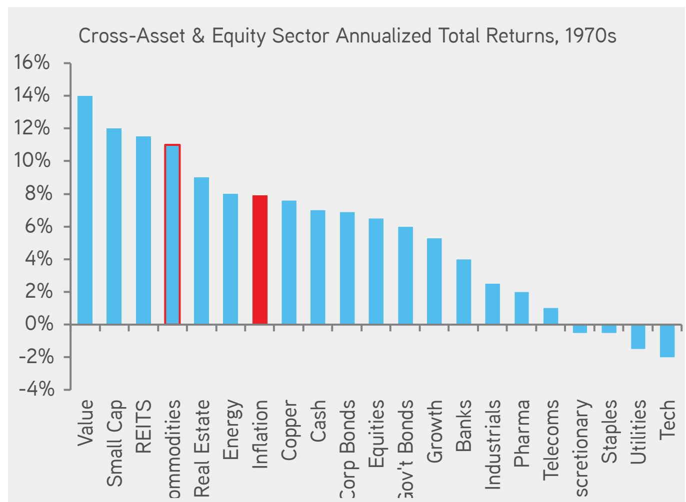
Note: Amount of mineral processed in 2021 is estimated based on 2019 figures. Data as at November 12, 2022. Source: WSJ, U.S. Geological Survey, U.S. Department of Energy, National Renewable Energy Laboratory, PwC Strategy analysis.

Our bottom line: While we do think that cyclical inflation peaked in late 2022, we still believe that we will land at a higher resting heart rate for inflation this cycle. As such, the underlying structural inflationary dynamics created by the aforementioned four considerations will continue to constrain the ability of central banks to ease policy quickly. Consistent with this view, Chairman Powell in late December said that he does not see the Fed loosening policy until inflation is "definitely on track to again hit two percent." Said differently, from a tactical investment perspective, we do expect the outperformance of Value stocks, collateral based cash flows (e.g., Infrastructure), and Commodities to continue in 2023, just not to the same degree. In fact, given how badly bonds performed over the past year, we are now less concerned about being long duration than we were in 2022.

However, beyond the tactical bounce that a slowdown in the pace of inflation could create, our longer-term outlook for the economy and markets reinforces our view that it is not business as usual. To this end, our conversations with CIOs suggest that investors will still need to add more Real Assets to their portfolios this cycle to protect against the regime change that we are forecasting. They may also need more floating rate debt in their portfolio, and they may want to overweight more flexible capital that can lean into periodic dislocations. Maybe most importantly, we think that the recent positive correlation between stocks and bonds will continue, which likely means that Equities and Fixed Income will continue to sell off together in response to periodic bouts of inflation. In this environment, all else equal, 2023 is a time to keep it simple and own more assets that are positively linked to nominal GDP growth. See *Question #8* for more details on what this means for portfolio construction.

Exhibit 85

Defendable Margins Tend to Outperform in a Stagflation Environment

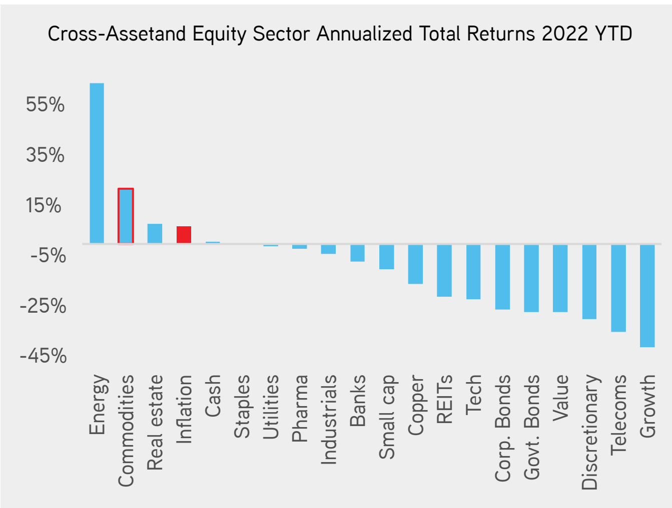


Data as at October 31, 2022. Source: BofA ML Research.

To this end, our conversations with CIOs suggest that investors will still need to add more Real Assets to their portfolios this cycle to protect against the regime change that we are forecasting.

Exhibit 86

Using History as Our Guide, the Current Environment Has Reinforced Our View That We Have Entered a New Regime



Data as at November 30, 2022. Source: BofA ML Research.

Question #3: What indicators help us determine a bottom on overall risk positioning?

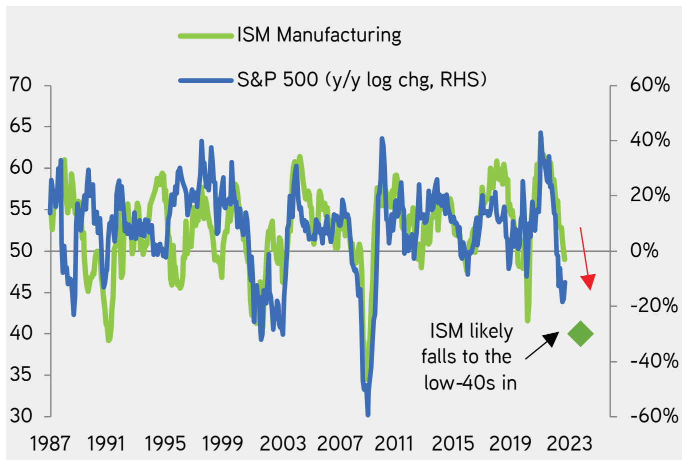
As we referenced earlier, we think that history suggests that both Equities – after falling 25% — and Credit — especially when it trades at 85 cents on the dollar or cheaper — appear attractive from a valuation perspective. One can see this in *Exhibits 3* and *4*, respectively.

However, we also understand that many investors want specific signposts for when to structurally lean in. To be sure, there is no absolute certainty around timing; each cycle is different based on monetary policy, growth dynamics, and inflationary trends. That said, there are some pretty standard indicators that my colleague Brian Leung and the team often watch. They are as follows:

Key Indicator #1: A Bottoming in the ISM As we show in *Exhibit 87*, the year-over-year performance in the S&P 500 and the ISM manufacturing index are very tightly linked. To review, the ISM measures the change in production levels across the U.S. economy from month to month, and it is released the first day of the month to indicate the level of demand for products by measuring the amount of ordering activity at the nation's factories. According to Brian, our best estimate is that it will trough this cycle in the low 40s around mid-2023. One can see this in *Exhibit 87.*

Exhibit 87

With the ISM Heading Lower, the Equity Market Will Likely Remain Under Pressure in 2023

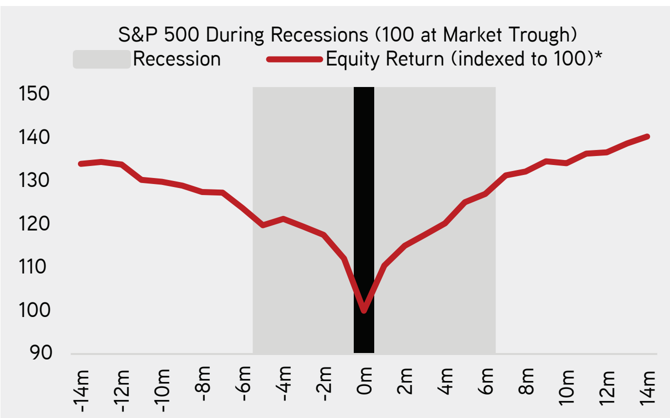


Data as at November 30, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Key Indicator #2: Markets Tend to Bottom in the Middle, Not the End, of Recessions As we discussed in our economics section, we expect the economies of the developed world, the U.S. in particular, to be in a recession for much of 2023. However, we do see light at the end of the tunnel as we head into 2024. To this end, we roughly approximate that the 'middle' of the recession we anticipate could be in the spring or summer of 2023. Importantly, given that equity markets and bond markets have sold off dramatically in advance of this potential event, we would rather be early than late on adding risk. This viewpoint is consistent with our thesis to not wait until the end of recessions to start to add back risks to one's portfolio (*Exhibit 88*). There are three factors that lead us to believe that 2023 will not be a prolonged, 2008-type downturn. For starters, we do not think the banks need to de-lever the same way they did during the GFC. Second, while we think housing activity will slow, we are not forecasting any serious impairments to home equity. Finally, we think that unemployment will not surge the way it did during the Great Recession. In fact, labor is in short supply this cycle, which is one of the unique features of the downturn we expect.

Exhibit 88

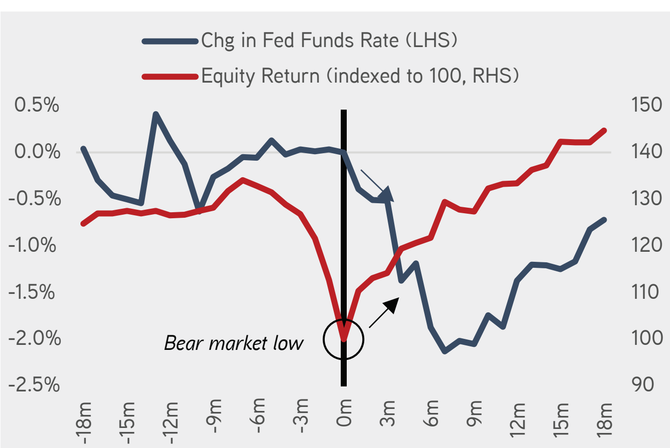
If You Wait Until the End of a Recession to Buy, Then It Is Too Late



Note: *Excludes the COVID recession. Data as at November 30, 2022. Source: Bloomberg, Deutsche Bank, Robert Shiller.

Exhibit 89

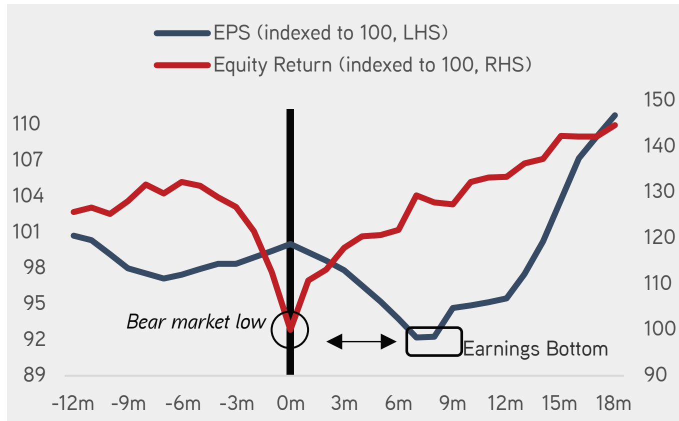
Likewise, Equity Markets Typically Start Rallying When the Fed Changes Posture



Note: Based on data from the prior ten equity bear markets back to the 1950s (excludes COVID). Data as at October 21, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 90

The Silver Lining Is That Equity Markets Tend to Bottom Six to Nine Months Before Earnings Do



Note: Based on data from the prior 12 equity bear markets going back to the 1940s. Data as at October 21, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Key Indicator #3: The Fed Stops Tightening There is the old adage 'Don't Fight the Fed.' That viewpoint is particularly true, we believe, when the Fed is raising rates in 75 basis point increments. Hence, our decision to 'walk, not run,' in 2022 made sense. However, as one can see in *Exhibit 89*, market bottoms tend to occur when the Fed slows its hawkish campaigns. Though this cycle may be a little different, given the Federal Reserve's sizeable balance sheet, we do not think it changes the message. As such, given that we have the Fed finishing its tightening campaign at 5.125% in 1H23, with cuts potentially starting by the end of the year, we think investors should be adding risk to their portfolios by mid-2023.

