

CHIEF INVESTMENT OFFICE

Capital Market Outlook

October 17, 2022

All data, projections and opinions are as of the date of this report and subject to change.

IN THIS ISSUE

Macro Strategy—A Balancing Act: After briefly breaching \$2,000 per ounce in early March for the second time in two years, sharply rising interest rates and dollar appreciation caused gold to retreat about 20% by mid-October. Although down around 8% year-to-date (YTD) in dollar terms, gold is still outperforming Fixed Income and most other asset classes this year, showcasing its portfolio diversification benefits for U.S. investors.

Gold performance has been stronger in local currencies around the world, helping protect against major currency depreciation and high inflation in numerous countries. The energy and economic crisis unfolding in Europe, along with rising uncertainty and global recession risks, suggests that gold is likely to remain a relative bright spot for the foreseeable future.

Market View—Some Contrarian Thoughts About Reshoring: The reshoring movement is gaining traction in the U.S., supported in large part by government policies that increasingly support production being brought back to the U.S.

However, there are many pitfalls and potential unintended consequences to reshoring that could ultimately impair U.S. earnings and undermine corporate competitiveness. We delve into some of these concerns.

Thought of the Week—Jobs Data Show Fed Has More Work To Do: Investors waiting for signs that the Federal Reserve (Fed) will slow the pace of rate hikes or pivot completely could take some guidance from the growth rate of the Index of Aggregate Payrolls versus the growth rate of overall inflation.

On a year-over-year (YoY) basis, this proxy for wage growth rolled over but is still running near 9%, well above inflation. The Fed likely wants to see wage growth drop below inflation to stop the wage-price inflation spiral. For now, it suggests the Fed has more work to do, likely keeping downward pressure on risk assets.

MACRO STRATEGY ►

**Chief Investment Office
Macro Strategy Team**

MARKET VIEW ►

Joseph P. Quinlan
Managing Director and Head of CIO Market Strategy

Lauren J. Sanfilippo
Director and Senior Investment Strategy Analyst

THOUGHT OF THE WEEK ►

Jonathan Kozy
Managing Director and Senior Macro Strategy Analyst

MARKETS IN REVIEW ►

**Data as of 10/17/2022,
and subject to change**

Portfolio Considerations

We remain neutral Equities and see near-term risks for Equities coming from a global slowdown in growth and profits, persistently elevated levels of inflation, and what we believe to be a Fed policy error. This month, we raised Fixed Income, tactically, to a slight overweight and increased overall credit quality, as real and absolute yields have become attractive for the first time in many years. With this adjustment, which was funded from the Cash asset class, we also look for opportunities to extend duration. In addition to our tactical changes within Fixed Income, muni bonds have become more attractive, and we remain overweight within an all Fixed Income allocation, where appropriate.

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A Balancing Act

Chief Investment Office, Macro Strategy Team

Notwithstanding their sharp broad-based correction in recent months, Commodities as an asset class have substantially outperformed Equities and Fixed Income since the pandemic started almost three years ago. As discussed in past reports, demand for commodities tends to be economically sensitive, with prices generally early beneficiaries of stimulative monetary policy and accelerating economic growth. Commodities also tend to benefit from relative pricing power late in the cycle, when spare production capacity diminishes and commodity shortages often emerge.

Over the longer run, commodities such as base metals, gold and crude oil tend to be good stores of value, an attractive feature for investors looking to hedge portfolios against inflation and currency debasement. Not surprisingly, as a result of unusually low interest rates and surging money supply, commodities roared out of the pandemic shutdown across the board before correcting from record levels once markets started to price in an abrupt U.S. monetary-policy reversal this year and rising risks of recession.

As interest rates surged around the world in 2022, gold also retreated from record local-currency levels in many countries to various degrees, although its returns have generally remained positive YTD. Gold priced in dollars has been a notable exception, its 18% decline from \$2,032/oz. on March 8, 2022, to around \$1,660/oz. recently, and 8% YTD drop causing great disappointment to those expecting a more explosive upside price move given a 40-year high U.S. inflation rate of almost 10%, gushing money supply, an energy crisis of epic proportions in Europe, and rapidly escalating geopolitical conflicts to boot.

