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THE 2008 GLOBAL FINANCIAL CRISIS AND COVID-19 DOWNTURN: PARALLELS AND LESSONS

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Abstract

The Global Financial Crisis of 2008 (GFC) and the COVID-19 downturn wreaked havoc on the global economy and people across the world. Lessons learned from the GFC can help the country and the world rebound from COVID-19. The research addresses the causes of the GFC and how it unfolded in the United States (US). It also discusses how the crisis spread from the US to the United Kingdom (UK) and China, as well as rescue efforts in those countries and the role of the International Monetary Fund (IMF). In addition, the research discusses the COVID-19 downturn, the parallels, and differences between the GFC and the downturn, and the lessons of the GFC that can be applied to the COVID-19 downturn. Finally, the research recommends a strategic financial rescue plan to restart post COVID-19 economic growth in the US.

***Keywords:** 2008 global financial crisis, COVID-19 downturn, economic rescue efforts, post COVID-19 economic growth, quantitative easing*

INTRODUCTION

2008 Financial Crisis

The 2008 Global Financial Crisis got its name for the reach of the crisis across the world, including the US, Iceland, China, Singapore, and other nations (Ferguson, 2010). The US lacked regulation in lending by the banks, lacked securities regulation and enforcement including of collateral debt obligations, and hosted opportunistic financial industry players and incorrect ratings by the three main rating agencies (Ferguson, 2010).

The root causes of the crisis were cascading. In the leadup to the GFC, banks provided subprime, adjustable-rate loans to individuals with high credit risk. The banks sold those subprime and other loans to investment banks, which securitized the loans and structured them in tranches as collateralized debt obligation derivatives (CDO) (Ferguson, 2010). The rating agencies mis-rated these CDOs, giving them elevated credit ratings that were not commensurate with the actual level of risk. Government agencies were forbidden by the US from regulating these derivatives (Ferguson, 2010). The banks then sold the CDOs to investors, including institutional investors who relied on the high rating of the instruments, as regulatorily many can only invest in high-rated debt securities. By channeling these institutional funds to subprime loan origination, it became possible to give credit to borrowers to whom it was previously unavailable, driving up home prices (Baily et al., 2008). Panic hit in 2007, and declining house prices prevented consumers from getting credit since their primary source of collateral for credit purposes was their home (Bernanke, 2018), so credit dried up. Simultaneously, the borrowers'

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adjustable-rate mortgages rose, and many were unable to pay their loans; borrowers walked away from their debts in droves. Foreclosures rose, and house prices continued to fall. As shown below, investors and then taxpayers were left holding the bag (Ferguson, 2010).

As a result of the GFC, the US economy seized up (Schoen, 2017). The gross domestic product (GDP) fell in its worst decline since the Great Depression. Unemployment rose while the residential and commercial real estate market plummeted. Four million mortgages were foreclosed upon, and homeownership shrank. The stock market fell, as did the value of assets in retirement accounts, which lost one third of their value. As a result, both consumer and commercial spending fell (Schoen, 2017). All this resulted in a system-wide run-on credit providers, banks, investment banks, and finance companies (Bernanke, 2018).

Exacerbating the crisis were other derivatives known as credit default swaps. These derivatives share some similarities with insurance policies, in that they pay out upon the occurrence of an event, in this case, credit defaults. Traders and other investors purchased swaps from the largest investment insurance house, AIG. When credit defaults occurred, the investors looked to AIG to pay on the swaps. Some of these investors were one and the same as those selling the CDOs, so they effectively bet against their own derivatives, and made money whether their instruments gained or lost (Ferguson, 2010). AIG, which had assets of $1 trillion before the crisis, lost $99.2 billion in 2008 (McDonald & Paulson, 2015).

Thus, the causes of the GFC were many, including inflated house and bond prices, heavy borrowing, and lax federal regulation. These were coupled with disgraceful banking practices including creation of off-balance sheet entities to purchase the assets that were not subject to capital requirements, banks being overleveraged, and lending institutions drawing in subprime borrowers with teaser ARM rates, no down-payments, and postponement of interest payments (Baily et al., 2008). Add to this the unregulated CDOs comprised of the bad mortgages, rating agencies poor performance, Wall Street employee performance compensation that incentivized bad behavior, and the bottom falling out at AIG, and we have a huge crisis (Schoen, 2017).

