

KKR

Insights

13.3

Global
Macro Trends
June 2023

Still Keeping It Simple

Mid-Year Update 2023

Contents

3 Introduction

5 Key Considerations

13 Asset Allocation and Key Themes

- 13 Picks and Pans
 - 15 Buy Simplicity, Not Complexity
 - 15 Real Assets: We Still Favor Collateral-Based Cash Flows
 - 15 Labor Shortages Will Only Accelerate Automation/Digitalization
 - 17 Resiliency: The Security of Everything
 - 17 The Energy Transition Remains a Mega-Theme
 - 18 Normalization: Revenge of Services
 - 20 The Emergence of Generative AI
-

22 Global / Regional Economic Forecasts

- 22 Global
 - 23 United States GDP and Inflation
 - 31 Euro Area GDP and Inflation
 - 34 China GDP and Inflation
-

37 Capital Markets

- 37 S&P 500
 - 39 Interest Rates
 - 43 Oil
-

46 Frequently Asked Questions

- 46 Where do we see value across asset classes?
 - 49 Given how bullish you are on lending in this market, how should investors think about the 'Credit' sleeve of their portfolio?
 - 51 What are your views on inflation globally and the impact on asset allocation, Real Assets in particular?
 - 53 How are you thinking about the health of the global consumer?
 - 57 How concerned should we be over Commercial Real Estate loans?
 - 59 What are the longer-term issues that keep you up at night?
-

64 Conclusion



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

David McNellis
david.mcnellis@kk.com

Frances Lim
frances.lim@kk.com

Aidan Corcoran
aidan.corcoran@kk.com

Paula Campbell Roberts
paula.campbellroberts@kk.com

Racim Allouani
racim.allouani@kk.com

Changchun Hua
changchun.hua@kk.com

Kristopher Novell
kristopher.novell@kk.com

Brian Leung
brian.leung@kk.com

Deepali Bhargava
deepali.bhargava@kk.com

Rebecca Ramsey
rebecca.ramsey@kk.com

Bola Okunade
bola.okunade@kk.com

Patrycja Koszykowska
patrycja.koszykowska@kk.com

Thibaud Monmirel
thibaud.monmirel@kk.com

Asim Ali
asim.ali@kk.com

Ezra Max
ezra.max@kk.com

Miguel Montoya
miguel.montoya@kk.com

Patrick Holt
patrick.holt@kk.com

Allen Liu
allen.liu@kk.com

Still Keeping It Simple

Amidst the supply-side-driven regime change that we believe has unfolded across the global macroeconomic landscape, we continue to advocate for 'Keeping It Simple' in today's market. Key to our thinking is that an investor can now earn strong risk-adjusted returns without the need to stretch in terms of either capital structure or counterparty risk. Consistent with this view, we believe investors can create some really attractive vintages in both the private and public markets by doing the little things well, including maintaining linear deployment, ensuring diversification through sound portfolio construction, and hedging currencies and interest rates where appropriate. In terms of what this backdrop means for investing, in our view, now is a really compelling time to be a lender on a global basis. This vintage should not be missed. We also continue to pound the table on the benefits of collateral-based cash flows in portfolios, particularly Infrastructure, Asset-Based Finance, and certain Real Estate projects that are directly linked to positive nominal GDP growth. Finally, within both Private and Public Equities, we remain thematic in our approach and steadfast in our desire to focus on high free cash flow conversion stories, especially corporate carve-outs and public-to-private transactions.

You have to work hard to get your thinking clean to make it simple. But it's worth it in the end because once you get there, you can move mountains.

— Steve Jobs, American inventor, designer, and entrepreneur

No doubt, there is a lot of ‘complexity’ out there to distract investors.

In particular, we have escalating China-U.S./Western tensions, a full-scale invasion of Ukraine by Russia, bank failures, increased political divisiveness, and a surge in AI-related breakthrough technologies. At the same time, central bankers are still trying to unwind what was possibly the greatest coordinated flush of monetary and fiscal spending during COVID that the developed market economies have ever seen.

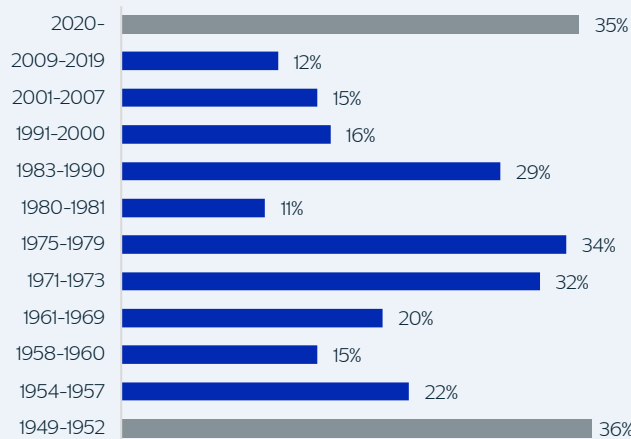
Yet, despite all this uncertainty, the S&P 500 is up around 14% year-to-date, while the Euro Stoxx 50 and the Japanese Topix have each appreciated about 15% and 20%, respectively. Meanwhile, High Yield bonds have produced a total return of just over five percent year-to-date. Has the market got it wrong? What does this all mean on a go-forward basis? Our take: After multiple trips across Asia, Europe, and the United States to pressure test our macro frameworks in the first half of the year, **we think investors are still too conservatively positioned for the path forward we are seeing for the global economy (Exhibit 28).**

Without question, we are all experiencing a complicated, asynchronous global economic recovery following COVID, and we still expect negative EPS growth in 2023. However, similar to what we laid out in our 2023 Outlook note *Keep It Simple*, **we actually remain constructive on risk assets, given stronger nominal GDP growth than in past cycles (Exhibit 1).** Rarely has there been such an intersection of poor near-term fundamentals, more than offset, we believe, by a compelling technical backdrop (i.e., little new issuance supply, record buy-backs) and resounding negative sentiment (S&P 500 shorts are near 30-year highs); at the same time, recent dislocations have created some stand-out investment opportunities that traditional 60/40 investors might be overlooking. Against this noisy backdrop, Steve Jobs’ famous words that “*You have to work hard...to make it simple*” resonate mightily with us. But if you do, the upside is significant as “*you can move mountains*” as an investor, we believe, in this market.

Key Considerations

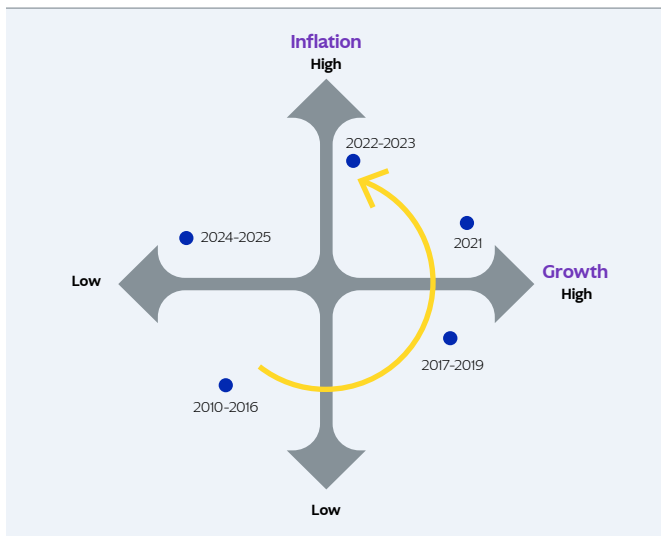
EXHIBIT 1: It's Actually Been the Fastest Economic Recovery Since the End of World War II

U.S. Nominal GDP Growth 12 Quarters Into an Expansion Cycle, %



Data as at March 31, 2023. Source: BofA Global Investment Strategy, Haver Analytics.

EXHIBIT 2: While Inflation Has Likely Peaked, We Believe a Regime Change Has Occurred



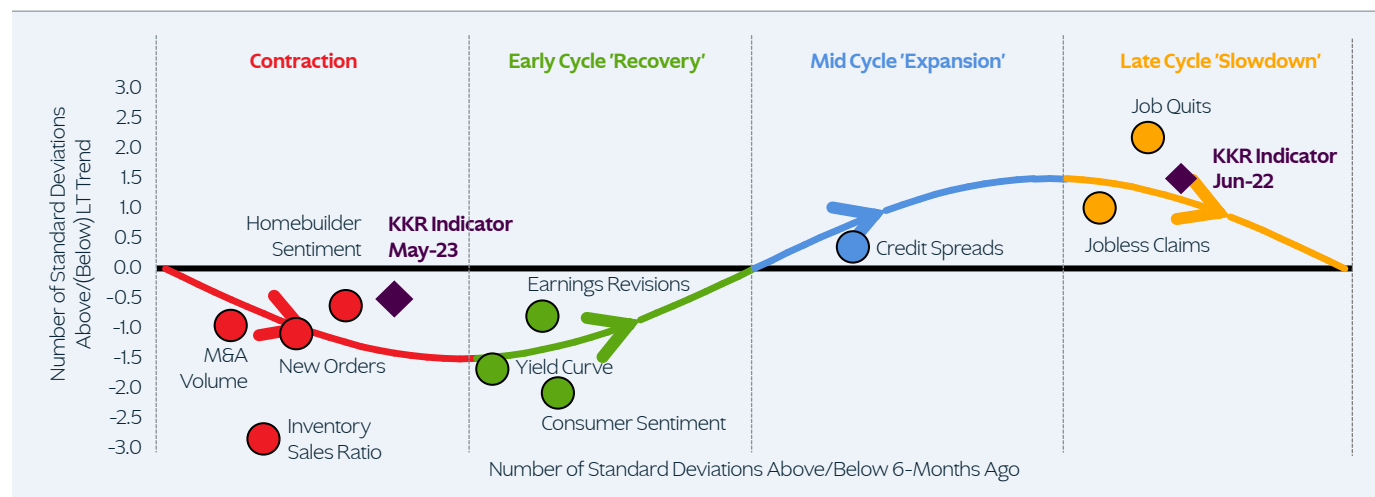
Data as at May 31, 2023. Source: KKR Global Macro & Asset Allocation analysis.

In case there is any question, we want to be on record that we think that the bottom is in for the S&P 500 this cycle, and that it occurred back in October 2022. Similarly, within Credit, our view is that prices are likely to stabilize in the current \$85-90 range, and while we expect an increase in defaults, we think the longer-term path is upwards from current levels.

Importantly, we do not think that a CIO can broadly go risk on and/or risk off. Key to our thinking is that the current economic signals are just too varied, which actually makes sense given the supply side shocks we are all experiencing this cycle. Indeed, as we show in *Exhibit 3*, our proprietary four stage model has important inputs actually spread across all different phases of growth (i.e., contraction, early cycle, mid-cycle, and late cycle), and as such, we are experiencing both a rolling recovery and rolling recession at the same time. In the past, by comparison, most of our inputs would concentrate in just one of the phases.

Consistent with this view, we believe investors can create some really attractive vintages in both the private and public markets by doing the little things well, including maintaining linear deployment, ensuring diversification through sound portfolio construction, and hedging currencies and interest rates where appropriate.

EXHIBIT 3: Our Proprietary Framework Suggests That Cyclical Leading Indicators, on Net, Are in a Mild Contractionary Phase in the U.S. Importantly, We Do Not Expect the Same Type of Economic Downside as in Past Cycles, Especially on a Nominal Basis



Data as at May 31, 2023. Source: KKR Global Macro & Asset Allocation analysis.

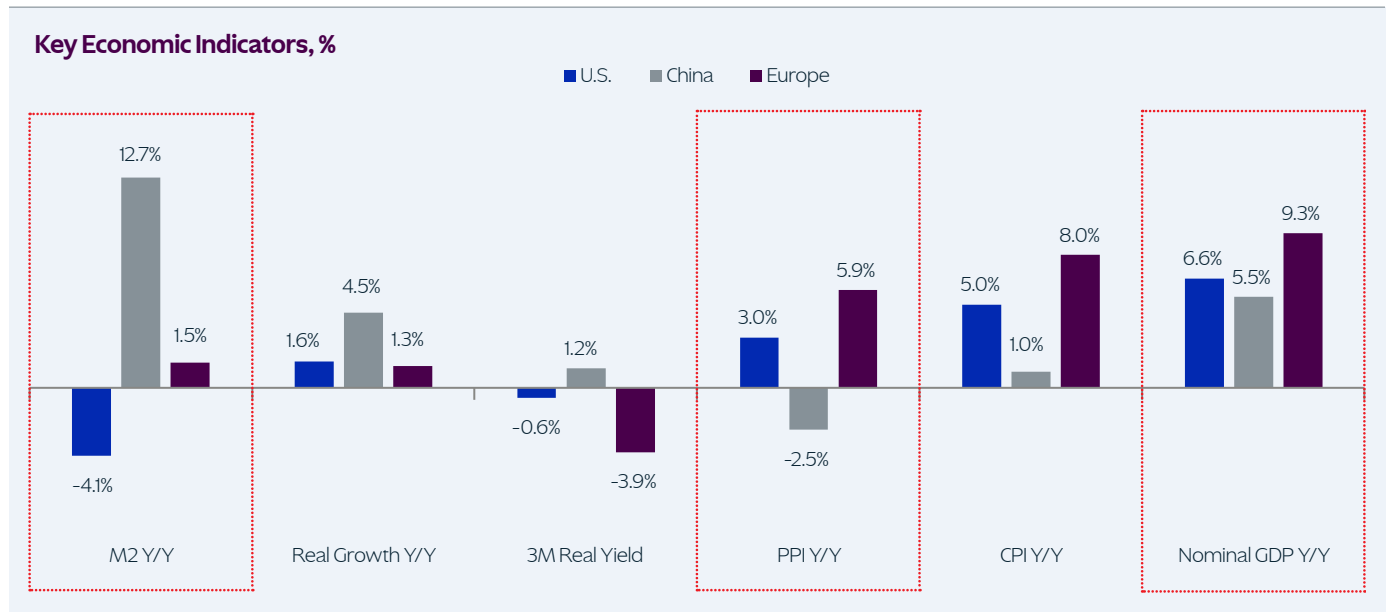
What's Different About This Recovery? Here's What You Need to Know

Constructive/Unusual	Challenges
Strong Technical Backdrop	Stickier Inflation, Especially Services
Low Unemployment Amidst Strong Nominal GDP	Significant Margin Degradation
More Fiscal Spending	Debt Burden Accelerating
Monetary Easing in China Offsetting Tightening in the U.S., Europe, and Japan	Potential for a 2024 Snapback More Limited

Where We Differ From Consensus

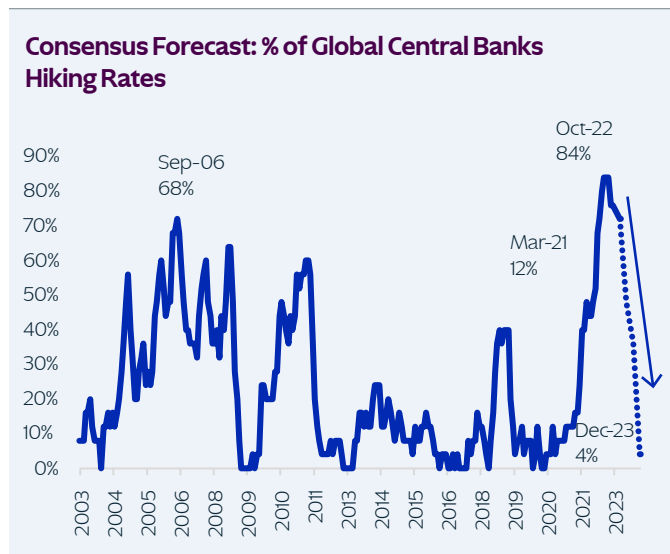
Stronger GDP Growth in 2023, Especially in the U.S.	We are above consensus for growth in the U.S. and China for 2023. Our biggest outlier is the U.S., where we are forecasting Real GDP growth of 1.8% versus consensus of 1.1%. Though we are more conservative on growth in the developed markets in coming years, we think the biggest surprise this cycle may be that growth does not slow as soon or as disastrously in aggregate as the consensus now expects.
We Are Below Consensus for Inflation in Every Region for 2023, But Higher in 2024	We are below consensus on inflation in the U.S. (four percent vs. consensus of 4.1%), Europe (5.3% vs. consensus of 5.5%), and China (1.0% vs. 1.5% for consensus). By comparison, as we head into 2024, we remain above consensus in Europe and the U.S. as a result of higher 'sticky' core inflation and in China as well because of easier year-over-year comparisons.
Regime Change: Inflation Will Remain Higher This Cycle	Although the TIPS curve suggests inflation will be <i>below</i> the Fed's two percent target over the next twelve months, we continue to believe in our 'higher resting heart rate' thesis as the crucial disinflationary forces of the last ten years (globalization, lower energy prices, and a labor surplus) have all largely reversed course. Our forecasts suggest that by the end of next year, inflation will have been above the Fed's/ECB's two percent target for 16 out of the last 20 quarters in the U.S. and 14 out of 20 in Europe.
Earnings per Share: Less Bad in 2023, But Less Rebound in 2024	We now expect EPS to decline five percent in 2023 to \$210 per share, below consensus of \$220 per share. Key to our thinking is that despite positive topline growth, profit margins are starting to contract more meaningfully. Importantly, we believe growth will slow further in 2024 and see a muted rebound of eight percent to \$227 per share versus consensus of \$245 per share.
Developed Markets Labor Shortage Is Not Going Away	Our work suggests that the U.S. is short of workers on a <i>structural</i> basis, as lower participation rates collide with souring demographics and reduced immigration. So, we are not going back to the 'good old days' of labor surplus, even as AI helps to lift some of the burden.
Oil: \$80 Is the New \$60	Near term cross-currents notwithstanding, we remain constructive on the structural outlook for energy and energy-related investments going forward. We think impressive capital discipline by U.S. producers could support durable long-term pricing that averages closer to \$80 per barrel, up from the pre-pandemic range of \$50-60 per barrel.
Housing: This Is Not the GFC	While it is likely too soon to be bullish on U.S. housing relative to investor expectations, the big surprise may be that housing doesn't collapse back towards the pre-COVID trend. We think much of the home price appreciation in recent years reflects strong fundamentals such as accelerating household formation and a legacy of underbuilding post-GFC.
Interest Rates: Higher Long-term Yields in the U.S. and Germany	While we see the bund yield rising to 2.75% by the end of 2023 and three percent by the end of 2024, consensus looks for just 2.3% and two percent, respectively. Our thinking is that the impact of ECB balance sheet contraction and the increased need for long-term capital spending linked to the energy transition will drive rates higher at the long-end. In the U.S., we still think that markets are not fully pricing the uncertainty around the pace of fed cuts, which is why we still have 10-year Treasury yields ending the year at four percent.
The Regional Banking Crisis May Be With Us for a Long Time	The Fed has ring-fenced banks' losses on risk-free paper, but one third of small banks' assets are CRE loans. Deposit flight is also still an issue. As such, we think that more regional banks could come under pressure if we are right that the Fed does not cut rates in the near term.

EXHIBIT 4: No Doubt, We Are Experiencing an Asynchronous Recovery



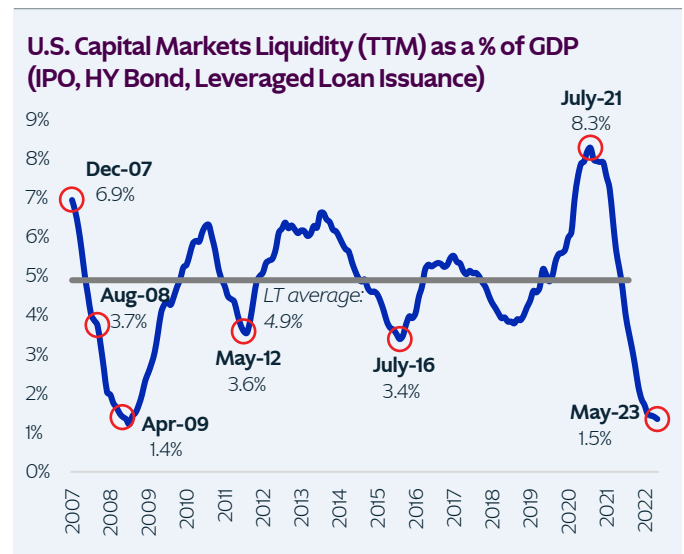
Latest values shown. Real yield calculated as 3M rate - L3M YoY CPI inflation. Data as at May 10, 2023. Source: Bloomberg.

EXHIBIT 5: Good News: Global Central Banks Have Chopped a Lot of Wood, but Both Pace and Level of Rates Still Matter



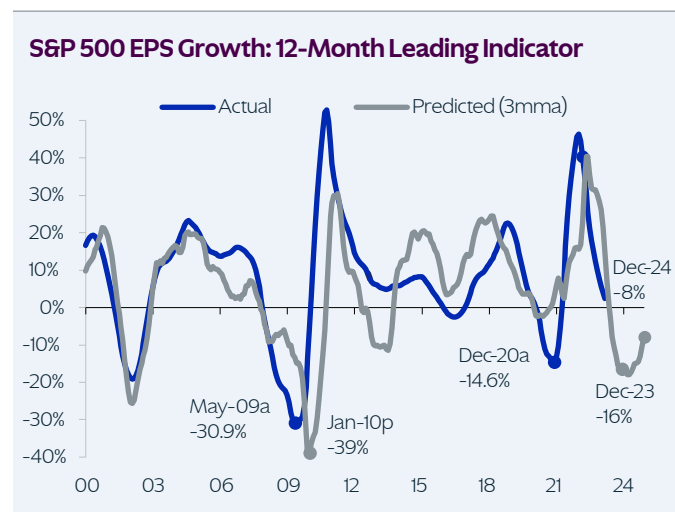
'Hiking' defined as an increase in the policy rate over the last three months. Uses Bloomberg consensus forecast for top 25 global central banks excluding the Federal Reserve. Data as at May 29, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 6: Good News: The Technical Picture Is Still Extremely Compelling, as There Is Literally No Supply of New Issuance



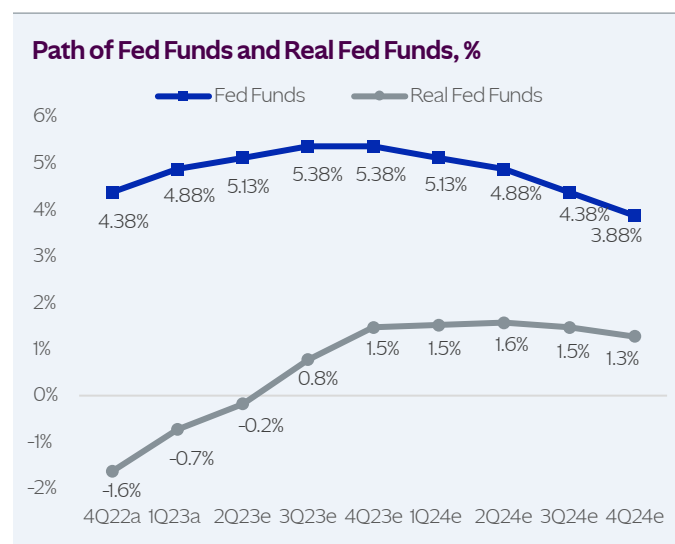
Data as at May 31, 2023. Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 7: Bad News: Our Leading Indicator for S&P 500 EPS Growth Suggests a More Modest Snapback in 2024 Than in Past Cycles



The Earnings Growth Leading Indicator (EGLI) is a statistical synthesis of seven important leading indicators to S&P 500 Earnings Per Share. Henry McVey and team developed the model in early 2006. Data as at May 15, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 8: Bad News: Despite Fed Cuts in 2024, Real Rates Will Be Going Up, Not Down



Real fed funds defined as fed funds – Core CPI. Data as at May 31, 2023. Bloomberg, KKR Global Macro & Asset Allocation analysis.

However, we are not waving the ‘all clear’ sign, either, as this is not your typical bull market. Indeed, as we show in Exhibits 7 and 8, respectively, both lackluster EPS in 2024 and rising real rates likely mean that the traditional risk asset snapback will be more muted this cycle. Accordingly,

we are looking for lower expected returns in aggregate this cycle, though there are some notable areas of improvement to consider. One can see this in Exhibit 11.

So, our message remains the same: **Keep It Simple**. We believe one does not need to stretch in terms of capital structures or counterparty risks. There will be time for complexity, but now is not that time in the cycle. Indeed, we are likely creating some really attractive vintages by doing the little things well, including maintaining linear deployment, diversifying the portfolio, and not stretching on the return front.

Where to position one’s portfolio? Of all the opportunities we see out there in 2023, we believe it remains one of the most interesting times to be a lender that we have seen in recent decades (see *Keep It Simple*, for details of our original thesis, but this call has only gained momentum since the start of the year). Given the ongoing banking crisis, most forms of both Liquid and Private Credit screen well in our forward expected returns analysis. Importantly, the recent turmoil in the U.S. banking system has only reinforced our view that corporations will need to seek alternative forms of lending to fuel growth, make acquisitions, and repay existing loans.

We think too that today Cash is an interesting asset class. It offers high rates of uncorrelated returns, a new reality that, we believe, **should encourage CIOs to think about more of a barbell approach to asset allocation**, including on the one hand, more Cash, and on the other, creating a bigger budget for collateral-based cash flows (e.g., Asset-Based Finance, Real Estate debt, and Infrastructure) as well as Equities with growing dividends.

While we are maintaining our ‘Keeping It Simple’ mantra, our thinking has continued to evolve. We note the following:

1. **We feel better that we will avoid a major drawdown this year...** Relative to prior cycles, robust government spending, modest debt service burdens, lower unemployment, and some residual excess savings make us feel better that growth is slowing, but not collapsing. As part of this realization, we reduce our negative EPS growth forecast to minus five percent in 2023 from minus 10%. Meanwhile, we increase our U.S. GDP forecast to 1.8% from 1.4% in 2023, which is fully 70 basis points ahead of the consensus.
2. **...But 2024 will likely not see the traditional EPS snapback that one might expect, given higher real yields.** This insight may be the most important one of our mid-year update. Higher real yields – despite lower nominal yields – will prevent the typical ‘goldilocks’ rally that investors often see when monetary policy changes. Also, the trillions of dollars of unrealized losses and hundreds of billions of

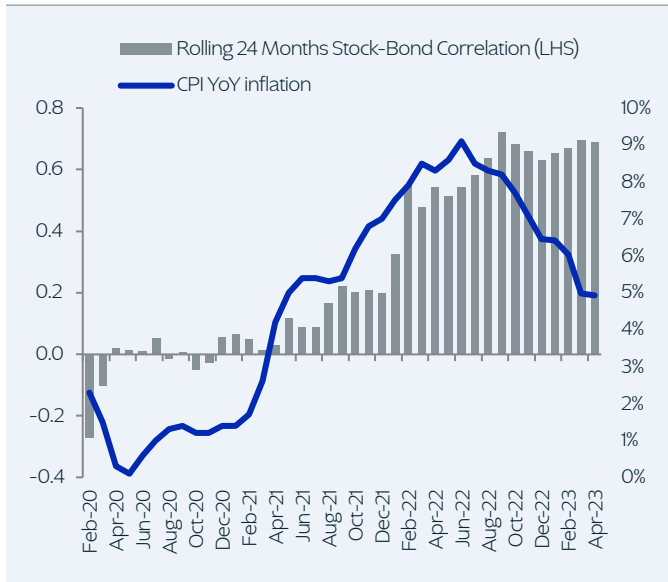
dollars of Office CRE debt now on financial intermediary balance sheets are likely to serve as 'overhangs' to credit creation in the near-term.

3. **Despite slowing headline inflation, our Regime Change thesis remains intact.** There are several factors at play. First, we have more confidence that labor shortage headwinds, particularly in Leisure, Education/Healthcare, and select parts of Professional Services, will lead to structurally faster wage growth across global economies, especially on the services side of the economy. Second, we see geopolitics as a supply driven inflationary impulse, as the 'security of everything' leads to less efficient global supply chains. Third, housing demand largely continues to outstrip housing supply, which means that rental incomes – an important component of inflation – do not tail off as much this cycle. Fourth, the energy transition towards more renewable sources is actually inflationary in nature. Finally, there is more fiscal impulse this cycle than in the past, including global defense spending, the Inflation Reduction Act in the U.S., the Green Act in Europe, etc.
4. **AI: Thorn or rose? We choose rose.** AI has emerged as a wildcard that could both hinder and help our Regime Change thesis and as a result, we are spending a lot of time as a team on this subject. Key to our thinking is that automation gains, including those from AI, could boost productivity and help take some of the sting out of ongoing labor shortages in the developed markets, particularly when it comes to high-skilled services positions. While the semiconductor part of AI story seems to be reflected in the public markets, we are not sure that enough attention has been paid to the other 'picks and shovels' that will be needed to support the AI revolution, including massive investment in grid infrastructure as well as cooling technologies. Just consider that at present training an AI model like ChatGPT for a few months uses about as much electricity as powering 120 homes for a year, along with hundreds of thousands of gallons of water for liquid cooling and more than ten thousand advanced GPUs.
5. **The U.S. consumer will be fine, but the high-end faces new challenges.** On the positive side of the ledger, we only expect unemployment to increase by about 140 basis points on a full-year basis this cycle to five percent, compared to 300-400 basis points during prior cycles, on average. Meanwhile, we 'only' expect home prices – which are the lion's share of most consumers' balance sheets – to fall five percent in both 2023 and 2024 (i.e., values should stabilize around 25% above pre-COVID levels) and we still look for more robust fiscal spending (including tweaks to

student loan payment plans, if not outright cancellation). Finally, consumers still have a lot of excess cash. Excess savings skyrocketed during the pandemic and peaked at \$2.5 trillion by the fourth quarter of 2021 and are still only approximately 40% spent. However, a lot of the job losses we forecast actually appear to be in more affluent areas of the economy, including financial services and technology. We also have seen net worth fall the fastest this cycle relative to any other cycle, led by financial assets (remember that 90% of all stocks are held by the top 10% of U.S. households), and the excess savings drawdown has been quickest for high-earners. So, similar to the early 1990s, the next few quarters may prove most challenging on a relative basis for wealthier consumers.

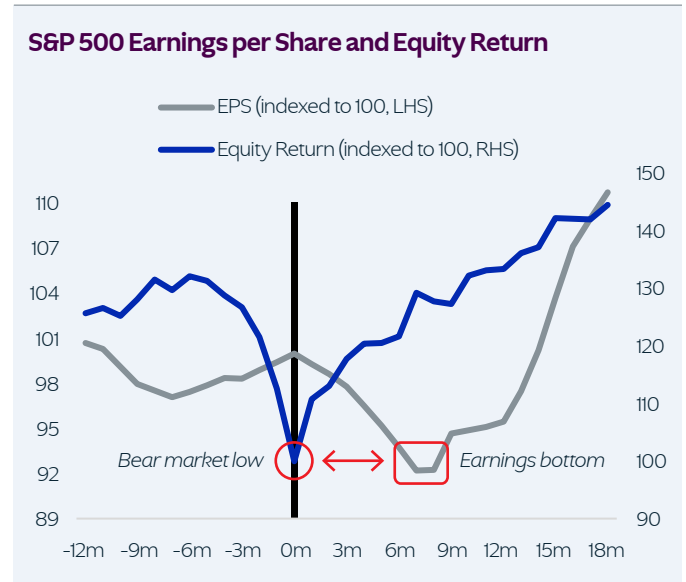
6. **Traditional inflation hedges still may continue to disappoint.** See below for details, but investment vehicles such as REITs and TIPS have not worked this cycle. Some of this is related to weaker fundamentals in the REIT sector, as well as the fact that a lot of TIPS holders are DM central banks, who continue to shrink their balance sheets. Our punchline is that there are more compelling ways to play our 'higher resting heart rate' thesis for inflation.
7. **Now is not the time to make a big cap Growth versus Value bet.** While we do not see mega-cap Tech performing well over the long term (given our views on regulation, the law of large numbers, and valuation), these companies' strong cash balances likely mean that they could be perceived as safe havens this cycle. They have also emerged as a back-door play into AI in certain instances. Moreover, given our view that unrealized losses are likely to remain persistent in the financial services system for some time, we think the potential for Value, which is generally overweight traditional lenders and financial intermediaries, could remain pressured.
8. **Asset allocation: Own more Cash and use risk budgeting elsewhere.** As we detailed above, with Cash earning nearly five percent, the opportunity for CIOs to take a barbell approach to asset allocation with enough dry powder to lean in opportunistically while not denting returns is appealing.

