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of capacity to face shocks could itself become a source of financial instability, in addition to risks to the stability of banks and the greater financial system. The concept goes beyond assessing the level of assets and encompasses the state of household balance sheets, including indebtedness. It relies also on individual perceptions of the ability to rely on families and friends and other methods to deal with shocks, though such aspects are less easy to measure and rely frequently on self-assessments.

- **IN THE WAKE** of COVID-19, we ask how well-prepared households were in the European Union (including the United Kingdom) to handle an unexpected expense. Two years before the pandemic hit, a substantial share of EU households reported that they would be unable to handle unexpected expenses. In some EU countries, many households had savings equivalent to just a few weeks of basic consumption.
- **WE FIND THAT** one in three EU households is unable to meet an unexpected shock during regular times, let alone during a pandemic. COVID-19-related support measures put in place across the EU are intended to provide economic help to those households where members have lost jobs or face a severe reduction in income. However, in a number of countries where one in two households was already fragile – typically countries that are already economically weaker – state help is likely to be smaller and shorter-lived. Policies that increase financial resilience in structural ways will become necessary in the future.
- **SUCH POLICIES INCLUDE** financial education programmes in the workplace or initiatives to promote financial resilience among households directly. There are many examples of such policies put in place worldwide that aim to increase structurally the level of financial preparedness and financial literacy. The latter is shown to correlate strongly with financial resilience.
- **OUR EVIDENCE ALSO** shows that there are major differences between EU countries in term of financial fragility. This points to different degrees of urgency and also to the need for different policies to promote financial resilience. However, to the extent that financial fragility is a source of financial instability, there is a case for monitoring such indicators at the European level, for example by including a measure of financial fragility in the European Semester as part of the monitoring of Macroeconomic Imbalances Procedure indicators.

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their capacity to rely on their network of families and friends, or to work more. Fourth, it is informative about the groups who are most vulnerable. For example, Hasler and Lusardi (2019) showed that in addition to income, the number of children in a household is another important predictor of financial fragility.

Analysis of the data on financial fragility over time in the US has led to two important findings. First, financial fragility was very high in 2009. As many as half of American families were unable to deal with a mid-size shock, showing how much families were hurt by the financial crisis. Second and importantly, financial fragility decreased over time as the US economy continued to recover, but there remains a sizeable group of families that are fragile even when the economy is doing well. In January 2020, when the stock market was still climbing and unemployment was very low, 27 percent of Americans were financially fragile (Lusardi *et al*, 2020). In other words, there is a group of the population that is going to be disproportionately affected by shocks and by changes in policy.

Other studies have illustrated the determinants of financial fragility in the US context. Hasler and Lusardi (2019) showed that financial literacy is linked to many demographic characteristics, including income and education. Wiersma *et al* (2020) found similar results using Dutch data, but much less research has been done in the context of Europe. We attempt to bridge this gap by providing a thorough analysis of whether EU households are financially fragile in the wake of the COVID-19 shock.

The EU Statistics on Income and Living Conditions (EU-SILC)[3] project carries out a yearly survey in which individuals are asked to assess their ability to face an *unexpected expense*. The wording of the question is: *Can your household afford an unexpected required expense (amount to be filled) and pay through its own resources*[4]*?* Examples of unexpected financial expenses include surgery, a funeral, major home repairs and replacement of durables such as a washing machine or car[5].

This question resembles that posed in the US to attempt to measure financial fragility (Lusardi *et al*, 2011), which asked "*How confident are you that you could come up with $2000, if an unexpected need arose within a month?*"[6] The choice of amount in this question is intended to examine whether households are capable of facing a mid-size shock within a month. The question in the EU survey asks whether households are capable of facing a shock

3 The European Union Statistics on Income and Living Conditions (EU-SILC) collects comparable cross-sectional and longitudinal multidimensional microdata on income, poverty, social exclusion and living conditions. The EU-SILC project started in 2003, covering six EU countries (Belgium, Denmark, Greece, Ireland, Luxembourg and Austria) and Norway. It now covers all EU countries, plus Iceland, Norway and Switzerland; some other countries participate on the voluntary basis.

4 The exact amount of how large this 'unexpected expense' is can vary from country to country. The survey uses 1/12th of the national at risk-of-poverty threshold of annual income per single consumption unit, in the year n-2 (2016 in this case). This means that it is independent of the size and structure of the individual household. In 2016 the risk-of-poverty threshold varied from around €20,000 in Luxembourg to €1,500 in Romania (in non-PPS terms). Correspondingly, 1/12 of these amounts are around €1700 and €120 for the two countries, respectively. For the other countries the amount lies between the two.