Contagion

The crisis spread throughout the world, including to both the UK and China. A reason the crisis spread to the UK included the US response to the investment bank, Lehman Brothers. Lehman Brothers was allowed to go bankrupt in the US, but US bankruptcy laws permit ongoing operations. Conversely, Lehman UK operated under UK bankruptcy laws, which require the institution to close. As Lehman UK could not function, monetary flows froze and the crisis escalated (Ferguson, 2010). In addition, the housing market in the UK experienced a downturn like that in the US, exposing UK banks to significant losses because they held securitized loans on and off their balance sheets (Hindmoor & McConnell, 2015). European financial institutions had invested heavily in securities linked to the US real estate market (Li et al., 2012). UK regulators seemed caught off guard by the crisis, having trust in the self-equilibrating power of capital markets, and securitization's risk-tempering properties by spreading risk through securitization (Hindmoor & McConnell, 2015).

The contagion also spread to China. China had seen a fivefold boom in its stock market from 2005 to 2007 (Li et al., 2012). Contagion from the US was a reason the crisis spread to China. With the US economy in straights and its citizens facing unemployment of 10%, the demand for Chinese products fell (Ferguson, 2010). Chinese exports dropped and China's stock market crashed, wiping out two-thirds of its market value. Chinese real estate similarly fell, which had been on a bubble as people believed real estate to be safer than the stock market (Li et al., 2012). These falling markets created significant damage to China's economy, which was only partially offset by Chinese stimulus program (Li et al., 2012).

Rescue Efforts: The US, UK, and China

The speed of recovery from the GFC was very slow (Schoen, 2017). Among other rescue efforts, the US acquired much of investment bank Bear Sterns' assets and ultimately sold it to JP Morgan Chase. Since Fannie Mae and Freddie Mac were experiencing liquidity issues, at the request of the US Treasury Department (Treasury), Congress strengthened these globally significant entities by increasing credit lines, injecting capital, placing them under the supervision of new federal agency and moved them into conservatorship (Schoen, 2017). Bank of America, with the help of the US government, acquired Merrill Lynch. Then the Federal Reserve loaned AIG, the largest insurance company in the world, $85 billion, which ultimately grew to $182 billion (Schoen, 2017). Despite these efforts by the US government, US banks still had difficulty borrowing money, and housing prices fell (Fieldhouse et al., 2019).

Across the pond, the UK underwrote UK banks with £500 billion in loans and guarantees (Fieldhouse et al., 2019). This resulted in the UK becoming a major shareholder in Lloyds Bank and RBS. The government also implemented austerity measures. It froze wage increases for public sector workers, and committed to reducing national debt and the UK budget deficit. These austerity measures lasted for ten years after the crisis (Fieldhouse et al., 2019).

China quickly adopted a stimulus package when the crisis hit (Li et al., 2012). In November of 2008, China implemented an active fiscal policy and a loose monetary policy by introducing a $580 billion stimulus package for 2009 and 2010. This caused a surge in bank lending, which increased Chinese stock and property markets. China's expansive policies are credited with lessening the drop in growth (Li et al., 2012).

The International Monetary Fund's Role in the Economic Rescue Efforts

One of the Bretton Woods institutions is the IMF. Its 2006 and 2007a Global Financial Stability Reports (GFSR) had warned of rising credit and market risks stemming from subprime mortgages packaged in hard-to-price, complex structured instruments, but the reports were not sharp enough to prompt action (Xafa, 2010). Early in the crisis, the IMF forecast a severe economic downturn and provided information to policymakers and regulators, ultimately resulting in quick, forceful official action across the globe, providing fiscal stimulus and capital injections (Xafa, 2010). The IMF's objectives in its policy recommendations included broadening regulation to include all systemically important institutions, monitoring system-wide leverage, and shaping monetary to respond to asset bubbles (Xafa, 2010). In addition, countries throughout the received assistance, including 83 countries which received emergency pandemic financing from the IMF (IMF, 2020b). Twelve years after the GFC began, the world faced another debilitating crisis. This crisis was a global pandemic, yielding a far-reaching economic downturn.

COVID-19 Downturn

The World Health Organization declared COVID-19 a global pandemic in March of 2020 (Zhang, 2020). In the US, cases began in Northeast coastal cities, then spread to other cities and to rural areas (Bauer et al., 2020). By September 15 of 2020, the US had 6.5 million confirmed cases of COVID-19, and over 195,000 deaths (Bauer et al., 2020).