EXHIBIT 9: The Positive Correlation Between Stocks and Bonds Has Continued to Stay Elevated, a Key Feature of Our New Regime Thesis



60-40 Portfolio modeled using S&P 500 and Barclays U.S. Aggregate total returns, assuming weekly rebalancing. Data as at May 31, 2023. Source: Bloomberg, KKR Portfolio Construction analysis.

EXHIBIT 10: Equity Markets Typically Bottom Before Earnings Do. If So, Then We Likely Have Already Bottomed This Cycle



Data as at December 31, 2022. Source: Cambridge Associates, Pitchbook.

EXHIBIT 11: Our Expected Returns Framework Suggests Not Only Lower Aggregate Returns in Many Instances But Also the Need to Think Differently About Asset Allocation



Note: Capital markets assumptions are average across all quartiles annualized total returns. Forecasts represent five-year annualized total return expectations. 'Last five years' through 4Q22 due to limited data availability. For private asset classes (Private Credit, Private Infra, Private Real Estate, and Private Equity), returns are net of Fee/Carry. Note that we have altered our Private Credit methodology to exclude fund-level leverage, which has lowered total return on a go-forward basis. Data as at May 31, 2023. Source: Cambridge Associates, Bloomberg, KKR Global Macro, Balance Sheet and Risk analysis.

So, what are our most important takeaways at mid-year? They are as follows:

1. **Stay the course on deployment and exposure.** It may not feel good to withstand all the volatility, but we remain confident that 2023 and 2024 will be good vintages for investors. Importantly, though, 'Keep It Simple'. We believe investors should focus on earning a solid return without stretching on risk. In high school grading parlance, a 'B' investment today could become an 'A' in tomorrow's market, while a 'C' where one stretches on a risky proposition could become an 'F' over the same time horizon.
2. **Despite cooling inflation in many parts of the economy, we still see enough strands of sticky price headwinds that we think our Regime Change thesis holds.** Said differently, the greater risk to us is that central banks are not able to fulfill the dovish expectations of many investors, given how sticky we think services inflation will prove to be.
3. Given this view, **our work around the path of inflation and its corresponding impact on monetary policy suggests**

that the upside for traditional risk assets this cycle is

more capped than in the past. Indeed, as *Exhibit 8* shows, despite the Fed easing in 2024, real rates are actually not falling next year. By comparison, we have been living in a world of late where real rates have stayed largely negative in western economies, despite record tightening by most global central banks.

Our bottom line: We believe that this cycle, all investors will likely need to think differently to achieve their financial objectives.

Specifically, we are now in a grinder market that - despite the conventional wisdom that easier monetary policy is a straightforward 'risk-on' signal - will likely remain quite challenging for conventional investors. If we are right, then both individual and institutional investors will need a thoughtful top-down approach that includes a greater reliance on different strategic approaches to asset allocation (see our *Regime Change* series developed in partnership with Racim Allouani), including more reliance on upfront cash flow (e.g., dividends, floating rate debt, etc.) as well as flexible capital to buy dislocations, especially with the opportunity to move higher up in the capital structure.

EXHIBIT 12: Based on Historic Returns, the Addition of Private Equity to Portfolios Can Often Help Achieve Better Performance Across a Diversified Portfolio

	Return	Volatility	Sharpe Ratio	Δ vs. 60/40	% Liquid Asset	Cash Yield
All Periods by Portfolio						
60/40	9.3%	12.7%	0.73	-	100%	2.6%
40/30/30	9.6%	9.6%	1.00	+0.26	70%	3.6%
Private Wealth	10.6%	10.6%	1.00	+0.27	70%	3.2%
Institutional	10.9%	9.2%	1.18	+0.45	55%	3.5%
High Inflation by Portfolio						
60/40	1.5%	12.5%	0.12	-	100%	2.6%
40/30/30	4.3%	8.8%	0.49	+0.36	70%	3.7%
Private Wealth	5.3%	9.1%	0.57	+0.45	70%	3.2%
Institutional	6.9%	8.6%	0.80	+0.68	55%	3.5%
Low Inflation by Portfolio						
60/40	11.0%	11.5%	0.96	-	100%	2.6%
40/30/30	10.5%	9.1%	1.16	+0.21	70%	3.6%
Private Wealth	11.5%	10.2%	1.13	+0.18	70%	3.1%
Institutional	11.4%	9.3%	1.23	+0.27	55%	3.5%

Portfolio returns and volatility modeled using annual total returns from 1928 to 2021 for the S&P 500, from 1978 to 2021 for Real Estate, from 2004 to 2021 for Infrastructure, from 1928 to 2021 for Bonds, from 1981 to 2021 for Private Equity, and from 1987 to 2021 for Private Credit. Assumes continuous rebalancing of the portfolios. US equities modeled using the S&P 500 Index. Bonds modeled using a mix of 50% US T-Bonds and 50% Baa Corp. Bond annual returns, computed historically by Aswath Damodaran (NYU Stern). Real Estate modeled using the NCREIF Property Levered Index. Private Infrastructure modeled using the Burgiss Infrastructure Index. Private Equity modeled using the Burgiss North America Buyout Index. Private Credit modeled using the Burgiss Private Credit All Index. Yield calculation using annual data from 2000-2021 for all asset classes with the exception of private real estate (2005-2021), Public Equity using S&P 500 12M gross dividend yield, Private Equity proxied using S&P Small Cap 12M gross dividend yield, Private Infra proxied using S&P Infrastructure 12M gross dividend yield from 2006 onwards and 2000-2006 back filled using S&P Utilities, Public Credit based on Bloomberg Aggregated Credit yield to worst, Private Credit using Cliffwater Direct Lending Index Income Return, Private Real Estate based on NCREIF NPI cap rate, Source: Burgiss, Aswath Damodaran, Bloomberg, NCREIF, KKR Portfolio Construction analysis.

SECTION I

Asset Allocation and Key Themes

Picks and Pans

PICK (OLD) Japan We are still bullish that Japan is breaking out from a deflationary ‘funk’ (see [Thoughts from the Road: Asia](#)). The equity market is attractively priced, corporate governance is improving, and the economy is opening up. Within Private Equity, too, we like Japan, especially activity linked to corporate carve-outs.

PICK (OLD) Overweight Collateral-Based Cash Flows We favor cash flows actually linked to nominal GDP, not traditional inflationary hedges such as TIPS. Instead, Asset-Based Finance, Real Estate Credit, and most parts of Infrastructure are near the top of our list. Importantly, they are performing as inflation hedges in a cycle when most traditional hedges are not.

PICK (NEW) Overweight Cash With yields topping five percent in the U.S. and rising in other large markets like Europe, we think Cash can play a vital role in asset allocation as a low correlation yielding asset. In fact, we believe that Cash may be one of the most attractive relative value plays in the market today. Because Cash reduces risk, an overweight to Cash should also allow CIOs to transfer their risk budgets to other higher risk asset classes when and if they want to lean in, especially investments linked to nominal GDP.

PICK (NEW) Higher Quality Liquid Credit Given the move in risk-free rates, investors can get a very decent return lending to high-quality companies right now, including through CLO liabilities and some parts of High Yield. Our view is that CLO liabilities offer attractive volatility adjusted returns across AAA-BB ratings, with more junior tranches (BBB/BB) also offering relatively attractive leverage-adjusted returns and wider spreads versus history. Meanwhile, although HY spreads are not yet ‘cheap’, the risk free rate has adjusted massively this cycle, so we are in a very different environment

than 2008. Against this backdrop, we do not expect a particularly severe default cycle. Also, better quality in the capital structure is helping to reduce the tail risk of surging losses for HY debt, particularly for higher-quality tranches. For instance, we note that 27% of the BB market is now senior secured, up from around zero percent at the onset of the GFC.

PICK (NEW) Flexible Capital to Preferred Securities, Convertible Preferred Securities, etc. Without question, not every company is going to be able to refinance itself through debt, especially now with short rates at above five percent. As a result, we are increasingly seeing more levered corporates beginning to issue debt-like instruments with equity upside to fund growth, protect their ratings, and/or maintain adequate cash balances. So, the opportunity set to ‘plug’ these holes seems extremely attractive to us these days, and we would lean in aggressively.

PICK (NEW) Middle-Income Consumer In mid-2022, we wrote that the outlook for high-end consumer spending was especially strong, given lower exposure to inflation and stronger balance sheets. Today, by comparison, we have a different call, as wealthy households have been drawing down savings; at the same time, high-paying roles have started to lay off workers. By contrast, middle-income consumers’ assessment of their finances has – on the margin – been improving in recent months, and we have more confidence that home values – a key support to middle-income household spending – will avoid a painful reset. As such, we think that leaning into the middle-income consumer segment on a relative basis right now likely makes good sense.

PICK (NEW) More Non-Correlated Assets We think non-correlated assets should be added at the expense of traditional long/short hedge funds. One area of opportunity of late is where today’s higher rates can help a manager take closed blocks of life insurance, reset the portfolio, and earn returns

often well above the guaranteed liability. Separately, we favor absolute return managers, especially those who are leveraging technology to improve their selection and portfolio construction processes.

PAN (OLD) Short the USD There are several factors underpinning our thesis. First, the dollar appears to be trading at a premium on a long-term basis. Second, we see other major economies like Europe and Japan going further on a relative basis when it comes to tightening this cycle. Finally, our travels lead us to believe that, since the Russia-Ukraine war, more global corporates and allocators want more optionality with what they view as the reserve currency.

PAN (OLD) Underweight Regional Banks As we discussed in our *2023 Outlook* note, a lot of smaller banks are burdened with losses from both duration and commercial real estate credit (see our frequently asked question section for further details). While the current environment is not the same as the GFC, we expect a multi-year process as banks deal with challenges to both the asset and liability side of their balance sheets. We also believe that many will struggle to raise equity without material dilution in shareholder value.

PAN (NEW) European Cyclical Although we are overall quite bullish on Europe, we believe that cyclical sectors may continue to come under pressure. Specifically, a stronger euro, decarbonization and de-globalization trends, could lead to many stalwarts, such as German exporters, being more at risk, particularly as prices still look rich relative to fundamentals. To this end, we would pair European cyclical as a hedge against one's overall portfolio heading into 2H23.

PAN (NEW) Turkey We maintain a cautious stance as Turkey's economy continues to be uneven including higher than expected inflation, linked to unusual government policies. The lack of new investment as well as unorthodox monetary policy, we think, will hinder the country's ability to reach its full potential.

PAN (NEW) Businesses with Lots of Staff Turnover As we wrote in our labor note *Eye of the Tiger*, in a structurally tight labor market worker tenure matters more than ever, particularly when it comes to realizing the benefits of worker upskilling and retraining. In the U.S., worker turnover rates are 2-3x higher than in other developed countries, which we think points to room for improvement in aligning employees' incentives with management.

In terms of key risks on which to focus, we see three (and see Section IV below for more details). First, we think that the trillions of dollars that have been accumulated in unrealized losses will act as an important 'hangover' to credit creation for

multiple quarters. Moreover, if the Fed needs to do more tightening, this crisis could extend from the banking to the life insurance industry. To date, lapses on annuities have remained tame (which was not the case in 1994). Second, we could be wrong about cyclical inflation coming down in 2024. Our work shows that six percent short-rates, which is about 75 basis points higher than our base case, represent somewhat of a tipping point for all the leverage that is in the system. Third, our recent trip to China reinforced our view that it is different this time when it comes to U.S.-China relations. Coupled with the ongoing conflict in Ukraine, the potential for an external shock that adversely affects both the global economy and capital markets is as high as we can remember during our thirty-two years on Wall Street. It is also important to recognize that political division and dysfunction in the U.S. and other democracies also remain elevated.

Looking at the big picture, we remain convinced about our Regime Change thesis and what it means for investing and asset allocation. No doubt, China stands as a disinflationary outlier in the near term, and U.S. headline inflation is cooling. Europe too will be helped by declining energy costs. However, we think this cycle is different. Key to our thinking is that the Western world is seeing a sustained supply shock, driven by labor shortages, heightened geopolitics, and a messy energy transition, all of which will contribute to a higher 'resting heart rate' for inflation over time relative to the prior cycle, we believe.

Against this backdrop, our message remains largely consistent: 'Keep it Simple'. Now is the time to own more assets linked to nominal GDP, invest higher up in the capital structure where appropriate, and diversify one's holdings across geographies and capital structures at a measured pace. Also, portfolio construction will matter more than ever, including fulfilling linear deployment targets as well as finding new shock absorbers to replace traditional government bonds (given stock-bond correlations have changed). In Credit, focus more on the rebound in fundamentals versus looking for distressed opportunities. Finally, we think the opportunity set to marry the macro with the micro has never been richer. In our view, it is that marriage that will lead to superior results in a world where we are forecasting a decline in overall expected returns across several major asset classes (*Exhibit 11*).

Key Themes

In terms of key themes, we note the following:

1

Buy Simplicity, Not Complexity, at this Point in the Cycle.

We have often favored complexity over simplicity to avoid overpaying when markets get expensive. This current period, however, is not one of those times. When it comes to Credit, we believe investors should buy high quality Liquid and Private Credit as well as 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 and mid-cap stocks are cheap by almost all metrics, and on a currency adjusted basis, REITs in the UK and many sectors in Japan (banks and certain multinationals in particular) appear quite 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.

2

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 family offices, endowments and foundations, and insurance companies. 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, remain a good hedge if we are right about the dollar weakening further.

3

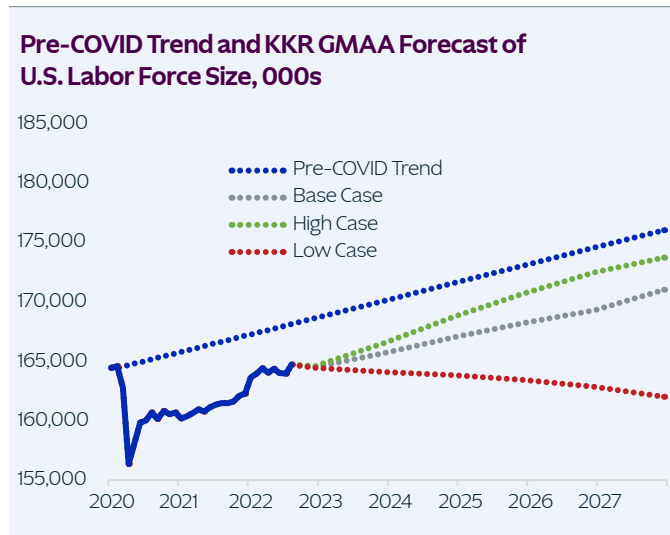
Ongoing Labor Shortages – Combined With More Accessible AI – Will Only Accelerate the Trend Towards Automation/Digitalization.

With labor costs set to increase further amidst sluggish demographics, a dearth of trained workers for key sectors, and a lower participation rate and less immigration, we think that corporations will focus increasingly on technology-driven productivity gains. 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 retraining (*Exhibit 16*). AI will certainly play its part too, we believe. Recent work from the investment bank Goldman Sachs suggests that two-thirds of current jobs will likely benefit from or be impacted by AI. As such, we think wider adoption of these technologies could usher in an era of increased productivity and economic growth, particularly as periods of innovation are typically followed by the creation of new jobs (which helps offset technology-driven job losses). In the near-term, however, our highest conviction idea is linked to expanding the 'backbone' of the grid and cooling infrastructure that will be required to make AI the success many CEOs and investors believe it can be.

We Will Need More Focus on Worker Retraining, Too. Note that more than half of U.S. firms, three-quarters of EU firms, and nearly 90% of Japanese firms report a shortage of skilled workers. While AI can help mitigate this shortage, we doubt it will be able to fully resolve it, especially as higher entry-level wages attract young people towards the workforce and away from formal education. One can see this phenomenon in *Exhibit 15*, which suggests that competition for junior workers today could ultimately disrupt the pipeline of skilled workers in the future. Against this backdrop, we think that there will be more opportunities for both workers and employers to lean into worker retraining as formal degrees become scarcer and the population ages further. If we are right, then skills training will become even more of a priority as the U.S. and Europe both seek to reshore key industries where manufacturing will be needed. In our view, the opportunity set around worker retraining is particularly large in the U.S., which has historically

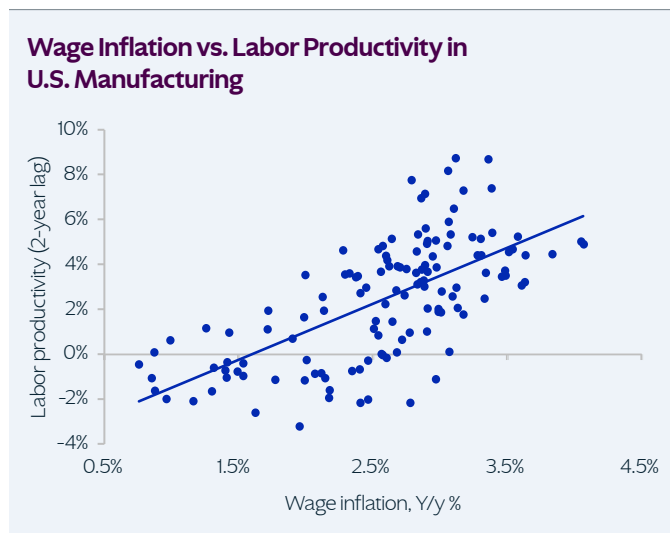
lagged badly when it comes to public investment in worker education. In fact, the U.S. government invests less in worker training and transitioning than almost every other OECD country for which data are available (ranking 31st out of 32nd, just ahead of Mexico).

EXHIBIT 13: We See a Structural Labor Shortage Unfolding Across Developed Markets, Including the United States



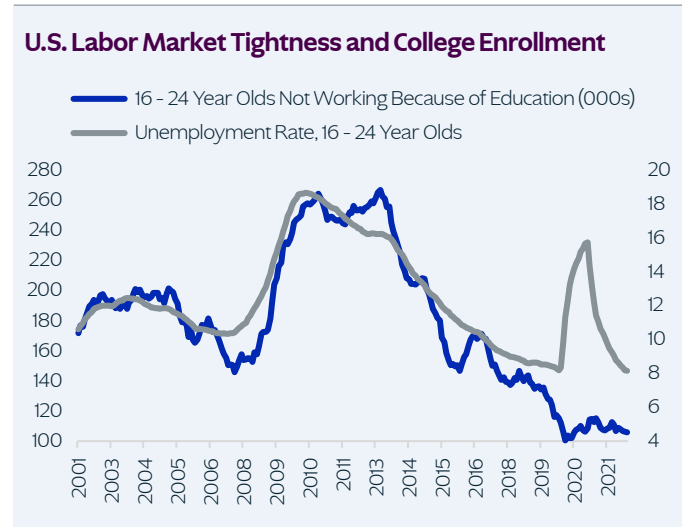
Data as at December 31, 2022. Source: Congressional Budget Office, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 14: Worker Shortages Have Consistently Created New Opportunities Around Automation



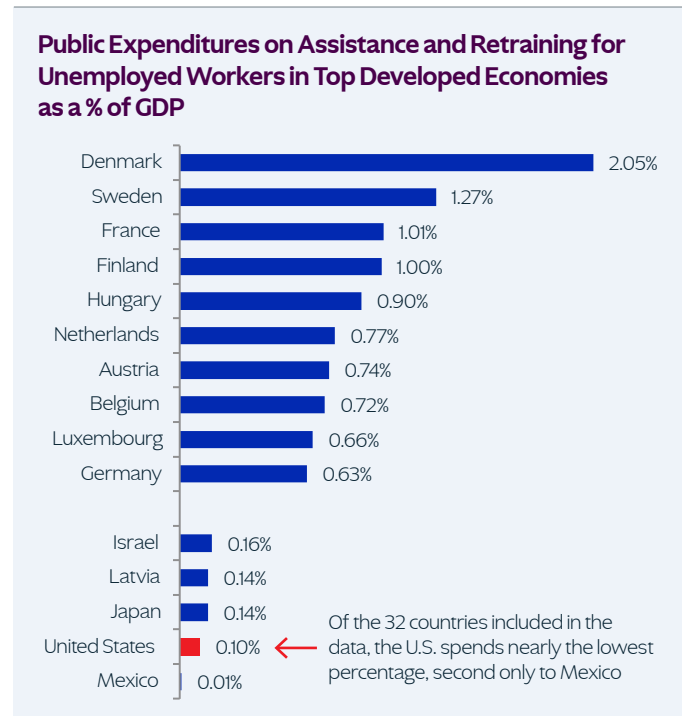
Data as at May 31, 2022. Source: BofA Quantitative Research.

EXHIBIT 15: We Think Higher Entry-Level Wages Will Attract Young People Towards the Workforce and Away from Formal Education



Data as at October 31, 2022. Source: U.S. Bureau of Labor Statistics.

EXHIBIT 16: The U.S. Has Historically Underinvested in Worker Upskilling



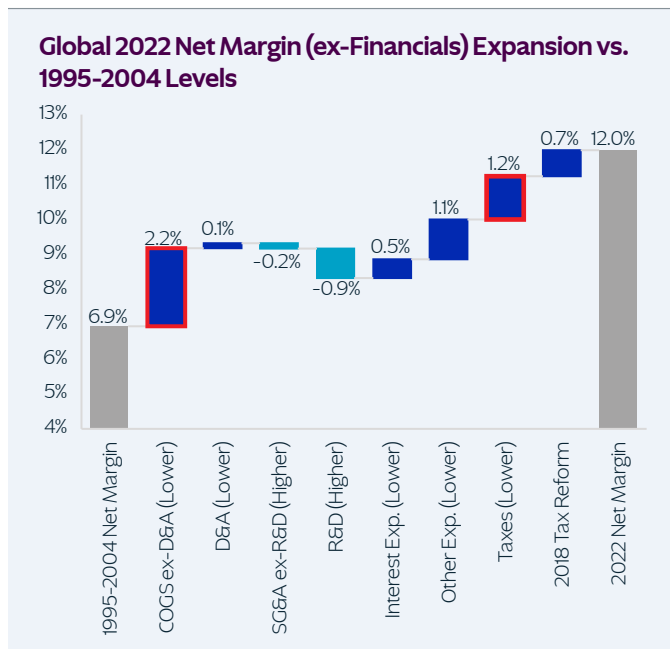
Data as at December 31, 2022. Source: U.S. Department of Commerce.

4

Resiliency: The Security of Everything.

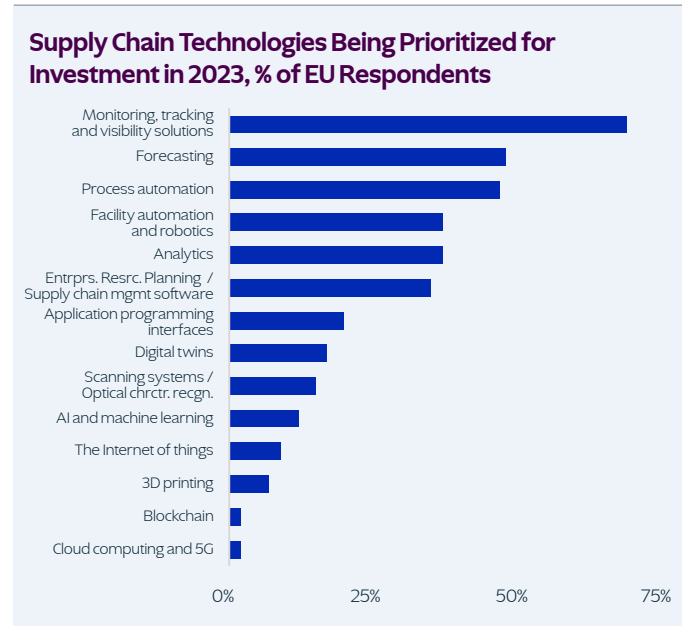
Recent travels across Asia, Europe, and the U.S. confirmed that, as my colleague Vance Serchuk often reminds me, we have shifted from a period of benign globalization to one of great power competition. This shift is a big deal, and it means that countries, corporations, and even individuals will need 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. All told, our 'security of everything' concept represents hundreds of billions of dollars in opex and capex that may help to inspire more growth across major economies than typically occurs during an economic slowdown.

EXHIBIT 17: Factors Related to Globalization Have Driven Net Margin Expansion Since 1995. We Do Not Expect This Trend to Continue



Data as at December 31, 2022. Source: BofA U.S. Equity & Quant Strategy, FactSet.

EXHIBIT 18: Investing Behind Enablers of Supply Chain Visibility and Automation Are the Most Immediate Priorities for European Businesses



Survey conducted between December 12, 2022 and January 9, 2023 (101 Respondents). Source: JLL, *The State of the European Supply Chains 2023*.

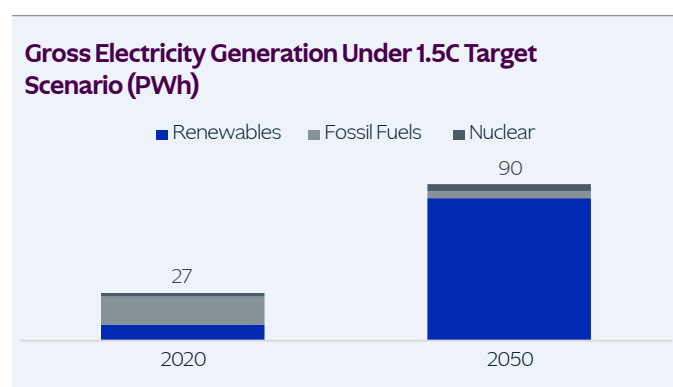
5

The Energy Transition Remains a Mega-Theme.

We've been pounding the table for quite some time that the energy transition as a theme is probably as massive as the Internet opportunity was around the turn of the century. Just consider that a recent analysis from *Financial Times* found green power generation capacity globally may need to increase by roughly 800% by 2050 to meet current climate goals (*Exhibit 19*). This undertaking will need to span multiple decades and trillions of dollars in capex, including significant investment in all areas of power generation, transmission, and distribution. Along the way, we think that there will be both winners and losers, with the same variety of outcomes and bifurcation in results as we saw during the early days of Internet adoption – think Pets.com bankruptcy versus Amazon's success. However, the generosity of the recent Inflation Reduction Act (IRA) should lead to more winners than losers in the United States, we believe.

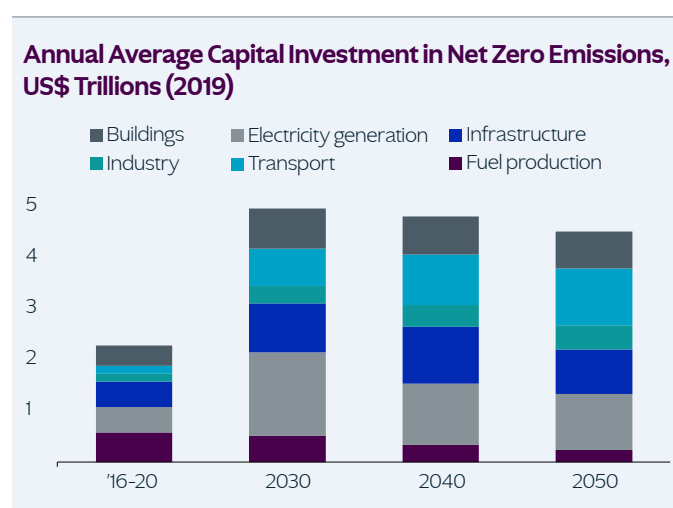
Interestingly, though, *while the Internet was a deflationary global force, the energy transition is an inflationary one*. Most commodities required to support growth in onshore wind, offshore wind, batteries, etc., need a lot of energy to mine and process. Moreover, many are sourced from unstable areas 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 19: Green Power Generation Capacity Globally May Need to Increase Roughly 800% by 2050



Data as at June 11, 2023. Source: IEA, Financial Times.

EXHIBIT 20: Total Annual Capital Investment in a Net Zero Global Emissions Scenario for Energy Rises 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.

We also want to underscore that digitalization, including AI, is putting more pressure on the energy transition, particularly grid and energy distribution. Our research shows that AI servers consume 10-30x more energy than traditional cloud storage, and as a result, gaining access to the right power sources will be even more important for growth. All told, by 2030 data centers alone will consume eight percent of total global energy with about 50% of that for cooling – and AI has introduced considerable upside risk to these estimates.

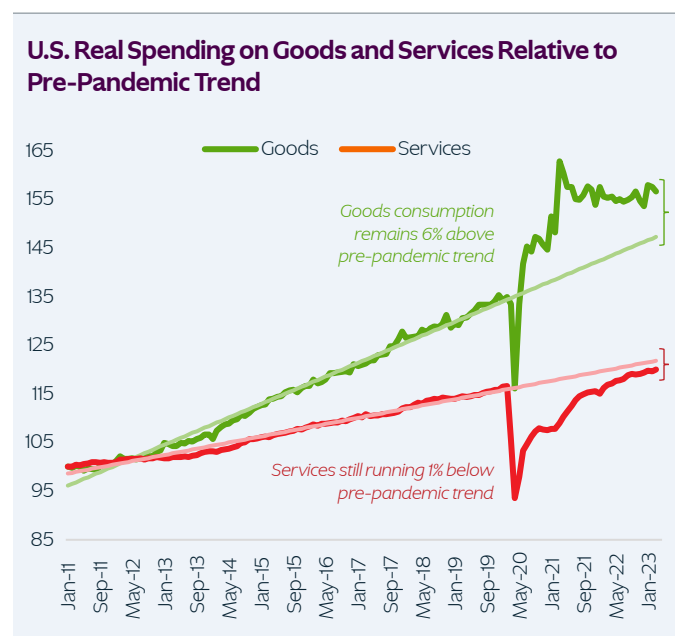
6

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, particularly over the last year, and we think it will continue to play out through the remainder of 2023. Given that U.S. real goods buying is still running six percent *above* trend (down from a peak of 17% in 2021), while services is running one percent *below* trend (up from nine percent below in 2021), we continue to support flipping exposures towards services, which we now think could run ahead of trend for several years. However, this is not just a U.S. call. In Asia, for example, the economy has only just opened up, and as a result, services activity is still well below pre-COVID levels, while in Europe we are seeing a bifurcation between the more industrialized 'core' economies and the service-providing periphery. 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.

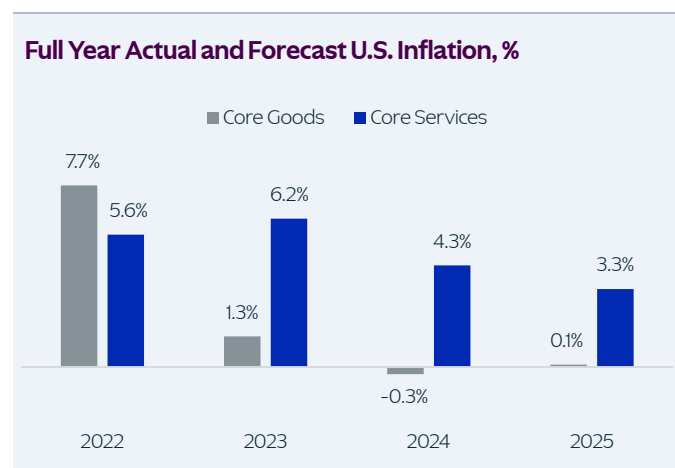
This shift is a big deal, and it means that countries, corporations, and even individuals will need to build out more redundancy across not only energy but also data, food, pharma, technology, water, and transportation.

EXHIBIT 21: The Pandemic Catalyzed a Shift Into Goods Over Services...



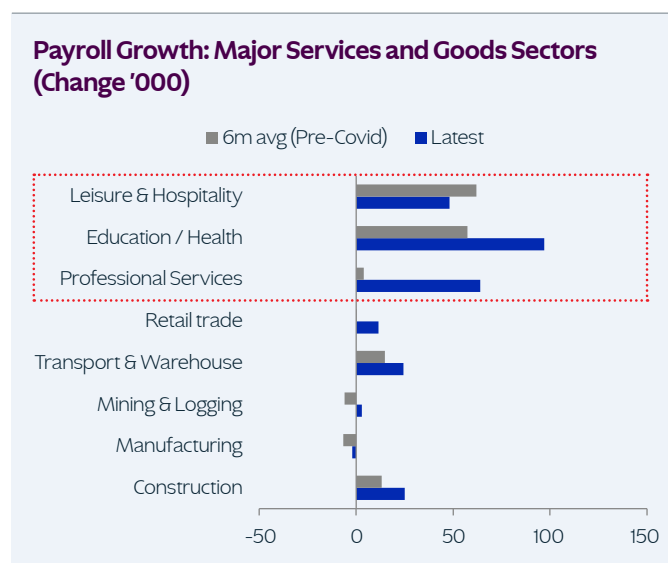
Data as at March 31, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics.

