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“Gaining Valuable Insights From Past Recessions”

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PART I:
A Historical Perspective of Past Recessions

...all we can do is use history as a roadmap to compare and contrast past recessions to the environment we find ourselves in today.

Since the COVID-19 pandemic's onset in March of 2020, our economy, capital markets, human psychology, health care concerns, educational approach, work habits and myriad other aspects of the world's wealth, economic, and societal engine have been challenged in ways nobody could have ever predicted. Conventional wisdom has been challenged on every level around the world and now we find ourselves entering a new calendar year with many unknowns.

At the heart of any discussion about 2023 is a debate about whether a recession is coming and if so, how severe or benign will it be. Since we are not in the handicapping business, all we can do is use history as a roadmap to compare and contrast past recessions to the environment we find ourselves in today.

Our paper will examine past recessions and the qualitative and quantitative factors that created and fed each one. Many question the true definition of a recession and whether the proverbial "lightbulb" goes on and off telling us when they begin and end. We hope to provide an easy to understand perspective on how recessions have impacted economic and market conditions in the past, and how lessons can be gleaned to be more successful investors – regardless of the severity of any recession or how similar or dissimilar it is when compared to the past.

The longest recession we've experienced was the Great Depression, which lasted 3 years and 7 months. The most recent recession was the shortest, the COVID-19 recession, which lasted only 2 months. The before, during, and after of each recession brings a unique set of circumstances and therefore one cannot assume what worked in the past will work in the future. Inflation, interest rates, market valuations, fiscal policy, and monetary policy all contribute to how various asset classes will behave during these challenging times.

Contrary to conventional wisdom, recessionary environments provide opportunities in the same way inflationary periods do, but obviously what works – when, how and where – is completely different. We will dissect past recessions and uncover which period most closely resembles the current backdrop. With a better understanding of past environments we can educate ourselves on how to better navigate future recessions and properly allocate capital.

DEFINING A RECESSION

Let us start with a few definitions. What is a recession? Most people believe that a recession occurs when the GDP growth rate is negative for two consecutive quarters, but rather, it's the National Bureau of Economic Research (NBER) that has the responsibility of determining when a recession begins and ends. The NBER defines a recession as "a significant decline in economic activity spread across the economy lasting more than a few months."

...the National Bureau of Economic Research (NBER) has the responsibility of determining when a recession begins and when it ends

The most important indicator of a recession is "real GDP". It's called "real" because it's adjusted for the effects of inflation. When the real GDP growth rate first turns negative, it could potentially signal a recession, but sometimes it can turn positive in the next quarter. Additionally, it's not uncommon to see the GDP estimates revised in the following report, so it's difficult to determine if we're in a recession based solely on GDP. That is why the NBER measures various monthly factors (listed below) in addition to measuring real GDP growth rate – these statistics give a timelier estimate of economic growth:

- **Real Income** - Measures personal income adjusted for inflation. When real income declines, so do consumer purchases and demand.
- **Employment** - The employment rate and real income together inform us on the overall health of the economy.
- **Manufacturing** - The manufacturing sector's health, as measured by the Industrial Production Report.
- **Retail Sales, Adjusted for Inflation** - Tells us how firms are responding to consumer demand.

RECESSIONS THROUGH HISTORY

To understand how to navigate future recessions, we first need historical context of past recessions. Let's start with a few key statistics on recessions in the United States:

- There have been a total of 34 recessions in the U.S. since 1854.
- Since 1929, there have been 15 recessions; however, there have only been 5 recessions since 1980.
- The average duration of the 15 most recent recessions is 12 months – the longest being the Great Depression (43 months) and the shortest, the COVID-19 recession (2 months).

Below is a list of the 15 most recent recessions in the US:

Name	Dates	Duration
Great Depression	August 1929 – March 1933	43 months
Recession of 1937–1938	June 1938	13 months
Recession of 1945	February 1945 – October 1945	8 months
Recession of 1949	November 1948 – October 1949	11 months
Recession of 1953	July 1953 – May 1954	10 months
Recession of 1958	August 1957 – April 1958	8 months
Recession of 1960–1961	April 1960 – February 1961	10 months
Recession of 1969–1970	December 1969 – November 1970	11 months
1973–1975 recession	November 1973 – March 1975	16 months
1980 recession	January 1980 – July 1980	6 months
1981–1982 recession	July 1981 – November 1982	16 months
Early 1990s recession	July 1990 – March 1991	8 months
Early 2000s recession	March 2001 – November 2001	8 months
Great Recession	December 2007 – June 2009	18 months
COVID-19 recession	February 2020 – April 2020	2 months

Source: Oppenheimer Asset Management

In this section, we will highlight a few notable recessions:

August 1929 to March 1933: The Great Depression

- The biggest economic crisis in U.S. history. The unemployment rate reached 24.9% in 1933.
- Several factors combined to create the Great Depression. The Fed raised interest rates in the spring of 1928 and continued despite the recession, while the 1929 stock market crash destroyed businesses and life savings.
- The New Deal ended the Great Depression, boosting growth by 10.8%.