COVID-19 and the responses to it created an economic crisis in addition to the humanitarian one. Voluntary social distancing and lockdown measures in the US took effect in March 2020. These measures initially isolated and drove down infections, but precipitated a severe economic downturn and limited the country's ability to produce goods and services (Bauer, 2020). Quarantine, unemployment, and business closures damaged consumer services and created shocks to demand, supply, and finance (Bauer et al, 2020). In March 2020, the US stock market hit the circuit breaker (the mechanism to halt trading due to panic-selling) four times. It had only been triggered once since its 1987 inception (Zhang, 2020). The US economy contracted by 31.4% in the second quarter of 2020 alone (Hodge, 2023).

The US made quick economic policy decisions in response to pandemic, which included significant government spending to support businesses and individuals (CFR, 2020). The goal included assisting in the maintenance of business continuity and business relationships, and the government acted quickly with fiscal and monetary policy, especially in comparison to 2008 (CFR, 2020). Fiscal policy included $8.3 billion in the Coronavirus Preparedness and Response Supplemental Appropriations Act of 2020; $192 billion in the Families First Coronavirus Response Act of 2020; $2.3 trillion in the Coronavirus Aid, Relief and Economy Security (CARES) Act of 2020; $483 billion in the Paycheck Protection Program and Health Care Enhancement Act of 2020; executive orders in 2020 to address unemployment benefits, student loan, tax deferrals, and eviction and foreclosure prevention measures; and $1.844 trillion in the American Rescue Plan of March 2021 (Hodge, 2023).

COVID-19 Downturn v. 2008 Global Financial Crisis

The crises affecting the world through the GFC, and the COVID-19 downturn offer comparisons and lessons. The parallels and differences between the two are discussed below. Then, lessons from the GFC that could be applied to the COVID-19 downturn are addressed.

Parallels and Differences

A variety of parallels exist between the 2008 GFC and the COVID-19 downturn. These include market uncertainty and collapse, and official reactions (Strauss-Kahn, 2020). In addition, both crises were likely black swan events. In 2008, market uncertainty stemmed from the toxic risk created by the subprime loans given to individuals without sufficient income or asserts, which loans and risk were transferred throughout the market and world through their securitization (Strauss-Kahn, 2020). With COVID-19, the uncertainty stemmed from the freeze of a huge amount of merchant activies across the globe. Indeed, uncertainty indicators including the Global Economic Policy Uncertainty Index and the World Pandemic Uncertainty Index were at their highest during the downturn (Strauss-Kahn, 2020). This, in both the GFC and COVID-19, investors, companies, governments, and individuals alike had difficulty assessing current and future economic and market conditions.

The 2008 GFC and the COVID-19 downturn both saw collapse of stock exchanges. In the leadup to the collapses, both crises faced overvalued markets and companies, demonstrated by the Standard and Poor 500 Index and the Shiller ' s Price/Earnings ratio, which was very high in 2008 and peaked again during the downturn (Nasdaq, 2023). Then, both crises experienced huge initial drops of the stock exchanges in major countries, up to one-fourth of their valuation (Strauss-Kahn, 2020). The following figure shows the S&P daily index for the specific GFC and COVID-19 dates, including September 15, 2008 after Lehman Brothers collapsed, and the peak on February 19. 2020 (Strauss-Kahn, 2020).

The official reactions to both crises were the same: monetary and fiscal policies that provided massive monetary support (Strauss-Kahn, 2020). As demonstrated earlier, the US, China, and the UK infused huge amounts of public funds into the coffers of corporations, banks, businesses, individuals, and other governmental bodies via takeovers, asset purchases, grants, and other mechanisms.

