



FEARS FOR THE FUTURE: SAVING DYNAMICS AFTER THE COVID-19 OUTBREAK

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The COVID-19 pandemic has induced a significant rise in households' saving worldwide, including in Italy. This note exploits information from the Bank of Italy's Special Survey of Italian Households to show that desired precautionary saving is associated to higher job uncertainty, perceptions of a more protracted health crisis and greater worries about the risk of a new pandemic occurring in the coming years. Despite the financial difficulties caused by the pandemic have mitigated the saving dynamics of many households, for many other households these precautionary motives have exerted an upward pressure on savings in 2020. Even with the epidemic progressively brought under control, a greater precautionary attitude, arguably reinforced by the "scars" left by the COVID-19 crisis, could slow the decumulation of the savings piled up after the pandemic outbreak, attenuating the pressures from pent-up demand.

Soon after the COVID-19 outbreak, households' savings surged worldwide, especially in the advanced economies (Romei, 2021). In Italy the saving rate, after the very high levels attained during the first wave of the pandemic (above 20% in the spring of 2020), remained significantly above pre-pandemic figures at the end of last year despite the partial relaxation of mobility restrictions. Consistently, 39% of households interviewed in the Bank of Italy's Special Survey of Italian Households (SSIH hereafter) between the end of February and the beginning of March 2021 accumulated savings in 2020; before the pandemic shock this share was usually much lower (roughly 30% in 2016; Bank of Italy, 2018).² Several factors might have contributed to this phenomenon, including: a heightened precautionary attitude; the fear of contagion, which discouraged households from engaging in consumption of certain services; reduced consumption possibilities caused by the government mandated restrictions (see, among others, Immordino et al., 2021 and Guglielminetti and

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² This is the latest available figure before the pandemic outbreak.

Rondinelli, 2021 for the case of Italy; Ercolani 2020a for the US; Dossche M. and S. Zlatanos, 2020, for the euro area).

As the pandemic is progressively brought under control, also with the crucial help of vaccines, an important and highly debated issue regards the prospects of savings and consumption in the nearer and more distant future (see, among others, Bilbie et al. 2021). In Italy, for example, the information contained in the SSIH may suggest that some households could maintain a precautionary attitude. First, between the end of February and the start of March, roughly two thirds of the households thought that the current health crisis would have been resolved by the end of 2022 and the rest saw it continuing at least until 2023. Secondly, on average, households assigned a probability of roughly 50% to the chance of experiencing another pandemic in the next ten years,³ quite a large figure if compared with the evidence available so far.⁴ Finally, about half of the households foresaw a worsening of the general economic situation and of the labor market in the next 12 months.⁵ In addition to macroeconomic conditions, individual circumstances may affect saving intentions and possibilities as well: more than 25% of households claimed that they had difficulty in making ends meet;⁶ roughly 25% saw their financial situation worsening after the pandemic;⁷ almost one fourth of household heads judged their own employment situation or that of a family member as uncertain.⁸ These last factors are partly interconnected: half of those facing an uncertain employment situation were also experiencing financial difficulties.

Some of the abovementioned variables actually correlate with the desired saving that households would have accumulated to protect themselves against contingencies, such as uncertainty about future income or unexpected health shocks.⁹ Figure 1 shows that, on average, desired precautionary saving is significantly higher for those who believed that the health emergency would have lasted beyond 2022, as compared to those expecting an earlier end. Further, those attaching a probability higher

³ Households have been asked the following question: “In your opinion, what is the probability that a new pandemic event will occur in the next 10 years?”.

⁴ By rough calculations, this figure would imply a 5% probability per year for a new pandemic event. This frequency looks high if compared to those extrapolated in other studies. For example, as discussed in Sandman (2007), since the 18th century there have been 9-10 pandemics (excluding Covid-19), implying a probability of a pandemic of roughly 3% per year. Further, Martin and Pindyck (2021) calibrate their epidemic model for two different scenarios: a low- and a high-risk one in which on average the annual probability of a pandemic is 2% and 4%, respectively.

⁵ Although still high, the share of households with pessimistic expectations about the evolution of the economy and of the labor market has been improving compared to the previous waves of SSIH, conducted since April 2020.

⁶ According to data from the Bank of Italy Survey on Household Income and Wealth (SHIW), the percentage of households at risk of poverty in income and liquid wealth attained 19.5% in 2016 (Bank of Italy, 2018; Gambacorta et al, 2020), around the same order of magnitude of the percentage of *hand-to-mouth* households – i.e. holding little or no liquid wealth – estimated by Kaplan et al. (2014).

⁷ The question was asked with reference both to a household’s current situation and to that prior to the COVID-19 crisis.

