

The role of pent-up demand in the euro area recovery in 2021

The lockdowns and other measures imposed to contain the spread of COVID-19 have led to a marked increase in the savings of European households. The closure of non-essential businesses and many leisure activities, together with restrictions on mobility and activity and increased uncertainty, have caused the savings rate in the euro area to rise, peaking at around 25% during Q2 2020 in contrast to the 13% prior to the pandemic.

This level of saving that has been «forced» by the COVID-19 crisis is substantial and, therefore, has the potential to spur the economic recovery when the control of the pandemic allows for a more sustained revival of economic activity. Will European households spend these forced savings when the restrictions are lifted? At what speed? How will this impact economic growth?

The current situation has no modern precedent, as the income declines that accompany recessions usually take a heavy toll on savings. However, there are some examples of forced savings in history. In the US, rationing and supply restrictions during World War II led to a huge increase in American households' savings, of around 40% of GDP according to some estimates. After the war, American households quickly reduced their savings rates, providing an additional boost to the economic revival.¹

Bridging the historical distance, in the current case of Europe, the amount of savings accumulated during the pandemic is also significant: slightly over 4% of pre-pandemic GDP in 2020 as a whole. The extent to which these savings could spur the recovery will depend on the factors which caused the drop in consumption and the rise in savings in the first place: the restrictions on consumption themselves, uncertainty surrounding the economic outlook and changes in household incomes. Using a simple model,² we identified the contribution of these three forces to the change in household consumption during 2020 as a whole.^{3,4} According to these estimates, the bulk of the loss of consumption in 2020 was due to

1. It is estimated that, between 1946 and 1949, they spent around 20% of the accumulated savings. See «Annual Report of the Council of Economic Advisors, Economic Report of the President», February 1970 (table C-15), available at <https://fraser.stlouisfed.org/>.

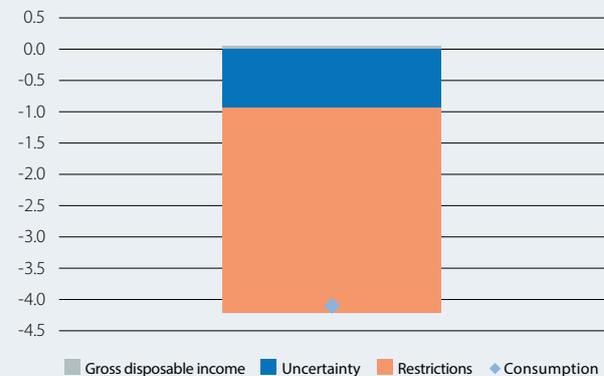
2. The model in question is a first-difference estimator using ordinary least squares. More specifically, we use data covering the period between Q1 1999 and Q4 2019 to estimate the following equation: $\Delta \ln C_t = \beta_0 + \beta_1 \Delta \ln GDI_t + \beta_2 \Delta \text{Uncertainty}_t + \Delta \varepsilon_t$, where C represents consumption and GDI is gross disposable income. The R^2 of the regression is 42%.

3. We measure uncertainty using the dispersion of GDP forecasts in the analyst panel of the ECB's Survey of Professional Forecasters. Specifically, we use the standard deviation of the year-on-year GDP growth forecast for two quarters ahead.

4. Following the methodologies of the ECB and the Bank of Spain, the contribution of the restrictions is estimated as the residual of the model (corrected for its historical forecasting error). See «COVID-19 and the increase in household savings: precautionary or forced?» in the ECB Economic Bulletin of 06/2020 and «Household saving during the pandemic and its possible effects on the future recovery in consumption» in the Bank of Spain Economic Bulletin of 1/2021.

Euro area: contribution to the fall in household consumption

Cumulative contribution for Q1 2020-Q4 2020 (%)



Source: CaixaBank Research's own estimates, based on the model described in foot note 2 of this Focus.

the restrictions, as shown in the first chart, although the increase in uncertainty also made a significant contribution to the fall in consumption. In contrast, the change in gross disposable income slowed some of the decline in consumption, as household income did not recede in 2020 as it would in traditional recessions, but rather was sustained by the fiscal support from European countries.⁵

These contributions suggest that, when the control of the pandemic allows the restrictions to be lifted, much of the pent-up savings could be undone. To obtain more clues about how fast and to what extent these savings could boost the recovery, we will leverage the historical relationships from our consumption model to assess the impact in 2021 of the three major drivers we have just identified. In particular, we consider a scenario in which the immunisation of the risk groups triggers an easing of the restrictions and a more sustained economic recovery beginning in Q2 2021, with a relatively rapid reduction in uncertainty and a gradual growth in household incomes.⁶ In this scenario, our model's prediction (see the grey line in the second chart) suggests a strong rebound in household spending over the coming quarters.

However, this projection is somewhat optimistic, since it assumes that the consumption which was lost in 2020

5. With data up to Q3 2020, previous studies also find a similar composition of the savings amassed during the pandemic.

6. More specifically, in this scenario the restrictions do not disappear altogether, but they are reduced to levels equivalent to an Oxford Stringency Index of less than 30 points in the second half of the year. Uncertainty, meanwhile, falls by half and lies halfway between its levels of 2020 and the pre-pandemic starting point. Finally, we assume that gross disposable income (GDI) grows at an average quarter-on-quarter rate of slightly below 1% (i.e. slightly below our euro area GDP forecast given that, having been isolated from the crash in GDP, we can also expect GDI to benefit less from the rebound in GDP in 2021).

as a result of the uncertainty and restrictions will be recovered in 2021 to the same extent.⁷ In other words, it assumes that up to two-thirds of the pent-up demand of 2020 will be undone and will materialise in 2021.⁸ However, in practice, there are several factors that will alter this rebound in consumption.

