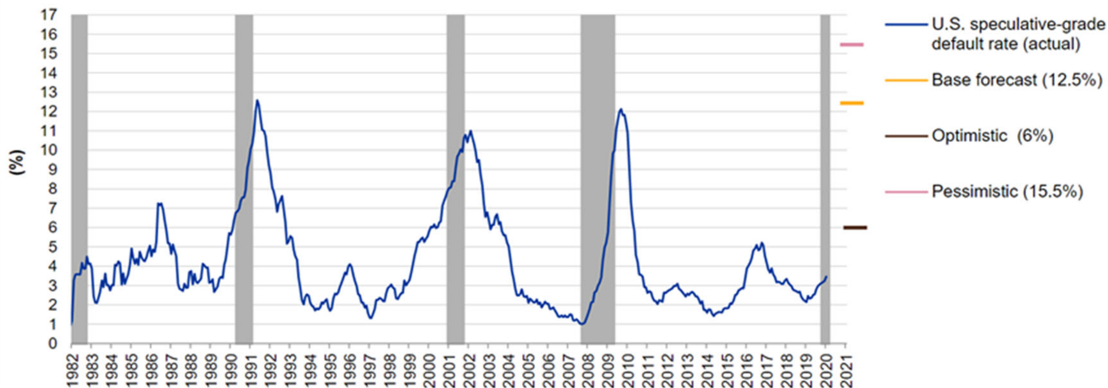
Introduction

For some of us, we are now entering our fourth recession since we began our professional careers. For those of you who have experienced any of the previous recessions, (See the vertical grey bands, below) you might remember that each of these recessions share some similarities; however, for the most part, each were brought on by unique factors which required different solutions.

As shown below, we are now officially in a recession; however, what is uncertain is how long the recession will last or how severe it will be.

U.S. Trailing-12-Month Speculative-Grade Default Rate And March 2021 Forecast



Note: Shaded areas are periods of recession as defined by the National Bureau of Economic Research.
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.
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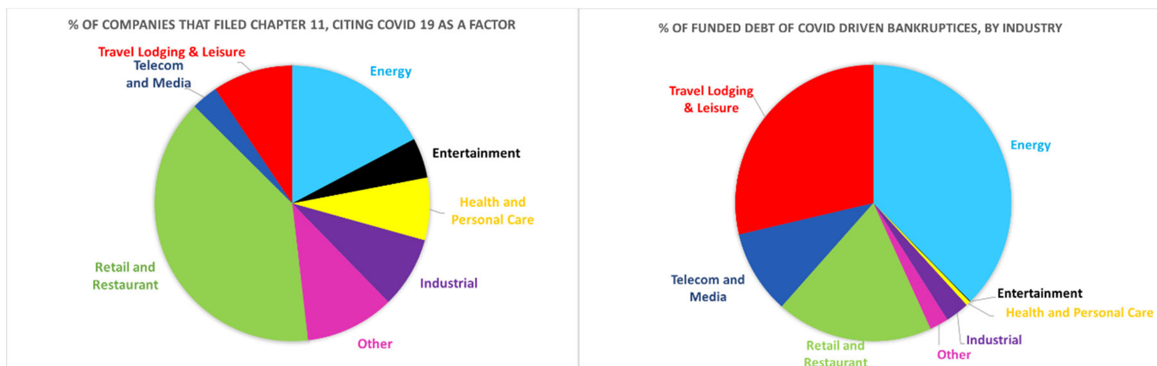
According to Bloomberg, since the beginning of the COVID-19 Pandemic, more than 191 companies with over $200 billion of debt outstanding have filed for protection under the Bankruptcy Code. The collapse of the Oil & Gas Industry resulted in a steep drop in the price of oil, to the point where at the end of the first quarter of 2020, oil futures traded at a negative value. 33 out of the 191 companies that filed Bankruptcy petitions, were in the energy sector; however, the amount of Funded Debt to be restructured by the energy companies far outpaces all other industries, as shown below.