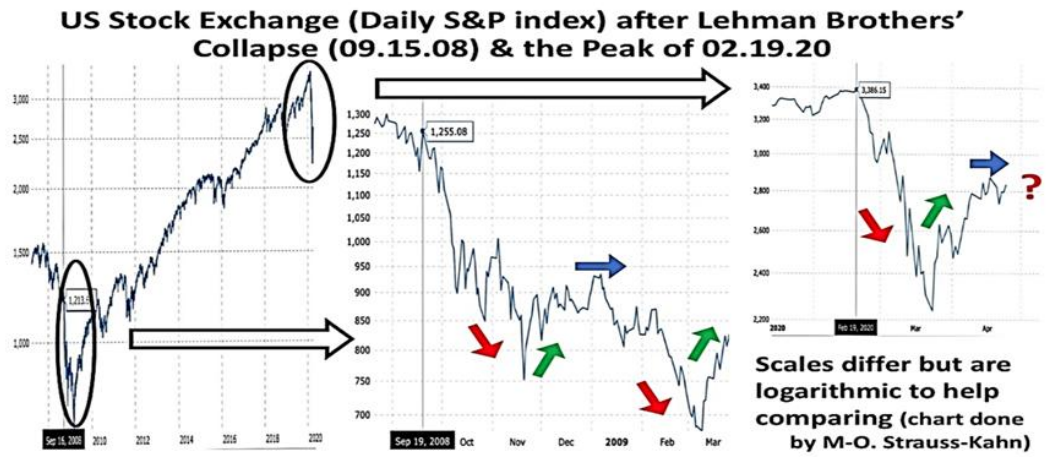

Figure 1. S&P Daily Index for GFC (September 15, 2008) and COVID-19 (February 19, 2020).

Note. Adapted from *Can we compare the COVID-19 and 2008 crises?*, by Strauss-Kahn, M-O. 2020, May 5, *Atlantic Council* (https://atlanticcouncil.org/blogs/new-atlanticist/can-we-compare-the-COVID-19-and-2008-crises/). Copyright Atlantic Council.

Last, the GFC and COVID-19 were likely both black swan events. Black swan events are outliers and seem unpredictable, and carry an extreme impact, but review of the event after the fact makes the event explainable and predictable (Drake, 2021). The GFC has been considered a black swan event in its severe, sudden crash of the booming housing market (CFI, 2023a). COVID-19 is considered a black swan event too, CFI (2023a), but Drake (2021) asserts that COVID-19 was not a black swan event since epidemics have long been a part of human history.

While the GFC and COVID-19 downturn contained similarities, a variety of differences between the two crises exist. For example, the speed and shape of the economic shock was different. The GFC had what is known as a U-shaped GDP curve, with a longer period in economic crisis. In contrast, the COVID-19 downturn had a more V-shaped shock curve, with the GDP rising again more quickly (Strauss-Kahn, 2020). Next, the US reaction was more immediate at the onset of COVID-19 than at the start of the GFC. An economic goal during COVID-19 was business continuity and business relationships, and the US acted quickly with fiscal and monetary policy, especially in comparison to 2008 where it took the government longer to act (CFR, 2020). Moreover, the GFC affected financial institutions, stock markets, and the housing markets across the globe but made little impact on the supply chain. Conversely, COVID-19 drastically affected the supply chain, which is discussed in more detail in a later section (Strauss-Kahn, 2020). Last, the world acted more multilaterally with the GFC than with the COVID-19 response. There was less coordination between governments and institutions globally during COVID-19 (Strauss-Kahn, 2020). Whether this is due to attacks on multilateralism, Strauss-Kahn (2020), self-interest or other factors, it is troubling in a world as inter-reliant as ours is now.

Lessons From the GFC That Could be Applied to the COVID-19 Downturn

Numerous lessons from the 2008 GFC could be applied to the COVID-19 downturn. These include greater levels of international collaboration as discussed above, and a multinational policy response assessment (IMF, 2020a). Countries should individually and together consider future challenges including those stemming from the skyrocketing levels of public debt associated with the bailouts. Global and regional cooperation can help mitigate economic and financial risks and leverage cooperation to manage these risks (IMF, 2020a). In addition, during the GFC, governments conducted post crisis assessment of financial and economic risks emanating from the core financial sector, and made key structural and regulatory changes, IMF (2020a), a process which governments across the world should now do. Indeed, such assessment then helped spawn an industry, Fintech (IMF, 2020a). Similar assessments and regulatory environments now can likewise spur industry, such as in the high-tech areas of digital assets, blockchain, and smart contracts, which, done right can create certainty, accountability, and stability in the global marketplace.