November 1948 - October 1949: Post-War Consumer Spending Slows

- When wartime rations were lifted after WWII, American consumers rushed to catch up on years of pent-up purchases. From 1945 to 1949, American households bought 20 million refrigerators, 21 million cars, and 6 million stoves.
- When the consumer spending began to level off in 1948, it triggered a "mild" 11-month recession in which GDP shrunk by only 2%. However, unemployment was up considerably – at its peak, unemployment reached 7.9% in October 1949.

April 1960 - February 1961: The Recession that Cost Nixon an Election

- Richard Nixon was vice president when the nation sunk into another recession. Nixon blamed the economic slump for his loss to John F. Kennedy in the 1960 presidential election.
- There were two major causes of this 10-month recession, during which GDP declined 2.4% and unemployment reached nearly 7%.

  –The first was what economists call a "rolling adjustment" in several major industries, the most notable being automobiles – consumers started buying more compact foreign cars and US carmakers had to slash inventory, reducing profits.

This recession marked the longest economic slump since the Great Depression and was caused by a number of bad economic news.

–The second cause was the Fed, which raised interest rates fast on the heels of the previous recession in an ongoing effort to rein in inflation.

- President Kennedy took credit for ending it with a round of stimulus spending in 1961 as well as an expansion of Social Security and unemployment benefits.

November 1973 - March 1975: The Oil Embargo

- This recession marked the longest economic slump since the Great Depression and was caused by a number of bad economic news.

  –First, there was the Oil Embargo of 1973, imposed by the Organization of the Petroleum Exporting Countries (OPEC). With the oil supply restricted, gas prices soared and Americans cut spending elsewhere.

  –Second, President Nixon tried to reduce inflation by instituting price and wage freezes in major US industries. Unfortunately, many companies were forced to lay off workers.

- The result was “stagflation,” low growth with high inflation, and a recession that spanned five consecutive negative-growth quarters. In all, the 16-month recession saw a 3.4% reduction in GDP and a near doubling of the unemployment rate to 8.8%.

- The Fed had no choice but to lower interest rates to end the recession, but that set the stage for the truly runaway inflation of the late 1970s.

July 1981 - November 1982: Double Dip Recession

- This more painful recession came close on the heels of the short 1980 recession, introducing Americans to the phrase “double-dip recession.”
- For the third time in a decade, one of the recessionary triggers was an oil crisis. The Iranian Revolution was over, but the new regime continued to export oil inconsistently and at lower levels, keeping gas prices high.
- At the same time, the Fed’s timid interest rates hikes in 1980 weren’t enough to slow inflation, so Fed chairman Paul Volcker pushed interest rates to new heights — 21.5% in 1982! The sky-high rate pulled inflation down, but took its toll on the economy, which shrunk by 3.6% during the 16-month recession and saw unemployment peak at over 10%.
- This long and deep recession finally ended following a combination of tax cuts and defense spending under President Reagan.

July 1990 - March 1991: S&L Crisis and Gulf War Recession

- Several factors led to the economic slowdown of the early 1990s.

  –One was the failure of thousands of Savings & Loan institutions in the late 1980s which hit the mortgage lending market particularly hard. Fewer mortgages meant record low levels of new construction.

  –Meanwhile, Saddam Hussein of Iraq invaded neighboring Kuwait, a major oil producer. The Gulf War caused oil prices to spike. Adding to the economic woes was the October 1989 “mini-crash” of the stock market.

- The result was an eight-month recession that saw GDP decline by 1.5% and unemployment peak at 6.8%.

The economy was able to pull out of the 2001 recession on the strength of the housing sector, which experienced growth even during the recession, thanks to low interest rates.

March - November 2001: The Dot-Com Crash and 9/11

- "Irrational exuberance" is blamed for the stock market bubble that formed around internet startups in the late 1990s and early 2000s. Investors pumped money into unproven businesses, artificially inflating their values to unsustainable levels. When the dot-com bubble finally burst in 2001, the tech-heavy NASDAQ lost 75% of its value and many investors went belly up.
- While the tech sector took a significant hit, the rest of the economy stumbled along until the September 11th terrorist attacks knocked it down for good.
- Given how much the dot-com crash impacted a generation of investors, the 2001 recession was relatively fast and shallow, with GDP down only 0.3% overall and unemployment peaking at 5.5%.
- The economy was able to pull out of the 2001 recession on the strength of the housing sector, which experienced growth even during the recession, thanks to low interest rates.

December 2007 - June 2009: The Great Recession

- The longest and most severe economic downturn since the Great Depression, the Great Recession was part of a global financial meltdown triggered by the collapse of the US housing bubble.

  –The Great Recession was the result of a "financial house of cards" built on the subprime mortgage market. Large financial institutions invested heavily in mortgage-backed securities. When homeowners defaulted on those high-risk mortgages, not only did they lose their homes, but huge investment banks like Bear Stearns and Lehman Brothers collapsed.

  –The dual housing-banking crises sent shockwaves through the stock market, and major indices like the S&P 500 and Dow Jones Industrial Average lost about half of their value.
- During the painful 18-month recession, unemployment reached as high as 10% and GDP shrunk by 4.3%. The economy only turned around after massive government stimulus spending (around $1.5 trillion) to prop up the failing banks and inject capital into the struggling economy.