Key Indicator #4: Buy six to nine months ahead of a bottom in earnings estimates Conventional wisdom is that markets bottom when the earnings slate is clean, and as one analyst put it to me, 'forward earnings actually look achievable.' Our work, however, shows that bear market lows usually occur 6-9 months *ahead* of earnings reaching their lowest point. One can see this in *Exhibit 90*. So, while we do think that earnings forecasts still look far too optimistic, if we are right that earnings will bottom by the end of 2023 before recovering in 2024, then the signal from EPS may actually be to 'buy' sometime in the middle of next year.

So, when we pull all our indicators together to assess this cycle, we feel that earnings and the behavior of the Federal Reserve are probably the signals to overweight. Key to our thinking is that we are transitioning from the markets re-pricing worse than expected inflation towards a period where inflation's adverse effects dent corporate profits and consumer balance sheets. As such, we need to be right that 1) inflation is actually peaking and the Fed has some wiggle room to slow its historic tightening campaign; and 2) this economic downturn is more akin to the shallow recession of 2001 than the harsh economic pullback of 2008.

Regardless of our short-term timing indicators, we also want to underscore that leaning in when markets have recently dropped 25% or more probably makes a lot of sense. One can see this in *Exhibit 91*, which looks back to other periods when the market sold off 25% or more dating back to 1940. To be sure, every cycle is different, but our bottom line is that long-term investors should lean into dislocations in the beginning of 2023.

Exhibit 91

Following Large Market Drawdowns, Longer-Term Investors Are Generally Rewarded Over the Next 3-5 Years for Leaning Into Dislocations

Date of			No. of Months From		Decline	Performance Following 25% Drawdown						
Market Peak	25% Decline	Market Trough	Market Peak to 25% Decline	25% Decline to Market Trough	Peak-to-Trough	+3m	+6m	1yr	+3yr	+5yr	3yr Annual-ized	5yr Annual-ized
Nov-40	Dec-41	Apr-42	13.2	4.3	(34%)	(3.3%)	(1.2%)	14.0%	56.3%	78.8%	16.1%	12.3%
May-46	Oct-46	Oct-46	4.3	0.0	(27%)	6.3%	4.5%	4.3%	9.1%	63.7%	2.9%	10.4%
Dec-61	Jun-62	Jun-62	6.3	0.2	(28%)	10.0%	15.8%	31.1%	59.2%	72.6%	16.8%	11.5%
Nov-68	Apr-70	May-70	16.9	1.0	(36%)	(4.5%)	2.8%	28.1%	33.7%	6.3%	10.2%	1.2%
Jan-73	Aug-74	Oct-74	19.1	1.6	(48%)	(4.0%)	2.1%	11.6%	27.6%	40.0%	8.5%	7.0%
Nov-80	Aug-82	Aug-82	20.2	0.2	(27%)	35.9%	35.9%	53.8%	82.1%	200.7%	22.1%	24.6%
Aug-87	Oct-87	Oct-87	1.8	0.0	(33%)	12.1%	15.5%	24.3%	36.0%	83.1%	10.8%	12.9%
Mar-00	Mar-01	Jul-02	11.9	16.1	(48%)	5.8%	(4.4%)	0.8%	(2.9%)	14.4%	(1.0%)	2.7%
Oct-07	Sep-08	Nov-08	11.3	2.1	(52%)	(21.0%)	(34.8%)	(7.9%)	5.2%	46.8%	1.7%	8.0%
Feb-20	Mar-20	Mar-20	0.7	0.4	(34%)	28.6%	34.3%	59.0%				
Jan-22	Oct-22	-	9.2	-	(25%)							
Avg.			**10.6**	**2.6**	**(37%)**	**5.4%**	**5.1%**	**20.2%**	**31.4%**	**60.2%**	**9.5%**	**9.9%**
Median			**11.6**	**0.7**	**(34%)**	**6.0%**	**3.7%**	**19.1%**	**33.7%**	**63.7%**	**10.2%**	**10.4%**
Memo: Median Return Across All Comparable Periods								*9.7%*			*7.4%*	*7.3%*

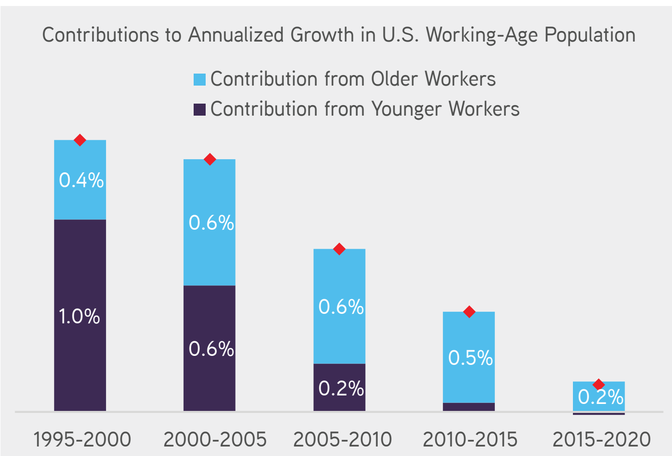
Data as at November 30, 2022. Source: Bloomberg.

Question #4: Can you talk about the path of inflation and what it means?

As we have written about for quite some time, we view the current inflationary impulse as different because it is not just demand driven. Rather, we see structural supply driven headwinds, including the energy transition being inflationary, demographics driving tighter labor markets, and intensifying geopolitical dislocations causing unwelcome periodic price distortions.

Exhibit 92

The U.S. Economy Is Running Out of Younger Workers

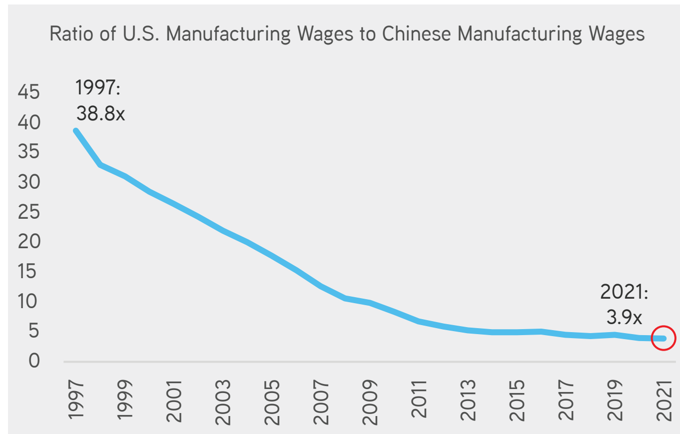


Data as at October 21, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

This insight is important to us because, while we still do worry that inflation is at high levels, our team has increasing conviction that inflation has definitively peaked.

Exhibit 93

The Case for Re-Shoring Has Improved Materially, as Labor Costs in Markets Like China Have Surged



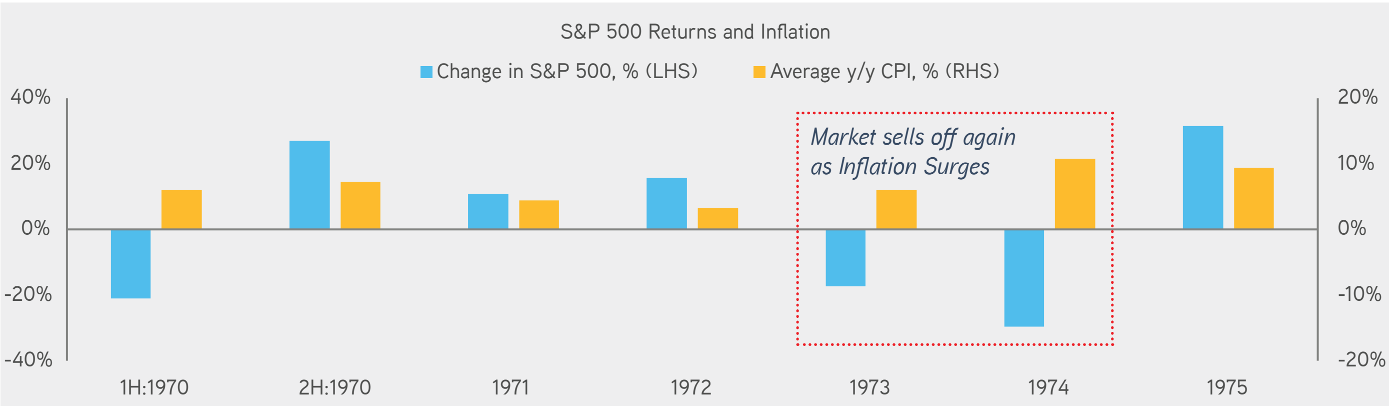
Data as at October 21, 2022. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Importantly, the last time that we had a similar backdrop was the 1970s. To this end, we have spent a lot of time as a team trying to discern 'lessons learned' for investors from that era. From our vantage point, one of the most important conclusions is that, as we show in *Exhibit 94*, both the level and the rate of change in inflation matter. Specifically, after inflation reached surprisingly high levels in the early 1970s, markets rallied sharply as it came back down towards more manageable levels for a period of time.

This insight is important to us because, while we still do worry that inflation is at high levels, our team has increasing conviction that inflation has definitively peaked. Specifically, our forecasts show CPI cooling from 8.0% in 2022 to 3.9% in 2023. This viewpoint is also consistent with our proprietary core inflation indicator, which we show in *Exhibit 96*.

Exhibit 94

The 1970s Experience Tell Us That Inflation Comes in Waves. It Also Suggests That Both Absolute Level as Well as Rate of Change Matter When It Comes to the Direction of Risk Assets



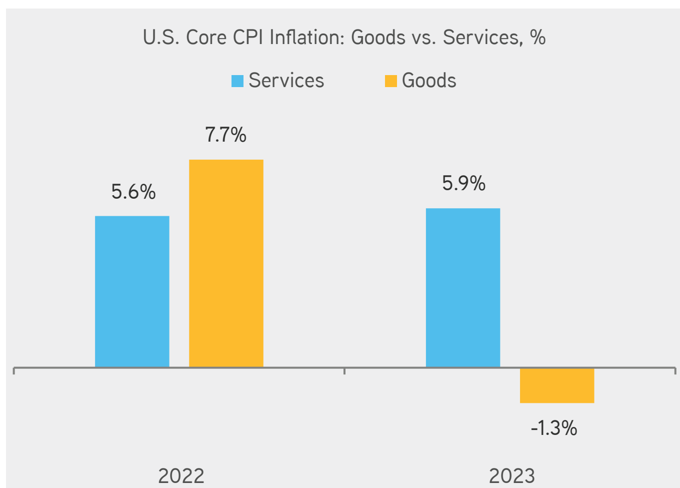
Data as at December 31, 2021. Source: U.S. Census Bureau, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

What's driving the decline in our model? The biggest single disinflationary impulse right now is coming from the goods sector, where input costs and supply chain pressures are easing against a backdrop of slowing consumer demand. At the same time, the lagged effects of monetary and fiscal tightening are beginning to show up in the real economy, with M2 money growth slowing precipitously, while medium-term consumer inflation expectations have started to cool at the margins. Finally, although rental inflation remains very high, our leading housing market data suggests that it has stopped accelerating. All of these data points indicate that inflation will continue to cool in coming months. In turn, we have higher conviction that the Fed will be able to step back from its tightening campaign by the middle of next year, which will bring more sustainable relief to equity multiples.