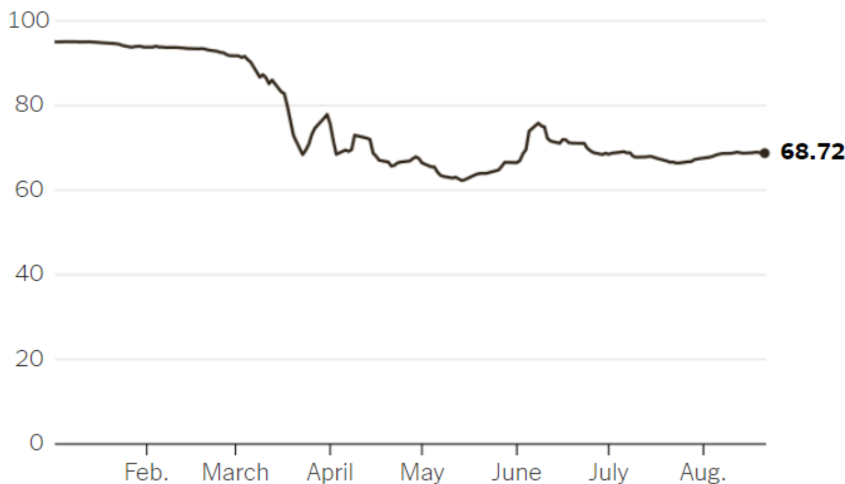


Moreover, for every company that filed for Bankruptcy protection scores of others have simply closed up shop, which is reflected in the current double-digit unemployment rate in the United States. Furthermore, storm clouds are forming on the horizon for commercial real estate, especially in the retail sector, as evidenced by the credit default swap market for retail center properties, as shown below. As reported by The New York Times, on August 24, 2020, the investors who have been betting against the commercial real estate market by shorting the CMBX index[1] because of its relatively strong exposure to malls, have done very well. For example, the private equity fund Apollo Global Management, which runs an internal hedge fund that focuses on credit investing, made more than $100 million shorting the CMBX 6 and other commercial real estate securities — one of the fund's most successful trades of the year.

The Continuing Bet Against Malls

The most popular portion of the CMBX 6 index, the BBB– tranche, plunged near the beginning of the pandemic and has hovered near lows hit in May.

Daily composite price of CMBX 6 BBB– tranche

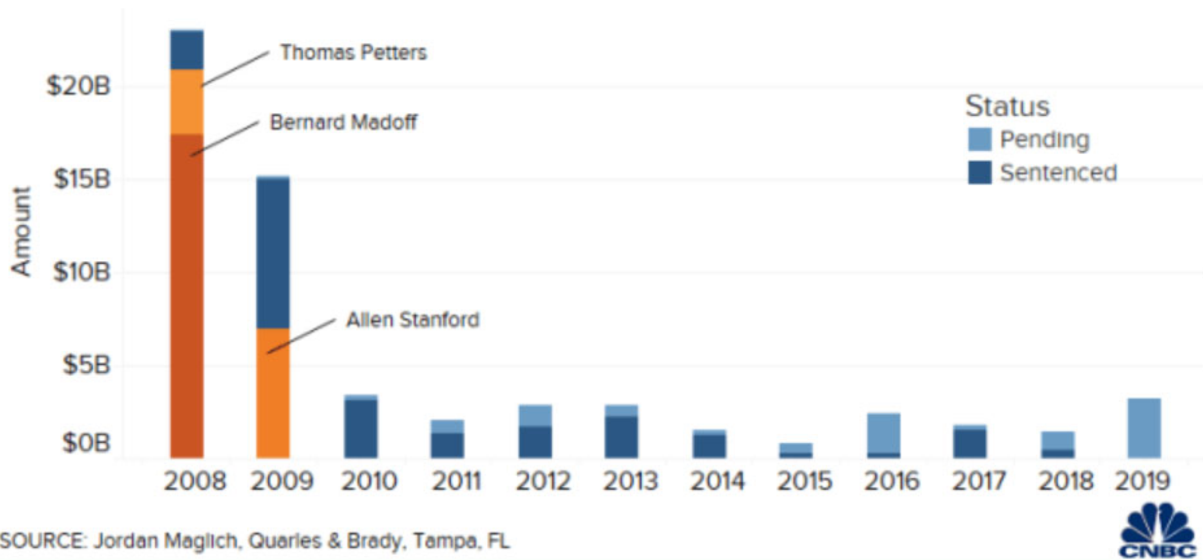


Source: IHS Markit. • Data includes bundled mortgages with BBB– credit ratings and is through Aug. 21 • By The New York Times

