

FIRST QUARTER 2022

Investment Strategy Update

The recent decline in equity and fixed income markets and the associated spike in both equity and interest rate volatility is reflective of a market that is increasingly focused on monetary policy. Inflation has become the focal point for most investors, consumers, and central bankers/policy makers. Inflation was dismissed by many (including the Fed) as being transitory only six months ago and is now viewed as potentially sticky and arguably the biggest risk to the global economy. Fortunately, most major economies are forecast to deliver strong levels of real GDP growth in 2022, albeit at lower rates than in 2021.

Furthermore, strong household balance sheets and higher wages in the U.S. are supportive of personal consumption in the face of higher inflation, and while the global economy is grappling with very elevated levels of inflationary pressures, it's important to recognize that short-term cyclical factors have meaningfully contributed to these pressures. At the same time, we have seen a material rise in owner equivalent rents in the second half of 2021 coupled with elevated levels of wage inflation. The Fed's more hawkish tone regarding monetary policy is warranted, while remaining data dependent and nimble in policy implementation.

In this quarter's Investment Strategy Update, we discuss the potential impact of tighter financial conditions on equities and fixed income, as investors balance the impact of higher interest rates against earnings growth and a relatively strong global economy. As real rates continue to rise, more attractively valued segments of global markets should remain in favor, while more highly valued assets may remain under pressure. This helps inform our decision to stay underweight U.S. growth and favor non-U.S. equities relative to U.S. equities. We remain underweight duration risk and core fixed income in favor of more flexible/alternative mandates that exhibit less duration exposure because the change in monetary policy continues to fuel heightened interest rate risk. We also recognize that sentiment is prone to overreaction, and investors should give some credence to the risk that markets might be overpricing the risk of inflation in the short-term. We continue to view inflation as a risk in the near-term and remain modestly overweight to commodities and other reflationary exposures such as U.S. value equities, but we are actively managing our exposure to these views and seeking to partially monetize positions as volatility works in our favor. Wilshire continues to promote diversification and remains judicious in the allocation of our active risk budget, particularly as we witness market conditions reaching inflection points. We provide a summary of our positioning, rationale and supporting exhibits in the following sections.

Asset Class	October	Change	January
Fixed Income vs. Equity	Neutral	≈	Neutral
Alternatives vs. Equity	Neutral	≈	Neutral
Alternative vs. Fixed Income	Large Overweight	≈	Large Overweight
Duration vs. Barclays Aggregate	Underweight	≈	Underweight
Credit vs. Government	Neutral	≈	Neutral
Investment Grade vs. High Yield	Neutral	≈	Neutral
High Yield vs. Bank Loans	Underweight	≈	Underweight
Emerging Markets Debt (EMD) vs. High Yield	Neutral	≈	Neutral
Large Cap vs. Small Cap Equities	Neutral	≈	Neutral
Growth vs. Value Equities	Underweight	≈	Underweight
Global ex-U.S. vs. U.S. Equities	Overweight	≈	Overweight
Emerging vs. Developed Equities	Neutral	≈	Neutral
Commodities vs. Global REITS/Equities	Overweight	≈	Overweight