Still, before losing confidence in gold's role in helping to protect wealth, it is important to consider the following:

- While it's notoriously difficult to compute a fair value for gold, it can be argued that after a 70% gain from late 2018—when tensions between the U.S. and China started to flare up, soon to be followed by the pandemic shock and record government stimulus—to March 2022, gold in dollar terms was already ahead of itself, exceeding levels justified by inflation. In our view, a look at gold prices relative to other commodities such as base metals, which have kept a close pace with inflation both in the short and long runs, helps calibrate gold price expectations.

Indeed, because of potential substitution between metals, costs of production, and other considerations such as scarcity and cultural preferences, the ratio of gold to base-metals prices tends to fluctuate around its mean, rising in times of crisis and dropping below mean in normal times. An estimated inflation-adjusted Commodity Research Bureau (CRB) base-metals Index level of about 1100 (18% above the current level) based on data going back 75 years combined with a gold-to-metals ratio of about 1.4 observed during normal economic conditions over the past 12 years, implies that a gold price of about \$1,500/oz. would be reasonable in the absence of elevated risk aversion.

An extreme drop of 60% from peak to trough in the base-metals index, as during the 2008-2009 recession, combined with an extreme pandemic-level gold-to-metals ratio of about 3, suggest that an increase in gold prices to about \$1,800/oz. in case of extreme risk aversion would also be reasonable. On this basis, prices much in excess of \$2,000/oz. may thus be hard to sustain for the foreseeable future absent rock-bottom interest rates, persistent excessive inflation with unusually strong base-metals prices (which would take gold prices higher given their connection), and extreme risk aversion.

- Relative performance matters. Gold's performance beats hands down the unusually large declines suffered by Fixed Income portfolios as a result of surging inflation and interest rates. Its 8% YTD drop in dollar terms also pales in comparison to the approximate 25% decline in the S&P 500 Index over the same period. According to the World Gold Council (WGC), in dollar terms, gold outperformed most asset classes in September and YTD.
- For most non-U.S. investors facing faster-than-anticipated inflation and currency depreciation this year, gold returns have remained positive, consolidating its status as a hedge against adverse macroeconomic events. YTD local-currency gains of +40% in Turkey, +17% in Japan, +15% in Egypt, +11% in the UK, +10% in South Korea, and

Investment Implications

Overseas investors' experience this year illustrates gold's role in hedging against currency depreciation and inflation. While posting weak returns in dollar terms, gold's portfolio diversification benefits for U.S. investors have nevertheless been validated by its outperformance of most asset classes YTD.

+8% in the Eurozone, according to our analysis, for example, have generally outpaced Equity and Fixed Income returns. In an extreme example, gold has tripled its April 2020 price in Turkish lira, helping to protect domestic investors from a similar jump in money supply, a more than doubling of consumer inflation, and big currency depreciation against the dollar.

- As we discussed in past reports, a lack of real-time demand and supply data, idiosyncratic events, geopolitics, and uncertainty about the direction of the dollar make commodity prices difficult to forecast. What's more, gold's absolute performance often appears confusing and disappointing because of its different correlations and sensitivity to interest rates, credit spreads, risk assets and uncertainty compared to those of purely economically-sensitive commodities. This difference allows gold to help reduce portfolio volatility by generally outperforming when other assets struggle, and vice versa. For example, both gold and metals are negatively correlated to the dollar exchange rate, encountering strong headwinds to prices this year from the sharp dollar appreciation. However, gold has dropped less than base metals, its outperformance reflecting the increase in uncertainty and worries about the macroeconomic outlook that typically accompany bouts of dollar appreciation and which tend to benefit gold as a "safe haven".