February - April 2020: The COVID-19 Recession

- This recession was highly unusual in terms how fast everything happened – both the recession and the subsequent recovery.
- When the global COVID-19 pandemic led to lockdowns, closings, and an overall decline in consumer activity, a sharp economic slowdown followed.

  –Every advanced economy in the world entered into crisis. By April 2020, the US economy had lost a massive number of jobs (20.5 million), sending the unemployment rate skyrocketing to 14.7%.

  –The GDP then plunged 31.2% in the second quarter of 2020.
- Fortunately, the recession was short-lived. The government approved nearly $6 trillion in pandemic relief, while the Federal Reserve slashed the interest rate to nearly zero – therefore, the recession officially lasted only two months.

In the next section, we will examine recessions in the context of the overall economic cycle. In doing so, we can identify performance patterns of various asset classes throughout the phases of the economic cycle.

PART II: Understanding Asset Class Performance at Various Stages of an Economic Cycle

ASSET CLASSES THROUGH THE ECONOMIC CYCLE

In this section, we will discuss how asset classes including stocks, bonds, gold, real estate, and commodities perform before, during, and after recessions. We will back our observations with data that dates back to 1976. We will analyze how different asset classes perform during different periods of the economic cycle. The economic cycle can be divided into four phases: Recovery, Expansion, Slowdown, and Downturn (Appendix 1). When we talk about recessions, they lie somewhere in the Downturn phase.

It is a well-established phenomenon that the performance between asset classes throughout the economic cycle is uncorrelated. In general with a few exceptions, fixed-income instruments perform better during economic Downturns, while equities rise during economic Expansions. Other asset classes such as real estate and commodities tend to follow their own cycle, but they usually have strong correlations with risky assets like equities.

Bonds

Bond prices move inversely with the economic cycle due to the cyclical movement in interest rates and the fixed-income nature of bonds. Between 1946 and 1970, corporate bond yields declined and bond prices rose in all but one Downturn. With the exception of periods of stagflation in the post-war U.S. economy, the historical records confirm the economic cycle/bond price relationship is inverse (Borcato, Steed 1998).

Gold

Gold is a controversial asset class. It is a commodity, but it has few industrial uses, nor does it pay dividends. However, gold can act as a hedge against political and economic uncertainties. It provides a hedge against inflation, currency weakness, and financial turmoil. In addition, gold typically doesn't move in sync with stocks or bonds, so it is a good diversifier. However, investors need to be mindful that since gold follows its own cycle and can be affected by macro events, it doesn't necessarily provide downside protection in all drawdown periods.

Real Estate

Real estate equities (REITs) offer outstanding diversification benefits relative to conventional portfolios. History shows that relative to the overall stock market, REITs tend to exhibit less volatility and higher returns.

Commodities

Commodities follow their own cycles and offer diversification and inflation hedging to a portfolio. Although the asset class tends to be unpredictable, commodities may provide positive returns over time and are usually uncorrelated to financial assets, such as stocks and bonds.

Investors should be hesitant about timing the cycle precisely as it is impossible to know when the market will rebound...

Equities

Research shows that the stock market usually leads economic activity with an average time of six months. Based on historical returns, stocks typically decline towards the end of economic Expansions and into the first half of recessionary periods. Once earnings expectations have been fully revised down and interest rates stabilize, stocks begin the bottoming process. Next, lower short-term rates coupled with rising expectations contribute to rising stock returns during the later parts of economic recessions (Destefano 2004, Helbling 2010). In summary, stock prices usually drop to their lowest point during the recession phase but can rebound rapidly before the recession even ends.

Looking at today's market, from 1/3/2022 to 10/14/2022, the peak to trough decline of the S&P 500 was -23.87%. Investors should be hesitant about timing the cycle precisely as it is impossible to know when the market will rebound – making any mistake can be costly as the best returns come in only a couple of trading days in any given year. Typical investor behavior is to believe that the upswing must go on forever or that the recession never ends – another costly mistake. The best approach is to alter asset class weightings marginally, but not to place excessive bets upon timing the cycle correctly.

A Look at the Data

In "Analysis of Asset Classes through the Business Cycle," Audius Dzikevicius and Jaroslav Vetrov collected data on how various asset classes performed throughout economic cycles occurring from 1976 to 2011. The aggregated data, in the table below, helps us decipher patterns throughout the four phases of economic cycles (Recovery, Expansion, Slowdown, and Downturn).

Asset Class Returns throughout the Economic Cycles of 1976 to 2011

Phase	U.S. Equity	Intl. Equity	Bonds	Gold	REITs	Commodities
Recovery	1.29	1.92	0.66	0.68	1.86	1.16
Expansion	0.62	0.88	0.28	0.60	0.49	1.65
Slowdown	0.48	0.49	0.71	1.74	1.31	1.11
Downturn	**0.48**	**-0.25**	**1.14**	**-0.08**	**0.70**	**-1.03**

Returns (%) = average monthly growth of each phase. Asset class indices defined in Appendix 2.
Source: "Analysis of Asset Classes through the Business Cycle".