Asset Class	Change	View	Summary Of Rationale
Fixed Income vs. Equity	≈	Neutral	Despite a positive economic outlook, which would normally be expected to benefit equities, valuations are not materially more attractive in equities vs. fixed income, resulting in a neutral posture.
Alternatives vs. Equity	≈	Neutral	We remain mindful of equity valuations, but we believe that equity earnings/fundamentals will continue to be supported by the recovery in global growth in the near-to-intermediate term, albeit with heightened price volatility against those strong fundamentals as financial conditions continue to tighten.
Alternatives vs. Fixed Income	≈	Large Overweight	Given the rich valuations of government bonds and significant compression in credit spreads over the past 18 months, we maintain a large underweight in traditional fixed income exposures and favor strategies that provide more flexibility and differentiated returns.
Duration vs. Bloomberg Barclays Capital Aggregate Bond Index	≈	Underweight	Given the recent change in Fed policy in midst of healthy economic growth and rising inflation, real yields have finally started to increase but continue to indicate very rich valuations for nominal bonds. Therefore, we remain underweight to duration exposure through a combination of our underweight to fixed income and/or through shorter-duration positioning.
Credit vs. Government	≈	Neutral	Given the significant narrowing of credit spreads over the past 18 months, we do not see a significant risk-adjusted return opportunity in credit relative to government bonds.
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	≈	Underweight	We observe more attractive valuations in bank loans, and the rising rate environment is supportive of demand with a high level of CLO issuance and retail demand. As a result, we maintain an underweight in high yield in favor of bank loans.
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	≈	Neutral	We do not see a meaningful valuation opportunity between large caps and small caps.
Growth vs. Value Equities	≈	Underweight	U.S. value equities offer more attractive valuations and both fundamentals and sentiment now favor value, as growth equities face headwinds from tightening financial conditions. Therefore, we maintain our overweight view in value equities, however we continue to actively manage our exposure to this view. We seek to partially monetize positions as volatility works in our favor.
Global ex-U.S. vs. U.S. Equities	≈	Overweight	We expect tighter financial conditions to weigh on U.S. equities more than non-U.S. equities, and we find relatively attractive valuations in non-U.S. equities. Improving COVID-19 conditions and more pro-cyclical exposure in foreign markets are also supportive of this view. Therefore, we maintain our overweight to non-U.S. equities.
Emerging Markets vs. Developed Markets	≈	Neutral	While emerging markets offer attractive valuations, the technical, fundamental, and geopolitical backdrop heighten the downside risk of an overweight exposure to emerging markets relative to developed markets.
Commodities vs. Global REITS	≈	Overweight	Inflation risk remains elevated, particularly for commodities, demand continues to outpace supply and supply chain issues are likely to persist through 2022. Therefore, we remain overweight commodities vs. global REITs. However we continue to actively manage our exposure to this view, seeking to partially monetize positions as volatility works in our favor.

Macroeconomic Outlook: Supply Chain Disruptions Weigh on Global Growth

Economic activity is expected to slow across most major economies in 2022 (Exhibit A), while still delivering strong levels of GDP growth. The combination of supply chain disruptions, labor shortages, and persistently high COVID-19 case rates resulted in persistent downgrades to economic activity since mid-2021 (Exhibit B). Unfortunately, the same factors are also beginning to weigh on sentiment, most notably in the services sector, as services PMIs have been softening across most major developed markets, while still signaling expansion (Exhibit C). Fortunately, fourth quarter U.S. GDP growth outpaced expectations due to strong personal consumption of services and private domestic investment, specifically inventories, which added 4.9% to GDP growth (Exhibit D). Businesses have been faced with supply shortages and inventories have been insufficient to keep up with the demand for goods. Exhibit E shows a significant decline in the ratio of retail inventories/sales that coincided with a high percentage of purchasing managers reporting slower deliveries. There are some signs the supply chain conditions are improving, as more recent surveys show a decline in the percent of purchasing managers reporting slower deliveries, which will be supportive of the inventory rebuilding cycle and is likely to continue to serve as a tailwind to GDP growth as companies restock.

EXHIBIT A: Lower, Albeit Healthy GDP Growth Expectations*

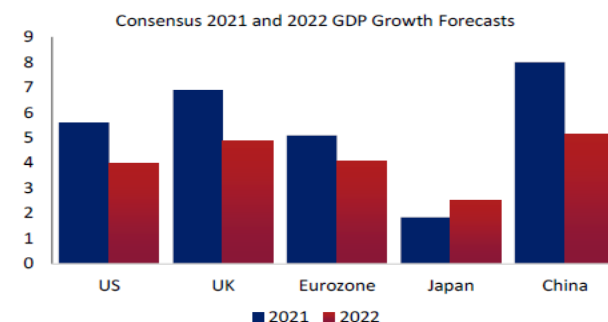


EXHIBIT B: GDP Forecasts Trended Lower on Supply Chain, Labor Shortage, and COVID Concerns*

