FIRST QUARTER 2023

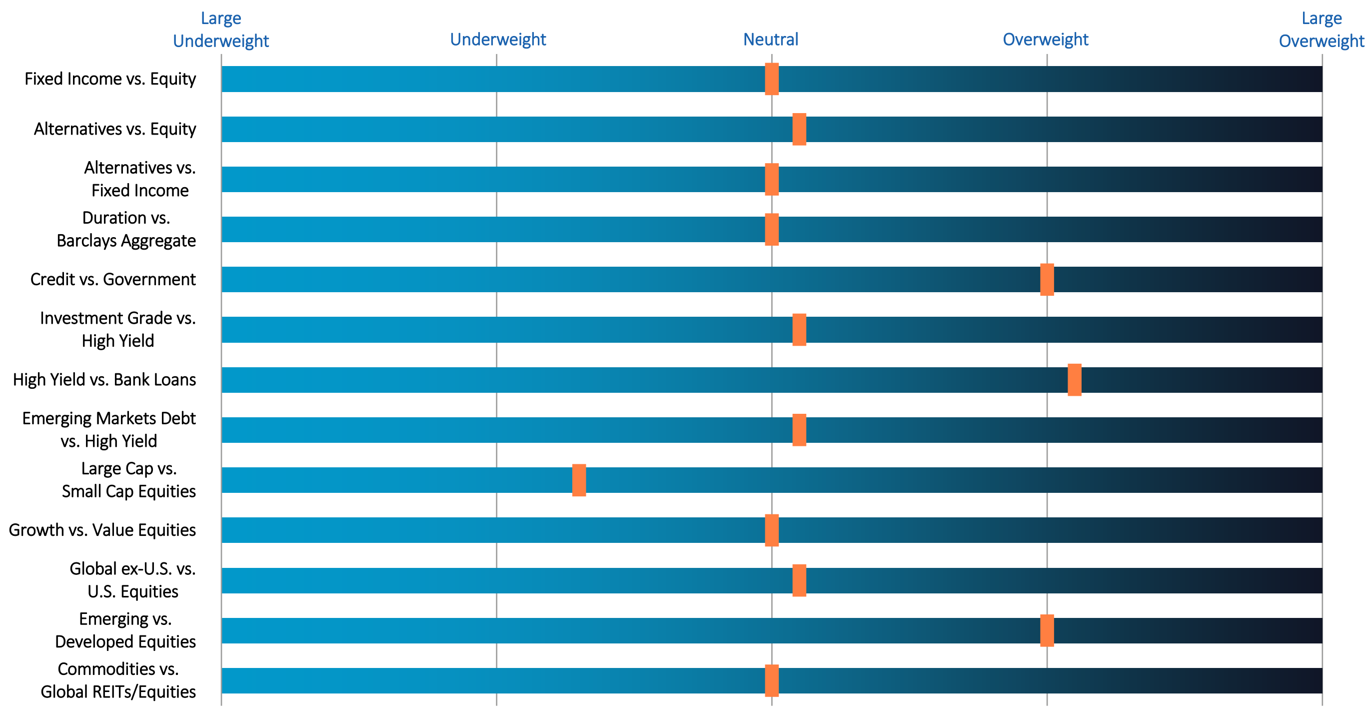
Investment Strategy Update

Heading into 2023, we move past some of the elevated risks that presented both humanitarian crises for society and unique diversification challenges for investors in 2022. Elevated levels of inflation fueled aggressive actions to tighten monetary policy, fueling a historic rise in Treasury yields across the curve, which weighed on investor sentiment and led to a warranted contraction in equity valuations last year. Fortunately, we are beginning to see a reprieve in inflationary pressure due to a decline in commodity prices, improving supply chains and declining demand for goods. Nevertheless, the outlook for 2023 remains beset with elevated geopolitical risks, slowing economic growth and heightened uncertainty in corporate earnings. Given very tight financial conditions and restrictive monetary policy, investors are looking toward the next phase of the cycle, which remains unclear but coincides with more attractive expected returns for multi-asset investors.

As attention quickly turns from the risk of inflation to the outlook for growth and earnings, global monetary policy continues to be a significant driver of investor sentiment. The market is increasingly pricing in moderation in the pace of rate hikes, with Fed Funds futures potentially indicating a degree of excessive dovishness. We have repeatedly seen investor sentiment improve on optimism that peak policy is in sight. At the same time, the outlook for corporate earnings has deteriorated and despite business and consumer sentiment indicators signaling a heightened level of pessimism, investor sentiment appears to be improving. Given the balance of these factors, we remain cautiously constructive in our market outlook, and we are disciplined and judicious in the allocation of our risk budget to seek excess returns.