EXHIBIT 22: ...Which Is Now Reversing



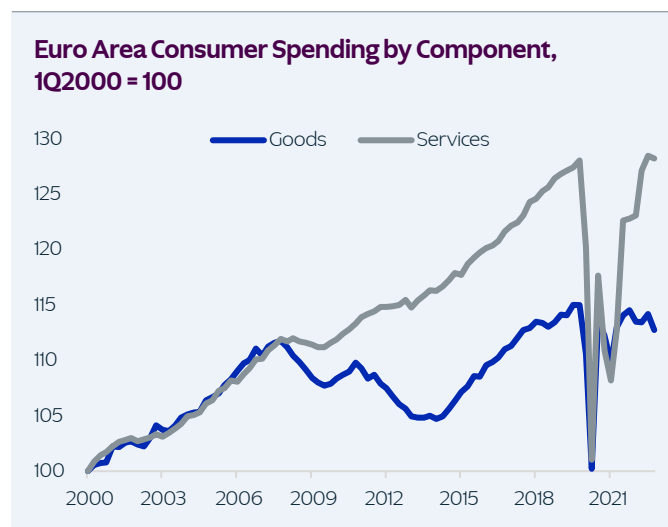
2023-2025 are KKR Global Macro & Asset Allocation forecasts. Data as at April 30, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 23: U.S. Job Gains Are Shifting to Services



Data as at May 31, 2023. Source: U.S. Bureau of Labor Statistics, Haver Analytics.

EXHIBIT 24: We Still See Significant Upside for Consumer Spending on Experiences in Europe



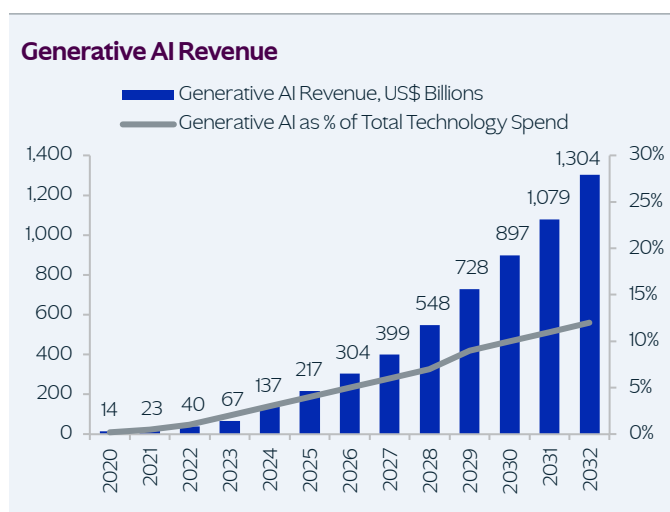
Data as at December 31, 2022. Source: Eurostat.

7

The Emergence of Generative AI

We are seeing a complex but compelling picture for value creation in Generative AI. To be certain, there is a massive opportunity for the tech businesses that bring AI models to market. Indeed, estimates suggest that Generative AI revenues will exceed U.S. dollar one trillion per annum within a decade (*Exhibit 25*), creating a large new market for the tech industry to address. However, as we mentioned above, there could also be substantial opportunities for other, non-direct plays on AI, including supportive infrastructure such as cooling, access to power (particularly on the transmission/distribution side), and resiliency of supply (including advanced semiconductors and GPUs).

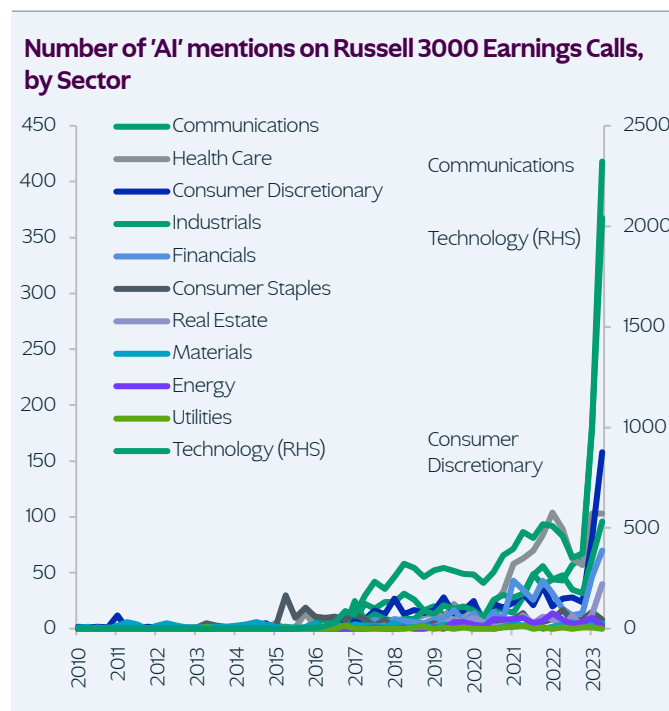
EXHIBIT 25: Spending on Generative AI Looks Set to Explode in the Coming Years



Data as at June 2, 2023. Source: Bloomberg, International Data Corporation.

Importantly, in seeking to integrate Generative AI, management teams must be open to the possibility that the opportunity could be on the cost or revenue side, or both.

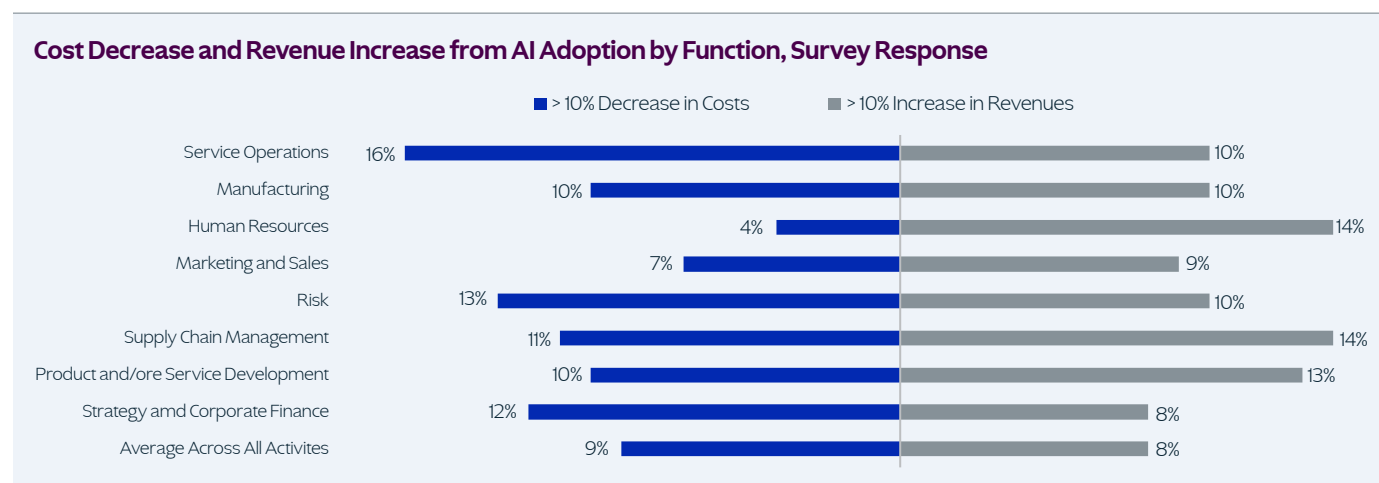
EXHIBIT 26: AI Is a Major Focus for Management Teams Across Sectors



Data as at June 2, 2023. Source: Bloomberg.

Maybe more important, unlike the technology value creation plays that markets have already quickly moved to price in (e.g., think NVDA), the creation of value in non-tech sectors is just getting started, we believe. Importantly, in seeking to integrate Generative AI, management teams must be open to the possibility that the opportunity could be on the cost or revenue side, or both. As shown in *Exhibit 27*, most businesses that have incorporated AI in their business models are seeing both material cost reductions as well as revenue increases.

To date, we have already seen the emergence of AI assistants for software developers, offering the promise of significant reductions in the time taken to develop new code. However, as we look ahead, we believe workers in most knowledge-driven professions could benefit from having a similar 'co-pilot' observing how they work, synthesizing information, and providing suggestions. For example, workers in scientific fields, such as medicine, face a daily deluge of new scientific publications, which AI could easily interpret and summarize. An AI co-pilot could further assist in medical diagnosis, since it will have the full breadth of historical case data at its fingertips, and would not suffer from the same human cognitive biases. Even in Human Resources, an area traditionally viewed as a cost center, smart companies are finding notable revenue opportunities via AI-supported performance and talent management.

EXHIBIT 27: Companies Must Focus on Both Cost and Revenue Opportunities from AI to Realize its Full Potential

Data as at June 2, 2023. Source: McKinsey & Company State of AI 2022 Survey, Artificial Intelligence Index Report 2023, Stanford Institute for Human-Centered Artificial Intelligence.

Our bottom line is that, while we remain in the infancy of Generative AI adoption, there could be 'picks and shovels' infrastructure plays as well as non-technology opportunities that the market may be underappreciating. If we are right, then the recent outperformance of a few large capitalization technology stocks should reinforce our message that investors may already be missing the true breadth of the value creation opportunity within this new mega theme.

Key to our thinking is that automation gains, including those from AI, could boost productivity and help take some of the sting out of ongoing labor shortages in the developed markets, particularly when it comes to high-skilled services positions.

SECTION II

Global / Regional Economic Outlooks

EXHIBIT 28: We Are More Optimistic on Inflation and Growth in 2023, While We Largely Expect Stickier Inflation Again in 2024 and Are Above Consensus in Every Region

	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.	1.8%	1.1%	4.0%	4.1%	0.3%	0.7%	2.7%	2.6%
Euro Area	0.5%	0.6%	5.3%	5.5%	1.1%	1.0%	2.6%	2.5%
China	5.6%	5.5%	1.0%	1.5%	5.4%	4.9%	2.6%	2.3%

Data as at June 15, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away.

— Henry David Thoreau

No doubt, our recent travels confirmed that the various regions of the global economy are beating to different drums right now. On the one hand, as we show in *Exhibit 28*, we believe China is flirting with near deflationary conditions. On the other hand, Europe and the U.S. are dealing with longer term sticky inflation, especially on the services side, despite the fact that energy prices are falling in Europe and U.S. M2 growth has been negative for all of 2022.

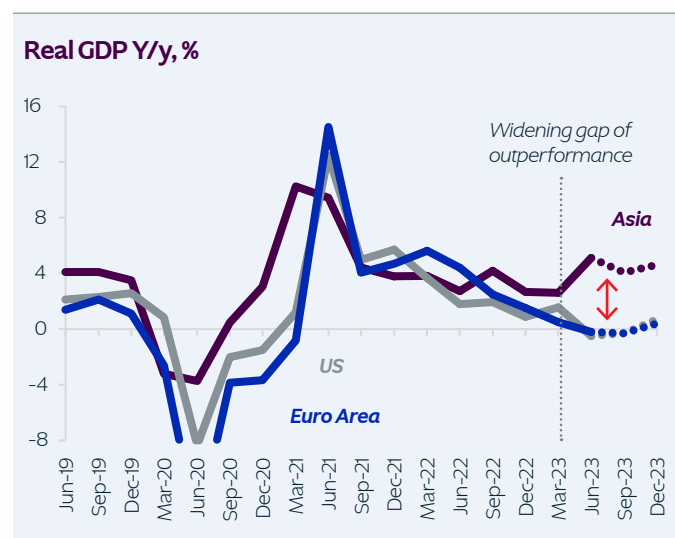
Moreover, from a growth perspective, my recent travels throughout Asia with Frances Lim underscored that Asia continues to act differently than the Western world. Asia is

still in the process of post-COVID reopening, especially China, which often accounts for 20% or more of global growth.

Against this backdrop, we continue to see an asynchronous cycle, with China's reopening and recovery propelling regional growth higher. At the same time, we see slower growth in the U.S. and Europe as the lagged effect of record increases in short-term interest rates start to play out, though low unemployment and continued fiscal stimulus should help take worst-case scenarios for GDP growth off the table.

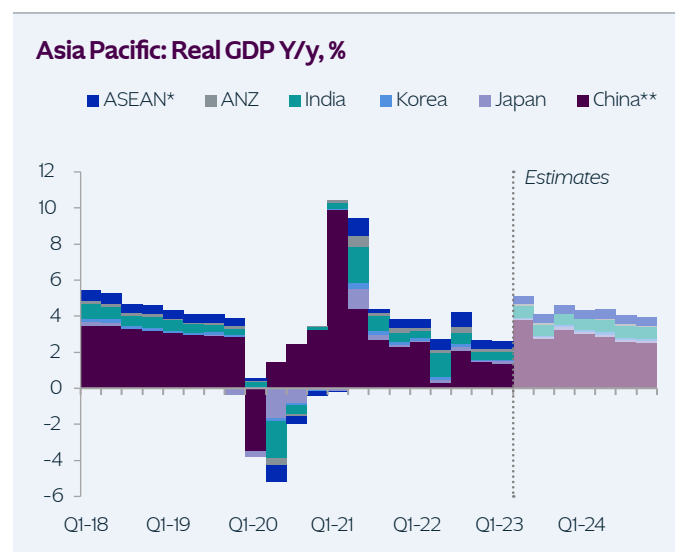
Moreover, from a growth perspective, my recent travels throughout Asia with Frances Lim underscored that Asia continues to act differently than the Western world.

EXHIBIT 29: Asia's Growth Outperformance Should Continue Through the Second Half of 2023



Data as at May 18, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 30: Most of Asia's Outperformance of Late Is From China's Reopening. We Think That There Is More to Come on This Front



*ASEAN includes ID, TH, PH, VN, MY, SG; **China includes CH, TW, HK. Data as at May 18, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

When we pull it all together, we think there will be enough global growth and stimulus to make any regional slowdown bearable over the next few years. Strong labor markets are certainly central to our thesis, but we also think that the low level of real rates should help most developed markets too.

Indeed, although we think real rates will be higher next year, we forecast a peak real fed funds rate of around two percent, versus three percent in a 'typical' Fed hiking cycle. Finally, as previously noted, we do expect China to continue to both open up its services economy, including travel, as well as rely more heavily on monetary stimulus in the coming quarters.

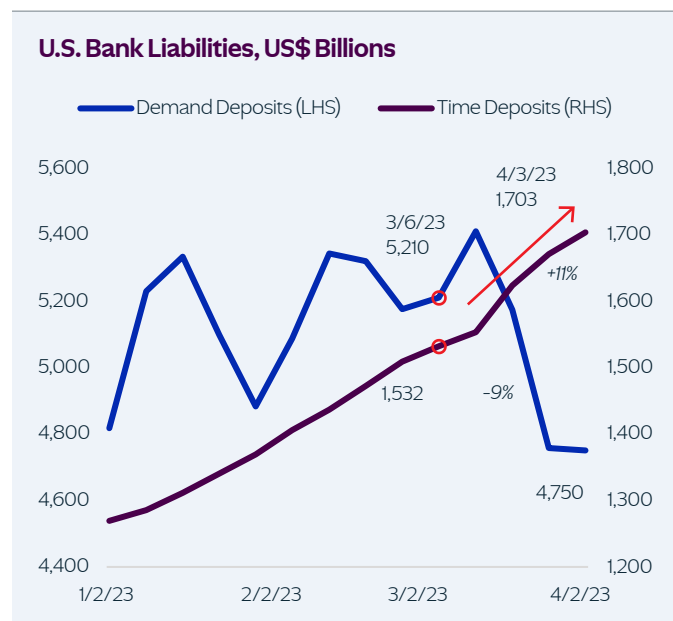
U.S. GDP and Inflation

Growth: Our expectation is now that the U.S. economy will avoid a downturn this year, with our base case embedding a mild recession around 2H24. **Accordingly, we are actually upgrading our 2023 GDP forecast to +1.8% from +1.4%, which puts us fully 70 basis points above the consensus. This divergence, we believe, is a big deal and underscores our confidence that the shape of economic momentum will be quite different this cycle.** For 2024, we are trimming our GDP forecast slightly to +0.3%, from +0.5% previously, given our view that financial conditions will likely tighten further next year as inflation slows. Consistent with this message, we have the unemployment rate rising from 3.6% in 2023 to 5.0% in 2024, implying a fairly mild slowdown in the labor market in 2024 (remember unemployment rises by +3.7% on a full-year basis in a 'typical' U.S. recession).

What is driving these forecast changes? No doubt, we still think that U.S. economic growth will be more subdued over the next few years, given that consumer spending is now running well above trend while the lagged impact of monetary tightening is starting to play out in the banking system. However, we are now convinced that the ongoing resilience of the labor market and consumer spending over 1H23 makes it unlikely that the economy slows as soon or as dramatically as consensus currently expects.

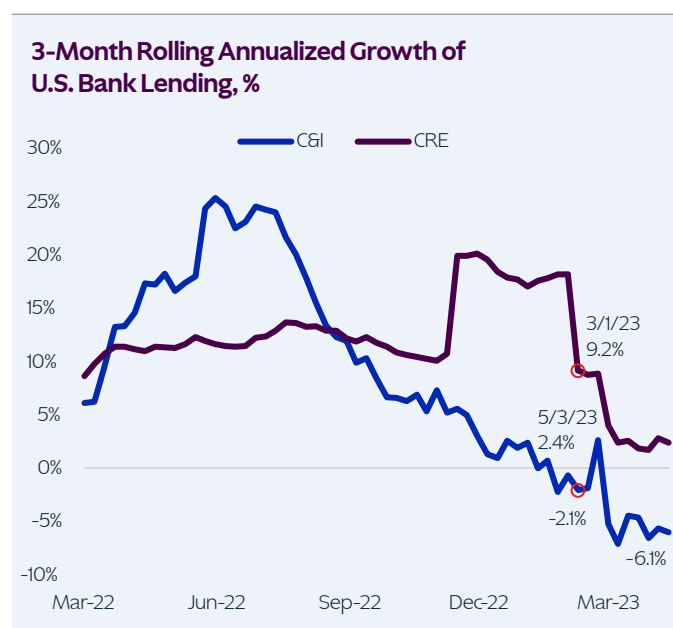
However, we are now convinced that the ongoing resilience of the labor market and consumer spending over 1H23 make it unlikely that the U.S. economy slows as soon or as dramatically as markets current expect.

EXHIBIT 31: Banks' Funding Costs Have Increased as Consumers Shift from Demand Deposits to Time Deposits...



Data as at May 16, 2023. Source: Federal Reserve Board, Haver Analytics.

EXHIBIT 32: ...Which Is Weighing On Business Lending as Banks Try to Slow Loan Book Growth

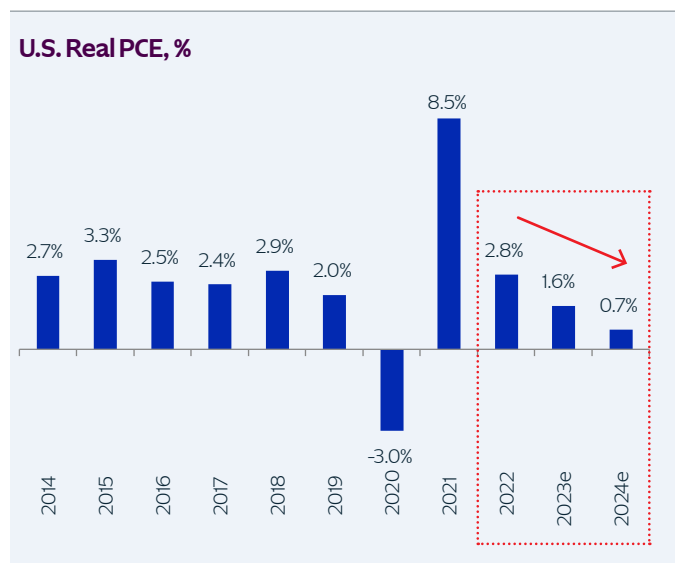


Data as at May 16, 2023. Source: Federal Reserve Board, Haver Analytics.

2023 Growth by Component of U.S. GDP, %			
	KKR GMAA Estimate	Consensus	Comments
Consumer Spending	2.0%	1.5%	We expect excess savings and a strong labor market to keep consumer spending above trend
Government Spending	3.2%	2.3%	We see more upside versus consensus given IRA, UJA, Student Loans, etc.
Private Investment	-4.5%	-3.0%	Our figure skews more conservative, reflecting near-term cyclical headwinds in inventory investment. However, we expect more resilient fixed investment (note Private Investment = Fixed Investment + Inventories)
Net Exports (Contribution to Overall GDP)	0.7%	0.6%	Exports are still running below trend at a time when we expect USD to weaken
Full-Year GDP	1.8%	1.1%	Overall, we do not think the U.S. will experience a recession in 2023, largely due to stronger consumer/government spending

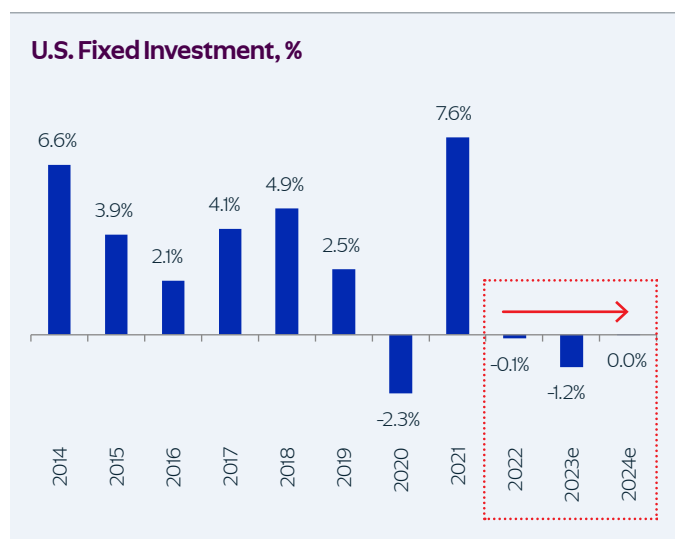
In terms of specific contributors to GDP growth this cycle, our colleague Dave McNellis forecasts that real consumer spending (PCE) will decelerate modestly in 2023 before slowing more meaningfully in 2024 as unemployment rises. One can see this in *Exhibit 33*. On the business side of the economy, Dave forecasts that private capex investment will remain in contractionary territory over 2023-2024, as homebuilding remains weak and banks have pulled back on new business loans in the wake of the SVB crisis, even as consumer loan growth continues (*Exhibit 34*). However, as we show in *Exhibits 35* and *36*, there are still areas of the U.S. economy that are running below-trend, and we think that a recovery in U.S. net exports (compliments of a weaker currency) and government investment (as part of our 'more visible hand' of government thesis) could partially offset slower consumption and investment.

EXHIBIT 33: We Expect Slower Consumer Spending in Both 2023 and 2024...



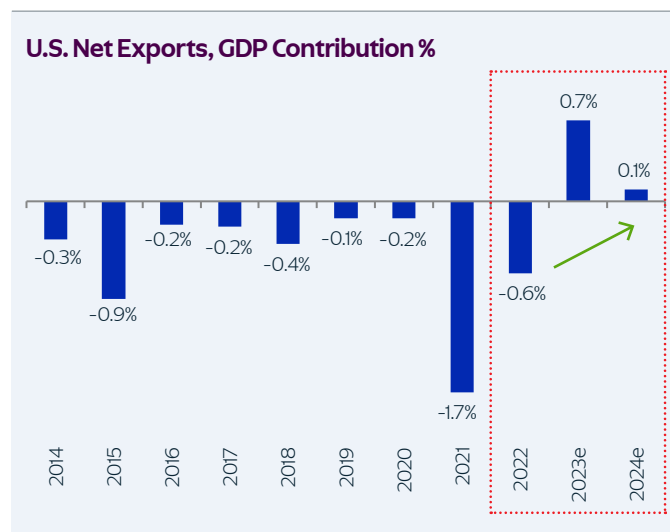
Data as at May 15, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 34: ...While Fixed Investment Contracts Somewhat Further



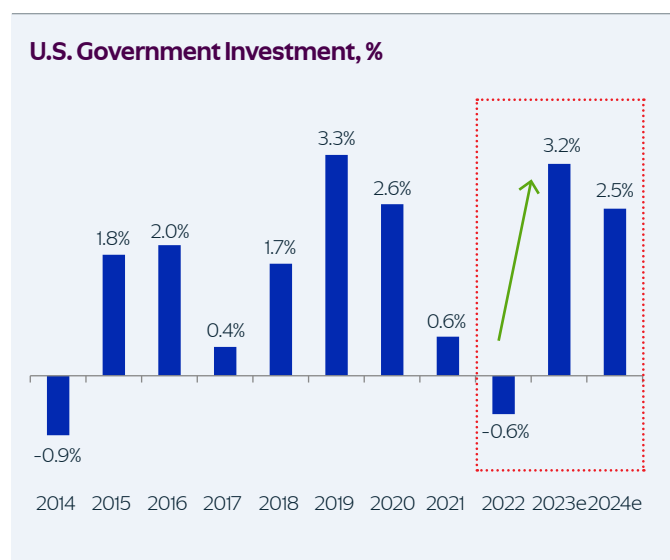
Data as at May 15, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 35: We Still Expect a Recovery in Exports as the USD Weakens



Data as at May 15, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 36: Amidst Ongoing Geopolitical Tensions, Government Investment Should Help Limit Downside to Growth in the U.S.

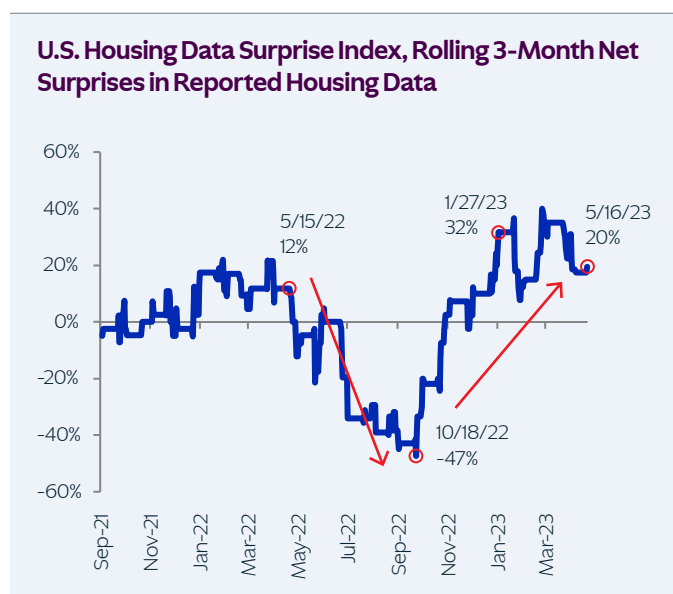


Data as at May 15, 2023. Source: U.S. Bureau of Economic Analysis, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Taking a step back, we think the most striking feature of 2023 so far has been that the U.S. consumer in general, and the labor and housing markets specifically, have held up much better than many investors had expected at the beginning of the year (*Exhibit 37*). Indeed, we have often been asked why U.S. 'hard data' (existing home sales, non-farm payrolls,

personal consumption expenditures, etc.) have remained so strong at a time when the 'soft data' (credit availability, business sentiment, PMIs, etc.) have been as downbeat as they have been in some time. One can see this in *Exhibit 38*, which shows that real-time indicators of U.S. growth have remained surprisingly strong given persistent weakness in leading indicators.

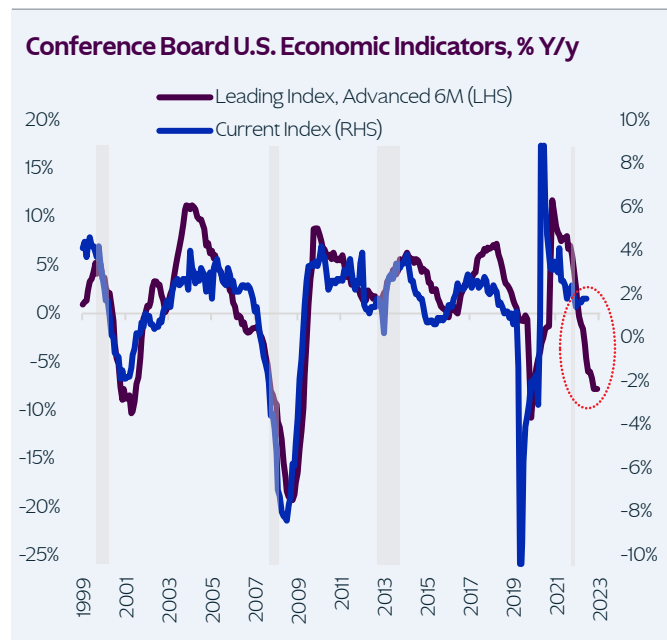
EXHIBIT 37: U.S. Housing Data Have Proven Surprisingly Resilient in Recent Months



Illustrates the net number of beats/(misses) relative to consensus in housing data reported by Bloomberg. Includes items such as housing starts, permits, prices, existing home sales, new home sales, and builder sentiment. Data as at May 15, 2023. Source: Bloomberg, Global Macro & Asset Allocation analysis.

Taking a step back, we think the most striking feature of 2023 so far has been that the U.S. consumer in general, and the labor and housing markets specifically, have held up much better than many investors had expected at the beginning of the year.

EXHIBIT 38: Coincident Indicators for the U.S. Economy Have Been Surprisingly Robust, Even as Leading Indicators Remain in Negative Territory



Data as at May 16, 2023. Source: Conference Board, Haver Analytics.

For our money, there are three major reasons that U.S. growth has surprised to the upside, all of which give us more confidence that – despite the possibility of a mild recession in the second half of 2024 – full-year growth will remain positive in coming years.

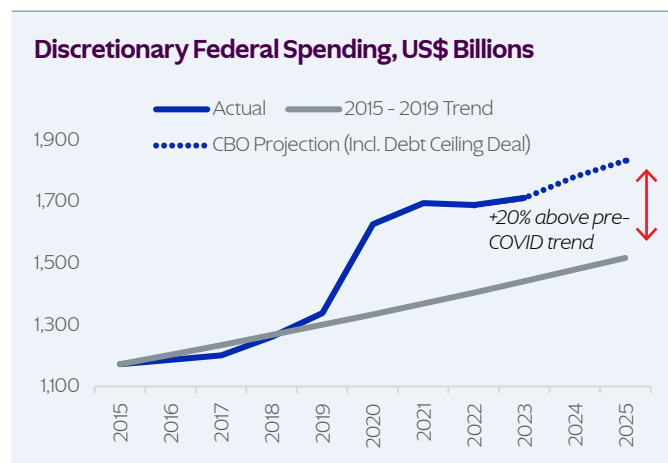
1. **First, there is the labor market.** U.S. monthly job gains have been running at roughly twice the level typically seen in the lead-up to a recession as employers continue to backfill open jobs in industries like Leisure/Hospitality, Education and Healthcare, and Professional Services (*Exhibit 41*). Looking to the longer term, as discussed in our *Eye of the Tiger* note, we continue to think that low unemployment rates will be a defining feature of this cycle, as de-globalization, limited immigration, and low participation rates make it harder to find workers at a time when demographic growth is also slowing (*Exhibit 43*). If we are right, then we see scope for real wage gains to remain meaningfully positive over the next several years (*Exhibit 44*). While that dynamic could be challenging for corporate margins, it should help stabilize consumer spending.
2. **Second, households' balance sheets are still very strong amidst moderate debt servicing costs, high cash balances, and resilient home values.** Indeed, consumers' assessments of their finances have remained more

resilient than traditional leading indicators traditionally might suggest, which helps to explain why real PCE has not fallen off as much as expected (*Exhibit 38*). While some of these ‘wealth effects’ may fade in coming quarters as consumers continue to spend-down their excess savings (*Exhibit 42*), we think that households’ overall financial positions should help keep savings rates from normalizing as much as they typically have during downturns, particularly if we are right that home values do not give back their COVID-era gains amidst rising household formation and a legacy of U.S. underbuilding.