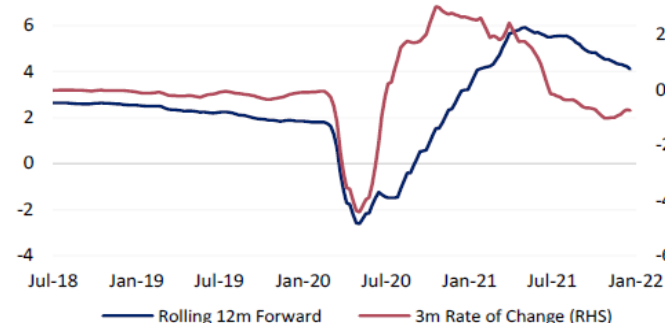


EXHIBIT C: Services PMIs Reflect Weaker Sentiment*

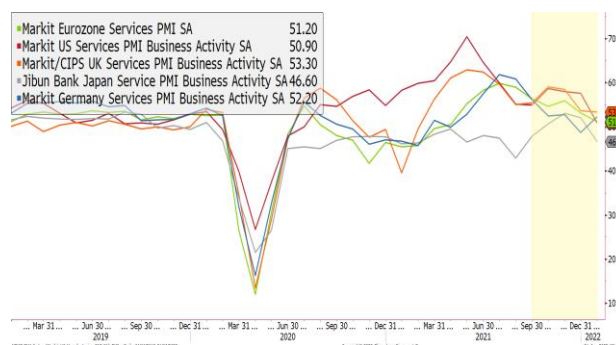


EXHIBIT D: 4Q GDP Outperforms on Inventory Rebuilding and Consumption of Services*

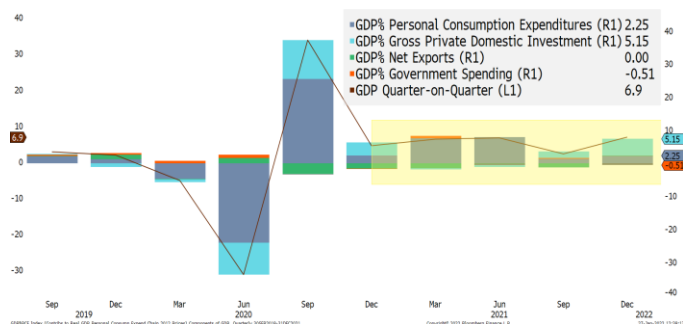
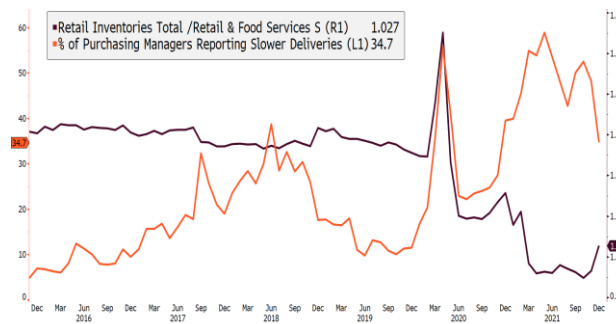


EXHIBIT E: Retail Inventories Have Declined Materially*



*Source: Wilshire, Refinitiv, and Bloomberg

There is also persistent friction in the employment market, where record job openings imply a major shortage of labor that has led to increased wage inflation. Employers continue to struggle to get employees back to work, and the employment market has become increasingly competitive. Exhibit F shows the percent of small businesses that are raising compensation or planning to raise compensation according to the NFIB Small Business survey. Based on this survey, nearly 50% of small businesses are increasing compensation, with 32% indicating the intention to boost compensation in an effort to attract workers. This, in addition to other rising input costs, is likely to create continued inflationary pressure through higher consumer prices and/or margin compression for many small companies that don't have the ability to pass along these costs to consumers.

Fortunately, lower-income workers have realized a higher degree of wage inflation (Exhibit G). According to the Atlanta Fed, the bottom quartile of workers have witnessed annual wage growth of 5.4%, compared with 3.8% for the overall population. This rise in compensation is supportive of personal consumption at a time when food and energy prices are rising substantially.

Exhibit H plots the normalized ratio of both gasoline and food prices to average hourly earnings, which shows that in spite of energy prices rising substantially over the past year relative to wages, prices remain subdued relative to history when adjusting for the increase in average hourly earnings. At the same time, households used the spike in disposable incomes from stimulus to substantially reduce credit card debt over the past two years (Exhibit I), and are now beginning to increase borrowing, which is good for economic growth. Strong household balance sheets and higher wages are supportive of personal consumption in the face of higher inflation. While the recent rise in prices shouldn't stymie personal consumption in the near-term, persistent inflationary pressure will eventually weigh on disposable incomes, a risk that the Fed is keenly focused on.

