TOWNELEY CAPITAL MANAGEMENT

Fall 2022

The Bear is Back

During the third quarter, the Bear returned to Wall Street after a nearly 13-year hiatus, during which the S&P 500 Index logged a whopping 587.33% cumulative return. Between 12/31/2009 and 12/31/2021, the Index gained an average of 15.98% per year. This time, as in 2007-2008, however, the Bear arrived accompanied by its extremely rare, and always unwelcome companion, the Black Swan.

Investopedia defines a Black Swan as "an unpredictable event that is beyond what is normally expected of a situation and has potentially severe consequences." Arguably, this year's severe decline in both the stock and bond markets was unpredictable because it's only happened two other times since 1926. In 1931, 1969 and now 2022, the stock market, represented by the S&P 500 Index, and the bond market, represented by the price of the 10-year U.S. treasury bond, both finished a 12-month period in negative territory (see Table 1). Further, 2022 is the only year since 1926 in which the S&P 500 and the 10-year U.S. Treasury bond were both down more than 10%. The only assets posting positive results so far this year are commodities (primarily energy and agriculture), short-term T-bills, and the U.S. dollar.

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On a positive note, Table 1 shows that the bond market rebounded following the 1931 and 1969 losses, gaining 8.5% in 1932 and 18.9% in 1970. With history as a guide, and current yields north of 4%, the 2023 outlook for fixed income returns appears positive.

Historical Total Returns for the S&P500 and 10-Year US Government Bond Indexes (1926 through 2022 YTD)														
Year	S&P 500	10 Yr Govt	Year	S&P 500	10 Yr Govt	Year	S&P 500	10 Yr Govt	Year	S&P 500	10 Yr Govt	Year	S&P 500	10 Yr Govt
1926	11.1	5.7	1946	-8.2	0.5	1966	-10.1	5.1	1986	18.7	22.4	2006	15.8	2.4
1927	37.1	6.6	1947	5.3	-1.0	1967	23.9	-2.9	1987	5.3	-3.0	2007	5.5	10.2
1928	43.3	1.1	1948	5.1	2.7	1968	11.0	2.3	1988	16.6	6.9	2008	-37.0	19.2
1929	-8.9	4.4	1949	18.1	4.6	1969	-8.5	-5.6	1989	31.7	18.5	2009	26.5	-9.1
1930	-25.3	4.5	1950	30.6	-1.0	1970	4.0	18.9	1990	-3.1	7.7	2010	15.1	7.3
1931	-43.9	-2.1	1951	24.5	-0.2	1971	14.3	11.2	1991	30.5	19.3	2011	2.1	16.4
1932	-8.8	8.5	1952	18.5	2.4	1972	19.0	2.4	1992	7.6	7.3	2012	16.0	2.8
1933	52.9	1.9	1953	-1.1	2.3	1973	-14.7	3.3	1993	10.1	13.1	2013	32.4	-8.6
1934	-2.4	7.6	1954	52.4	3.1	1974	-26.5	4.0	1994	1.3	-7.3	2014	13.7	10.7
1935	47.2	4.2	1955	31.4	-0.7	1975	37.2	5.5	1995	37.6	26.0	2015	1.4	1.1
1936	32.8	5.1	1956	6.6	-1.7	1976	23.9	15.6	1996	23.0	0.1	2016	12.0	-5.4
1937	-35.3	1.4	1957	-10.8	6.8	1977	-7.2	0.4	1997	33.4	12.0	2017	21.8	2.8
1938	33.2	4.2	1958	43.3	-1.7	1978	6.6	-1.3	1998	28.6	14.5	2018	-4.4	0.3
1939	-0.9	3.9	1959	11.9	-2.0	1979	18.6	1.3	1999	21.0	-7.5	2019	31.5	9.3
1940	-10.1	5.7	1960	0.5	11.2	1980	32.5	-2.5	2000	-9.1	17.2	2020	18.4	10.3
1941	-11.8	0.5	1961	26.8	2.2	1981	-4.9	4.0	2001	-11.9	5.5	2021	28.7	-3.9
1942	21.1	1.8	1962	-8.8	5.7	1982	21.5	44.3	2002	-22.1	15.1	2022	-16.1	-17.4
1943	25.8	2.0	1963	22.7	1.8	1983	22.6	1.3	2003	28.7	0.5			
1944	19.7	2.3	1964	16.4	3.7	1984	6.3	15.3	2004	10.9	4.6			
1945	36.5	5.3	1965	12.4	0.9	1985	31.7	32.2	2005	4.9	3.2			

Sources: 10 Year Government bond index and S&P 500 Index-Global Financial Data.

