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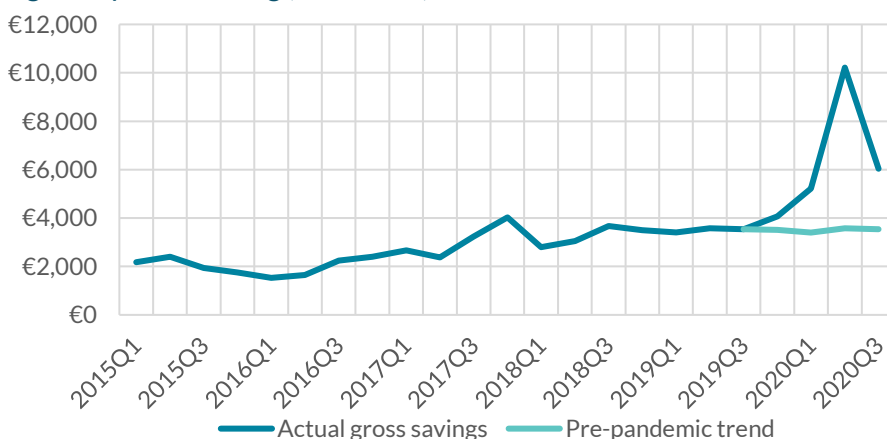
Saving during the pandemic: Waiting out the storm?

Reamonn Lydon¹ and Tara McIndoe-Calder^{1*}

Spending after the pandemic will be influenced by what households decide to do with their ‘excess pandemic savings’. Higher income households likely saved more. We estimate that more than half could be in the top 30 per cent of households by income. As these savings are more akin to deferred spending than precautionary savings, a relatively high share may be spent in future. If half of excess pandemic savings accumulated to date are spent, it could add up to 5 per cent (or €5 billion) to consumer spending over time. Savings could also be re-invested, including to purchase owner-occupied housing and fund home improvements. Spending could turn out to be considerably higher, if there is a swift recovery from the pandemic. Conversely, a slower recovery, with a weaker jobs and income outlook, could encourage households to hold on to more savings for longer.

In 2018/19, gross household savings averaged around €3.5 billion per quarter. Subtracting this from actual savings, gives a figure of around €11 billion for additional pandemic related savings in the year to Q3 2020 (Figure 1) – that’s around 12 per cent of disposable income. We term these ‘excess pandemic savings’. Similar pandemic savings rates are observed in the [Euro Area](#), [UK](#) and [US](#).

Figure 1 | Gross saving (€, millions)



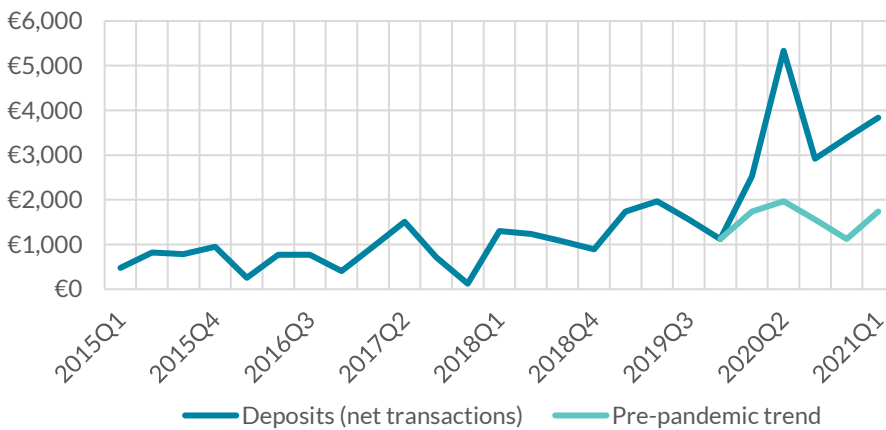
Source: CSO Institutional Sector Accounts (ISQ03), seasonally adjusted.