So far this year, 16 percent of all retail industry loans are delinquent, according to statistics tracked by the data firm Trepp. Major retailers, including J.C. Penney, Neiman Marcus and Modell's Sporting Goods, have filed for bankruptcy, and new tenant demand for mall space has never been weaker, according to an analysis of national malls by the advisory firm Green Street.

[1] The CMBX 6 index is intended to track a basket of bond products, each of which contains bundles of individual mortgages to commercial borrowers, more than 2,000 in total. Those products are then sliced into brackets, known as tranches, and assigned credit ratings ranging from AAA to BB, according to their perceived level of risk.

To make matters worse, it is well documented that the incidence of corporate fraud increases by 20% or more, during recessions[2]. There are several reasons for the increase in fraud, including, (i) more people will feel real pressure to 'cross the line' in terms of operations, reporting, and financial honesty and the falling economic tide will likely uncover rocks that have been hidden during economically productive times. See, e.g. Enron (energy company - accounting and corporate fraud), Bernie Madoff (investment management - falsified trading), and WorldCom; and (ii) covering up for poor financial results, See, e.g. Phar Mor (drug store inventory fraud), Crazy Eddie (electronics retailer inventory fraud). Even after the largest Ponzi scheme in history, Bernard Madoff, which came to light in 2008, Ponzi schemes have hit the highest level in a decade[3].



This paper will highlight similarities and differences between the four recessions and offer a commentary on solving the current recession.

[2] With respect to the 2008-2009 financial crisis, a study by the advisory firm BDO suggested that the amount of money lost through fraud jumped from an average of 4.57% of total spending in major developed economies from 1997-2007 to an average of 5.47% between 2007-2011. That equates to a 20% increase and a total cost of about £85 billion per year in the UK alone. Fraud in the time of COVID. Simmons & Simmons, April 2020.
[3] "Ponzi Schemes hit highest level in a decade, hinting next 'investor massacre' may be near"; CNBC: February 11, 2020

1989-1994 Savings & Loan Recession

Coming out of the volatile interest rate climate, stagflation and slow economic growth of the 1970s the Savings and Loan crises migrated across the country resulting in a failure of over a third of savings and loans. The crisis was triggered by poor regulations and market conditions combined with an inadequate amount of capital being held by the savings and loans. This macro-economic event caused credit to contract and the 1990 recession.

This was still in the early era of the high yield (at the time, "junk bond") market. Interest rates were still high (relative to today) and there were a number of bloated companies that had poorly structured balance sheets. These came about through thoughtless acquisitions (era of the conglomerate where bigger was best), early LBOs (leverage buy-outs) and highly levered balance sheets. Junk Bonds were viewed in a negative light and were the popular villain to blame for corporate ills. This was a time in the restructuring world where the thinking was: these were good companies with bad balance sheets.

A company also faced Chapter 11 stigma. If a firm filed, it was done with no Plan of Reorganization and it would last for years. Once finally exiting Chapter 11, many times there would be a rebranding and lenders would charge a premium to finance all aspects of the restructured business.

1989-1994 S&L Recession

- Good Companies with Bad Balance Sheets;
- High Interest Rates;
- Chapter 11 Petitions were filed without any notion of a Plan of Reorganization and they lasted for years;
- Negative stigma around the process and company – many times required a rebranding; and
    - Increased costs associated with future borrowings
- Debt for Equity Exchanges;
    - (Stock for Debt exception to the cancellation of indebtedness rule was repealed in 1993.)
- SEC Rules significantly hampered exchange offers and pre-packaged Chapter 11's;
- Section 363 sales were discouraged, as "sub-rosa" plans of reorganization;
- Fewer options for DIP financing (more expensive too);
- There were only a few "distressed debt" funds in existence, e.g. Goldman, TCW, Apollo.

