

Household savings during and after the COVID-19 crisis: lessons from surveys

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Introduction

From March 2020 onwards, many European countries, including Belgium, introduced severe containment measures in response to the worsening COVID-19 health crisis. Person-to-person interactions were limited, international trade and travel were severely disrupted, non-essential production sites and shops were closed for long periods and consumption possibilities were reduced.

The lockdown measures have had a significant negative effect on households' expenditure in the short term, but part of this effect seems to be lasting over time (longer than in other economic crises). By way of illustration, while business investment has returned to its pre-crisis level after only a few quarters, household consumption still seems to be struggling to recover its pre-crisis level. It is true that government measures to protect employment and workers' income have safeguarded a major part of the purchasing power of households, but the very nature of the health crisis may, in some respects, go beyond purely economic rationale and certain changes in habits may also be reflected in different consumption patterns. Both the underlying (economic and health) uncertainty and post-pandemic economic development are still expected to influence consumption expenditure for some time.

In this article, we first shed light on the macroeconomic consequences of the pandemic for households, using national and sectoral accounts. However, the crisis has most likely affected different households in different ways and the macroeconomic figures do not enable the impact to be distinguished between different groups. It is therefore useful to look at data from targeted surveys¹ that were held during the COVID-19 crisis to complement the general picture and, in particular, improve the understanding of households' saving behaviour during the pandemic. A better understanding of which categories of households increased their savings during the COVID-19 crisis matters from a policy perspective as it could shape the speed of the recovery of private consumption and, therefore, GDP.

¹ Please refer to Annex 1 for a (non-exhaustive) list of survey data gathered during the COVID crisis, mainly focusing on NBB and ECB sources.

1. The COVID-19 crisis has led to a drop in spending and a surge in household savings

1.1 Household purchasing power and the ability to spend were preserved by government support measures

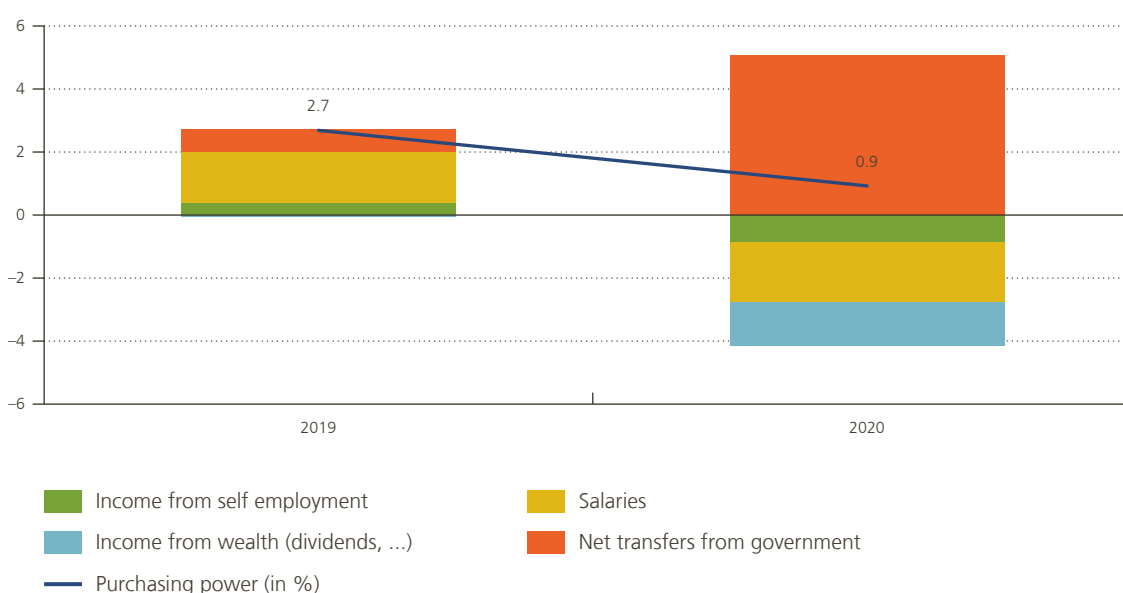
The health crisis and the containment measures, among other things, have put strains on the labour market and clouded the outlook for household incomes. Average hours worked fell sharply in 2020 and depressed both employee compensation and the mixed income of the self-employed. However, in an attempt to minimise the economic fallout, various support measures, such as the temporary unemployment or bridging rights systems, were put in place or reinforced by the government. At the peak of the crisis, in April 2020, 36 % of salaried workers and 50 % of self-employed were affected by these support schemes. Their use gradually became less intensive, as restrictions were relaxed and businesses and self-employed learned to operate in a “coronaproof” way, paving the way for an economic rebound.

As highlighted by Coppens *et al.* (2021), the government measures cushioned the blow on household incomes and substantially reduced the labour market impact. Thanks to these support systems and the large positive contribution of net social transfers to disposable income growth, households’ purchasing power was, quite remarkably, preserved throughout the largest post-war crisis. Household disposable income did not shrink in 2020, but actually improved by € 4 billion in nominal terms compared to 2019. In constant prices, this represents an increase of 0.9 %, which boils down to 0.6 % per capita and is just a tad below the per capita purchasing power growth that was expected for 2020 in the NBB’s December 2019 projections. However, even though those projections were made prior to the pandemic, they do not entirely represent a “counterfactual no-COVID scenario”, considering how other variables with an effect on households’ purchasing power, such as energy prices, have also turned out differently than projected at the time.

Chart 1

Composition of households’ real disposable income

(contributions to annual growth, unless otherwise mentioned)



Sources: NAI, NBB.

1.2 Household consumption collapsed (especially during the first lockdown) while the saving rate surged to unseen heights

Lockdown measures have weighed on certain purchases (e.g. non-food items) or made certain forms of consumption difficult or impossible (events, tourism, contact professions, bars and restaurants, etc.) over long periods of time. At the same time, groups that suffered the largest financial impact of the crisis generally cut back on spending.

To some extent, the decline in spending may have been a voluntary choice for some households; either because they did not want to risk getting ill or because they felt uncertain about the future. The severe drop in consumer confidence – and in particular the sub-components related to unemployment and the economic situation – in April 2020 demonstrated that uncertainty was on the rise. It is possible that households decided to increase precautionary savings in the face of economic or job uncertainty, or in anticipation of possible future tax hikes, considering the rapid worsening of public finances.

All in all, a huge drop in household spending was recorded in the first half of 2020, down by nearly 18 % in real terms. Consumption recovered strongly in the third quarter, thanks to the relaxation of some containment measures, but took another – more modest – hit at the end of the year as the number of infections rose again and restrictive measures were re-instated. In 2020, this put (nominal) private consumption nearly € 20 billion below the level of 2019.