EXHIBIT F: NFIB Survey Indicates That Many Small Businesses Are Raising Compensation*

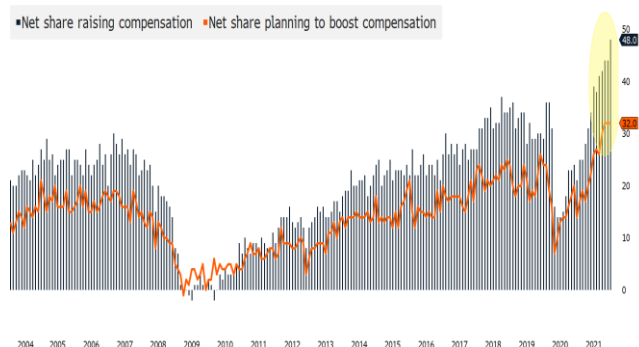


EXHIBIT G: Lower Income Workers Experiencing the Highest Wage Inflation*

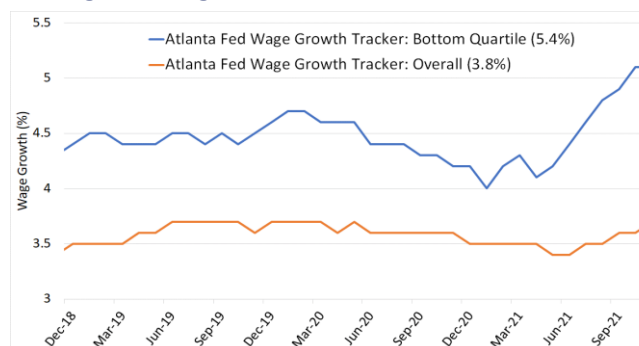
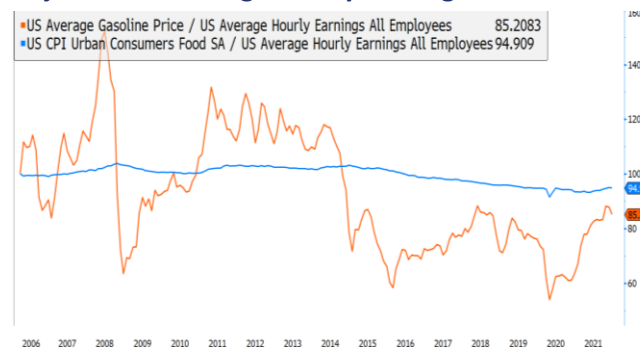
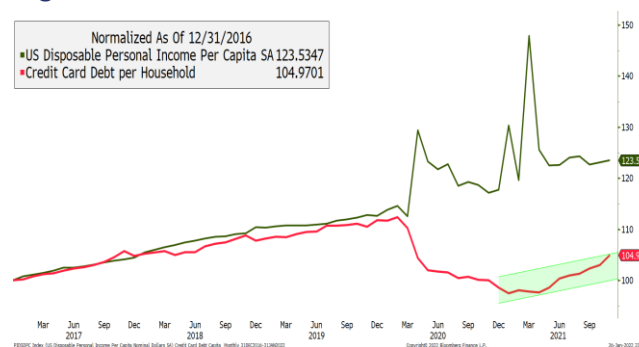


EXHIBIT H: Gasoline and Food Prices Are Not Materially Higher Relative to History, When Adjusted for Average Hourly Earnings*



*Source: Bloomberg data

EXHIBIT I: Households Used Disposable Income to Reduce Credit Card Debt; Poised to Absorb Higher Prices*



Macroeconomic Outlook: Inflation is Elevated

Inflation has become the focal point for most investors, consumers, and central bankers/policy makers. The initial surge in consumer prices was dismissed by many (including the Fed) as being transitory only six months ago and is now viewed as potentially sticky and arguably the biggest risk to the global economy. This should serve as an indication of how quickly the data and the sentiment can shift. While the global economy is grappling with very elevated levels of inflationary pressures, it's important to recognize that short-term cyclical factors have meaningfully contributed to these pressures. Specifically, the surge in consumer demand following the reopening of many economies has resulted in friction due to supply chain disruptions and labor shortages. This friction in the economy is not surprising, given the logistical challenges of restarting manufacturing and business services, deploying shipments, and rehiring workers at higher wages. This resulted in a rapid spike in wholesale commodity prices and employment costs, as shown in Exhibit J. Wage inflation is sticky and is likely to result in higher consumer prices, but unlike the hyperinflationary environment of the late 1970s/early 1980s when sticky components of the CPI fueled the rapid rise in inflation, most of the rise in consumer prices during this cycle has been attributable to flexible components of inflation. These are likely to be mean reverting (Exhibit K) and should serve to offset some of the underlying pressure from owner equivalent rents.