In this quarter's Investment Strategy Update, we evaluate the recent slowing in economic growth, discuss monetary policy, the potential path of inflation, and the impact on our outlook for fixed income given the recent correction in corporate credit valuations. We remain neutral in our equity risk given the negative impact of interest rates on valuations, as well as the uncertainty of the current environment. That said, we are beginning to favor small caps as valuations are now indicative of an attractive entry point, and we maintain our overweight to emerging markets and credit. We continue to believe that secular growers may serve as an effective ballast to cyclical value companies, particularly if economic growth continues to slow. Therefore, we maintain stylistic balance during these times of uncertainty and seek effective diversification to manage portfolio volatility through this phase of the market cycle. A summary of our positioning and rationale with supporting exhibits follows.

Wilshire Investment Strategy Views



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Asset Class	Change	View	Summary Of Rationale
Fixed Income vs. Equity	≈	Neutral	Valuations remain more attractive in fixed income relative to equities, however given the economic and policy uncertainty, we believe that maintaining a neutral posture is prudent.
Alternatives vs. Equity	≈	Neutral	Equities may have already priced in the risk of an economic recession given the drawdowns experienced in 2022, and while we may continue to see heightened price volatility as earnings growth continues to soften, we see no fundamental reason to be underweight equity risk.
Alternatives vs. Fixed Income	≈	Neutral	Given the historical price correction in fixed income markets and a rapid increase in real yields, we remain neutral after having completely removed our underweight to fixed income last quarter, particularly given the uncertain economic outlook and the potential benefits of traditional fixed income exposure as a ballast to equity risk during periods of slowing economic growth.
Duration vs. Bloomberg Barclays Capital Aggregate Bond Index	≈	Neutral	Given the underperformance of U.S. fixed income, U.S. real rates now offer value to investors looking for yield, which may provide some technical support in the face of quantitative tightening by the Federal Reserve, in addition to more diversification benefits relative to one year ago.
Credit vs. Government	≈	Overweight	Despite the recent narrowing of credit spreads, we continue to see attractive risk-adjusted return opportunities in credit relative to government bonds and remain overweight.
Investment Grade vs. High Yield	≈	Neutral	We do not see a meaningful valuation opportunity between investment grade and high yield.
High Yield vs. Bank Loans	≈	Overweight	Fundamentals for high yield remain healthy with valuations becoming attractive relative to bank loans. Spreads and absolute yields of high yield bonds are beginning to attract demand from investors looking for yield.
EMD vs. High Yield	≈	Neutral	We do not see an attractive risk-adjusted return difference in EMD vs. high yield.
Large-Cap vs. Small-Cap Equities	↓	Underweight	Valuations of small caps look compelling relative to large caps, which presents less downside and attractive upside in the event that an early cycle bid for risk assets persists.
Growth vs. Value Equities	≈	Neutral	While value equities offer a reasonable valuation opportunity relative to growth equities, the uncertain economic outlook warrants a balanced posture of secular growers and cyclicals.
Global ex-U.S. vs. U.S. Equities	≈	Neutral	The geopolitical conflict and the uncertainty it creates for the European economy and equity markets results in enough uncertainty for us to remain neutral despite more attractive valuations in Global ex-U.S. equities.
Emerging Markets vs. Developed Markets	≈	Overweight	Developed markets (notably Europe) are expected to experience modest earnings growth, however the European Central Bank needs to play catch-up which is likely to lead to downward pressures on valuation multiples. Emerging markets witnessed tighter monetary policy in advance of developed markets on concerns of inflation and are now poised to moderate that policy stance, particularly in comparison to developed markets. China's reopening and an improving earnings outlook in EM is also expected to provide tailwinds.
Commodities vs. Global REITS	≈	Neutral	Despite the recent correction in commodities, the challenging technical environment and higher volatility of this relative pair warrants continued neutral positioning.

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Global Growth Outlook: Growth forecasts continue to get ratcheted lower, as the market narrative remains focused on recession and earnings risk.

Exhibit 1: Global Economic Growth Expectations Continue to be Revised Lower

Regional 2023 GDP Forecasts (%)				
	Consensus 2023 Forecasts	*Bps Chg vs 12m Ago*	Central Bank 2023 Forecasts	*Bps Chg vs 12m Ago*
US	**0.3**	*-220*	**0.5**	*-170*
UK	**-0.9**	*-290*	**-1.5**	*-300*
Eurozone	**-0.1**	*-240*	**0.5**	*-240*
Japan	**1.5**	*10*	**1.9**	*80*
China	**4.8**	*-50*	**5.0**	*0*