Firstly, a significant portion of the savings accumulated in 2020 comes from a variety of services that cannot be deferred in time. For instance, when the restrictions are eased and we can go to see our favourite bands in concert, we will probably begin by going to more concerts than we used to in pre-pandemic times, but it is hard to image that this initial push will compensate for all the concerts we missed during 2020. In other words, pent-up demand is undone more slowly when the consumption previously sacrificed has been that of services.

Secondly, much of the savings accumulated in 2020 are concentrated among people with higher incomes,⁹ and it is precisely those groups that have a lower marginal propensity to consume. Therefore, when the restrictions are eased and we begin to recover our pre-pandemic consumption habits, the households with the greatest purchasing power could also be those who spend their pent-up savings the least in relative terms. Also, the experience of countries such as the US shows that many households have used some of the savings they have accumulated in 2020 to reduce their debts rather than to consume.¹⁰

Thirdly, the pandemic is likely to dent expectations. On the one hand, recessions usually make households more risk-averse,¹¹ so precautionary factors continue to weigh on consumption even if uncertainty subsides. On the other hand, faced with the sharp rise in public debt driven by the support measures adopted during this crisis, there is a possibility that households may retain some of their accumulated savings as a precautionary measure to help them address potential future tax hikes.¹²

All these elements suggest that the reduction in uncertainty and the easing of restrictions will have a less pronounced effect on consumption. When we

7. In technical terms, the projection assumes a symmetry of elasticities between 2020 and 2021 of the forces of uncertainty, restrictions and income on consumption.

8. To obtain the fraction of the pent-up demand that is undone, we compare the projection of consumption with that represented by the orange line (see second chart), which corresponds to the growth in consumption that we would see if it were driven exclusively by household income (i.e. the orange line shows the evolution of consumption in a scenario in which the constraint of neither the restrictions nor uncertainty is lifted).

9. This is shown by data in the UK and France, among others. See «Spending and saving during the COVID-19 crisis: evidence from bank account data», The Institute for Fiscal Studies 2020, or Bounie, D. *et al.* (2020). «Consumption Dynamics in the COVID Crisis: Real Time Insights from French Transaction Bank Data». COVID Economics 59: 1-39.

10. See the Focus «Will consumption support the US recovery in 2021?» in the MR01/2021.

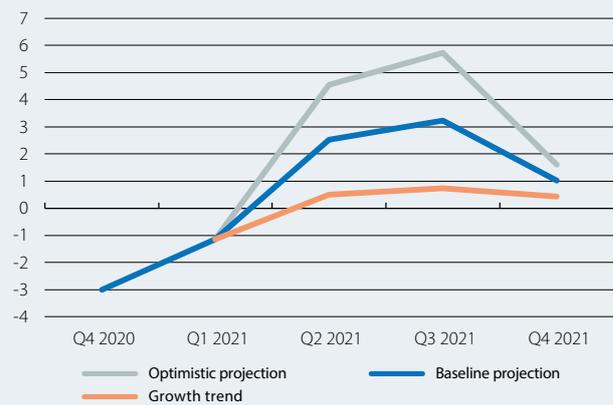
11. See U. Malmendier and S. Nagel (2011). «Depression babies: Do macroeconomic experiences affect risk taking?». The Quarterly Journal of Economics, 126(1), 373-416.

12. This phenomenon is known as Ricardian equivalence.

13. In technical terms, we assume that the elasticities of the aforementioned variables of uncertainty and restrictions are reduced by half.

Euro area: household consumption

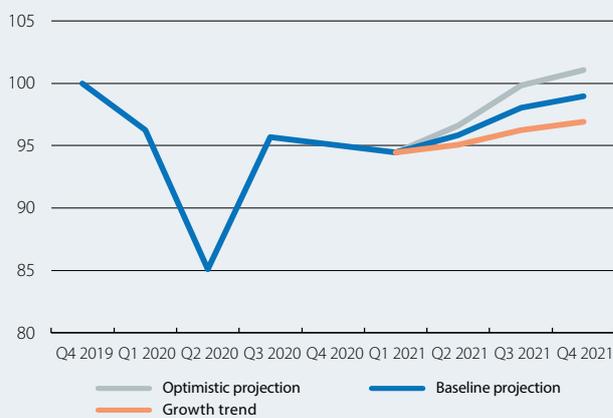
Quarter-on-quarter change (%)



Source: CaixaBank Research's own estimates, based on the model described in footnote 2 of this Focus.

Euro area: GDP

Index (100 = Q4 2019)



Source: CaixaBank Research's own estimates, based on the model mentioned in footnote 15 of this Focus.

incorporate this less pronounced effect into our model,¹³ we obtain a more moderate projection of consumption in 2021¹⁴ (see the blue line in the second chart): one-third of the savings accumulated in 2020 would be undone.

All in all, pent-up demand is likely to help spur the recovery, and while it may not be fully undone, it will have a significant impact on economic activity as a whole (see third chart). Indeed, our estimates suggest that, in the optimistic scenario, the unwinding of pent-up savings could add 2.5 pps to euro area GDP in 2021, or slightly more than 1 pp in the more moderate scenario (in both cases relative to a scenario in which none of the pent-up demand is undone).¹⁵

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14. The annual change in 2021 would be 3.5%, somewhat more conservative than the European Commission's forecast (4.3%) and slightly more optimistic than the ECB's forecast (3.0%).

15. We translate the consumption projections presented above to GDP by using CaixaBank Research's semi-structural model for the euro area. This is a general equilibrium model with eight estimated equations and 20 auxiliary equations which is determined by aggregate demand in the short term, whilst in the long term aggregate demand and supply are equal.