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Changes in the U.S. Distribution of Wealth: Post-COVID-19 Pandemic (Literature Review)

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ABSTRACT

The economic shock caused by COVID-19 Pandemic caused the U.S. economy to enter into its worst recession since the Great Depression (Weinstock, 2021, p. 2); thereafter, subsequent enactions of fiscal policy and asset price fluctuations have raised concerns in regard to domestic wealth inequality. This literature review aims to examine and interpret the effects that the COVID-19 pandemic had on the distribution of wealth in the United States when stratified by wealth percentile, income percentile, and race. Our main findings were that the distribution of wealth did not change when stratified by wealth or income percentile, but did change when stratified by race. We also identify inadequacies in the methods that are currently used to measure the distribution of wealth and offer recommendations to improve this process.

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1. INTRODUCTION

On March 13, 2020, the White House declared the COVID-19 pandemic a national emergency (Biden Jr., 2022). The prior month (February 2020) the National Bureau of Economic Research had declared that the United States economy was entering into a recession. Although the COVID-19 recession only persisted for two months, its effects on the U.S. economy were significant and long-lasting: in 2020Q2, unemployment peaked at a record-setting 14.7%, as recorded by the Bureau of Labor Statistics (BLS), the highest it had been since the BLS started in 1947; moreover, the U.S. GDP decreased by 31.4% as measured by the Bureau of Economic Analysis (the greatest single-quarter decline of real GDP recorded since the BEA started in 1947) (Weinstock, 2021, p. 2). Economic theory suggests that, generally, recessions are caused by a shock to either aggregate supply or aggregate demand; circumstances caused by the pandemic led to both (Weinstock, 2021, p. 3). Lockdown measures instated with the intent of slowing the spread of the virus led to a sudden decline in productivity and overall consumption. As demand for most goods plummeted, demand for sanitary products quickly increased, leading to excess demand for these goods and subsequent supply chain issues. Many job losses that were introduced as temporary furloughs had become permanent, and an overall sense of decreased financial stability led to an overall decrease in consumption and an increase in savings deposits. These issues, coupled with substantial increases in asset prices and outpouring fiscal support since the start of the pandemic, have raised concerns regarding a potential increase in wealth inequality.

The Federal Reserve Board's data set entitled the U.S. "Distributional Financial Accounts (DFA)" is commonly used to measure the distribution of wealth due to its frequency and utilization of comprehensive microdata. For each quarter, the DFA uses historical relationships between macroeconomic aggregates measured by the Financial Accounts (FA) as well as survey distributions measured by the 2019 Survey of Consumer Finances (SCF) to extrapolate the distribution of wealth. The DFA, FA, and SCF are all produced by the Federal Reserve Board. The Financial Accounts provide quarterly data on transactions, assets and liabilities, and balance sheets by entity category; the SCF is a triennial household survey of a representative set of households used to forecast an estimation of the distribution of the wealth that is recorded by the FA. There were two instances where a panel element was used in the survey (those who responded 1983 survey were re-interviewed in 1986 and 1989, and those who responded to the 2007 survey were re-interviewed in 2009); this is to say that the SCF includes a historical element to its estimations on wealth distribution (Batty et al., 2019).

In this paper, we focus on data mostly from 2020Q1 through 2021Q1 (which we will simply refer to as "the pandemic") to assess whether the pandemic significantly impacted the distribution of wealth in the United States, as stratified by three factors: 1) wealth percentile, 2) income percentile, and 3) race. Included in our discussion will be an analysis of whether the current methods of determining the distribution of wealth are adequate during times of unprecedented economic circumstances. For the purposes of this paper, we will refer to those in the top 1% of the wealth/income distributions as being the Top 1, those in the top 10% as the Top 10, those in the bottom 50% as the Bottom 50, etc.