5 See https://circabc.europa.eu/sd/a/e9a5d1ad-f5c7-4b80-bdc9-1ce34ec828eb/DOCSILC065%20operation%202018_V5.pdf.

6 Respondents could reply, "*I am certain I could come up with the full $2,000,*" "*I could probably come up with $2,000,*" "*I could probably not come up with $2,000*", or "*I am certain I could not come up with $2,000.*" They could also state that they do not know, or they could refuse to answer.

equivalent to one month's income of those at the risk-of-poverty threshold.

In Figure 1, we plot the share of households that self-reports being unable to deal w [redacted]

[redacted]

percentage doubled to peak at 54 percent in 2016 and stood at 50 percent in 2018.
e euro-area average has remained broadly constant, rising slightly to 36.4 percent in 2013 from 33.0 percent in 2009, and then decreasing to 31.9 percent in 2018.

Source: Eurostat, EU-SILC.

Hasler and Lusardi (2019) showed that the number of children in a given household is an important predictor of nancial fragility. Figure 3 plots the data for households with and without dependent children. Households with dependent children are in general more fragile, but di erences for the average EU (EU27) are overall small: 31 percent of households without dependents versus 33 percent of those with dependent children.

Source: Eurostat, EU-SILC.

But there exists greater degrees of variation among EU countries. Broadly speaking, the EU15 (pre-2004) members exhibit greater nancial fragility in households with dependent children, in line with the literature. For the Netherlands, Italy and Greece, the two groups are broadly equally fragile. In the UK the di erence is striking. Almost twice (44 percent) as many households with dependent children are vulnerable, in comparison to households without dependent children (25 percent).

Source: Eurostat, EU-SILC.

e Eurostat survey provides limited additional information. For example, we do not have information on nancial literacy, which has been shown to be an important determinant of nancial fragility (Lusardi *et al*, 2020). e 2020 OECD/INFE *International Survey of Adult Financial Literacy* (OECD, 2020) included a measure of ‘ nancial resilience’ and ndings are very similar to our work. Moreover and importantly, OECD (2020) highlighted the link between nancial literacy and nancial resilience. Previati et al (2020) examined nancial fragility in Italy using pre-COVID-19 data and also documented the strong link between nancial fragility and nancial literacy.

We turn next to households’ balance sheets, in order to look at an alternative measure of the monthly basis. While this does not tell us the monthly burden of households (this depends on the interest rate each loan carries), it is a proxy for indebtedness. Note that the vast bulk of these loans are mortgage loans. European households in general, in contrast to US households, do not use consumer loans (from banks or credit cards) to nance consumption.

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We examine data on household balance sheets, considering the latest wave available (2017). Where possible, we compared to the previous wave in 2009-11 to understand how relevant variables have evolved.

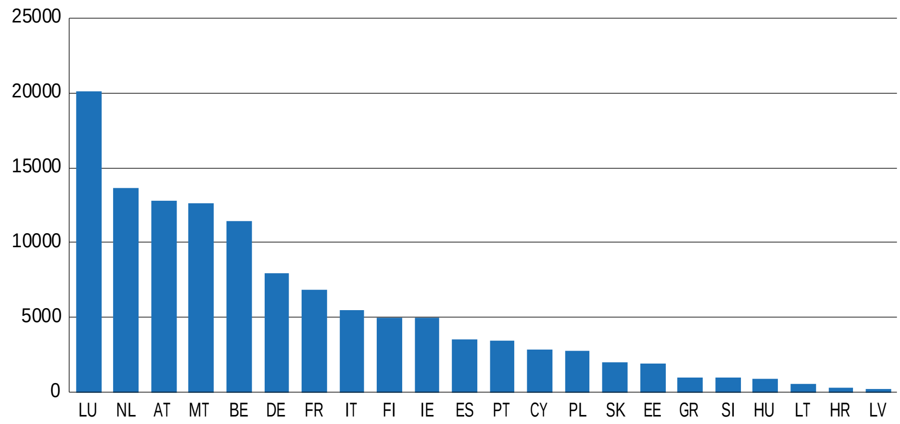
Figure 6 shows that in most EU countries, very large percentages of households have sight (current) accounts. For a number of countries, most if not all households have accounts and for all countries there are only small percentages of unbanked households.

e picture is more varied for savings accounts. More than 80 percent of households have them in Austria, France, Malta and Greece, but the proportions in Croatia, Lithuania, Latvia, Italy and Spain are about 20 percent or less[9]. Cultural preferences in terms of types of savings and di erences between countries in nancial and money markets might explain some of the di erences in the shares of population with di erent types of accounts. However, the numbers also show that there are households that have little access to short-term savings.