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Deposits and gross savings trends are very similar (Figure 2), although the levels differ because not all gross savings flow to deposits.² Deposit data are more timely, and January data suggest another increase in savings during Level 5 restrictions in early-2021. Between 2020Q1 and 2021Q1 *total* household deposits grew by around €18bn, or 15 per cent of disposable income. Subtracting the pre-pandemic deposit trend from this gives €10bn of what could be termed ‘excess pandemic deposits’, that is the growth in deposits above the pre-pandemic trend (Figure 2). This is equivalent to 8 per cent of annual disposable income. For comparison, the full value of matured funds in *Special Savings Investment Accounts* in 2006/07 was [€16 billion](#), or almost 18 per cent of household disposable income at the time. As we discuss below, not all of SSIA savings flowed into consumer spending.

Figure 2 | Deposits (net flows, € millions)



Source: Central Bank of Ireland, Table A1 Money and Banking Statistics. Q1 2021 is an extrapolation of the January 2021 data to the entire quarter.

Who saved and why?

Knowing who has saved, why and by how much can tell us something about how savings might be used in the future. If excess pandemic savings are largely because of reduced spending opportunities, sometimes termed “involuntary” or “forced” savings”, as opposed to precautionary savings, they may be more likely to be spent in the future, depending on the economic outlook.

The pandemic is a highly unusual shock, in that despite widespread job losses, average disposable income [actually grew](#) by around 4 per cent in 2020, and by similar amounts across the distribution, as shown in [Cahill and Lydon \(2021\)](#). [COVID-19 income supports](#) helped, particularly for lower-income households, as did [earnings growth](#) for workers not directly affected by the pandemic. [Analysis of card data](#) shows that spending in 2020 closely tracked the tightening and loosening of restrictions on a sector-by-sector basis. Similar patterns are observed in other countries, including those where vaccine rollout is further

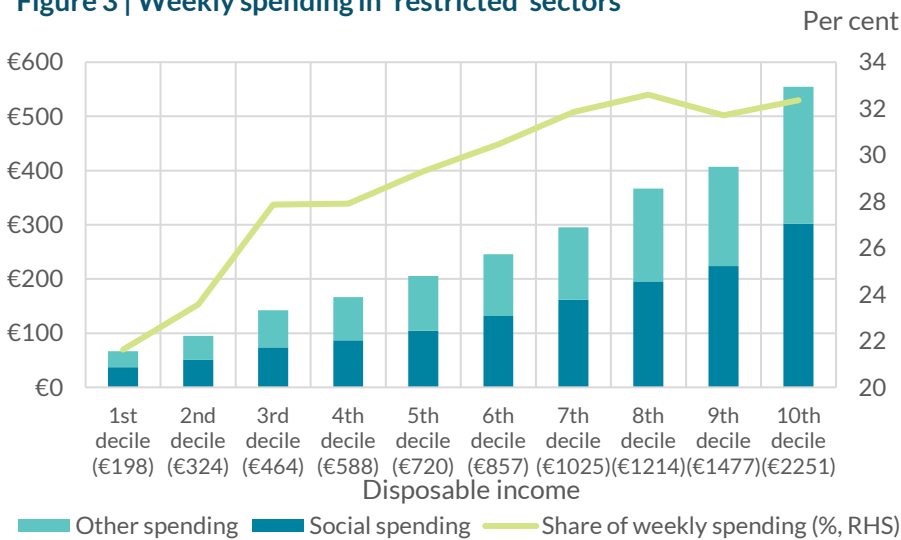
² As well as deposits, gross savings can be used to repay debt or purchase other financial assets, or loaned to the government (post-office savings or other government debt).

along.³ This suggests limited residual ‘precautionary’ behaviour, although this could change once the long-term fallout from the crisis becomes clearer.

Restrictions on economic activity that limit spending opportunities are one reason for the build-up of savings. Therefore, understanding how different households were more or less affected by the restrictions also tells us something about who has saved.⁴ We use data from the 2015/16 *Household Budget Survey* to quantify the relative exposure across the income distribution.⁵ We look at the initial period of tight restrictions (broadly Q2 2020), when face-to-face services and non-grocery retail sectors were largely closed. The 2020 Q2 [Quarterly Bulletin](#) categorised the sectors affected as either ‘Social’ (restaurants/ hotels, travel, recreation and culture, alcohol outside the home and transport services) or ‘Other’ (vehicles, clothing/footwear, furniture, personal care and other personal spending).