Within the range of consumer goods and services, the COVID-19 crisis and the ensuing restrictions had a different impact. Consumption data classified according to purpose (COICOP¹) show a significant decrease in the volume of consumption related to travel, transport, apparel and footwear, healthcare, personal care, recreative services and the catering industry in 2020². Taken together, this expenditure accounted for 35 % of total household expenditure in 2019, but only 30 % in 2020. In fact, this drop explains nearly all of the annual 7.5 % decline in household expenditure in 2020, the sum of the other categories being stable. To a large extent, the drop in this type of expenditure does not come as a surprise, as these goods and services were either directly affected by the lockdown measures through a formal ban (e.g. restaurants, international travel), or in a more indirect manner through the pandemic fallout (e.g. postponement of medical operations, or less extensive use of transport thanks to teleworking). Most basic goods, such as food or non-alcoholic beverages, and quasi-fixed expenditure were not negatively affected in 2020, as a large part of these two categories is irreducible. Mechanically, they represented a larger part of total expenditure in 2020 than in 2019, even if neither of the two increased significantly.

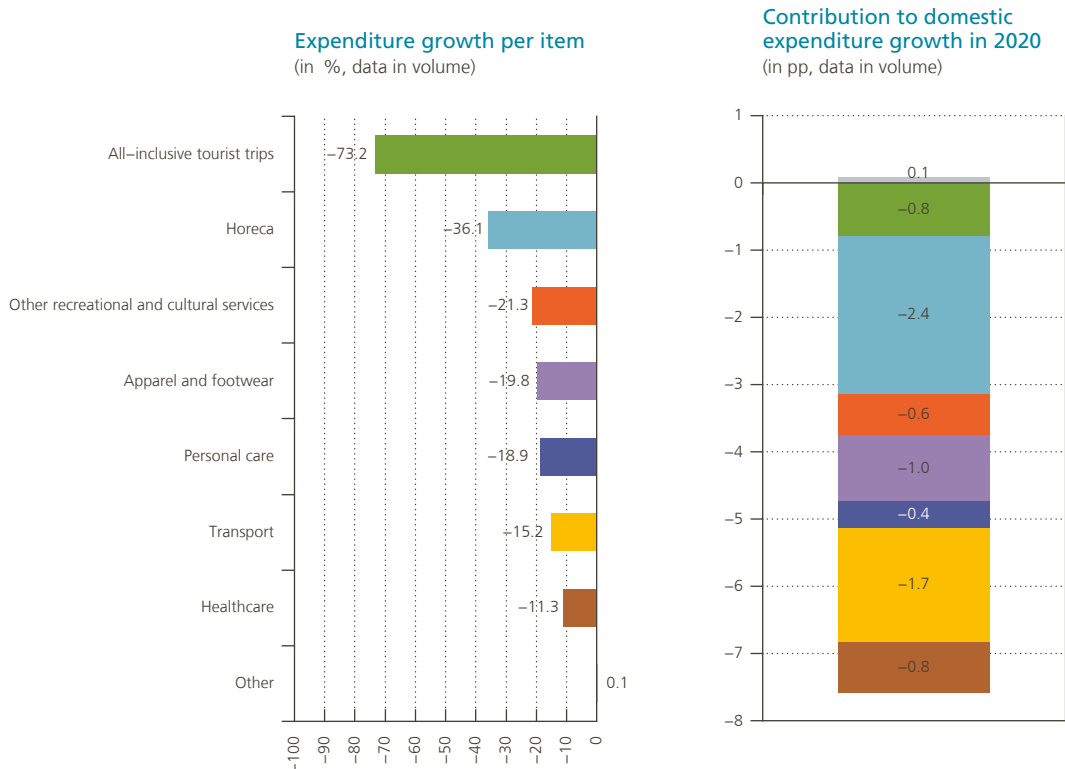
The sharp decline in household consumption, in spite of stable household revenue, implied an unprecedented surge in savings, with the saving rate peaking at 26 % of disposable income in the second quarter of 2020, at the height of the first lockdown. For the year 2020 as a whole, the saving rate worked out at over 20 % on average and additional household savings were accumulated to the tune of € 23 billion (or about € 4 700 per household), largely exceeding the previous high of 18 % recorded during the 2008-09 great financial crisis.

1 The Classification of Individual Consumption by Purpose, abbreviated as COICOP, is a classification developed by the United Nations Statistics Division to classify and analyse individual consumption expenditure incurred by households. This concept of household consumption is slightly different from that used in other parts of this article. More particularly, the concept of private consumption as defined by the National Accounts Institute refers to household consumption expenditure, as well as (individual) expenditure by non-profit institutions serving households that directly benefit households. Household consumption according to the COICOP classification, however, only includes spending by households. Moreover, it measures expenditure for different goods that were bought in Belgium. It therefore includes consumption expenditure from non-residents in Belgium but excludes Belgian consumption expenditure abroad (also known as the domestic concept). The opposite goes for private consumption, which the NAI bases on the national concept. In terms of year-on-year growth rates, both aggregate concepts are actually close, but a decomposition per product type only exists for the domestic concept (currently until 2020).

2 Cotton *et al.* (2021) categorised this expenditure as “social-distancing-sensitive spending”. Expenditure such as restaurant, dining and travel is very sensitive to social distancing and experienced much larger and more persistent falls throughout the COVID-19 crisis in the US.

Chart 2

Final consumption of households classified according to purpose – annual growth in 2020



Source: NBB.

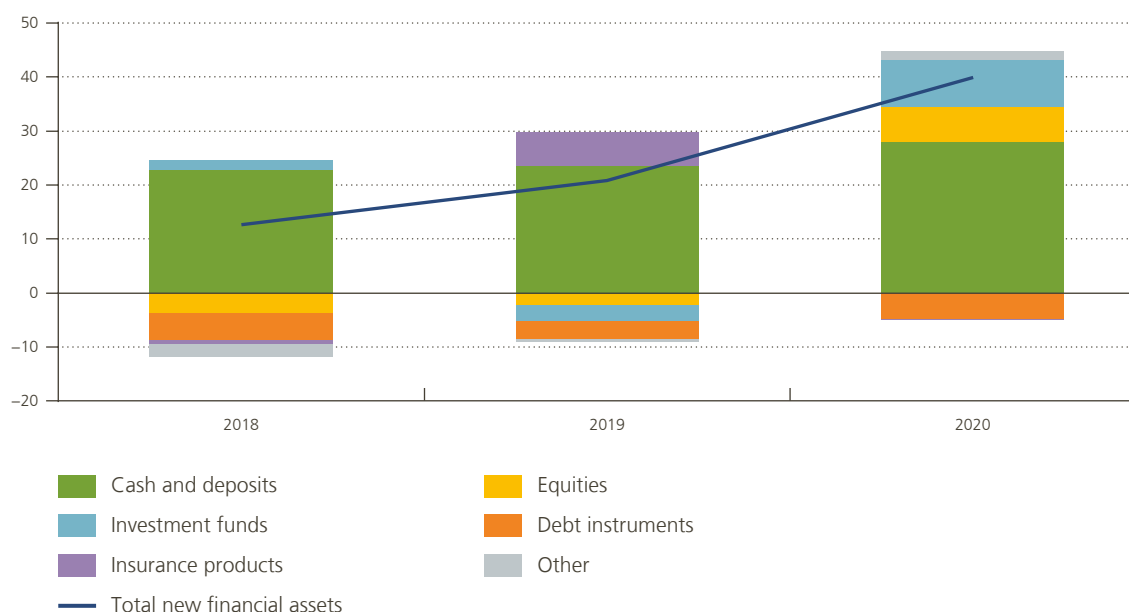
Note: The expenditure data are based on the domestic concept, i.e. goods/services that were bought in Belgium. Consumption related to education is not included in the graphs because it is not very representative of the total expenditure of the Belgian economy on this item. The category “transport” includes transport services, purchase of personal vehicles and costs related to the use of personal vehicles, while the category “healthcare” includes medicines, other pharmaceutical products and therapeutic equipment, services of doctors, dentists and paramedics (excluding hospitals) and care provided in hospitals and similar institutions.