Exhibit 2: Consumption Continues to Drive GDP Higher

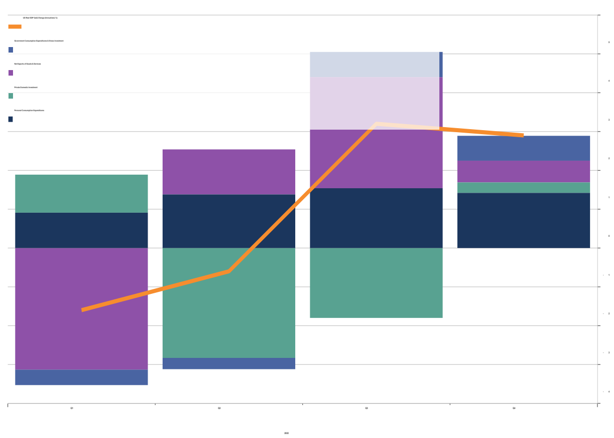
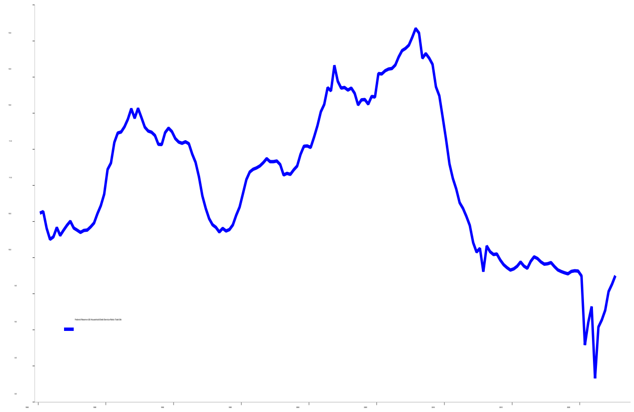


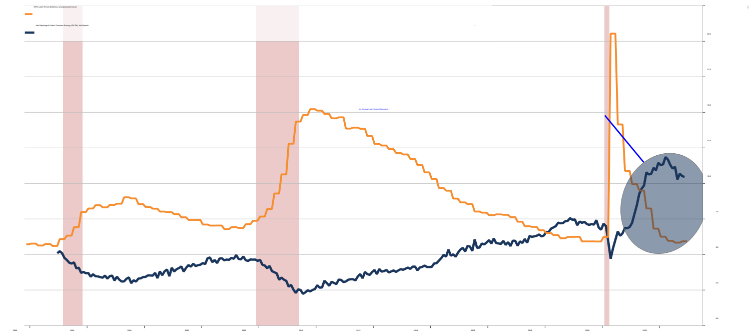
Exhibit 3: Households Continue to Have the Capacity to Borrow More to Support Consumption



The last six months have seen a persistent lowering of global GDP growth forecasts (Exhibit 1). The narrative remains focused on the risk to demand from elevated inflation and interest rates, with recession concerns continuing to grow. Nevertheless, U.S. economic growth recovered in the back half of 2022 after delivering negative real GDP growth in Q1 and Q2 of 2022. In looking at the underlying contributions to Q4 GDP (Exhibit 2), we can see that all underlying components were positive contributors to growth, with the strongest contribution continuing to come from personal consumption, albeit slower than the levels witnessed in 2021. Consumer demand has remained positive in the face of elevated inflation, however this continues to reflect elevated demand for services in the face of material weakness in the demand for goods—a continued indication of consumers making hard choices about spending in the face of higher prices. We have seen a material decline in the savings rate of U.S. households, which have now depleted all the excess savings accumulated from the excess stimulus provided in response to the COVID pandemic. This will require households to rely more heavily on debt to support consumption going forward. While this is a concerning trend, it's important to recognize that although household debt levels are trending higher, household debt service levels are still below historical levels, as measured by the Federal Reserve U.S. Household Debt Service Ratio (Exhibit 3).

In addition to the relatively healthy balance sheets of U.S. consumers, a strong labor market continues to contrast with other measures of weakening economic growth, such as slowing consumption, negative leading economic indicators, and weak ISM PMIs. While we have started to observe some decline in the number of job openings, there is still nearly twice the number of jobs available relative to unemployed workers. This is likely supportive of personal consumption, particularly given that the labor market is very strong for segments of the service industry and for lower income workers, whose consumption tends to be more sensitive to economic conditions.

Exhibit 4: Current Labor Market Conditions Do Not Indicate Elevated Recession Risk



Source: Wilshire, Factset, Refinitiv, & Macrobond. Data as of January 17, 2023.

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Labor market dynamics are not indicative of an official recession, and while some measures of inflation are softening, rents and wages are a challenge for the Fed.