Higher income households spend more in restricted sectors, both absolutely and as a share of total spending (Figure 3). Households in the tenth decile, or highest 10 per cent of incomes, spend around €555 per week on goods and services from restricted sectors, around one-third of their average overall weekly spend of €1,715. Households in the first decile spend €67 per week, just over a fifth of total weekly spending. Table 1 provides a detailed split into various types of spending.

Figure 3 | Weekly spending in ‘restricted’ sectors



Source: Household Budget Survey 2015/16 (nominal).

³ See, for example, this [recent speech by Professor Hélène Rey](#).

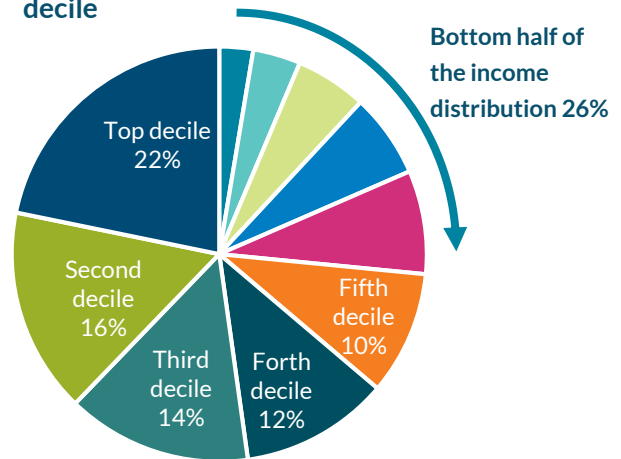
⁴ This is clearly second best to actual micro data on consumption and savings, which could be available in early-2022 with the next wave of the HFCS.

⁵ This is the latest available HBS wave. Comparisons with 2005 and 2010 HBS data shows that this pattern of spending across the income distribution changes little over time.

Aggregating the average spending levels in Figure 3 shows that more than half of ‘restricted’ spending in the economy (in Q2) is in the top three deciles of income; with just a quarter in the bottom half of the distribution (Figure 4).

This distribution of restricted spending across the income distribution is likely to be correlated with distribution of savings.⁶ A concentration of excess pandemic savings higher up the income distribution is also consistent with what we see in other countries, [such as the UK](#). It also aligns to qualitative evidence from the [CSO](#), which showed more saving in more affluent households.

Figure 4 | Share of aggregate spending in restricted sectors in each income decile



Source: HBS 2015/16

Will excess pandemic savings affect future spending?

This is actually two inter-related questions: how much of savings might be spent, and what might they be spent on. On the latter, whether savings are spent on domestic or imported goods and services (including foreign travel/holidays) matters for growth and jobs. Table 1 lists the share of spending in ‘restricted’ sub-sectors outlined above, according to income.

Table 1 | Share of spending in ‘restricted’ sectors, by income decile

Spending category	Bottom five income deciles	Average across all households	Top three income deciles
Personal care services (hairdressing, etc)	2.0	2.1	2.1
Domestic holidays	2.2	2.5	2.7
Drinks outside the home	3.9	4.0	4.0
Recreation/culture/sport	3.6	4.8	5.4
Restaurants	9.9	10.3	10.7
Foreign Holidays (including air travel)	8.9	11.0	12.1
Household furnishings	12.7	10.8	9.8
Clothing, footwear & other personal goods	15.5	15.0	14.5
Vehicles (purchasing)	17.6	18.4	19.3
Transport services (fuel, servicing, fares, etc)	23.7	21.1	19.2
	100.0	100.0	100.0

Source: HBS 2015/16.

Around a third of restricted spending is personal or social spending, that is in restaurants and dining, recreation/culture/sport and (mostly foreign) holidays.