Finally, although rental inflation remains very high, our leading housing market data suggests that it has stopped accelerating.

Exhibit 95

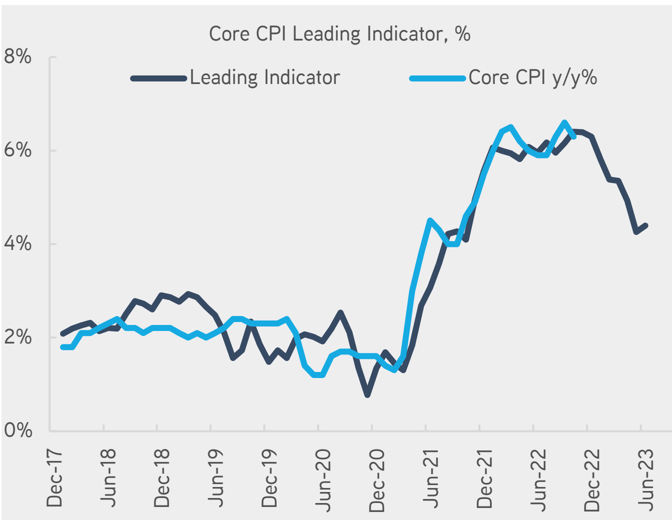
We See a Notable Shift in Inflation From Goods to Services in 2023



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

Exhibit 96

Our Core CPI Leading Indicator Shows Y/y Core CPI Inflation Cooling to the Low-Four Percent Range by 2Q23



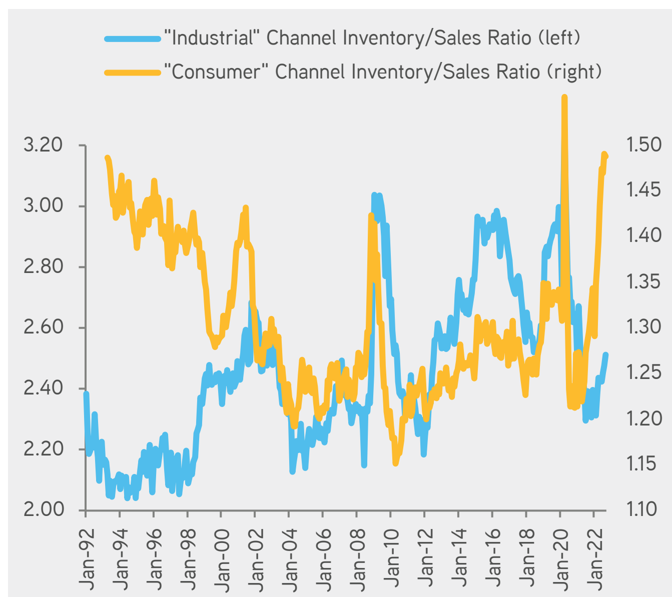
Data as at November 30, 2022. Source: Bloomberg, BofA, KKR Global Macro & Asset Allocation analysis.

That said, we still think that the high overall *level* of inflation will remain a concern over the course of this cycle, driven first and foremost by wages. Notably, our leading indicator for wages has not cooled off yet, and our forecasts show average hourly earnings at about 4.4% over the next three years, versus overall inflation of 3.0%. Maybe more importantly, **our long-term analysis suggests that the U.S. labor shortfall will only become more entrenched in the economy over the next decade, as we shift from a participation-related shortage of older workers during COVID to a demographics-related shortage of younger workers in coming years**. This tension is a big deal, and it will put more pressure on margins, particularly in labor-sensitive sectors like Healthcare, Retail, and Leisure and Hospitality.

So, what's our bottom line? We think that markets are transitioning from pricing in the impact of rising headline inflation on front-end rates and multiples, to pricing in the impact of high wage inflation on earnings. From a top-down view, that is a bullish signal, given that valuations tend to bottom out before earnings. However, it also means that we still think this cycle will punish business models that lack defendable margins and a clear ability to pass through higher input costs. It also leads us to continue to think that investors need more real assets and up-front/collateral-based cash flows in their portfolios.

Exhibit 97

Industrial Inventories Have Diverged Sharply From Consumer Ones and Remain Deeply Depressed vs. Pre-Pandemic Levels

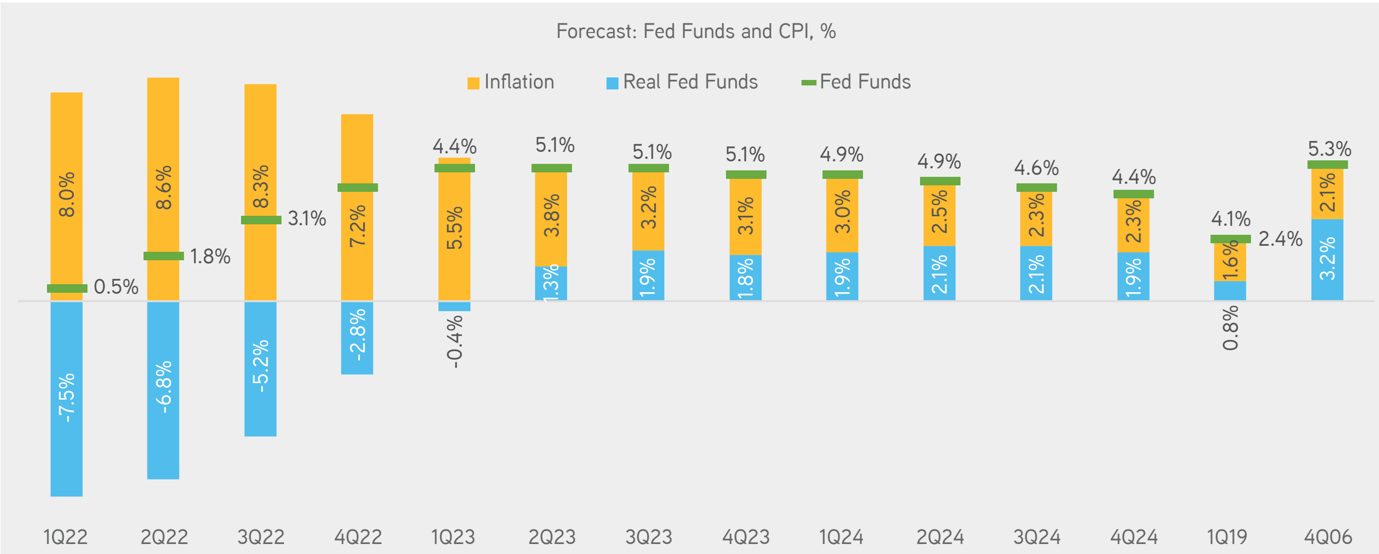


Data as at October 5, 2022. Source: Bloomberg.

We think that markets are transitioning from pricing in the impact of rising headline inflation on front-end rates and multiples, to pricing in the impact of high wage inflation on earnings.

Exhibit 98

We See the Fed Taking Real Rates Above Two Percent to Tame Inflation



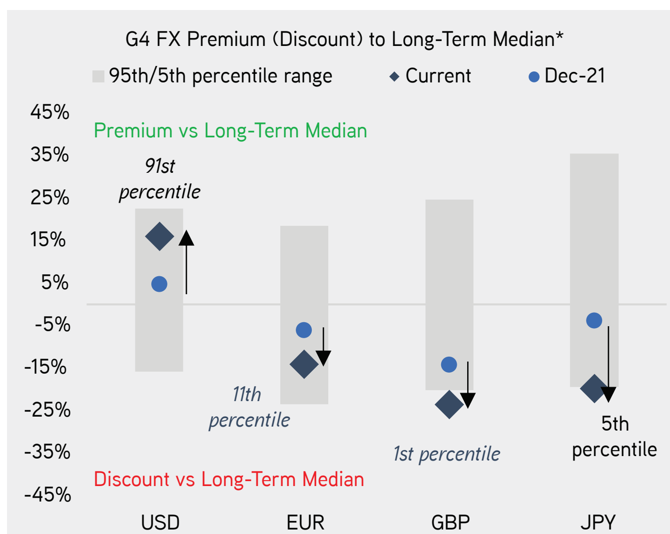
4Q06, 1Q19, 1Q22 thru 3Q22 are actual; 4Q22 thru 4Q24 are KKR GMAA estimates. Data as at December 15, 2022. Source: BLS, Federal Reserve Board, Bloomberg, Haver Analytics.

Question #5: How are you thinking about allocating the international markets?

For quite some time, allocating to non-U.S. markets within the liquid securities segment of most portfolios has been an inferior strategy from a performance perspective. In the last five years, for instance, the performance differential between the U.S. and other equity markets has been on the order of 900-1100 basis points, as one can see in *Exhibit 100*. Why have non-U.S. equity markets underperformed? On the one hand, a combination of sluggish earnings growth, valuation compression, and a rising U.S. dollar collectively has served as headwinds to international market returns. At the same time, the S&P 500 has enjoyed significant growth in Technology sector earnings, which has led to margin and multiple expansion for the entire index in recent years. All told, Technology hit 29% of the S&P 500 in 2021, compared to 21% at year-end 2016 and 19% at year-end 2011.

Exhibit 99

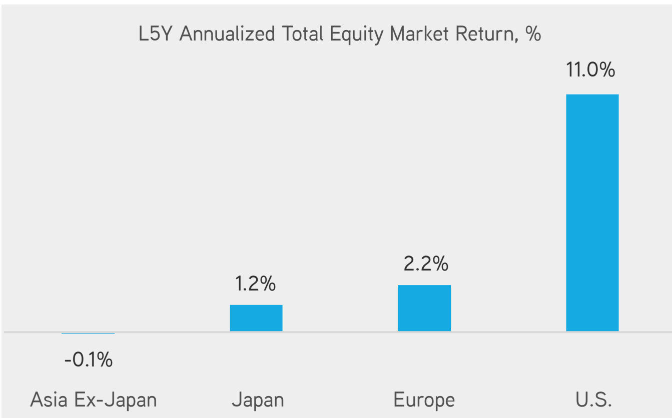
Euro, Pound and Yen Are at Extreme Lows Compared to the USD



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

Exhibit 100

Overweighting the U.S. Worked Last Cycle, But May Not Deliver the Same Results This Time Around



Data as at November 27, 2022. Source: Bloomberg.

As we look ahead, however, we think that the performance differential has become too extreme and is now likely to narrow. As such, we are beginning to get more interested in non-U.S. listed Public Equities, including many parts of South East Asia. In particular, our proprietary KKR EM/DM model is suggesting that the difference between valuations in the emerging markets and the developed markets, the U.S. in particular, has gotten too wide. One can see this in *Exhibit 101.*

To be sure, other important model inputs such as ROE, FX, and momentum continue to signal a more cautious stance. The good news is that if we are right about the U.S. dollar continuing to cool in 2023 and beyond, then FX should switch from a negative to a positive; when that happens, momentum could turn positive, too, which should create a constructive backdrop for rising ROE stories in our view. So, while we do not want to lead the leading indicator too much, we are certainly getting more intrigued by the set up for select parts of the public emerging markets arena.