Bull Markets Build off Bears

Historically, bull markets are built on the back of bear markets. Chart 2 illustrates that a bull market has followed every bear market since 1956, with many occurring during or on the heels of a recession. Further, the bull markets lasted 5.75 years on average, whereas the average bear market lasted less than 1.25 years. The average market decline during each bear market was 36%, while the average bull market rise was 192%.

Market and Economic Chartbook | October 17, 2022

Stock Market Bull and Bear Cycles

S&P 500 price index since 1956 bear market with recessions shaded.
For the purposes of this chart, bear markets are 20% declines in price from prior peaks.
Bull markets begin at each market bottom.

Latest data point is Oct 14, 2022

- While bear markets are unavoidable, bull markets are much longer with larger returns.
- Since 1956, the average bear market has lasted one year, two months with a decline of 36%.
- In contrast, the average bull market lasts 5 years 9 months and returns 192%.

Source: Clearnomics, Standard and Poor's

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The ten recessions noted in Chart 2 all occurred either during or at the beginning of a market decline and lasted an average of 10 months. The longest recession was the Great Recession which began in 2007 and lasted 18 months.

The stock market has recovered relatively quickly following past recessions, if it even declined during the recession. For example, Table 3 shows that the broad U.S. stock market (represented by the Russell 3000 Index) gained ground during three of the last seven recessions and continued to surge once each recession ended. However, the market declined during the 1973-1975, 2001, 2007-2009, and 2020 recessions. Except for the 2001 dot.com bust, the market turned positive within one year after each recession ended, and it continued to gain ground for the next ten years.

TABLE 3

Russell 3000 Index TR Performance: Before, During, and After Recessions

Recession Date	Before 6 Months	Recession Period	After (Cumulative) 1 Year	3 Years	5 Years	10 Years
Nov 1973 - Mar 1975 (1)	-7.03	-18.03	27.29	21.60	76.77	262.43
Jan 1980 - Jul 1980	14.99	8.22	13.63	59.53	96.09	304.42
Jul 1981 - Nov 1982	4.60	14.12	30.36	67.74	102.05	332.01
Jul 1990 - Mar 1991	9.13	9.11	13.01	34.48	102.02	275.17
Mar 2001 - Nov 2001	-20.07	-0.61	-15.80	12.94	41.24	35.77
Dec 2007 - Jun 2009	-1.84	-35.10	15.98	57.86	139.97	290.05
Feb 2020 - Apr 2020	1.81	-2.33	50.29	N/A	N/A	N/A

(1) Russell 3000 Index data not available prior to 1979. The S&P 500 Total Return Index was used for this time period.

One of Towneley's founding principles is that successful market timing is impossible over the long term, as our two market timing studies with the University of Michigan have confirmed. Should history repeat this time, which we expect it will, staying invested during the current market decline and impending recession will best position you to participate in the inevitable market upswing.

Inflation

Headline inflation rose throughout 2022, peaking at 9.1% on June 30. Energy prices dropped during the last two months, bringing the CPI-U down to 8.2% through September 30. Core inflation (which excludes food and energy) rose unexpectedly in August and is currently at 6.6%. These recent numbers suggest that headline inflation may have peaked. However, the increase in core inflation is troubling and means we are not out of the woods yet. Labor shortages and the Fed's massive balance sheet could drive inflation higher. In addition, shelter costs (the largest component of CPI at 33%) have continued to rise, as have prices for a broad array of goods and services. Although we expect both headline and core inflation rates to decline over the next 3 to 12 months, we believe that core inflation may settle between 3% and 5% and remain above the Fed's 2% target for years.