An exceptionally large share of household income was saved and while savings accounts remained the main investment outlet, illiquid assets attracted more interest than is usually the case. First, it should be noted that household residential investment recovered very quickly from the first lockdown in the spring of 2020 and remained highly resilient afterwards. By the first quarter of 2021, it had already exceeded its pre-crisis level. Households having more cash on hand in a low-interest rate environment decided to renovate their property as they were forced by the lockdown measures to spend more time at home and as teleworking is expected to become established for many workers. Secondly, Belgian households also turned to riskier assets and bought equities and investment fund units to the tune of € 15 billion (or about € 3 000 per Belgian household) in 2020, whereas net transactions in these assets were negative in 2019.

Chart 3

The share of equities and investment funds in saving rose strongly in 2020

(formation of financial assets, in € billion)



Sources: NAI, NBB.

1.3 Forced saving explains most of the strong increase in the savings ratio

The drop in consumer spending may have either been involuntary, as consumers were faced with restrictions that forced them to change their behaviour, or it could have also been a voluntary choice, as explained above. Understanding which of these explanations is predominant is important because it has implications for the recovery in consumer spending in a post-pandemic world.

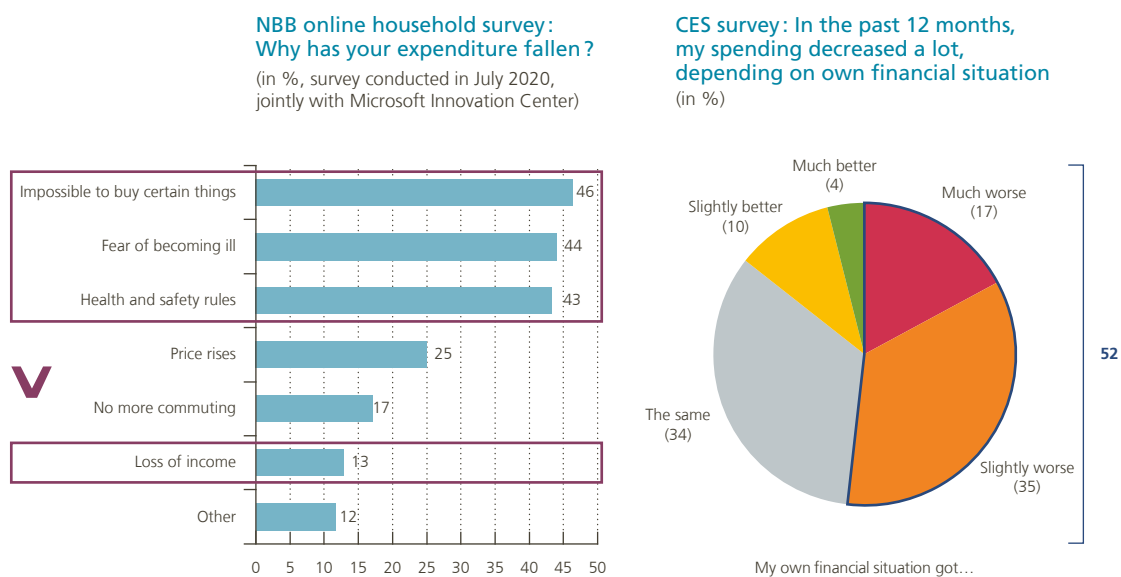
In July 2020, an ad-hoc NBB online survey¹ asked consumers about the reasons for reducing their spending. The most popular answer related to the impossibility of spending on certain goods/services, as cited by nearly half of all respondents, which points in the direction of forced and involuntary savings. On top of that, strict lockdown measures as well as health concerns were cited as having prevented nearly half of all respondent households from shopping. Loss of income was mentioned by only 13% of households as one of the reasons for reducing their spending.

Similarly, results based on the ECB's Consumer Expectations Survey (CES) which was launched several weeks prior to the outbreak of the pandemic, show that only about half of the Belgian respondents who had strongly reduced their spending over the past year indicated that their financial situation had worsened in the last twelve months. For the other half of them, their financial situation had stabilised or even improved. For the households who cut their spending sharply while their financial situation was either unchanged or better, the reason behind reducing their spending must lie elsewhere.

¹ For more results, please refer to the press release issued by the NBB on 29 July 2020 (only available in [Dutch/French](#)).

Chart 4

Survey evidence suggests that the decline in household consumption is not only due to a loss of income

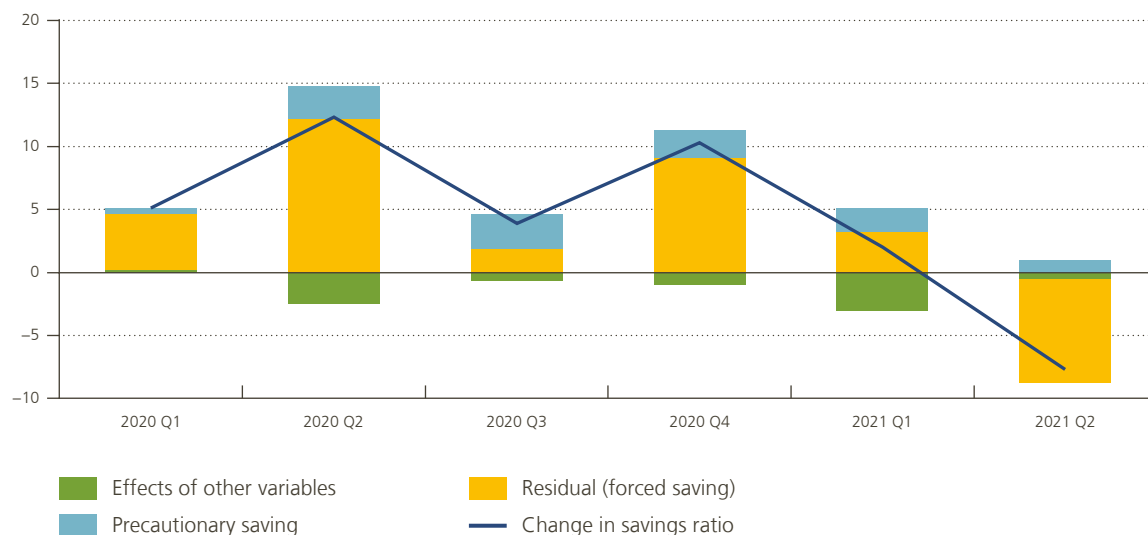


Sources: ECB CES pilot survey, NBB.

Chart 5

Decomposition of the annual change in the savings ratio

(in %)



Sources: NAI, NBB.