Strategic Finance Plan to Restart Post COVID-19 Economic Growth in the US

The US economy still faces challenges coming off the global pandemic, including remaining supply chain issues and Russia's war on Ukraine, which is affecting global energy and food suppliers (Bachman, 2023). Thus, a plan to restart economic growth in the US post the COVID-19 downturn would include addressing those two concerns as well as target exchange rates; target interest rates; target inflation rates; trade stimulation; tax policies; quantitative easing; debt relief; and potential equity positions taken in companies. A strategic plan to restart post COVID-19 economic growth in the US involving these concerns will be discussed in the following section.

Supply Chain Issues

Supply chains issues still plague us post pandemic. Supply chain issues include long lead times, materials shortages, higher logistics costs, fluctuating and unpredictable consumer demand, manufacturing constraints, inflexible operations, environmental risk, and natural disasters (Stekier, 2023). A strategic plan to restart economic growth post COVID-19 includes addressing supply chain issues both at the corporate level and the policy level.

Companies and governments should diversify their supply chains to have more than one supplier to meet their needs (CFR, 2020). Companies and governments also need to increase and utilize international relationships to facilitate supply and trade (CFR 2020). Companies should consider vertical integration in which they take interests in their supply chains, Mihm (2022), and governments should support vertical integration opportunities with law or policy, such as the need for local mineral and gas production to support industry and supply uses. Companies also should consider near-shoring or producing products closer to home, to address higher logistics costs. Companies could utilize logistics strategy and network optimization to map out and optimize locations of shipping, warehousing, and customer bases, then consider consolidation, expansion, third-party vendors, and trucking optimization (Stekier, 2023). In addition, to address manufacturing constraints, companies should understand their capacities, capabilities, and costs to understand the company's ability to react, adjust, and thrive during operational disruptions (Stekier, 2023).

Global Energy and Food Supply

COVID-19 and Russia's war on Ukraine have disrupted the world's supply of energy and food. While world food prices have fallen as of late, especially in staples, they are still very high, as shown using the food price index on Figure 2.

Prices of agriculture commodities and fertilizers are extremely high, rice prices have soared, and grain stockpiles are limited. This might be helpful for farmers, but farm profits are being hit by high costs (de Sousa, 2023). Some experts believe there will not be further food shortfalls, but that could stem from weaking demand due to a slowing economy, de Sousa (2023), and a weakening demand on food is alarming. Russia ending its war on Ukraine will help end the worst food crisis since World War II (de Sousa, 2023).

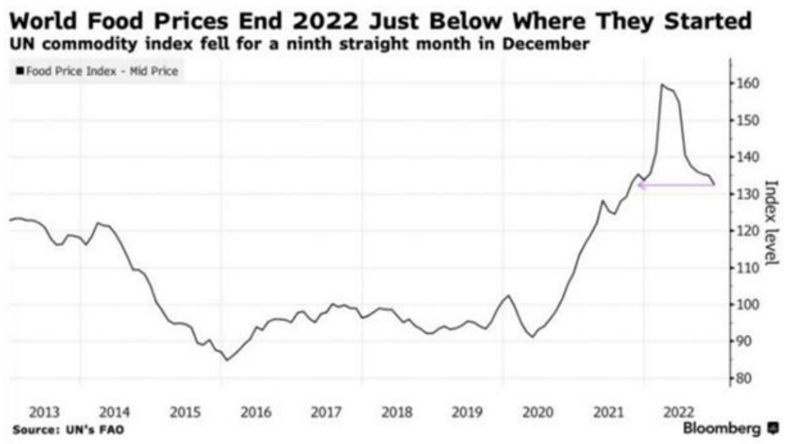

Figure 2. World Food Prices End 2022 Just Below Where They Started.
Note. Adapted from *World's Food Crisis Is Far From Over Despite Crop Prices Falling. Bloomberg*, by De Sousa, 2023, Jan. 27, *Bloomberg* (https://www.bloomberg.com/news/newsletters/2023-01-27/supply-chain-latest-crop-prices-have-fallen-but-food-crisis-threat-persists). Copyright Bloomberg.

Energy challenges also continue to exist post Covid, in part due to Russia's invasion of Ukraine. Oil and gas prices have fallen from their highs, but remain elevated. Western countries have sanctioned Russian oil, pledging not to buy Russian oil, and Western insurance companies and shipping companies are prohibited from insuring or shipping Russian oil unless its price is below a cap (Gross, 2023).