Gold's correlation with equity price changes is typically weak, in contrast to base metals' correlation, which tend to be quite strong and positive. Gold thus tends to outperform when Equities and base metals start to struggle, and vice versa. Importantly, gold prices tend to increase when interest rates decline because the opportunity cost of holding gold declines, boosting the relative appeal of owning gold. Cyclically, this happens when monetary policy eases in and around recessions. Given rising odds of a Fed-induced recession, gold's positive portfolio diversification contribution should thus be expected to continue, in our view, even as it takes different shapes with the approach of an eventual recession.

- Also important in calibrating gold price expectations, the pandemic shock was not conducive to consumer splurging on gold jewelry, which typically is a major source of gold demand. Despite improvement from the pandemic abyss, strict zero-covid policies in China, high global inflation, and a worsening global economic outlook have hindered the recovery in jewelry demand this year. According to the WGC, jewelry demand in volume terms was 18% below its five-year average level in the first half of 2022. Chinese shutdowns this year have had a negative effect on bar and coin investment, offsetting gains in India, the Middle East, Turkey, and the eurozone, for example. Overall, first half global coin and bar demand was 12% lower YoY, according to the WGC.
- Reflecting rising geopolitical tensions and a move to a less dollar-centric world, central banks have been net gold purchasers in six of eight months this year. In contrast, reflecting the negative effect of rapidly rising interest rates on gold investment demand, September posted the fifth consecutive month of net outflows from gold Exchange-Traded Funds (ETFs). According to the WGC, the outflow was also the largest since March 2021. By now, ETFs have given back almost all of the gold inflows seen earlier this year, helping explain the headwinds to gold prices since March.
- Economic hardship around the world and elevated gold prices have spurred distressed selling, amplifying a glut created by low overall tonnage demand and strong mining production growth (as economic conditions normalized and high gold prices rendered more mines profitable). Supply is expected to continue to increase, with upside risks coming from potential new bouts of distressed selling as global recession risks increase.

In sum, gold prices started to surge about two years prior to the pandemic with the rapid deterioration of relations between the U.S. and China, followed by a sharp increase in government debt and money supply around the world, especially the U.S. and Europe, in response to various crises and domestic politics. Since late 2018, the price of gold quintupled in Turkish lira and is up about 40% in dollars, 70% in euros and 65% in rupees as of mid-October, making clear that in a reflationary and increasingly geopolitically troubled world, some exposure to gold remains appropriate. In our view, growing risks of a global recession and fears of eurozone disintegration under increased economic, financial and geopolitical stress should boost demand for gold to hedge related risks, though rising interest rates and a strong dollar remain big headwinds to prices in dollar terms for the time being.

Some Contrarian Thoughts About Reshoring

Joseph P. Quinlan, Managing Director and Head of CIO Market Strategy

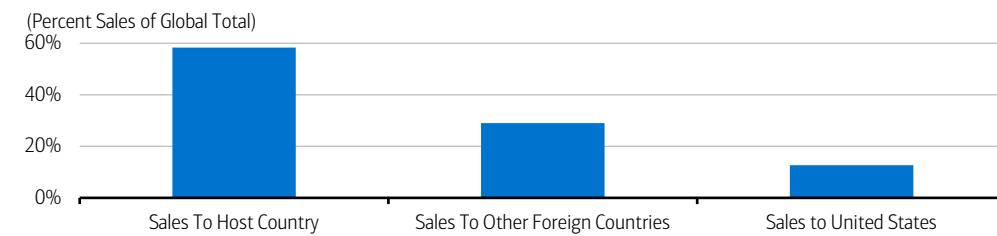
Lauren J. Sanfilippo, Director and Senior Investment Strategy Analyst

The clarion call to “bring it home,” or reshore production to the U.S., has never been louder. But as deafening as the cry is to shorten supply chains and boost America’s economic self-sufficiency, all the noise about where American firms should operate misses a number of critical facts about how Corporate America actually engages with the rest of the world. First, gaining access to cheap inputs or components via crossborder supply networks isn’t the only reason U.S. multinationals venture overseas. Far from it.