These survey results are corroborated by the findings from an econometric analysis. Following the approach in Dossche and Zlatanos (2020), the (change in) Belgian households' savings ratio is regressed upon its presumed determinants, such as real disposable household income, real net financial wealth and households' expectations about (un)employment from the NBB consumer survey as a proxy for uncertainty, to estimate the impact of precautionary savings. Whatever part of the rise in the savings rate that is left unexplained by these determinants is considered here as forced savings. In fact, this unexplained residual is quite substantial in the recent period, suggesting an important role for involuntary savings during the pandemic. The uncertainty and the precautionary motives also exerted a significant influence on savings constitution, but remained secondary compared to the contribution of restrictive constraints. As of the second quarter of 2021, the savings ratio turned out lower than last year, as more consumer outlets were accessible again. The savings ratio remains a bit more elevated than is usually the case, though, which seems to be attributable to precautionary saving.

2. Uneven impact across households on consumption and savings

2.1 The income shock of the COVID-19 crisis has been asymmetric

While, at macroeconomic level, the impact on households' purchasing power remained relatively limited during the COVID-19 crisis and purchasing power still increased, this was not necessarily the case for each individual household or specific group. Since April 2020, the NBB's monthly consumer survey has included two additional questions to monitor the impact of the health crisis on both income and saving buffers of households. At the height of the first lockdown, in April 2020, no less than one-third of 1 850 consumers experienced some income loss related to the crisis. For more than 10 % of respondents, their income loss exceeded 30 %. While the proportion of households suffering income losses due to the pandemic has declined somewhat over time, about one-sixth of all respondents are still affected negatively to date (the most recent observation dates from October 2021, with 5 % reporting substantial income losses of more than 30 %).

As hinted by Cotton *et al.* (2021), the magnitude of the impact of the COVID-19 crisis has differed across households, in various dimensions such as the composition and size of the household, education level or job status. The wide array of repercussions from the COVID-19 shock is demonstrated by survey data. People receiving a guaranteed income, such as pensioners and benefit claimants, typically did not experience big income losses. The relative loss of household income was – obviously – more significant for the working population, and specific categories proved to be particularly vulnerable. Self-employed workers were proportionally more affected: in May 2020, more than two-thirds of self-employed workers faced an income loss. This share has steadily decreased over time, possibly reflecting the fact that people learned to live with the restrictive measures to a certain extent and that some self-employed workers managed to restart part (or all) of their activities within the new restrictive framework (resorting to e-commerce or take-away concepts). Still, according to the most recent observations, in October 2021, close to half of all self-employed people saw an impact on their income and for one-sixth of respondents it even amounted to a loss of at least 30 % of household income. Another survey which was topical and carried out online among more than 5 000 households in May 2020 by the NBB¹ confirmed the more fragile position of the self-employed during the pandemic. Furthermore, it revealed that other categories of workers, such as those on temporary unemployment or student workers, also incurred hefty income losses at the height of the spring lockdown.

Remarkably, the latter survey specifically showed that average pandemic-related income losses were more substantial for the lowest-income households², regardless of the occupational status of the respondent. Income earners in these households are more likely to be employed under flexible and temporary contracts, which were cut back in large numbers at the start of the crisis. In addition, relatively larger income losses tie in with the fact that a larger share of low-income households was affected by temporary unemployment. The lowest-income households also had a less

1 For more results, please refer to the [press release issued by the NBB on 17 June 2020](#).

2 This finding is corroborated by other analyses, such as that by Capéau, Decoster, Vanderkelen and Van Houtven (2021).

“intensive” use of the temporary unemployment scheme as a large share of them were in full-time unemployment, while for other households it was more often limited to part-time unemployment. One of the explanatory factors is that they tend to work more often in the industries that were hit hardest by the crisis, such as arts, entertainment and recreation, catering and accommodation, tourism, or non-food retail.

Chart 6

Income losses tend to be more substantial for self-employed workers and lowest-income households



Source: NBB.

2.2 Households that suffered larger income losses were more likely to strongly cut their spending...

Interestingly, the CES dataset has plenty of background information about the respondents, making it possible to identify the key characteristics of the households that have sharply cut their spending in response to the crisis. To this end, a logit model was estimated to compute the probability of an individual having strongly reduced his/her spending in the past 12 months. In the regression, the dependent variable is a dummy variable taking the value of one if the respondent selected “strong decrease” to the corresponding question and zero elsewhere.

In this regression, we use a pooled sample at the individual level compiled between March 2020 and August 2021 and time dummies corresponding to the month of the survey are included among the explanatory variables. The results confirm that the likelihood of an individual having sharply reduced his or her spending in the past year soared with the outbreak of the pandemic and has been very dependent on the restrictive measures taken month after month. In March 2021, the average respondent was 2.8 times more likely to have cut back her/his spending sharply over the past year than in February 2020 (predicted probability at means reaching respectively 8.6 % and 3.3 %)¹.

In those econometric specifications, we also take into account the perceived evolution of the financial situation of the household, the fact that some households do not have sufficient savings buffers to make an unexpected payment equal to one month of their household income², the region of residence, employment status, household size and the respondent's age. Results show that the small group of financially-hit households is three times more likely to have reduced their spending sharply compared to those with a stable financial situation (i.e. the probability reaching 12 % for the financially-hit households against 4 % for those with a stable situation). Besides, several factors tend to increase the probability to strongly diminish spending: residing in Brussels or in Wallonia, being in the active population, living in a household of two or more people, and having low saving buffers. Note that, all things being equal, a temporarily unemployed worker has a predicted probability of strongly reducing his/her spending that is greater than that for an employee who is full-time employed, but the difference is considered as statistically non-significant (notably due to the limited size of the sample of temporarily unemployed respondents). Even so, this latter result could suggest that government's support measures largely cushioned the blow for workers affected by temporary unemployment. It is interesting to note that the predicted probability of strongly reducing spending based on the dimensions taken into account remains relatively low for all individuals and that other unobserved factors could then exert a strong influence on consumers' behaviour, such as the day-to-day evolution of the epidemic, the incidence of some restrictive measures or even individual political views (Alexander and Karger, 2021, Chen *et al.*, 2020, or Cotton *et al.*, 2021).

On average, in the pooled sample, about one third of all CES respondents considers his- or herself to be financially worse off than one year ago at the time of the survey. Within this group, 12 % have cut spending sharply in the past year. While the overall incidence of financially-hit households sharply cutting their consumption is rather small (some 4 % of all Belgian CES respondents), they constitute an important target group from a policy perspective. It is important to understand who they are and what they experienced through the COVID-19 crisis.

The share of financially-hit households is slightly higher among those with low income³ (44 %) and clearly went up (temporarily) during the lockdowns. Several factors may have contributed to people feeling financially

1 The CES was launched in the first quarter of 2020 and the full size of the sample was reached in March 2020 (about 1 000 Belgian respondents per month). The results based on the February 2020 sample should therefore be interpreted with caution.