3. **Third, there is more fiscal impulse this cycle.** We remain convinced that the government will have a much more ‘visible hand’ in the economy this cycle versus the period from 2010–2019. To be sure, the recent debt ceiling agreement, which will hold discretionary spending near current levels for both 2024 and 2025, does make the outlook for federal stimulus a bit less aggressive at the margins relative to the past few years. Nonetheless, after the remarkable run-up in discretionary spending during the pandemic, a spending ‘freeze’ would still be quite supportive for the economy (*Exhibit 39*). Indeed, our best guess is that the proposed spending caps will ultimately shave about \$140 billion from federal spending over the two years they are in force. Compare that to new federal spending initiatives just in the past twelve months, including IRA (which we think could actually amount to about \$250 billion in spending on net over the next ten years), income-based repayment for student loans (which we view as only slightly less impactful than proposed student debt cancellation, at around \$350 billion over ten years), and the bipartisan CHIPS act (\$80 billion in fiscal spending over ten years). Plus, this spending comes on top of last year’s Infrastructure Investment and Jobs Act, which adds another approximately \$340 billion in spending. Said differently, there is just too much money in the system right now for growth to fall off a cliff.

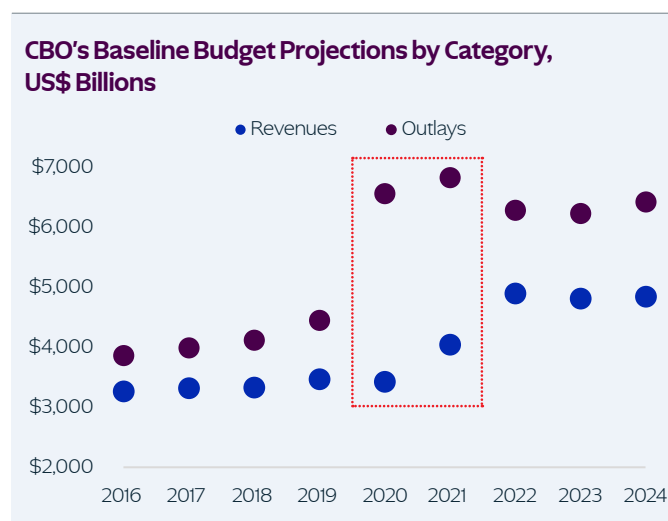
We remain convinced that the government will have a much more ‘visible hand’ in the economy this cycle versus the period from 2010–2019.

EXHIBIT 39: Even After the Debt Ceiling Deal, Discretionary Government Spending Is a Meaningful Fiscal Tailwind



Data as at May 31, 2023. Source: Congressional Budget Office.

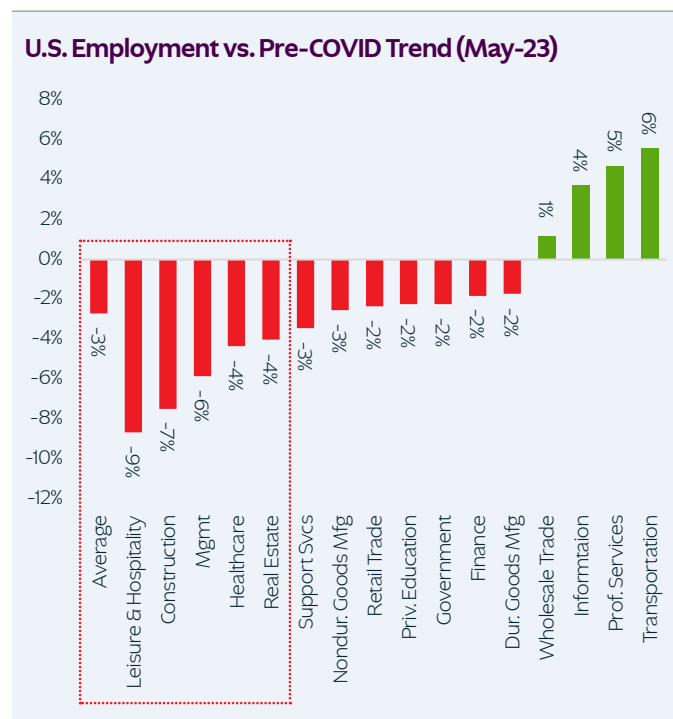
EXHIBIT 40: The Deficit Is the Result of Excess Spending Relative to Trend, Not Lower Tax Receipts



Data as at December 31, 2022. Source: Congressional Budget Office.

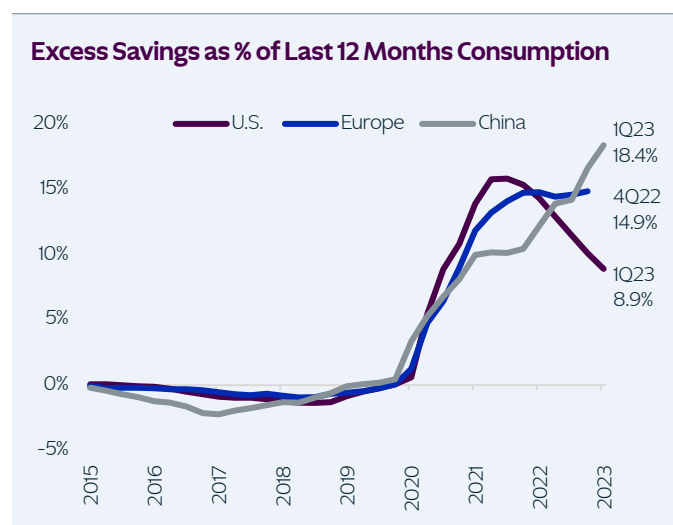
So, what is our bottom line? No doubt, the U.S. economy is slowing, and our forecasts assume a mild recession in 2024. However, beneath the surface, there are still a lot of reasons to remain cautiously optimistic about the outlook for U.S. growth this cycle, as *real* interest rates remain fairly low, the system is still working through the after-effects of COVID-era stimulus, and financial markets are not as overpriced as they were in 2021. As a result, we continue to think that there are enough ‘offsets’ for the U.S. to avoid worst-case scenarios for GDP growth this cycle.

EXHIBIT 41: Employers Continue to Backfill Open Positions in Services, Which We Think Is an Important Offset to Slowing Nominal GDP Growth



Current industry employment relative to 2014-2019 trend growth. Latest data as at May 31, 2023. Source: U.S. Bureau of Labor Statistics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 42: Globally, Consumers Are Still Sitting On Lots of Excess Savings from the Pandemic



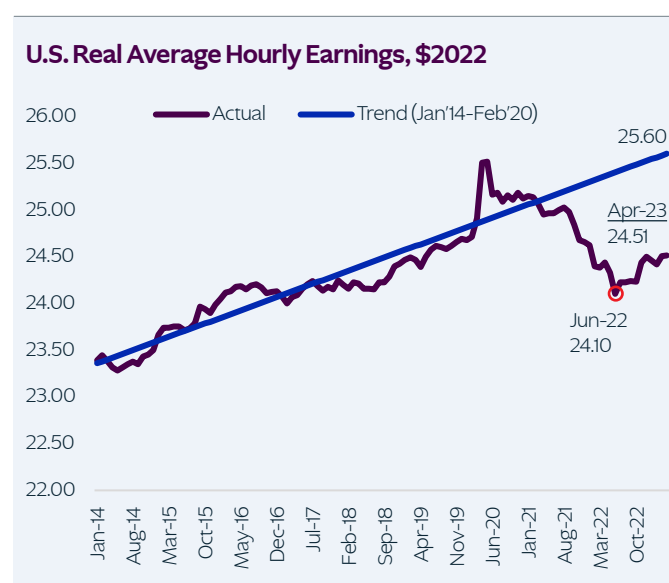
'Excess' savings defined as cumulative savings since 2015 versus a hypothetical stable savings rate at the 2015-2019 avg. Data as at March 31, 2023. Source: Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 43: Both Demographics and Participation Now Suggest a Decline in Available U.S. Labor Supply

Contributions to Workforce Growth, Millions			
	U.S.	Europe	Japan
4Q10 Workforce	153.7	157.9	65.7
Demographics	9.6	-3.2	-3.2
Change in Participation	1.4	12.7	6.8
Change in Prime-Age Male Participation	-0.6	-0.1	0.0
Change in Prime-Age Female Participation	0.7	2.3	2.6
Change in 55-64 Participation	0.1	8.6	1.8
Change in 65+ Participation	1.2	1.8	2.4
4Q22 Workforce	164.7	167.3	69.4

Europe data based on the 'Euro-Area 19' subset of E.U. members. 4Q22 uses latest data available in Japan and Europe. Data as at January 10, 2023. Source: U.S. Bureau of Labor Statistics, Eurostat, Japan Statistics Bureau.

EXHIBIT 44: We Think Hourly Earnings Growth Could Exceed Inflation Over a Multi-Year Period



Data as at April 30, 2023. Source: U.S. Bureau of Labor Statistics, Haver Analytics.

CPI: To be sure, we are now confident that headline inflation has peaked, particularly given the sustained disinflation in commodities like Food and Energy that has played out over the last six months. As a result, we lower our 2023 CPI forecast to four percent from 4.2% previously, largely reflecting a faster-than-expected flow-through of lower oil and gas prices into consumer energy prices.

However, cooling headline inflation does not tell the full story. Beneath the surface, we continue to think that core inflation remains a lot ‘stickier’ than many investors appreciate. Against this backdrop, we are actually *raising* our 2024 CPI forecast to 2.7%, from 2.5% previously, while maintaining our longer-term view that inflation will settle in the 2.5% range this cycle in 2025 and beyond. One can see the details of our inflation forecasts in *Exhibit 45*.

Why do we think inflation will remain above the Fed’s two-percent target? For one thing, we think that Core Goods may provide less of a disinflationary tailwind this cycle relative to the post-GFC period, as de-globalization and the energy transition increase the costs of key economic inputs. Indeed, even though our forecasts embed Core Goods deflation of -0.3% next year (in keeping with our view that the labor market and economy will slow in the medium term), we are actually projecting run-rate growth closer to 0.1%. While that may not sound like much, keep in mind that consistently falling goods prices were actually the norm prior to the pandemic, with Core Goods deflation averaging -0.3% over 2015-2019.

Second, we continue to think that rising *real* wages will put further upward pressure on inflation this cycle (*Exhibit 44*). To be sure, nominal wage growth has cooled recently, as a falling quits rate means that companies can afford to be more patient in filling open roles. Nonetheless, we do not expect this downtrend to continue indefinitely, particularly as participation rates start to ‘max out’ below pre-COVID levels against a backdrop of worsening demographics (see our *Eye of the Tiger* note for more details). As such, our base case is that average hourly earnings growth will ultimately stabilize in the low-four percent range, which will keep inflation elevated in ‘Supercore’ Services categories (*Exhibit 49*).

Finally, timing matters: if our forecasts for 2023 and 2024 CPI are even close to correct, inflation will have been above two percent for four out of the last five years, which is potentially long enough to reset consumer price expectations (*Exhibit 46*). Remember that while breakevens now show the Fed bringing CPI fully back to its two-percent target, it is consumers – not bond markets – that ultimately determine the path of inflation (*Exhibit 47*).

So, our punchline is that while the Fed is likely to get inflation below three percent next year (*Exhibit 48*), getting to two percent on a sustainable basis will be harder, as the disinflationary impulse around commodities and housing fade and wage gains stabilize at higher levels. If we are right, the potential for higher inflation in key Core CPI categories means that the Fed will not be able to ‘pivot’ as quickly *and* in as bullish of a context as markets currently expect.

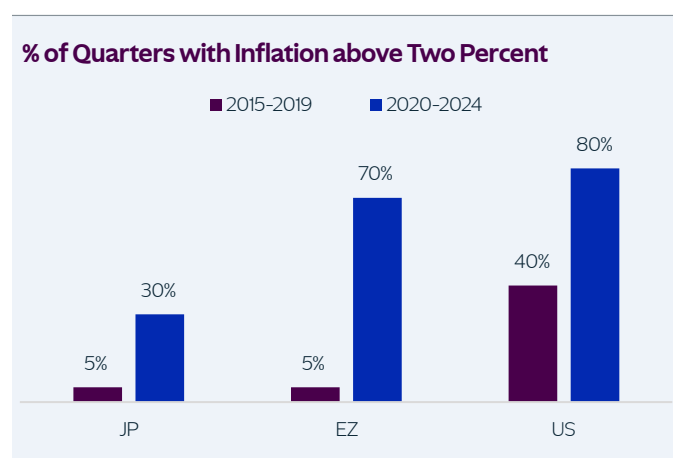
To be sure, nominal wage growth has cooled recently, as a falling quits rate means that companies can afford to be more patient in filling open roles. Nonetheless, we do not expect this downtrend to continue indefinitely, particularly as participation rates start to ‘max out’ below pre-COVID levels against a backdrop of worsening demographics. As such, our base case is that average hourly earnings growth will ultimately stabilize in the low-four percent range, which will keep inflation elevated in ‘Supercore’ Services categories.

EXHIBIT 45: Our Forecasts Embed Lower Headline Inflation, But 'Sticky' Core Inflation Remains a Longer-Term Problem for the Fed

KKR GMAA U.S. CPI FORECAST DETAIL									
	4Q22a	1Q23a	2Q23e	3Q23e	4Q23e	Full-Year 2022	Full-Year 2023e	Full-Year 2024e	Full-Year 2025e
Headline CPI	7.1%	5.8%	4.1%	3.4%	2.9%	8.0%	4.0%	2.7%	2.5%
Energy (8%)	12.7%	2.3%	-11.5%	-11.2%	-8.4%	25.4%	-7.2%	0.0%	7.5%
Food (14%)	10.7%	9.4%	6.8%	4.6%	3.3%	9.9%	6.0%	2.5%	0.5%
Core CPI (78%)	6.0%	5.6%	5.3%	4.6%	4.0%	6.1%	4.9%	3.1%	2.4%
Core Goods (21%)	3.7%	1.3%	2.0%	1.1%	1.0%	7.7%	1.3%	-0.3%	0.1%
Vehicles (9%)	3.8%	-0.7%	1.0%	-0.5%	-1.1%	12.4%	-0.3%	-2.0%	-0.5%
Other Core Goods (12%)	3.6%	2.6%	2.6%	2.2%	2.3%	4.7%	2.4%	1.0%	0.5%
Core Services (57%)	6.9%	7.2%	6.6%	6.0%	5.1%	5.6%	6.2%	4.3%	3.3%
Shelter (31%)	7.4%	8.1%	8.1%	7.4%	6.3%	5.8%	7.5%	4.5%	3.5%
Medical (8%)	4.4%	2.3%	0.6%	-0.9%	-1.1%	4.0%	0.2%	3.5%	2.8%
Education (3%)	3.2%	3.4%	3.4%	3.2%	3.0%	2.7%	3.3%	3.3%	2.8%
Other Core Services (15%)	7.9%	8.6%	7.0%	7.0%	6.2%	6.7%	7.2%	4.5%	3.2%

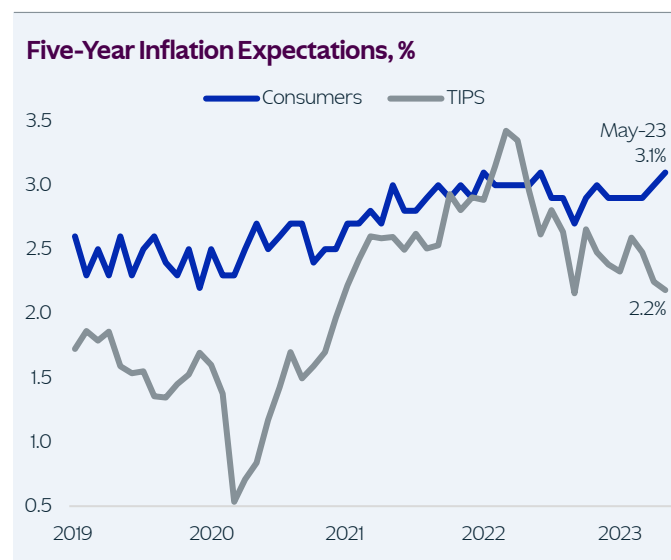
Data as at June 13, 2023. Source: U.S. Bureau of Economic analysis, Bloomberg, Haver Analytics.

EXHIBIT 46: In the U.S., Our Forecasts Indicate That Inflation Will Have Been Above Two Percent for 80% of the Time Between 2020-2024



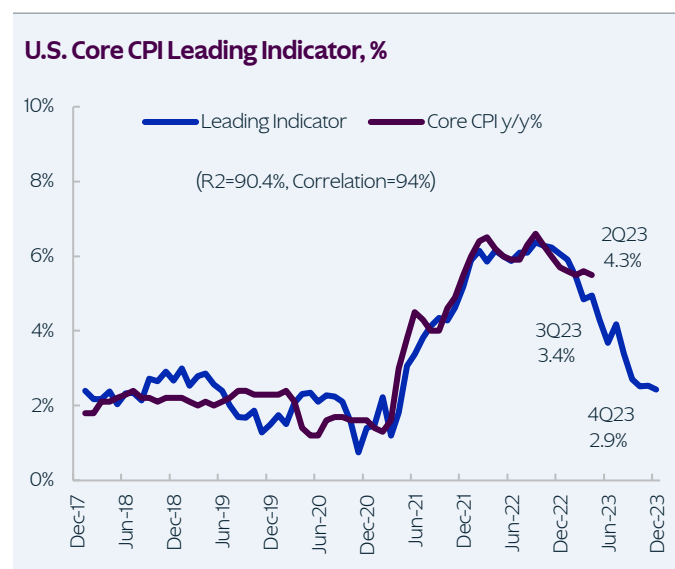
Data on quarterly basis. Based on historical and forecasted data. U.S. and Eurozone forecasts per KKR Global Macro & Asset Allocation; JP forecasts per Bloomberg consensus. Data as at March 31, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 47: TIPS Breakevens Show Inflation Falling Back Towards Two Percent; Consumers Are Not Convinced



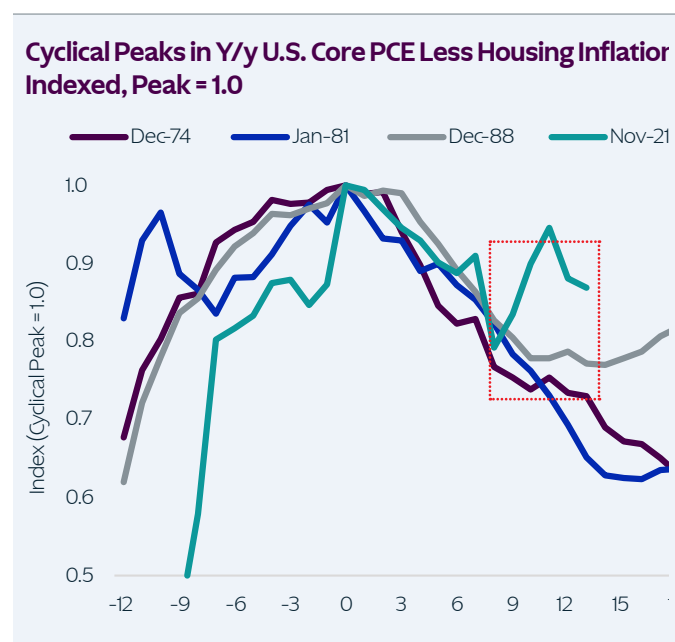
Data as at May 26, 2023. Source: Bloomberg.

EXHIBIT 48: Our Core CPI Model Does Show Some Improvement in Inflation



Model retrained on monthly basis to better reflect latest CPI inflation trends. Data as at May 11, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 49: 'Sticky' Core Inflation Has Been Elevated Amidst Stubbornly High Wage Growth



Data as at May 11, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Europe GDP and Inflation

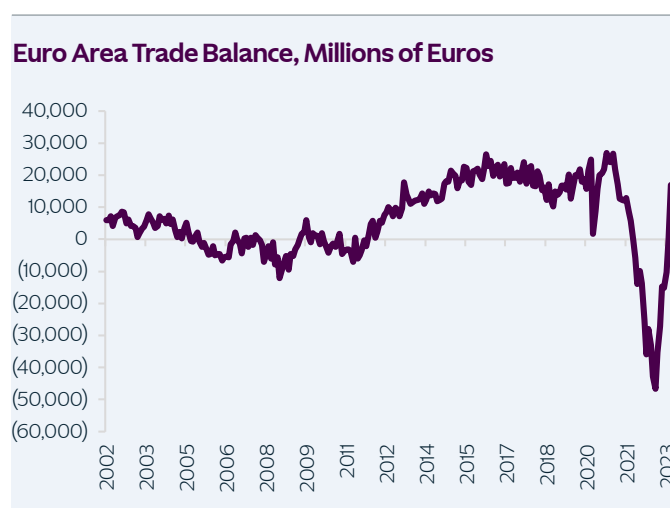
Growth: Overall, we expect a period of slow-but-positive growth in the Eurozone over the next two years, complicated by the fact that the ECB will need to deliver more tightening to contain sticky inflation. Against this backdrop, we now see the outlook among the Eurozone countries becoming increasingly bifurcated, with the services driven economies in Southern Europe continuing to grow, while a slower than expected manufacturing recovery has pushed both Germany and the Eurozone into a technical recession in 4Q22/1Q23.

To reflect the weaker growth environment in the first half of 2023, our colleague Aidan Corcoran is:

1. **Revising down his growth forecasts for 2023 from +0.8% to +0.5%, versus a consensus of +0.6%, while maintaining his 2024 forecast of 1.1%, slightly above consensus at one percent; and**
2. **Reducing his forecast for the 10-Year bund yield at end-2023 to 2.75% from three percent, while holding constant his end-2024 forecast of three percent.**

Our bottom line is that while investors must continue to brace for volatility in cyclical sectors as inventory destocking and rate hikes flow through to the real economy, the tight labor market and improving energy situation will keep the region growing, albeit at below trend levels.

EXHIBIT 50: The Eurozone Has Recorded a Trade Surplus for the First Time Since October 2021



Data as at March 30, 2023. Source: Eurostat.

EXHIBIT 51: The Eurozone Economic Surprise Index Has Tipped Into Negative Territory for the First Time Since October



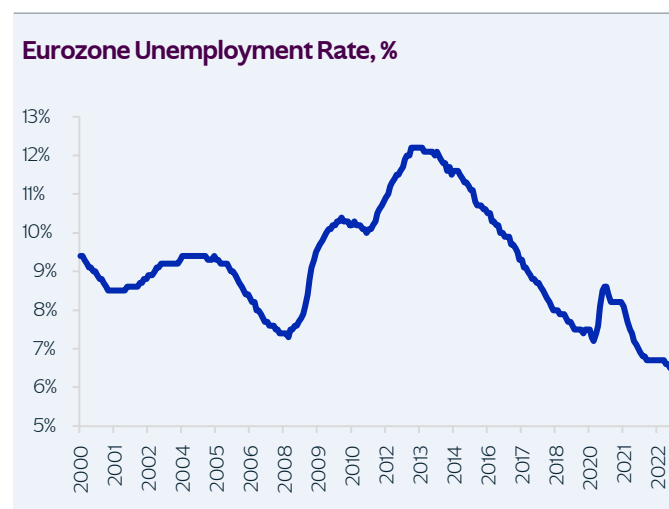
Data as at May 25, 2023. Source: Bloomberg.

In terms of key things on which investors should focus, we note the following:

- **While households in Europe face substantial headwinds, the labor market remains a major support, with the unemployment rate now at a historical low** (Exhibit 52). We think this will help sustain private consumption, offsetting some of the growth drag from a weaker manufacturing sector. Looking ahead, despite the monetary tightening, we see increased capex on the green transition (where Europe continues to hold a global leadership position), supply chain resiliency/on-shoring spend, and the buffer of excess savings built up by Eurozone consumers supporting Europe's growth in 2024.

While households in Europe face substantial headwinds, the labor market remains a major support, with the unemployment rate now at a historical low.

EXHIBIT 52: The Unemployment Rate in Europe Is the Lowest It Has Been Since Records Began



Data as at March 31, 2023. Source: Eurostat.

EXHIBIT 53: Unlike the GFC, Households Remain Confident About Their Employment, Even as Consumer Confidence Collapsed More Dramatically Due to the Cost of Living Crisis

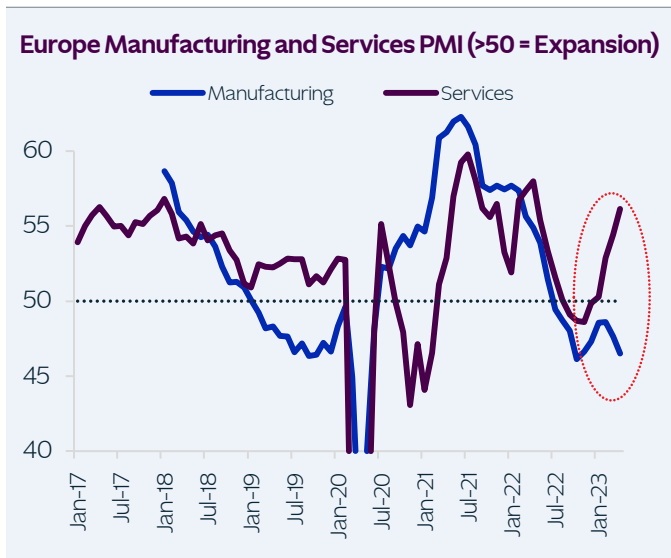


Data as at April 30, 2023. Source: European Commission.

- Despite strength on the services side of the economy, **in the near term we do see some downside risks as the manufacturing sector decelerates** (Exhibits 54 and 55). There are two dynamics to consider here. First, despite the correction in gas and electricity prices, output in energy-intensive sectors has failed to rebound and industrial

production has remained soft. Secondly, companies are now scaling inventories back to normal levels, having over-ordered amidst widespread input shortage fears last year. We believe there is significantly more to come in this inventory destocking cycle, which will eventually feed through to Goods disinflation.

EXHIBIT 54: Recent PMI Prints in Europe Point to Continued Resilience in Services While Manufacturing Continues to Deteriorate



Data as at April 30, 2023. Source: S&P Global.

EXHIBIT 55: Europe Is in the Early Stages of a Destocking Cycle. Inventories Built Up at a Rapid Pace During the Pandemic, as Many Firms Over-Ordered Amidst Input Shortages

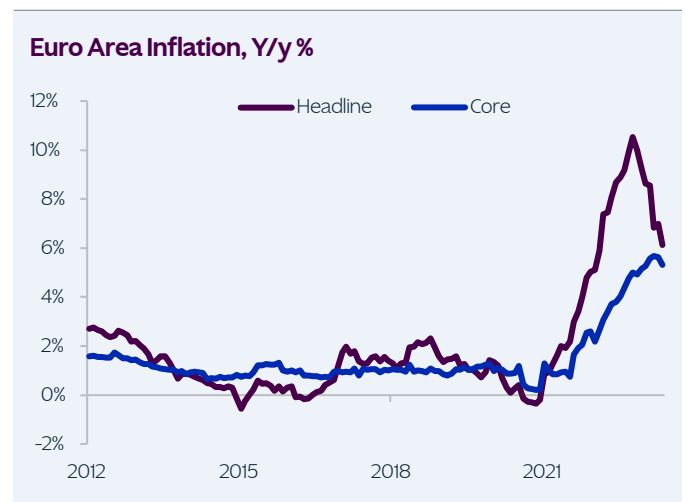


Data as at April 30, 2023. Source: ifo.

CPI: We are also taking down our 2023 Eurozone inflation forecasts, due to the improving energy situation and weaker growth environment. At the same time, we are upgrading 2024 inflation to reflect sticky wage-driven services inflation. No doubt, headline inflation has peaked in the Eurozone as energy prices have rapidly come down, with gas prices now below pre-war levels, and gas storage 17 percentage points above its historical average for this time of the year. Furthermore, we see the weakness in the growth environment feeding through to lower inflation this year, with our expectation for rapid Goods disinflation in the second half of the year leading us to reduce our 2023 inflation forecasts to 5.3%, versus our prior estimate of 5.8% and consensus of 5.5%.

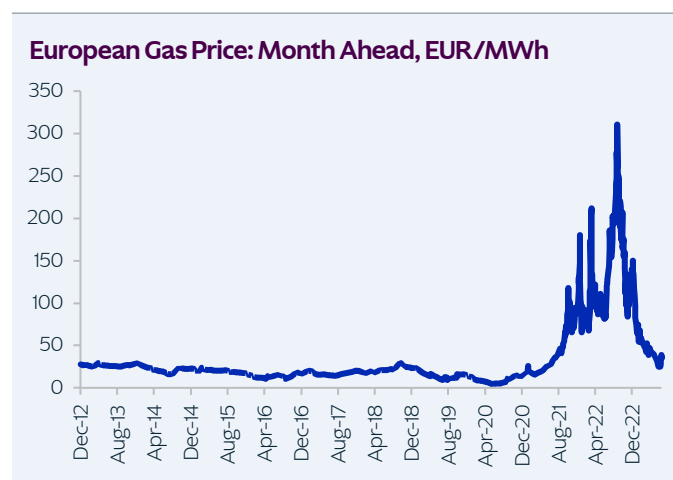
Importantly, however, nominal wage growth has been surprising on the upside, driven by the strength in the services sector, which is helping to set a floor for core inflation (*Exhibit 56*). We are not calling for a wage-price spiral, but we do think that lagged second-order effects of higher wages will keep domestic price pressures elevated, which is why we are pushing up our expectations for 2024 Eurozone inflation from 2.3% to 2.6%.

EXHIBIT 56: Falling Energy Prices Have Rapidly Brought Down Headline but Core Has Remained Stubbornly High



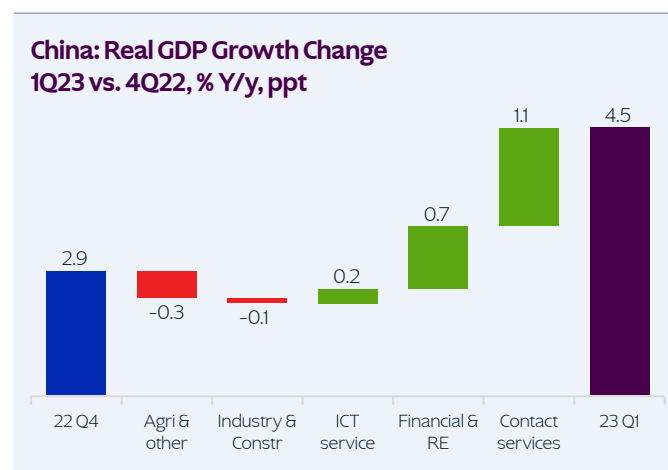
Data as at May 31, 2023. Source: Statistical Office of the European Communities, Haver Analytics.

EXHIBIT 57: European Gas Prices Have Moderated Significantly



Data as at June 15, 2023. Source: Bloomberg.

EXHIBIT 59: The Services Sector Helped Drive China 1Q23 Real GDP Growth to 4.5% Y/y



Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

China GDP and Inflation

Growth: Our colleagues Frances Lim and Changchun Hua lower their 2023 China GDP forecast to 5.6% from 5.8% while maintaining their 2024 forecast of 5.4%. Both forecasts are above consensus of 5.5% and 4.9%, respectively.

Key to their thinking is that China's post-COVID consumption recovery is still in its nascent stage and should gain speed in 2024 as further policy easing leads to improved confidence. Nonetheless, the housing sector remains a key drag on overall growth, which is why they are forecasting a less pronounced upcycle this time around.