Their results make sense:

- During Recovery phases, risky assets perform the best. International stocks are the best performers, followed by REITs and U.S. stocks.
- During Expansion phases, commodities seem to fare the best among all asset classes, whereas bonds return the lowest.

- As the economy moves to the Slowdown phase, gold becomes the best-performing asset class as investors tend to pile into gold when they sense potential recessions. Not surprisingly, equities (both international and domestic) are the worst-performing asset classes in Slowdown phases. REITs are an interesting anomaly as they actually perform pretty well compared to equities and commodities.
- Then, during Downturn phases, bonds provide the best risk mitigation whereas risky assets such as equities and commodities return poorly. Rates are falling during these periods, driven by the Fed's rate cuts to stimulate the economy, plus investors piling into safe-haven assets such as U.S. Treasuries. Note that during this latter part of the recessionary environment, commodities are the worst performers.
- An interesting observation is that during Downturn phases, all asset classes exhibit higher volatility than in other phases (Appendix 2).

These are powerful findings as they tell a story of asset class performance throughout the economic cycle, and allows us to identify general patterns. The question becomes: how do these patterns differ when looking at the economic cycles around specific recessions? How much does asset class performance deviate (from these general patterns) from recession to recession?

ASSET CLASS PERFORMANCE DURING SPECIFIC RECESSIONS

In the first section of this paper, we discussed recessions that date back to 1929. For relevancy purposes, we will focus on three recessions: the 1981 Double Dip Recession, the 2001 Dot-Com Crash, and the 2008 Global Financial Crisis.

Again, we will observe the four phases of economic cycles which include Recovery, Expansion, Slowdown, and Downturn. However, now we will take a look at the economic cycle specific to each of these three recessions. We will examine how each asset class performs during these cycles, with an emphasis on the recessionary phases.

1981 Double Dip Recession

Phase	U.S. Equity	U.S. Growth	U.S. Value	Intl. Equity	Bonds	Gold	REITs	Commodities
Downturn	**-7.94**	**-14.41**	**-2.50**	**-6.81**	**10.62**	**-35.11**	**3.47**	**-8.99**
Recovery	60.52	61.60	56.57	20.19	32.94	34.85	53.28	5.77
Expansion	4.90	-0.70	11.00	16.46	3.06	-15.75	13.07	12.70
Slowdown	21.67	19.79	22.73	43.52	19.80	-4.74	23.47	1.20

Returns (%) annualized for each phase. Data via Morningstar. Asset class indices defined in Appendix 2.

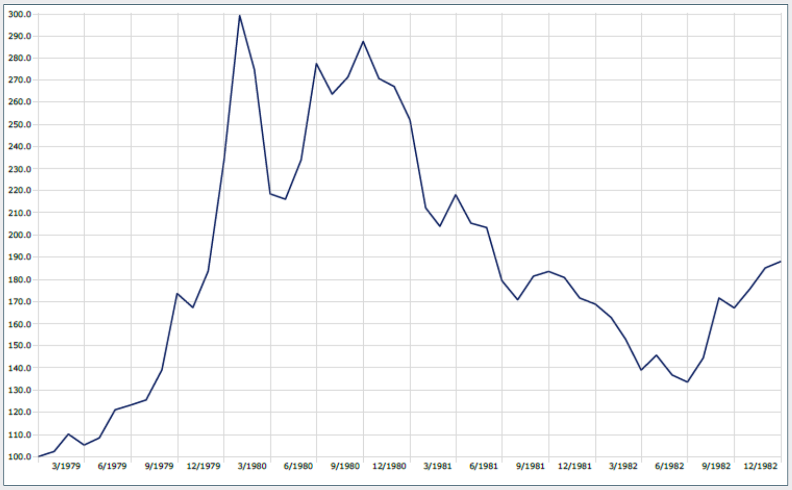
A few key observations are worth taking notice:

- During the Downturn phase, commodities and stocks underperformed, as expected. What's surprising is that gold had a big drawdown of -35% during this period. Bonds, on the other hand, was the best-performing asset class.
- During the Slowdown phase, international stocks lead the way; whereas gold was actually the worst performer.

A Deeper Dive on Gold

It's a common belief that gold acts as a hedge during economic slowdowns. However, during this 1980 economic cycle, it underperformed significantly in not only the Downturn phase, but the Slowdown phase as well. The price of gold rose dramatically from late 1979 to January 1980 due to heightened inflation fears. Inflation in the U.S. had risen to an all-time high of 13% by 1979, and gold prices rose accordingly. Geopolitical tensions in 1979 exacerbated investors' flight to safety, pushing gold prices higher. Then, gold saw a sharp sell-off starting in January 1980. Gold's downturn through 1980 was driven in part by the Fed raising interest rates from 13% to 20% to combat inflation. Also, Silver Thursday (in May 1980, when the price of silver fell by over 50%) added selling pressure on precious metals and had a spillover effect on gold, which pushed gold prices down.

