The Tumultuous Journey of Detroit's Big Three Automakers Through the Great Recession and COVID-19 Pandemic

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Introduction

"We pay excessive attention to low-probability events accompanied by high drama and overlook events that happen in routine fashion" (Bernstein, 2001, p.219).

2020 Events: Australia on fire, out of control pro-democracy protests in Hong Kong, WW3 trending on Twitter, Trump's impeachment and acquittal, global sporting events cancelled for the first time since WWII, Dow Jones records two largest ever single day declines in the span of two months, 3.9 billion people around the world under stay at home orders, the death of George Floyd and social uprising as well as the protests that followed, *ad infinitum*.

Lost in the chaos of this year is the U.S automotive industry and its perils. Entering 2020, the industry was gearing up for a tough year after a steady decline in domestic auto production and sales for the past 25 years, aside from a brief rebound after the last recession, as observed in Figure 1. This paper examines, as well as compares and contrasts, the economic crises the world is currently facing during the COVID-19 pandemic to that experienced during the Great Recession through the lens of the United States domestic automotive industry, with particular focus on 'Detroit's Big Three'.

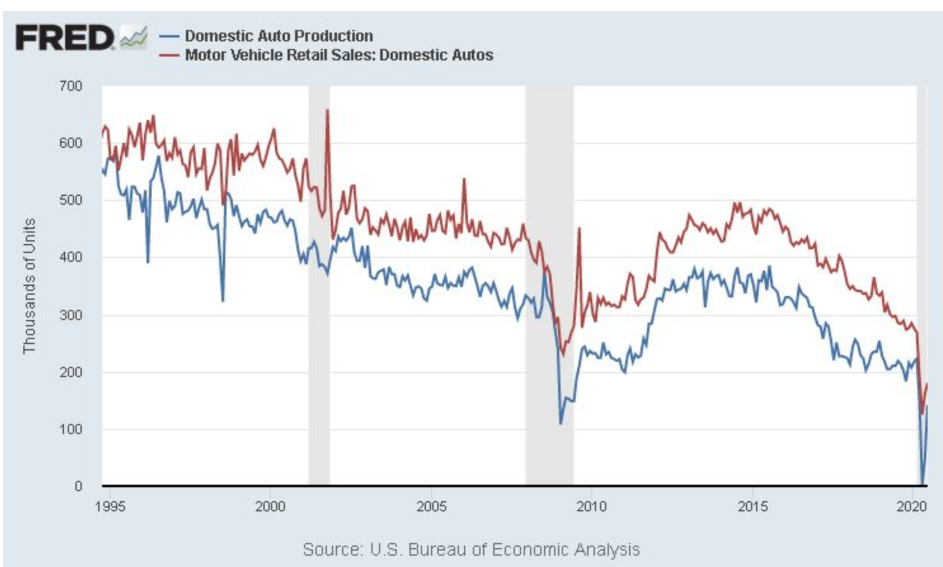

Figure 1. Auto Production and Retail Sales, 1995-2020. Retrieved July 31, 2020, from https://fred.stlouisfed.org/**.**

The Great Recession

Leading up to the Global Financial Crisis from 2007 to 2009, the US housing market seemed to be unstoppable, as made evident through the US National Home Price Index in Figure 2, which nearly doubled between the turn of the century to its peak in July 2006. The main reasons for this large bull run observed in the housing market were: large increase in foreign capital seaking 'safe' investments, diffusion of risk in the housing market, and poor financial regulation (Reinhart & Rogoff, 2009). The United States at the time was, and still is, the reserve currency of the world - most countries hold a significant amount of USD in their reserves and currently, 40% of global debt is in USD (Best, 2020). Because of this, safe investments by U.S. standards are safe investments by global standards. With money pouring into the United States seeking safe investments, the housing market became both the victim and the opportunity. However, the housing market was historically very illiquid. Financial innovations eventually changed this, as the U.S. Federal Reserve (Fed) Chairman at the time, Alan Greenspan, argued "financial innovations such as securitization and option pricing were producing new and better ways to spread risk, simultaneously making traditionally illiquid assets, such as houses, more liquid" (Reinhart & Rogoff, 2009, p. 208). As a result of the newly found liquidity in the U.S. housing market, lending regulations decreased because there was greater incentive to sell homes ultimately increasing the availability of credit; bank profits soared, housing prices soared, and the housing market remained a safe investment because of its size, history, and because the credit rating agencies said so.