Exhibit 5: CEO Confidence Survey Indicates Structural Shift in Wage Inflation

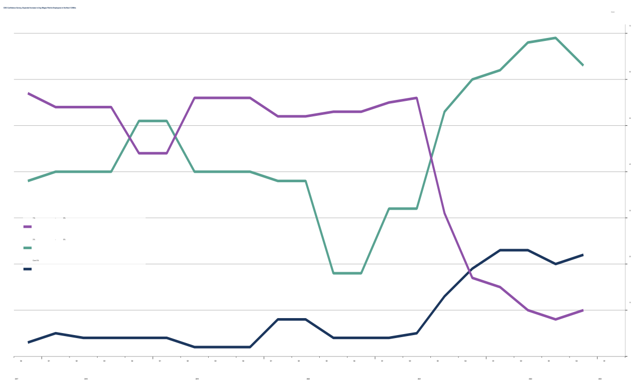


Exhibit 6: Core Producer Prices are Trending to More Normal Levels

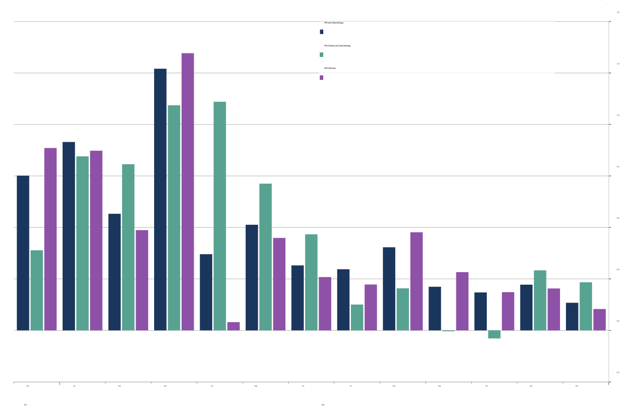
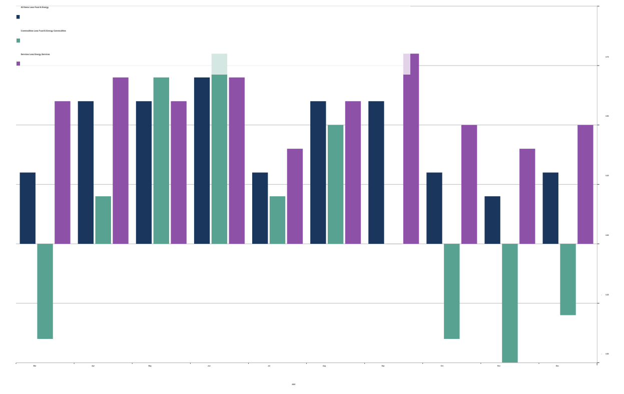


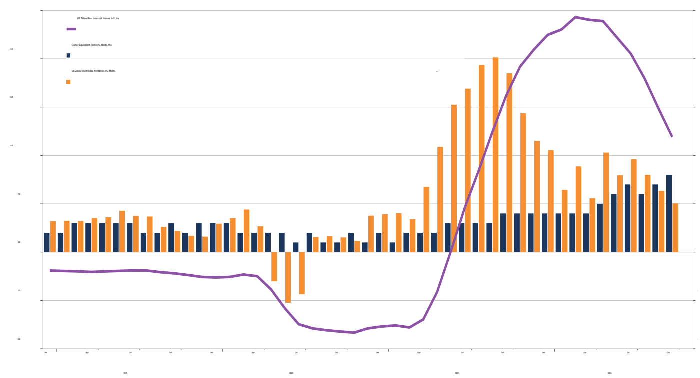
Exhibit 7: Disinflation in Goods, but OER is Supporting Services Inflation



While the tightness of the labor market may help to support consumption, is also fuels wage inflation. The Conference Board's survey of CEO Confidence indicates a structural shift in the trend of ongoing wage increases, with more than 60% of respondents indicating an increase of 3-5% in wages over the next 12 months, and more than 20% indicating an increase of over 5% (Exhibit 5). This creates a challenge for the Fed's objective in slowing inflationary pressure, as wage growth tends to be a very sticky measure of inflation.

Fortunately, we are continuing to see easing in supply chains in combination with waning demand for goods, as consumption of goods was pulled forward during COVID and consumer preferences have now shifted elsewhere. This is beginning to translate into declining levels of inflation in producer prices. The last several Core PPI reports showed more normal levels of inflation (Exhibit 6), which tends to be a reasonable indication of trends in consumer prices as well. Exhibit 7 shows a similar path for consumer prices, as the last three Core CPI reports also indicate a normalizing trend, albeit still elevated relative to target annualized levels of 2%. It's important to note that while we have seen some moderation in the cost of services, the U.S. economy is continuing to experience elevated levels of inflation in the services sector. Fortunately, a recent deflationary trend in the cost of core commodities has helped to offset elevated services costs. Services represents approximately 75% of core CPI, where elevated shelter costs continue to support higher measures of services inflation. Shelter is over 40% of core CPI and is largely represented by Owners Equivalent Rents (OER), which is a sticky, slow moving measure of inflation in housing and tends to lag actual movements in both home prices and rents. As shown in Exhibit 8, the U.S. Zillow Rent Index peaked in the spring on a year-on-year basis and the month-on-month readings have also been trending lower. Given that OER usually lags real time rent measures, it may take some time before we see the shelter component of CPI return to more normal levels.