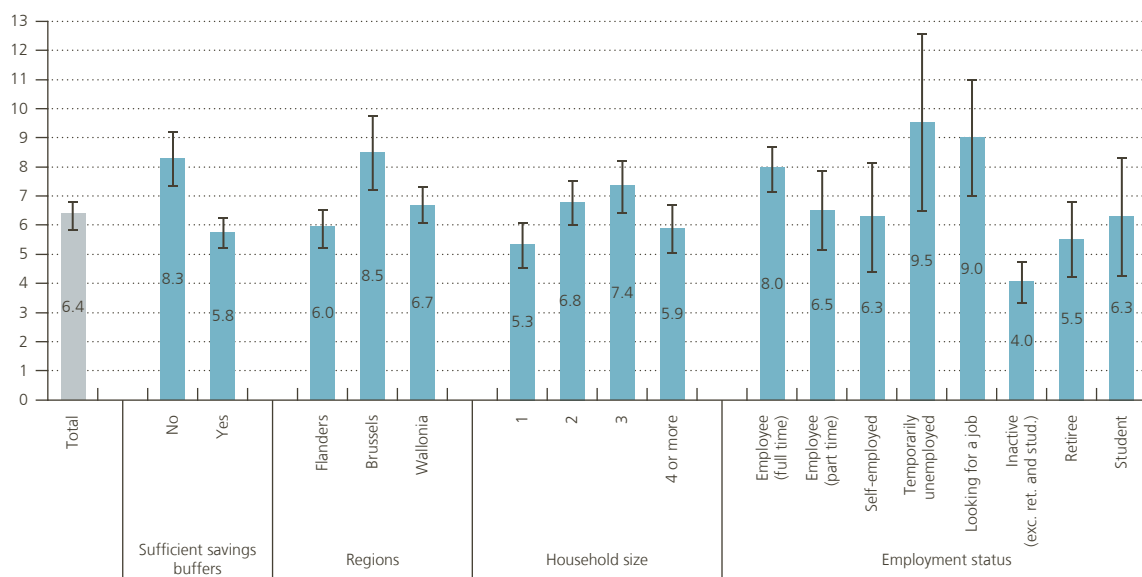
2 More precisely, the question to assess whether a household has sufficient savings buffers is the following: “Please think about your available financial resources, including access to credit, savings, loans from relatives or friends, etc. Suppose that you had to make an unexpected payment equal to one month of your household income. Would you have sufficient financial resources to pay for the entire amount?”

3 In the CES background questionnaire, respondents were asked about their household's total net annual income. Low-income households are considered as those with less than € 25 000 annually.

Chart 7

Predicted probability of having sharply cut spending in the last 12 months, depending on several key variables with a marked asymmetry

(in %, not all regressors are shown in the chart, other variables taken at means, data from February 2020 to August 2021, 95 % confidence interval)



Source: ECB CES pilot survey.

Please refer to Annex 2 for the complete specification of the logit model.

worse off. (Perceived) tougher credit access since the crisis could be one of those factors. Some 40 % of respondents¹ consider it harder to obtain a credit line or a loan compared to a year ago, while this share rises to nearly 70 % for those feeling financially worse off. The sentiment may also tie in with (perceived) price rises. In an open-ended question, CES respondents are asked to provide a guess of the percentage price change compared with 12 months ago. For respondents feeling financially worse off, the average inflation perception amounts to 6 %, clearly above the 3.3 % average for respondents with a stable or improved financial situation. It is not unlikely that, due to the composition of their consumption basket, financially vulnerable households have actually experienced larger price hikes, *inter alia* due to the bans on supermarket promotions that were issued during the first lockdown.

2.3 ... but pandemic-related excess savings are concentrated among high-income households

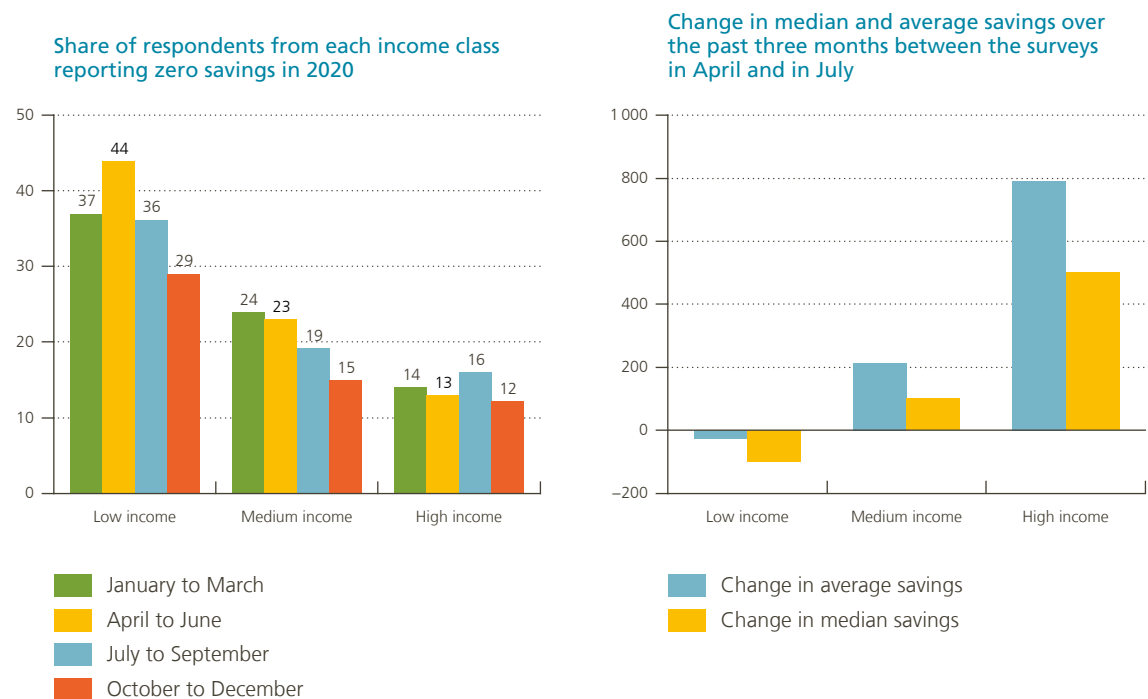
Similar to the heterogeneity observed in terms of purchasing power, the accumulation of savings and the motivation behind it are also likely to have differed across households. Knowing that low-income households experienced, on average, the largest income losses because of the pandemic and associated measures, they have probably contributed less than proportionally to the pandemic-related excess savings. This is corroborated by evidence from the CES survey. Some 44 % of Belgian low-income respondents reported to have been unable to save during the second quarter of 2020 (which roughly corresponds to the time of the first lockdown). This share was clearly higher than in other quarters of 2020. This stands in stark contrast with high-income respondents,

¹ This share takes only into account the respondents who deemed this credit question relevant and therefore excludes about 25% of all respondents who considered it "Not applicable".

only 13 % of whom reported zero savings during the second quarter of 2020; a share that was much more stable over the year.

Chart 8

CES data imply that pandemic-related excess savings are concentrated among high-income households



Source: ECB CES pilot survey.

In the April and July 2020 CES, respondents were asked to fill in an amount in euros relating to their savings over the past quarter. The difference between those two waves could roughly be interpreted as the difference in savings linked to the pandemic, as first-quarter savings are assumed to have been much less affected by the health crisis and the containment measures. Open-ended survey responses should be interpreted with a bit more caution, as there is a larger chance of respondents misinterpreting the question or providing inaccurate information, even if obvious outliers or errors have been filtered out. Still, the results suggest that the high-income group noted the strongest increase in savings during the pandemic. This may be related to the fact that the consumption of services, which was rendered more difficult or even impossible during the lockdown, typically takes up a larger part in the budget of higher-income households¹. So, this could suggest that forced saving was most significant for higher-income households².