⁶ There are some caveats to this approach. For example, we know little about reductions in spending due to concerns about the longer-term impact of COVID. Recent [ECB survey data](#) suggests that this is a bigger concern for those on lower incomes, consistent with a greater exposure to the economic effects of COVID in this group, as shown in [Cahill and Lydon \(2021\)](#). Also, we do not adjust for the reallocation of spending due to COVID, including to online, as shown in [Byrne et al \(2020\)](#).

This rises to around a half if we include transport services (mainly, fuel and public transport fares). As this type of spending is [not so easily substituted](#) between time periods, it seems unlikely all of it will be recovered in the future. This does not, of course, rule out additional consumer spending on completely different items, or more expensive versions of the same type of spending, e.g. holidays. The remainder of ‘restricted’ spending is in vehicles, furnishings (including appliances) and clothing/footwear – all spending that can be easily deferred and recovered, but which also has a high import content.

Another way to think about how much of savings might be spent is to estimate the *marginal propensity to consume* (or ‘MPC’) out of additional income or wealth. MPCs tend to be lower for temporary, versus permanent, additional resources, and higher for unexpected, versus expected, additional resources. The idea is that households adjust spending as soon as they have information about additional income or wealth and that permanent changes allow permanent spending changes. Most studies find a lower MPC out of wealth than income, and a higher MPC out of more liquid wealth (like savings and deposits). MPCs also tend to be lower for higher income households, and households that already have significant savings. As these households are less likely to be constrained in the first place, additional income or wealth has a smaller impact on spending.

For Ireland, [Clancy et al. \(2014\)](#) estimate that for each €1 increase in liquid wealth (i.e. not housing, and mostly deposits), consumer spending rises by between 10 and 20 cents (an MPC of 0.1-0.2). The higher end of the range is for spending on durable goods, the lower end for non-durables (including services).⁷

Estimates of the MPC out of transitory, unexpected (i.e. one-off) income (as opposed to wealth) increases tend to be higher. [Jappelli and Pistaferri \(2014\)](#) take an approach that has become commonplace in consumer surveys. They analysed answers to a question that asked households how much of a “reimbursement equal to the amount your household earns in a month” they might spend. Households said they would spend 48 per cent of it, on average (i.e. an MPC of 0.48).⁸ Following their approach, we use the following question from the [Household Finance and Consumption Survey](#) (HFCS) to estimate the MPC for Irish households out of transitory additional income:

⁷ Using aggregate data for the euro area [Souza \(2009\)](#) finds a higher MPC out of liquid financial assets than for housing wealth. Using micro data, [Arondel et al \(2015\)](#) find the MPC out of financial assets is falling in wealth, for example in France less wealthy households spend 11.5 cents out of each additional euro of financial wealth.

⁸ The ECB *Consumer Expectations Survey* has a similar question. [Christelis et al. \(2020\)](#) look at the survey responses during COVID, and get an MPC from a positive income shock of 0.42. The amount not spent is split between saving (0.42) and debt repayment (0.14)

“Imagine you unexpectedly receive money from a lottery, equal to the amount of income your household receives in a month. What percent would you spend over the next 12 months on goods and services, as opposed to any amount you would save for later or use to repay loans?”

On average, Irish households say they would **spend 52 per cent of this transitory income boost**, 10 per cent say they would spend 20 per cent or less, and a quarter say they would spend it *all*. The MPC is marginally smaller for higher income households (0.45 in top decile) compared to lower income households (0.53 in bottom decile), as the first row of Table 1 shows.⁹

[Jappelli and Pistaferri \(2014\)](#) also found that the MPC was higher for households with less savings in the first place, consistent with the idea that these households face constraints that are temporarily relieved by extra income. Whilst we observe some differences for Irish households (Table 2) – across both income and existing savings – they are generally small, and the MPC does not stray far from 0.50.