Exhibit 8: OER Lags the Trend in Actual Rental Price Inflation



Source: Macrobond, Bloomberg

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Fixed Income: Continuing to favor Credit to increase risk exposure.

Exhibit 9: Fed Funds imply a policy shift in mid-2023

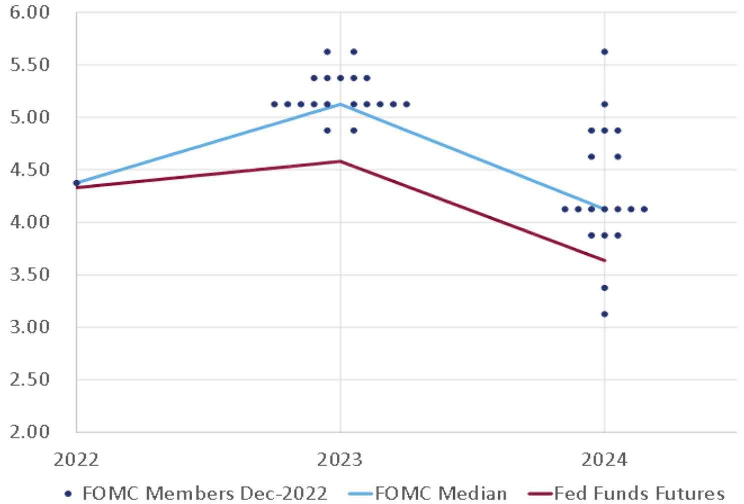


Exhibit 10: Financial Conditions Appear to be Easing from Peak Restrictive Levels

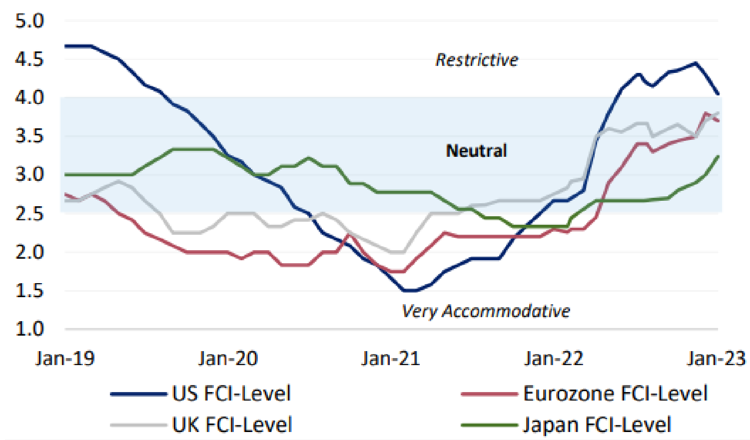
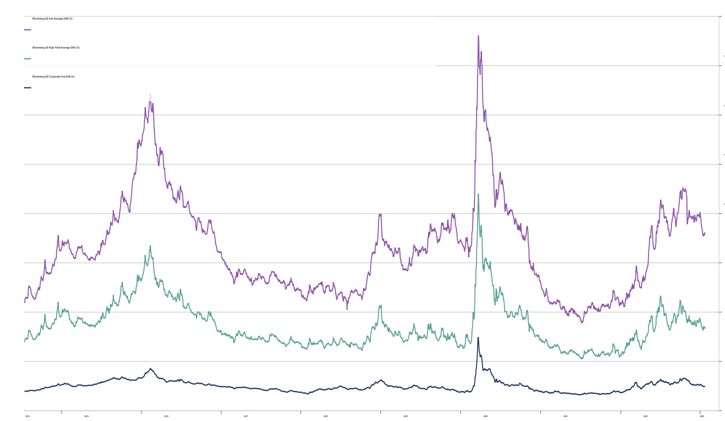


Exhibit 11: Credit Spreads Continue to Indicate Attractive Valuation Opportunities



Source: Wilshire, Macrobond, Factset, Refinitiv.