Sentiment shifts can be prone to overreaction, and investors should give some credence to the risk that markets may be overpricing the risk of inflation in the short-term. This can be observed in the spread between the US 5 year and 15+ year breakeven inflation rates, which is pricing in unusually high inflation in the short-term vs. the long-term (Exhibit L). While inflation pressure may persist through 2022, the combination of higher base effects and some improvement in supply chains is likely to result in a softening outlook for inflation in 2023. Despite expectations of very elevated inflation in 2022, consensus estimates for inflation in 2023 (Exhibit M) have persistently remained at 2.5% or lower across major global economies — a level that, on its own, does not warrant aggressive tightening of monetary policy. Eventually, the longer-term secular trends associated with technology and ecommerce, and the resulting deflationary pressure on segments of core commodities may resume. That said, we continue to view inflation as a risk in the near-term and remain modestly overweight to commodities. We are actively managing our exposure to this view and seeking to partially monetize positions as volatility works in our favor.

EXHIBIT J: U.S. Commodities and Employment Costs Have Risen Substantially*

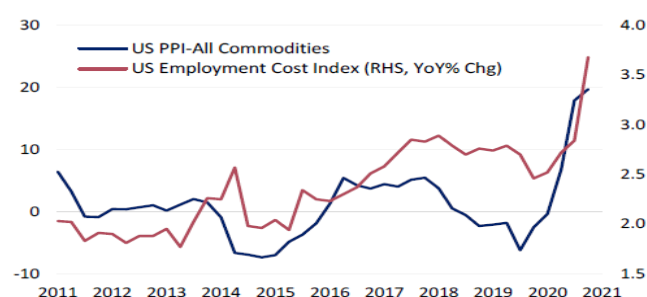


EXHIBIT L: Positive Spread Between 5Yr And 15yr Breakeven Inflation is Unusual*



EXHIBIT K: Flexible Measures Are Responsible for the Spike in Inflation and Are at Risk of Rapid Normalization*

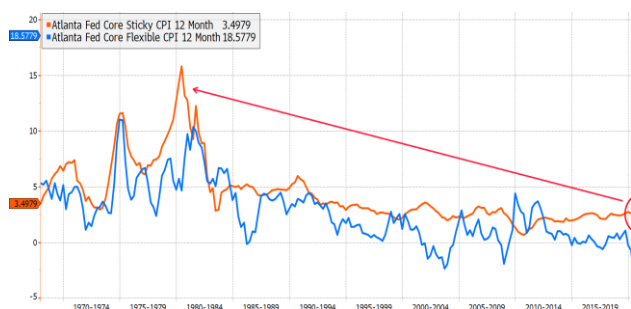
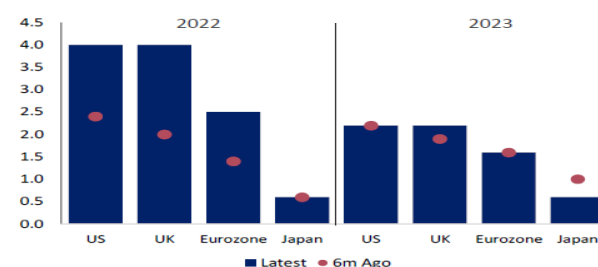


EXHIBIT M: Consensus CPI Forecasts Imply Mean Reversion By 2023*



*Source: Wilshire, Refinitiv, and Bloomberg

Fixed Income View: Underweight Fixed Income vs. Alternatives; Underweight Duration

The recovery in economic growth and elevated levels of inflation have caused a number of global central banks to suddenly adjust policy. Fed funds futures are now pricing in nearly five interest rate hikes in 2022, which implies a policy rate of approximately 1.25% (Exhibit N). While this has weighed on financial conditions and investor sentiment in the near-term, investors should become increasingly comfortable with this shift in policy, particularly as the economic backdrop is supportive of somewhat tighter financial conditions, and the Fed's outlook for monetary policy is data dependent. Despite the notable rise in long-term yields on a year-to-date basis, the rise in short-term inflationary pressure and shift in monetary policy has led to a substantial flattening of the yield curve, with the spread between the 10 year and 2 year Treasury yield now at only approximately 0.60%. While this is commonly a bearish indicator, it is not indicative of heightened recessionary risks in the near-term.