Exhibit 101

EM Valuations Are Becoming More Interesting But We Are Not Yet Ready to Fully Lean In

"Rule of the Road"	Jan'16	Aug'16	May'17	Sep'17	Jun'18	Dec'18	Dec'19	Sep'20	May'21	Nov'21	May'22	Oct'22
Buy When ROE Is Stable or Rising	↔	↔	↗	↗	↗	↗	↔	↔	↔	↔	↔	↘
Valuation: It's Not Different This Time	↗	↗	↗	↔	↔	↔	↔	↗	↗	↗	↗	↗
EM FX Follows EM Equities	↘	↔	↔	↗	↔	↗	↗	↗	↗	↔	↔	↘
Commodities Correlation in EM is High	↔	↔	↔	↔	↗	↔	↔	↔	↗	↗	↗	↔
Momentum Matters in EM Equities	↘	↗	↔	↗	↔	↘	↔	↔	↔	↘	↘	↘

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

In Europe, we see a similar narrative. On an absolute basis, focusing on 12-month forward P/E, most European sectors appear quite attractive. Moreover, in relative terms, almost all of them are also trading on a lower multiple versus U.S peers, and when compared to the last ten years. One can see this in *Exhibit 103*. That's the good news. The bad news, however, is that – as Aidan Corcoran has been highlighting – there is still likely to be heavy downward pressure on European earnings estimates in early 2023.

Exhibit 102

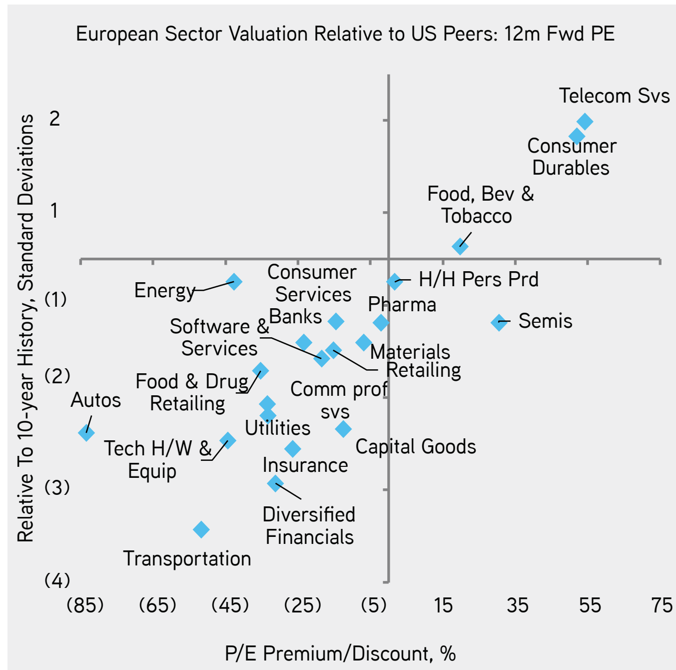
Many Good Companies Have Traded Off As Global Investors Have Liquidated Their Asian Exposures in Recent Years

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

In Europe, we see a similar narrative. On an absolute basis, focusing on 12-month forward P/E, most European sectors appear quite attractive. Moreover, in relative terms, almost all of them are also trading on a lower multiple versus U.S peers, and when compared to the last ten years.

Exhibit 103

Almost All European Sectors Remain Cheap Relative to Their U.S. Peers



Data as at September 30, 2022. Source: Refinitiv Datastream, Credit Suisse Global Equity Strategy.

So, what is our bottom line? Our call to arms for 2023 is that we see a tactical value trade to get long international Public Equities where we have confidence in the earnings backdrop, including both parts of Europe and select parts of the Emerging Markets. The dollar's reversal will be crucial for our thesis to play out in 2023.

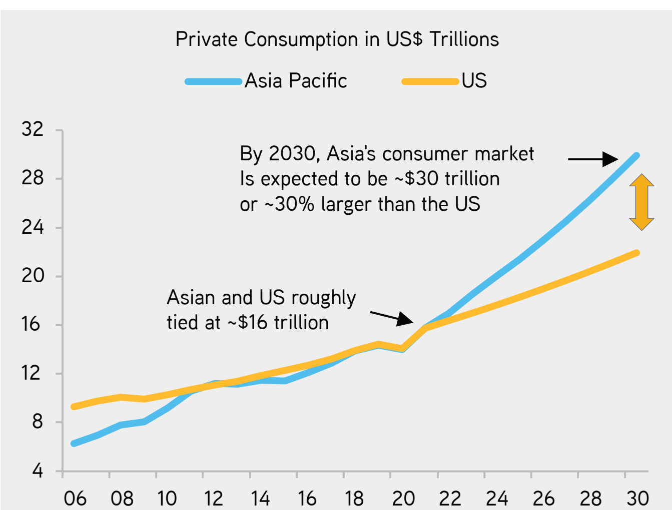
However, we do not want to confuse the tactical with the strategic. Without question, our long-term bias in overseas markets remains to compound capital via International Private Equity. Central to our thinking is that Private Equity portfolios are better equipped to gain exposure to compelling secular growth trends, many of which are still not always available in the public markets (*Exhibit 108*).

In Asia, for example, we think that Private Equity is much better positioned than Public Equities to capture direct exposure to the rising middle class. Gaining access to this cohort is critical, we believe, as Asian consumers are entering the prime age to start families, buy homes, expand healthcare usage, and save more. Moreover, we are increasingly struck by how fast overall consumer behavior patterns are changing in the region as demographic shifts combine with new technology (e.g., e-commerce) and urbanization trends *(Exhibit 105)*. All told, we now forecast the Asian consumer market to surpass the U.S. during the next few years. One can see this in *Exhibit 104*. However, Consumer Discretionary accounts for just three percent of the CSI 300 Index in China, versus 10% of the S&P 500.

We also note that technology and innovation, two major areas of focus for KKR's Private Equity deal teams, are massively underrepresented in many Asian countries' public markets at the expense of state-owned Financials (see *Exhibit 107*, showing that Technology accounts for 0% of the MSCI Indonesia index).

Exhibit 104

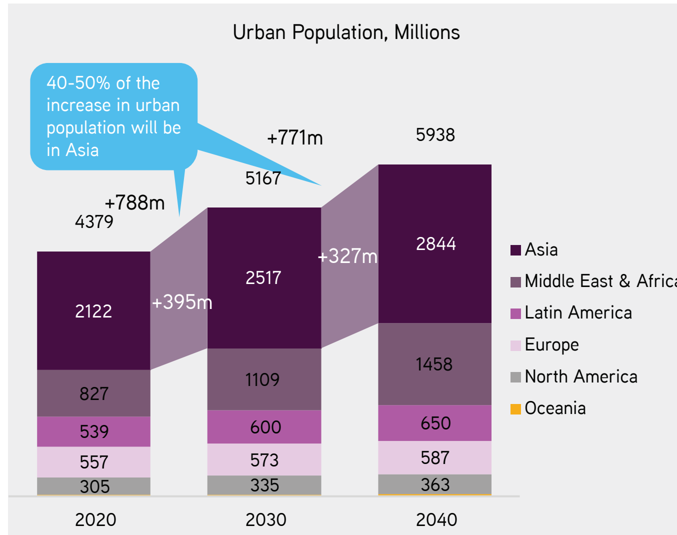
Asia's Consumer Market Is as Large as the U.S., But Growing Faster



Data retrieved as at May 31, 2021. Asia Pacific includes China, India, Japan, Hong Kong, Korea, and ASEAN (Indonesia, Malaysia, Philippines, Thailand, Singapore, Vietnam), Australia and New Zealand. Source: World Bank, IMF, OECD, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 105

The World Is Still Urbanizing, With Asia Making Up Half of the Increase in Urban Population by 2040

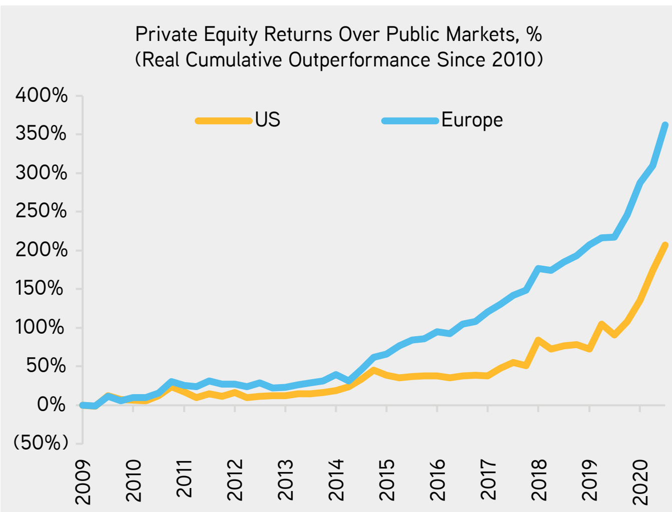


Data as at May 15, 2019. Source: United Nations, Department of Economic and Social Affairs, Population Division, World Urbanization Prospects, Haver Analytics.

Europe is obviously a very different demographic opportunity, but in many instances, European Private Equity firms have been able to gain more targeted exposure to sectors like Technology, Media, and Communications. Indeed – despite all the geopolitical crosscurrents of late – our meetings on the ground in Paris, London and Madrid over the last twelve months has confirmed the robust opportunity for our local teams with thoughtful entrepreneurs and growing family businesses that see value in partnering with Private Equity. By contrast, Europe's public markets offer far less exposure to growth sectors such as Software, Security, and Digitalization, which collectively comprise less than 10% of many high profile public equity indexes in the region. In fact, nearly 60% of the Eurostoxx index is concentrated in Financials, Industrials, and Real Estate at a time when rising energy input costs, central bank rate hikes, and a slowing global goods economy are putting more pressure on these sectors. That backdrop has allowed Private Equity to deliver superior absolute and relative performance, as one can see in *Exhibit 106*. Moreover, with the region so out of favor, there are now a select group of high quality public-to-private opportunities around these themes that were previously not available, in our view.

Exhibit 106

Don't Judge European Investment Opportunities by the State of the Public Markets

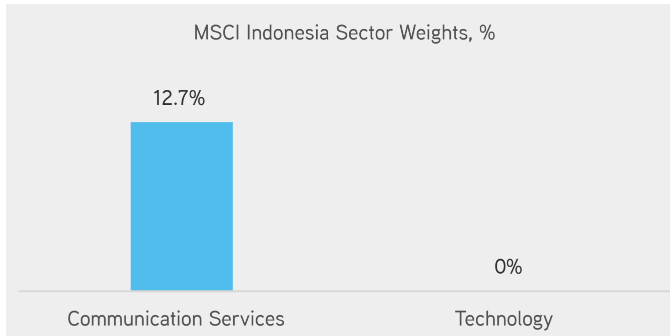


Data as at October 6, 2022. Source: Cambridge Associates.

Moreover, we are increasingly struck by how fast overall consumer behavior patterns are changing in the region as demographic shifts combine with new technology (e.g., e-commerce) and urbanization trends. All told, we now forecast the Asian consumer market to surpass the U.S. during the next few years.

Exhibit 107

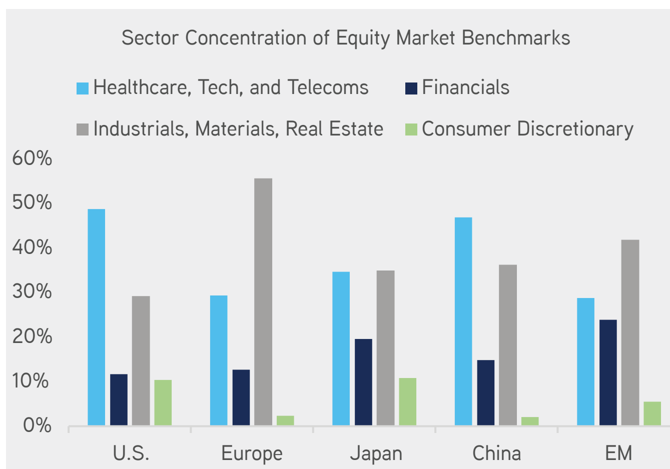
Public Indices in Indonesia Aren't Fully Capturing Demographic Tailwinds and Rising GDP-per Capita via Technology



Note: Telekom Indonesia is 10.95% of Communications Services. Data as at November 2022. Source: MSCI.