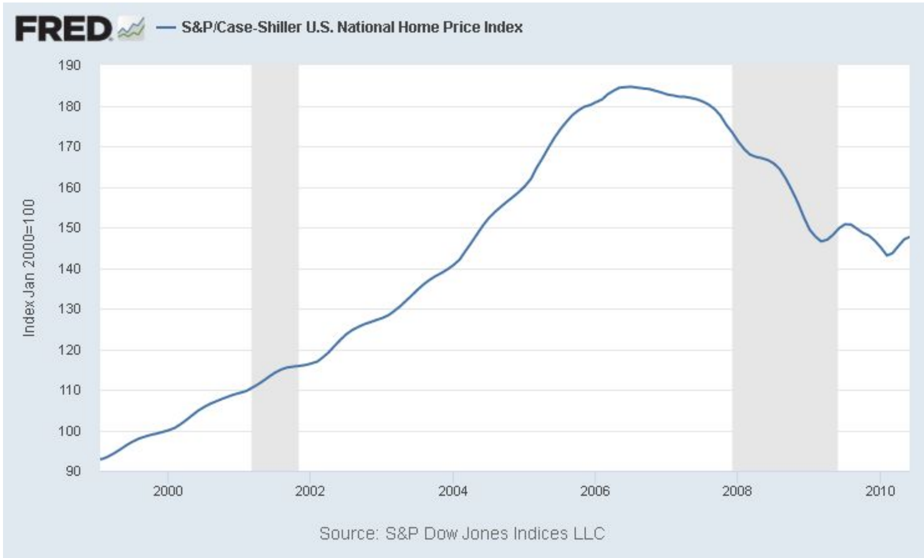

Figure 2. U.S. National Home Price Index, 1998-2010. Retrieved July 31, 2020, from https://fred.stlouisfed.org/.

As most things that are ‘too big to fail’, the housing market crashed and everyone's eyes turned to the impending credit crisis. This sharp increase in delinquency rates observed in this period meant that the large financial institutions that had been increasing their presence in the housing market were now exposed and vulnerable. As delinquency rates rose, the profits of banks declined and so too, the availability of credit.

Domestic Automotive Industry in 2007-2009

Although the housing market and financial institutions were at the forefront of this crisis, the automotive industry took a severe blow as well. Behind homes, cars are generally the second largest asset purchase most Americans make in their lifetime (Dogan, 2019). The industry is thus largely dependent on the health of the broader economy, and more specifically consumer confidence, the unemployment rate, and availability of credit/interest rates. Highlighted in Appendix B, consumer sentiment fell from above 90 in the years before the crisis to its trough at just under 60 in 2008, on a scale of 100 being maximum. The unemployment rate rose from approximately 4% in 2007 to a peak of 10% in October 2009, as shown in Appendix B. Perhaps the only silver lining for the automotive industry was that interest rates were the lowest they have ever been, displayed in Appendix B. Although this is a good sign for the industry during times of expansion, the combination of low consumer confidence, and decreased availability of credit overpowered the weight of low interest rates and domestic auto sales fell drastically (Isidore, 2008).

The Global Financial Crisis saw the already dwindling, yet still dominant griphold of the U.S. automotive industry slip away from Detroit's Big Three. With large layoffs coming and the potential collapse of the industry looming, the CEO's of GM and Chrysler flew to Washington in their private jets to plead for government bailout money (Wutowski, 2008). Chrysler would later enter bankruptcy in April of 2009, with GM following in June; receiving a total investment from the U.S. government of $12.5 billion and $51 billion, respectively (Amadeo, 2020). Ford, however, was safe for the time being, largely due to the $23.5 billion it borrowed in 2006, secured by almost all of the company's assets (Killer & Rubenstein, 2013).