The market's pricing of Fed policy has continued to take a dovish trend since late 2022, when Fed Funds futures were implying a terminal rate above 5% in 2023. Not only have market expectations of the terminal rate declined, but they also differ meaningfully from the FOMC median dot plot forecast (Exhibit 9). This introduces some risk that market expectations have become too dovish, particularly given expectations of a decline in the Fed Funds rate in the back half of 2023. This scenario is only plausible if a true recession ensues (higher unemployment and consecutive quarters of negative real growth), the probability of which appears to be declining recently.

We are continuing to see the effects of tighter monetary policy weigh on inflation and growth in some segments of the economy, as discussed in the prior section. Furthermore, our composite Financial Conditions Indicators (FCI's), as shown in Exhibit 10, reflect the combined impact of shifts in the monetary and credit cycles as well as movements in the currency (dollar). U.S. Financial Conditions rapidly rotated from accommodative to restrictive over the last twelve months, but conditions appear to have already peaked and are beginning to ease somewhat. This has coincided with a recent bid for fixed income assets, in both Treasuries and credit. While valuations have compressed recently, real yields remain attractive as breakeven inflation expectations have also declined, and we continue to observe attractive valuation opportunities, particularly in investment-grade credit.

In advance of 2022, we had positioned portfolios for this material tightening in financial conditions and a significant rise in real yields by remaining underweight to fixed income (both duration and credit) in favor of alternative investment strategies, a view which came to fruition. Given the material rise in interest rates and widening of credit spreads (Exhibit 11), we had become more constructive in our outlook for fixed income and moved to a neutral posture early in 2022. We remain overweight credit vs. government bonds where appropriate in client portfolios, as way of gradually building risk exposure and enhancing expected returns through more attractive yields, and the potential for continued compression in yield spreads. At the same time, we recognize the uncertainty in the economic outlook and future monetary policy, and we remain judicious in our sizing of such risks as a result.

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Equities: Maintaining overweight to emerging markets and beginning to favor small caps.

Exhibit 12: Decline in Equities in 2022 Largely Due to Multiple Compression.

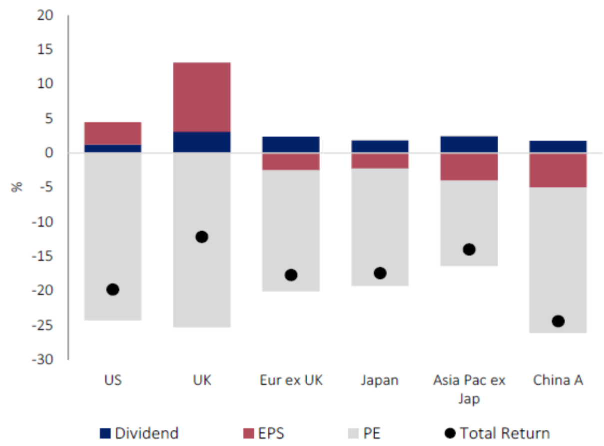

Exhibit 13: Earnings Expectations Have Declined, but Consensus Estimates May Still be Too Optimistic

Regional EPS Growth Forecasts				
	2022	*% Chg vs June Peak*	**2023**	*% Chg vs June Peak*
Europe ex UK (EUR)	**-5.8**	*-12.6*	**22.7**	*16.6*
Emerging Markets (USD)	**-8.5**	*-33.5*	**17.0**	*9.5*
World ex US (USD)	**-2.2**	*-16.6*	**12.2**	*4.8*
China (CNY)	**3.5**	*-14.2*	**27.0**	*4.3*
Japan (JPY)	**17.1**	*-0.4*	**6.2**	*-1.0*
Asia Pac ex Japan (USD)	**-5.2**	*-13.0*	**12.7**	*-1.6*
UK (GBP)	**34.5**	*7.3*	**0.1**	*-2.6*
US	**6.6**	*-5.5*	**6.8**	*-5.2*

The correction in equity markets in 2022 was largely attributable to global price/earnings compression across all major equity regions on the heels of tighter global monetary policy. The correction in equity prices did not coincide with a material decline in earnings (Exhibit 12), most notably the United States and United Kingdom. Looking forward, however, earnings expectations for 2023 have been trending lower and remain at risk based on consensus expectations which still indicate modestly positive earnings growth in the United States, and even greater optimism across foreign developed and emerging markets (Exhibit 13). While earnings remain an important fundamental input into valuations, it's important to recognize that equity markets are forward looking and have historically bottomed 6 to 12 months in advance of the bottom in U.S. EPS, and therefore, it's possible that markets already priced in this risk in late 2022. Nevertheless, we acknowledge the uncertainty associated with this risk to equity fundamentals, and remain judiciously positioned in our equity risk relative to our strategic policy targets, while seeking to take advantage of dislocations that have occurred within the equity landscape.

