Overview

As companies and consumers emerged from long COVID-related social shutdowns in early 2022, the resulting increase in demand for goods and services was met with supply disruptions. These disruptions were prolonged further by lockdowns in China and the Russia-Ukraine war. Also, continued price increases and higher CPI readings indicated that higher inflation may not be so transitory. In response, major central banks went on high alert with a stance to raise interest rates quickly in an attempt to prevent 1970-style runaway inflation and get back to a 2% long-term inflation level.

The movement in public equity and fixed income markets results from complex dynamics of short- and long-term factors. Yet, much of the dramatic volatility in both equity and bond markets during the first half of the year was an unmistakable reflection of increased uncertainty. In the near term, higher input and borrowing costs reduce business profitability, just as higher prices, particularly oil prices, as well as higher borrowing rates reduce the consumer's propensity to spend. The dramatic "risk off" sentiment may reflect the fear that this curb in spending could ultimately induce an economic recession in the medium term. There are also concerns that unchecked inflation may put continuous pressure on wages to keep up with higher prices, which may lead to a spiraling "stagflation." That outcome can have more grave long-term consequences.

Between March and June 2022, the Federal Reserve increased the Federal Funds rate by 1.5% in three increments. Yet, the high volatility and dramatic decline in equity and fixed income markets have seemingly discounted the potential impact of further increases in inflation and borrowing rates. The Treasury yield curve, which is the curve off of which other fixed income securities of similar maturities are priced, shifted higher between December 2021 and June 2022 and became "flatter," reflecting a higher jump in borrowing cost for shorter periods such as 3 years than for longer periods.

It is also important to note that the 10-year Treasury rate was above 4% for most periods between 1960 and 2008. The current rate, which is close to 3%, still reflects relatively low cost of borrowing, which is conducive to healthy economic activity.

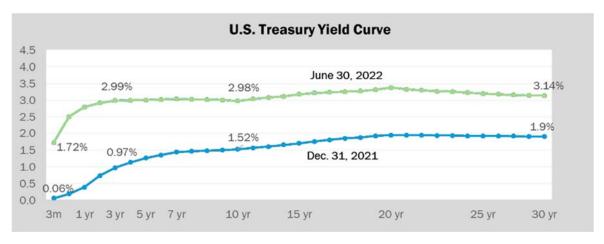


Figure 1. Source: U.S. Treasury Department

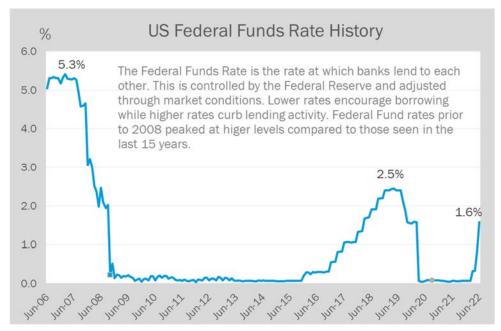


Figure 2. Source: U.S. Federal Reserve

It is disconcerting for investors to see portfolio values decline dramatically over short periods, particularly as both equities and fixed income returns reflect bear market territory. The global blended benchmark of 60% MSCI ACWI/40% BC Global Aggregate Index was down 17.7% for the first half of 2022. We look to benefit from market gains over time, but market gyrations are part of the course. Howard Marks calls this the "market pendulum" that is often driven by near-term, forward-looking expectations of a collection of diverse market participants. Such expectations are hard to predict or time and often cause the markets to swing farther than the realities of economic and financial fundamentals. A less severe economic slowdown than expected or further reduction in supply constraints may all contribute positively to investor sentiment. The data on these elements tend to be reported at a lag and in the near term, markets may move ahead in anticipation of any better or worse information.

Most of our clients have a long investment horizon, which allows them to ride through these market cycles. We assess markets and address any risks that could fundamentally affect investment portfolios. We strive to take advantage of opportunities created by any meaningful market dislocation in the near term and readjust portfolio allocations, so long as it is in line with the client's long-term strategy as well as ongoing needs. We also assess the impact of the market moves on the portfolio and address any near-term liquidity needs.