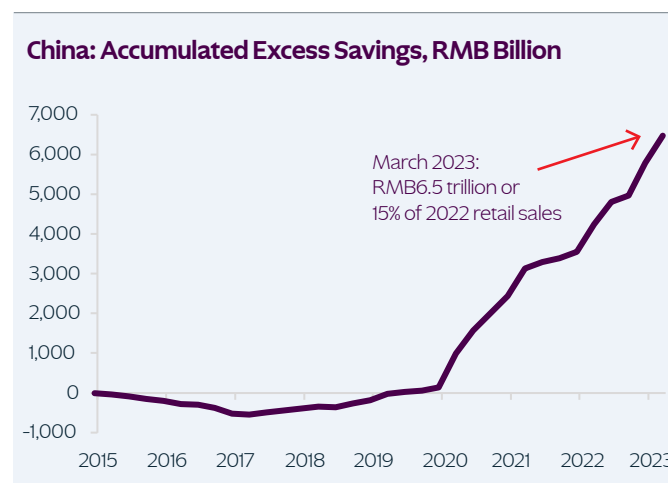
EXHIBIT 58: China: Slightly Above Consensus GDP Forecast but Much Lower CPI Inflation Forecast for 2023

	KKR GMAA	Consensus
Real GDP		
2023	5.6%	5.5%
2024	5.4%	4.9%
Inflation		
2023	1.0%	1.5%
2024	2.6%	2.3%

Data as at June 15, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

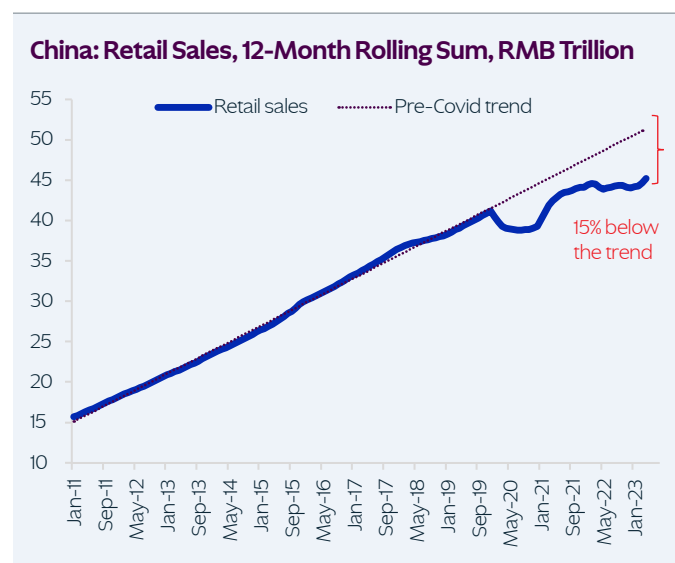
In terms of the consumer story in China, we still see a lot to like. Sales of jewelry, autos, apparel, catering, sports, and recreation are up about 25-45% year-over-year, malls are packed, and travel is just starting to reaccelerate. At the same time, China consumers are still sitting on over six trillion RMB in 'excess' savings, equivalent to fully 15% of annual retail sales. We still expect households to spend down excess savings more meaningfully as the 'missing piece' to the consumer recovery story - household confidence - starts to inflect higher, helped by increased government stimulus and falling youth unemployment.

EXHIBIT 60: Weak Consumer Confidence in China Is Leading to Excess Savings, Equivalent to About 15% of Annual Retail Sales...



Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 61: ...And China Retail Sales Are Still 15% Below Its Pre-COVID Trend

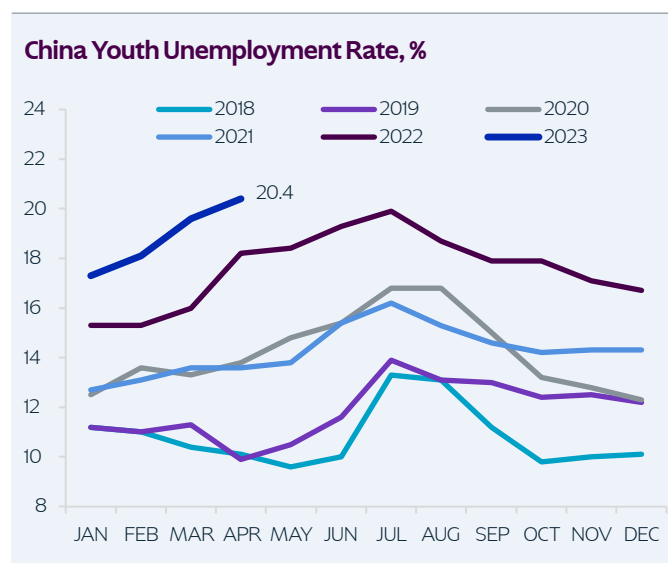


Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

At the same time, however, we think that the property sector will remain a drag on the economy for some time to come. Although property sales are steady, overall sentiment remains weak, with households continuing to prepay mortgages and developers still deleveraging. Just consider that home sales have risen 8.8% year-over-year (albeit from a low base), while housing starts have fallen by over 20% due to a notable inventory overhang. The very downbeat tone in housing, together with lower energy prices and over-capacity in some instances, is weighing on the entire industrial sector. As a result, Changchun and Frances expect industrial margins to fall, particularly in the up- and mid-stream industries.

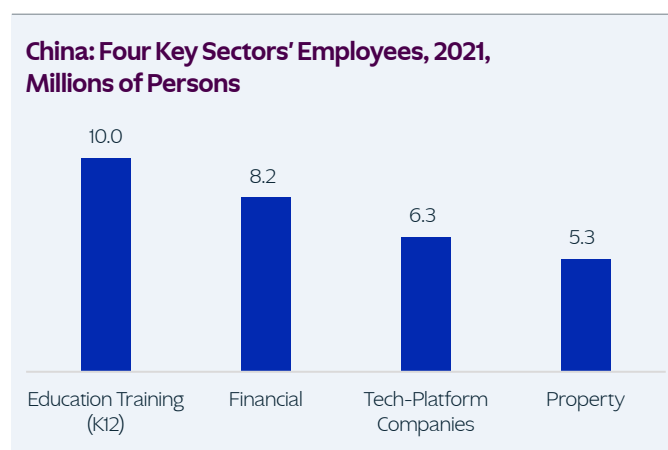
Putting it all together, our view is that China is experiencing a consumption-led, but bifurcated recovery. Consumption is recovering, but the housing sector is still acting as a drag on the economy, unlike past cycles where property has tended to lead. As such, the market will need to be more patient before it sees better results on growth. The good news, however, is that we believe there is more policy easing still to come, which should gradually improve 'animal spirits' and help unlock more consumer spending over time as momentum improves.

EXHIBIT 62: The Youth Unemployment Rate in China Is Very Elevated



Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 63: The Sectors That Traditionally Hire the Most Young Graduates Are Under Pressure



Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

CPI: Frances and Changchun are revising their forecast for 2023 China CPI inflation down to 1.0%, versus 1.9% previously, and a consensus of 1.5%. Key to their thinking on the inflation front is that destocking and supply-side factors are now poised to weigh heavily on goods prices in the near-term, and as a result, on headline inflation. **For 2024, however, we retain our view that inflation will rebound meaningfully to 2.6%, versus consensus of 2.3%,** due to a recovery in consumer spending and better 'base effects' coming after a weak 2023.

Against this near-term disinflationary backdrop, we now think the widening interest rate differential between China and the United States may lead to some near-term depreciation pressure on the renminbi, which could temporarily hit 7.2 yuan per U.S. dollar in the coming months. Longer term, however, we believe the renminbi will continue on its path of appreciation once there is greater visibility into the sustainability of China's recovery, and as such, we still expect the renminbi to end the year at around 6.8 yuan per U.S. dollar.

Putting it all together, our view is that China is experiencing a consumption-led, but bifurcated recovery. Consumption is recovering, but the housing sector is still acting as a drag on the economy, unlike past cycles where property has tended to lead. As such, the market will need to be more patient before it sees better results on growth. The good news, however, is that we believe there is more policy easing still to come, which should gradually improve 'animal spirits' and help unlock more consumer spending over time as momentum improves.

SECTION III

Capital Markets

S&P 500

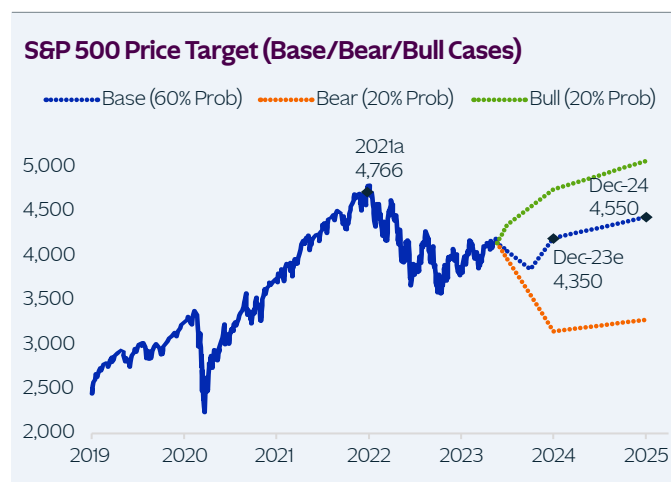
For the S&P 500, we are making the following changes to our outlook:

Regarding earnings per share, we are still calling for a corporate earnings recession, driven largely by margin compression. All told, we now expect EPS to decline five percent in 2023 to \$210 per share, which is above our prior forecast of \$200 per share, but still below consensus at \$220 per share (*Exhibit 65*). Key to the upward revision is the stronger-than-expected first quarter 2023 earnings season, with 10 out of the 11 sectors topping estimates, as well as our call for higher nominal GDP growth this year.

Even so, we are trimming our EPS forecast for 2024, as we expect less of a snapback this time. We now expect an eight percent rebound to \$227 per share, down from our prior forecast of 17% growth to \$235 per share and well below consensus at \$245 per share. The downgrade reflects our current house view that U.S. growth will likely slow more meaningfully in 2024, which would dampen the expected EPS recovery.

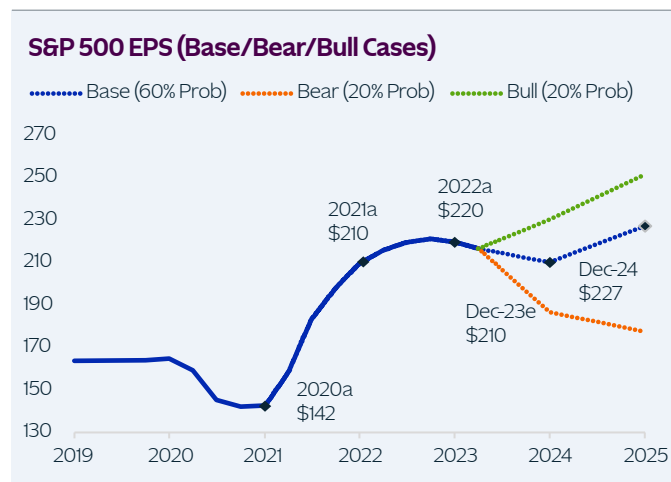
Given our expectation for real rates to rise heading into 2024, we see fair value NTM P/E topping out in the 18.5–19.0x range over the next 12 months. Our new forecast is more sanguine than our prior range of 17.5–18.0x, but well below 2020–21 levels when NTM P/E traded at around 21x on average. With the benefit of hindsight, it is clear that those were bubble-like valuations propped up by two years of very supportive negative real long-term yields, which is not the environment we find ourselves in today (*Exhibits 66*). To be sure: it would be foolhardy to rule out a retest of those extreme valuations given the transformative potential of generative AI/LLM (large language model), but we view that as a lower-probability bull scenario rather than our base case.

EXHIBIT 64: Given the Highly Uncertain Macro Environment, We Include Bear and Bull Cases to Account for a Wider Range of Outcomes...



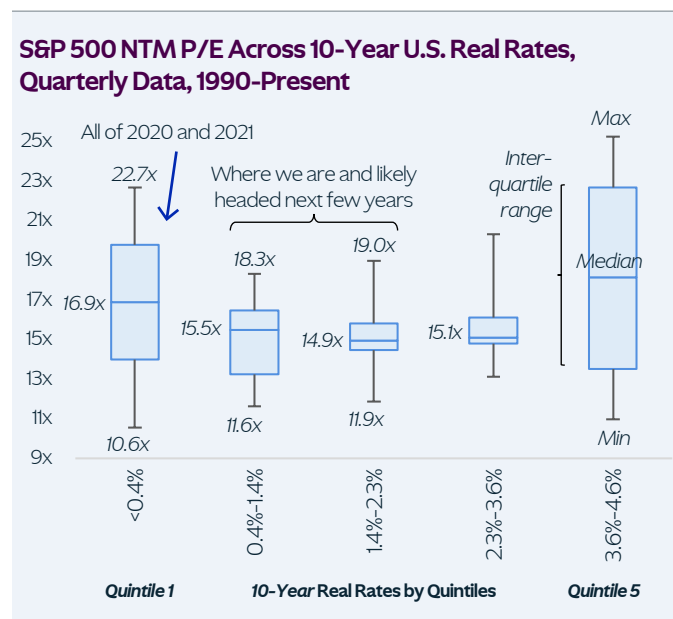
Data as at June 13, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 65: ...Unless the Bull Case Unfolds, We Expect a Bumpy, Volatile Ride Ahead, Which Would Present Investors With Opportunities to Lean into Dislocations



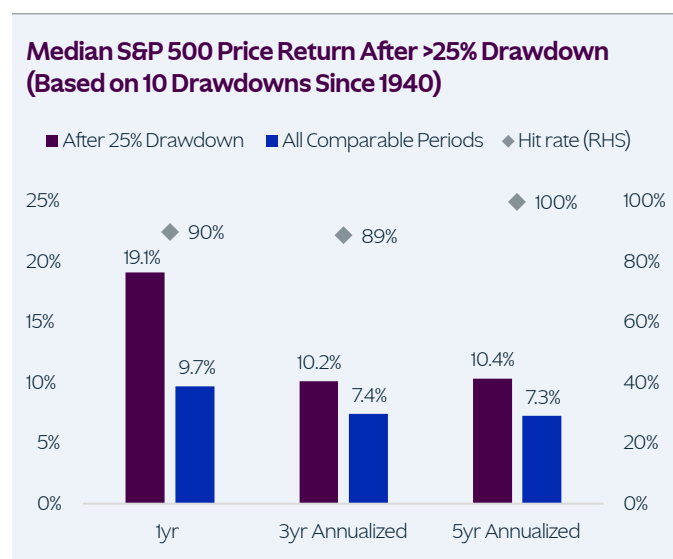
Data as at June 13, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 66: Our Expectations for Low But Rising Real Rates Point to More Muted Upside for Multiples Going Forward



Data as at June 13, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 67: Following Large Market Drawdowns, Longer-Term Investors Are Generally Rewarded Over the Next 3-5 Years for Leaning into Dislocations



Note: 3-year and 5-year annualized returns are based on nine episodes only since the 2020 drawdown was too recent. Data as at April 30, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

When we pull together these changes, our new price targets for the S&P 500 are 4,350 for 2023 and 4,550 for 2024 (up 4-5% from 4,150 and 4,390 previously). Notably, these targets represent only modest upside from current trading levels. Unless the current large-cap Tech rally leads to a post-LTCM type blow-off top, it is difficult for us to envision a raging bull market in the current macro regime. S&P 500 valuations are already full at a time when corporate margins are coming under pressure, growth is slowing, services inflation remains sticky, and the yields on Cash, Credit and Real Assets are now much more competitive relative to Equities. All these factors will keep a lid on large capitalization equity market returns (though, as we describe below, we do see more upside for certain smaller capitalization stocks), in our view.

Given the complexity of the outlook, however, my colleague Brian Leung is using three scenarios for the S&P 500 that we think provide a helpful roadmap for investors. They are as follows:

Base Case (60% probability): We reiterate our call for a bumpy ride in the second half of 2023, as the lagged impact of aggressive monetary tightening filters through to the economy, bank lending, and corporate profits (*Exhibit 68*). Unlike bottom-up consensus, our quantitative models continue to flag intensifying corporate margin pressures ahead, which caps the fundamental upside. If we are right, then companies best positioned to defend margins are likely those that offer a compelling value proposition (e.g., trade-down, value-plays) or offer products/services that are small budget items but crucial to operations, such as enterprise software or flow control equipment. Conversely, we continue to advocate staying vigilant about labor intensive businesses with elevated staff turnover, especially if they sell into competitive markets with only a few powerful buyers.

We now expect an eight percent rebound to \$227 per share, down from our prior forecast of 17% growth to \$235 per share and well below consensus at \$245 per share.

EXHIBIT 68: Our S&P 500 Base Case Price Targets of 4,350–4,550 in 2023–24 Imply Modest Upside From Current Levels

S&P 500 Price Target Scenarios				
	Base (60% Prob)	Bear (20% Prob)	Bull (20% Prob)	Weighted Average
Current = 4,339				
2023 Year-End Target	4,350	3,200	4,800	4,210
P/E on 2024 EPS	19.1x	18.1x	19.3x	19.0x
2024 Year-End Target	4,550	3,400	5,070	4,424
P/E on 2025 EPS	18.6x	16.2x	19.0x	18.2x
2022a EPS	\$220	\$220	\$220	\$220
2023e EPS	\$210	\$187	\$230	\$209
2024e EPS	\$227	\$177	\$248	\$222

Data as at June 13, 2023. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Bull Case (20% probability): In our ‘bull case’ scenario, the Fed engineers an ‘immaculate disinflation’, whereby inflation comes down without a real drop-off in growth. Excess pandemic savings, coupled with continued labor hoarding and a housing market recovery, support consumer spending. Meanwhile, federal stimulus programs (e.g., the Inflation Reduction Act and Infrastructure Investment and Jobs Act) accelerate re-shoring activity, boosting both productivity and investment. Corporate margins inflect higher, driving earnings growth of approximately five percent in 2023 and around eight percent in 2024. Optimism fueled by generative AI/LLM stocks propels the market higher to 4,800 by the end of 2023 and new highs of 5,070 by year end-2024 (consistent with a 19.0–19.5x NTM P/E).

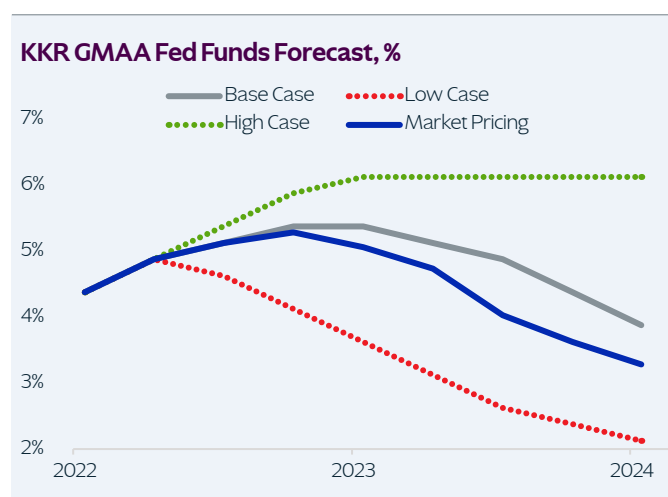
Bear Case (20% probability): The aggressive Fed tightening cycle, along with tighter bank lending standards, drives the U.S. economy and the housing market into a more severe downturn, with corporate margins collapsing to near 10-year lows. Under this scenario, the S&P 500 falls towards 3,200–3,400 in 2023 and 2024. For patient investors, this would actually be an attractive entry point to accelerate deployment, as our analysis of prior minus 25% or more market drawdowns suggests that investors are generally rewarded for leaning into this type of dislocation (*Exhibit 67*).

Interest Rates

U.S.: Given our call for more resilient U.S. GDP and core inflation in the near term, we expect the Fed to hike rates by a further plus 25 basis points this summer. In contrast to the latest ‘dot plot’, however, we think that the FOMC will pause its hiking campaign at 5.375%, rather than initiating another rate hike, as the impact of positive real rates on the economy becomes more apparent (on a quarterly basis, our 4Q24 GDP forecast is 40 basis points lower than what the FOMC projects). **All told, these changes lead us to raise our 2023 fed funds forecast to 5.375% (below the Fed call for two hikes, given our forecast for much slower growth in 2024), versus our prior forecast of 4.875%.**

For 2024, we have the Fed cutting rates by 150 basis points as growth and inflation slow, which brings our year-end forecast to 3.875% from 3.625% previously.

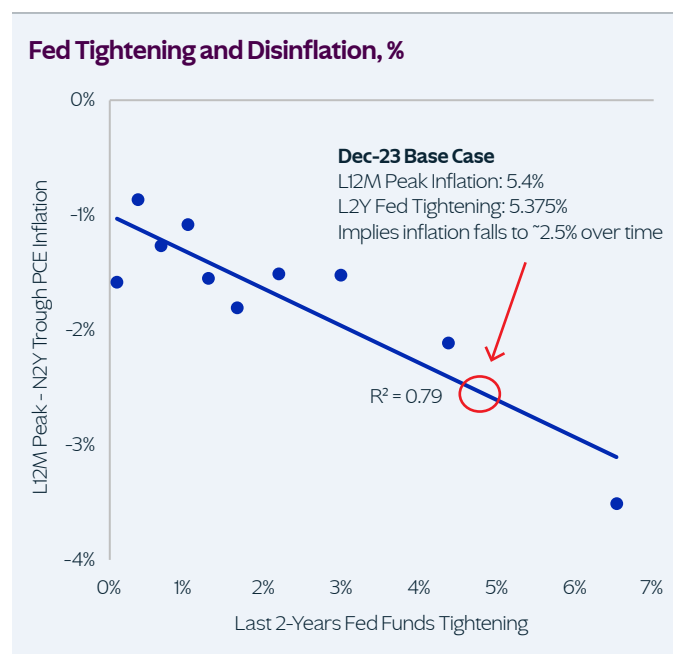
EXHIBIT 69: We Generally Believe That the Fed Will Not Cut as Much as the Consensus Now Thinks Through 2024



Data as at May 31, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Importantly, history would suggest that our forecasted 5.375% peak fed funds rate should be high enough to bring inflation back towards 2.5% if maintained through year-end 2023 (*Exhibit 70*). At the same time, although we do expect higher real rates next year versus this year (which will be a headwind for financial conditions), the path for fed funds we envision implies that the absolute *level* of real rates should remain fairly low this cycle, with a peak real rate of around two percent versus the median peak of over three percent during other historical Fed hiking cycles (*Exhibit 71*).

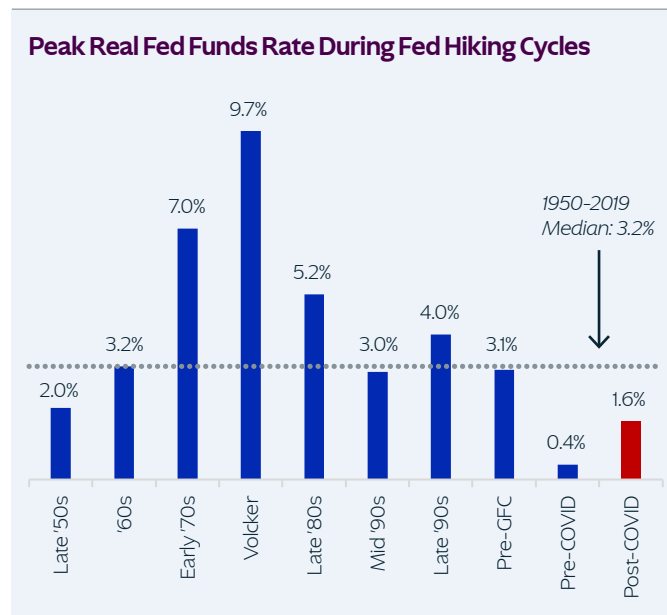
EXHIBIT 70: We Think That a Fed Funds Rate of 5.375% – If Maintained Through Year End 2023 – Should Be Enough to Bring Inflation Back Below Three Percent Over Time



Data as at May 31, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

We continue to believe that tighter financial conditions post the SVB banking crisis mean that the FOMC will not need to deliver as much tightening through the risk-free rate this cycle.

EXHIBIT 71: At The Same Time, Our Expectations for Rate Cuts in 2024 Should Keep Real Rates Reasonably Low This Cycle

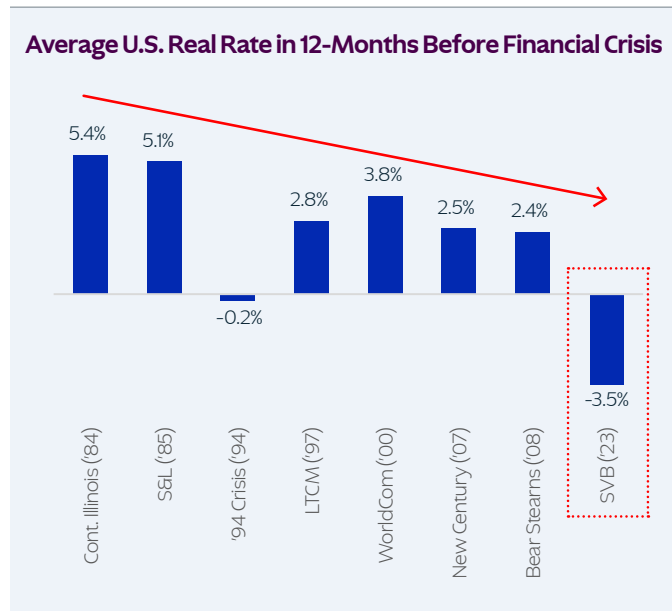


Real fed funds defined as fed funds - last 12-months Core CPI on a quarterly basis. Data as at May 31, 2023. Source: Haver Analytics, U.S. Bureau of Labor Statistics, KKR Global Macro & Asset Allocation analysis.

Why do we still think real rates will remain low this cycle? The SVB experience suggests to us that both the financial system (*Exhibit 72*) and the economy (*Exhibit 73*) have become more sensitive to the impact of higher real rates in a lower-growth environment.

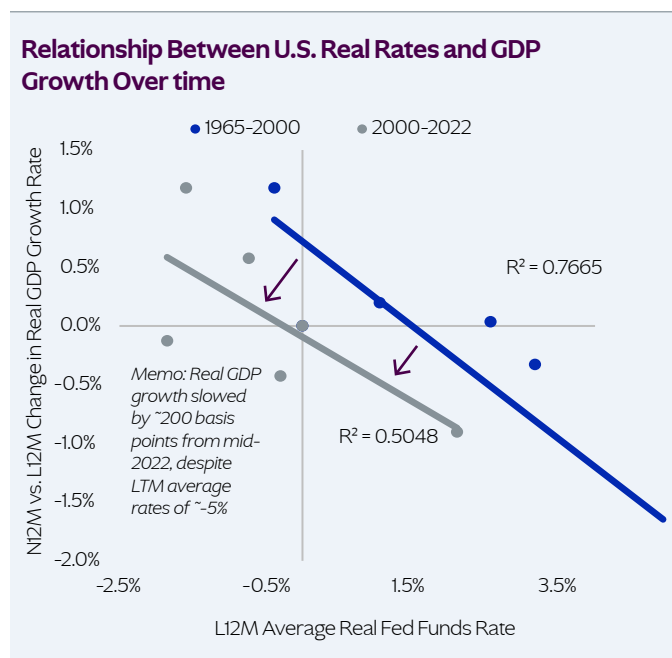
At the long end of the curve, we are not changing our call for 10-year UST yields to end 2023 at four percent, as we think resilient growth and inflation in the near-term continue to imply a higher term premium for treasury yields (*Exhibit 74*). **For 2024 and beyond, however, we are lowering our 10-year UST forecasts by 25 basis points to reflect our expectation for lower short rates over the longer term**, with bond yields falling to 3.5% in 2024 and 3.25% in 2025 before settling at three percent over time.

EXHIBIT 72: The Collapse of SVB Shows that the Financial System Is Becoming Increasingly Sensitive to Fed Tightening



Real fed funds defined as fed funds minus last-12 months Core CPI. Data as at March 31, 2023. Source: KKR Global Macro & Asset Allocation analysis.

EXHIBIT 73: We Think the Right 'Neutral' Real Rate for the Real Economy Is Actually Around Zero



Real fed funds defined as fed funds minus last-12 months Core CPI. Data as at April 30, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Our forecast for a long-term 10-year UST yield of three percent, versus 3.25% previously, is also informed by our increasing conviction that **the Fed may have to maintain a larger balance sheet this cycle.** For one thing, policymakers' response to the SVB crisis highlights the risk that exceptional programs may prove necessary to contain financial market volatility *and* that these programs can materially impact the size of the Fed's balance sheet (remember that the Fed's introduction of the Bank Term Funding Program in March grew its balance sheet by roughly 400 billion in just two weeks). Moreover, even before SVB, bank reserves as a percent of assets at some banks had already fallen back towards the levels that precipitated the repo-market dysfunction at the end of the Fed's last QT cycle in 2019, highlighting the reality that it is hard to shrink the Fed's balance sheet when short rates are already pressuring bank reserve levels. As such, we now have more conviction that the Fed's balance sheet will likely remain above seven trillion this cycle, meaning there may be more of a 'bid' for Treasuries than we had previously thought.

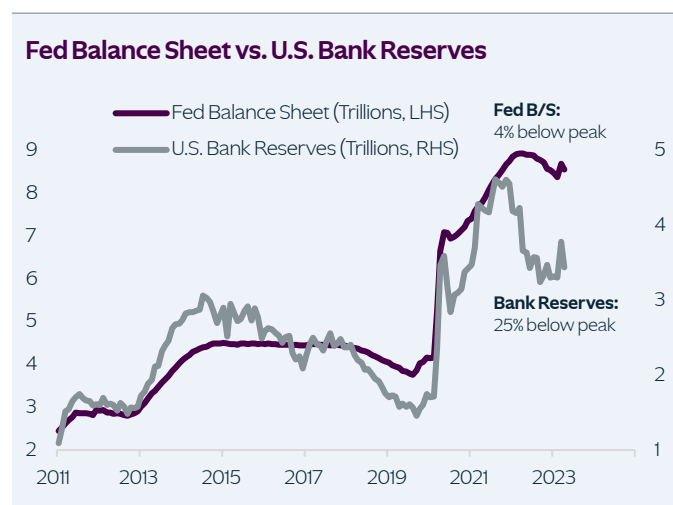
EXHIBIT 74: We Are Taking Down Our Forecast for 10-Year UST Yields by 25 Basis Points in 2024 and Beyond, Reflecting Our Expectation for Lower Average Short Rates

KKR GMAA Forecast: U.S. 10-Year Yields, %			
	Current	Prior	Consensus
2023	4.0%	4.0%	3.4%
2024	3.5%	3.75%	3.25%
2025	3.25%	3.5%	NA
Longer-Term	3.0%	3.25%	NA

Data as at May 16, 2023. Source: KKR Global Macro & Asset Allocation analysis.

The outlook for U.S. rates is becoming more supportive at the margins, and the FOMC is likely near the end of its hiking campaign. Nonetheless, we are not expecting a dovish Fed pivot.

EXHIBIT 75: Quantitative Tightening Is Getting Harder, as Fed Hikes Are Already Pressuring Bank Reserves



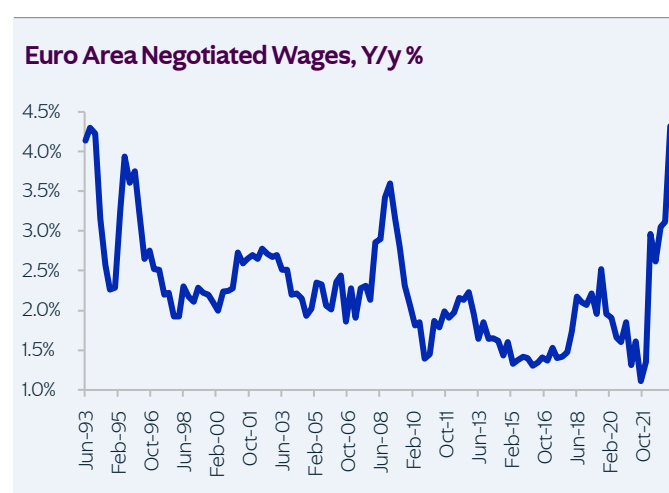
Data as at April 30, 2023. Source: Federal Reserve Board.

So what is our bottom line? The outlook for U.S. rates is becoming more supportive at the margins, and the FOMC is likely near the end of its hiking campaign. Nonetheless, we are not expecting a dovish Fed pivot, and our longer-term forecasts actually have nominal short rates settling about 50 basis points higher than their *peak* level last cycle. Against this backdrop, we continue to emphasize our 'Keep It Simple' thesis: while duration is a bit less unappealing than it was over 2021-2022, we are still in an environment where investors do not have to move out the curve in order to earn a decent return.