2. LITERATURE REVIEW

2.1. Changes to the distribution by income percentile and wealth percentile

There is very little literature regarding the direct effect that the COVID-19 pandemic had on the distribution of wealth by wealth and income percentile. The primary paper discussed in this section is a study published by the Federal Reserve Board (Batty et al., 2021) which suggests that there were no significant changes in the aggregate distribution of wealth by wealth percentile nor by income percentile from 2020Q1 to 2021Q1. Batty et al. (2021) found the DFA to overestimate increases in wealth inequality during the COVID-19 pandemic due to the over-attribution of excess savings deposits caused by unprecedented circumstances— namely substantial fiscal support and drastic decreases in consumption— to wealthier households. The SCF, which is used to construct the DFA, contains historical data on changes to household wealth over time; however, the unique circumstances surrounding the COVID-19 pandemic render the DFA inadequate, as it is not able to factor in these unique circumstances accurately (Batty et al., 2021).

Batty et al. (2021) found that U.S. households gained an aggregate of $18 trillion in wealth, mostly due to asset price increases; these asset price increases made up 80% of wealth gained during this period. Although the volume of net transactions for equities and real estate increased, these asset classes did not experience nearly as high of an increase in net transaction rate as savings deposits did. The increase in deposits was due to a combination of decreased consumption during the pandemic and fiscal support from the government. As reported by the Congressional Research Service (2021), "Congress passed four laws to provide economic stimulus and assistance to the American people— the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020 (P.L. 116-123); the Families First Coronavirus Response Act (P.L. 116-127); the Coronavirus Aid, Relief, and Economic Security (CARES) Act (P.L. 116-136); and the Paycheck Protection Program and Health Care Enhancement Act (P.L. 116-139). Additional relief and stimulus were enacted in December 2020 and March 2021 in the Consolidated Appropriations Act, 2021 (P.L. 116-260), and the American Rescue Plan Act of 2021 (P.L. 117-2), respectively." U.S. households were able to increase savings deposits not only due to fiscal stimulus but also due to decreased rates of consumption.

Batty et al. (2021) point out that the categories of consumption that experienced the greatest decrease in consumption—namely travel and entertainment— are categories that are largely consumed by wealthier households, who thence have the most savings to gain here. On the other hand, jobs most affected within the service sector paid low wages; the employees of these jobs could receive a replacement rate of over 100%. In this secondary case, households of lower wealth/income have the most to gain here. Both of these factors (and similar ones) make it difficult to assess how fiscal policy and decreases in consumption affected the savings deposits of different wealth and income percentiles.

In order to control for uncertainty regarding the impact of fiscal support and decreased consumption, Batty et al. (2021) first estimated the volume of pandemic-induced savings to be 1.8 trillion between 2020Q1 and 2021Q1, then compared the distribution shown in the DFA against the distributions estimated under three different scenarios: 1) all excess savings went to the bottom 50, 2) the excess savings were equally distributed amongst all wealth and income percentiles, 3) the excess savings were somewhat equally distributed among wealth and income percentiles. Their results showed that under all circumstances, wealth inequality remained somewhat stable. Although lower wealth/income households experienced a "large increase in savings" during that period, households of higher wealth/income also

experienced an increase in asset price, and the growth rate for the wealth of wealthier households was not nearly as great as the growth rates for lower wealth households.

Contrary to the study done by Batty et al. (2021), data from a separate study by Kartashova & Zhou (2021) suggested that the recent pandemic exacerbated wealth inequality as analyzed by wealth percentile. However, it is important to note that this study used data from the SCF, which the Federal Reserve Board found to be inadequate given the unique and unprecedented circumstances of the COVID-19 pandemic. Both studies acknowledge that asset price increases played the biggest role in wealth gain during the pandemic and that real estate and savings played a smaller role.

2.2. Changes to the distribution by race

Kartashova and Zhou (2021, pg. 3) found that racial wealth disparities also can increase due to differences between black and white households in the composition of their asset portfolio, and therefore, a difference in asset returns. They report that low-wealth households tend to hold most of their wealth in real estate, while high-wealth households tend to hold most of their wealth in stocks and private businesses. This is similar to the difference in the portfolios of black households vs. white households: "white households hold a substantially higher fraction of assets in public and private equities (44% compared to 20% for black households), while the primary residence is the major asset in black households' portfolio (44% compared to 24% for white households)." This is important to note, given that equities during the pandemic surged, giving U.S. households 18 trillion from 2020Q1 to 2021Q1 (Batty et al., 2021). Other factors that can be attributed to growing wealth inequality are differences in initial wealth, income, savings rates, and differences in the return on assets held (Aladangady and Forde, 2021).