For low-income households, on the other hand, average and median savings in the second quarter of 2020 were actually a bit lower than in the first quarter, which is in line with the above-mentioned survey results (with a larger share of low-income households being financially hit harder during the pandemic). For this group, the decline in spending resulting from the lockdown was lower than their income loss.

1 According to Statbel's household budget survey for 2018, consumption of transport services, recreational and cultural services and services by hotels, restaurants and cafeterias makes up 16% of the spending by those with incomes in the fourth quartile, against only 8% of the lowest income quartile's spending.

2 A similar conclusion was drawn for the UK households by Davenport et al. (2020) through the analysis of financial transactions via a budgetary app.

3. Implications for future consumption

One may think that the fact that the drop in consumer spending was mostly of a forced and involuntary nature bodes well for the recovery in private consumption as it could imply that the relaxation or lifting of the restrictions will suffice to provide a boost to consumer spending. Part of these pandemic-related savings could in principle be spent later on to meet pent-up demand for certain products or even be used for ‘revenge’ consumption.

However, several elements are expected to weaken the link between extra savings and future consumption. First, as the extra savings seem to be largely concentrated among high-income households, they will not necessarily be spent in the future as these households have a relatively low propensity to consume out of their income. Second, not all foregone consumption can obviously be compensated: one will most likely not get two consecutive haircuts, for example, just because it was impossible to go to the hairdresser for some time. Third, the existing capacity constraints could put a limit on consumption growth. Fourth, the precautionary motive (also in view of a possible future fiscal consolidation or price rises) could lead households to keep saving at a somewhat higher level than before the crisis. Furthermore, it cannot be ruled out that households have grown accustomed to some of the habits cultured by the health crisis. They could, for example, permanently dine out less as they prefer home cooking (Deloitte, 2021). Last but not least, as indicated earlier, the pandemic-related savings have been invested more than usual in more risky financial products, which makes a quick withdrawal perhaps less likely. In fact, some of the extra savings may have been spent already in the housing renovation spree.

Against this background, it seems more likely that pent-up demand or revenge consumption will be limited to a specific number of products, rather than constitute a broad-based phenomenon. Leisure activities, such as travelling or going to restaurants and bars, may be in high demand for some time, as people feel the urge to entertain and enjoy social contacts again. This does not mean, however, that a significant share of the 2020 extra savings will support consumption growth in the post-pandemic period.

In order to shed more light on this, the CES questions about past and expected spending can be analysed together. It appears that, at the “micro level”, there is a large share of respondents who replied to these questions in the same way: about half of the respondents who have already cut their spending in the past 12 months envisage a further decrease in consumer expenditure in the next year. If, for both questions, we look at the “macro level” and calculate a net balance that represents the difference between the percentage of respondents seeing an increase (+) and the percentage of those seeing a decrease (–) for each month between February 2020 and August 2021, there was a clear downward trend in the indicator for past spending between the start of the survey and March 2021. After that, the indicator started to edge up again. For expected spending, however, the net balance is much more stable and the indicator only shows a moderate increase after March 2021. In other words, while – up to March 2021 – there was a rising share of respondents who said they had cut back on actual/past spending, there was no growing share of respondents planning to increase their future spending. The fact that the developments in the curves of past and future spending did not (more or less) mirror each other suggests that there is no clear evidence of a strong catching-up of foregone consumption. Even if the net indicator on past spending has significantly improved since March 2021, reflecting a rebound in consumption from its pandemic lows, the indicator on expected spending remains more stable.

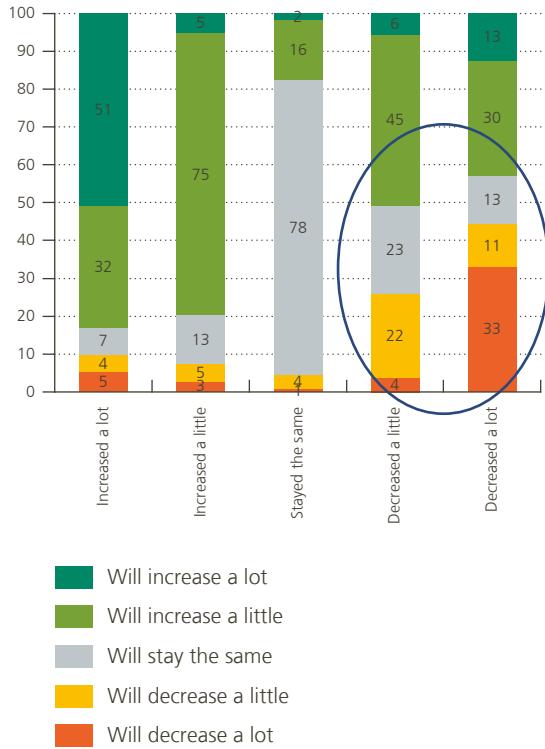
Moreover, in March 2021, the CES included a question specifically targeting households who had added more money to their savings or financial investments than they had withdrawn since 2020. Those households were asked how they expected to use those savings or financial investments over the coming year. The distribution of the responses largely points to the higher level of savings or financial investments being maintained, while a much smaller share is intended for pent-up consumption.

Chart 9

No convincing evidence of any strong catching-up of foregone consumption

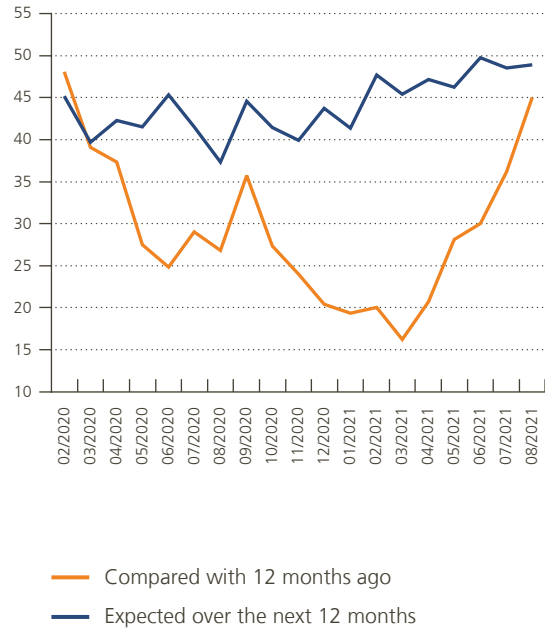
(data from February 2020 to August 2021)

Strong correlation between past spending and spending intentions



Net change in past and expected household spending

(net balance of 'increase (+)' and 'decrease (-)', in % of wave respondents)

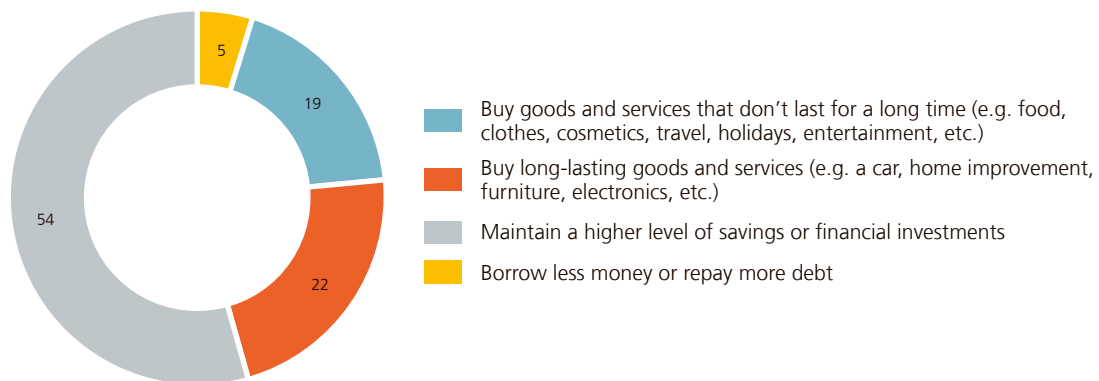


Source: ECB CES pilot survey.