We are witnessing a necessary fundamental repricing of U.S. and foreign government bonds which are waking up to the reality that real yields have been distorted by central bank stimulus. Despite a recent rise in real yields, nominal bonds remain irrationally priced relative to inflation and economic growth. Today, real yields sit at approximately -0.60%, while the long-term average 10-year real yield has been approximately 0.90% over a period in which we experienced far lower economic growth relative to the consensus expectations of growth in 2022 (Exhibit P). Not only do we find government bonds to be expensive, but we continue to see corporate credit valuations as being stretched, and we are beginning to see CCC spreads widening modestly of late (Exhibit O), an indication that markets are pricing in more risk ahead, albeit not a credit crisis or recession. Nevertheless, these conditions should be monitored. With excessive valuations across most of the fixed income market, we maintain our large underweight in core fixed income in favor of more flexible/alternative mandates with less duration and credit exposure.

EXHIBIT N: Bond market is Pricing Five Hikes in 2022*

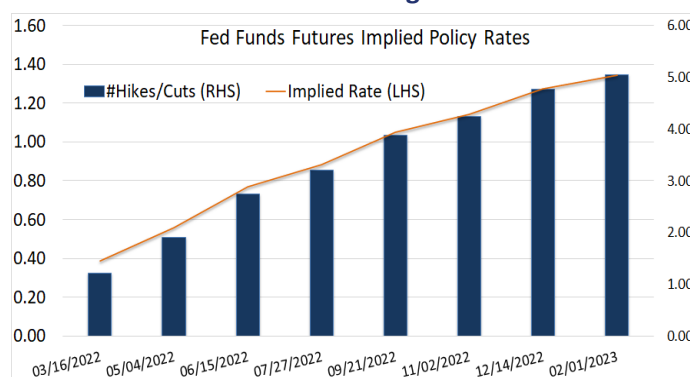


EXHIBIT O: Credit Spreads Near Record Lows*

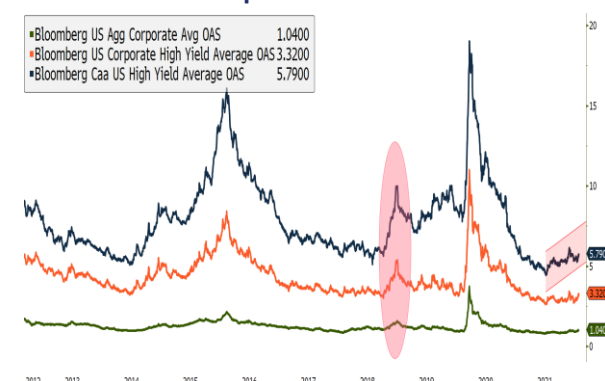


EXHIBIT P: Real Yields Are Low vs. the Long-Term Average, Particularly Given Growth Expectations*



*Source: Bloomberg

Equity View: Favoring Non-US Equities; Underweight U.S. Growth

Despite the recent rise in equity market volatility and the tightening of financial conditions, we maintain our constructive view on equities but acknowledge lower expected returns. Investors often overlook the fact that although equity markets delivered strong returns, equity valuations declined in 2021 as earnings growth outpaced share price appreciation, resulting in a decline in P/E multiples (Exhibit Q), which was even more pronounced in foreign markets. As financial conditions tighten and if real rates continue to rise, equities may face headwinds in which case more attractively valued segments of global markets should provide a greater margin of safety, while more highly valued equities are at greater risk. Although some degree of multiple contraction is to be expected in 2022 in response to higher real yields, earnings and dividend growth can help offset the deleterious effects of rising interest rates.

It's no coincidence that long duration equity exposures are the most overvalued and the most sensitive to tightening financial conditions. As shown in Exhibit R, the outperformance of U.S. equities, specifically U.S. technology and U.S. growth, have been the primary beneficiaries of ultra-low real yields and are likely the most susceptible to a continued rise in real yields, which helps inform our decision to underweight U.S. growth and favor non-U.S. equities relative to U.S. equities. U.S. equity valuations are also historically elevated relative to major foreign markets (Exhibit S), despite providing higher EPS growth expectations. Furthermore, analyst EPS expectations for the U.S. have moderated more significantly relative to six months ago in comparison to foreign markets (Exhibit T). It's also worth noting that analysts have become more modest in their forward outlooks, as EPS upgrades vs. downgrades have become more balanced over the past six months. This points to a deterioration in sentiment across global equities, but to a greater degree for U.S. equities relative to other major markets.