Although Detorit's Big Three lost significant market share during the crisis, with GM falling from their 77 consecutive year reign at the top of global automakers, they all lived to fight another day (China ends US' reign as largest auto market, 2010). The U.S. government recuperated $50.9 billion from their initial investment of $63.5 billion by 2013 and by 2014 domestic auto sales were back to pre-2008 levels, as seen in Figure 3 (Amadeo, 2020).

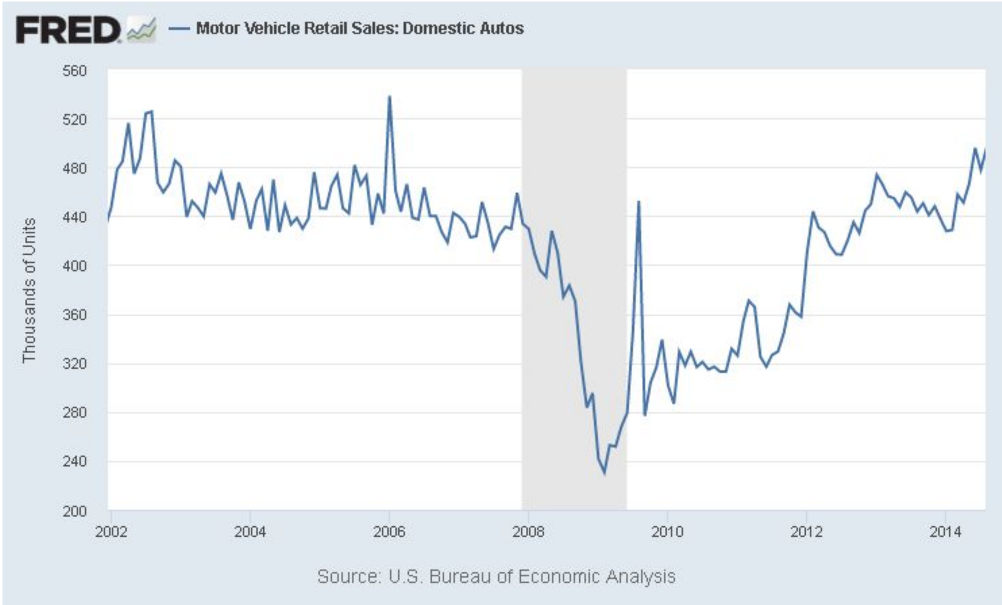

Figure 3. U.S Domestic Auto Sales, 2002-2014. Retrieved July 31, 2020, from https://fred.stlouisfed.org/.

The COVID-19 Recession

“There is no villain this time” (Green & Dorning, 2020).

— Jason Furman, former chairman of the White House Council of Economic Advisers

The above quote summarizes the sentiment towards the economy at this time: the economic collapse observed in 2020 is not a result of poor economic headwinds, an asset bubble, fiscal, or monetary policy, rather it is the result of actions taken to contain the virus and no one is really to blame. This, however, does not decrease the importance or severity of this economic collapse.

Statewide lockdowns to prevent the spread of the virus occurred in 42 out of 50 states, with no federal mandate from President Trump to lockdown (Wu et al., 2020). Lockdowns across the states saw the closures of restaurants, gyms, small businesses, universities, factories, and the list goes on; all of which resulted in an unprecedented increase in unemployment, as seen in Figure 4. Surprisingly, the unemployment situation is even worse than the shown in the graph, as the 14.7% unemployment rate observed in April does not take into account furloughed workers, which according to the federal government brings the real unemployment rate for April to approximately 16% (Iacurci, 2020).

Figure 4. U.S Unemployment Rate, 1950-2020. Retrieved July 31, 2020, from https://fred.stlouisfed.org/.

The result of lockdowns across the country was a large supply shock, with decreased output and human capital observed across the board. Consequently, the large supply shock resulted in a demand shock out of consumer fear. Consumer confidence is hovering around 75, despite being close to 100 at the start of this year, highlighted in Appendix B. Retail sales for the first quarter, which represents approximately 40% of consumer spending and 30% of GDP, fell to the lowest it's been since the U.S began collecting data in 1993 (Cox, 2020). That being said, there was a sharp rebound to positive figures again in the second quarter. The end result? a record drop in gross domestic product, as observed in Appendix B.