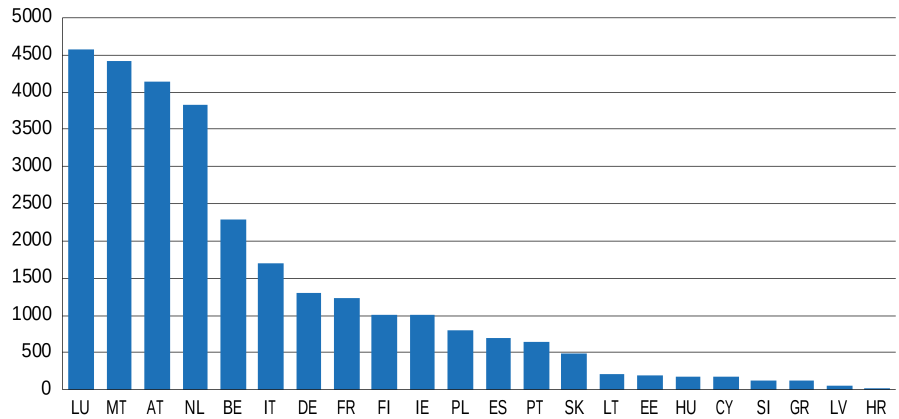
Source: ECB Household Finance and Consumption Survey. Notes: Data for all member states was collected in between 2016Q4-2019Q1 except for Spain. Data for Spain was collected between 2014Q3 and 2015Q2.

With that in mind, Figure 7 reports the median values of money held in bank accounts (current and savings accounts combined). ere is much variation between EU countries. In over half of the countries in the sample, the median value in bank accounts (for those who have bank accounts) is less than €5000.

While it is useful to look at medians, it is also important to examine the lowest end of the distribution of amounts in bank accounts, especially because we know that a third of households are nancially fragile. Figure 8 provides savings for the rst quartile of the distribution of amounts in bank accounts in each country. e value of savings for the lowest fourth of money mar.-qpM8



Sources: ECB Household Finance and Consumption Survey. Notes: Only households that have either a savings account or a current account and which have positive gross income and positive consumption were considered. Savings are considered to be the sum of both accounts. Data for all countries was collected between 2016Q4-2019Q1, except for Spain. Data for Spain was collected between 2014Q3 and 2015Q2.



Source: ECB Household Finance and Consumption Survey. See notes to Figure 7.