In addition to differences in returns due to differences in asset portfolios among households of different races, in the short run (and particularly during recessions), wealth inequality among different races is exacerbated by a few factors: first, the use of accommodative monetary policy— the lowering of interest rates— may be useful in increasing economic activity, reducing unemployment, and slowing down increasing rates of unemployment; however, in the long run, a decrease in interest rates widens the racial wealth gap as black households hold fewer assets that appreciate in value than white households (Bartscher et al., 2022). In fact, the most recent survey by the SCF (2019) suggests that "the median wealth of a white household was $181,400, compared to only $20,700 for the median black household, implying that the typical black household owns only about 11 percent of the wealth of the typical white household" (Bartscher et al., 2022, p. 1). Additionally, "White households hold a much larger share of wealth than their population share, with Black and Hispanic households disproportionately concentrated at low, or even negative net wealth ranges" (Aladangady et al., 2021). During the pandemic, the Fed cut interest rates to "near zero" (the Fed, February 2021) and the Federal Funds Rate also fell below its historical average (the Fed, August 2021), which would leave black households vulnerable to this dynamic.

Lastly, black households tend to be more suseptible to economic shocks than white households due to holding less wealth, earning less and thence having to liquidate their assets during times of financial hardship, and having lower income (Khanal et al., 2021). Khanal et al. (2021) agrees with the sentiment that the COVID-19 pandemic exacerbated racial wealth disparities, however Black households had a disadvantaged starting point. According to the 2019 SCF, white households held 86% of wealth while black households held 2.9, five times less than they should have if wealth was distributed equally among different raial groups given their population size. Simiarly, Hispanic households held 2.8% of the wealth when they should proportionally have held four times more. Black businesses tend to be

over-represented in the sectors of leisure, hospitality, transportation, and retail; all of these sectors were significantly and negatively impacted by COVID-19, increasing the risk of bankruptcy for these black households.

2.3. Shortcomings of the SCF

Even before the COVID-19 pandemic, multiple studies have found the level of wealth inequality to be lower than what is implied in the SFC data (Batty et al., 2019). Regardless of its misattribution of an unprecedented increase in savings deposits to the wealth and income distributions, the SCF has another significant shortcoming: it does not include wealth from DB pensions and Social Security, both of which make up a significant portion of household wealth, particularly for lower-income households (Jacobs, 2021). These shortcomings raise the question as to whether the survey methods used in the SCF should be re-assessed for its ability to capture household wealth in its entirety.

Jacobs et al. (2021) found the SCF to greatly overestimates wealth inequality due to its exclusion of Defined benefit (DB) pensions and Social Security benefits, which are excluded due to the difficult nature of measuring these assets. Jacobs et al. (2021) find that "the present value of DB pensions and Social Security benefits accounts for more than half of all wealth" and are concentrated in the lower half of the wealth distribution. Given that retirement is a primary reason many U.S. households save, coupled with the common availability of DB pensions and Social Security, these assets are large and important categories of wealth that cannot be excluded without significantly distorting the distribution of wealth. For example Jacobs et al. (2021, citing Social Security Administration, 2016) reported that Social Security "[represents] the single largest source of retirement income for more than 60 percent of retired households." The SCF does, however, include Defined-contribution (DC) plans, such as 401-K's. DCs are often used interchangeably in regard to DB pensions, further emphasizing the importance of including these assets when measuring the distribution of wealth. Here is an excerpt of their conclusions:

> *"In particular, the "90/50 ratio"—the ratio of wealth held by those at the 90th percentile of wealth to those at the 50th percentile—is reduced by nearly half for the 50– 59 age group (from 13.4 to 6.8 in 2019) and for the 40–49 age group (10.7 to 6.4) when we include the estimated value of Social Security. The "50/10 ratio" declines even more with the inclusion of Social Security; for 2019, the ratio falls from 13.1 to 4.3 among those aged 40 to 49 and from 21.3 to 4.2 for the 50–59 age group. The share of wealth held by the "top 5 percent" drops from about 72 percent down to 51 percent when defined contribution (DC) plan and DB pension wealth are added to non-retirement wealth; it falls even further, to 45 percent, when Social Security benefits for those aged 40 to 59 are included. The inclusion of each measure, however, has a somewhat different effect: Social Security decreases wealth concentration "at the top," whether we look at the top 5 percent's share of wealth or the 90/50 ratio; DB decreases the top 5 percent's share, but in more recent years, it actually increases the 90/50 ratio. The top 5 percent's share of our expanded wealth measure rises 8 fewer percentage points compared with the top 5 percent's share of non-retirement wealth over the 1989–2019 period."*