Exhibit 108

Gaining Exposure to EM and European Tech or China Consumer Upgrades Through Public Equities Is Challenging



We use the S&P 500, Eurostoxx, Nikkei, CSI 300 and Bloomberg EM indices as benchmarks for U.S., Europe, Japan, China and EM equity markets, respectively. Data as at November 28, 2022. Source: Bloomberg.

So, our bottom line is that weak currencies and attractive valuations make public international markets more interesting than in the past. Moreover, with positioning extremely light, we think that a growing handful of European and Asia *public* markets could surprise nicely to the upside in 2023. That is the tactical opportunity we see, especially if the U.S. dollar weakens a bit more than consensus expects.

Maybe more important, though, is the fact that key growth trends may not always be well represented in traditional public indexes in international markets. Therein lies the true strategic opportunity, we believe, for thoughtful CIOs to embrace investment vehicles such as Private Equity that actually gain sizeable, long-term exposure to these themes in order to drive returns well above the tactical opportunity we now see in the public international equity markets.

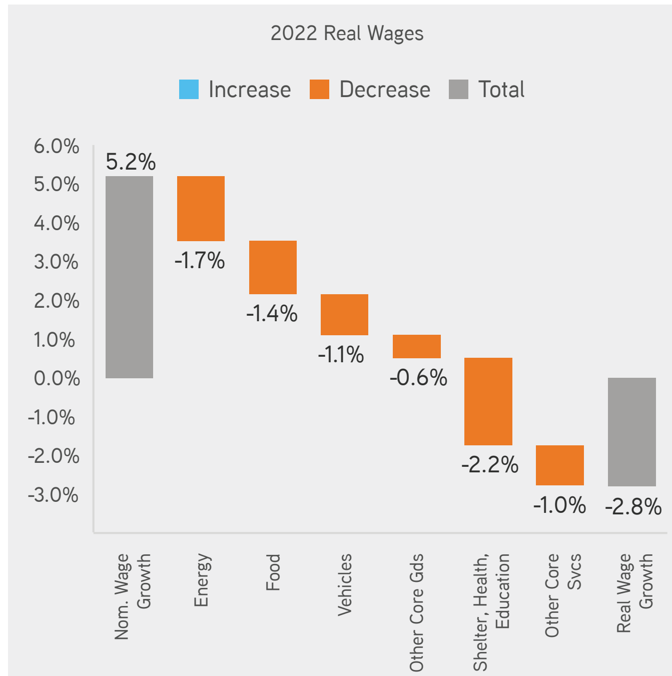
Question #6: What is your outlook for the U.S. consumer, wages, and housing?

In our midyear outlook, we described a bifurcation between U.S. consumers' incomes and their balance sheets, with real wage growth turning negative for most households amid higher costs for essentials such as gasoline, and transportation. That call was, unfortunately, the right one.

***Going forward, the good news is that – despite higher costs for food and shelter – consumers' income statements may actually improve* in 2023, with real income growth flipping from negative to positive amidst cooling inflation and higher wages** (*Exhibits 109* and *110*)**.** Said differently, despite our call for a recession in the U.S. next year, we expect the labor market to hold up far better than in recent downturns *(Exhibit 23)*. Key to our thinking is the unique combination of cyclical and structural forces putting upward pressure on U.S. nominal wages this cycle, including a record number of job openings needing to be backfilled as a result of COVID-era retirements (*Exhibit 83*) and a worsening shortage of younger workers in services professions as a result of slowing demographic growth. If we are right, then the surprise of 2023 might be that consumers actually have *more* real spending power than they did in 2022, particularly as households' overall debt servicing costs remain quite low coming out of the pandemic*.*

Exhibit 109

Real Income Growth in 2022 Was Held Back by High Costs for Essentials...

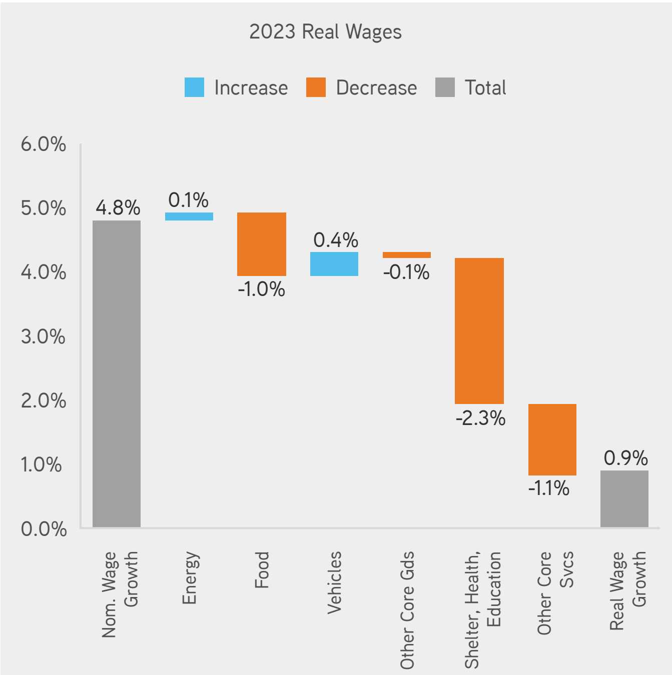


Data as at December 13, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

So, our bottom line is that weak currencies and attractive valuations make public international markets more interesting than in the past. Moreover, with positioning extremely light, we think that a growing handful of European and Asia public markets could surprise nicely to the upside in 2023.

Exhibit 110

…But We Expect Wage Growth to Turn Positive in 2023 as Goods Prices Go Negative Y/y

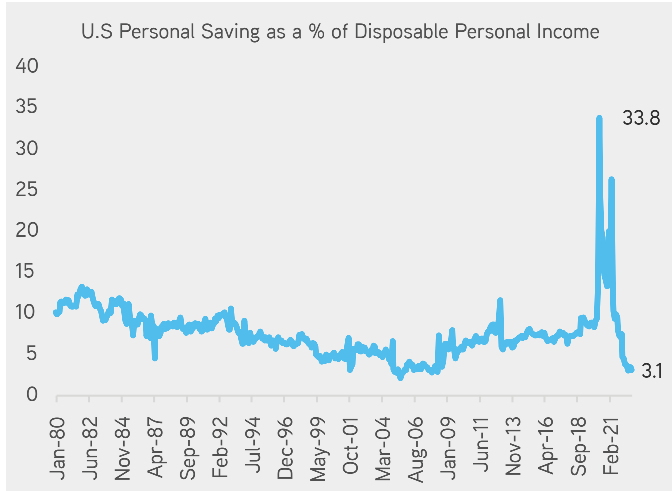


Data as at December 13, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

On the other hand, where we do see more signs of emerging risk is on the balance sheet side of the equation. Remember that the central bank-induced run-up in financial asset and real estate prices has served as major tailwind for higher-income consumer spending in recent years. Just consider that the average U.S. house appreciated $61,000 in 2021, nearly as much as the median household income of $71,000. Those dynamics are now starting to cool and in some cases reverse amidst a sharp correction in capital markets and an ongoing HPA slowdown, raising the possibility that fading wealth effects will offset improving real incomes and result in a downturn in U.S. consumer spending. That possibility is particularly concerning because balance sheets tend to mostly help high-end consumers, who account for the majority of U.S. consumer spending.

Exhibit 111

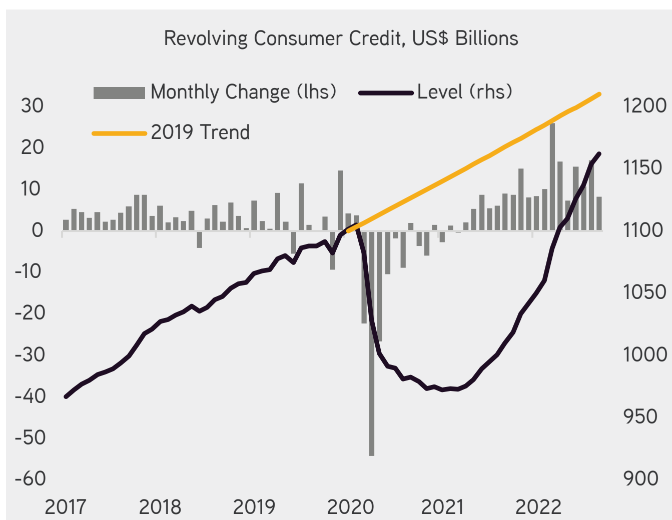
We Are Now Below Pre-Pandemic Savings Levels as Recessionary Pressures Mount



Data as at October 31, 2022. Source: BEA, University of Michigan, BLS.

Exhibit 112

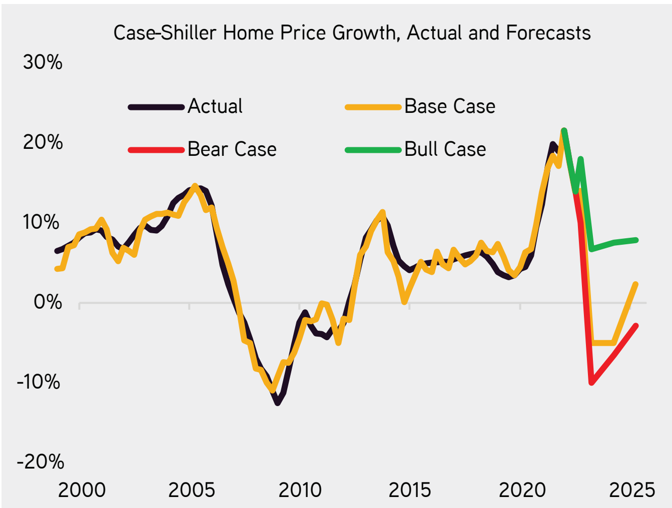
With Savings Depleting, Credit Card Debt Utilization Has Rebounded Meaningfully



Data as at September 30, 2022. Source: Federal Reserve, Haver Analytics.

Exhibit 113

We Continue to Expect Home Price Growth to Soon Turn Negative Before Returning to Modestly Positive Over the Medium Term



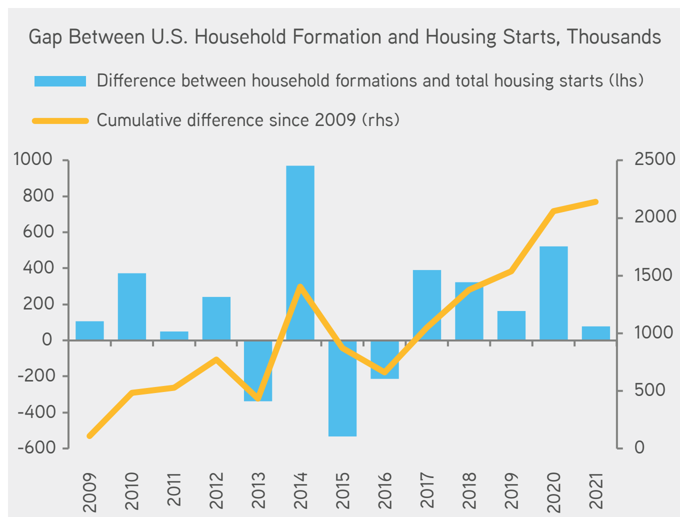
Data as at November 30, 2022. Source: Standard & Poor's, Case-Shiller, National Association of Realtors, U.S. Bureau of Labor Statistics, U.S. Census Bureau, Federal Reserve Board, Urban Institute, U.S. Bureau of Economic Analysis, KKR CREM analysis.