Equities

Aside from the Energy sector, every other sector was down during the first half of the year. This was true for small and large companies in the U.S. as well as non-U.S. equity markets. In the U.S., the Russell 3000 Index was down 21.1%. Given concerns over inflation, stocks of higher growth-oriented businesses declined more dramatically. This decline impacted companies in the Information Technology segment and the Consumer



Figure 3. Source: Standard & Poor's, Bloomberg

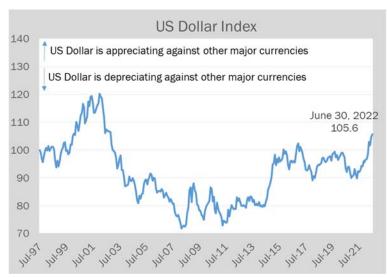


Figure 4. Source: Bloomberg

Discretionary segment most severely. The Russell 3000 Growth Index was down 28.2% in the first half, while the Russell 3000 Value Index was down 13.2%. As the downturn continued over the period, the price decline hit companies with strong earnings as well as those with poorer financial standing. In the near term, it is hard to determine if the market sentiment will pull prices down further, but one outcome has been a drop in overall market valuation. The price/forward earnings ratio on the S&P 500 Index dropped from over 23x at the end of December to 15.9x at the end of June, a level that is below the 25-year average valuation for the index.

Outside the United States, equity markets across most developed countries were also down, but less than U.S. equities when measured in their local currencies. For the first half of 2022, the MSCI EAFE Index and the MSCI ACWI ex U.S. Index returned -13.7% and -11.9% in local currency terms. However, the U.S. Dollar appreciated 10 points in the first half of this year to 105.6, which is in nominal terms the highest since 2002, and in real terms the highest since the mid-1980s. This appreciation wiped away the excess relative performance of non-U.S. equity markets when measured in U.S. Dollars. In U.S. Dollar terms, the two non-U.S. indexes returns were -19.6% and -18.5% respectively.

We have seen interest rates move up across most developed countries. The dispersion of government bond yields across developed economies is around 1.6%. Given the narrowing differential in borrowing rates as well as the persistent deficit trade balance between the U.S. and its trading partners, we feel that the U.S. Dollar will fundamentally have to depreciate from current levels.

It has been frustrating over the last 10 years to be invested in non-U.S. equities, as they have consistently underperformed U.S. equities by a wide margin. In the near term, there continue to be economic and political concerns in Europe and Japan, but these are also prevalent in the United States. In the near term, further rate increases in the U.S. may put more upward pressure on the U.S. Dollar. However, over the long run, its value should decline and contribute toward better relative return on international equities.

The current geographic allocation we have of 55% U.S./45% non-U.S. is in line with the broad geographic market opportunity as represented by the MSCI ACWI Index. We do not see any compelling reason to abandon this and move toward a further tilt either toward U.S. or non-U.S. equities at this time.

Fixed Income

Fixed income securities were already challenged, as a prolonged zero-rate environment over the last few years had pushed bond yields so low. The prospect of the Federal Reserve raising rates multiple times in the year led to dramatic volatility in bond prices. Where the Federal Reserve raised the Federal Funds rate from 0% to 1.5%, bond markets repriced fixed income securities more aggressively. On a YTD basis, the Barclays U.S. Aggregate Bond Index was down 10.4%, while the Barclays Global Aggregate Bond Index was down 13.9%. The decline in the first two quarters was steeper than any one-year decline in the bond markets since the mid-1970s.