Table 2 | MPC (lottery question) by income and liquid-savings-to-monthly gross income ratio

1. Decile of income*	1	2	3	4	5	6	7	8	9	10
2. MPC	53	53	53	54	52	55	55	51	49	45
3. Decile of liquid savings to income ratio	1	2	3	4	5	6	7	8	9	10
4. Liquid savings to monthly income ratio (months)	0.0	0.0	0.2	0.4	0.8	1.3	2.2	3.7	7.1	24
5. MPC	58	56	52	54	51	50	50	51	50	47

Source: HFCS 2018. (*) Equivalised gross income.

Are these MPCs informative about future spending intentions of excess pandemic savings? The answer depends on whether these savings are more like (precautionary) wealth or ‘additional income’.¹⁰ They are neither, but the correlation of spending with the tightening and loosening of restrictions suggest to us that they are more like ‘additional income’ than precautionary wealth, and therefore more likely to be spent over time.¹¹ This does not mean that households might not retain some savings in the future for precautionary reasons, which will depend on sentiment and the outlook for jobs and disposable income.

⁹ These differences are statistically significant.

¹⁰ The answer also depends on whether MPCs vary over time and the economic cycle. [Gross et al 2020](#) show that the MPC is countercyclical, driven by those at the bottom of the income distribution. The finding is due to credit-rationing in downturns and is positively correlated with the local unemployment rate.

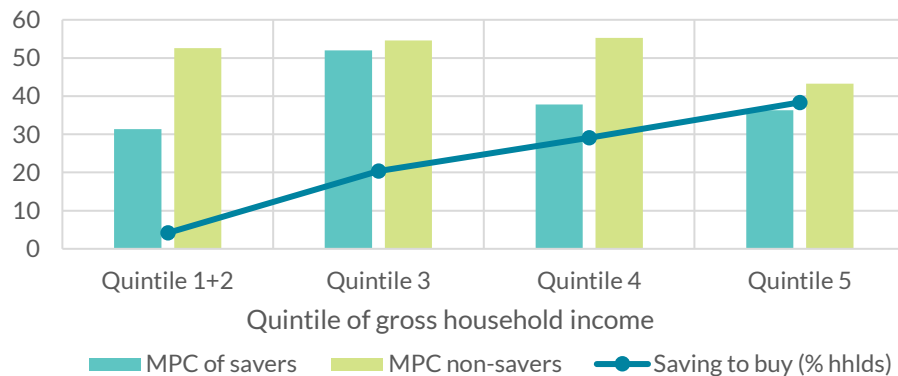
¹¹ John Fitzgerald makes a similar argument in the [Summer 2020 ESRI QEC](#), citing the example of the post-war consumer boom that played out over several years in the late-1940s after the ‘forced saving’ of the war years.

If half of excess pandemic deposits accumulated to date are spent over time, this equates to around €5bn, or 5 per cent of aggregate 2019 consumer spending.¹² Coincidentally, this is similar to the estimated spending out of maturing SSIA funds during the mid-2000s, which we estimate was in the region of 5 to 6 per cent of aggregate consumption at the time. Albeit, the main difference this time is that any additional spending is not coming on top of a pre-existing consumption boom. Consumer spending accounts for around 60 per cent of modified domestic demand, so these are not insubstantial direct effects in a macro context. Although, the timing of any potential spending is highly uncertain at this stage, and could be spread over several years.

Nominal consumption fell by around €9 billion in 2020. Therefore, an MPC of 0.5 means that excess accumulated savings would be making up only some of the consumption foregone due to the pandemic. What about savings that are ‘not spent’? The SSIA experience – which, it should be said, were *voluntary* saving and occurred over five years – suggests a wide range of potential outlets.¹³ The [CSO found](#) that just under one-third (31 per cent) was expected to be spent on consumer items. According to survey responses, some 10 per cent of SSIA savings were also used to repay debt. In 2020 gross debt repayments in the year to September did *increase* by 8 per cent. We estimate that this accounts for around 6 per cent of excess pandemic savings.

SSIAs were also used for fund education (12 per cent), and for home improvements, further savings and re-investment (46 per cent). SSIAs could have also contributed to housing demand at the time, although there is little hard data to support this.¹⁴ As one-in-ten households in the top three deciles of income are also saving to purchase a home, according the HFCS, excess pandemic savings could also contribute to housing demand via higher deposits.