Interest Rates

The Fed waited too long to raise interest rates, expecting inflation to be transitory. Needing to play "catch-up," the Fed quickly approved three 75 bps Federal Funds rate increases so far this year, pushing the target range to 3.0% to 3.25% over a matter of months. With inflation reaching levels not seen in 40 years, the Fed vowed to raise rates until prices moderate. As a result, Fed watchers expect the Fed to increase the Fed Funds rate to 4.5% by early 2023 and then maintain that level. Two possible consequences of these rate increases are concerning if that does happen.

First, the extent to which the Fed's rate increases trickle down to consumers can impact both inflation and GDP growth. For example, if savings and money market rates remain below the inflation rate, as is currently the case, consumers may elect to spend more now to avoid paying higher prices later. Saving is less attractive if consumers can't earn returns that at least keep pace with inflation. As the desire to spend increases, so does demand. If supply can't keep up, prices will rise, and fewer people will be able to purchase goods and services.

Consumer spending makes up 70% of GDP, so fluctuations in spending directly impact economic growth. For example, suppose inflation drops below the risk-free savings rate. In that case, more people will choose to save their money and delay spending, which, in turn, will lead to lower prices and potentially lower GDP growth.

Second, if interest rates remain elevated, the annual cost of servicing the economy's $30 trillion in national debt will increase, possibly to levels that exceed the costs of vital programs such as Social Security and Medicare. Earlier this year, the Congressional Budget Office projected that annual net interest costs would total $399 billion in 2022 and nearly triple over the upcoming decade, soaring from $442 billion to $1.2 trillion. That's more than the total amount spent on our military in 2021, which was $801 billion. Budget pressure aside, the interest cost would account for 4.5% of total GDP, up from 1.7% in 2021.

The Fed's moves have also driven up the cost of borrowing. The average 30-year fixed-rate mortgage rate recently hit 7.0%, more than double last year's 3.0% rate. Another expected casualty of the Fed's tightening is the U.S. economy, which will likely fall into a recession within the next 12 – 18 months, if not sooner. Despite this, the U.S. labor market and consumer spending, both lagging recession indicators, have remained resilient this year. Regardless, we expect the Fed to follow in their footsteps and make taming inflation their priority at the expense of recession, which will keep interest rates volatile in the near term. However, if a recession does materialize, the Fed will have to reverse course by raising rates and flooding the economy with easy money.

Recession

The economy is growing despite the Fed's fast and furious rate hikes. While GDP growth was negative during the first two quarters of 2022, the Bureau of Economic Analysis' advance estimate of third-quarter GDP reports that the US economy grew by 2.6% year-over-year. The estimate reflects growth in net exports, consumer spending, business investment, and government spending that were partly offset by decreases in housing investment and inventory investment. Despite unofficial opinions to the contrary, the National Bureau of Economic Research has not yet declared the economy is in recession, as manufacturing, labor markets, and consumer spending all remain strong.

Interest rate sensitive sectors are showing conflicting signs. While banks benefit from higher interest and 20-year high mortgage rates, housing markets across the country are struggling. Sales of previously owned homes have fallen for eight months, the longest stretch since 2007. Now that real incomes are declining, many first-time buyers and existing homeowners are being priced out of the market. The demand for rental housing reached a 50-year high this year, and rents have soared in many areas. The current supply of rental housing is far below demand, and construction costs have rapidly increased. According to Rent Café, 420,000 rental units are currently under construction nationwide, a number not seen since 1972. But it will take years before those units are available. While the consensus is that the U.S. housing market will not likely drive the economy into recession as it did in 2008, it's too early to tell what may happen if economic activity declines.

Despite the encouraging third-quarter GDP number, the threat of recession still looms. Much depends on how quickly and how much the Fed raises the Fed Funds rate, how interest rate sensitive markets and labor markets react, and how much debt the Fed can eliminate through quantitative tightening without driving inflation higher.