So, amidst these cross currents, how do we see U.S. consumer spending playing out? On balance, we think that declining household net worth is likely to cause a 2001-2003 style 'slowdown' in consumer spending. However, we are not forecasting a GFC-style 'collapse', given resilient housing fundamentals, consumer cash balances and the ongoing normalization of services spending.

For starters, on housing, my colleagues Paula Campbell-Roberts and Patrycja Koszykowska recently reviewed their outlook for the U.S. housing market. Their key takeaway was that, even with higher mortgage rates, home prices continue to benefit from a *fundamentally constructive backdrop* related to demographic-driven demand amidst a chronic undersupply of housing *(Exhibits 114* and *115)*. Specifically, Millennials – the largest generation of Americans – are entering first-time home-buying age at a time when the supply of existing single-family homes for sale remain near all-time lows. In fact, the cumulative gap between new households formed compared to new housing starts since 2009 is on the order of 2.1 million, and the supply of existing homes is being constrained both by higher mortgage rates and by increased longevity of existing homeowners. As a result, while we do think that U.S. home prices will experience low single-digit year-over-year declines in coming years, housing wealth should still settle close to or above 2019 levels, providing a key support to consumer confidence and spending.

Exhibit 114

Household Formations Have Continuously Exceeded Housing Starts Since 2017

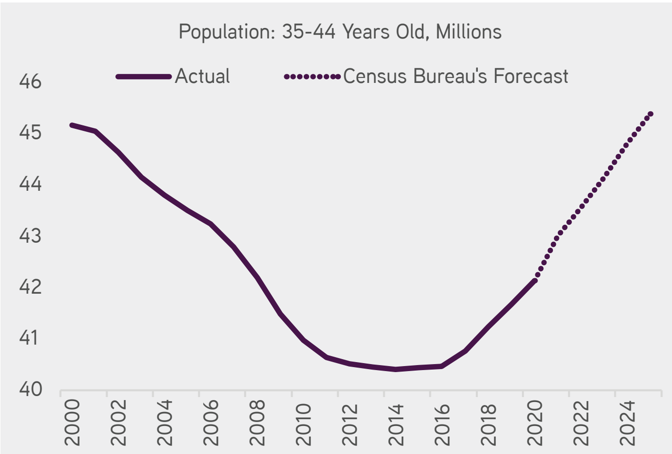


Data as at December 31, 2021. Source: U.S. Bureau of Labor Statistics, Haver Analytics, KKR CREM estimates.

This backdrop likely means that the consumer slowdown we're anticipating will be largely concentrated in the Goods sector, rather than in Services. This viewpoint is important as services dwarf goods in the economy by 2:1.

Exhibit 115

The Aging of the Millennial Population Supports Housing Demand



Data as at July 31, 2022. Source: U.S. Census Bureau.

Second, we would point out that **consumers are still holding a *lot* more cash than they were at the start of the pandemic.** The top four income quintiles – who collectively account for 91% of consumer spending in the U.S. – have seen their cash holdings balloon since 2019. In fact, the increase in checkable deposits is so extreme that the second, third and fourth quintile each holds more cash today than the quintile above it did pre-pandemic *(Exhibit 116)*. At an aggregate level, U.S. consumers now have nearly $5 trillion in their bank accounts, compared to approximately $1 trillion pre-pandemic, a 4.9x increase. To be sure, the savings rate as a percentage of disposable income has fallen to 3.1% from a peak of 33.8% during the pandemic, but our view is that there is still a lot of cash flowing around the system *(Exhibit 111)*. In short, U.S. households are still sitting on plenty of 'dry powder' that will support spending, we believe.

Third, as we wrote earlier, we continue to think that consumption will increasingly shift from above-trend goods spending to below-trend services spending as the effects of stay-at-home COVID policies fade. This backdrop likely means that the consumer slowdown we're anticipating will be largely concentrated in the Goods sector, rather than in Services. This viewpoint is important as services dwarf goods in the economy by 2:1. Moreover, within services, a lot of categories that were considered 'discretionary' in past recessions are increasingly becoming 'new essentials', with a stronger outlook for categories like omni-channel retail, personal care, ESG, home repair, and auto maintenance than one might see in a 'typical' recession.

Exhibit 116

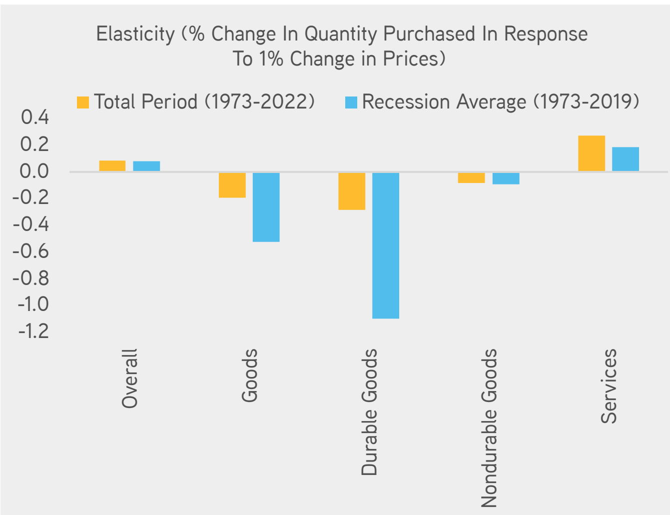
Overall Consumer Cash Balances Are Up by 4.9x Since 2Q19

Checkable Deposits by Income Quintile, US$ Millions						
	0-20	**20-40**	**40-60**	**60-80**	**80-100**	**Overall**
2Q19	$54,937	$64,786	$94,942	$165,961	$585,169	$965,795
2Q20	$67,120	$94,696	$157,711	$267,536	$959,204	$1,546,267
2Q21	$51,946	$180,792	$417,271	$666,553	$2,533,872	$3,850,434
2Q22	$14,832	$215,608	$539,085	$806,987	$3,131,406	$4,707,918
Memo: 2Q19 vs. 2Q22	**0.3x**	**3.3x**	**5.7x**	**4.9x**	**5.4x**	**4.9x**

Data as at June 30, 2022, Source: Federal Reserve Board, EvercoreISI Research.

Exhibit 117

Services Tend to Outperform Goods During Economic Downturns



Data as at September 30, 2022. Source: U.S. Bureau of Economic Analysis, KKR Global Macro & Asset Allocation analysis.

So, our bottom line is that amidst high inflation, higher interest rates and falling household net worth, the overall consumer picture in 2023 is definitely negative but not disastrous. However, within the consumer economy, we do expect a notable divergence. Specifically, while companies with defendable margins should hold up reasonably well this cycle, the corollary is that the 'hit' to consumer spending will disproportionately fall on durable goods companies and services companies with uncontrolled labor costs.

Question #7: What are your thoughts on expected returns this cycle?

We recently reviewed return assumptions across asset classes in both public and private markets. See *Exhibit 119* below for details, but our main takeaways were as follows:

1. **Fixed income returns should be higher than they were last cycle.** Higher projected Investment Grade and High Yield returns reflect, first and foremost, the math of higher coupons in a world where we think bond yields settle in the 3-3.5% range. While corporate defaults are likely to rise from today's ultra-low levels, the combination of higher nominal GDP growth and companies having termed out their debt during the pandemic should help keep credit losses relatively tame compared to past cycles. Meanwhile, while we think credit spreads may widen modestly, a sharp move would probably require a drastic slowdown in growth, which would in turn provoke a dovish pivot in Fed policy, too; said differently, we assign a small probability to an outcome in which *both* spreads widen *and* risk-free rates stay really high.

2. **Large-cap U.S. equity returns will likely be lower.** One consequence of our call for treasury yields to stay higher this cycle is that P/E ratios have only limited scope to re-rate from today's levels. If we are right – and we think we are – then earnings growth, rather than multiple expansion, will drive the bulk of S&P 500 returns over the next five years. The good news is that even accounting for a near-term EPS downturn, strong overall nominal GDP growth should translate into mid-high single digit returns for large-cap U.S. equities. Though it is lower than what investors are used to from the last five years, that return profile aligns with the fundamental signal from our top-down five-year real returns model, which has a good track record of predicting real equity market returns from simple macro variables *(Exhibit 125).*

Importantly, we are actually *more* constructive on both U.S. small-cap and certain non-U.S. stocks relative to the last cycle. Top of mind for us is that small-cap multiples have de-rated much more than large-cap multiples (Russell 2000 P/E is roughly two standard deviations below its long-run average, versus S&P 500 P/E near its long-run average), while a peak in Fed hawkishness should be a tailwind for foreign-currency assets. Outside of the U.S., we caution that investors need to pick the *right* market, particularly given idiosyncratic risks around de-globalization. Indeed, as mentioned earlier, public markets in countries like like Indonesia are actually overweight large financials, and at the same time, have very little exposure to rising GDP-per-capita stories in their public markets.

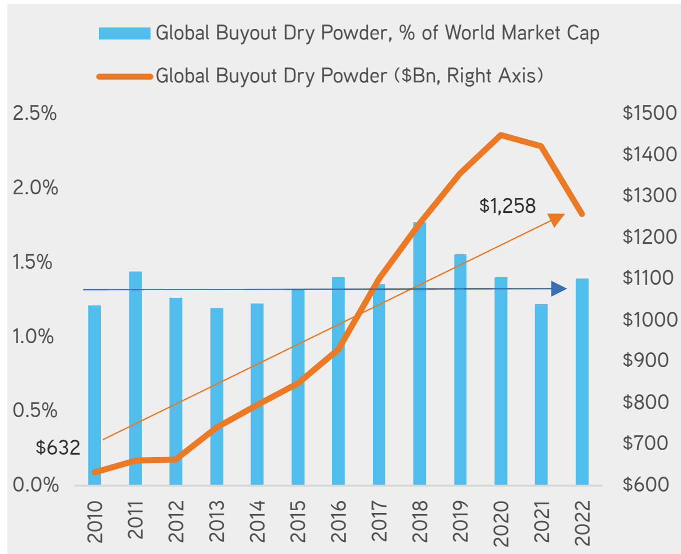
3. **Real Assets remain an asset class of choice.** No question, the cash flows from Real Assets become more appealing in an environment of higher nominal GDP growth. That thesis has been the backbone of our decision to overweight collateral-based cash flows in recent years. To be sure, we acknowledge that the performance of Real Estate and Infrastructure returns may slow relative to the last five years, which reflects first and foremost the fact that nominal GDP, while still quite elevated, is slowing. Nonetheless, we continue to think that Real Assets, especially Infrastructure, Energy, and Real Estate Credit, should be a larger part of investors' portfolios in a world where real interest rates – even after a historic rate tightening campaign – remain relatively low. They are also an important 'shock absorber' if we are right that stocks and bonds will continue to sell off together (i.e., are now positively correlated) during bouts of rising inflation.