Exhibit 14 shows our global valuation heat map, which expresses measures in cross-sectional terms and on a normalized basis (green indicates attractive fundamentals/valuations). Both emerging and developed markets appear more attractively valued relative to the United States, however the policy and geopolitical risk in the U.S. remain low relative to foreign markets, as Europe continues to experience heightened geopolitical risk, while the European Central Bank continues to play catch-up in its fight against inflation. Therefore, we balance our valuation signals with the discipline of risk management and remain neutral in our U.S.- vs. non-U.S. posture. That said, we continue to maintain our overweight to emerging markets relative to developed markets. Emerging markets witnessed tighter monetary policy in advance of developed markets on concerns of inflation and are now poised to moderate that policy stance, particularly in comparison to developed markets. China's reopening and an improving earnings outlook in EM are also expected to provide tailwinds for investor sentiment. We also recently moved to overweight small caps vs. large caps in the United States, as large caps are now more than one standard deviation expensive relative to small caps, which tend to be early outperformers coming out of challenging economic environments.

Exhibit 14: Equity Risk Premium, EPS and Rates

	Dividend Yield			*Profit Margin*			*Price to Sales*			*Price to Book*			*TR12M P/E*			*Forward P/E*		
	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y	Value	Z-5Y	Z-15Y
US vs. EAFE	-1.6	-0.9	-1.2	1.7	-1.2	-0.4	1.8	-1.4	0.3	2.3	-0.1	1.0	1.4	0.6	1.2	1.4	1.4	2.1
EAFE vs. EM	0.2	-1.1	-1.6	0.2	1.8	2.3	1.1	2.2	1.7	1.1	1.4	1.2	1.3	-0.2	-0.3	1.1	-1.2	-0.8
US LC vs. US SC	0.1	-1.1	-1.7	8.2	-0.9	0.3	2.1	0.5	1.5	1.8	0.9	1.8	0.4	0.4	0.1	0.8	0.7	1.2
US LCG vs. US LCV	-1.2	0.6	-0.1	2.4	-1.3	-0.4	1.9	-0.9	0.5	3.8	-0.7	0.6	1.6	-0.0	1.0	1.6	0.1	1.2

Source: Wilshire, Macrobond, Factset, Refinitiv. Data as of January 17, 2023. Wilshire's Global Value Heatmap uses Bloomberg data.

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Very Negative Sentiment and Improving Technicals May Indicate a Constructive Setup for 2023.

Exhibit 15: ISM PMIs Show a Significant Deterioration in Business Sentiment

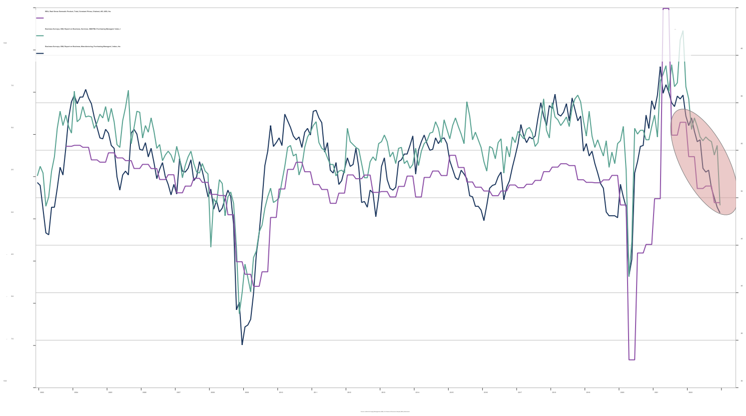


Exhibit 16: Consumer Sentiment Indicates Risk of Economic Decline

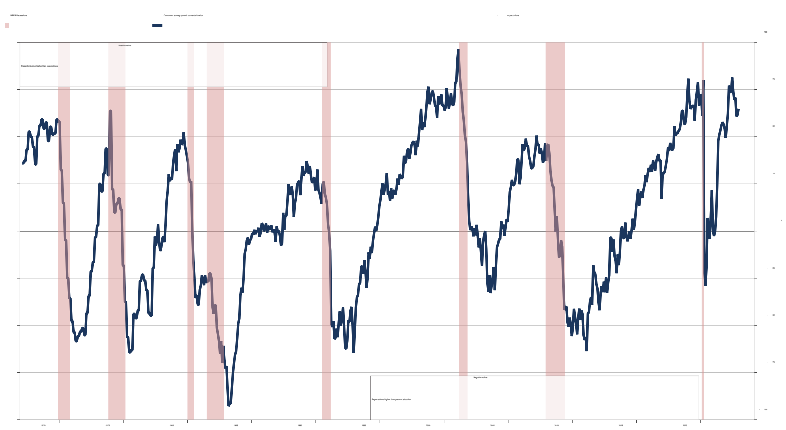
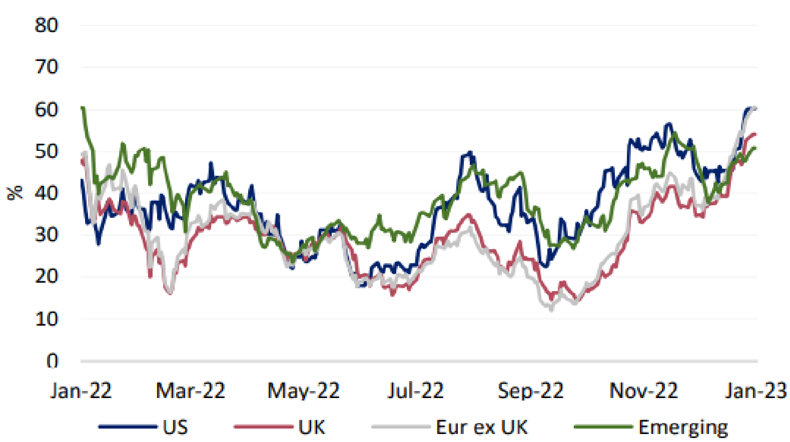