The Fed's Balance Sheet

The Fed began significantly growing its balance sheet in November 2008. Between 1998 and 2008, the value of assets held by the Fed was relatively stable. In response to the Great Recession, the Federal Open Market Committee (FOMC) approved several unconventional monetary policies intended to foster a more robust economic recovery, including purchasing mortgage-backed securities. Large-scale asset purchases (LSAPs), popularly known as "quantitative easing" or QE, led to the largest expansion of

the Fed balance sheet since World War II. Despite the FOMC's stipulation that expanding the balance sheet was only a temporary policy, the Fed has found one reason after the next: to keep the debt in place and increase it over the years.

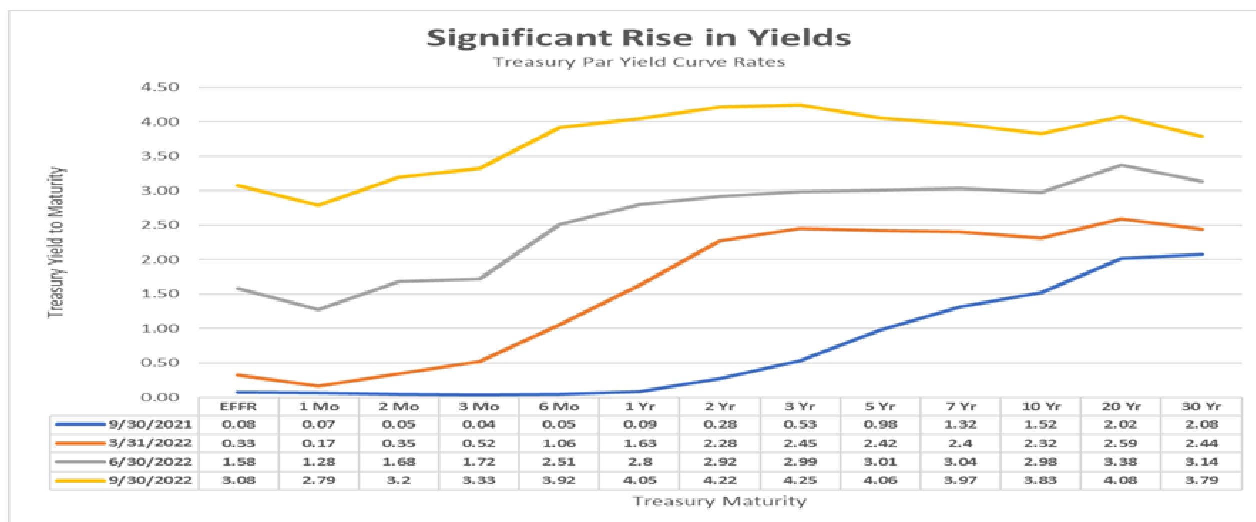
Before the Great Recession, the Fed's balance sheet was approximately $800 million. However, due to multiple bouts of quantitative easing, it peaked at $8.9 trillion in April 2022. As of early October, the balance sheet reflected debt of $8.78 trillion. The money supply increases when the Fed buys Treasury bonds and mortgage-backed securities. Inflation can result when the money supply increases faster than the economy grows. While supply chain shortages, disruptions, and rising consumer demand are all factors, the Fed's balance sheet is likely the primary contributor to our current (and no longer transitory) inflation woes.

In September, $95 billion in debt began rolling off the Fed's balance sheet, signaling that the Fed is no longer purchasing Treasuries to finance the deficit. The over $1 trillion budget deficit will require the U.S. Treasury to issue $83 billion in new debt each month. So who will step in to fill the void if the Fed is no longer purchasing this debt?

From 2017 to 2019, the Fed implemented quantitative tightening on a smaller scale than today's pace. But the Fed stopped tightening due to the negative impact on the markets. Unfortunately for the Fed, resuming quantitative tightening now will likely increase rates and may create an excess supply of unsold Treasury securities. Nevertheless, the Fed must take the risk and reduce its balance sheet to fight inflation.

U.S. Bond Market

The Fed's high and fast rate increases are the primary driver of this year's negative fixed income returns.