A core motivation is to gain access to markets—aka foreign consumers. This requires that firms be local or in-country, bringing operations closer to their customers, and allowing them to quickly adjust products and services to local tastes and trends. Market-seeking foreign direct investment (FDI)—a long-time strategy of U.S. multinationals—runs directly counter and contrary to the “reshoring” chorus.

Indeed, if Corporate America truly reshored its massive foreign investment base, it would be turning its back on 95% of the global population, which accounts for over 70% of global personal consumption. It would also deny itself critical foreign inputs like skilled labor and key natural resources. The upshot would be a significant dent in future U.S. earnings growth. Second, most of what U.S. foreign affiliates produce abroad is sold abroad and not sent back to the U.S.—the conventional wisdom. In 2019, the last year of available data, nearly 90% of what foreign affiliates of U.S. multinationals produced abroad was sold outside the U.S. As depicted in Exhibit 1, of total U.S. foreign affiliate sales of goods and services of \$6.5 trillion in 2019, nearly 60% were to the local markets, while another 29% consisted of exports to adjoining nations or third markets. Only 12% was for export to the U.S.

Exhibit 1: U.S. Foreign Affiliate Sales: Geographic Distribution, 2019.



Source: Bureau of Economic Analysis. Data as of August 2022.

In a massive market like China, where fierce local competition demands an in-country presence to be successful, the comparable figures are just as elevated. For instance, of total U.S. foreign affiliate sales (\$376 billion) in China in 2019, over 80% were for the local market, while just 7% was for export back to the U.S. The reshoring refrain misses or overlooks the fact that U.S. multinationals are largely in China—and elsewhere—to sell locally, not to export lower-cost goods to the U.S. Supply chains matter to multinationals, but tapping local consumption/consumers matters more.

Third, that a significant share of U.S. FDI is market-seeking explains why the bulk of U.S. foreign investment assets are in the developed nations. The latter cohort typically denotes higher levels of per capita incomes, supported by a skilled/advanced labor force, translating into more income and personal consumption spending. The upshot, and again contrary to the popular narrative: U.S. FDI isn’t directed at low-cost locales like Mexico and China but aimed at wealthy consumer markets like the United Kingdom and Japan.

For decades, U.S. multinationals have placed a premium on consumers with purchasing power versus cheap labor. Hence, based on the latest data from the Bureau of Economic Analysis, of the nearly 40,000 U.S. foreign affiliates in the world in 2019, the last year of available data, roughly 60% were based in the developed nations. Meanwhile, as of the end of 2021, some 72% of America’s overseas investment stock on a historic cost basis was sunk in the developed nations, primarily Europe; in the aggregate, the basic metrics of U.S. FDI (total assets, sales, value added, Research & Development (R&D) and employment) are overwhelmingly tilted toward the developed nations versus the developing nations.

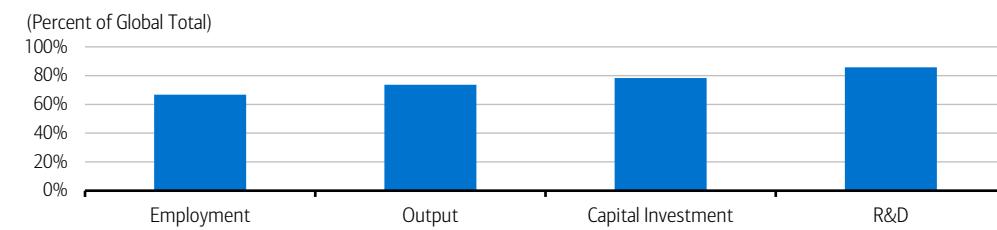
Investment Implications

In the U.S. and around the world, the “Commanding Heights” have shifted to the public sector from the private sector. Global supply chains are less about efficiencies and more about national security and sovereign priorities, representing a potential long-term drag on U.S. corporate earnings.

