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Economic Impact of COVID-19

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COVID-19 and Households' Financial Distress
Part 3: How will COVID-19 affect the spending of the financially distressed?

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In our previous posts (Part 1 and Part 2), we analyzed how public health policies such as social distancing and "shelter-in-place" orders will likely have varying employment and earnings consequences across the United States. In particular, areas characterized by high financial distress are more likely to suffer employment and earnings losses due to these policies because they tend to have higher employment shares in susceptible industries like Accommodation and Food Services. Furthermore, we showed that the growth of COVID-19 cases was initially highest in areas with the least financial distress, but we predicted that more-distressed areas would soon outpace the others both in terms of infections and deaths.

In light of how highly financially distressed areas may bear a disproportionate share of the economic harms, the goal of this post is to examine what this will mean for household spending (or "consumption"). To do this, we use a model (described in detail in our recent working paper) combined with the empirical results from our previous posts and arrive at the following conclusions: First, for plausible measures of the likely earnings losses, our framework suggests that average consumer spending will drop substantially, by around 3.3 percent. Second, and perhaps more importantly, these consumption declines are deeply unequal—hitting those living in areas of highest financial distress the hardest.

Our model is ideal for the present analysis because it features a rich description of household balance sheets and has clear channels through which financial distress manifests itself. In terms of balance sheets, households are allowed to accumulate credit card debt, save in the kinds of liquid and safe financial assets they can likely access in reality (e.g., savings accounts), and own houses that are financed with mortgages. In terms of financial distress, our simulation-based approach is one in which households can become delinquent (i.e., delay) in credit card payments, file for bankruptcy (which erases all financial debts), or default on their mortgages (i.e., enter into foreclosure). Moreover, because income is uncertain, the model captures the decisions of households that are aware of the risk they face and that then make spending and savings choices while taking that uncertainty into account.

To use the model to derive predictions for spending, we generate five artificial economies within our framework, each meant to model one of the "regions" or quintiles of financial distress explained in our previous posts. Recall that the group that we call Q5 is composed of individuals who live in the 20 percent of zip codes that exhibit the highest levels household financial distress. Similarly, the group that we call Q1 represents individuals who live in the 20 percent of zip codes that exhibit the lowest levels household financial distress.

Our findings from previous posts and other empirical work provide a guide for determining the size of unexpected income losses across sectors and quintiles of financial distress.[1] At an aggregate level, we assume final demand falls by 75 percent in the Accommodation and Food Services sector and in related sectors like Leisure and Hospitality Services. Using input-output tables provided by the Bureau of Labor Statistics, we can trace back how this decline in demand translates into employment or earnings losses across sectors. The input-output tables imply this aggregate shock translates into employment losses ranging from roughly 59 percent in the Accommodation and Food Services sector (which accounts for roughly 8 percent of total employment and is the hardest hit) to virtually zero in sectors that aren't affected by social distancing (which account for 40 percent of total employment). Sectors somewhere in the middle that are moderately affected by social distancing (accounting for 52 percent of total employment) experience 5 percent employment losses.[2] Finally, because each quintile of financial distress differs in its composition of employment, we can convert these sector-specific losses into losses for each quintile.[3] Figure 1 shows the average earnings loss for each quintile implied by these assumptions.

Figure 1: COVID-19-related earnings losses by quintile of financial distress

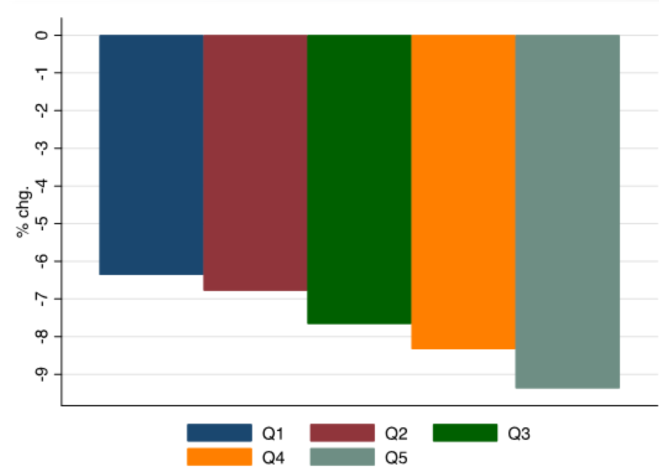
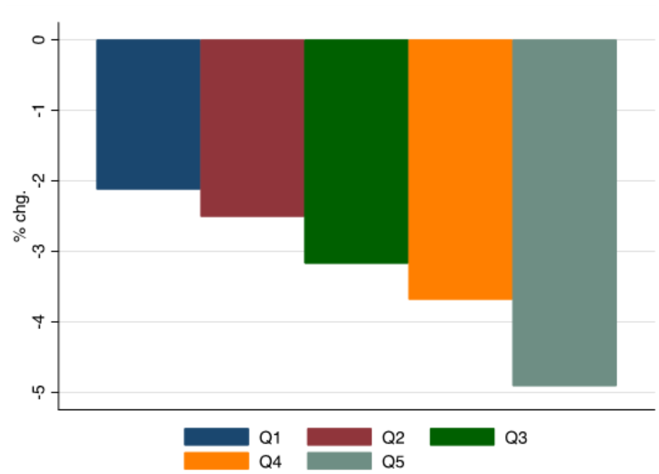


Figure 2 plots the change in spending and makes clear that financial distress is an important pre-existing condition (all numbers are in annual terms and are calculated as percentage changes relative to a baseline scenario where the shocks never occur). Comparing the two extremes, consumption falls by roughly 5 percent in Q5 (highest financial distress), which is more than double the fall measured in Q1 (lowest financial distress).

