Excess Savings during the COVID-19 Pandemic

**Author:**Aditya Aladangady, David Cho, Laura Feiveson, and Eugenio Pinto1

**Introduction**

The amount and distribution of these excess savings have received a lot of attention by policymakers, because forecasts of economic growth and inflation as well as our understanding of household welfare depend heavily on who holds the excess savings and how long they are expected to bolster household balance sheets and demand. In general, by contributing significantly to high levels of liquidity, excess savings have enabled more households to smooth their consumption through negative income shocks, making the economy more resilient to adverse shocks. Accordingly, excess savings may help to damp a feedback loop—where a negative shock to income leads to a cut to spending, which then leads to an additional cut to income, et cetera—that, at its worst, could lead to a recession. At the same time, excess savings have fueled high levels of spending for some households, which may have contributed to persistently high inflation amid constrained supply.

These effects may be amplified or reduced by the extent to which the excess savings are held by lower-income households, many of whom typically hold very little liquid wealth, as an increase in liquidity may lead to notable changes in their spending behavior. For this reason, we also consider how excess savings are distributed across the population. We estimate that households in the lower half of the income distribution were still holding about $350 billion in excess savings as of mid-2022—mostly stemming from the boost to income induced by fiscal stimulus in 2020 and 2021. It is important to note that many of these households have used some of their excess savings to pay down debts, or possibly to invest in equity and other financial assets or as a down payment for buying a home, instead of keeping them as liquid assets, thus shifting where the savings appear on their balance sheets. Regardless of their allocation, excess savings resulted in higher net wealth and stronger balance sheets for these households, which have continued to support spending and credit performance.

In contrast, even though households in the top half of the distribution hold the large majority of excess savings (about $1.35 trillion as of mid-2022), this increase in their savings likely had only a modest effect on their spending behavior through 2021. During the first two years of the pandemic, and especially earlier on, their spending was instead much more driven by social distancing. Now that this group is able to travel and spend again, their excess savings are likely contributing to their high levels of spending. However, the recent demand by these households has likely been boosted more by earlier gains in equity and housing prices than by their excess savings. As of mid-2022, household wealth had increased by nearly $25 trillion since 2019, even after accounting for the large equity price declines in the first half of this year, most of which accrued to the top half of the income distribution.

In Section II, we introduce our methodology and derive aggregate excess savings. In Section III, we estimate the decomposition of aggregate excess savings into income quartiles, and in Section IV we discuss the sensitivity of our results and the comparison to other data and estimates.

**Aggregate Excess Savings**

We start by deriving the aggregate amount of excess savings. The flow of household savings, as defined by the Bureau of Economic Analysis (BEA) in the national income and product accounts (NIPA), can be written as:2

Flow of savings = Disposable personal income (DPI) – Consumption (PCE) – Other outlays

We use a simple approach to calculate excess savings: We add the amount that the components of DPI exceed their trend with the amount that PCE and other outlays are below their trend.3 We then cumulate these flows over time to calculate the stock of excess savings.4

**Decomposition of Excess Savings across Income Quartiles**

To allocate aggregate excess savings over the income distribution, we decompose detailed components of personal income (including fiscal support) and personal outlays across income quartiles. We draw upon existing data sets, whenever possible, and use institutional details and judgment, when there are gaps in the available data. We require that the decomposition of each category of savings adds to its aggregate flow in each quarter; in doing so, the excess savings by income quartile add up to the aggregate excess savings by design. Table 1 gives a summary of the information we use to decompose the different elements of excess savings.

**Table 1: Source Data Used to Decompose Excess Savings across Income Quartiles**

The results of this exercise suggest that most excess savings have been held by households at the top half of the income distribution. However, as of the middle of this year, our simulation suggests that households in the bottom half of the income distribution still held roughly $350 billion in excess savings—about $5,500 per household on average. To put this amount in perspective, households in the bottom half of the distribution held in 2019 roughly $8,000 in transaction accounts and $4,000 in credit card debt on average. The liquidity from the excess savings, therefore, would have either boosted their liquid assets by roughly two-thirds, or fully paid off their "liquid debt" with some room to spare.6 The $5,500 average excess savings would then provide a much needed buffer for this group (Han et al., 2020).

Of course, our average excess savings estimate for households in the lower half of incomes masks considerable heterogeneity even within the lower end of the distribution. Much of this figure is driven by the highly progressive fiscal support during the early part of the pandemic—particularly stimulus checks and unemployment insurance expansions. While balance sheets of many lower-income households may have been bolstered by these programs, some households may have fallen through the cracks of the social safety nets (Bitler et al., 2020). Even for those households that still hold excess saving buffers, we expect savings to continue dwindling rapidly as fiscal support is now in the rearview and households return to relying on labor earnings and any remaining savings to finance spending.

**Sensitivity of Our Estimates and Comparison to Other Data and Estimates**

It is important to note that there is high uncertainty in these decomposition estimates. Indeed, while the range of other forecasters' estimates of aggregate excess savings have all been quite close to ours, the range of the estimates of the amount held by households at the bottom of the income distribution is quite large.7 While the distributions of fiscal support and earnings losses are closely tied to data or institutional details, data limitations require us to rely heavily on assumptions about the distribution of PCE across income quartiles.8

In our baseline, we estimate spending among households in the bottom half rises about 10 percent above its pre-pandemic trend following the CARES Act in 2020 and remains well above trend through 2022. Even assuming such elevated levels of spending, we estimate households accrued considerable excess savings over the past couple years. In fact, we would have to assume that the bottom half of the distribution consumed nearly 25 percent above their typical trend level in 2021, about twice as much as our baseline assumption, if we were to find that their excess savings had been fully exhausted by the end of 2021. We have not found any evidence in the available data that the consumption rates could have been even close to that high, on average, last year.9 In the other direction, had households in the bottom half of the income distribution kept their consumption at pre-pandemic trends in 2020, their excess savings would have accrued to about $750 billion as of mid-2022, with most of the difference accounted for by the bottom income quartile.

Other data sets provide some evidence that household balance sheets across the income distribution remain healthy. There are few datasets that have direct information about individual household balance sheets, but one notable exception is the dataset gathered by the JPMorganChase Institute (JPMCI), which contains information about the checking account balances of a nonrepresentative group of consumers that bank with Chase (Greig and Deadman, 2022). The JPMCI finds that median checking account balances surged in the spring of 2020—and disproportionately so for the lower income quartiles—and have remained elevated since. The checking account balances will only capture a portion of total excess savings of those consumers and, perhaps for this reason and because median checking balances are substantially smaller than mean balances, their implicit magnitudes are much smaller than our excess savings estimates. However, their finding that balances have stayed elevated through mid-2022 is qualitatively consistent with ours.10

The Distributional Financial Accounts, which rely on historic relationships to extrapolate household balance sheets at various points in the income and wealth distributions, also suggest considerable increases in liquid asset holdings among lower income households. While extrapolation based on historical relationships is likely not applicable in the current setting, as the distribution of the shocks to income and spending during the pandemic was quite different from prior experience, Batty et al. (2021) provide bounding exercises suggesting substantial excess savings throughout the income distribution even under alternative assumptions.

In summary, our estimates suggest that households across the income distribution continue to have a buffer of excess savings to help them navigate higher prices and/or a tightening cycle. While this buffer is dwindling, for now it is likely still providing some needed balance sheet support that could help to stanch a negative feedback loop were the economy to slow.

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