Fourth, the reshoring mantra also ignores the fact that the worldwide operations of U.S. multinationals are already highly concentrated in the U.S. and that bringing production back to the U.S. would only increase—not decrease—the concentration and therefore vulnerability of American supply chains. To this point, as the International Monetary Fund (IMF) noted earlier this year, “policies such as reshoring are likely misguided. Supply chain resilience to shocks is better built by increasing diversification away from domestic sourcing inputs.”¹

The guidance of the IMF is notably relevant to American multinationals because many are homebodies—i.e., their worldwide operations are highly concentrated in the U.S. via their U.S. parents, not abroad in their foreign affiliates. That’s all too evident from Exhibit 2, with U.S. parents (those parts of the firm operating in the U.S.) accounting for roughly 67% of worldwide employment of U.S. multinationals in 2019, 73.7% of worldwide total output, 78.3% of global capital investment, and nearly 86% of worldwide R&D.

Exhibit 2: U.S. Parents’ Share of Worldwide Activity, 2019.



Source: Bureau of Economic Analysis. Data as of August 2022.

Finally, reshoring isn’t cheap—it comes with a price. Think higher U.S. costs for warehousing space and logistics sites, in addition to higher wages comparable to those in Mexico or China. And that’s assuming firms can find U.S. workers at a time when the U.S. labor market is the tightest in decades. Bringing production activities back to the U.S. doesn’t square with the fact that at the moment there are some 10.0 million unfilled jobs in the U.S., with some 795,000 job openings alone in the manufacturing sector, according to the latest figures from the Bureau of Labor Statistics.

Then there are the added costs associated with America’s decrepit U.S. port/highway/rail infrastructure, with the 2021 grade for America’s infrastructure from the American Society of Civil Engineers an uninspiring C-. Meanwhile, transmission and storage capacity for renewable energy sources in the U.S. remains woefully underdeveloped. And as an aside, how practical is it to reshore electrical vehicles and electric battery production—a chief goal of the 2022 Inflation Reduction Act—when the U.S. lacks the basic metals and minerals that are the guts of electrical batteries? To this point, according to the U.S. Geological Survey, America is 100% reliant on graphite and manganese imports, 70% on cobalt, and 50% net import reliant on lithium and nickel, with all five resources critical components of electrical vehicle batteries.

All of the above means the “reshoring” mantra—and cousins like “friend-shoring,” near-shoring,” etc.—needs to be handled with care and watched carefully by investors. Private sector supply chains run the risk of being politicized and becoming more enmeshed in protectionist government policies centered more on national security than economics. The upshot: structurally higher costs for firms and diminished future earnings prospects.

Case in point: semiconductors. There is no more important component of an economy than “chips” and hence the laser-like focus on boosting semiconductor production in the U.S. However, at what cost? Given that, according to a report from the Boston Consulting Group and Semiconductor Industry Association, establishing fully domestic semiconductor manufacturing supply chains in the U.S. could cost up to \$1 trillion—which is more than double the value of the entire global semiconductor industry.²

The bottom line: “Reshoring” is gaining traction in the U.S. and is often trumpeted as a resounding positive for the economy in general. We don’t disagree that there are benefits. But there are also potential costs to reshoring not fully recognized by investors. Global supply chains are in flux—and at stake are the future of U.S. earnings growth and the long-term competitiveness of the U.S. economy.

¹ See “Global Trade and Value Chains During the Pandemic,” International Monetary Fund, March 2022.

² See “Strengthening the global semiconductor supply chain in an uncertain era”, Semiconductor Industry Association, April 2021.