4. **The illiquidity premium will become more important amidst heightened volatility.** Even after inflation peaks, we think that the *threat* of higher inflation will present a new constraint on global monetary policy relative to the last twenty years. This new reality will limit central banks' abilities to smooth fluctuations in markets, and increase volatility across rates, FX, and real GDP growth relative to past cycles. Against this backdrop, we think that there is more value in the illiquidity premium than there was during the post-GFC era *(Exhibit 18)*, with alpha becoming a more important contribution relative to beta in private market returns.

Against this backdrop, we think that there is more value in the illiquidity premium than there was during the post-GFC era.

Exhibit 118

While the Absolute Amount of Dry Powder Has Increased, It Has Not Actually Changed Relative to the Size of the Capital Markets

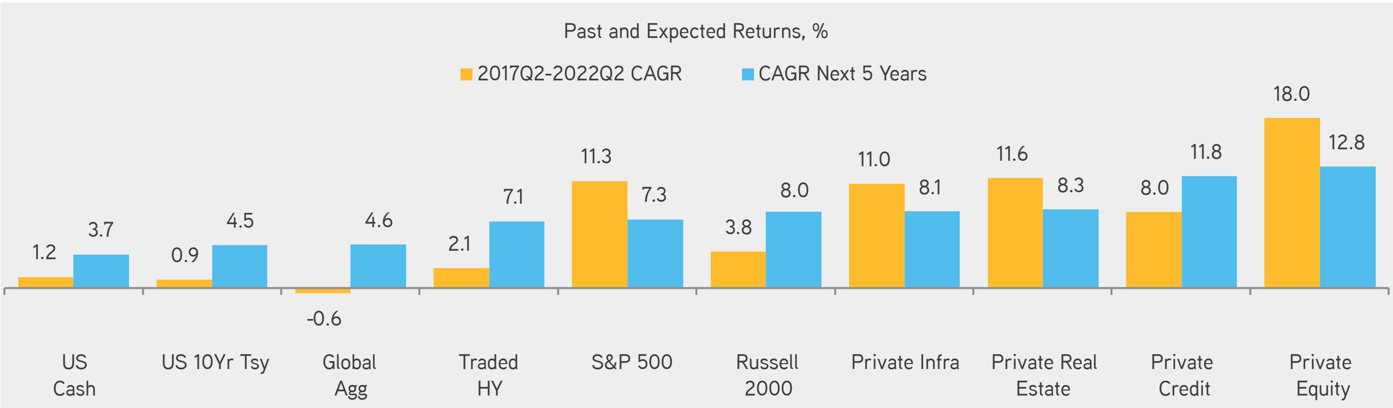


2022 dry powder estimated as at 3Q22. Data as at December 6, 2022. Source: Pitchbook, Bloomberg.

The bottom line for us is that investors will need a different playbook relative to what 'worked' during the last five years. Within public markets, leaning into large-cap U.S. Equities at the expense of everything else may not deliver the same results as it did in the past. In particular, we see better performance for Credit and for small-cap and non-U.S. equities. We also think that a larger illiquidity premium will emerge in private markets. We also see both the return profile of and the diversification provided by Real Assets remaining an important driver of portfolio performance in the coming years. Perhaps most importantly, we think that investors will need to take a more *holistic* approach to portfolio construction relative to past cycles, as many of the familiar relationships between asset-level returns have shifted in a world of high inflation and more restrictive interest rate policy.

Exhibit 119

We See Lower Equity Returns and Higher Fixed Income Returns Relative to the Last Five Years



Our estimates for real estate returns are now designed to capture fund-level returns to LPs, rather than our previous approach of modeling unlevered asset-level returns. Key to our thinking is that this approach offers a better point of comparison between Real Estate, Private Credit, and Private Equity, as well as the fact that it more closely approximates how most investors think about accessing this asset class. Traded HY approximated using U.S. HY. Forward return data as at September 30, 2022. Source: Bloomberg, Cambridge Associates, Greenstreet, BofA, JP Morgan, KKR Global Macro & Asset Allocation analysis.

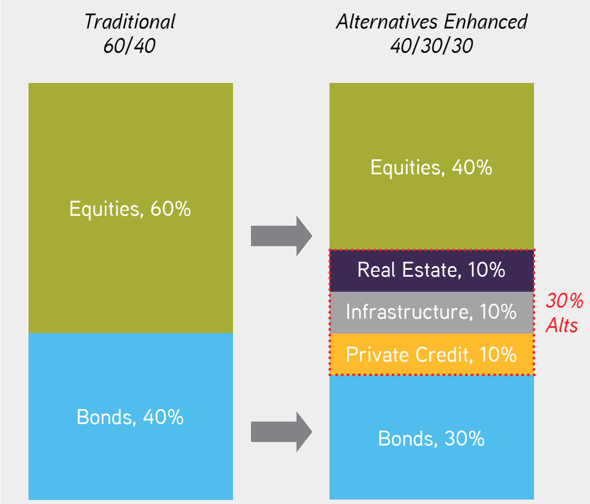
Question #8. What is your latest view of the 60/40 portfolio?

For some years, we have argued that from an asset allocation and portfolio diversification perspective, quantitative easing likely overstated the importance of bonds as both income producers as well as 'shock absorbers.' In May 2022, Racim Allouani, who heads our Global Portfolio Construction Group at KKR, and Thibaud Monmirel, a colleague on Racim's team, began to pound the table harder on this call as quantitative tightening accelerated, changing the underlying characteristics of existing portfolios. At that time, we published an *Insight*s note *Regime Change: Enhancing the 'Traditional' Portfolio,* that made the case that the traditional 60/40 allocation wasn't providing the same benefits to a balanced portfolio as in the past. As an alternative, we suggested considering an increase in allocations to more inflation resilient assets such as Private Credit, Infrastructure and Real Estate in a '40/30/30' Equities/Bonds/Alternatives construct.

The bottom line for us is that investors will need a different playbook relative to what 'worked' during the last five years. Within public markets, leaning into large-cap U.S. Equities at the expense of everything else may not deliver the same results as it did in the past. In particular, we see better performance for Credit and for small-cap and non U.S. equities. We also think that a larger illiquidity premium will emerge in private markets.

Exhibit 120

How We Suggest Enhancing the Traditional 60/40 Portfolio



KKR Enhanced Portfolio	Investor Benefits
40% Public Equities plus 10% Private Infrastructure and 10% Private Real Estate	Infrastructure and Real Estate assets often have inflation indexation increases embedded in their cash flows; the replacement value of their assets also increases in a rising nominal GDP environment.
30% Traditional Fixed Income plus 10% Private Credit	Shifting a portion of the portfolio to floating rate assets helps boost the income-generating component of the fixed income allocation. It also shortens the duration and provides some valuable diversification to the overall portfolio. Meanwhile, the remaining traditional bonds allocation still allows for some convexity if inflation does cool in 2023.

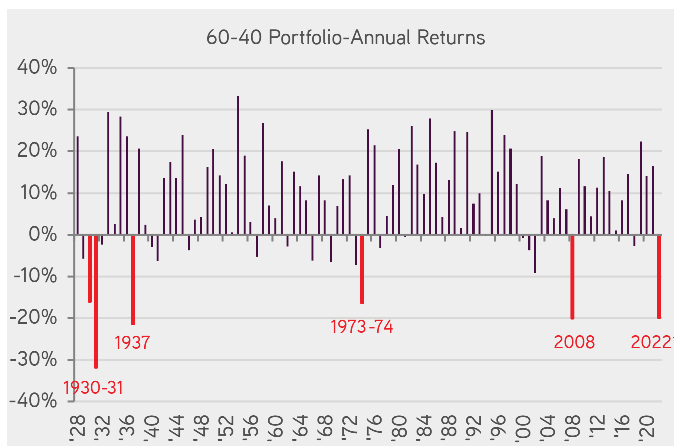
Data as at November 30, 2022. Source: KKR Global Macro & Asset Allocation analysis.

Importantly, today we are not as adamant that the performance of the 60/40 is at risk, given that this benchmark portfolio has experienced its worst performance in 100+ years. One can see this in *Exhibit 121*. Said differently, a tactical rally may be in store, especially if we are right in our forecast that the U.S. 10-year yield peaked in 2022. However, our long-term viewpoint around portfolio construction is unchanged. Specifically, we continue to believe that, in the new macroeconomic regime we have entered, there are better ways to improve portfolio diversification and overall risk-adjusted returns beyond what the traditional 60/40 can provide, including our '40/30/30' portfolio.

Most importantly, though, is that we maintain high conviction that the traditional stock-bond correlation will remain challenged over the next 5-7 years.

Exhibit 121

We Are Now Less Bearish On Duration in 2023, But We Still Think the 60/40 Remains Structurally Challenged



Before 1977: Using S&P500, and 50% US T.Bond and 50% Baa Corp Bond (NYU Stern) for bonds. After 1977: Using S&P500, and Barclays US aggregate for bonds. Assuming yearly rebalancing. *2022 return corresponds to annualized YTD return. Data as at October 31, 2022.

In terms of our latest thinking, we note the following five points.

60/40 Portfolio: Key Investing Conclusions

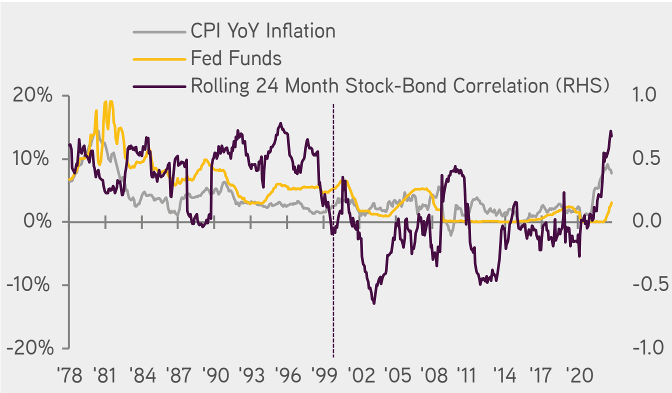
1	While the 60/40 portfolio could snap back in the short-term, our fundamental, long-term view that the correlation between Equities and Bonds has turned positive has not changed. As such, we think we are in a different regime for asset allocation.
2	We reiterate our view that a 40/30/30 Equities-Bonds-Alternatives allocation offers more robustness around diversification and inflation protection for the macroeconomic environment ahead. In the follow-up to our May 2022 portfolio construction paper, we examine our suggested 10% allocation to Private Credit.
3	We think that the case for Private Credit is actually more compelling today than when we wrote our original piece in May 2022. This asset class is benefitting from traditional lenders being sidelined, as capital charges mount amidst a large amount of 'hung' loans. We also see improved lending terms, higher absolute rates, and larger companies.
4	While building this 10% Private Credit allocation (which in general takes a few years) we propose investors pay attention to the current value offered in traded credit. We see some compelling relative value in CLO liabilities for example, which can be used as a bridge to get to the 10% Private Credit allocation.
5	Institutional and individual investors may look for different ways to implement our views. Draw-down funds remain compelling options for institutions and high net worth individuals, but we also see some compelling tactical opportunities across BDCs, interval funds, and even some high quality ETFs.

So, as we look ahead, we think that long-term investors should not rush back into the 60/40 simply based on performance. Rather, we continue to advocate for some form of a more diversified portfolio, including our 40/30/30 portfolio framework. There are several considerations that we think are worth highlighting to investors. Most importantly, though, is that we maintain high conviction that the traditional stock-bond correlation will remain challenged over the next 5-7 years. Key to our thinking is that we will have a higher resting heart rate for inflation as well as our belief that larger fiscal deficits will persist in developed economies. Finally, we see Quantitative Tightening as a headwind to the role bonds played in portfolios during the last decade or so.