The record drop in domestic production sparks trouble for the credit markets, as companies with volatile and uncertain cash flows seek to raise liquidity. In preparation for more personal and corporate bankruptcies, as well as loan defaults, the largest banks in the country are increasing their loan loss provisions for 2020 (Noonan & Armstrong, 2020). The broader credit markets began to feel the weight of the crisis in April when spreads widened at a steep rate. At such time, the Federal Reserve began to intervene in the credit market through buying corporate bonds, for the first time in its existence, in an attempt to ease fears of the credit spreads widening further (Cox, 2020). Many of the companies the Fed began to invest in are ‘Fallen Angels’ - companies that had an investment grade credit rating before covid and have since been reduced to junk status (Cox, 2020). Credit spreads for both high grade and high yield have since tightened, albeit high yield’s spread is proportionately wider than high grade in comparing current levels to the levels observed in February, highlighted in Figure 5.

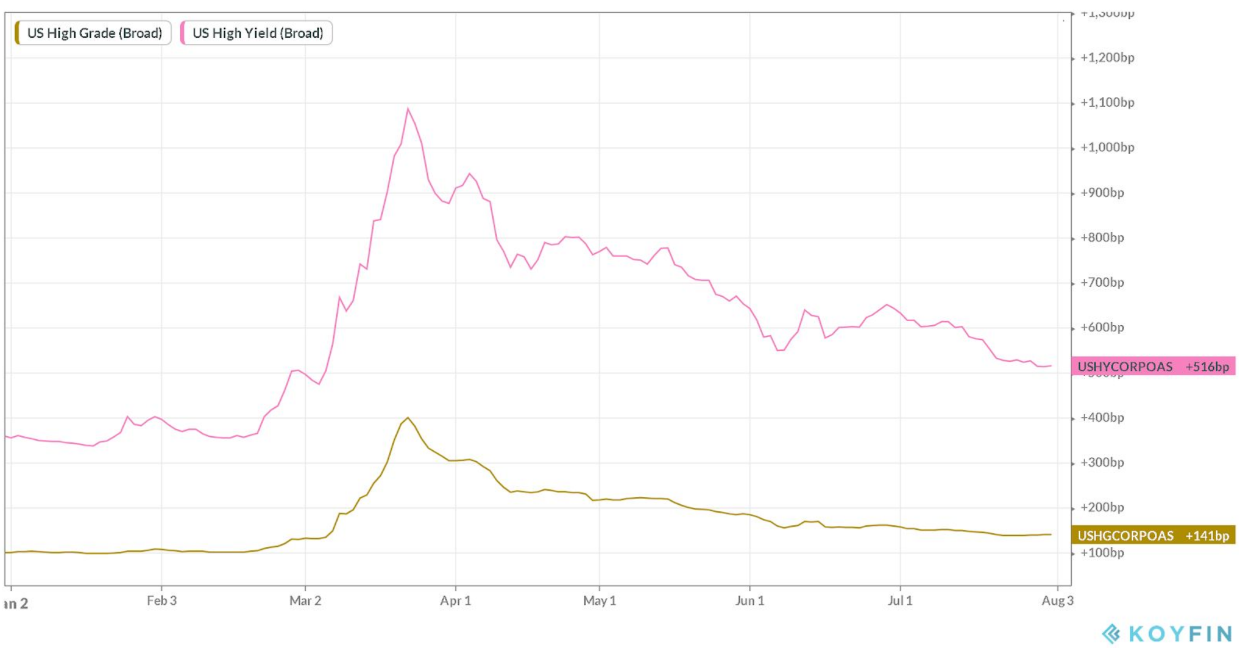

Figure 5. US High Grade and High Yield Credit Spreads, January - August 2020. Retrieved August 3, 2020, from https://www.koyfin.com/home.