THOUGHT OF THE WEEK

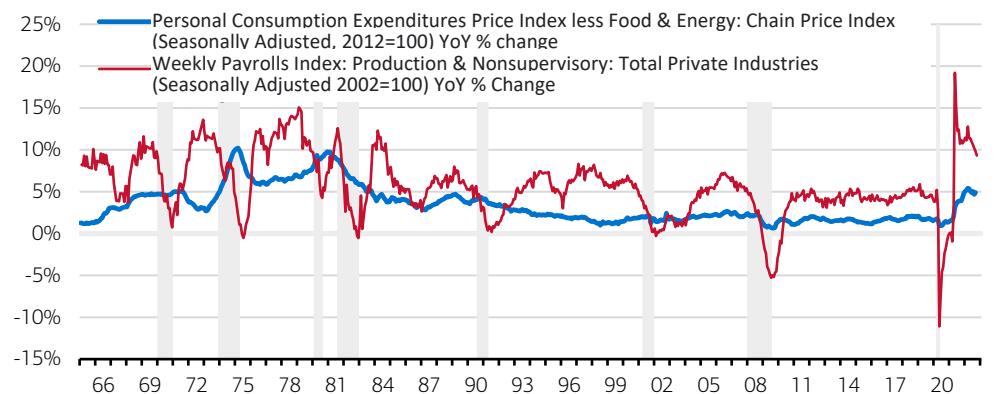
Jobs Data Show Fed Has More Work To Do

Jonathan Kozy, Managing Director and Senior Macro Strategy Analyst

Leading indicators of employment like job openings, initial claims for unemployment insurance and the Conference Board's Labor Market Differential started weakening in the first half of the year. The most recent jobs report showed coincident indicators are very slowly following suit. An often overlooked measure of labor market health is the Index of Aggregate Weekly Payrolls, which includes average weekly earnings, average weekly hours worked and employment. On a YoY basis, it is running a still-hot 9% but slowing in line with other labor market data (Exhibit 3). The chart below is useful for investors for a number of reasons:

- On a YoY basis, the index typically drops below the pace of core inflation when the economy is in the first half of a recession. The National Bureau of Economic Research (NBER) likes to use coincident labor market data to date recessions. We continue to believe a recession is likely in 2023.
- On average, the index growth rate typically drops below the pace of core inflation near recession-related bear market bottoms. For example, it crossed over in September 2008, and the S&P 500 bottomed in March 2009. In 2001, 1990, 1974 and 1970 the crossover also preceded the bottom.
- The chart also highlights that labor market data often move slowly until they move very fast. Given acute Fed tightening, this may be in the cards.
- Lastly, contrast the volatility of the inflation and wage growth data from the 1970s and 1980s to the record-long Equity bull market from March 2009 until 2020, when macro data were remarkably stable. The Fed wants to start by returning to a low and stable inflation regime. It has work to do to get there.

Exhibit 3: Fed Has More Work To Do To Break Wage-Price Spiral.



Gray shaded areas represent recession periods. Sources: Bureau of Labor Statistics; National Bureau of Economic Research. Data as of October 7, 2022.

Investment Implications

Investors waiting for signs that the Fed will slow the pace of rate hikes or pivot may take some guidance from the growth rate of the Index of Aggregate Payrolls versus overall inflation. On a year-over-year basis, this proxy for wage growth is still running well above the pace of inflation. The Fed likely wants to see wage growth drop below inflation to stop the wage-price spiral. For now, it suggests the Fed has more work to do, likely keeping downward pressure on risk assets and upward pressure on short-term interest rates.

MARKETS IN REVIEW

Equities

| | Total Return in USD (%) | | | |
|-----------------------|-------------------------|------|------|-------|
| | Current | WTD | MTD | YTD |
| DJIA | 29,634.83 | 1.2 | 3.2 | -17.1 |
| NASDAQ | 10,321.39 | -3.1 | -2.4 | -33.6 |
| S&P 500 | 3,583.07 | -1.5 | 0.0 | -23.9 |
| S&P 400 Mid Cap | 2,245.21 | -0.9 | 1.9 | -20.0 |
| Russell 2000 | 1,682.40 | -1.1 | 1.1 | -24.3 |
| MSCI World | 2,376.64 | -1.7 | 0.0 | -25.5 |
| MSCI EAFE | 1,670.64 | -1.3 | 0.6 | -26.7 |
| MSCI Emerging Markets | 863.33 | -3.8 | -1.4 | -28.2 |