	<u>Yield</u>		<u>6/30</u>	
	6/30/2022	12/31/2021	<u>Duration</u>	1H22 return
US Aggregate	3.72%	1.75%	6.4 yrs	(10.4%)
Global ex US Aggregate	2.39%	1.07%	7.3 yrs	(16.0%)
Mortgage Backed Sec	3.77%	1.98%	7.8 yrs	(8.8%)
IG Corporates	4.70%	2.33%	11.4 yrs	(14.4%)
High Yield	8.89%	4.21%	5.9 yrs	(14.2%)
Leveraged Loans	8.83%	4.60%	2.6 yrs	(4.1%)
EMD (\$)	8.56%	5.27%	6.1 yrs	(20.2%)
EMD (Local Cur)	7.06%	5.72%	4.9 yrs	(14.3%)

Figure 5. Source: Barclays Capital, JP Morgan

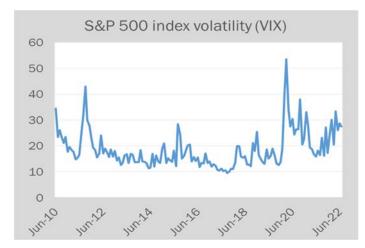
Long- and short-duration securities all took a hit as interest rates rose across the yield curve. Longer duration securities, such as long investment-grade corporate bonds, lost as much as high yield bonds, despite being higher quality due to the longer duration.

The fixed income segment is meant to serve as the anchor to overall portfolio value, which can provide stability during periods of equity volatility. We are cognizant that we have perhaps come to the end of a multi-decade bull market in bonds and may see a different regime where rates may structurally rise over time or stay high. We are consistently assessing the potential for asset class correlations to shift as well as the changing characteristics of risk in this segment.

We have benefited from lower than benchmark duration in the portfolio. We maintain our "short" stance at this time. We believe that current yields and a diversified portfolio that includes core fixed income, global bonds, credit, and floating rate bonds provide some protection going forward. Investment-grade companies are in good financial standing but trading at attractive yields. We are closely monitoring the risk in high yield bonds as spreads, which have increased to 600 bp over U.S. Treasuries at the end of June, but default rates remain under 1%. A further increase in rates may continue to provide a headwind to bond prices: The higher income provides some steady component of return, which can offset some component of price declines. At the same time, we have remained bias toward quality and the overall fixed income segment has an "A" quality rating.

Hedge Funds

As market volatility increased over the first two quarters, hedge funds took the stance to reduce exposure and add hedges in their portfolio. However, this was not before getting caught in one of the many quagmires that hit one or more segments of the markets earlier. Non-U.S. equity managers that were positive about the fundamentals of companies in emerging markets got caught in the midst of the Chinese government policy to lock down some of their major metropolitan cities, which caused companies to simply shut down their operations. Yet, others had added to cyclicals earlier in the year with the anticipation of rising demand for Oil and Materials. Any exposure to Russian equities had to be written down to zero in the early months of the year. As the markets continued their downturn, hedge funds were able to adjust to a more defensive stance.



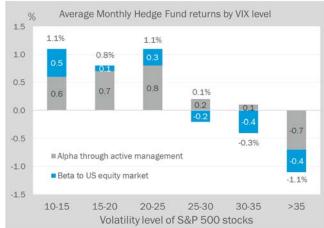


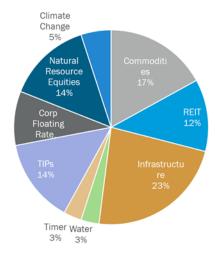
Figure 6. Source: Standard & Poor's, Bloomberg

Figure 7. Source: JP Morgan Guide to Markets, June 2022

Multi-strategy managers that invest in both equities and fixed income took a broader approach to pick up securities at attractive prices, but they also had to face some mark-downs in the positions already held in the portfolio. Over the last few years, as bond yields were coming down and companies were turning to private debt providers, we saw many hedge fund managers shift toward developing direct lending strategies as well as other types of private credit funds. We are exploring the merits of these strategies for our client's portfolios. While these private funds are illiquid, many are selective about the types of credits they invest in, can have more control in underwriting the loan issuance, and employ a prudent amount of leverage.