Europe: While the ECB has been decelerating its pace of rate hikes, we still think there is more tightening to come. Sticky core inflation remains the ECB's most pressing issue (particularly given their single mandate on inflation, compared to the 'dual mandate' of inflation *and* employment at the Fed). As such, we expect central bank policy in Europe to be tighter for longer to prevent the de-anchoring of inflation expectations. We think the ECB Deposit Rate will peak at 3.75-4.0% in 2023 and expect only 50 basis points of cuts in 2024, to 3.25-3.5%. While consensus is now relatively close to our view at the short end (expecting a 3.75% depo rate at year end-2023 and three percent at year end-2024), we continue to have a strongly differentiated view at the long end. **Specifically, we see the bund yield rising to 2.75% by year-end 2023 and three percent by year-end 2024, compared to a consensus of 2.3% and two percent, respectively.** The key difference is that we think the impact of ECB balance sheet contraction, as well as the increased need for long-term capital spending linked to the energy transition (including looser fiscal policy), will drive up longer term yields.

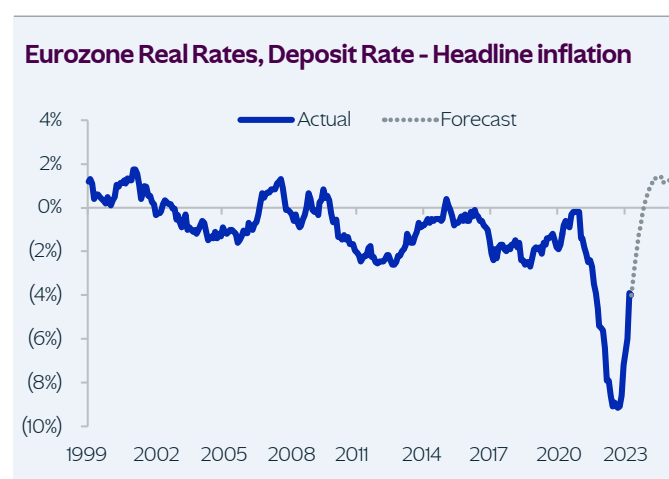
In real terms, our forecasts imply that the real interest rate (the ECB deposit rate minus headline inflation) will rapidly return to positive territory – something that has been the exception, not the rule, over the last twenty years (*Exhibit 77*). We believe most investors have not fully appreciated the significance of this tightening of policy, which in our view is really a structural move back to normality following many years of very loose monetary policy.

EXHIBIT 76: Euro Area Y/y Negotiated Wage Growth in 1Q23 Hit the Highest Level in Three Decades



Data as at March 31, 2023. Source: ECB

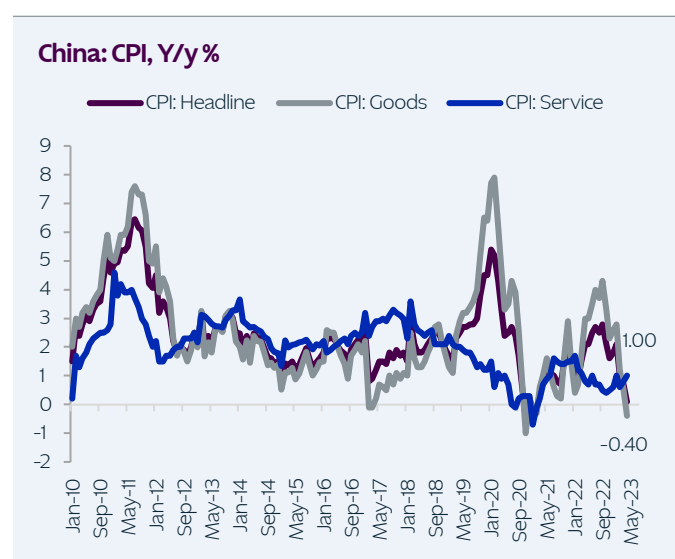
EXHIBIT 77: We Believe Real Rates Will Rapidly Return to Positive Territory – Something Rarely Seen in the Last Twenty Years



Data as at April 28, 2023. Source: Bloomberg, Eurostat, KKR Global Macro & Asset Allocation analysis.

China: In China, we expect further policy easing, including more policy cuts. Top of mind for us is the fact that a disinflationary backdrop has actually pushed real bond yields in China – which we view as the best way to measure the true stance of China’s monetary policy over time, given the fact that China’s policy-makers are less focused on short rates versus those in DMs – further into positive territory. That backdrop is very different from the U.S. and Europe, where elevated inflation has resulted in negative rates across the curve. One can see this in *Exhibit 79*. Importantly, positive real rates have not been helpful to the economic recovery in China, and they come at a time when youth unemployment is already above 20% and the property sector is weak. As a result, we believe the government will focus on delivering more policy easing this year, including targeted policy stimulus for the Consumer and Tech sectors, further changes to home purchase restrictions, and more direct rate cuts in order to help restore market confidence somewhat and extend the recovery further into 2024.

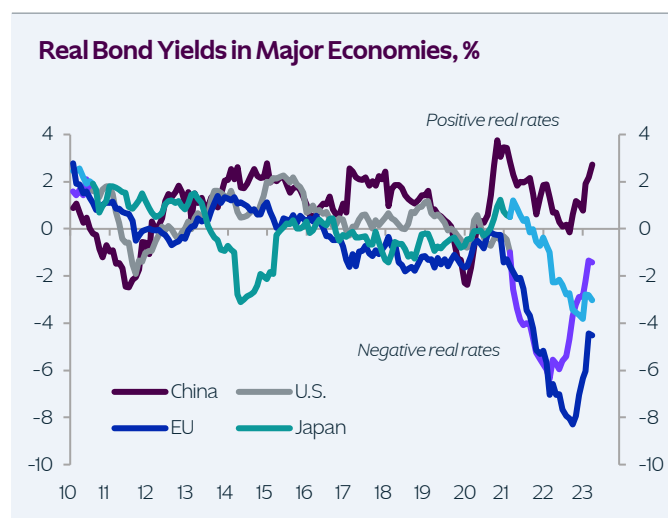
EXHIBIT 78: Goods Disinflation in China Has Driven Down Inflation



Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

In China, we expect further policy easing, including more policy cuts.

EXHIBIT 79: Positive Real Bond Yields Are Not Aiding China's Recovery



Note: Real interest rate is measured here as 10-Year government bond yield – headline CPI inflation. Data as at May 22, 2023. Source: WIND, KKR Global Macro & Asset Allocation analysis.

Oil

Better-than-expected Russian crude production, in our view, removed much of the 'right tail' risk from oil prices. Back in March, the Russian supply resilience we were already observing caused us to lower our 2023-24 WTI forecasts to the mid-\$70s from around \$80 at the start of the year. We now make further, albeit modest, downward revisions, reflecting a more guarded view of global oil demand growth next year. Looking further ahead, we remain constructive on the outlook for energy and energy-related investments, and as such, **we maintain our conviction that \$80 is a new sustainable mid-point of the long-term range for WTI pricing, up from \$50-60 in the pre-pandemic era.**

While the global macro backdrop remains quite dynamic, the oil market's supply-demand balance has actually remained stable and roughly neutral in recent months.

Surprising Russian production resilience (now estimated down just -0.2 million barrels per day in 2023, versus a consensus of -0.8 million barrels per day at the start of the year) has been offset by forceful OPEC+ cuts and China's accelerated reopening.

EXHIBIT 80: We Are Trimming Our Average Oil Price Estimates by \$2.50-5 per Barrel in 2023 and 2024. However, We Maintain Our Conviction that \$80 Is a New Sustainable Mid-Point of the Long-Term Range for WTI Pricing

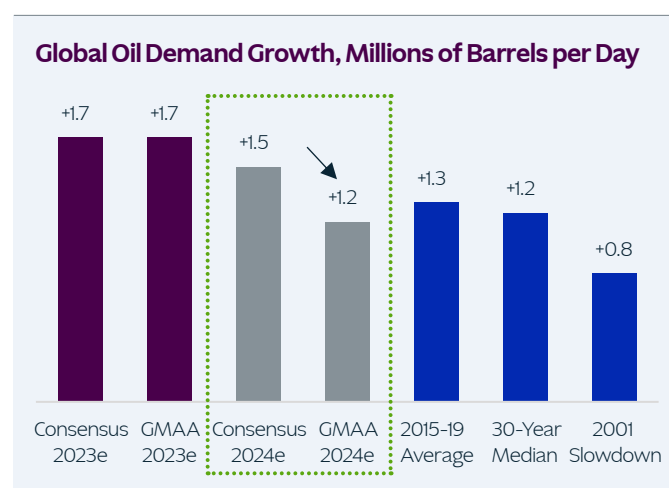
	KKR GMAA Base Case vs. Futures				High/Low Scenarios		Memo: Mar Forecasts	
	KKR GMAA	WTI Futures	Latest vs. Mar'23		KKR GMAA	KKR GMAA	KKR GMAA	WTI Futures
	May'23	May'23	KKR GMAA	Consensus	High Case	Low Case	Mar'23	Mar'23
2019a	57	57	N/A	N/A	57	57	N/A	N/A
2020a	39	39	N/A	N/A	39	39	N/A	N/A
2021a	68	68	N/A	N/A	68	68	N/A	N/A
2022a	95	95	N/A	N/A	95	95	N/A	N/A
2023e	75	72	-3	-5	100	65	78	77
2024e	70	68	-5	-5	100	60	75	73
2025e	80	65	0	-4	100	60	80	69
2026e	80	63	0	-2	100	60	80	65
2027e	80	62	0	0	100	60	80	62

Forecasts represent full-year average price expectations. Data as at May 15, 2023. Prior as at March 2, 2023. Source: KKR Global Macro & Asset Allocation analysis.

We continue to see several factors converging to narrow the range of potential outcomes for oil pricing in 2023 and beyond. The factors helping curtail 'left tail' downside risk include the likelihood of further OPEC support and Strategic Petroleum Reserve (SPR) refills at prices around \$60-70. At the same time, however, Russian production resilience is limiting the 'right tail' upside risk to approximately \$90-100. OPEC support will be important for maintaining oil pricing in the \$70s in the coming months, as our flow-based model suggests pricing would be more likely in the low \$60s absent that support.

Our bottom line: Owing to our more guarded global oil demand growth outlook, we are trimming our 2023 and 2024 average oil price estimates by \$2.50 to \$75 per barrel from \$77.50 and \$5 to \$70 per barrel from \$75, respectively. We expect global real GDP growth to decelerate further in 2024, as U.S. growth approaches stall speed and the China reopening impulse normalizes. If we are right, then the consensus expectation for global oil demand growth is likely too optimistic at plus 1.5 million barrels per day year-over-year in 2024, which is well above the trailing 5- and 30-year averages. We are calling for growth closer to plus 1.2 million barrels per day instead, which would leave the global supply/demand balance at a potential modest surplus.

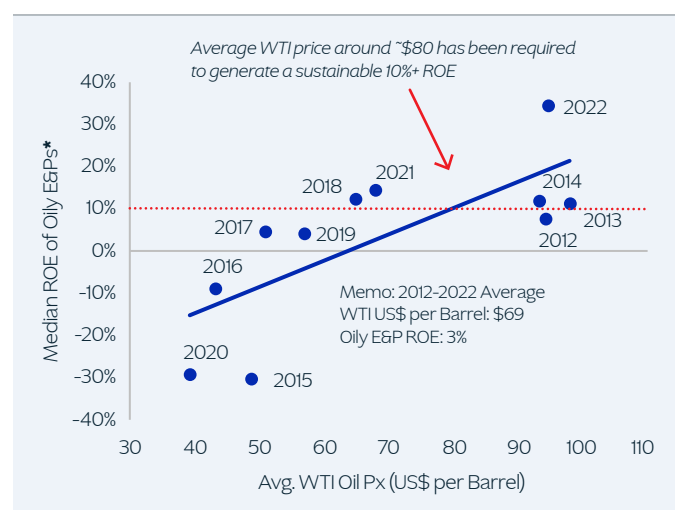
EXHIBIT 81: We Think Consensus Is Too Optimistic On Global Oil Demand Growth in 2024



Data as at May 15, 2023. Source: Bloomberg, Energy Intelligence, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

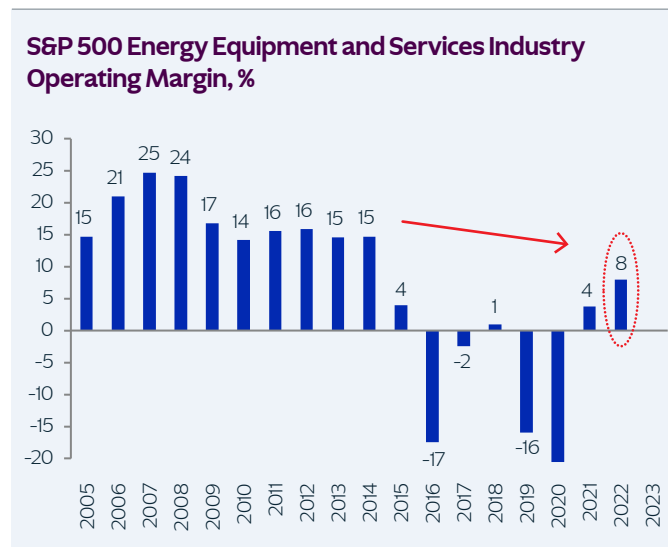
Looking past near-term macro cross-currents, we continue to see significant constraints on longer-term U.S. supply growth related to 1) policy uncertainty regarding the energy transition; 2) still-constrained labor and equipment availability, which is supporting a structural repricing of services costs; and 3) fading tailwinds from efficiency gains, well productivity, and service cost deflation. We think impressive capital discipline by U.S. producers could support durable long-term pricing that averages closer to \$80, up from the pre-pandemic range of \$50-60.

EXHIBIT 82: 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



Data as at May 15, 2023. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 83: We Expect Production Cost Inflation to Remain Elevated, as Oil Service Companies Have Significant Pricing Power and Further Scope to Expand Margins



Data as at May 15, 2023. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Looking further ahead, we remain constructive on the outlook for energy and energy-related investments, and as such, we maintain our conviction that \$80 is a new sustainable mid-point of the long-term range for WTI pricing, up from \$50-60 in the pre-pandemic era.

SECTION IV

Frequently Asked Questions

Question #1: Where do we see value across asset classes?

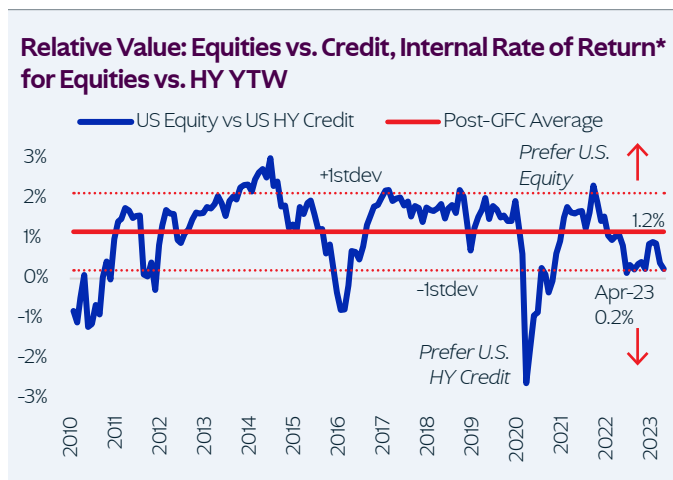
Given that KKR now oversees more than \$500 billion across almost all asset classes, versus just \$60 billion in 2011 when we started the firm's macro and asset allocation effort, the firm's ability to evaluate relative value has likely improved mightily, we believe. See below for details, but our punch line is that we are in a different era for asset allocation, in which one does not have to stretch for risk in order to earn a decent return, and where there *are* actually some attractive alternatives out there to mega-cap S&P 500 names.

- **We reaffirm our call for stronger small-cap performance.** U.S. small-cap stocks are trading at the biggest discount to large-cap stocks in over 20 years. In fact, the valuation gap today is so sizeable that we think small-cap stocks could outperform large-cap stocks by around two to three percent per annum over the next several years (*Exhibits 87 and 88*), even when we account for the fact that SMID-cap earnings have further to fall. So, while we do recognize that AI means the era of large-cap tech ownership may not be over just yet (i.e., we are not calling for a massive overweight to Value), we are focused on the large number of solid, cash-flowing SMID-cap companies currently trading at depressed valuations.
- **Foreign stocks are starting to look more interesting.** We continue to see better value in Japanese, European, and even Mexican stocks, all of which are trading at relatively undemanding valuations and stand to benefit if we are right about a structurally weaker U.S. dollar. In fact, both Japan and Europe have broken out to 52-week highs (in USD terms) while still trading at just 13-13.5x NTM P/E (i.e., a 25-30% discount to the S&P 500); even more extreme is the Mexican stock market, which has broken out to eight-year highs but still sports a <13x NTM P/E.
- **Do Not Miss This Current Vintage: This is an opportune time to be a lender.** We continue to favor Credit over Equities on a relative basis for larger pools of liquidity. Our risk premium framework – which compares the market implied cost of equity to the yield on U.S. High Yield credit – shows that the current excess return offered by Public Equities is fully one standard deviation below the post-GFC average (*Exhibit 84*). Moreover, only 10% of S&P 500 companies currently offer a dividend yield that is higher than their own corporate bond yield, which is one of the lowest levels in 13 years and well below the post-GFC average of about 30% (*Exhibit 85*). We see a similar dynamic in Europe where the percentage has fallen to 12-year lows.
- **Within Credit, however, selectivity is key.** See *Question #2* below for more details, but we continue to think that defaults will rise over the next few years as EBITDA margins begin to contract. As a result, we are very focused on opportunities to move higher in the capital structure or to be selective on high-quality credits. If we are right, then we see more bifurcated outcomes for both Liquid High Yield and Private Credit in coming years, meaning that manager selection will become even more important.
- **Real Assets look attractive in an era of higher inflation.** We think that many investors' balance sheets are still underweight Real Assets at a time when inflation remains the number one macro concern in the developed world. So, we continue to pound the table on almost all aspects of Infrastructure, Asset-Based Finance, and Real Estate Credit. In terms of where our view is changing at the margins, we are becoming more bullish on non-Office CRE equity, given that entry cap rates are much higher than they were in 2021, while our long-term 10-year UST forecast (which

feeds into exit cap rates) is lower. As short- and long-term interest rates have risen and as borrowing costs have increased, commercial property values have repriced considerably. These new reset values should create compelling investment opportunities as many property types still benefit from resilient long-term demand trends (such as logistics); high barriers to entry exist due to credit tightening for construction lending (both proceeds and cost); and we think many incumbent owners will need to deleverage capital structures as liabilities mature. We also think there is a lot to do in Infrastructure right now, especially in cases where assets offer exposure to our big themes (including Energy Transition, Digitalization, and the Security of Everything).

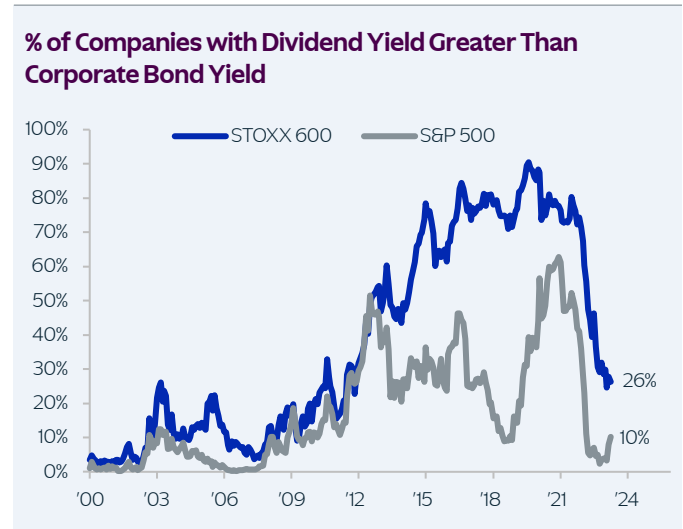
- **Competition from Cash (T-bills) – yielding around five percent – has increased dramatically.** All told, the spread between U.S. HY credit yield-to-worst and yield on T-bills is at the lowest level since 2007, while U.S. IG credit yield-to-worst is trading flat to T-bills (*Exhibit 86*). This apparent disconnect is to be expected, given that much of the increase in yield this cycle has been linked to movements in the risk-free rate, rather than the spreads on debt securities. As a result, while Credit as an asset class looks more attractive than Equities in relative terms, cash (T-bills) has actually emerged as a compelling alternative in today's higher-for-longer rate environment.

EXHIBIT 84: The Current Excess Return Offered by Equities is Roughly One Standard Deviation Below the Post-GFC Average, Which Suggests HY Credit Offers Better Relative Value Than Equities



* Internal rate of return is the discount rate at which the present value of all future dividends is equal to the current market level. We use a two-stage dividend discount model. Source: Bloomberg, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 85: The Percentage of U.S. Companies Offering a Dividend Yield in Excess of Their Own Credit Yield Is Close to 13-year Lows

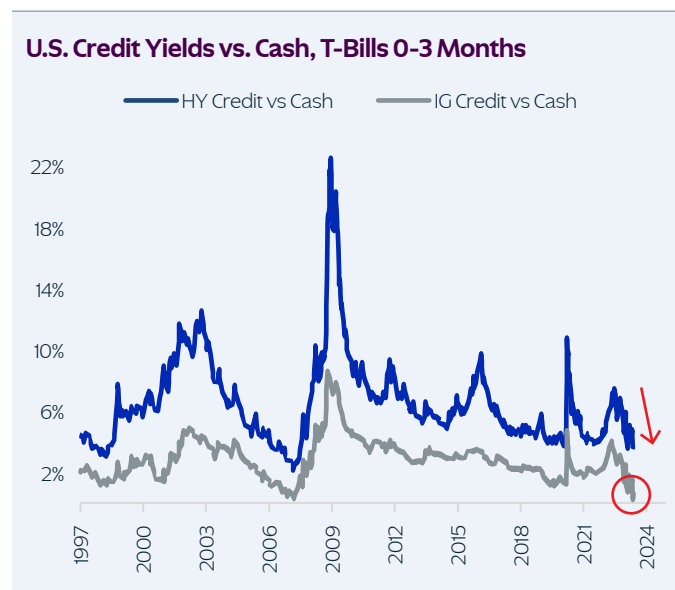


Data as at April 30, 2023. Source: Datastream, FactSet, STOXX, Goldman Sachs Global Investment Research.

So, what's our bottom line? We have now entered a new regime of higher nominal growth and *structurally* higher interest rates, which we believe suggests that investors cannot go back to what 'worked' over the last ten years. Instead, we think that a more holistic approach to asset allocation is required, with a greater emphasis on up-front yield, 'Simplicity Over Complexity', and diversification across asset classes. Finally, as *Exhibit 11* shows, we are likely in an environment of lower aggregate returns, meaning that more investors will need to find ways to harness the illiquidity premium to drive portfolio performance.

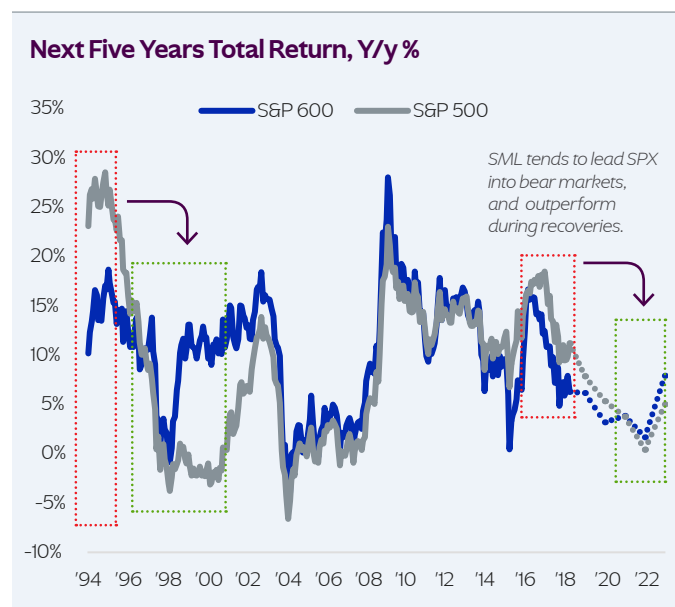
We have now entered a new regime of higher nominal growth and *structurally* higher interest rates, which suggests that investors cannot go back to what 'worked' over the last ten years.

EXHIBIT 86: Public Credit Offers Historically Narrow Yield Pick-Up Relative to Short-Dated Government Bonds



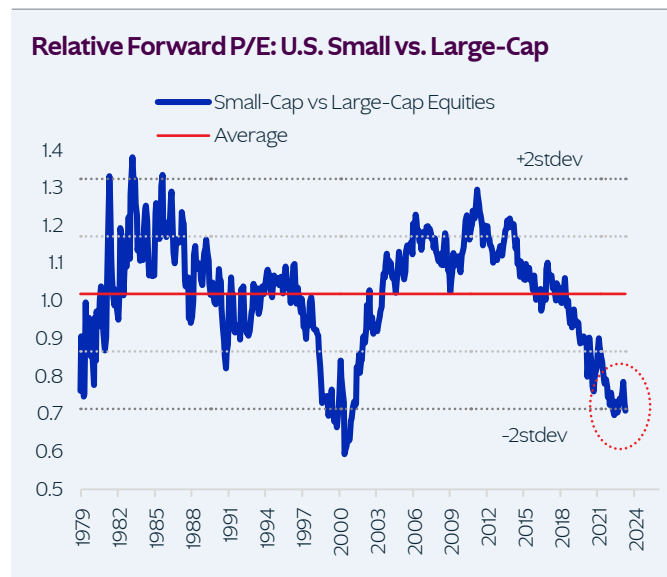
Data as at May 19, 2023. Source Bloomberg, KKR Global Macro & Asset Allocation analysis.

EXHIBIT 87: Similar to the Aftermath of the Dot-Com Bubble, We Now Think Small-Cap Could Meaningfully Outperform Large-Cap



Data as at April 30, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

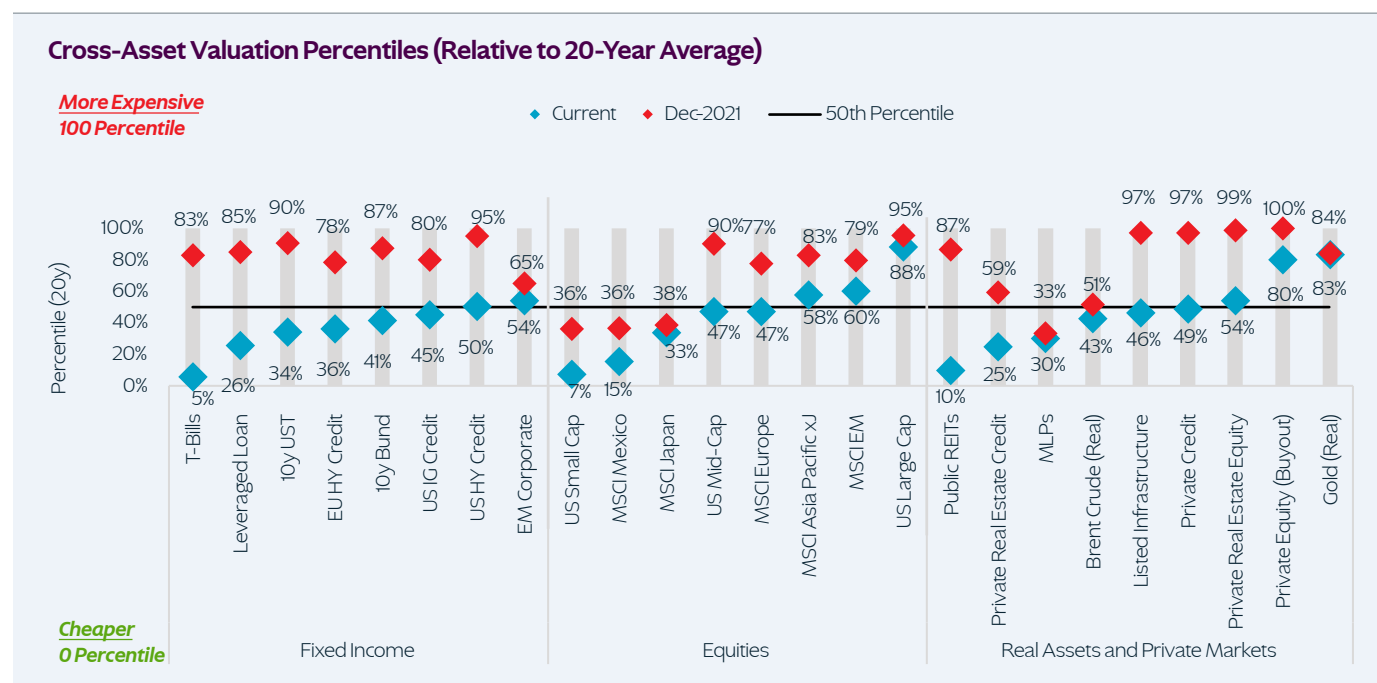
EXHIBIT 88: Small-Cap Stocks Remain Historically Cheap vs. Large-Cap Stocks, Trading at 20-Year Lows (-30% Below Long-Term Average)



Note: Valuation analysis excludes outliers and non-earners. Data as at April 30, 2023. Source: BofAML Global Research, FactSet.

We think that many investors' balance sheets are still underweight Real Assets at a time when inflation remains the number one macro concern in the developed world.

EXHIBIT 89: Small-Cap, International Equities, Public REITs and Private Real Estate Credit Look Attractively Valued; Large-Cap Equities Still Look Less Compelling by Comparison



Notes: Equity indices refer to NTM P/E; UST, bonds, Cash refer to nominal yield; Infra and MLPs refer to forward dividend yield; Credit and Mortgage indices refer to spreads; Private Equity refers to median EBITDA multiples; public REITs and private real estate refer to nominal cap rate; Brent and Gold refer to real prices. Percentiles from 2003–date where available; Leveraged Loans, Infra and MLP from 2007–date; Private Real Estate Credit as at 1Q23; Private Credit as at 4Q22; Private Equity as at 4Q22. Public data as at April 30, 2023. Source: Bloomberg, Haver Analytics, ICE-BofAML Bond Indices, Green Street, Giliberto-Levy, Burgiss, S&P, MSCI, KKR Global Macro & Asset Allocation analysis.

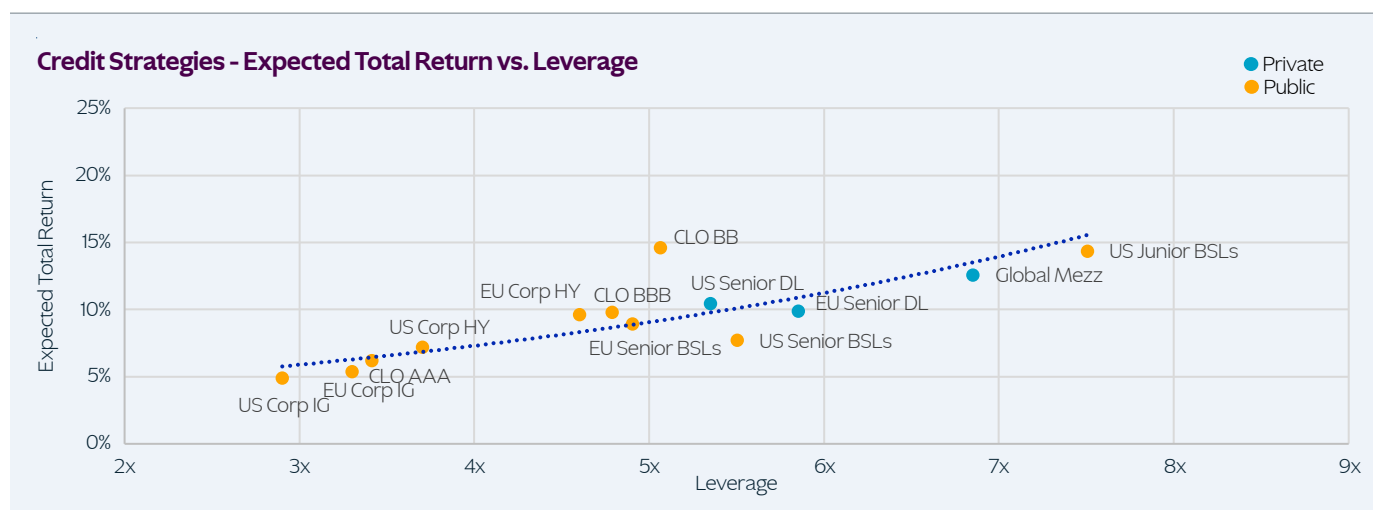
Question #2: Given how bullish you are on lending in this market, how should investors think about the ‘Credit’ sleeve of their portfolio?