These insights are hugely important, as the bedrock of the 60/40 allocation is the negative correlation between stocks and bonds, allowing Bonds to cushion Equity losses when they occur. As numerous studies have shown and as we have witnessed first-hand this year, higher levels of and uncertainty around inflation play a major role in pushing the stock-bond correlation higher. And as we outline in Question #2 above, even though we think that inflation will cool in 2023, we believe that the stock-bond correlation won't return to the levels of the past two decades given the structurally inflationary risks that the pandemic has highlighted. Simply relying on bonds to hedge equity holdings in this new macro regime we envision is a suboptimal stance, in our view. Instead, we believe that investors will need to use more of the tools at their disposal to increase the robustness of their portfolio diversification in the challenging macroeconomic environment ahead (*Exhibit 124*).

Exhibit 122

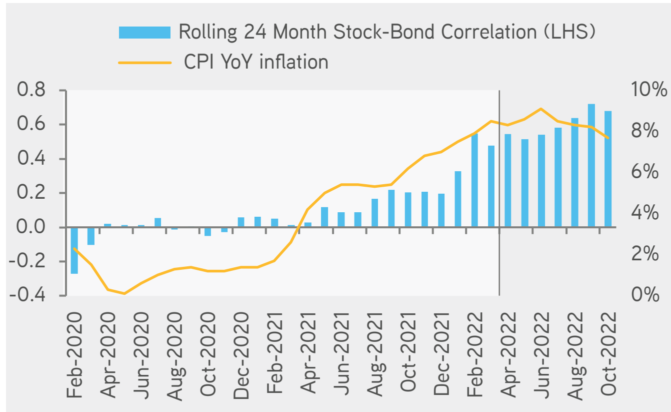
While Our Near-Term View Is That Inflation Is Peaking, We Think It Will Have a Higher Resting Heart Rate, and the Stock/Bond Correlation Could Stay Positive, Which Represents a Major Change From Prior Periods



Stocks modeled using the S&P500 Index and Bonds modeled using the Barclays U.S. Aggregate Index. Rolling 24 month correlations calculated using monthly total returns from 1978 to October 31, 2022. Source: Bloomberg.

Exhibit 123

The Correlation Between Stocks and Bonds Has Continued to Stay Elevated Since Our Last Writing, With an October 31 Reading of 0.68



60-40 Portfolio modeled using S&P500 and Barclays U.S. aggregate total returns, assuming weekly rebalancing. Data as at October 31, 2022. Source: Bloomberg.

Exhibit 124

Over the Last 24 Month Period Through June 2022, the 40-30-30 Portfolio Has Outperformed the 60-40 Portfolio by Around 3%, Resulting in a Sharpe Ratio Improvement of +0.4x

	From December 1927 to December 2021					
	All Periods		High Inflation		Low Inflation	
	60/40	40/30/30	60/40	40/30/30	60/40	40/30/30
Annualized Return	9.3%	9.6%	1.5%	4.3%	11.0%	10.5%
Annualized 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

	From June 2020 to June 2022		
	60/40	40/30/30	**Outperformance**
Annualized Return	5.1%	7.7%	**+2.6%**
Annualized Volatility	12.5%	9.1%	**-3.5%**
Sharpe Ratio	0.41	0.85	**+0.44**

Source: U.S. Equities modeled using the SP500 Index; Bonds modeled using Barclays U.S. aggregate Index; 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. Returns, volatility and Risk-adjusted returns derived from historical total returns. Data as at June 30, 2022.

Section IV: Conclusion

Truth tends to reveal its highest wisdom in the guise of simplicity. — Friedrich Nietzsche, German philosopher

As we peer around the corner to what lies ahead in the global capital markets, we are poised – despite some of the significant cross-currents that we see across the global economy – to enter 2023 with a more constructive tilt. Our basic premise is that it will be easier to navigate inflation's negative impact on corporate earnings and consumer balance sheets in 2023 than it was to invest with inflation consistently surprising central banks and investors throughout all of 2022.

However, making money in 2023 and beyond will not be easy. It will require both patience and courage, and it will require an investor to have a game plan that leverages the type of long-term frameworks that we employ at KKR across asset classes and regions.

In terms of deployment preferences, our message is straightforward: Keep It Simple. We have exited TINA (there is no alternative), and as such, one does not need to stretch to make an adequate total return. In terms of where we would lean in, we favor a few things:

1. **We retain our bullish bent on collateral-based cash flows**. Infrastructure, Real Estate Credit, and many parts of Asset-Based Finance look extremely attractive to us right now. We also like what these types of investments do to a portfolio during a higher interest rate, higher inflation, and higher nominal GDP environment. Most importantly, they provide both income and diversification.

2. **In today's market we heavily favor a 'solution' of different Credit products that can provide both above average yield relative to recent history and some convexity if inflation is peaking**. Said differently, we like the high absolute yield and floating rate nature of Private Credit today, but we also like the convexity that Liquid Credit, including High Yield, can potentially provide if rates increases cool.

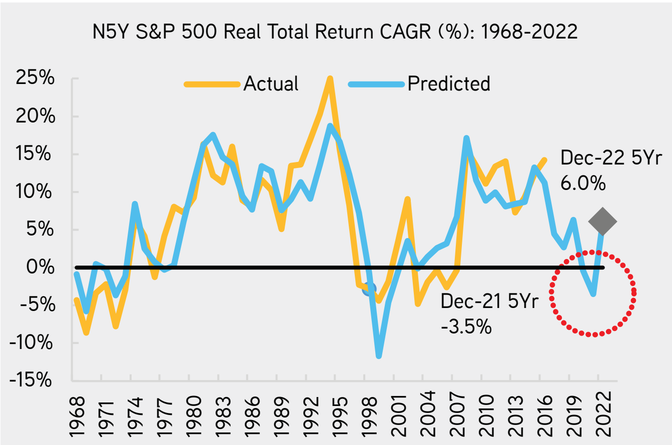
3. **While overall Equity returns are coming down, we think that there is a significant opportunity in small caps. We also like dividend-growing 'aristocratic' equities that have good capital allocators as CEOs**. Within Private Equity, we believe strongly in companies with simple unit economics and modest leverage. Cash flow conversion, not big TAMs (total addressable markets) will be the key attribute in this new macroeconomic environment we envision.

Importantly, though, across all these asset classes, **our message is to keep it simple**, including moving higher up in the capital structure when possible, not over-extending on duration, and focusing on quality. Consistent with this view, we think the reality that many banks are no longer extending credit as freely means that it is a good time to fill that gap and be a lender to high quality counterparties. And within Credit, the good news is that all the dislocations that occurred in 2022 have now created a large number of cost of capital arbitrages that favor investors who understand relative value.

In today's market we heavily favor a 'solution' of different Credit products that can provide both above average yield relative to recent history and some convexity if inflation is peaking. Said differently, we like the high absolute yield and floating rate nature of Private Credit today, but we also like the convexity that Liquid Credit, including High Yield, can potentially provide if rates increases cool.

Exhibit 125

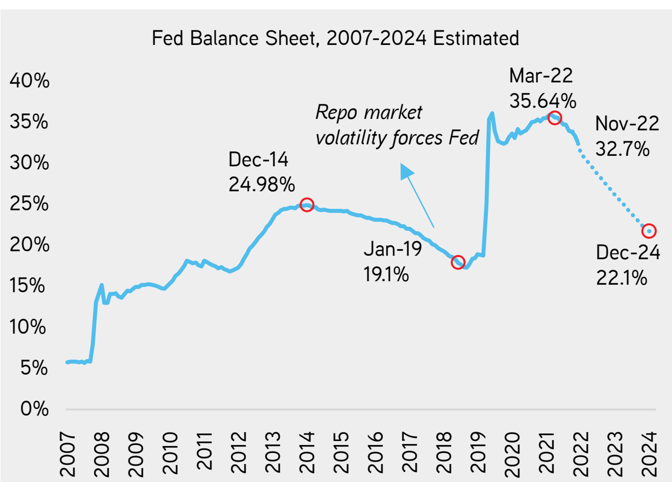
Our Forward Model on Expected Returns Is Now Much More Favorable Than It Was 12-18 Months Ago



Data as at December 3, 2022. Source: Robert Shiller, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 126

The Fed's Balance Sheet Remains One of the Hardest Risks for Us to Assess as We Think About the Current Macroeconomic Environment



Data as at November 30, 2022. Source: U.S. Bureau of Economic Analysis, Federal Reserve Board.

In terms of where we could be wrong on our outlook, our biggest concern is that wage growth keeps the Fed in action for longer than we expect, including the reduction of its balance sheet *(Exhibit 126)*. To compensate for this scenario, we continue to advocate for more floating rate debt in the portfolio as well as a large overweight to Real Assets.

In closing, we approach 2023 with guarded optimism. We feel confident that the global capital markets – in their currently unsettled state – are providing some very interesting opportunities to investors who understand relative value, and in doing so, know how to invest into some of the cost of capital arbitrages that we are seeing across asset classes and regions these days. Importantly, we believe that it will be the marriage of a steady, top down framework — coupled with sound bottom-up fundamental analysis — that will win the day. Along the way, though, we must remember that simplicity likely trumps complexity in a world of higher rates, stickier inflation, and heightened geopolitical tensions.

Consistent with this view, we think the reality that many banks are no longer extending credit as freely means that it is a good time to fill that gap and be a lender to high quality counterparties. And within Credit, the good news is that all the dislocations that occurred in 2022 have now created a large number of cost of capital arbitrages that favor investors who understand relative value.

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.

The views expressed in this publication are the personal views of Henry H. McVey of Kohlberg Kravis Roberts & Co. L.P. (together with its affiliates, "KKR") and do not necessarily reflect the views of KKR itself or any investment professional at KKR. This document is not research and should not be treated as research. This document does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of KKR. This document is not intended to, and does not, relate specifically to any investment strategy or product that KKR offers. It is being provided merely to provide a framework to assist in the implementation of an investor's own analysis and an investor's own views on the topic discussed herein.

This publication has been prepared solely for informational purposes. The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this document has been developed internally and/or obtained from sources believed to be reliable; however, neither KKR nor Mr. McVey guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision.

There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such. Target allocations contained herein are subject to change. There is no assurance that the target allocations will be achieved, and actual allocations may be significantly different than that shown here. This publication should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any investment strategy.

The information in this publication may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. Performance of all cited indices is calculated on a total return basis with dividends reinvested. The indices do not include any expenses, fees or charges and are unmanaged and should not be considered investments.

The investment strategy and themes discussed herein may be unsuitable for investors depending on their specific investment objectives and financial situation. Please note that changes in the rate of exchange of a currency may affect the value, price or income of an investment adversely.

Neither KKR nor Mr. McVey assumes any duty to, nor undertakes to update forward looking statements. No representation or warranty, express or implied, is made or given by or on behalf of KKR, Mr. McVey or any other person as to the accuracy and completeness or fairness of the information contained in this publication and no responsibility or liability is accepted for any such information. By accepting this document, the recipient acknowledges its understanding and acceptance of the foregoing statement.

The MSCI sourced information in this document is the exclusive property of MSCI Inc. (MSCI). MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed or produced by MSCI.

KKR

Kohlberg Kravis Roberts & Co. L.P.
30 Hudson Yards
New York, New York 10001
+ 1 (212) 750.8300
www.kkr.com