Price Growth of Gold: 1979–1982



Time period: 1/1/1979 to 12/31/1982. Gold represented by S&P GSCI Gold Total Return. Source: Morningstar.

It is clear that gold is impacted by extraneous events and does not always provide portfolio protection during Downturns or recessionary periods as many investors believe. Macro factors such as political tension, inflation, and interest rate movements can affect gold prices dramatically due to its commodity-like nature. It acts more as a diversifier than an absolute safe-haven asset.

2001 Dot-Com Crash

Phase	U.S. Equity	U.S. Growth	U.S. Value	Intl. Equity	Bonds	Gold	REITs	Commodities
Expansion	25.58	41.02	10.11	29.16	-0.48	-0.19	-6.50	35.04
Slowdown	-1.39	-1.37	3.30	-11.80	7.12	-4.73	21.83	39.68
Downturn	**-23.51**	**-40.25**	**-8.98**	**-24.91**	**14.05**	**2.15**	**8.59**	**-20.34**
Recovery	25.56	28.53	25.52	34.14	2.97	7.48	36.47	4.25

Returns (%) annualized for each phase. Data via Morningstar. Asset class indices defined in Appendix 2.

Here are some observations of this cycle:

- Risky assets did well during the Recovery phase. Growth stocks outperformed.
- Commodities fared really well during both the Expansion and Slowdown phase.
- Equities, especially U.S. growth had the worst return during the Downturn phase, and bonds were the best performers. This does not come as a surprise as the 2001 recession was led by the crash in technology stocks.

2008 Global Financial Crisis

Phase	U.S. Equity	U.S. Growth	U.S. Value	Intl. Equity	Bonds	Gold	REITs	Commodities
Expansion	15.00	13.66	17.36	25.29	3.17	19.24	18.96	1.12
Slowdown	-13.12	-5.96	-18.78	-10.61	7.12	40.58	-13.64	75.98
Downturn	**-30.26**	**-28.86**	**-32.67**	**-38.27**	**4.69**	**-5.08**	**-42.34**	**-66.50**
Recovery	25.06	26.79	25.01	26.41	9.17	31.37	47.30	16.88

Returns (%) annualized for each phase. Data via Morningstar. Asset class indices defined in Appendix 2.

Key observations:

- During the Recovery phase, REITs did exceptionally well. REITs experienced a sharp rebound from the deep drawdown of the real estate market in 2009, which was the root cause of the Global Financial Crisis.
- Commodities and gold had the best performance during the Slowdown phase.
- REITs and other risky assets fell dramatically during the 2008 Downturn phase, as the global economy suffered from the subprime mortgage crisis in the U.S. Value stocks underperformed their growth counterparts as banks and financial companies were the first to go under. Interestingly, commodities were the worst performers. Bonds were the only asset class that saw a positive return during the Downturn phase.

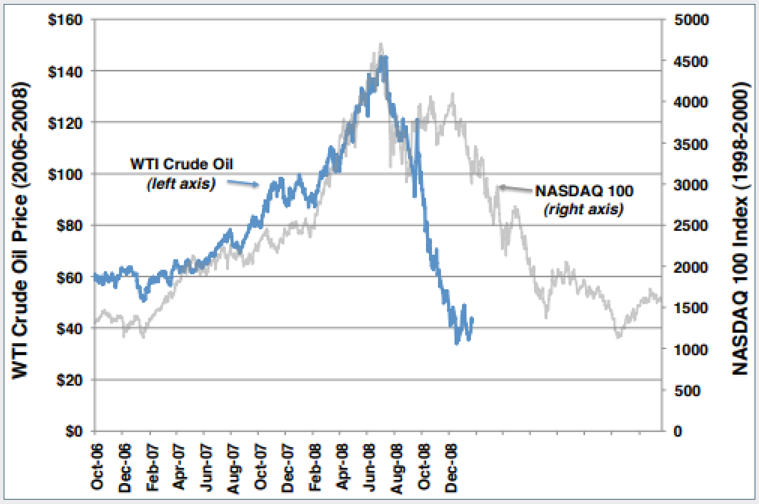
A Deeper Dive on Commodities

Investors might remember REITs and the stock market being hammered during 2008, but what happened to commodities?

- The U.S. entered a recession in December of 2007. The supply of crude oil increased and the demand decreased during the first half of 2008. During that time, crude oil prices defied the recession, and defied the laws of supply and demand by climbing an astonishing 60%. This was caused by speculations from momentum players; commodities became an asset class that institutions used to an increasing extent.
- Beginning in July of 2008, the commodities bubble popped and crude oil and other commodities plummeted in price. Crude oil fell by more than $100 per barrel (75%) in just six months. Commodities ended up with a worse drawdown than equities.

The chart below shows the dramatic move of commodities from 2006 to 2008:

WTI Crude Oil Price 2006-2208 with NASDAQ 100 Overlay



Source: Bloomberg.