EXHIBIT Q: U.S. vs. World ex-U.S. Total Return Decomposition (% of 2021 total return)*

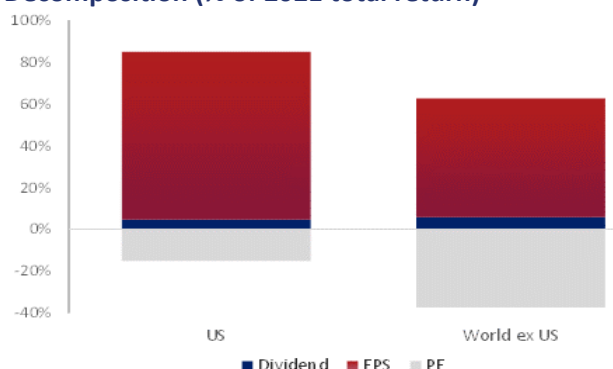


EXHIBIT R: Long Duration Equity Exposures Are Sensitive to Rising U.S. Real Yields*

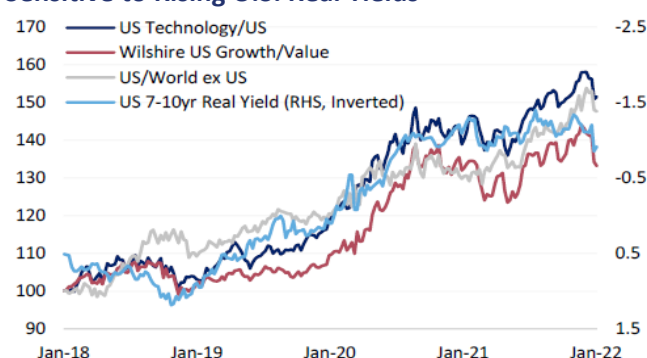


EXHIBIT S: U.S. 12m Forward PE Ratio Extremely Elevated Relative to Major Foreign Regional Indices*

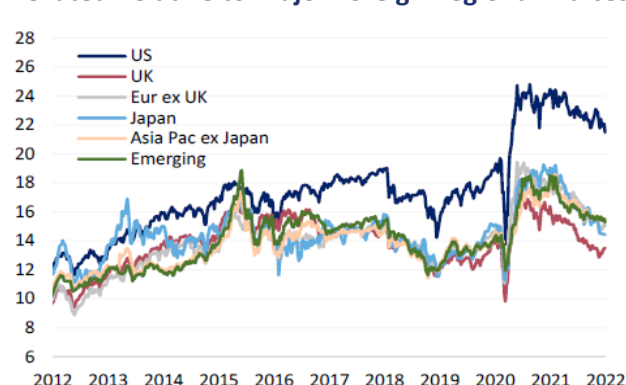
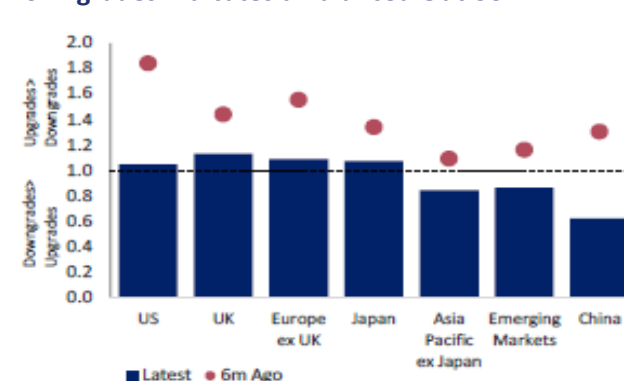


EXHIBIT T: Analyst EPS Upgrades Relative to Downgrades Indicates a Balanced Outlook*



*Source: Wilshire, FactSet and Refinitiv.

Sentiment, Technicals and Risk

The recent spike in both equity market volatility and interest rate volatility is reflective of deteriorating market sentiment, which has been gradually weakening since mid-2021 (Exhibit U) likely due to persistently elevated levels of COVID-19 cases and inflation, in addition to the prospect of tighter monetary policy. While fixed income market valuations continue to exhibit complacency, particularly in nominal bonds, Fed funds futures appear to be pricing a very hawkish policy stance in 2022, as discussed in our fixed income outlook. Last quarter, we expressed our view that U.S. equities, most notably large cap growth companies, had benefited from extraordinarily accommodative financial conditions and that a shift in financial conditions would likely serve as a headwind for higher-valued segments of the market. That expectation has come to fruition rather quickly, with technicals and Fed policy taking center stage in early-2022.