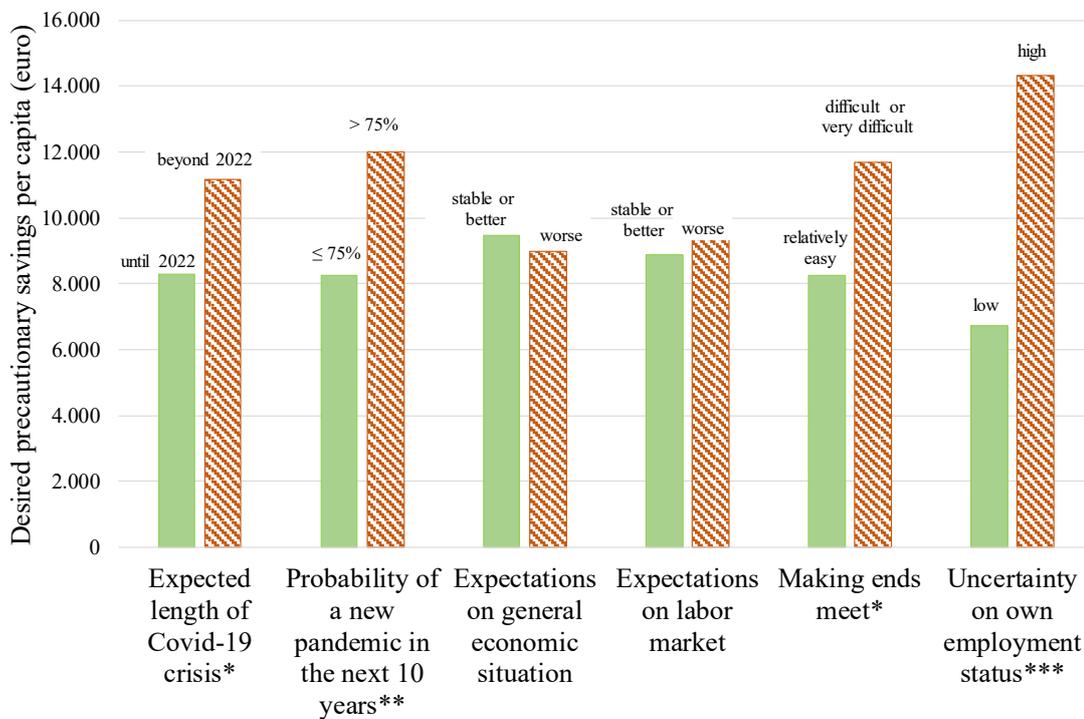
⁸ The individual measure of uncertainty is a dummy variable equal to one if the self-reported probability of (i) losing the job is higher than 25% for employed household members and (ii) finding a job is lower than 25% for unemployed individuals. As expected, the share of uncertain households is higher among households whose head is self-employed or unemployed; for the employees, this share increases with the instability of the contract.

⁹ The question in the survey is: “Approximately, how much should your household put aside for unexpected events, e.g. health problems or other emergencies?”.

than 75% to a new pandemic event occurring in the next ten years reported a significantly higher level of precautionary saving. In contrast, differing perceptions on the macroeconomic outlook were not clearly associated to desired precautionary saving levels.

Regarding individual conditions, both households reporting their own employment situation as uncertain and those claiming to make ends meet with difficulty declared a desired precautionary saving significantly higher than the rest of the households (Figure 1). If we consider that households declaring financial difficulties may be liquidity- or credit-constrained, these results can be rationalized by the theoretical literature, in particular with the class of incomplete-markets models *à la* Huggett (1993), where the presence of binding credit constraints generates precautionary savings. When agents face a credit constraint, they fear adverse income shocks that would push them towards the constraint itself, a place where they cannot smooth consumption anymore. In order to avoid that, they tend to accumulate saving (for more details, see Ercolani, 2016 and references therein).

Figure 1: Italian households’ desired precautionary saving: breakdown by expectations and financial situation



Source: our calculation from Wave 4 of the SSIH (February-March 2021). The desired level of precautionary savings is divided by the OECD equivalence scale, that attributes a coefficient of 1 to the first adult in the family, 0.5 to additional family members who are at least 14 years old and 0.3 to those younger than 14.

Notes: *p<0.1, **p<0.05, ***p<0.01. Stars denote the significance of the test of equal means between the two groups within each survey question listed on the x-axis.

To investigate the extent to which actual savings in 2020 is associated to the desired precautionary saving, we recall a standard saving regression as in Mody *et al.* (2012), where the saving rate is explained by measures of income, wealth and proxies for precautionary savings. Our data allow us to estimate the following probit model:

$$P(s_i = 1) = f(y_i, w_i, prec_i), \quad (1)$$

where s_i is an indicator taking value of 1 if household i has saved in 2020, and zero otherwise; $P(s_i = 1)$ is therefore the associated probability. Further, y_i is the quartile of the self-reported net monthly income, w_i is a proxy for the financial situation, i.e. the difficulty in making ends meet, and $prec_i$ is the abovementioned desired precautionary saving.