We can summarize our analysis of these three recessions (the 1981 Double Dip Recession, the 2001 Dot-Com Crash, and the 2008 Global Financial Crisis) with the following observations:

- Bonds have been the only asset class that gives out positive returns during all three recessions.
- Equities and REITs tend to outperform during Recovery phases.
- Commodities, on the other hand, are somewhat unpredictable as they follow their own cycles. Therefore, they should be a tactical play rather than a buy-and-hold approach.
- Lastly, to demystify the common belief that gold is a safe haven asset, our analysis shows that it might be a great hedge against inflation and against political and currency uncertainties, but it is still a commodity after all. Gold follows its own cycle and can experience large drawdowns during recessionary periods such as the Slowdown and Downturn phases of the 1980s. Therefore, abandoning other asset classes and piling into gold during recessions is a dangerous move.

In the next section, we will discuss which past recession most resembles the current environment. For readers that are interested in how different equity sectors performed during past recessions, please refer to Appendix 3.

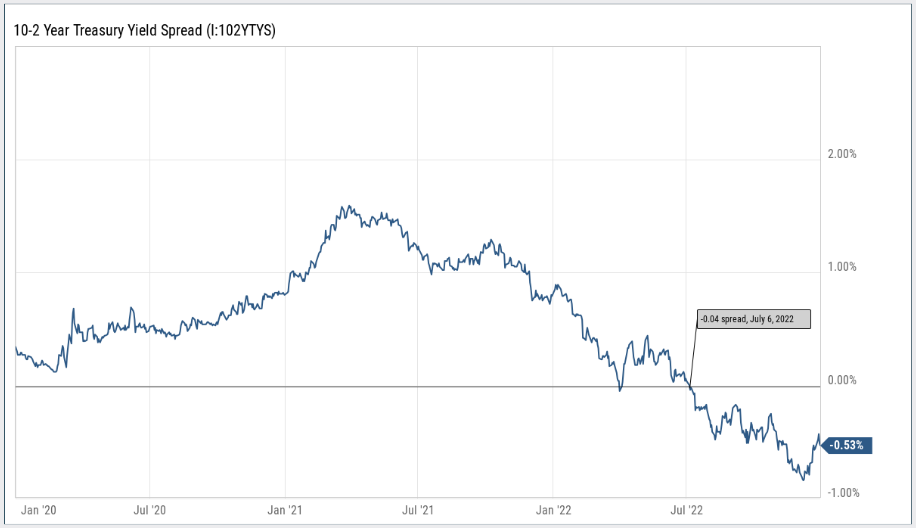
PART III: Where do we go from here? Understanding the Current Environment to Make More Informed Decisions

THE CURRENT ENVIRONMENT

As we stand today, we're not officially in a recession as the National Bureau of Economic Research (NBER) hasn't made that determination. But, are we heading in that direction? A number of indicators are starting to flash a warning sign. In general, many economists monitor indicators such as the Composite of Leading Indicators (CLI), jobless claims, and ISM new orders to determine where the economy may be headed.

Of all the recession indicators, the 10-2 year U.S. Treasury yield spread (the difference between the 10-year UST rate and the 2-year UST rate) seems to be one of the more reliable indicators. A negative 10-2 year yield spread (the 10-year UST rate is lower than the 2-year UST rate) has historically been viewed as a precursor to a recession – this is known as an inverted yield curve. An inverted yield curve has accurately predicted the ten most recent recessions. Where are we today? As the chart below shows, since the beginning of July 2022, the 10-2 year yield spread has been negative (a yield curve inversion). It's likely that there will be a recession at some point (yield curve inversions have historically preceded recessions by 6 to 24 months).

10-2 Year Treasury Yield Spread



Time period: 1/1/2020 -– 12/31/2022. Source: YCharts.

During the recession of the early 1980s, bonds were the best-performing asset class, followed by REITs.

Drawing a Comparison: the Early 1980s vs. Today

Although no two recessions are identical, the Double Dip Recession of the early 1980s (July 1981 to November 1982) most resembles the current environment we are in, for the following reasons:

Environmental Factors

Both periods saw inflation spiking.

- Early '80s: it really goes back to the post WWII era when the U.S. government went on a campaign to promote maximum employment, production and purchasing power through fiscal and monetary efforts, which led to a spike in inflation – which was exacerbated by the commodity and oil shortages.
- Current: due to the Covid-19 pandemic and the subsequent economic disruptions, an unprecedented amount of fiscal and monetary stimulus was poured into the economy, which translated into the subsequent strong labor market and housing booms, and in turn, has led to a spike in inflation. The supply chain issues and the war in Ukraine have only exacerbated the problem.

Both periods saw interest rates rising.

- Early '80s: the Fed's timid interest rates hikes in 1980 weren't enough to slow inflation, so Fed chief Paul Volcker pushed interest rates to new heights—21.5% in 1982. The sky-high rate ultimately pulled inflation down, but took its toll on the economy, which shrunk by 3.6% during the 16-month recession.
- Current: to tame inflation, the Fed hiked the Fed funds rate very aggressively in 2022. Although the absolute level of 4.5% is nowhere near what it got to back in the early 1980s, the speed and the magnitude at which the Fed has acted is unprecedented (the Fed funds rate basically went from 0.25% to 4.5% in just 9 months!) and the Fed is not done yet. Therefore, the risk of a recession has continued to rise.