	EFFR	1 Mo	2 Mo	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
9/30/2021	0.08	0.07	0.05	0.04	0.05	0.09	0.28	0.53	0.98	1.32	1.52	2.02	2.08
3/31/2022	0.33	0.17	0.35	0.52	1.06	1.63	2.28	2.45	2.42	2.4	2.32	2.59	2.44
6/30/2022	1.58	1.28	1.68	1.72	2.51	2.8	2.92	2.99	3.01	3.04	2.98	3.38	3.14
9/30/2022	3.08	2.79	3.2	3.33	3.92	4.05	4.22	4.25	4.06	3.97	3.83	4.08	3.79

Bond prices are negatively related to interest rates, and bond prices are also negatively related to bond yields. As interest rates rise, bond prices fall, and bond yields increase. Thus, as interest rates rise, yields tend to rise. Therefore, since longer-term bonds carry higher coupon rates to reward purchasers for the longer time to maturity, we expect longer-term bond yields to exceed shorter-term bond yields. A yield curve represents the relationship between the yields of bonds with different maturity periods. The blue line in Chart 3 illustrates a relatively normal yield curve during the period ended 9/30/2021, where longer-term bonds yielded more than shorter-term bonds. The spread between the 2-year Treasury bond yield and the 10-year Treasury bond yield is closely monitored and widely referred to as the 2/10 yield curve.

Through the period ended 9/30/2022, the 2-year Treasury bond yielded 4.22%, more than either the 10-year Treasury bond (3.83%) or the 30-year Treasury bond (3.79%), reflecting an inverted yield curve. November 2007 marked the last time the 2-year Treasury yield exceeded 4%. An inverted yield curve can be a leading indicator of a recession. The greater the spread between the 2-year and 10-year Treasury bond yields, the greater the likelihood of a recession. A flatter inverted yield curve, which reflects a narrower spread between the yields, suggests uncertainty about the course of long-term economic growth. At the end of the third quarter, the spread between the 2-year and 10-year bonds was 0.39%.

To help mitigate risk in the fixed income segment of client portfolios, we have made several strategic changes this year:

- *To address interest rate risk, we rebalanced the fixed income segment to reduce the portfolio weighted average duration below that of the fixed income benchmark.*
- *In response to recessionary signals, we added a new short-term U.S. Treasury bond fund to portfolios with taxable bond exposure. In addition, to increase the average credit quality of the fixed income segment from "A" to "AA," we sold out of a high-yield fund focused on lower-quality bonds. These adjustments helped increase Treasury exposure and reduce default risk in portfolios overall.*
- *To help mitigate inflation risk, we increased exposure to Treasury Inflation-Protected Securities (TIPS).*
- *While monitoring the direction of inflation, the Fed's ability to curb inflation and reduce its balance sheet, the yield curve, and the onset and duration of recession, we continue to look for opportunities to extend the duration and, eventually, take on more credit risk.*

Domestic Equities

Driven by stimulus and monetary programs, investors took on more risk during 2020 and 2021, leading to overvaluation in both the stock and bond markets in 2022. As of September 30, 2022, the three primary U.S. equity indices (S&P 500, DJIA, and the NASDAQ) indicated that the stock market was in bear territory. The only domestic equities sector with positive year-to-date returns is commodities (primarily energy). Stock market valuation measures, such as the CAPE ratio, PE ratio, Market/GDP ratio, and most importantly, future earnings, suggest more downside risk and volatility lie ahead.

Consistently low interest rates benefited growth stocks during the past decade. However, amid rising inflation and interest rates, investors began moving away from historically low- to no-dividend growth stocks and toward historically more income-oriented value stocks. Although returns are negative year-to-date, value stocks have lost less than half of what growth stocks have lost. Value stocks, as represented by the Russell 1000 Value Index, are down 17.8% through September 30, while growth stocks, represented by the Russell 1000 Growth Index, are down. 30.7%.