In addition, the globe is experiencing a natural gas crisis, which is expected to worsen in 2023. Russia was a key supplier of gas to Europe, so Europe has been buying liquefied natural gas (LNG). This has been affecting the LNG markets, and decreasing supply available to other consumers (Gross, 2023). Many energy producing US states would like to see production of US sourced gas increase, but the federal government has been halting oil and gas leasing. In response states are taking actions against the Biden administration, including Wyoming and West Virginia. Wyoming has filed two lawsuits, the last in December 2022, against the Department of the Interior for the Bureau of Land Management's decision to pause oil and gas lease sales (Woodward, 2022). And Senator Joe Manchin of West Virginia called on the President to increase domestic energy production since the Organization of Petroleum Exporting Countries+ (OPEC+) cut oil production by two million barrels a day (Charleston, 2022). The US should continue to lease gas and oil, and make sure the gas supplies are provided locally and more economically to the consumer.

Target Exchange Rates

Exchange rates are the price of one currency in terms of another. A variety of exchange arrangements exist. Target zone exchange rates involve countries pledging to maintain currencies within a particular band (Policonomics, 2023). The US has a floating currency, shifting away from the dollar being fixed against gold in the early 1970s (IMF, 2023). The currency price of a floating exchange rate is determined by the foreign exchange market based on relative supply and demand (CFI, 2023b). Governments can intervene to keep currencies favorably priced. These can be considered "target" exchange rates. Increasing supply of a currency when demand stays the same depreciates a currency pair. Increasing supply of a currency when demand rises will appreciate the currency pair (CFI, 2023b).

A variety of factors go into the calculus of an ideal exchange rate for the US dollar. The dollar retains its place as the world's currency reserve, so central banks and financial institutions globally hold dollars for international transactions ("What the strong dollar", 2022). Currently, the US dollar is strong since our economy is healthier than many and the Fed keeps raising interest rates. This strong dollar may help stocks of companies that export to the US, but hurts stocks of US companies operating internationally ("What the strong dollar", 2022). Indeed, retirement portfolios are full of S&P 500 companies, but these companies earn 40% of their revenue outside the US. When the dollar rises against a foreign currency and a US company has operations there, that company's sales are worth less when exchanged back into US dollars, impacting corporate revenues, earnings, and stock prices ("What the strong dollar", 2022). The US should be mindful of the strong dollars' impact on US multinational businesses. If, as recommended below, the US stops raising interest rates, we may see the dollar be less strong, helping US multinational businesses, but at the peril of US travelers wanting to go abroad ("What the strong dollar", 2022).

Target Interest Rates

The Federal Open Market Committee (FOMC) of the Federal Reserve sets the target rate, or range, for federal funds market trading, the unsecured borrowing between depository institutions (NY Fed, 2023). The target range set on May 3, 2023 was 5 to 5.25%, an increase from the prior target of 4.75 to 5% (NY Fed, 2023). The Fed's reason for the increase was to support goals of bringing inflation to 2% and maximum employment (Fed., 2023).

A concern with raising interest rates is that doing so will slow the economy; with borrowing costing more, businesses may cancel new ventures or cut jobs, and individuals will decrease spending (Rugaber, 2023). Others recommend interest rates be kept high to tame inflation; this will increase unemployment, help to stabilize inflation, create sustainable growth, and lead to job growth in long term (Hodge, 2023). The effect of the 2022 interest rate hikes was projected to be seen in 2023, but some thought hikes unlikely to push the US economy into recession (Bachman, 2023). Indeed, we are not in a recession. However, the target range now is the highest in 16 years (Foster, 2023). The increases make it more expensive for individuals, companies, and banks to borrow. This affects the job market, US purchasing power, and the economy. Moreover, high interest rates necessarily affect banks worldwide. Indeed, Silicon Valley Bank, Signature Bank, and First Republic Bank have already collapsed (Foster, 2023). Layoffs have risen and fewer Americans are resigning, demonstrating less confidence in the job market (Foster, 2023). Thus, the plan to restart the economy post Covid should include no further increases in interest rates, but rather keep them as they are, and see how inflation and unemployment evolve.

Target Inflation Rates

Inflation is the upward movement of prices for goods and services in an economy (Engemann, 2019). Inflation dynamics in a country respond, to varying degrees, to tight demand and supply conditions, high inflation expectations, and the eroding value of national currencies ("World economic situation", 2023). When inflation is high, central banks aim to slow demand growth, reducing pressure on prices and easing inflation ("World economic situation", 2023).