There are a few key differences between the two periods, however.

- The labor market is in a very different starting place, with the unemployment level being much lower today. The current labor market is very tight by historical standards.
- In the early 1980s, peak inflation occurred almost two years after the initial acceleration began in the late-1970s, whereas inflation today came on more quickly.
- In the early 1980s, Fed funds rate and inflation started much higher and reached much more extreme levels than we've seen this time, at least up until now.

Asset Class Performance

During the recession of the early 1980s, bonds were the best-performing asset class, followed by REITs. On the other hand, equities and commodities underperformed. Growth stocks underperformed value stocks. Gold was the worst performer during the Downturn phase, driven by falling inflation and specific macro events in the precious metals market. Now, does this translate to what is happening today? Using the same methodology as before, let's take a look at the asset class performance in today's environment:

Phase	U.S. Equity	U.S. Growth	U.S. Value	Intl. Equity	Bonds	Gold	REITs	Commodities
Slowdown 5/1/21 - 3/31/22	9.79	7.65	7.37	-1.79	-4.90	9.79	14.30	52.04
Downturn 4/1/22 - 12/31/22	-14.16	-22.09	-6.85	-9.07	-7.52	-6.88	-20.78	-5.36

Returns (%) annualized for each phase. Data via Morningstar. Asset class indices defined in Appendix 2.

So far, the results of the current cycle follow the general trends of recessionary periods, but are somewhat different nevertheless.

- The most significant outlier is that bonds – the only asset class that produces positive returns in past recessions – had a negative return in both the Slowdown and Downturn phases of the recent economy. Bonds' uncharacteristic drawdown in the slowed economy is due to the rising rate environment as the Fed tightened aggressively to combat inflation.
- REITs were the worst-performing asset class during the recent Downturn phase as the asset class is negatively affected by spikes in interest rates and equity market volatility – both of which have been prominent factors in the recent phases of the current cycle. Adversely, REITs performed well in the Downturn phase of the 1980s.
- Surprisingly, gold did not do well in the recent Downturn phase despite the inflationary environment and high geopolitical tension – both of which should have been tailwinds for gold. Rising rates and a strong U.S.dollar had a significant negative effect on gold prices. Similarly to the 1980s, gold has been on its own unpredictable trajectory.
- Commodities, unlike the 1980s and previous recessionary periods, is the only asset class that has a positive return when combining these two recent periods. The spike in oil prices in early 2022 contributed to this and the war between Russia and Ukraine sent agriculture prices to multi-year highs. Furthermore, industry consolidation of energy companies, tight energy supplies, and the re-opening of China provided additional tailwinds for the space.
- Equity performance in the recent Drawdown is comparable to the 1980s and recessionary periods in general in that the asset class did not perform well.

The current Downturn phase certainly has yet to come to an end as recession fears continue to be investors' top concerns going into 2023. Although we can draw comparisons between the 1980s and now, we are already seeing discrepancies in the performance trends of asset classes – further validating the thesis that no two recessionary environments are the same.

How can investors prepare for a recession?

Our findings throughout this paper have illustrated that the general idea still holds true: risky assets outperform during economic recoveries, whereas bonds outperform during recessions. However, as we've gleaned from the results of our research, timing these cycles is an impossible feat. The old adage rings true: "the best offense is a great defense." Diversification serves as a risk mitigation tool and may enhance the overall returns of the portfolio across full economic cycles. Diversified portfolios can provide stability and unique opportunities for growth.

FINAL THOUGHTS

After providing a historical perspective on notable recessionary periods of the past century, it is evident that investors must be careful in relying too heavily on previous trends. In reality, we must understand picking a perfect NCAA Men's College basketball bracket is as difficult as predicting the severity, length, and best investment ideas before, during, and after any recessionary period.

Our objective in the composition of this whitepaper is to dispel the notion that recessions are destructive and are periods of time whereby investors can't find high quality investment opportunities. What we have learned is that the capital markets don't wait for recessionary periods to begin. In fact, the markets typically act as a leading indicator, making positive upward moves six months prior to the end of a recession. This "discounting" mechanism is nothing new. As the analyst community initiates buy ratings on stocks, the price has already moved in advance of this "news." The adage, "buy the rumor, sell the news," rings true not only with individual stocks but with sectors and countries- and certainly with recessions.

Markets don't wait for the "green" light to go on, which validates the risks of market timing. Given the seemingly endless list of market forces in play every minute of every day, it's impossible to figure out perfect points in and out of the capital markets, or recessions for that matter. Even for the most battle tested market traders, having conviction with regard to where markets are heading next can be a very challenging endeavor.