Real Assets

The Real Asset segment has played its role in being the one segment with real-time positive sensitivity to rising inflation as well as rising interest rates. It contributed positively to portfolio performance both through exposure to hard and soft real assets such as commodities, agriculture as well as real estate and infrastructure securities. There is also exposure to floating rate securities such as TIPs and adjustable loans where the coupons are reset upwards with increases in rates.



Over the course of the past few quarters, we have seen the allocation to hard and soft real assets go up, which has been a positive, as these have appreciated with the increase in inflation. For the first six months of 2022, the Bloomberg Commodity Index is up 18.4% and the MSCI World Commodity producers is up 12.9%. TIPS and other floating rate securities have been impacted by price declines, as the inflation marks have risen faster than the increase in rates over this period.

Figure 8. Source: Principal Group, 3/31/2022

Private Equity

Private equity investments do not go through the same level of "mark to market" volatility as public securities. However, there is often a lag effect on the pricing of underlying investments based on changes to security prices of comparable public companies as well as any changes on the fundamentals of the underlying company businesses. We anticipate that there will be some mark-downs in the private equity fund holdings in upcoming quarters. Yet, these underlying companies also benefit from having the ability to take on longer-term projects without having to succumb to the pressure of quarterly earnings expectations from public market investors.

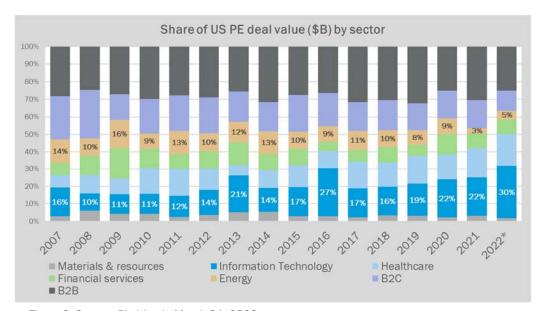


Figure 9. Source: Pitchbook, March 31, 2022

Private equity funds that hold public securities will see a while those that use other models to mark their holdings will

more immediate mark-down in prices, assess the fundamentals of their

underlying companies' business to determine the potential repricing. The recent volatility in the Information Technology sector will likely have a greater impact on repricing, as investing in Technology companies has become a larger percentage of deal activity over the last 10 years.

Overall Thoughts

Bear markets are not unusual on their own, but it has been a while since we have seen a bear market in equities and bonds at the same time. Unlike the last two downturns in 2008 and 2011, where the downturn was truncated by large levels of liquidity pumped in the economy and markets by central banks to buoy up security values, there is a concerted effort to reduce money supply. At this time, consumer and corporate spending is still picking up after 2 years of COVID-induced cutbacks and major supply chain bottlenecks are loosening with the further opening of China and other economies. We know that we will not be able to time market bottoms or tops, so we strive to closely assess and respond to fundamental or structural risks and opportunities both at the macro level as well as with each manager.

If you have questions or concerns, please do not hesitate to let us know. We remain grateful for your trust in us.

Sincerely,

Poorvi, R. Parekh, CFA

Director of Outsourced Investments

Ms. Parekh is a member of the Board of Directors, a shareholder of Canterbury, and directs the Canterbury Outsourced CIO platform, which caters to institutions and private clients seeking to outsource the day-to-day management of their portfolios. In this role, Ms. Parekh is the chair of the Canterbury Outsourced CIO Committee and a member of each of the firm's five Manager Research Committees. Joining Canterbury in 1996 as the manager of analytics, she directed the firm's account analysts and client services group, securing many of the asset allocation modeling and research software tools we use today. In 2001, she became the director of manager research — responsible for oversight of all manager, fund, and product research; maintenance of Canterbury's proprietary research database; and chairing the Investment Manager Research Committee. Ms. Parekh graduated from the University of Hong Kong with a Bachelor of Arts in economics and completed her Master of Business Administration at Shenandoah University.

About Canterbury

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