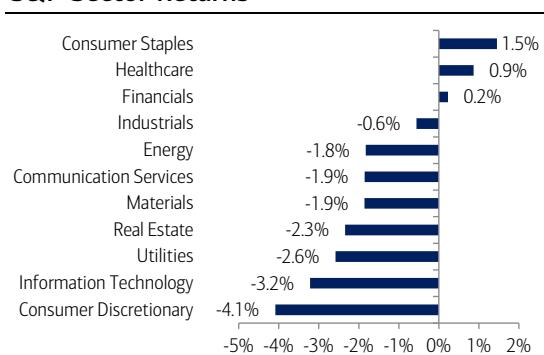
Fixed Income[†]

| | Total Return in USD (%) | | | |
|------------------------------|-------------------------|-------|-------|--------|
| | Current | WTD | MTD | YTD |
| Corporate & Government | 4.96 | -1.07 | -1.28 | -16.19 |
| Agencies | 4.67 | -0.46 | -0.75 | -9.20 |
| Municipals | 3.94 | 0.03 | 0.86 | -11.37 |
| U.S. Investment Grade Credit | 5.03 | -1.19 | -1.44 | -15.84 |
| International | 5.97 | -1.62 | -1.48 | -19.91 |
| High Yield | 9.70 | -1.11 | 0.29 | -14.49 |
| 90 Day Yield | 3.70 | 3.33 | 3.25 | 0.03 |
| 2 Year Yield | 4.50 | 4.31 | 4.28 | 0.73 |
| 10 Year Yield | 4.02 | 3.88 | 3.83 | 1.51 |
| 30 Year Yield | 3.99 | 3.84 | 3.78 | 1.90 |

Commodities & Currencies

| | Total Return in USD (%) | | | |
|-----------------------------------|-------------------------|----------------|-----------------|---------------|
| | Current | WTD | MTD | YTD |
| Commodities | | | | |
| Bloomberg Commodity | 245.57 | -2.9 | 2.1 | 15.9 |
| WTI Crude \$/Barrel ^{††} | 85.61 | -7.6 | 7.7 | 13.8 |
| Gold Spot \$/Ounce ^{††} | 1644.47 | -3.0 | -1.0 | -10.1 |
| | Total Return in USD (%) | | | |
| Currencies | Current | Prior Week End | Prior Month End | 2020 Year End |
| EUR/USD | 0.97 | 0.97 | 0.98 | 1.14 |
| USD/JPY | 148.67 | 145.25 | 144.74 | 115.08 |
| USD/CNH | 7.22 | 7.13 | 7.14 | 6.36 |

S&P Sector Returns



Sources: Bloomberg; Factset. Total Returns from the period of 10/10/2022 to 10/14/2022. [†]Bloomberg Barclays Indices. ^{††}Spot price returns. All data as of the 10/14/2022 close. Data would differ if a different time period was displayed. Short-term performance shown to illustrate more recent trend. **Past performance is no guarantee of future results.**

Economic Forecasts (as of 10/14/2022)

| | 2021A | Q1 2022A | Q2 2022A | Q3 2022A | Q4 2022E | 2022E | 2023E |
|------------------------------------|-------|----------|----------|----------|----------|-------|-------|
| Real global GDP (% y/y annualized) | 6.1 | - | - | - | - | 3.4 | 2.3 |
| Real U.S. GDP (% q/q annualized) | 5.7 | -1.6 | -0.6 | 1.0* | 0.5 | 1.6 | -0.6 |
| CPI inflation (% y/y) | 4.7 | 8.0 | 8.6 | 8.3 | 7.3 | 8.0 | 4.1 |
| Core CPI inflation (% y/y) | 3.6 | 6.3 | 6.0 | 6.2 | 6.1 | 6.2 | 4.2 |
| Unemployment rate (%) | 5.4 | 3.8 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 |
| Fed funds rate, end period (%) | 0.07 | 0.33 | 1.58 | 3.08 | 4.38 | 4.38 | 4.63 |