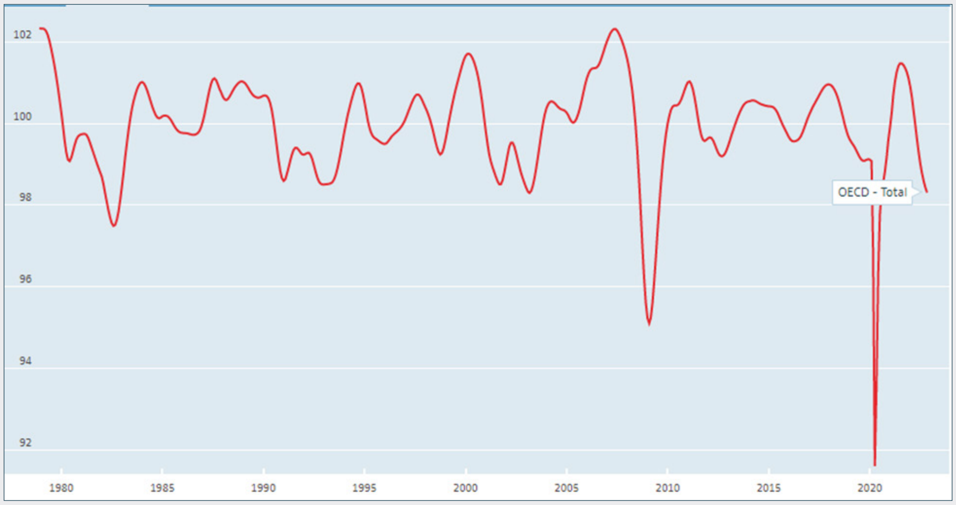
For the Summa Group and other leading wealth management teams, the end game is all about surviving to live another day so client capital stays intact and can fully participate as markets stabilize and regain a sense of normalcy. As of this writing, the opinions of some very wise fund managers, economists, investment strategists, and others who make a living by having opinions, are all over the place when it comes to their predictions about deflation, inflation, recession, no recession, etc.

The bottom line is don't put yourself in harm's way with even your highest levels of conviction because a lot of things have to go right. Instead, put yourself in a position to benefit from multiple scenarios playing out while maintaining liquidity, balance, and diversification.

APPENDIX

1. **CLI (Composite Leading Indicators):** It is an aggregate time series, which shows a leading relationship with the growth cycles of key macroeconomic indicators, with an average lead of six months. The leading indicator approach is the best way to predict phases of economic cycles. Typically, they are constructed to predict the cycle of total industrial production, which is a proxy for the aggregate economy.

   The below chart shows the overall CLI trend during this period. It does a pretty good job of forecasting the economic activities.



2. **"Analysis of Asset Classes through the Business Cycle", Audius Dzikevicius and Jaroslav Vetrov**

	S&P 500	EAFE	Bonds	Gold	REIT	Commodities
Average monthly growth						
Recovery	1.29%	1.92%	0.66%	0.68%	1.86%	1.16%
Expansion	0.62%	0.88%	0.28%	0.60%	0.49%	1.65%
Slowdown	0.48%	0.49%	0.71%	1.74%	1.31%	1.11%
Downturn	0.48%	–0.25%	1.14%	–0.08%	0.70%	–1.03%
Standard Deviation						
Recovery	3.83%	4.43%	1.56%	4.82%	3.45%	4.63%
Expansion	4.10%	4.45%	1.10%	5.06%	4.20%	4.43%
Slowdown	3.85%	4.17%	1.55%	5.98%	3.87%	5.86%
Downturn	5.57%	6.38%	2.13%	6.17%	6.90%	6.71%

Asset class index definitions:
"U.S. Equity" represented by the S&P 500 Index
"U.S. Value" represented by Russell 1000 Value Index
"U.S. Growth" represented by Russell 1000 Growth Index
"International Equity" represented by MSCI EAFE Index
"Bonds" represented by Bloomberg US Agg Bond Index
"Gold" represented by S&P GSCI Gold Index
"Real Estate" represented by FTSE Nareit All Equity REITs Index
"Commodities" represented by S&P GSCI Index

3. **Sector performance during recessions**

S&P 500 Sector Performance During Recessions

Sector	Jul-90 to Mar-91	Mar-01 to Nov-01	Dec-07 to Jun-09	Feb-20 to Apr-20
Communications	-2.1%	-17.4%	-31.1%	-6.3%
Consumer Staples	23.5%	-2.2%	-17.7%	-7.1%
Discretionary	1.9%	-4.3%	-31.2%	-3.3%
Energy	9.3%	-10.6%	-31.6%	-27.7%
Financials	5.3%	-4.4%	-59.2%	-23.4%
Health Care	24.2%	-1.2%	-25.0%	1.1%
Industrials	-0.2%	-7.6%	-43.8%	-20.3%
Materials	3.4%	7.2%	-37.5%	-9.2%
Real Estate	N/A	N/A	-57.1%	-12.8%
S&P 500	**7.6%**	**-7.2%**	**-35.5%**	**-9.3%**
Technology	-1.4%	-11.0%	-27.9%	-3.6%
Utilities	9.9%	-27.5%	-30.0%	-16.3%

In looking at the sector performance of the market during recessions, it is difficult to discern strong patterns. Among these past 4 recessions, the recessions in 1990 and 2001 were mild. The recession associated with the pandemic in 2020 was remarkably short. The only deep recession was the Global Financial Crisis in 2008. Perhaps the greatest lesson that can be gleaned for investors is this: the deeper the recession and corresponding bear market, the fewer places investors can find to hide. Defensives outperform cyclicals.

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