Another characteristic of this timeframe was the lack of liquidity providers. There were few providers of DIP financing – and these would be expensive. Distressed Debt funds as a primary asset class were only beginning to be formed (Apollo, TCW, Goldman etc.). Historically, there were few third parties targeting distressed debt to gain a controlling corporate position or profit from a chapter 11 filing. Investing to gain control of a company became a new profitable strategy during this era.

1999 – 2003 "9-11" Recession

With global macro-economic challenges (1997 Asian financial crises, 1998 Russian default) being mostly avoided in the US, the internet bubble, 9-11 and accounting scandals fed into the creation of the US 2001 recession. Besides the popping of the internet bubble, there was the tragic events of 9-11 which led to an immediate shut down of economy (very similar in what we see today due to Covid-19) for a short period of time. When the world restarted, it came back online at a slower pace compounding the recession pressures.

1999 – 2003 "9-11" Recession

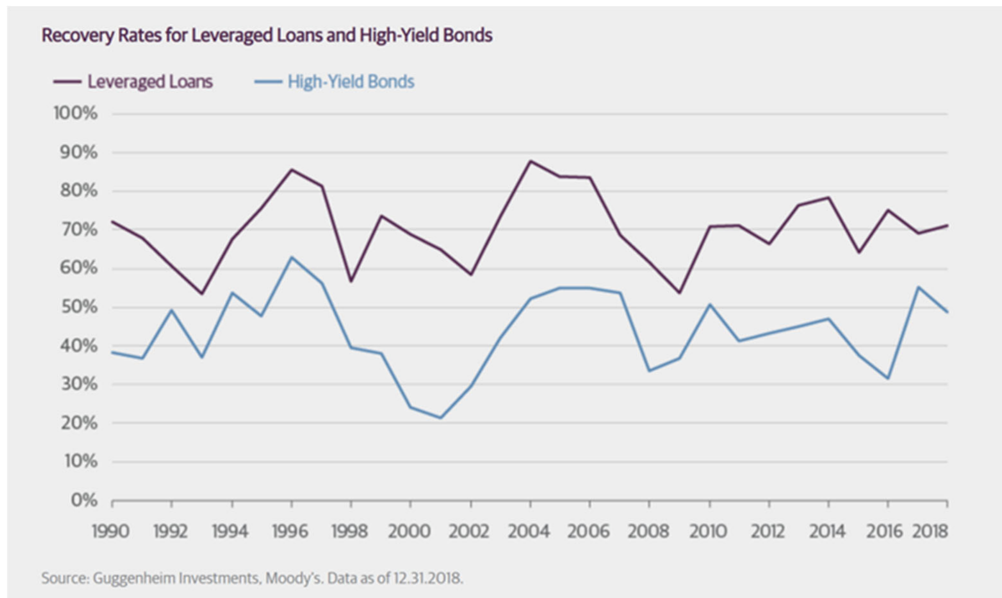
- Internet bubble – no recovery companies (may only have IP) i.e. Pets.com – most valuable asset was a sock puppet used for marketing
- Larger distressed investment community looking for assets; more capital options available;
- Event Risk (9-11-2001)caused dislocation in the market; and
- Lack of revenue, caused Chapter 11 filings, which is similar to today;

Recoveries of internet companies filing for Chapter 11 (or 7) dropped to next to nothing relative to their liabilities. Many companies had only technology or a website as their business when filing for bankruptcy – this lack of assets left little for lenders to recover from. For example, the most valuable asset held by Pets.com was a sock puppet used as a mascot in advertising.

Since the previous recession, an ecosystem of distressed investors, lenders and service providers had developed providing more options to the creditor and borrower (DIP loan providers, Investment banking boutiques focused on restructuring only, etc.). The former stigma around companies filing Chapter 11 had diminished if not outright disappeared. For companies with assets and an ongoing business (think good business with bad balance sheet again), there was an appetite for the non-performing debt in a secondary market. There was an active market and investment vehicles looking to acquire and work out the liabilities through a bankruptcy process with the intent to operate the company post Chapter 11 (or simply profit off price appreciation).