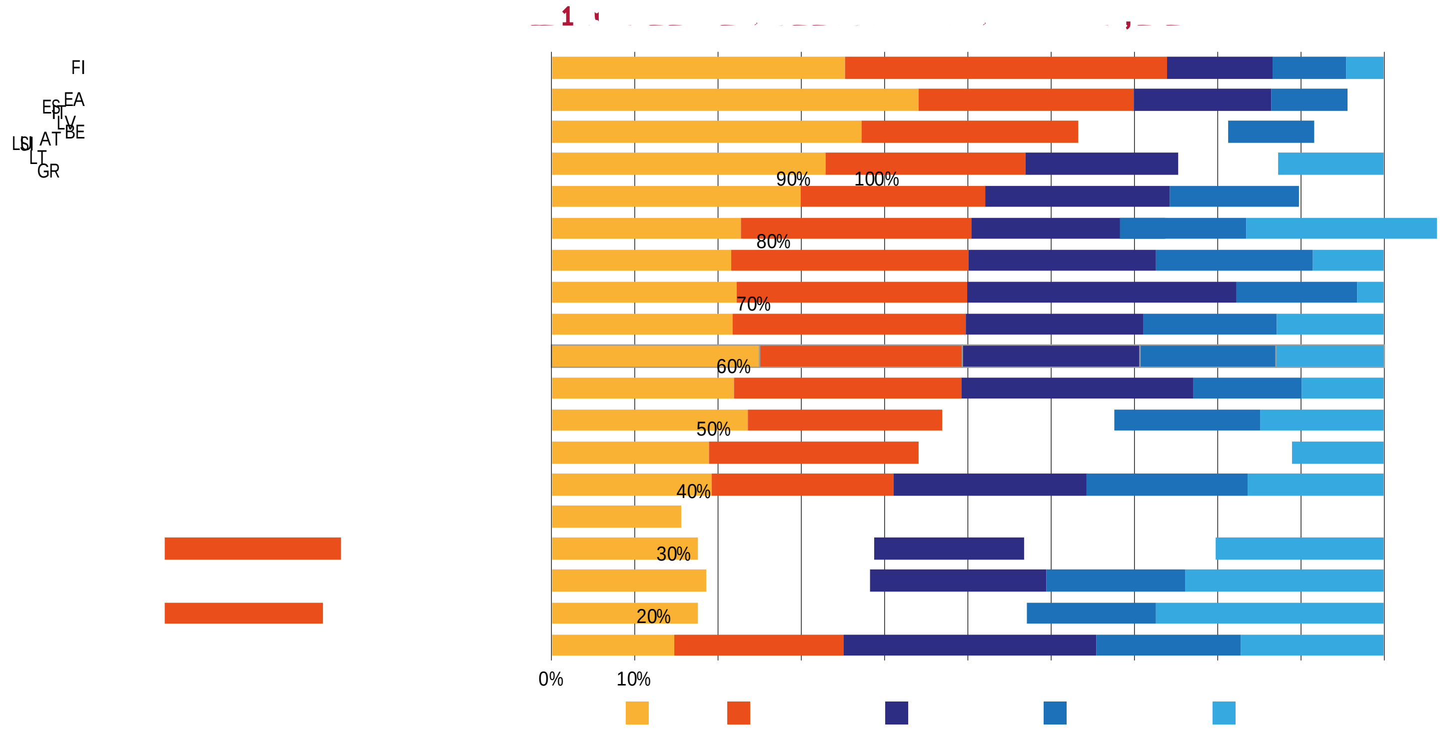
How much can these amounts support household spending capacity? Figures 10 and 11 plot median household savings in relation to either income or needs for basic spending. Figure 9 on the next page plots the median monthly gross income per household.

We are interested in the value of savings in monthly income equivalents. In other words, how many months in terms of income equivalents could households sustain by using their savings in liquid assets? Figures 10 and 11 on the next page show this.

People in more than half of the countries in Figure 10 have less than two months income equivalents worth of savings. In Greece, Slovenia, Croatia and Latvia, the median savings equivalent is only a couple of weeks of income[10].

We also compare current numbers to those of the rst wave of the ECB's HFCS (done in 2009-11). For over half the countries exhibited in Figure 10, median savings over income were higher in 2009-2011 than in 2017. is was particularly the case for Greece, where the value was more than three times higher: in 2009, the median Greek household had savings worth almost two months of income; by 2017 it was just over two weeks. It is worth noting, however, that the initial wave missed some countries where households are most nancially vulnerable, including Latvia, Croatia, Hungary and Lithuania.

10 ese ndings are similar to those reported in the *OECD/INFE International Survey of Adult Financial Literacy* (OECD, 2020), which examines di erent proxies for nancial resilience.



Source: Esselink and van Gijsel (2017). Note: The study is limited to euro-area residents aged 18 years and over. Between 8 and 19 per-

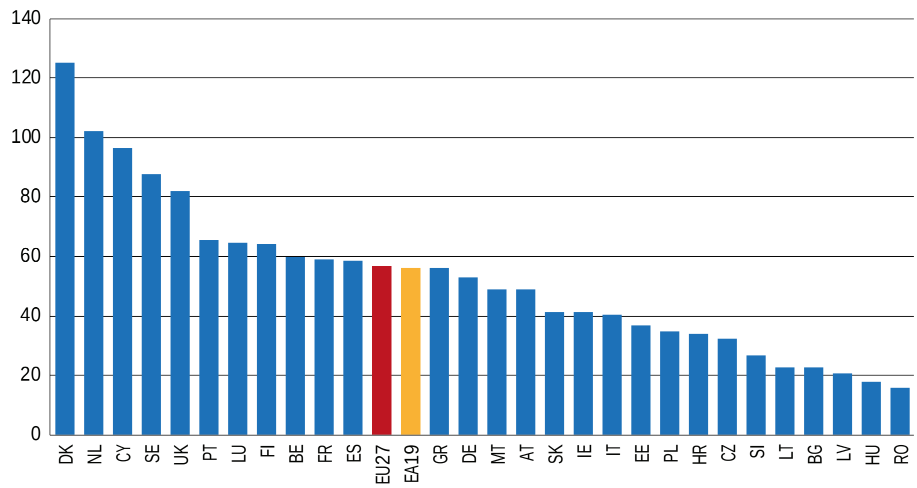
average debt-to-GDP is under 60 percent.