Table 1: The determinants of savings in 2020

	Saving in 2020 (1)	Saving in 2020 (2)	Saving in 2020 (3)
Making ends meet (difficult or very difficult)	-0.312*** [0.0246]	-0.313*** [0.0245]	-0.300*** [0.0257]
Net monthly income: 2nd quartile	0.0729* [0.0400]	0.0689* [0.0402]	0.0709* [0.0403]
Net monthly income: 3rd quartile	0.162*** [0.0385]	0.158*** [0.0380]	0.157*** [0.0379]
Net monthly income: 4th quartile	0.304*** [0.0389]	0.305*** [0.0379]	0.301*** [0.0380]
Precautionary saving: 2nd quartile	-0.0345 [0.0377]		
Precautionary saving: 3rd quartile	0.0158 [0.0368]		
Precautionary saving: 4th quartile	0.0721* [0.0390]		
High precautionary saving		0.0791*** [0.0304]	0.0808*** [0.0301]
Fear of contagion			0.0527** [0.0263]
Government mandated restrictions			0.0367 [0.0263]
Average probability	0.37	0.37	0.37
Observations	2519	2519	2519
Pseudo R2	0.14	0.14	0.14

Source: our calculation from Wave 4 of the SSIH (February-March 2021).

Notes: Marginal effects. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Quartiles of the equivalised net income. ‘High precautionary saving’ is a dummy variable equal to one for households with a desired level of equivalised precautionary savings higher than the fourth quartile of its distribution. ‘Fear of contagion’ and ‘Government mandated restrictions’ are dummy variables that take value of 1 if the score that the respondent assigns to that motivation for cutting consumption expenditures in the following three months is higher than the median score. The equivalised net income and precautionary savings are obtained using the OECD equivalence scale that attributes a coefficient of 1 to the first adult in the family, 0.5 to additional family members who are at least 14 years old and 0.3 to those younger than 14.

The effect of income is positive and significant, and stronger for higher levels of income (Table 1).¹⁰ Households with difficulties in making ends meet are about 30 percentage points less likely to have accumulated savings in 2020, which compares to an average predicted probability of 37%; hence

¹⁰ Mody *et al.* (2012) use the expected income growth one-year ahead in their saving regression. In the equation of the determinants of saving in 2020 we also control for an indicator taking the value of 1 if a household expects a positive growth for its income in 2021 and zero otherwise; the associated coefficient is not statistically different from zero.

for this category of households the predicted probability of having saved in 2020 reduces to about 7%.¹¹ Households with high desired precautionary savings (i.e. in the fourth quartile) have a higher probability of reporting positive savings in 2020. In particular, for this category of households the probability of having saved in 2020 is about 8 percentage points higher than the rest of the population. These results are robust to the inclusion of dummy variables which capture additional motivations that may prevent some expenditures and induce forced savings, such as the fear of contagion and government mandated restrictions (Table 1, column 3).¹²

This evidence suggests that several factors sustained saving in 2020, while a tension emerged. On the one hand, there is a group of households – those with financial difficulties – who desired to accumulate (precautionary) saving, but had no resources to do so; this likely contributed to curb the actual saving dynamics. On the other hand, precautionary motives may have exerted an upward pressure on savings for those not in financial difficulties. While the behaviors of these two groups of households suggest that saving dynamics are shaped by contrasting forces, they both point to reduced consumption growth and moderate pressures from pent-up demand (see Guglielminetti and Rondinelli, 2021).

Heightened precautionary attitudes could signal the emergence of “scarring effects”: consumers who live through periods of high unemployment or marked financial turbulence may remain pessimistic about the economic situation and hence accumulate more savings (see, among others, Malmendier and Sheng Shen, 2021). The COVID-19 pandemic could indeed leave persistent scars on the public’s perceptions; for example, 85% of the households in the SSIH declare that the outbreak of COVID-19 has raised their perception about the risk of a new epidemic occurring in the next ten years.¹³

All in all, our analysis suggests that the pandemic and its scars have reinforced households’ precautionary attitudes; this could slow the decumulation of the savings piled up in 2020, at least for households without financial difficulties. Indeed, this seems consistent with some information taken directly from the SSIH; the share of households who will expect to save in 2021 is roughly 45%, 6 percentage points above the share of those that actually saved in 2020.

Policies aimed at reducing actual and perceived health and economic risk would be particularly welcome in the current context. Making national health system more resilient to pandemics, and more generally strengthening their quality, in Italy as well as in other countries, would not only save future lives but could also mitigate the households’ precautionary attitudes, favoring the post-crisis recovery (see Ercolani, 2020b and 2021 for more details). Moreover, in order to attenuate the uncertainty

¹¹ In interpreting this figure, one should consider that the survey question regarding the difficulty in making ends meet captures a qualitative perception about the household’s economic situation rather than a quantitative assessment of the actual resources available. Moreover, households’ assessments about their financial difficulties refer to the moment of the interview; since in most cases their situation has worsened during the course of the pandemic, it is still possible that the infra-annual income dynamics allowed them to accumulate savings in 2020.

¹² Results are also robust to the inclusion of demographic variables (such as sex and age) and of the job status, omitted in the baseline regressions as they are not significant.

¹³ After the question reported in footnote 3, households have been asked: “In your opinion, has your assessment -about the risk of a new pandemic in the next 10 years - increased following the outbreak of the Covid-19 pandemic?”.

stemming from employment conditions, it would be appropriate to enhance policies aimed at preventing discontinuities in working histories and income, such as hiring incentives for permanent employment (Sestito and Viviano, 2016, and Ciani et al., 2019).

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