1989-1994 Recession	1999-2003 Recession	2007-2009 Recession	COVID 19 Recession
Lincoln Savings and Loan Association - Financial Fraud	*WorldCom - Accounting Fraud - TelCom*	*Bernie Madoff - Falsified Trading Fraud - Investment Management*	*Paycheck Protection Program Fraud*
"Crazy" Eddie Antar - Inventory Fraud - Electronics	*Enron Corporation - Accounting Fraud - Energy*	*Washington Mutual - Mortgage Fraud - Sub Prime*	*DOJ indictments for forged documents, stolen identities and false certifications*
Phar-Mor, Inc. - Inventory fraud - Drug Store Chain	*Parmalat - Accounting Fraud - Ultra Pasturized Milk*	*Tom Petters - Ponzi Scheme - Business Fraud*	

An Historical View of COVID-19 Related Bankruptcies Compared to the Last Three Recessions



Many non-internet companies were forced into bankruptcy and restructuring due to event-risk (9-11) which caused a dislocation in their market. Unlike today, there was no payment holidays or government assistance to keep business operating. Companies were generally filing due to lack of revenue. They needed the space to breath and reorganize their cost structure.

The historically high interest rates, coupled with historically high leverage ratios made the restructuring process rather simple, in that debt was converted into equity.

10 Year Treasury yields 1970 – 2020

The 2007-2009 Recession

The major cause of the 2007- 2009 recession (the "Great Recession") stemmed from the subprime mortgage crisis. As a result, governmental intervention was on a scale not witnessed since the great Depression, between World War I and World War II.

2007-2009 Housing Bubble Recession

- Very quick turnaround, due to government intervention;
- Low interest rates combined with an appetite for cheap assets of performing companies who are experiencing a cash-flow disruption vs business failure (non-competitive products or obsolete business models) widely available;
- More investment vehicles available to provide interim financing;
- Prepackaged restructurings became common and accepted – easier and cheaper to execute;
- 363 Sales lost the "sub-rosa" plan stigma and became the norm;
- Bankruptcy stigma no longer as powerful – companies still had multiple finance options (including public markets) without larger risk premiums

Subprime crisis:

• Rapidly rising housing prices; high-risk mortgages (bad credit, no down payment, no income verification) packaged into securities; subprime RMBS

• Overall rising home prices and mortgage availability masked problems; non-bank private label mortgage-backed securities started defaulting at high rates;

• Various non-bank lenders filed bankruptcy; subprime RMBS screeched to a halt; plummeting home values; increasing foreclosures and short sales

• During the peak of the financial crisis in 2009, one in four U.S. homes was underwater (also called negative equity), according to CoreLogic. By the end of 2019, the national average negative equity rate was 3.5%.

Government Intervention

- $152 billion stimulus primarily consisting of $600 tax rebates
- Unemployment benefits
- COBRA coverage
- First-time homebuyer tax credit
- Other tax relief, credits and rebates
- Fed Support:
  - Federal Funds rate virtually cut to zero
  - Large scale asset purchase programs, QE1: US agency MBS, Fannie, Freddie debt purchases, longer-term Treasuries
  - QE1 purchases totaled more than $1.75 trillion
  - Term Asset Backed Securities Loan Facility (TALF): $200 billion for consumer ABS securities
  - QE2: $600 billion of treasury purchases

The COVID-19 Recession 2020

The 2020 recession was unique in that it was not caused by excessive leverage, or high interest rates, but rather by the loss of revenue. A sobering statistic is that since the beginning of the COVID-19 Pandemic, more than 191 companies with over $200 billion of debt outstanding filed for protection under Chapter 11 or Chapter 7, and 33 of those companies are in the energy sector. The impacted industries and companies filing for protection under Chapter 11, during the first six months of the COVID 19 Pandemic included:

- 75 Retail and Restaurant companies.
- 33 Energy companies.
- 20 "Other" companies.
- 18 Travel, Lodging, and Leisure companies.
- 6 Telecom and Media companies.
- 16 Industrial companies.
- 14 Health and Personal Care companies.
- 9 Entertainment companies; and

It was difficult to predict who the winners and the losers would be, because of the pandemic; however, in general terms, it broke out as outlined below:

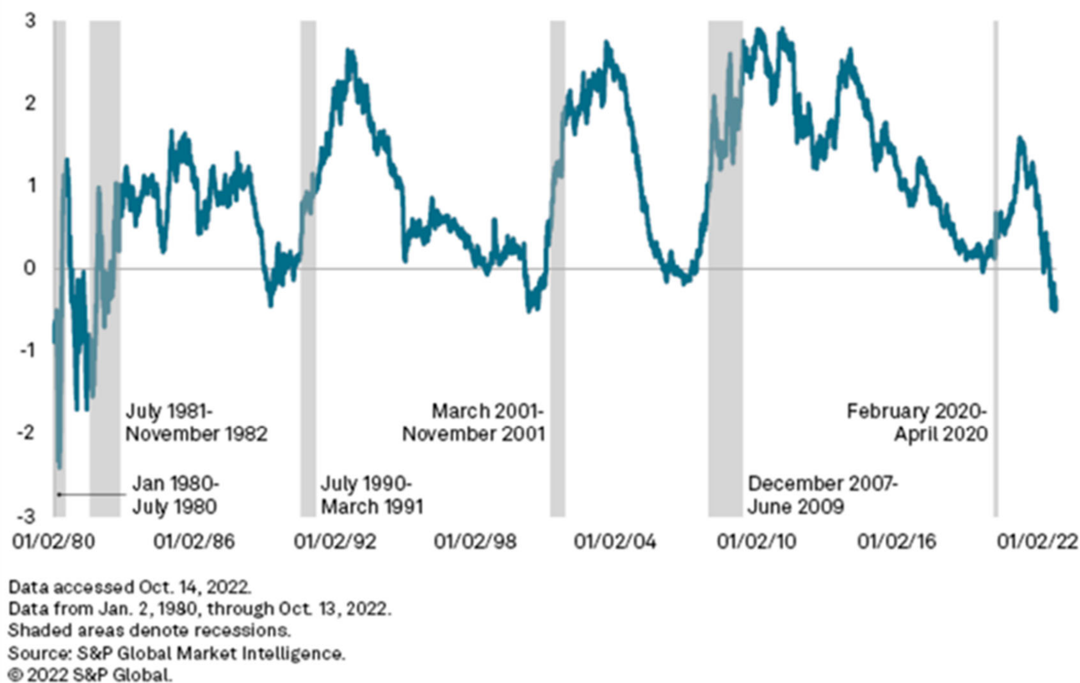
Winners:	**Losers:**
Residential Real Estate	Commercial Real Estate
Large Box Discount Retailers	Small Box Retailers
On Line Retailers	Airlines
Beer, Wine, & Distilled Beverage producers & distributors	Hotels
	Restaurants

Examples of governmental intervention include the following:
The government's response was unprecedented in scale and speed and surpassed previous efforts in similar crises.

Fed Support:

- Fed funds rate: cut it to virtually zero.
- Securities purchases (QE): more than $500B of treasuries and $200B of government guaranteed mortgage-backed securities then announced it would buy $80 B a month in Treasuries and $40 B in Residential Mortgage-Backed Securities ("RMBS") and Commercial Mortgage Backed Securities ("CMBS")
- from mid-March to mid-June, the Fed's portfolio of securities held grew from $3.9 T to $6.1T
- Lending to securities firms: Primary Dealer Credit Facility (PDCF): revived program from financial crisis; Fed offers low interest rate loans to dealers and buys equities, corporate debt, CP, Munis.
- Money Market Mutual Fund Liquidity Facility (MMLF): re-launched; backstops money market mutual funds.
- Repos: offering $100B in overnight repos and $500B each in one month and 3-month repos
- Discount window rates: lower than during financial crisis
- Relaxing regulatory requirements - regulatory capital and liquidity buffers
- New programs introduced:

  - Primary Market Corporate Credit Facility (PMCCF): lends directly to highly rated corps.
  - Secondary Market Corporate Credit Facility (SMCCF):
  - Fed can purchase existing corporate bonds, IG-rated; up to $750 B
- Commercial Paper Funding Facility (CPFF): re-launch; $10 B
- Main Street Lending Program: three facilities:
  - New Loans Facility,
  - Expanded Loans Facility and
  - Priority Loans Facility - up to $600B for businesses with up to 15,000 employees or up to $5B in revenues; expanded to include non-profits.
- TALF: reboot; ABS securities up to $100B
- Municipal Liquidity Facility:
  - Direct lending to state & municipal governments:
  - $500 B to Investment Grade rated entities
- International swap lines: re-launch; makes US dollars available to other central banks.