Domestic Automotive Industry in 2020

Interestingly, 6 out of the top 13 companies the Fed is buying the debt of are either automotive companies or the financial arm of automotive companies (D'Souza, 2020). The credit outlook for 83% of these automotive companies is negative, according to Moody's as recorded in Appendix A. Two out of Detroit's Big Three make the list, with Ford's credit division receiving the 8th largest allocation from the Fed and General Motors financial arm receiving the 13th (D'Souza, 2020). It should be noted that Ford is included in the list of Fallen Angels as it's credit rating is no longer investment grade and General Motors is only one rating downgrade away from joining Ford in the junk bond status, as can be seen in Appendix A.

The U.S. automotive industry has been struggling over the last five years, amid mass layoffs and declining sales, after a rebound following the Great Recession. As mentioned in the introduction and seen in Figure 1, domestic auto retail sales have been in decline for the last 25 years and similarly, over the same time frame, domestic auto production has also been in decline. Furthermore, the first five months of last year saw the most auto industry job cuts since 2009 (France-Presse, 2019). That aside, the pandemic presents an even larger issue for auto manufacturers, as lockdowns around the world shut down factories leading to a decrease in inventories and the broader consumer confidence dent decreased demand for new cars, as highlighted in Figure 1. In an industry with significant fixed costs and large debt load, a break in the regular sales cycle causes auto makers to burn through significant levels of cash. During the first two quarters, GM burned through just under $8.8 billion, while Ford burned through $7.5 billion (Wayland, 2020).

Ultimately, the unemployment rate, consumer confidence and spending, and negative GDP growth, are all pointing to the already weakened industry being in a fight for its life in 2020 and beyond.

The Great Lockdown Compared to the Great Recession

The economic recession induced by COVID-19 is hard to compare to the great recession experienced in the latter half of the 2000s for various reasons. First and foremost, no one could have predicted the virus emerging and having the vast and severe effect on global economic output that it has and will continue to have, whereas the reasons for the financial collapse experienced in 2008 were, in few cases, realized before the crash and can be studied linearly in hindsight. Secondly, the current economic crisis is largely driven by an initial supply shock induced by lockdowns, whereas in 2008 it was a demand shock in the housing market and credit crunch that led to the demise of the broader market. The third reason is the severity difference in the global effect of the crisis; in 2009, global GDP contraction was less than 1%, whereas 2020's contraction is projected to be 3% by the IMF (Rappeport & Smialek, 2020).

Much of the Same Structural Issues

The financial crisis was merely the catalyst for the demise of the U.S. automotive industry in 2008. Unions, healthcare and pension burdens, lack of innovation, and the wage difference between foreign and domestic producers are what really killed it. Fast forward to 2020, to quote Carmen M. Reinhart of *This Time is Different*, "More money has been lost because of four words than at the point of a gun. Those words are This time is different" (Reinhart & Rogoff, 2009, p. 394). Much of the old burdens on the industry are still present today. Unions and strikes are still holding up production for months on end, as experienced with GM in the latter half of last year costing the company $4 billion (Wayland, 2019). The same is true with pensions as Ford recorded a $2.2 billion loss due to pension plans, again in the latter half of last year (Assis, 2020). Next, the lack of innovation - all it takes is one ride in a Tesla to highlight the gaping technological difference between Detroit's Big Three and the current industry disruptors. Consumer demand for electric vehicles continues to strengthen, yet CFRA researcher Garrett Nelson projects "battery electric vehicles to account for just 5% of Ford's U.S.-based sales" by 2030 (Mullaney, 2019). Although the automakers are slimmer in 2020 than

2008, after various mergers, acquisitions, and brand sell-offs, the structural issues faced in 2008 are still present today.

A comparison of the key economic indicators of the automotive industry in the two crises can be found in Appendix B.

The Bumpy Road Ahead

“We are prisoners of the future because we will be ensnared by our past” (Bernstein, 2001, p.176).

With Detroit’s Big Three essentially becoming Detroit’s Big Two after Chrysler’s merger with Fiat in 2014 and their merger with Peugeot set for 2021, when the car brand will become Stellantis, the question now is: will the Big Two, enslaved by their past debt, survive (Trudell & Dawson, 2020)?