We often look to various indicators of technical sentiment to complement our fundamental analysis, particularly as it relates to rebalancing and resizing the risk budget of our active market views. The repricing of equities in early 2022 may have resulted in excessively negative technical conditions, with nearly 40% of U.S. equities in oversold territory (Exhibit V) and more than 10% hitting new 52-week lows (Exhibit W). Despite the recent market volatility, credit markets are relatively stable, and we see no signs of funding stress in credit markets, as measured by the spread between commercial paper and overnight indexed swap rates (Exhibit X). There are no immediate signs of a recession or a credit crisis. Markets may now be overpricing the risk of shift in monetary policy and underappreciating the strength of the economy and equity fundamentals, and as a result, investors who remain underweight equity risk may be positioned too cautiously. Given the technical selloff in U.S. equities in the month of January, we believe that it's important to take the opportunity to rebalance equity exposures to be appropriately positioned to benefit from a potential recovery in equity market sentiment. Wilshire will continue to assess the interplay between fundamentals and technicals to adapt portfolios to evolving conditions, actively resize exposures as volatility works in our favor, and maintain effective diversification to manage portfolio volatility through this phase of the market cycle, particularly as financial conditions tighten.

EXHIBIT U: Regional Wilshire Sentiment Barometers*

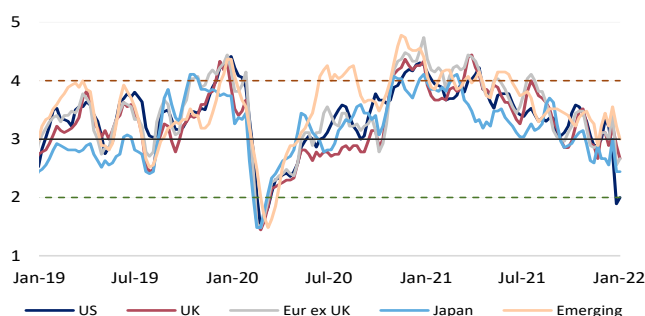


EXHIBIT V: Nearly 40% of U.S. Equities Are Technically Oversold, As Measured By RSI*

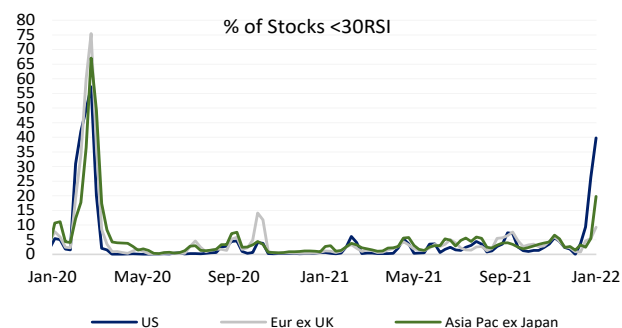


EXHIBIT W: More Than 10% of U.S. Equities Hitting New 52 Week Lows

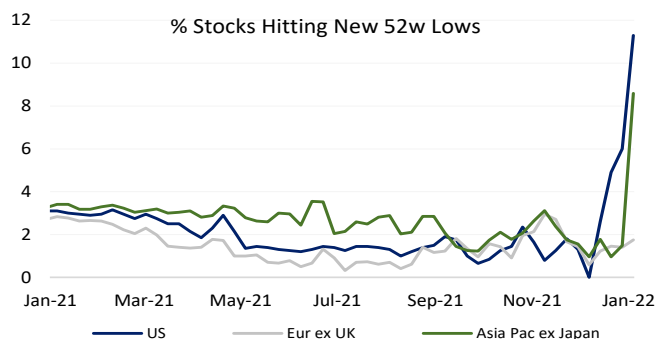
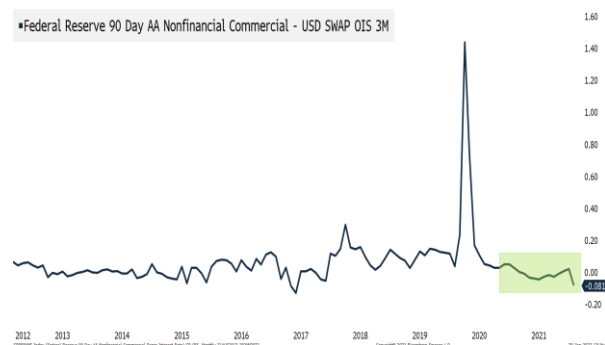


EXHIBIT X: No Signs of Funding Stress in Credit Markets



*Source: Wilshire, Refinitiv, and Bloomberg. Data as of 1/28/22.

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