Chart 10

Respondents who have accumulated savings or financial investments since the start of 2020 largely plan to keep those at a higher level over the next year rather than to spend them

(in %, data from March 2021, sample limited to the respondents who have accumulated savings or financial investments since January 2020 and who are asked how they plan to use the money over the next twelve months)



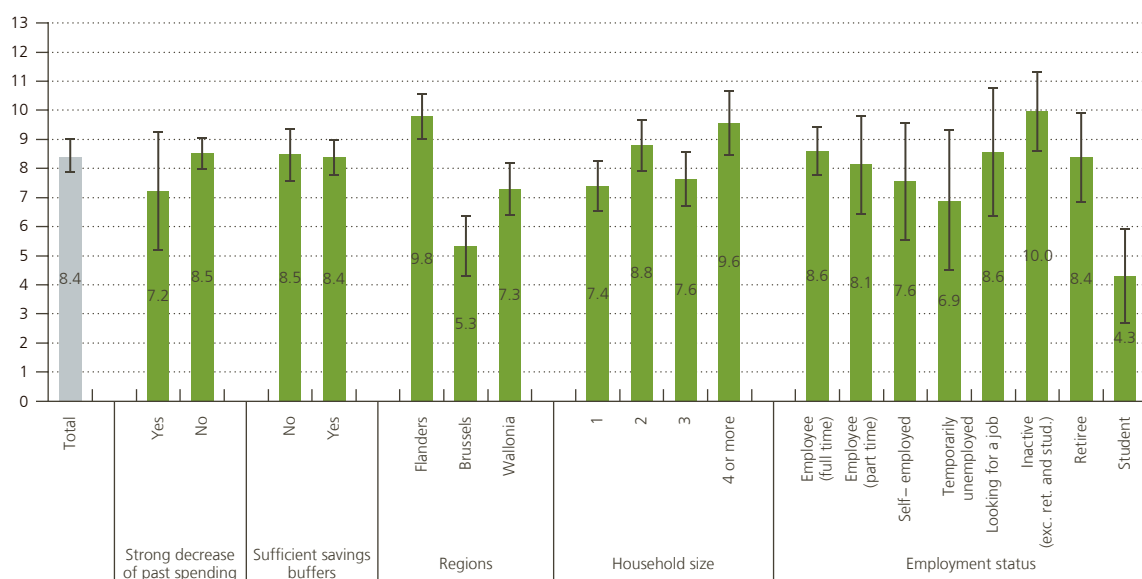
Source: ECB CES pilot survey.

We also computed the probability that an individual indicates that he/she will strongly increase his/her spending in the next 12 months, by using a logit model where the dependent variable is a dummy variable taking the value of one if the respondent selected “strong increase” to the corresponding question and zero elsewhere. The results show that the consumers who have sharply cut their spending do not expect any strong rebound in their spending in the coming months. On the contrary, those who indicated that they have strongly reduced their spending in the past year have a lower predicted probability of strongly increasing it in the next year, refuting the “revenge consumption” assumption for now. Looking at the regional dimension, the Flemish respondents who were less affected by a decrease in spending in the past year (see chart 6) are actually the ones that are the most eager to increase their spending in the coming months and vice versa for the two other Belgian Regions.

Chart 11

Predicted probability of strongly increasing spending in the next 12 months, varying according to several key variables with a marked asymmetry

(in %, not all regressors are shown in the chart, other variables taken at means, data from February 2020 to August 2021, 95 % confidence interval)



Source: ECB CES pilot survey.

Please refer to Annex 3 for the complete specification of the logit model.

Conclusion

The fall in private consumption and the surge in savings rank among the major macroeconomic issues of the COVID-19 crisis at the current juncture. At the aggregate level, a shock of this scale has not been seen in peacetime and one should keep in mind that the total figure hides a very heterogeneous pattern among households. The first difference between households lies in the magnitude of the financial income shock, which, despite massive government support, has been severe for a small share of the population.

Even if the deterioration in the financial situation may explain the drop in some households' spending, (many) other explanatory factors come into play and the most obvious one pertains to the restrictions imposed on the consumption basket. In the ECB's consumer expectation survey, for about half of the respondents who reduced their spending, the financial situation had not worsened. The likelihood of reducing expenditure depends, among others, on place of residence, working status, family size and the time frame. The presence of savings previously accumulated is also a crucial factor, as is usual in an economic recession, and those who could rely on financial buffers could more easily withstand the pandemic without having to reduce their spending. During the COVID-19 crisis, the increase in savings was also heterogeneous and the worst-hit and more fragile households were (and are still) unable to save part of their income.

One may expect, at a first reading, that the extra savings could be used as soon as the health situation normalises, leading to a strong and quick recovery of private consumption in the aftermath of a shock mostly considered of a temporary nature, but survey data do not confirm this hypothesis. This may pertain to the identity of the savers (those who have accumulated extra savings do not have a high propensity to consume), the uncertainty (notably with respect to the expected length of the crisis, as well as the possible fiscal fallout), or the categories of goods or services being prohibited during the lockdowns (consumers are unlikely to get a double hair cut in the aftermath of the crisis). Most of the worst-hit households, who are proportionally more represented among the low-income ones, have been unable to save since March 2020 and we do not expect them to be eager to undertake "revenge consumption" spending.

Still, according to the NBB's June macroeconomic projections, the outlook for purchasing power is favourable and it is expected to further support consumption growth. Hence, private consumption should become the main engine of economic growth going forward, even without households tapping into their additional savings accumulated during the pandemic. However, the above survey analysis has taught us that all households cannot be lumped together and serves as a reminder that policy-makers should keep an eye out for the (small) share of worst-hit Belgian households when phasing out the COVID support measures.

Annexes

Annex 1: The impact of COVID-19 on Belgian households – relevant surveys¹

Since April 2020, the NBB's monthly consumer survey, polling a representative sample of 1 850 consumers, has included two additional questions to monitor the impact of the health crisis on the financial situation of households. The first question relates to households' loss of income, while the second question concerns the size of the savings buffer expressed as a number of months, to cover necessary expenditure. The National Bank of Belgium publishes the results of the consumer survey on its NBB.stat website. Generally, the survey findings make it possible to distinguish the financial impact of the crisis between different sections of the population, with some socio-occupational categories having been hit significantly more. An income loss is found to be much easier to bear if the household has substantial savings which can be used to cushion the shock.