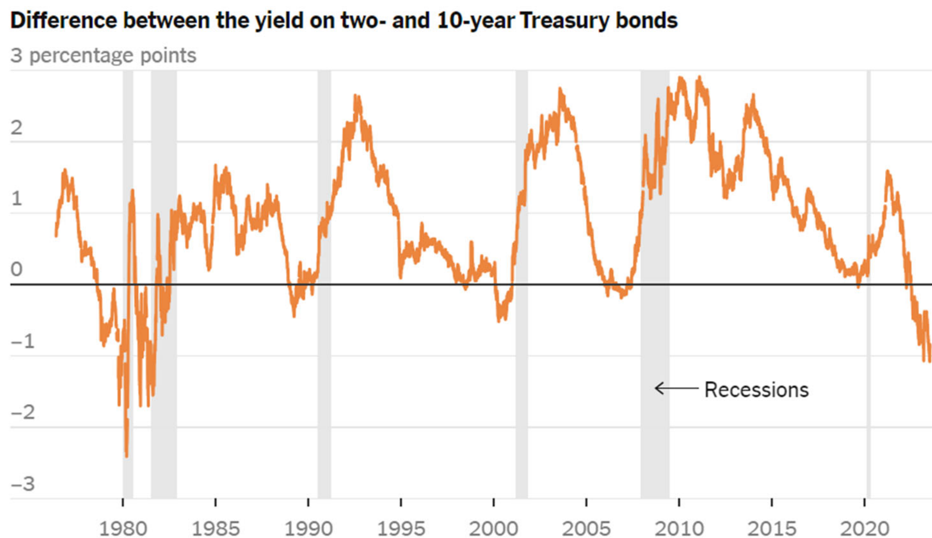


The COVID-19 Pandemic exacerbated the drop in demand for Oil & Gas; however, even when that demand returns, it is uncertain whether the oil producing countries will be able to reduce their production of oil, to increase the price of oil. Irrespective of the competing views on the outcome of the COVID-19 pandemic, it is irrefutable that this experience will affect the way that our society will work, going forward. Working remotely, learning remotely, and social distancing will probably continue for a considerable period of time. Movie theaters and shopping malls may well be replaced by streaming services, Amazon, and Drive in movie theaters – yes, they are staging a resurgence.

2023 Update - Threats to the Economy

1. The failure of Silicon Valley Bank, Credit Suisse, and others.
2. Rising interest rates, courtesy of the Federal Reserve Bank.
3. The war In Ukrainian and Russia's response to losing the war.
4. The continuation of the Corona virus in mainland China and the residual effects of the Pandemic, including but not limited to the supply chain, rising interest rates, and inflation.
5. The simmering conflict with China, including but not limited to Taiwan and Chip technology.
6. Civil unrest, e.g., January 6th.
7. Legislative, executive, and judicial stalemate on both the state and federal level.
8. Climate change.
9. The national debt is = to the GDP of the United States.

Bond markets have traditionally been the most reliable barometer of economic conditions given their sensitivity to interest rates. Government bonds are especially worthy of note because they most directly reflect central bank policies. The US Treasury market is the most important of all, because of its enormous size and the leading role played by the US economy. The yield curve charts the difference in rates on government bonds of different maturities. Typically, investors expect to be paid more interest for lending over longer periods, so those rates are generally higher than they are for shorter-term bonds, creating an upward-sloping curve. **For the past year, the curve has inverted, with the yield on shorter-term debt rising higher than yields on bonds with longer maturities.**



It will be difficult, if not impossible to forecast the resolution of any of the current threats to the economy; however, the severity, depth, and breadth of each of the threats outline above, is a harbinger of another sharp correction in the economy.