Figure 5 | Saving to purchase a home and MPCs



Source: HFCS 2018, renters only. ‘Savers’ are saving to purchase their own home.

¹² Note, these are direct effects only, there could also be multiplier or indirect effects from additional consumer spending.

¹³ See this recent [Department of Finance paper](#) for more on SSIAs.

¹⁴ Buy-to-let housing investment was also much more prevalent in the mid-2000s, which is not the case now. In 2006/7, one-fifth of new lending was for buy-to-lets, compared to just 1.4% in 2020.

Households who say they are saving to buy typically have much lower MPCs, as Figure 5 shows for renters. Total first time buyer deposits amounted to €1.2bn in 2019.¹⁵ Therefore, it would not take a very large diversion of pandemic savings to have a significant impact. Although clearly a lot depends on how supply responds. With already strong demand pre-pandemic, and an expected [reduction in housing output](#) due to the pandemic, the supply response may be slow. Additional resources available for deposits could put upward pressure on prices in the short-run, notwithstanding the potential binding impact of the macro-prudential rules.¹⁶

Conclusion

A scenario where half of excess pandemic savings are spent could add significantly to aggregate consumption and domestic demand, over and above any boost to spending from savings *rates* falling towards pre-pandemic levels.

However, given the evolving nature of the pandemic, and the absence of household level information on savings behaviour during it, there is uncertainty around both the size of excess pandemic savings and the share that may be spent going forward. In Ireland, the flow of pre-pandemic savings (2018-19) was already elevated compared with the long-term historical average, meaning that the stock of excess pandemic savings may be higher than estimated here (calculated net of the pre-pandemic trend). In addition, more pent-up demand, combined with ongoing weak incentives to retain savings because of low interest rates, could mean more spending of excess pandemic savings.

We also need to consider lower-spending scenarios. Here, the key factor is the economic backdrop, and in particular the outlook for jobs and incomes, which in the short-run remain tied to health developments. The scenario presented here, where up to half of savings are spent, may turn out to be overly optimistic if unemployment remains elevated for a long-period after the pandemic, and/or if earnings fall after the gradual removal of pandemic income supports.

The macroeconomic impact also depends on the type of spending. High import content items, like vehicles and foreign holidays, have smaller knock-on effects for domestic growth and jobs. There are, however, potential offsetting effects from more *inward* tourism. Also, if spending is in areas where the supply-demand balance is already tight – construction or home improvement, for example – the real effects of more spending could be eroded by higher prices.

The analysis presented here suggests several things to bear in mind for future analysis and policy design.

¹⁵ Calculated using [New Mortgage Lending Data](#) from Central Bank of Ireland.

¹⁶ The objectives of the [macro-prudential rules](#) include promoting the resilience of the domestic banking system so that it can “withstand adverse movements in credit and property prices”.

First, policies aiming to stimulate domestic demand in the recovery may be unnecessary in a scenario where the propensity to consume out of excess pandemic savings is already potentially high. Furthermore, the effects of such measures could differ across the distribution as savings are likely concentrated in the top part of the income distribution whilst incomes have been broadly supported.

Second, some excess pandemic savings may be ‘spent’ on housing deposits, effectively increasing the demand for housing. In the short-run, and in particular given the likely reduction in housing supply as a result of the pandemic, prices could rise as a result. Thirdly, how excess pandemic savings are spent could also have implications for housing supply. To the extent that these savings are used for (deferred) home improvements – which was one of [largest outlets for SSIA savings](#) in the mid-2000s – this could divert workers and inputs away from new housing output.

Finally, whilst we highlight the potential impacts on consumer and property-related, we know that higher income households also tend to hold [more diverse financial assets](#) including pension wealth, insurance products, business wealth, equities and bonds. Future work will look at potential links between the growth in pandemic savings and increased participation in non-deposit financial assets, including, for example, the potential for increased ‘retail investor’ activity.

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