Because the cause of the current recession is the pandemic, it is hard to predict with any level of certainty what the future holds for the U.S. economy. One thing for certain, the economic recovery is tied to the trajectory of the virus and its containment. The full containment of the virus, without widespread lockdowns and everyone practicing social distancing, which at this point seems highly unlikely in the U.S., is predicated on the availability of a vaccine. According to an article published by Bloomberg, a survey conducted by Lazard concluded that “almost three in four health care executives and investors believe an effective and safe vaccine will not be widely available until the second half of 2021 or even later” (Orszag et al., 2020).

The focus for the short term for both Ford and General Motors is ensuring they both remain liquid enough to weather the economic downturn. In March, Ford sold $8 billion worth of junk bonds at an average interest rate of around 9% (Bushey et al., 2020). In May, although General Motors’ credit rating is still investment grade, it sold $4 billion worth of bonds at junk bond level yields averaging around 6% interest (Smith, 2020). The high yield of these debt issuings suggests a panic to raise capital fast and remain liquid.

Another negative outlook for Ford is the recent boom of its financial arm, which during times of expansion seems positive, however, to quote Peter Bernstein in *Against the Gods*, “Where one sees sunshine, the other sees a thunderstorm” (Bernstein, 2001, p.90). As noted in a Bloomberg article, “Ford Credit ... now generates about half the automaker’s profit, up from 15% to 20% in the past" (Smith & Naughton, 2020). The risk with Ford’s Credit Corporation playing an integral role in driving profits for the automotive company is that the impending credit crunch could cause significant losses instead of helping to drive profit. This is exemplified in the following passage from S&P, “ The fincos ... are preparing for significant credit losses and lower resale values for formerly leased cars as the pandemic shakes the global economy” (McElroy, 2020)

Ultimately, the chances of long-term survival of Detroit’s now Big Two is moderate at best, and naught at worst. The implications of either of these companies failing would be widespread, with hundreds of thousands lost jobs and further millions of ex-employees potentially losing out on pensions and retiree benefits.

Nov. 18, 2008:

“IF General Motors, Ford and Chrysler get the bailout that their chief executives asked for yesterday, you can kiss the American automotive industry goodbye. It won’t go overnight, but its demise will be virtually guaranteed” (Romney, 2008).

- Mitt Romney, US Senator from Utah, born in Detroit, Michigan.

Almost 12 years later, the eerie prophecy of Mitt Romney seems closer to being fulfilled.

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Appendix A

Credit Summary of the Top Allocations of the Fed's Corporate Buying Program

FED Corporate Bond Allocation	Company	Moody's LT	Moody's ST	S&P LT	S&P ST	Moody's Outlook	S&P outlook	Comments
1.74%	TOYOTA MOTOR CREDIT CORP	A1	(P)P-1	A+	A-1+	Negative	Negative	
1.74%	VOLKSWAGEN GROUP AMERICA	N/A	P-2	N/A	N/A	N/A	N/A	
1.72%	DAIMLER FINANCE NA LLC	A3	P-2	N/A	N/A	Negative	N/A	
1.48%	GENERAL ELECTRIC CO	Baa1	P-2	BBB+	A-2	Negative	Negative	Three rankings away to non-investment grade
1.34%	FORD MOTOR CREDIT CO LLC	Ba2	NP	B	BB+	Negative	Watch neg	Not investment grade
1.25%	BMW US CAPITAL LLC	A2	P-1	N/A	N/A	Negative	N/A	
1.04%	ABBVIE INC	Baa2	P-2	BBB+	A-2	Stable	Stable	Two rankings away to non-investment grade
1.01%	GENERAL MOTORS FINL CO	Baa3	P-3	BBB	BBB	Negative	Watch neg	One ranking away to non-investment grade
0.98%	CVS HEALTH CORP	Baa2	P-2	BBB	A-2	Negative	Stable	Two rankings away to non-investment grade
0.92%	BP CAP MARKETS AMERICA	A1	N/A	N/A	N/A	Negative	N/A	

The above table provides key information on 10 out of the top 15 companies whose corporate debt the Federal Reserve is buying. Data as of August 1, 2020, sourced from Investopedia, Moody's, and S&P.