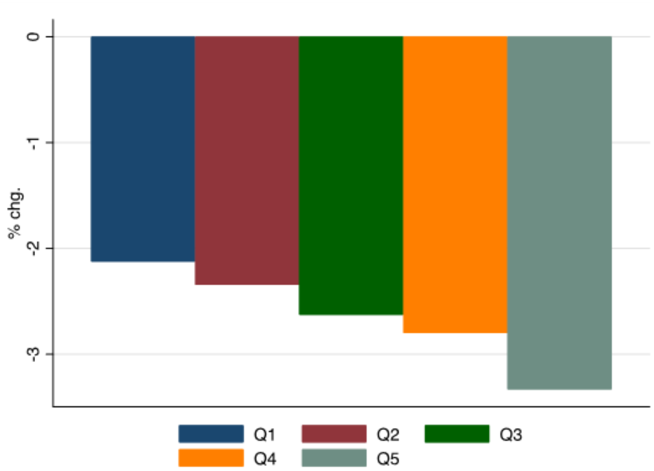
Figure 2: The response of consumption to COVID-19-related earnings losses by quintile of financial distress



Importantly, the declines in consumer spending that we note above combine two effects. First, regions with greater financial distress experience larger earnings losses because they have higher employment shares in Accommodation and Food Services. Second, higher financial distress regions are more vulnerable (through pre-existing conditions) to *any* shock. Using the machinery of our model, we can separate these two effects to see which is quantitatively more important.

To gauge the "pure" effect of financial distress as a pre-existing condition, Figure 3 shows the spending responses across the financial distress spectrum under an alternative scenario wherein regions experience earnings losses that are *identical*, and equal to, those in Q1. By construction, the Q1 bars in Figures 2 and 3 are the same. However, all other bars are different, with the differences reflecting the direct effects of pre-existing conditions in generating differential drops in spending. The Q5 bar in Figure 3 shows that when this region faces an earnings shock similar to Q1, their consumption still declines by over an extra percentage point relative to Q1 (3.3 percent versus 2.1 percent). This suggests that roughly 40 percent of the difference (which was 2.8 percentage points) in consumers' spending response between Q1 and Q5—observed in Figure 2—comes solely from pre-existing conditions, while the other 60 percent comes because those with highest financial distress (Q5) experience larger earnings losses related to COVID-19.

Figure 3: The response of consumption to COVID-19-related earnings losses by quintile of financial distress (same loss across quintiles)



Our results carry a more general lesson: The pre-existing condition of financial distress that we emphasize will matter in a broad array of circumstances for income losses. To see this, consider the two lines of Table 1, which show the ratio of the change in consumption compared to the change in income under both the baseline (Figure 2) and alternative (Figure 3) scenarios we study. Two points emerge: First, in both scenarios, those initially most distressed (Q5) are very vulnerable. Their spending drops roughly half a percentage point for each percentage point decline in income.

Interestingly, both rows have the same numbers, indicating that the elasticity in each FD group does not depend on the size of the shock. For instance, Q5 has a reduction of income of nine percent in the benchmark exercise and six percent in the uniform shock, and in both cases the elasticity is 0.52. This in part reflects the way we have imposed the shocks to income on the different groups, but is strongly suggestive that overall sensitivities (i.e., the proportional response of consumer spending to the change in their income) may not hinge on the size of the shock. Second, and again in both scenarios, the response of spending is sizeable, reflecting the fact that the earnings shocks are hard to cope with.

Table 1: The ratio of the change in consumption to the change in earnings, by quintile of financial distress

	Q1	Q2	Q3	Q4	Q5
Baseline	0.33	0.37	0.41	0.44	0.52
Alternative	0.33	0.37	0.41	0.44	0.52

Note: Each cell plots the percentage change in consumption divided by the percentage change in earnings. The "baseline" scenario follows the earnings losses by quintile plotted in Figure 1. Meanwhile, the "alternative" scenario sets all earnings losses across quintiles equal to those experienced by Q1.

Overall, our calculations strongly suggest that in response to the earnings losses that will plausibly accompany the social distancing response to COVID-19, consumer spending is likely to contract much more in areas that entered this episode with higher financial distress. Indeed, our numbers suggest that the decline in consumption will be over twice as large between the lowest and highest quintiles of financial distress. Part of this is related to the magnitude of the shock each region receives, but an equally large part is related to the pre-existing conditions of each region.

What do these results imply for policy? In our view, the findings here mean that special consideration should be given to assessing the nature of financial distress when deciding on policies designed to mitigate or offset these earnings losses. This is especially true for any policies that are already tailored toward helping more financially distressed communities, as they are likely to be most at risk and least able to maintain their living standards.

In our next series of posts, we will use our model to examine the effects of some policy initiatives that take into explicit account differences in initial consumer financial distress. ■

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Endnotes

[1] Our methodology is similar to Garriga, Mather, and Sánchez (2020).

[2] This employment breakdown resembles Leibovici, Santacreu, and Famiglietti (2020), who categorize occupations by how contact intensive they are and hence how likely they are to be affected by social distancing measures. Our numbers are larger because we account for spillovers across industries and occupations.

[3] For example, our previous posts show that the employment share in "Accommodation and Food" ranges from roughly 7 percent in the lowest quintile of financial distress to nearly 11 percent in the highest quintile of financial distress. This suggests that a larger share of the population in high-distress areas are likely to receive larger earnings losses.