Moreover, we also observe that the most highly indebted households are in countries where incomes are typically high and housing market boom-bust cycles have been experienced. These are financially more sophisticated and inclusive markets, with high home ownership, which provides leverage capacity to households. Coupled with the fact that we do not report on households' total wealth, also typically high in these countries, this ratio is not a true reflection of household leverage. Rather it is mostly a reflection of household dependence on the housing market. Arguably, given the nature of the Great Recession, this was also the motivation for including it in the MIP.

Given the low dependence of European households on consumer debt, the liability side of their balance sheets is not necessarily reflective of their financial fragility. This is in sharp contrast to the experience of the US as described in Hasler and Lusardi (2019), where debt severely limits households in dealing with shocks[14].

13 Fourteen indicators make up the MIP, covering the major sources of macroeconomic imbalances created in the aftermath of the 2008 financial crisis. See the MIP scoreboard, https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/macroeconomic-imbalance-procedure/scoreboard_en.

14 Data from the ECB HFCS on household debt reveals a very similar picture to that of total consolidated household debt.

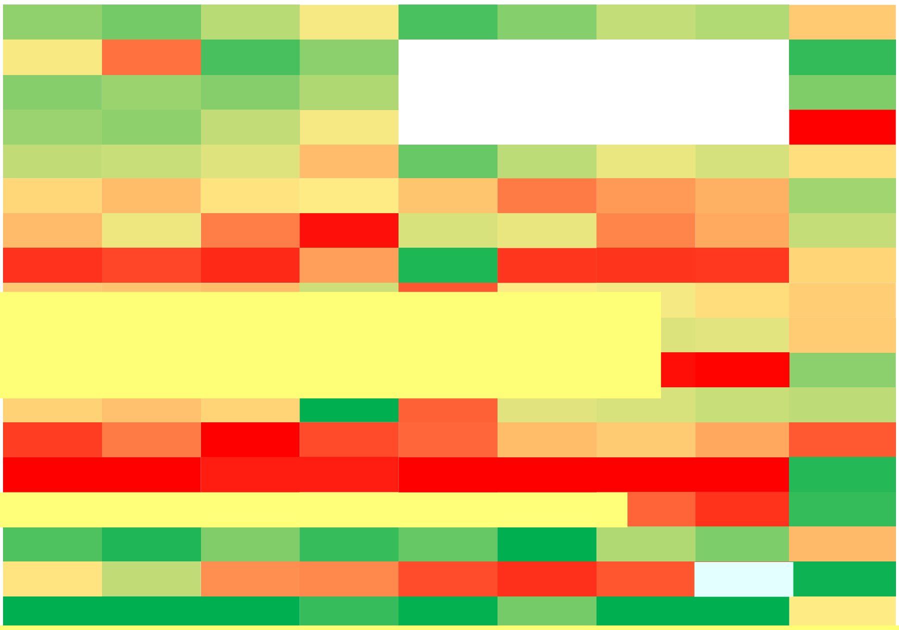


Source: Eurostat, Financial balance sheets, Consolidated Household Loans.

Table 1 on the next page summarises our analysis to provide a comprehensive picture of household nancial fragility. We score countries (from green to red; see the note to the table) in relation to where they stand relative to the average number for each indicator. is is therefore a summary of each country's position relative to the other countries in the sample, rather than a scoring based on objective criteria. Red indicates greater nancial fragility and shades of yellow and green of nancial resilience.

We observe the following:

1. e most nancially fragile countries are the poorer EU countries (Latvia, Lithuania, Croatia and Hungary, plus Romania and Bulgaria (for which we miss information as these countries are not included in the ECB survey), and possibly Poland) and the countries hit hardest in the nancial crisis (Greece and Cyprus). Cypriot households are more pessimistic in their self-assessments of their capacity to deal with a nancial shock than is justi- ed by their liquid assets, in relation to other countries.
2. A perhaps surprising result is fragility in Ireland. While Ireland was very hard hit in the nancial crisis, it has the second highest gross monthly incomes. Nevertheless, Irish households are pessimistic in the way they self-report their ability to meet unexpected nancial expenses, and hold only a few months of income equivalent in savings.
3. Italy and Spain, the two EU countries hardest hit by COVID-19, are more or less in the average position.
4. Households in Benelux, the Nordic countries, Austria and Malta are the least nancially fragile followed by households in Germany and France.



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