In addition, the NBB has organised two specific large-scale online surveys, in cooperation with Microsoft Innovation Center. The first survey was carried out in May 2020 and got 5 688 responses (on a voluntary basis). It focused on income losses resulting from the crisis and singled out certain categories of workers in order to get a grasp of the financial impact for vulnerable households at the height of the crisis. The second of these surveys was conducted in July 2020 and focused on household consumption since the gradual reopening of stores and the hospitality sector. It got 3 036 replies and showed that household consumption was likely to remain affected for some time due to fear or permanently altered habits.

The ECB's Consumer Expectations Survey (CES) also contains information about the impact of the COVID-19 crisis on Belgian households. It is an online high-frequency panel survey that was launched in January 2020 and targets households from the six largest euro area countries, including Belgium. At the time of the writing, the survey is still in a pilot phase. Respondents are invited to answer online questionnaires every month and must leave the panel between 12 and 18 months after joining; they are encouraged to take part as they receive a gratuity with a relatively modest monetary value. The CES is a relatively new tool that quickly adapted to incorporate new topical and targeted questions linked to the impact of COVID-19 on households as of April 2020 (Christelis *et al.*, 2020). Questions were added or amended throughout the different waves and cover a wide range of topics deemed relevant for households.

Survey information has proved crucial to monitor the impact of the health crisis. First, it has the advantage of timeliness, as survey data are available much earlier than the official macroeconomic data. Second, the survey information also enables the possible asymmetric impact of the shock to be investigated; in the case of the CES, for example, a broad range of background data (e.g. family size and composition, household annual income) is available for each respondent.

¹ This annex provides a non-exhaustive list of survey data gathered during the COVID crisis. It mainly focuses on NBB and ECB sources.

Annex 2: Logit model to explain the propensity to have strongly decreased the spending in the previous 12 months

Equation 1

Logistic regression whose dependent variable pertains to past spending

(1 = "Compared with 12 months ago, my household spending decreased a lot", 0 = otherwise)

Variables	Odds ratio	(Robust std. err.)
Time dummies:		
March 2020	1.75**	(0.46)
April 2020	1.73**	(0.46)
May 2020	1.92**	(0.52)
June 2020	2.11***	(0.56)
July 2020	2.00**	(0.55)
August 2020	2.21***	(0.60)
September 2020	1.62*	(0.45)
October 2020	2.14***	(0.57)
November 2020	2.66***	(0.74)
December 2020	2.53***	(0.68)
January 2021	2.90***	(0.78)
February 2021	2.16***	(0.56)
March 2021	2.77***	(0.78)
April 2021	2.27***	(0.62)
May 2021	1.89**	(0.55)
June 2021	2.27***	(0.64)
July 2021	2.10***	(0.59)
August 2021	1.41	(0.41)
Financial situation: (past 12M)		
Somewhat worse	0.92	(0.10)
Stable	0.33***	(0.04)
Somewhat better	0.78	(0.12)
Much better	1.43	(0.34)
Sufficient liquidity buffer:		
Yes	0.68***	(0.05)
Region:		
Brussels	1.47***	(0.15)
Wallonia	1.12*	(0.08)
Individual age categories:		
5-54 years	0.86*	(0.07)
55-70 years	0.73***	(0.08)
71 years or older	1.16	(0.25)
Education level:		
Upper secondary education / post-secondary non-tertiary education	0.99	(0.12)
Tertiary education / short-cycle non-tertiary education	1.02	(0.13)
Household size:		
2 persons	1.29***	(0.12)
3 persons	1.41***	(0.14)
4 persons or more	1.11	(0.12)
Employment status:		
Part-time employee	0.81*	(0.09)
Self-employed	0.78	(0.13)
Temporarily unemployed	1.22	(0.23)
Unemployed looking for a job	1.15	(0.15)
Inactive (excl. retiree and student)	0.49***	(0.05)
Retiree	0.68***	(0.10)
Student	0.78	(0.14)
Constant	0.10***	(0.03)
Pseudo R-squared	0.06	
Sample	17 490 obs. 2020 M2 – 2021 M8	

Source: ECB CES pilot survey, own calculations.

Note: The reference categories (February 2020, much worse financial situation, Flanders, 18-34 year, primary or lower secondary education / no education, single-person household, and full-time employee are not included to avoid collinearity issues. The odds ratio represents the odds that an outcome will occur given a particular exposure, compared to the odds of the reference category (i.e. an odds ratio above 1 means that the analysed category is associated with higher odds of outcome than the reference category).

Annex 3: Logit model to explain the propensity to strongly increase the spending in the next 12 months

Equation 2

Logistic regression whose dependent variable pertains to past spending

(1 = "Compared with 12 months ago, my household spending decreased a lot", 0 = otherwise)

Variables	Odds ratio	(Robust std. err.)
Time dummies:		
March 2020	1.13	(0.23)
April 2020	1.73***	(0.34)
May 2020	0.86	(0.17)
June 2020	1.08	(0.22)
July 2020	1.18	(0.25)
August 2020	0.76	(0.16)
September 2020	1.08	(0.22)
October 2020	1.16	(0.24)
November 2020	1.15	(0.24)
December 2020	1.08	(0.24)
January 2021	1.22	(0.26)
February 2021	1.27	(0.27)
March 2021	1.28	(0.28)
April 2021	1.31	(0.30)
May 2021	1.51*	(0.32)
June 2021	1.37	(0.30)
July 2021	1.47*	(0.31)
August 2021	1.46*	(0.30)
Strong spending decrease:		
Yes	0.84	(0.13)
Financial situation: (past 12M)		
Somewhat worse	0.27***	(0.02)
Stable	0.10***	(0.01)
Somewhat better	0.11***	(0.02)
Much better	0.17***	(0.04)
Sufficient liquidity buffer:		
Yes	0.98	(0.07)
Region:		
Brussels	0.52***	(0.06)
Wallonia	0.73***	(0.06)
Individual age categories:		
5-54 years	1.01	(0.08)
55-70 years	1.09	(0.10)
71 years or older	1.15	(0.24)
Education level:		
Upper secondary education / post-secondary non-tertiary education	1.03	(0.12)
Tertiary education / short-cycle non-tertiary education	1.02	(0.11)
Household size:		
2 persons	1.21**	(0.10)
3 persons	1.04	(0.10)
4 persons or more	1.32***	(0.12)
Employment status:		
Part-time employee	0.94	(0.11)
Self-employed	0.87	(0.13)
Temporarily unemployed	0.79	(0.15)
Unemployed looking for a job	1.00	(0.14)
Inactive (excl. retiree and student)	1.17*	(0.10)
Retiree	0.97	(0.12)
Student	0.48***	(0.10)
Constant	0.52***	(0.12)
Pseudo R-squared	0.11	
Sample	17 490 obs. 2020 M2 – 2021 M8	

Source: ECB CES pilot survey, own calculations.

Note: The reference categories (February 2020, no strong decrease of past spending, much worse financial situation, Flanders, 18-34 year, primary or lower secondary education / no education, single-person household, and full-time employee are not included to avoid collinearity issues. The odds ratio represents the odds that an outcome will occur given a particular exposure, compared to the odds of the reference category (i.e. an odds ratio above 1 means that the analysed category is associated with higher odds of outcome than the reference category).

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