Anticipating the shift toward value and away from growth earlier this year, Towneley reallocated the domestic equity segment of client portfolios to slightly overweight value strategies compared to growth strategies. We recently completed a tactical rebalance in the domestic equity segment. We further increased value exposure by adding a large-cap value fund focusing on high-quality companies that pay sustainable dividends. This fund will expand dividend income exposure and help reduce concentration risk. The fund's investment guidelines limit the amount of fund assets invested in any stock or market sector. We expect lower domestic equity returns and continued market volatility in the immediate future. We believe this new fund will add value in this environment.

International Equities and the Dollar

Both developed and emerging market international equities have underperformed domestic equities so far this year. The MSCI ACWI ex-US Index lost 9.2% in the third quarter and is down 26.9% year-to-date. As represented by the MSCI Emerging Markets Index, emerging markets declined 10.7% during the quarter and are down 26.8% year-to-date. Both markets' negative performance is due to the strong U.S. dollar. Over ten percent of the year-to-date decline in the developed markets index is due to a 17.3% increase in the U.S. dollar over the same period.

The U.S. dollar's strength relative to the euro, pound sterling, Chinese Yuan, and Japanese Yen rose to a 52-week high during the third quarter. In addition, during the quarter, the US dollar achieved parity with the euro for the first time since 2002. Furthermore, it nearly reached parity with the British pound at the end of September. The U.S. dollar is likely to remain strong in the near term as it is considered a safe haven, and demand has historically increased during market uncertainty. The Fed is also raising rates faster than most countries, which increases demand for U.S. dollars as well. However, if the Fed pauses its rate increases, demand for US dollars may decline, and the dollar will weaken relative to other currencies. The strong US dollar has been the main reason international equities have underperformed domestic equities. Therefore, if the dollar weakens, we could see a concurrent rally in international equities.

Earlier this year, valuations looked more attractive for international than domestic equities. However, as we prepared to increase the international equity allocation in client portfolios, Russia invaded Ukraine, so we put this move on hold. As the U.S. dollar has strengthened over the last nine months, international equities have underperformed, so we have yet to increase exposure to that asset class. We continue to monitor valuations and the U.S. dollar's strength and anticipate the opportunity to add to the international equity segment is approaching.

Geopolitics

Soaring prices in the West and the drawn-out war in Ukraine negatively impact global economies. Russia's control over much of the fossil fuel that provides Europe with gasoline and products is a huge geopolitical risk, as is OPEC. The international oil cartel is taking advantage of the situation by decreasing output to increase its revenue and profits. Central banks in the Eurozone and the UK have responded less assertively to inflation than has the US, which has helped the dollar continue to rise. The strong dollar makes imports more expensive, which fuels inflation. The higher cost of gasoline and fuel is hitting Euro-zone countries particularly hard because oil is priced in dollars. In addition, the rising dollar increases the cost of borrowing for countries with dollar-denominated debt.

Another geopolitical concern is China's plan to unify Taiwan and the impact that may have on the "chips war" the U.S. has started with China. In its latest volley, the Biden administration issued restrictions on American companies selling advanced semiconductors to China. Biden's announcement also imposed licensing requirements on U.S. persons who support the development, production, or use of integrated circuits at some chip plants located in China. The restrictions are designed to slow the progress of Chinese military programs that employ semiconductors.

Conclusion

Along the road of life, we learned that hard work and dedication pay off, shortcuts can be costly, always plan for the worst, patience is a virtue, and team work really does work. As we face inflation, rising interest rates, and likely recession, we reflect on the wisdom of these foundational life lessons. If you've saved regularly, lived below your means, and stayed appropriately invested, you are well positioned to withstand the challenges. But if you haven't, it's not too late to start. Towneley uses time-tested strategies to design, implement, and monitor a diversified, low-cost portfolio allocated appropriately for your goals, needs, time horizon, and risk tolerance. Our disciplined approach keeps your portfolio fully invested so you don't miss the inevitable market upswings. At the same time, we make strategic research-driven adjustments to position your portfolio for what we anticipate lies ahead.

Please get in touch with your portfolio manager if anything in your life has changed that may require changes to your asset allocation or financial plan.

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