Inflation has been persistent in the US, although falling as of late (CBO, 2023; TE, 2023). The annual US inflation rate in April was 4.9%, the lowest in two years (TE, 2023). The goal of the Federal Reserve (Fed) is 2% inflation which is deemed essential for stable employment growth and sustainable income increases (Hodge, 2023). The target rate regards the overall or "headline" personal consumption expenditure (PCE) rate which includes food and energy (as opposed to core inflation which does not include food and energy) (Engemann, 2019). The plan to restart the economy post COVID-19 should include this target inflation rate of 2%, as this target has long been used, explicitly or implicitly, and gives the Fed room to cut interest rates and avoid deflation (a downward movement of prices on goods and services) (Engemann, 2019).

Trade Stimulation

The US should take advantage of free trade agreements and regionalization to stimulate trade. The U.S.-Mexico-Canada Agreement (USMCA) and its predecessor, the North American Free Trade Agreement (NAFTA) have integrated Canada, U.S., and Mexico (CFR, 2020b). They have stimulated trade between the three countries, created jobs, caused productivity gains, and lowered consumer prices (CFR, 2020b). The USMCA offers regionalization benefits. Regionalization involves producing products and services closer to home (WSJ, 2023). Regionalization can create logistics savings, Stekier (2023) and spur regional and local employment (WSJ, 2023). In addition, trade can be stimulated by following the recommendations of the Council of Economic Advisers, which include continuing to take measures to sustain economic growth, and investing in human capital and labor supply, physical capital, and digital markets (White House, 2023).

Tax Policies

Tax policies to stimulate the economy post Covid should include lowering taxes, especially employment and income taxes, and offering corporate tax incentives ("Tax policy is playing a key", 2022). Rising food and energy prices can be offset by tax reductions. Targeted reductions such as lower tax brackets can help support employment and benefits, and corporate tax incentives stimulate innovation and investment ("Tax policy is playing a key", 2022). In addition to tax cuts, federal spending should be curtailed.

Quantitative Easing

Quantitative easing (QE) is an unconventional monetary policy involving large-scale asset purchases (Yang & Zhou, 2017). This policy was adopted by the Fed during the GFC. QE is hotly debated as it is believed to have a strong spillover effect on the economy and global capital markets (Yang & Zhou, 2017). In March, 2020, the Fed offered a 0% interest rate policy and a $700 billion QE program, followed just eight days later by an unlimited QE program (Zhang, 2020). These significant and non-conventional measures appeared to stop the panicked sell-off. But the US's unlimited QE program created additional uncertainty between investors' short-term and long-term expectations and created uncertainty in the global and emerging markets (Zhang, 2020). In addition, QE programs may create long-term problems, Zhang, (2020), since the QE that occurred after 2008 contributed significantly to systemic risk (Zhang, 2020; Yang & Zhou, 2017). The US needs to undergo an assessment of the extent to which its post COVID-19 actions increased risks to capital markets, and then take measures to address these risks. One of these risks is the high levels of federal debt.

Debt Relief

The US offered a variety of debt relief during COVID-19, for example, federal student loan debt relief, and providing funds to businesses and banks so they could keep borrowers from defaulting (Treasury, 2023b). However, debt relief cannot be fully addressed without a discussion of the debt of the federal government. Federal debt in the US held by the public is expected to rise from 98% of GDP in 2023 to 118% in 2033. Interest cost growth and mandatory spending from 2023 through 2033 outpaces revenue and economic growth, which is causing the debt to increase (CBO, 2023).

Some question whether the debt creates a true problem for the US and the world. The debt certainly has grown in response to the crisis. But, during World War II and shortly thereafter, large government spending brought the US federal debt to GDP ratio to 100%; by the 1960s the debt to GDP ratio had fallen to 40%. Thus, there is an argument that this big spend will be counter-acted by increasing GDP (CFR, 2020). Others argue the massive debt needs to decrease, as it elevates risks, prevents governmental ability to respond to emergencies, slows growth, and crowds out private investment (Boccia & Lett, 2023).