As of March 2021, 15% of all private-sector workers have a DB plan (U.S. Department of Labor et al., pg 191). Due to the fact that they account for a significant portion of U.S. household wealth, we should

include estimates of DB pensions and Social Security as stratified by wealth percentile, income percentile, and race when measuring changes in the wealth distribution.

3. DISCUSSION

It may be beneficial to include a more complete picture of wealth in the SCF surveys in order to construct a more accurate picture of the distribution of wealth. This will help us better understand the needs of various demographic groups and construct policies that will be more impactful and beneficial for those they intend to help. However, as outlined in Section 2.2, we must understand the implications of these policy changes to ensure the policy isn't counter-active.

There are many benefits to being able to accurately track the current distribution of wealth, especially throughout significant economic events such as the COVID recession. Understanding wealth inequality and what causes such disparites can allow us to better create effective solutions for those it impacts. Second, understanding how different demographic groups are impacted can allow policymakers to better insulate and prepare those who are usually most impacted by catastrophic economic events. There are a few key negative outcomes associated with wealth inequality; first, economies with a significant portion of low-wealth households suffer greater decreases in consumption during a recession, as low-wealth households have the highest marginal propensity to consume (Amromin et al., 2018, pg. 1-2 cited Krusell and Smith, 1998 and Krueger et al., 2016). Additionally, " downward movements in wealth are associated with negative consumption growth rates." These dynamisc can cause a recession to be longer lasting and more severe.

There are limitations to the resources used, namely the SCF, DFA, and FA. We expanded on this throughout the paper; not only do these resources not account for the unprecedented amount of excess savings (hence, it does not accurately distribute these savings), but also, these resources do not include DB pensions and Social Security wealth. One paper which estimated how the inclusion of DB pensions and Social Security benefits stated limitations with including such benefits in the distribution of wealth: "Alvaredo et al. (2018) caution against strong interpretations when such illiquid resources are included to measure wealth inequality given that households do not have ownership over their Social Security wealth in the same way that they do over non-annuitized market wealth. Indeed, such resources cannot be used as collateral in part for these reasons, and their provision is subject to the fulfillment of future government obligations. If we were to measure the utility value of these resources, this inflexibility would likely mean that the utility of Social Security is less than that of other forms of wealth. However, because there remains a high degree of substitutability of DB pensions and Social Security with the other components of wealth, and accordingly much of the literature regarding wealth concentration is presented in levels, for comparability we do so as well." Including Social Security and DB benefits are beneficial to create a full picture of household wealth, but it is important to interpret these figures with caution as they do not have the same utility as other forms of wealth (ie stocks, real estate etc.).

4. CONCLUSION

We found that the distribution of wealth did not significantly change when stratified by wealth or income percentile; however, the distribution of wealth did change when stratified by race. There are factors that correlate with race which explain diffences in wealth between the average Black household and the average White household. Factors such as lower income, savings rates, and initial amounts of wealth all

have contributed to the growing racial divide. Other factors incuded differences in assets and the respective return on those assets. The COVID recession heavily impacted certain asset classes, which resulted in a greater increase in wealth among White households (namely, increase in stock prices).

We did not find wealth to be significantly ipmacted by the COVID recession when stratified by wealth and income percentile once we controlled for excess savings. Through this literature review, we found that increase in excess savings were not adequately distributed by the SCF, and hence we have experienced lower increases in wealth inequality than initially assumed from the data. Lastly, we found multiple inadequacies in the methods use to calculate wealth inequality, and made recommendations to fix that. In the next paper we will explore a more complete picture of the changes in wealth inequality.

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