The forecasts in the table above are the base line view from BofA Global Research. The Global Wealth & Investment Management (GWIM) Investment Strategy Committee (ISC) may make adjustments to this view over the course of the year and can express upside/downside to these forecasts. Historical data is sourced from Bloomberg, FactSet, and Haver Analytics. **There can be no assurance that the forecasts will be achieved. Economic or financial forecasts are inherently limited and should not be relied on as indicators of future investment performance.**

A = Actual. E/* = Estimate.

Sources: BofA Global Research; GWIM ISC as of October 14, 2022.

Asset Class Weightings (as of 10/4/2022)

| Asset Class | CIO View | | | Sector | CIO View | | |
|----------------------------|-------------|---------|------------|--------------------------|-------------|---------|------------|
| | Underweight | Neutral | Overweight | | Underweight | Neutral | Overweight |
| Global Equities | ● | ● | ● | Energy | ● | ● | ● |
| U.S. Large Cap Growth | ● | ● | ● | Utilities | ● | ● | ● |
| U.S. Large Cap Value | ● | ● | ● | Healthcare | ● | ● | ● |
| US. Small Cap Growth | ● | ● | ● | Financials | ● | ● | ● |
| US. Small Cap Value | ● | ● | ● | Real Estate | ● | ● | ● |
| International Developed | ● | ● | ● | Information Technology | ● | ● | ● |
| Emerging Markets | ● | ● | ● | Consumer Staples | ● | ● | ● |
| Global Fixed Income | ● | ● | ● | Industrials | ● | ● | ● |
| U.S. Governments | ● | ● | ● | Materials | ● | ● | ● |
| U.S. Mortgages | ● | ● | ● | Consumer Discretionary | ● | ● | ● |
| U.S. Corporates | ● | ● | ● | Communication Services | ● | ● | ● |
| High Yield | ● | ● | ● | Alternative Investments* | ● | ● | ● |
| U.S. Investment Grade | ● | ● | ● | Hedge Funds | ● | ● | ● |
| Tax Exempt | ● | ● | ● | Private Equity | ● | ● | ● |
| U.S. High Yield Tax Exempt | ● | ● | ● | Real Assets | ● | ● | ● |
| International Fixed Income | ● | ● | ● | Cash | ● | ● | ● |

*Many products that pursue Alternative Investment strategies, specifically Private Equity and Hedge Funds, are available only to qualified investors. CIO asset class views are relative to the CIO Strategic Asset Allocation (SAA) of a multi-asset portfolio. Source: Chief Investment Office as of October 4, 2022. All sector and asset allocation recommendations must be considered in the context of an individual investor's goals, time horizon, liquidity needs and risk tolerance. Not all recommendations will be in the best interest of all investors.

Index Definitions

Securities indexes assume reinvestment of all distributions and interest payments. Indexes are unmanaged and do not take into account fees or expenses. It is not possible to invest directly in an index. Indexes are all based in U.S. dollars.

S&P 500 Index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market.

Weekly Payrolls Index/Index of Aggregate Payrolls are calculated by dividing the current month's aggregate by the average of the 12 monthly figures for the base year.

Commodity Research Bureau (CRB) base-metals index acts as a representative indicator of today's global commodity markets.

Personal Consumption Expenditures Price Index is a measure of the prices that people living in the United States, or those buying on their behalf, pay for goods and services.

Chain Price Index is an alternative measurement for the Consumer Price Index (CPI) that considers changes to consumer spending patterns to provide a more accurate picture of the cost of living based on the goods that consumers actually buy.

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Investing involves risk, including the possible loss of principal. Past performance is no guarantee of future results.

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