Within Credit, we continue to advocate for ‘Keeping it Simple’ by moving up in the capital structure and not stretching on leverage, particularly at a time when EBITDA margins are starting to normalize. That said, given the different convexities of various credit asset classes right now, we think that a multi-asset class Credit solution, including both private and liquid securities, could make a lot of sense for large pools of capital. As such, we see something to ‘like’ across several areas of private and public markets:

- **We think high-quality CLO liabilities offer excellent risk/reward across AAA-BB tranches.** Given how much financial conditions tightening has occurred through higher SOFR (the overnight financing rate), rather than via higher spreads, one can earn a very decent return without taking

a lot of credit risk. As such, we favor higher quality liabilities in the floating-rate portion of one’s liquid portfolio, especially if we are right that fed funds will remain higher on a structural basis this cycle. In particular, more junior tranches like BB offer a very decent leverage-adjusted return right now, as one can see in *Exhibit 90*.

- **Within fixed-rate debt, parts of High Yield look appealing, too.** Although HY spreads are still fairly tight, we would assign a small probability to a world in which HY spreads blow out *and* risk-free rates remain very high. As such, all-in yields at today’s levels offer a decent entry point for long-term investors, particularly given how much of the ‘discount’ in HY is coming from price versus coupon right now (i.e., HY is currently trading at 85–90 cents on the dollar). Moreover, although we remain cautious about the outlook for margins, HY credit fundamentals are much better than they have been in past cycles. Just consider that the average issuer now has a rating of BB or higher, versus B or lower in 2006–2007, and that about a quarter of the BB market is now senior secured, up from zero percent pre-GFC.

EXHIBIT 90: Our Tactical Model Suggests Private Credit Offers Higher Expected Return per Unit of Leverage

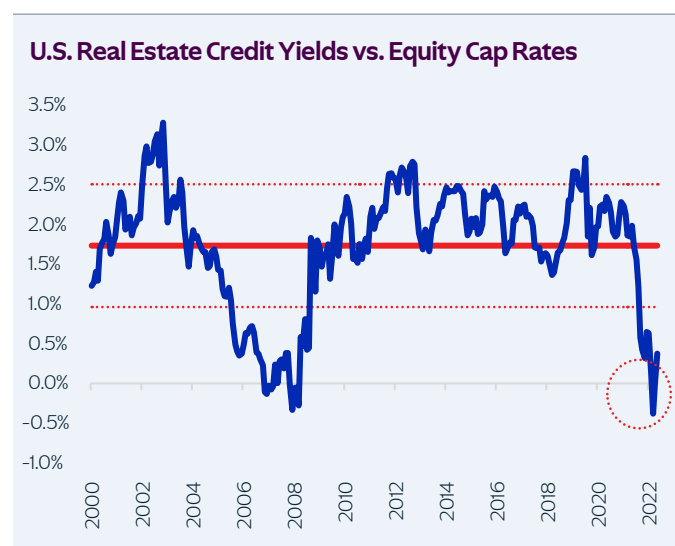
Data as at April 30, 2023. Source: KKR Portfolio Construction analysis based on proprietary and sell side research (BofA, JP Morgan, LCD, S&P Global Ratings, Moody's).

- We also like Real Estate Credit as a way to gain exposure to elevated nominal GDP growth.** Ongoing volatility, as well as bank funding pressures, have caused a pullback in large sources of real estate debt financing, including bank lending and the CMBS market. To be sure, part of this pullback reflects more challenging fundamentals, particularly around Office. Nonetheless, we continue to think that RE lending *overall* will hold up much better than it did in the GFC thanks to lower LTVs, less pro-forma underwriting, and the fact that asset values have already reset in many sectors, providing more of an equity 'cushion' before bondholders take losses (see *Question #5* below for more details). As such, we think that CRE lending may be one of the most compelling ways to add Real Estate exposure in scale at this point in the cycle (*Exhibit 91*).
- Senior Direct Lending remains very compelling.** Unlevered gross returns are now in the 10-12% range thanks to a higher reference rate and a more substantial original issue discount (OID). And on a go-forward basis, we actually think that the opportunity set in this space will remain appealing for some time, given the reality that a lot of good companies will need to refinance their debt at a time when the leveraged loan market is essentially shut. However, we do acknowledge that the asset class has become more 'crowded,' which is why we think investors need to focus on partnering with experienced managers in order to see the full benefit of adding private credit to their portfolios.

Pulling it all together, we think that the current backdrop has created a compelling opportunity for investors to move up the capital structure and lend to high-quality companies at attractive all-in yields and with more protective covenants. By contrast, this is still not the time to simply buy the market when it comes to riskier loans, and there is the possibility of a 'double whammy' from higher defaults and lower reference rates if the U.S. encounters a more severe downturn this cycle.

That said, given the different convexities of various credit asset classes right now, we think that a multi-asset class Credit solution, including both private and liquid securities, could make a lot of sense for large pools of capital.

EXHIBIT 91: The Difference Between Real Estate Equity Cap Rates and Core Mortgage Yields Is Well Below Average, Meaning Now Is a Great Time to Be a Lender in Real Estate



Data as at March 31, 2023. Source: Giliberto-Levy, Green Street, KKR Global Macro & Asset Allocation analysis.

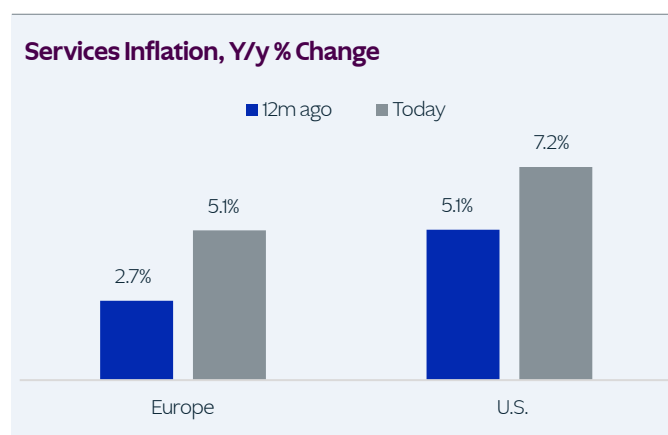
Question #3: What are your views on inflation globally and the impact on asset allocation, Real Assets in particular?

As we showed earlier in *Exhibit 4*, we are experiencing an asynchronous global recovery, which means that *cyclical* inflation looks very different across countries. Indeed, whereas money growth is negative and inflation is above-target in the United States, the opposite is true in China. Meanwhile, Europe appears to have the stickiest inflation globally this cycle, (which is why Europe is actually growing faster than the U.S. or China in nominal terms) while Japan could be exiting deflation on a structural basis as consumer expectations start to reset.

When we look through the different cyclical factors affecting each of these economies, however, we think there are a number of reasons why inflation *globally* will likely settle at a higher resting heart rate going forward. Namely, we maintain our view that structural shortages of labor and housing (remember that demographics are now a headwind across all of the major economies we track), shifting geopolitics (including less-efficient supply chains), and the energy transition (which is driving demand for hard-to-find commodity inputs) are all

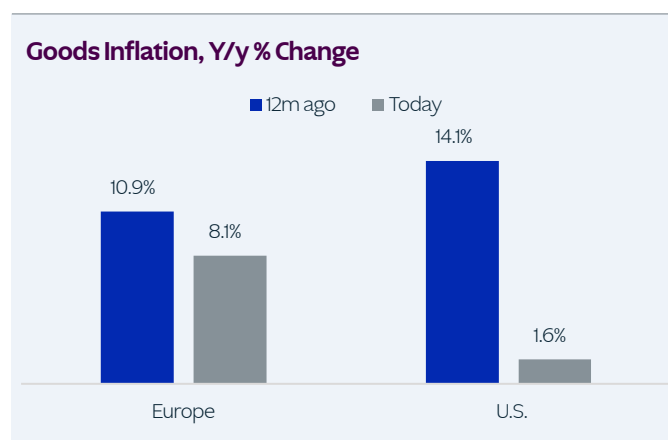
acting as inflationary shocks on the supply side of the global economy, at a time when the excess stimulus (i.e., the Authorities spent 3.5x more on pandemic stimulus than they did on the GFC) and elevated consumer expectations (by 2024, we will have spent 80% of the last five years with inflation above the Fed's target in the U.S.) are driving inflation on the demand side.

EXHIBIT 92: Services Inflation Remains Elevated in Both the U.S. and Europe



Data as at April 20, 2023. Source: Bloomberg.

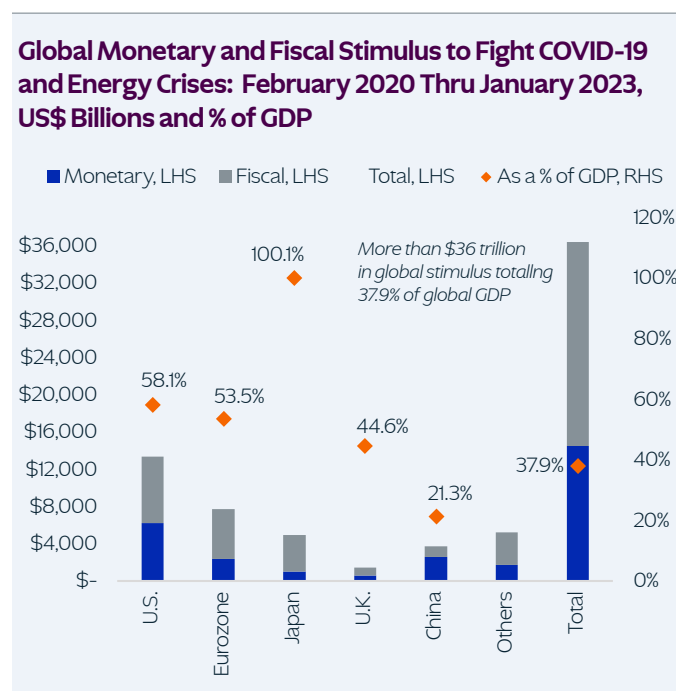
EXHIBIT 93: Europe Still Has a Goods Inflation Problem Despite Falling Energy Prices



Data as at April 20, 2023. Source: Bloomberg.

Meanwhile, Europe appears to have the stickiest inflation globally this cycle.

EXHIBIT 94: The Amount of Fiscal and Monetary Stimulus Introduced Into the System Is Unprecedented

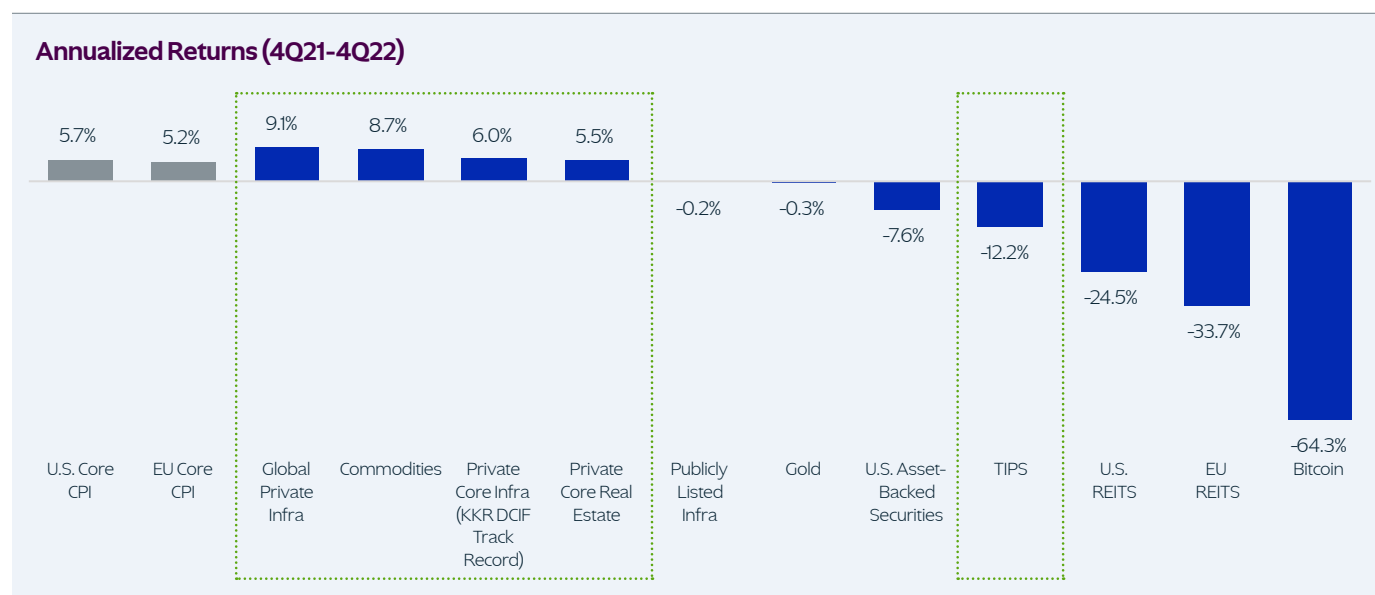


Data as at January 31, 2023. Source: Piper Sandler Companies.

If we are right about our structural 'higher resting heart rate' of inflation thesis, then the key question is likely what vehicle is most efficient for harnessing cash flow against this macro backdrop? The reality, to date, is that many investors have gotten the theme of inflation right but the implementation wrong. Indeed, as *Exhibit 95* shows, traditional inflation hedges such as REITs, TIPS, Gold, and Listed Infrastructure have failed to deliver positive real returns on a USD basis. By comparison, 'new' inflation hedges like Core Infrastructure, Infrastructure, Asset-Based Finance, and Core Real Estate (outside of Office) have managed to outpace inflation.

By comparison, 'new' inflation hedges like Core Infrastructure, Infrastructure, Asset-Based Finance, and Core Real Estate (outside of Office) have managed to outpace inflation.

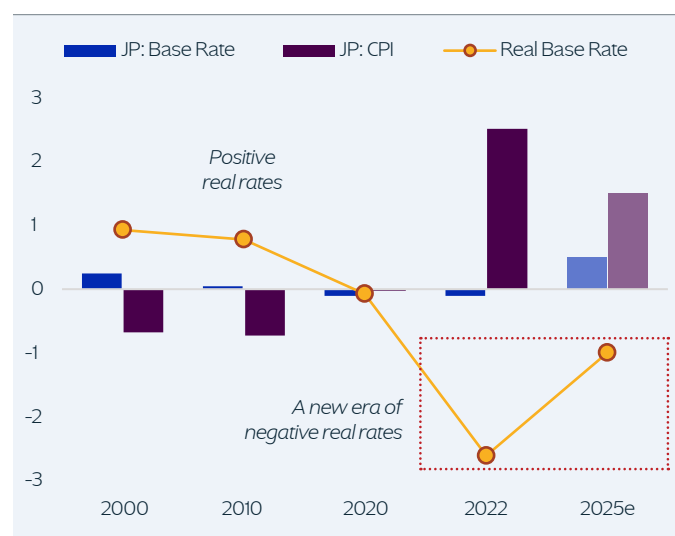
EXHIBIT 95: The Inflation Hedging Characteristics of Real Assets Have Not All Been Equal During This Cycle



Commodities proxied using the S&P GSCI Spot Index, Global Private Infrastructure proxied using the Burgiss Global Infrastructure Index, Private Core Infrastructure proxied using the KKR Diversified Core Infrastructure Fund (DCIF), Private Core Real Estate proxied using the NCREIF Property Index, Publicly-Listed Infrastructure proxied using the S&P Global Infrastructure Index, TIPS proxied using the iShares TIPS Bond ETF, US REITS proxied using the MSCI US REIT Index, EU REITS proxied using the MSCI Europe Real Estate Index, U.S. Asset-Backed Securities proxied using the ICE BofA AA-BBB U.S. Asset Backed Securities Index, Bitcoin and Gold spot prices as tracked by Bloomberg. KKR DCIF track record returns are net of all management fees and carry. Data as at December 31, 2022. Source: Bloomberg, NCREIF, Burgiss, KKR Infrastructure, KKR Global Macro, Balance Sheet & Risk analysis.

Importantly, we view this transition in Real Assets leadership as structural, not cyclical. Key to our thinking is that better cost pass-through, higher linkages to nominal GDP, and/or floating rate debt have all helped to differentiate these 'new' Real Asset classes, particularly in cases where investors can establish a controlling stake in order to drive operational improvement and get ahead of mounting inflationary headwinds. By contrast, traditional inflation hedges do not offer this flexibility, and consequently provide much less protection than many investors might expect. For example, public REITs were trading at a significant premium to NAV in 2021 and had a lot more Class B/C Office versus private Real Estate funds, while TIPS prices were distorted by large central bank holdings and extremely low real yields.

EXHIBIT 96: We Are in a New Era of Negative Real Rates in Japan, Which Makes Cash Less Interesting. This Backdrop Will Likely Fuel a Shift in Asset Allocation



Real Base Rate defined as Japan base rate minus CPI year-over-year. Data as at March 31, 2023. Source: Bank for International Settlements, World Bank, Haver Analytics.

On a go-forward basis, our view is that these performance differentials are not an aberration but the beginning of an important trend to which CIOs need to pay attention. As such, we continue to think that many CIOs do not have enough private Real Asset classes in their portfolios, including Asset-Based Finance, Real Estate Credit, Energy, and Infrastructure.

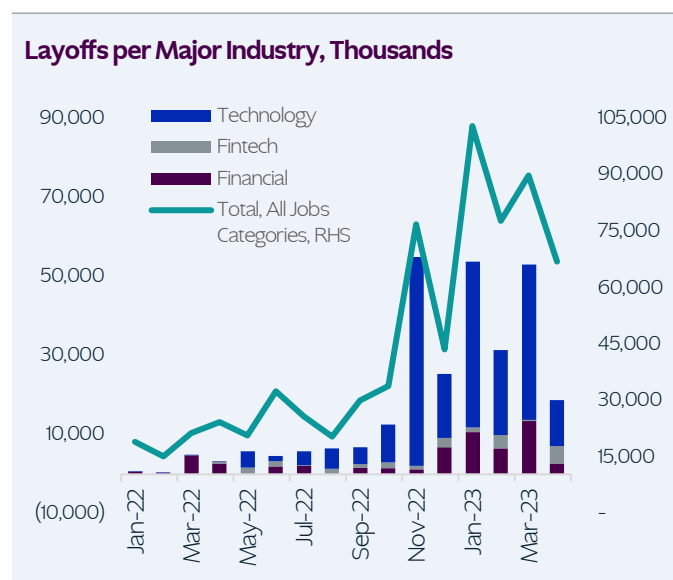
Question #4: How are you thinking about the health of the global consumer?

As with inflation, the near-term outlook for consumer spending looks very different across economies. For instance, in the U.S., nominal spending is now running fully 11% over its pre-COVID trend, versus Europe, where nominal spending is running three percent above trend, or China, where spending is actually below trend. Nonetheless, as we discuss below, the most important takeaway for investors right now may be that, on a *global* basis, consumers are actually in better shape than many appreciate amidst improving wage gains, elevated household savings, and meaningful fiscal tailwinds.

In the U.S., we maintain our cautious outlook towards PCE spending, given the starting points of very low savings rates and very low unemployment rates. Nonetheless, there is likely less downside for the 'typical' U.S. consumer than many investors imagine, especially if housing performs the way we think it will this cycle. For one, job losses to date have mostly been concentrated amongst high earners, while average-income households have fared better (*Exhibit 97*). Moreover, consumers' debt servicing costs remain relatively low, thanks in part to the protection offered by fixed-rate mortgages (*Exhibit 98*). Relatedly, we think that home values in the U.S. should actually hold up fairly well this cycle, in contrast to what occurred during the financial crisis, which should preserve some of the 'wealth effects' seen during the pandemic. In fact, our U.S. team forecasts that home values should stabilize about 25% above pre-COVID levels, reflecting the fact that housing is *still* underbuilt at a time when millennial household formation is accelerating (*Exhibit 99*).

Nonetheless, the most important takeaway for investors right now may be that, on a global basis, consumers are actually in better shape than many appreciate amidst improving wage gains, elevated household savings, and meaningful fiscal tailwinds.

EXHIBIT 97: Layoffs in the U.S. Have Been Heavily Concentrated in High-Earning Sectors



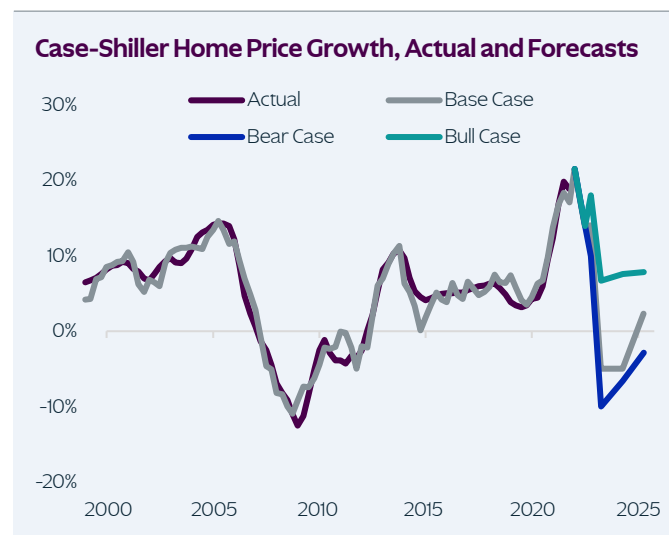
Data as at April 30, 2023. Source: Challenger, Gray & Christmas, KKR Global Macro, Balance Sheet and Risk.

EXHIBIT 98: U.S. Consumers Have Been Insulated from Higher Borrowing Costs



Data as at December 31, 2021. Source: BofA, KKR Global Macro & Asset Allocation analysis.

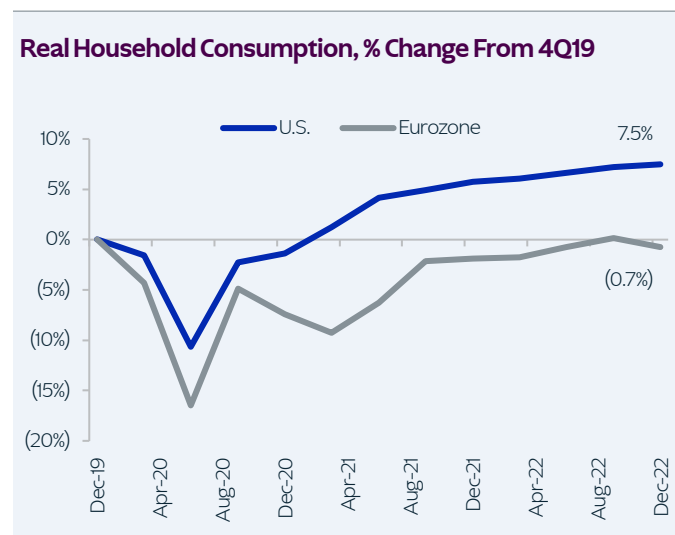
EXHIBIT 99: Our Base Case Assumes a Five Percent Decline in U.S. Home Prices This Year, Driven by Higher Borrowing Costs



Data as at May 31, 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

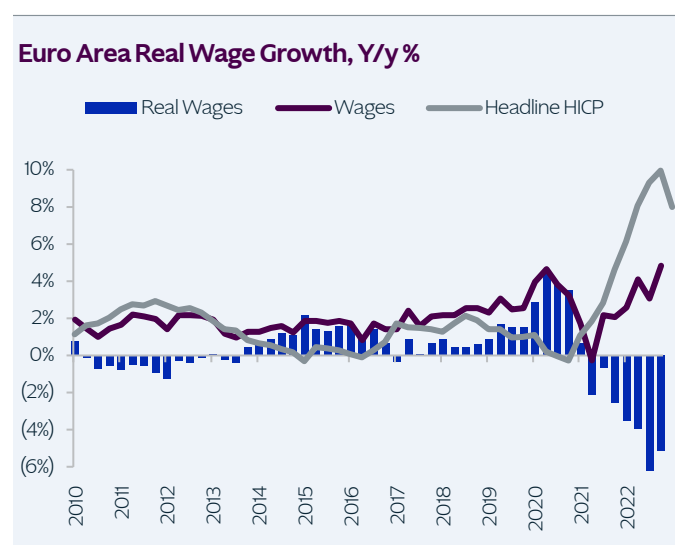
Meanwhile, a strong labor market in Europe is helping to offset the higher cost of living. To be sure, as we show in *Exhibit 101*, real wage growth in the Eurozone remains very negative, driven primarily by residual energy expenses as well as price increases for a broad array of consumer goods, especially services. There are, however, signs that this situation is changing at the margins, as the cost of living crisis is easing (especially on the energy front) while wage agreements are providing meaningful support to nominal incomes. Moreover, Europe's overall consumer spending recovery is much less mature than that in the U.S., which suggests consumption still has room to recover. We are particularly bullish about the services recovery in Europe (including tourism and travel) as part of our global 'Experiences Over Things' thesis. Finally, while there is undoubtedly more pain to come in the housing market, the continuing weak supply in most major European countries is an underappreciated offset, which should mean that the housing cycle is relatively mild by historical standards.

EXHIBIT 100: Real Household Consumption in Europe Has Not Flattered This Cycle Given a Strong Jobs Market as Well As Sizeable Government Outlays



Data as at December 31, 2022. Source: Eurostat.

EXHIBIT 101: That Said, We Need to Be Mindful as Headline Inflation Continues to Eat Into Households' Wallets



Data as at December 31, 2022. Source: ONS, Eurostat.

In China, we see a balance between some pent-up demand (similar to what was seen in other countries) and a weak labor market. On our latest travels in China, we noted that malls were busy, domestic travel had accelerated, and there was some 'revenge spending' taking place. All told retail sales grew 10.6% in March, nearly double the two prior months in the quarter, and a lot more spending could still be in the pipeline, as retail sales are still running 15% below China's pre-COVID trend

and excess savings are among the highest in the markets we track.

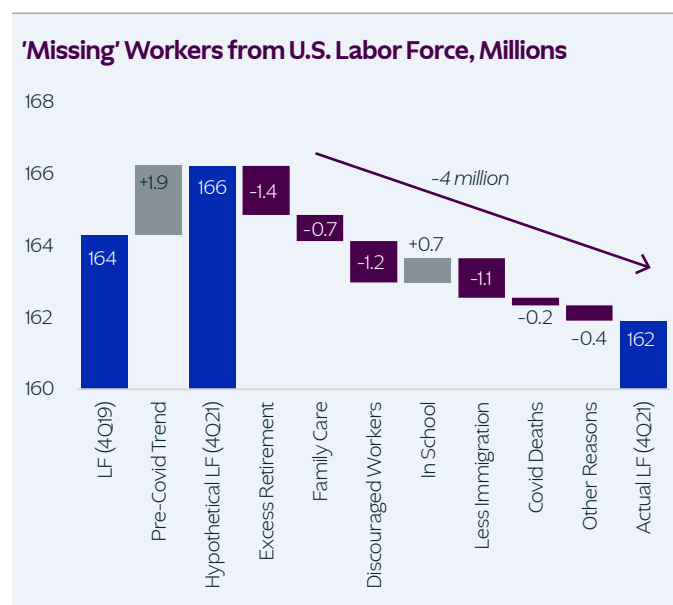
That being said, we do think that growth may not be as robust as it has been in the past, for two reasons. First, the 'hangover' from a long battle with a zero-COVID policy likely has tempered Chinese consumer confidence (or at least it has quelled animal spirits). This will take time to fully be restored, we believe. To this end, we note that birth rates are down more than 50% over the last six years while marriages are down 33% versus five years ago. Second, youth unemployment is quite high (i.e., upwards of 20%), and both lower-and upper-income consumers are less confident about their employment outlook. Nonetheless, given the low base off of which China's consumption is starting, as well as the elevated stock of liquidity, we actually still think there is reason to be optimistic about the consumer market.

Putting it all together, there are a few different dynamics globally that could make the outlook for consumer spending more constructive this cycle.

- **For starters, the labor market is very tight across all of the major developed markets.** Our analysis indicates that the U.S. is still missing several million workers relative to the pre-COVID trend, at a time when employment is still recovering in industries like Leisure, Healthcare, and select parts of Professional Services. That imbalance is a key reason our forecasts have unemployment rising to only five percent this cycle on a full-year basis, compared to a peak of six percent following the dot-com crash, ten percent during the GFC, and eight percent during COVID. We see similar trends playing out in Europe and Japan, where it is getting harder to find 'new' workers to offset demographic aging (*Exhibit 43*). If we are right in our call for a worker shortage, then real household incomes may hold up better than consensus expects in coming years.

In China, we see a balance between pent-up demand (similar to what was seen in other countries) and a weak labor market.

EXHIBIT 102: Low Immigration and Low Participation Led to a Four Million Worker Shortfall in 2021

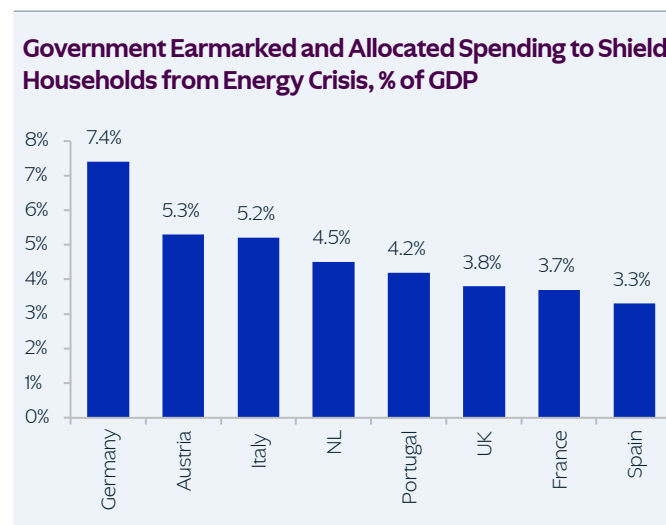


Data as at January 10, 2023. Source: U.S. Census Bureau, Haver Analytics, Federal Reserve Bank of Atlanta, KKR Global Macro & Asset Allocation analysis.

- **Second, consumers are still sitting on a lot of excess savings coming out of the COVID pandemic.** In the U.S., for instance, cash balances are up sharply versus pre-pandemic for most consumers (*Exhibit 104*), which helps explain why savings rates remain roughly 300 basis points below 2010–2019 levels. All told, 'excess' savings during the pandemic account for about eight percent of annual consumer spending in the U.S., versus 15% in Europe and 18% in China. We expect this stock of savings to fuel better consumer trends over the next several quarters globally.

All told, 'excess' savings during the pandemic account for about eight percent of annual consumer spending in the U.S., versus 15% in Europe and 18% in China. We expect this stock of savings to fuel better consumer trends over the next several quarters globally.

EXHIBIT 103: European Governments Set Aside Large Sums of Money to Shield Consumers From the Energy Shock



Data as at February 28, 2023. Source: Bruegel.

EXHIBIT 104: In the U.S., Savings Growth Across Income Quintiles Has Been Historic

Checkable Deposits by Income Quintile, US\$ Billions

%ile	Total	0-20	20-40	40-60	60-80	80-100
4Q19	1,031	59	67	99	179	628
4Q20	3,007	62	153	323	520	1,949
4Q21	4,120	54	187	441	716	2,722
4Q22e	4,951	8	217	562	852	3,314
% Change Since 4Q19	380%	-86%	225%	469%	375%	428%

Note that 4Q22 data is estimated using trends in mix of total checking deposits between quintiles over 2021–2022, as Federal Reserve stopped publishing distribution of checking deposits in 2022. Data as at December 31, 2022. Source: Evercore, Federal Reserve Board, KKR Global Macro & Asset Allocation analysis.

- **Finally, there is still a lot of government spending that is working its way through the system.** In the U.S., as we noted above, recently-announced fiscal programs amount to roughly \$900 billion in incremental government support, including the Infrastructure Act, the IRA, the CHIPS Act, etc. Meanwhile, European countries have spent approximately three to seven percent of national GDP on energy subsidies (*Exhibit 103*), which represents a massive about-face relative to the austerity-driven crisis of 2011. Finally, China is subsidizing over 30% of the auto purchase tax to spur consumer spending, and we think there is more direct fiscal and monetary easing still to come. Overall, elevated

spending should help stabilize consumer incomes in a way that we did not see in the post-GFC recovery in either the U.S. or Europe.