Exhibit 17: Percentage of Stocks Trading Above 200-day Moving Avg



While hard economic data, such as GDP growth and unemployment, do not indicate a growing probability of a recession, sentiment indicators continue to show a deterioration in the economic outlook for businesses and consumers. The most recent publication of the ISM PMIs showed a meaningful deterioration in sentiment to levels (below 50) that are indicative of an economic contraction. As shown in Exhibit 15, these measures tend to correlate with YoY GDP growth. It's important to note, however, that GDP growth has already slowed materially on a YoY basis due to base effects and has experienced a recovery in the last two quarters.

Similarly, consumer sentiment is also signaling a slowdown ahead. Exhibit 16 plots the spread between the Conference Boards Consumer Sentiment Present Situation Index vs. the Expectations Index, which is now at levels that have historically preceded recessions (as shown in the shaded pink areas). While this measure has historically been a good indicator of economic recessions, we also acknowledge that equity markets are forward looking and typically price in the risk of economic and earnings recessions well in advance of such environments.

Not unlike prior late cycle economic slowdowns, there is a tremendous amount of uncertainty in 2023, however global equity markets are off to a strong start, with more than 50% of companies in most markets trading above their 200-day moving average. This broadening out of technical strength is a positive indication of market sentiment, which may again be looking past the almost inevitable 2023 slowdown in economic growth and earnings. While we don't make decisions based on technicals and sentiment, we look to these indicators as complements to our fundamental analysis of growth and valuations. Today's environment of slowing growth, cheaper valuations relative to early 2022 (albeit still somewhat expensive when adjusting for interest rates), policy uncertainty, negative consumer and business sentiment, and improving investor sentiment are indicative of an environment where balance and prudent allocation of risk is likely rewarded.

Source: Wilshire, Goldman Sachs Investment Research, Factset, Refinitiv. Data as of January 17, 2023.

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Conclusion and Positioning

We acknowledge the continued uncertainty associated with the current market environment and observe the gradual decline in global economic growth, but we remain optimistic that most of the known risks have been increasingly priced into markets. We continue to observe considerable risk in the near-term, in both developed and emerging markets. That said, recent measures of inflation indicate moderation in price pressures, and while the labor market remains tight, we are starting to see indications that conditions may begin softening modestly, as job openings are on the decline and corporations are increasingly reducing workforces or imposing hiring freezes. These indicators are supportive of a less aggressive stance on monetary policy. Therefore, we believe it's prudent to position for opportunities within asset classes where dislocations have surfaced and the return outlook appears relatively asymmetric. Specifically, we remain constructive in credit markets where we believe the risks are largely priced-in. On the equity side, the impacts of tightening financial conditions have already resulted in a reset of valuations across very richly priced segments of the market. Nevertheless, given the move higher in interest rates over the course of 2022, equities do not present attractive valuations today. Fortunately, we are beginning to see some cross-sectional opportunities within the equity asset class, including factor and regional pair trades, such as size (small caps), where we initiated an overweight posture in January. We remain stylistically neutral because we believe that secular growers serve as an effective ballast to cyclical value companies, particularly if economic growth continues to slow. While we are expressing a slight increase in active risk today, we seek balance in our portfolios during these times of uncertainty, and we continue to prudently take risk because we recognize that uncertainty is often met with opportunity. We also seek to benefit from the idiosyncratic opportunities presented to active managers in this market environment, while continuing to adapt portfolios to evolving conditions, actively resize exposures as volatility works in our favour, and maintain effective diversification to manage portfolio volatility through this phase of the market cycle, which remains persistently uncertain.

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