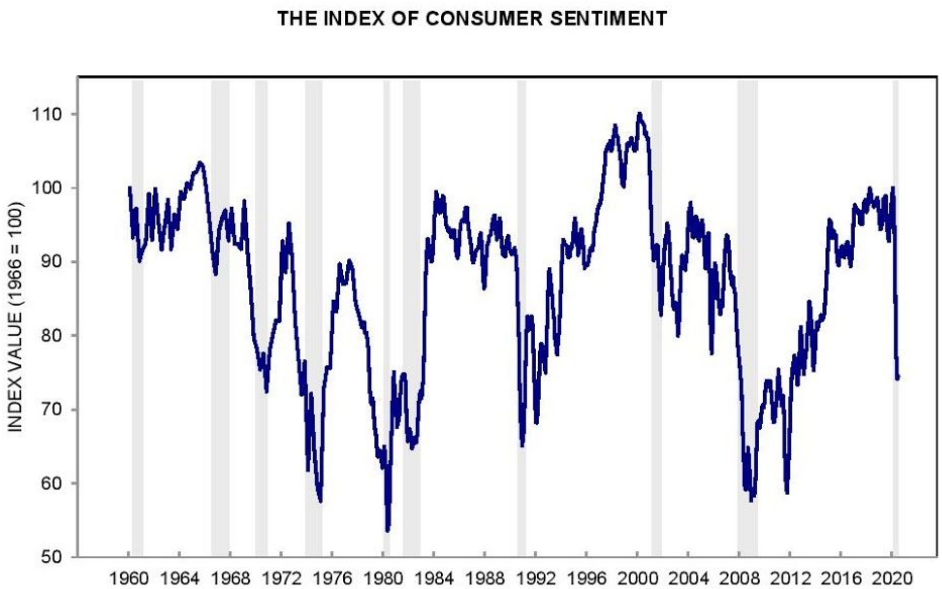
https://www.investopedia.com/the-fed-s-corporate-bond-portfolio-5069989
https://www.moodys.com/
https://www.standardandpoors.com/en_US/web/guest/home

Definitions: LT is short for Long Term, ST is short for Short Term

Appendix B

Key Economic Indicators

Consumer sentiment:

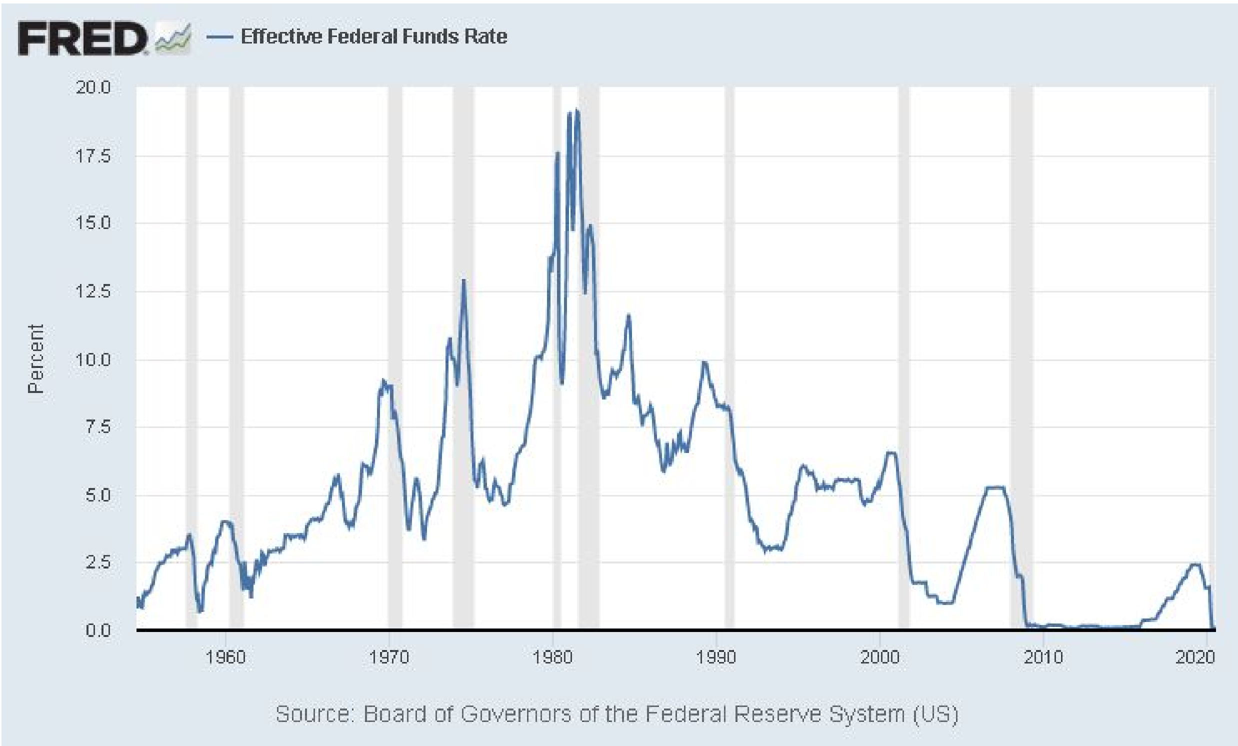


Date: August 1, 2020
Data Source: University of Michigan, http://www.sca.isr.umich.edu/

Unemployment rate:

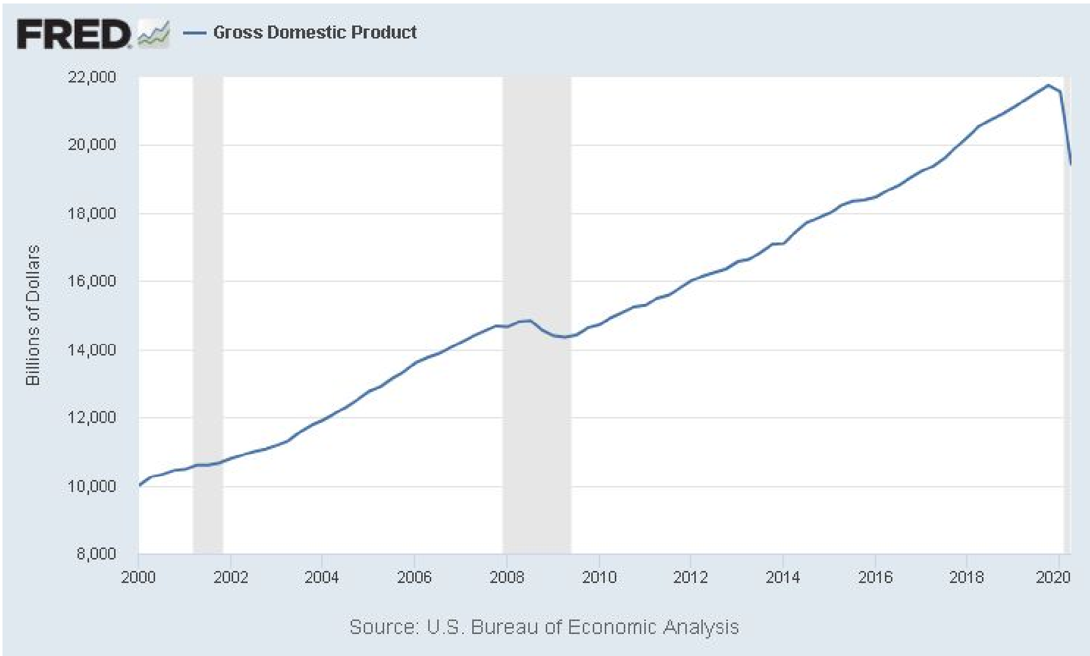
Date: August 1, 2020
Data Source: Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/UNRATE

Effective Federal Funds Rate (Interest Rates):



Date: August 1, 2020
Data Source: Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/FEDFUNDS

Gross Domestic Product:



Date: August 1, 2020
Data Source: Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/GDP