So, what's our bottom line? The surprise of 2023 may actually be the resilience and strength of household spending, including in the U.S. and Europe, where expectations are most pessimistic. That being said, investing in this space will still require more selectivity and discipline relative to what has 'worked' in the last few years. We are especially focused on the potential for margins in consumer sectors to normalize over time amidst rising real wages. Against this backdrop, we continue to pound the table that now is a time to get more thematic when it comes to the consumer, including our major investment theses 'Experiences Over Things', Nesting, and the Green Transition.

Question #5: How concerned should we be over Commercial Real Estate loans?

Without question, the outlook for CRE Credit losses – across both CMBS and whole loans – is as challenging as it has been since the GFC, given the combination of higher debt service costs for floating-rate debt and significant declines in CRE property values. Just consider that aggregate CRE prices are already down approximately 20% from peak levels, with Office potentially falling by another 20-30% from here.

Against this backdrop, we have spent a lot of time with our Real Estate Credit team trying to understand just how bad CRE debt losses could be this cycle, as well as potential spillovers for the broader financial system. See *Exhibit 105* for details, but **our analysis actually suggests that CRE defaults will not be as negative this cycle as they were during the GFC**. For instance, our base case shows aggregate CRE bank loan losses this cycle at 3.4%, versus 5.7% in our bear case and fully 10.5% during the GFC. On the CMBS side, our base and bear cases for cumulative losses are slightly higher at 4.8% and 7.5%, respectively, though still well below the 10.1% recorded after 2008.

Why do we expect a more benign CRE credit cycle this time around? For one thing, we are of the view that a lot of the pain for investors this cycle will be heavily concentrated in Office debt, which is actually only about 30% of the total CRE debt market. In fact, for most sectors and most vintages in the remaining 70% of CRE loans, asset values are not significantly lower than they were at underwrite (though loans underwritten during the go-go years of 2021-2022 may run into some trouble). By contrast, Office values actually peaked back in 2019,

which means more outstanding loans will have trouble refinancing. Overall, the potential for losses to be concentrated in a single sector would be a lot easier for markets to navigate versus the GFC when CRE asset values declined sharply across almost all sectors.

EXHIBIT 105: We Don't Think Losses on CRE Loans Will Be as Bad as They Were During the GFC

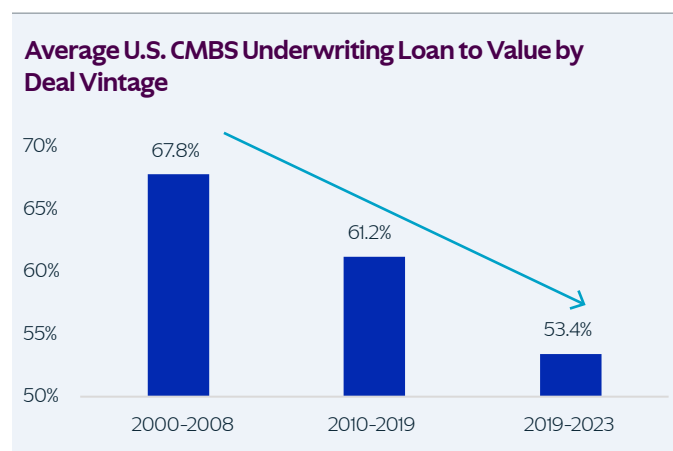
	Bank CRE Loans			Life CRE Loans		
	Total	Non-Office	Office	Total	Non-Office	Office
Base (~50th %ile)	3.4%	2.9%	5.3%	1.0%	0.8%	1.4%
Bear (~75th %ile)	5.7%	4.6%	9.4%	1.5%	1.1%	2.3%
Memo: GFC	10.5%			~0.5-0.1%		

Data as at April 30, 2023. Source: JPM, BAML, Citi, Morgan Stanley, Deutsche Bank, KKR Global Macro & Asset Allocation analysis.

Second, underwriting standards for CRE debt have become much more rigorous since the financial crisis, with a lot less pro-forma underwriting and an average underwrite LTV of around 55-60%, versus 65-70% in the pre-GFC years (*Exhibit 106*). As such, there is a lot more protection for lenders baked into CRE capital structures. Risk-retention requirements and better credit enhancement have helped mitigate risk for high-grade CMBS, too. So, our bottom line is that we do not think that the risks for holders of CRE debt *overall* will be as severe as they were during the last major default cycle.

The surprise of 2023 may actually be the resilience and strength of household spending, including in the U.S. and Europe, where expectations are most pessimistic.

EXHIBIT 106: CMBS Underwriting Standards Are Much Better This Cycle Than They Were Pre-GFC

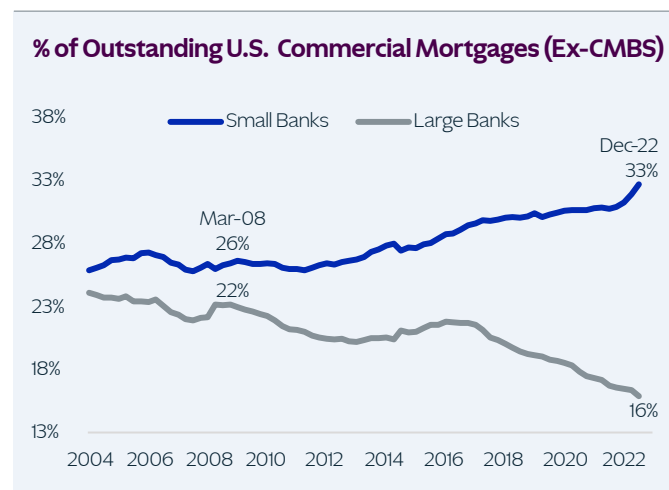


Data as at March 31, 2023. Source: BofA.

However, we are not sounding the all-clear, and **we do think there are several different factors that could make CRE defaults a challenging issue for smaller banks this cycle.** First, large banks have generally stepped back from CRE lending since the GFC, while smaller banks (i.e., those with \$100 billion or less in assets) have taken market share (*Exhibits 107*). In fact, CRE loans now account for roughly 30% of all assets at smaller banks, versus just seven percent at large banks (*Exhibit 108*). Second, a lot more of smaller banks' CRE exposure this cycle is to Office debt, which actually makes a big difference if we are right that CRE losses will be heavily concentrated in this asset class (*Exhibit 109*). Finally, our research shows that there is a lot more floating-rate CRE debt outstanding versus the GFC. If the Fed really does hold short rates higher for longer this cycle, as our base case suggests, then lower debt-service coverage ratios (and more expensive cap renewals) could compress the timeline for CRE defaults, leaving smaller banks with less time to provision for losses and a potentially bigger 'hole' in their capital structure.

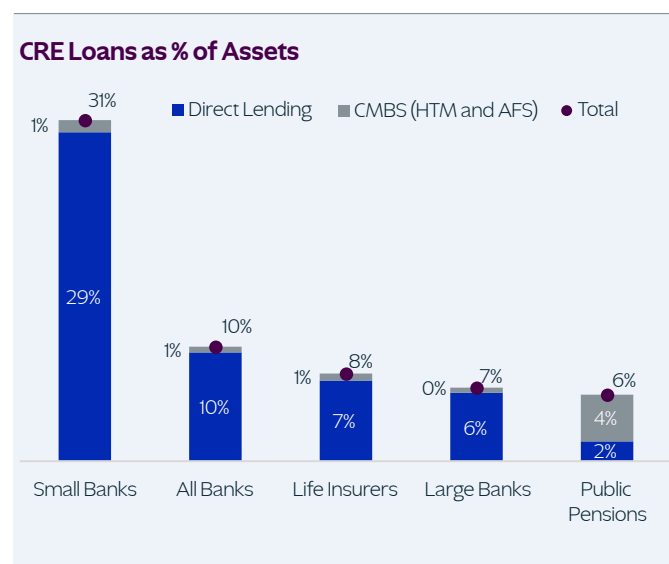
For one thing, we are of the view that a lot of the pain for investors this cycle will be heavily concentrated in Office debt, which is actually only about 30% of the total CRE debt market.

EXHIBIT 107: Small Banks' Balance Sheets Are Much More Exposed to CRE Versus Large Banks And Life Insurers



Data as at December 31, 2022. Source: Federal Reserve Board.

EXHIBIT 108: Small/Regional Banks Have Increased Their Share of CRE Lending Since the GFC

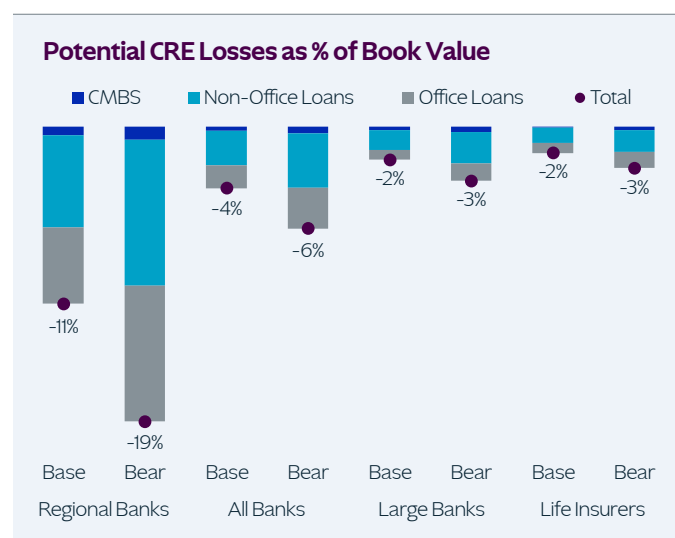


Data as at April 30, 2023. Source: JPMorgan, BAML, Citi, Morgan Stanley, Deutsche Bank, KKR Global Macro & Asset Allocation analysis.

Given that many smaller banks are already contending with a more expensive funding environment and an 'overhang' of unrealized losses on their balance sheets, the fact pattern around CRE exposure is not a favorable one. **As such, we think the current regional banking crisis could continue for some time, including the potential for more bank blow-ups and less bank lending to small businesses.**

The good news, however, is that we do not think CRE defaults have the potential to cause significant stresses in the broader financial system this cycle, as the largest banks have less risky CRE debt on their balance sheets and remain well-capitalized, while life insurers have remained disciplined in how they construct their CRE portfolios.

EXHIBIT 109: When We Account for the Sector Mix and Riskiness of Individual Firms' CRE Exposure, Regional Banks Are Clear Standouts



Data based on Russell 3000 indices for Banks and Life Insurers. Small/regional banks defined as those with less than \$100B in assets. Data as at April 2023. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Question #6: What are the longer-term issues that keep you up at night?

The major macro risks on which we are focused are as follows:

Concern #1: The Hangover from Unrealized Losses, as Well as Higher Funding Costs In the past few months, we have had a U.K. pension crisis as well as a regional bank crisis in the U.S. We think that in a rapidly rising interest rate environment, most financial intermediaries are now saddled with substantial unrealized losses within their portfolios. The current consensus estimate of \$700 billion in unrealized losses does not include insurance companies or central banks. This omission is material as we see another one trillion or more of unrealized losses at the Federal Reserve as well as another \$200-\$300 billion across the life insurance industry. Why does this matter? It's important because these losses will likely have to be held to

maturity, which reduces a financial institution's degree of freedom to provide incremental lending. Or, if banks do sell, then they will take losses, which will impair their equity buffer to lend.

There is another important point to consider in the current interest rate environment. Specifically, the spread between the rate on offer in T-bills versus bank deposits has widened to around 200-300 basis points. That spread could make it harder for some regional banks to secure funding at a time when they are also facing credit losses from CRE lending. If these dynamics continue, there is the potential for U.S. small bank lending to reset even more rapidly. This mismatch will also adversely impact other levered buyers of credit, including CLOs (which account for the majority of new issue loan purchases in the U.S. and Europe).

Importantly, small businesses, which represent approximately 70% of U.S. employment, are heavily dependent on regional banks for financing. While we think that regulators will ultimately take necessary steps to ensure the viability of the regional banking system, the risk of an S&L-style meltdown in regional banks is certainly elevated. Given our view that central banks are not as poised to cut quickly as in the past, we think that the 'overhang' from monetary tightening – on both sides of financial institutions' balance sheets – could persist for some time. Against this backdrop, we continue to advocate that investors 'Keep it Simple', including when it comes to counterparty risks.

The rate on offer in T-bills versus bank deposits has widened to around 200-300 basis points. That spread could make it harder for some regional banks to secure funding at a time when they are also facing credit losses from CRE lending. If these dynamics continue, there is the potential for U.S. small bank lending to reset even more rapidly.

EXHIBIT 110: Even Before SVB, Capital Markets Did Not Reflect the Reality of Declining Credit Availability for Most Businesses

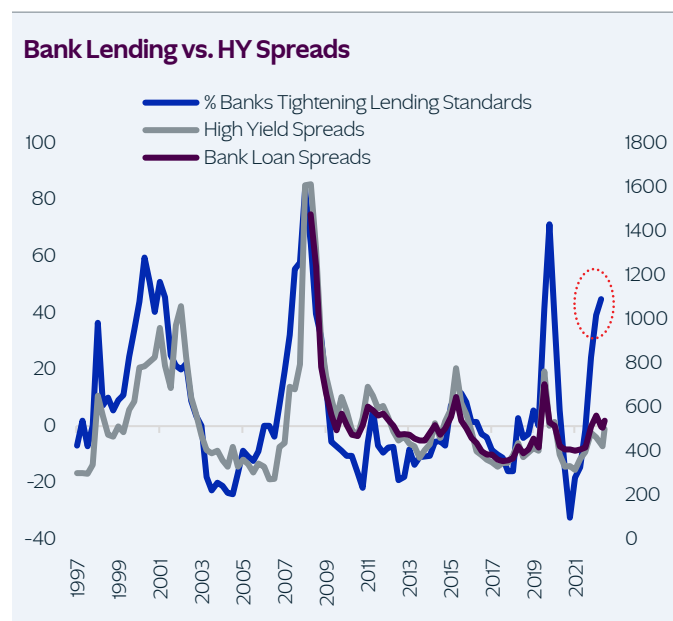


EXHIBIT 111: U.S. Bank Loan Growth Has Slowed, Not Collapsed

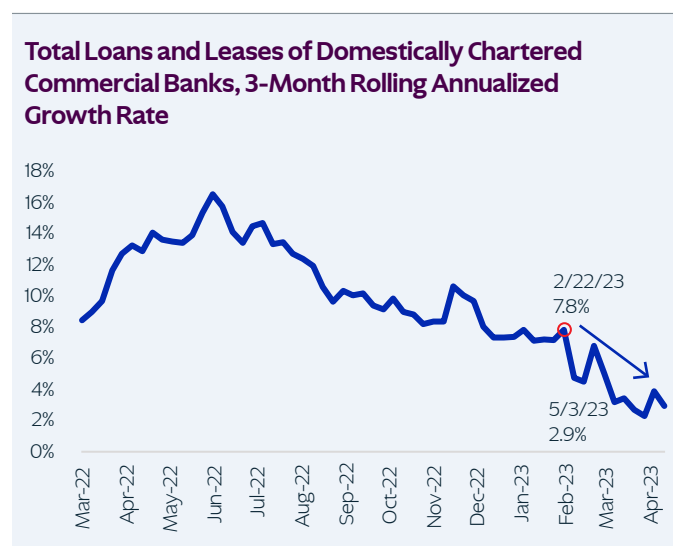
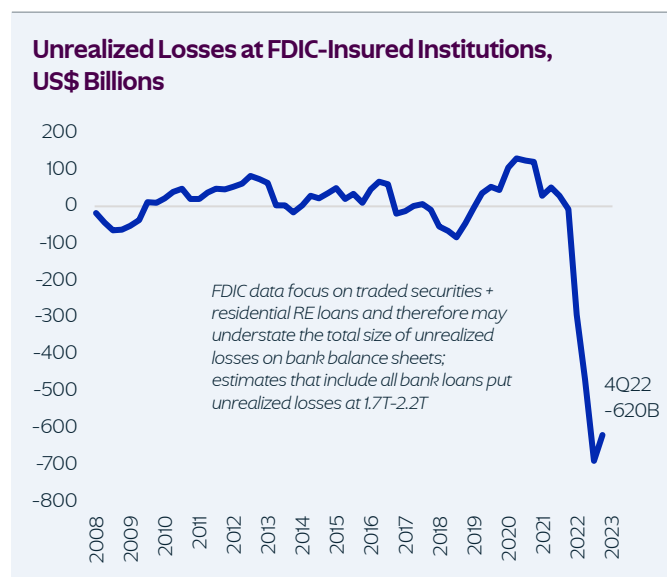
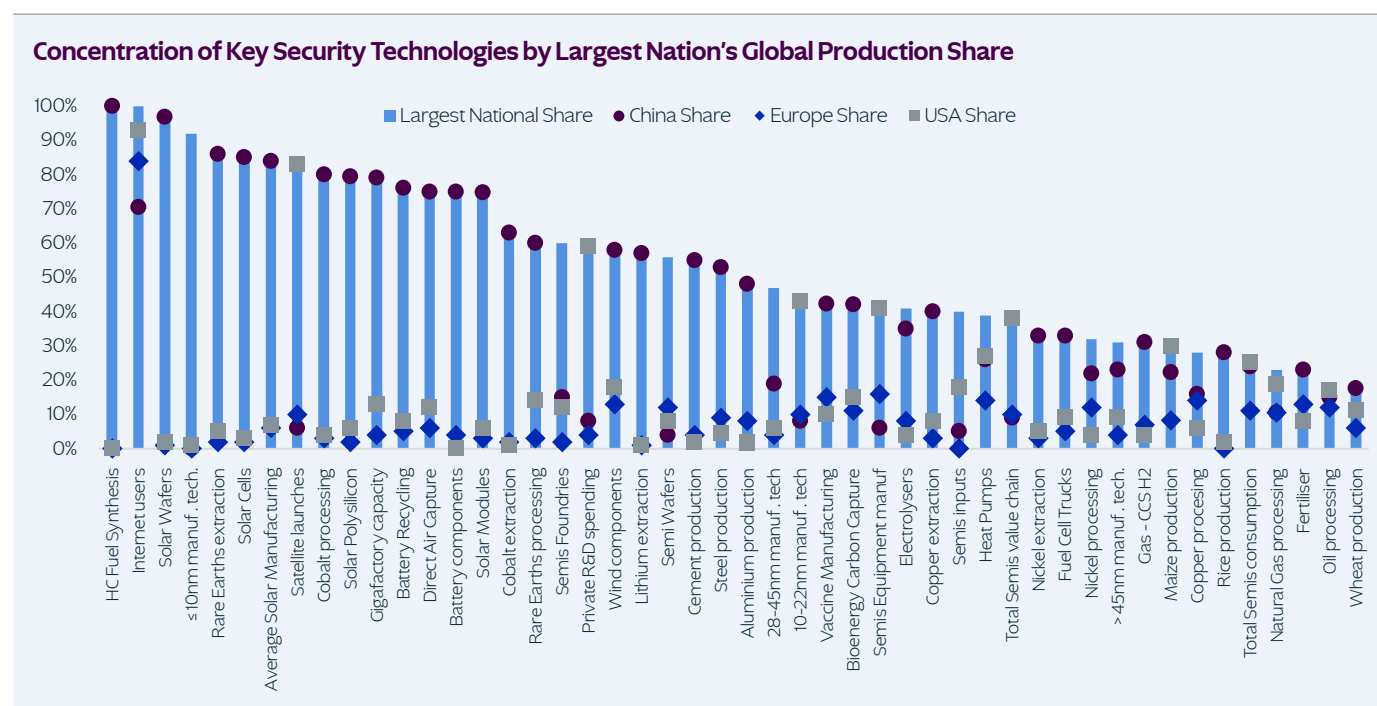


EXHIBIT 112: Fed Tightening Has Hit Both Sides of Bank Balance Sheets: Deposit Pressures May Crystalize Bank Losses on Held-to-Maturity Securities



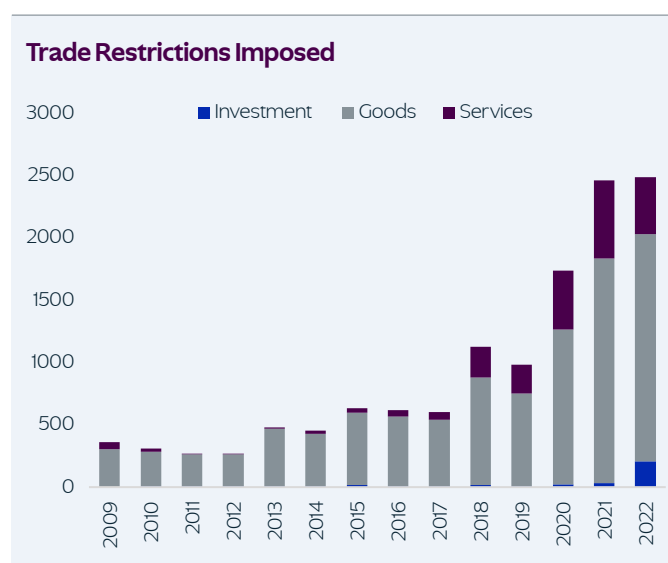
Concern #2: China/U.S.-Western Tensions As noted earlier, we believe we have transitioned from a period of benign globalization to one of great power competition. Agendas have changed, and as our recent trip to Beijing confirmed, the U.S. and China are focused on similar themes, including semiconductor chip independence, national security, and the energy transition. Without question, this competition will lead to more volatility in the capital markets.

Meanwhile, recent trips to Zurich and Frankfurt further impressed upon us that the Russia - Ukraine conflict has accelerated our 'security of everything' thesis. Redundancy spending on energy, data, transportation, and security is providing an important buffer during this slowdown. Importantly, it is taking the form of both opex and capex this cycle, including greater spending on cybersecurity.

EXHIBIT 113: The World Is Fairly Dependent Upon China for Most Key Security Related Technologies

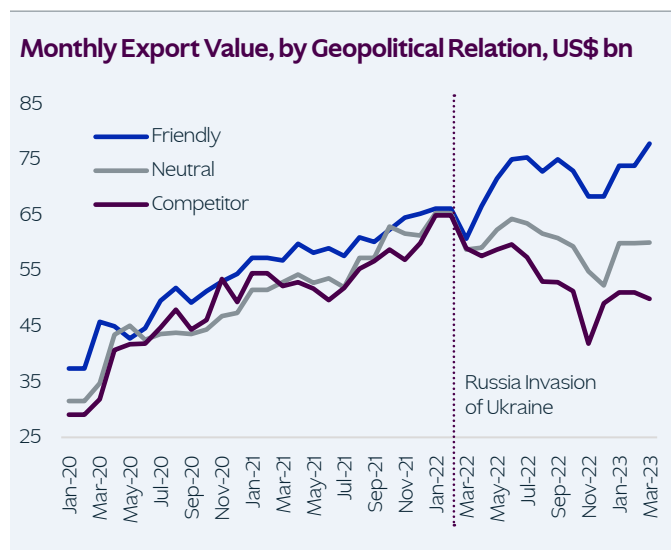
Data as at December 31, 2022. Source: UN, EIA, IEA, World Bank, WTO, Bloomberg, WIPO, ISO, Statista, IndexMundi, Our World In Data, UNESCO, Baxtel, www.SubmarineCableMap.com (TeleGeography), Pitchbook, Visual Capitalist, NASA, ESPAS, UN, Nature, Morgan Stanley Research.

Looking at the bigger picture, we believe that the shift towards great power competition means that periodic spikes in companies' cost of capital will occur more frequently as competing economic blocs build out parallel supply chains and redundant industrial capacity. Indeed, as we discussed last year in our note *State of Play*, the 'weaponization' of economic policies as a result of the Russian invasion of Ukraine now means a more sustained blurring of the fault lines that once distinctly separated geopolitics from macroeconomics during the rise of globalization. Ultimately, we see some greater form of economic polarization as the most plausible outcome. This polarization will likely accelerate and intensify the dynamic between Russia and China relative to the industrialized democracies that have been building for several years, including a common desire for self-reliance, without economic and technological dependence. If we are right, then one needs to think differently about asset allocation, including holding more assets that could benefit when conflicts arise (e.g., cyber assets, oil, Cash, etc.)

EXHIBIT 114: Policy Measures Intended to 'De-Risk' Trade and Investment Are Now On the Rise

Data as at December 31, 2022. Source: UN, EIA, IEA, World Bank, WTO, Bloomberg, WIPO, ISO, Statista, IndexMundi, Our World In Data, UNESCO, Baxtel, www.SubmarineCableMap.com (TeleGeography), Pitchbook, Visual Capitalist, NASA, ESPAS, UN, Nature, Morgan Stanley Research.

EXHIBIT 115: China's Export Partners Have Become More Targeted Since Russia's Invasion of Ukraine



Friendly includes ASEAN, Middle East and Latin America; Neutral includes EU and Korea; Competitors include US, Japan, Taiwan. Data as at March 31, 2023. Source: China Customs, CEIC, Morgan Stanley China Economics Research.

EXHIBIT 116: Private Testing and Inspection Services Are Increasing Outside of China as Competition Across SE Asia Increases



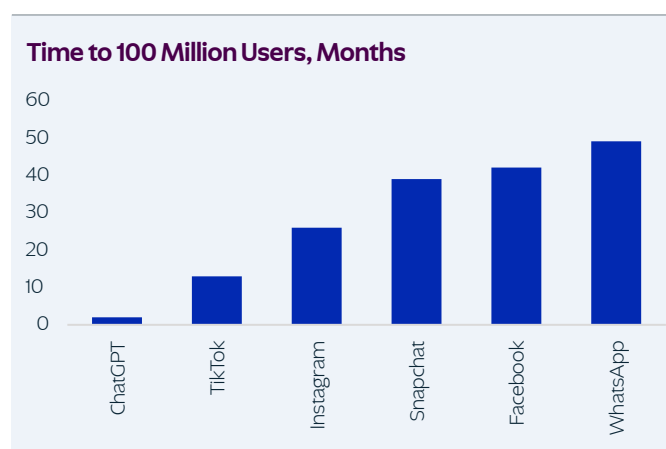
Data as at March 31, 2023. Source: Morgan Stanley Research.

Concern #3: Artificial Intelligence Without a doubt, we think the potential of tech disruption from AI following the advent of large language models could be one of if not the biggest changes in employment and productivity trends since the advent of large-scale search functionality in the early 2000s. While there are many productivity benefits that could emerge, there is a lot of debt/leverage that now exists in industries such as software that are exposed to a substantial amount of

change and/or risk of disintermediation. There is also a growing risk that big-cap technology companies such as Microsoft and Google approach this market with more of a 'winner-take-all mentality,' which could have substantial implications for a variety of small- and medium-sized businesses across a variety of sectors in the economy.

Importantly, this transformation is happening fast. All told a recent IBM study estimated that around 40% of companies are currently exploring the use of AI in their businesses. Against this backdrop, it is hard for us not to believe that some capital structures, including both the debt and equity of companies that could be adversely impacted, may be at risk of downgrades and/or impairments.

EXHIBIT 117: ChatGPT Has Experienced the Fastest Adoption in History



Source: NVIDIA, Capital Creek Partners.

Without a doubt, we think the potential of tech disruption from AI following the advent of large language models could be one of if not the biggest changes in employment and productivity trends since the advent of large-scale search functionality in the early 2000s.

EXHIBIT 118: AI Breakthroughs

2016	Object Recognition Human Parity
2017	Speech Recognition Human Parity
2018	Machine Reading Comprehension Human Parity
2018	Machine Translation Human Parity
2019	Conversational QnA Human Parity
2020	Image Captioning Human Parity
2021	Natural Language Understanding Human Parity
2021	Commonsense Questioning Answering Human Parity

Data as at May 31, 2023. Source: Microsoft.

In terms of hedging against these three aforementioned risks, we see a couple of potential solutions. For starters, we do not think that investors should make a huge Value over Growth venture right now. Financial Services companies dominate the Value index, and as a result, this tilt could adversely impact both relative and absolute performance if the unrealized losses continue to mount amidst further central bank tightening. An overweight to Value also reduces any potential exposure to some of the technology stocks that could be positively impacted by AI's emergence. So, as we detail in *Question #1* above, a more balanced approach makes sense.

Second, we continue to argue for more diversification across portfolios, including more floating-rate lending as well as more collateral-based cash flows. Finally, as we detailed in our Endowment and Foundation survey (see *The Times They Are A Changin'*), CIOs are setting up formal parameters to measure and contain their China exposure in the event of an escalation in tensions between the U.S./West and China. This is one of the reasons that our thematic tilts are overweight the 'Security of Everything', which we think can act as an important hedge

against any escalation of geopolitical tensions around the world.

For starters, we do not think that investors should make a huge Value over Growth venture right now. Financial Services companies dominate the Value index, and as a result, this tilt could adversely impact both relative and absolute performance if the unrealized losses continue to mount amidst further central bank tightening. An overweight to Value also reduces any potential exposure to some of the technology stocks that could be positively impacted by AI's emergence.

SECTION V

Conclusion

All the work that KKR's Global Macro, Balance Sheet, and Risk team (GBR) did preparing for our mid-year investment committee discussion only strengthened our resolve that we have entered a new regime for investing. What makes this cycle different are several unique factors. We note the following:

1. **Supply side shocks.** We continue to view tight labor markets, heightened geopolitics, and the energy transition as catalysts that keep inflation both more volatile and at a higher resting heart rate. Housing demand outstripping housing supply also remains an inflationary headwind in this new world order we have entered.
2. **More fiscal input this cycle.** Despite good news surrounding the U.S. debt ceiling belt-tightening, we must all acknowledge that most major global economies are spending more on fiscal outlays than in the past. In the U.S., for example, federal discretionary spending is still running around 20% above its pre-COVID trend. However, the U.S. is not alone, as Germany is spending fully seven percent of its GDP on government subsidies to help its citizens weather the recent spike in commodity prices.
3. **The impact of monetary tightening on the consumer is being somewhat blunted this cycle.** There are several forces at work, we believe. First, there is so much excess savings still left over from the pandemic. All told, we estimate that U.S. consumers alone have well over one trillion in excess savings. Meanwhile, despite rates being lifted at record levels in many developed markets, the impact on households has been more limited this time. Just consider that only three percent of U.S. homeowners have variable mortgages today; by comparison, in 2007 that percentage was nearly 30%. Finally, unemployment is not surging the way it normally does when central banks raise rates. In fact, the current unemployment rate of 3.7% is almost exactly where it was when the Fed started its massive tightening campaign back in March 2022.

So, what does this all mean for investing? We think that there are several action items that CIOs as well as individual investors must consider. They are:

1. **Now is an excellent time to be a lender.** 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.
2. **Own more collateral-based cash flows.** We favor cash flows linked to nominal GDP, not traditional inflationary hedges such as TIPS. In high inflation and rising input costs environments, we favor most forms of Real Assets including Infrastructure, Asset-Backed Finance, and Real Estate Credit. We think that Real Assets, and Energy in particular, could be a really important hedge if the dollar is not as strong going forward.
3. **2023/2024 will be good vintages in the Private Equity and Infrastructure markets.** PE deals that include corporate carve-outs, public-to-private transactions, and add-on acquisitions to existing platforms should make the current period an attractive vintage of deals. The sector and geographic benefits of PE relative to the public markets are important differentiators as well, we believe.
4. **Own a few more non-USA assets.** Many global currencies are still on sale, and as such, we think that strategic buyers will continue to find opportunities outside the U.S. 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.

Importantly, all of these asset allocation preferences are consistent with our 'Keep It Simple' thesis.

In terms of potential pitfalls to avoid, we remain cautious on Office Real Estate in the United States, housing in China, and segments tied to manufacturing in Europe. Overall, though, we think the biggest risk today is that central banks are still required to boost rates more to get inflation to come down further. As mentioned earlier, we view six percent fed funds in the U.S. as a potential red line where stresses on capital

structures and growth might become more exponential than linear.

So, as we peer around the corner today on tomorrow, we remain generally constructive on risk assets, despite some of the aforementioned potential headwinds. The end of 2021, not the end of 2023, was the time to reduce risk. In our view, that moment has passed. So, as we look ahead, we are reminded of a Nelson Mandela quote: "I learned that courage was not the absence of fear, but triumph over it."

So, as we peer around the corner today on tomorrow, we remain generally constructive on risk assets, despite some of the aforementioned potential headwinds. The end of 2021, not the end of 2023, was the time to reduce risk. In our view, that moment has passed.