Recommendations for addressing the federal debt include taking actions that increase the unemployment rate. The US currently has its lowest unemployment rate of the last 54 years (Commerce, 2023). This has contributed to high US inflation, as low levels of unemployment generally mean higher levels of discretionary income, and more demand, so increased prices (Bachman, 2023). Increasing unemployment could be done through increased automation, changing the age of retirement, permitting increased levels of competition for US jobs, or increasing work immigration. Some argue that unemployment can remain low even as the nation seeks to bring inflation down, as the unemployment rate is 3.5% now but was 3.5% in 2019, when there was low and stable inflation (Bloesch, 2022). The labor market is tighter now, with more resignations and vacancies, which is pushing wages higher. Once the labor market loosens up, with lower quit rates and slower wage growth, some predict inflation will come down regardless of the unemployment rate (Bloesch, 2022).

Regardless of whether one believes federal debt is a problem, at this time where raising the federal debt limit is being debated, these issues need to be addressed in order to continue to move our economy forward after COVID-19. In the author's opinion, US federal debt needs to decrease to continue to provide intergenerational strength to subsequent generations, ensure our strong and stable currency and capital markets, and offer a sustainable economy.

Potential Equity Positions in US Companies

At times in crisis, the US steps in to take control of companies, and it can be very advantageous to the economy as well as profitable. For example, during the GFC's housing market free fall, the US bailed out mortgage companies Fannie Mae and Freddie Mac. Then, the US put them under conservatorship and eventually took them over, which, as their regulator, they can do (Olick, 2018). The institutions remain under conservatorship as government-sponsored institutions. Ten years after the take-over, the net profit to the US was already $88.3 billion; the US bought the institutions when prices were low and no one else wanted in (Olick, 2022). The companies continue to build capital, one of the requirements to get them off conservatorship (Layton, 2022).

Similarly, during the GFC, the US took over insurance giant AIG. The Federal Reserve and the Treasury committed $182.3 billion, and $205 billion has been returned to the US through repayments, cancellations, reduced commitments, interest, fees, and gains, resulting in a positive return of $22.7 billion. After AIG's last repurchase in 2013, the US retains no residual interest in AIG (Treasury, 2023a).

Currently, the US has been facing more equity decision-making. The US is taking possession of failing banks and lining up purchasers. Most recently, the US took possession of First Republic on May 1, 2023, and JP Morgan Chase announced it will purchase First Republic's deposits and a substantial majority of its assets (Son, 2023). Silicon Valley Bank collapsed in March (Son, 2023). Signature Bank was closed by New York State in March and put in receivership under the Federal Deposit Insurance Corporation (FDIC) which took over operations in March 2023 (FDIC, 2023). That same month, FDIC and a Flagstar Bank, a wholly owned subsidiary of New York Community Bancorp, Inc., entered into agreements to purchase and assume Signature's deposits and loans (FDIC, 2023).

Opportunities arise where the US needs to step in, statutorily or otherwise, to help prevent further collapse. Purchasing assets in such opportunities can be not only economy-saving, but also extremely profitable, and the US should continue to utilize this method, while taking care to release the companies back to the free market once they are stable and the government and taxpayers have been repaid.

CONCLUSIONS

The Global Financial Crisis of 2008 and the COVID-19 downturn wrecked having throughout the US and across the world. These crises were met with strong outflows of public funds from national governments and international institutions such as the IMF. This funding may well have helped prevent catastrophic recession or depression, and helped individuals and businesses across the world.

However, the monetary outflow has left some holes that need to be fixed, including the US national debt and the inability of some nations to repay international loans (IMF, 2020a). In addition, the global financial market's risks have increased as the result of pandemic (Zhang, 2020). COVID-19 and national responses to it created challenges, including that the shutdown separated people from employment and contracts, removed the anchor of steady work for many, and harmed the public's senses of wellbeing and belonging (CFR, 2020). In addition, the bailouts from both the GFC and COVID-19 increased federal debt in the US across the world, and this level of debt makes it such that we may not be able to properly tackle upcoming problems (CFR, 2020). With appropriate consideration, adoption, and implementation of strategic financial rescue planning, the downturn's effects on the US economy and other economies can be remedied, and nations with economies stagnating can become energized.

Conflicts of Interest Statement:
The authors have no conflicts of interest to declare.

Disclaimer:
The views expressed herein are those of the author(s) and do not reflect the official policy or position of their employers, or any agencies under the U.S. Government.

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