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How are household finances holding up against the Covid-19 shock?

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## How are household finances holding up against the Covid-19 shock?

### Key takeaways

- *As incomes shrink because of the Covid-19 shock, households must balance repaying debt with keeping up reasonable levels of consumption.*
- *In several countries, low- and middle-wealth households have insufficient liquid buffers to weather a long spell of unemployment without falling behind on debt repayments.*
- *The resilience of middle-wealth households is especially important: they hold relatively more (mortgage) debt and are more vulnerable in the countries that are more heavily exposed to the economic shock.*

The financial resilience of households is important for macroeconomic and financial stability. Consumption typically accounts for about 60% of GDP and banks' claims on the household sector (mostly in the form of mortgages) represent 20–40% of their asset portfolio. The Covid-19 pandemic and the ensuing lockdowns amount to a very large negative shock, forcing households around the world to grapple with reduced hours, furloughs and outright unemployment. The depth of the recession, its duration and the pace of recovery hinge on how well households can weather this shock.

This Bulletin documents, in three steps, cross-country variation in households' financial resilience. First, it looks at current levels of household debt and the corresponding debt service burdens. There is considerable variation, both between countries and within individual countries. Second, the Bulletin examines the adequacy of liquid buffers held by indebted households, given their debt service burdens. In several countries, households in the lower half of the net wealth distribution hold insufficient liquid buffers to weather a protracted spell of unemployment. In the third step, household financial resilience is compared with estimates of exposure to the Covid-19 shock, measured in terms of higher unemployment forecasts. This reveals that large exposures are not necessarily matched by buffers of commensurate size.

The concluding section discusses how various policies can bolster resilience or alleviate the unemployment impact of the Covid-19 shock.

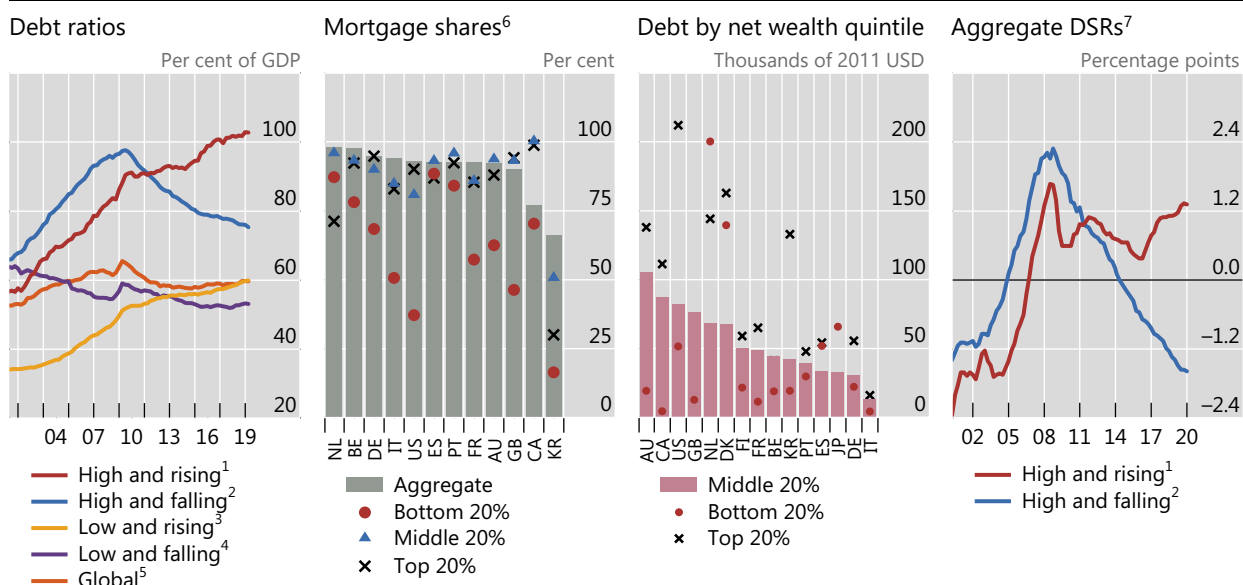
### Household debt: a cross-sectional view

Household debt stood at around USD 40 trillion globally at end-2019. The ratio of household debt to GDP ("debt ratio") peaked around the time of the Great Financial Crisis (GFC) and, after declining in the first half of the 2010s, has stayed more or less flat since 2015 (Graph 1, orange line in first panel). Beneath this aggregate picture there are substantial differences, both between and within countries. Advanced economies can be broadly classified into four groups, based on the debt ratio's level and trend (Graph 1, first panel). An especially significant group comprises countries with debt ratios that are both *high* (over 60% of GDP on average since the GFC) and *rising* (red line). Household indebtedness in these countries has reached historical highs (Australia, Canada and Korea). Countries in the second group also have *high*

household debt relative to GDP, but the debt ratio trend has either levelled off or *declined* in recent years (blue line). This group includes a number of countries that found themselves at the GFC's epicentre. Households have been repairing their balance sheets in these "high but falling" debt countries (Denmark, the Netherlands, Portugal, Spain, the United Kingdom and the United States), and debt ratios have fallen since the crisis. Elsewhere, average household debt ratios have been below 60% in the period since 2007, either steadily rising (yellow line) or falling (purple line). In the "low and rising countries" (Belgium, Finland and France) debt is now higher than before the GFC (Graph 1, third panel).

## Household debt, levels, composition and service burden

Graph 1



<sup>1</sup> Includes AU, CA and KR. <sup>2</sup> Includes DK, ES, GB, NL, PT and US. <sup>3</sup> Includes BE, FI and FR. <sup>4</sup> Includes DE, IT and JP. <sup>5</sup> Includes AR, AT, AU, BE, BR, CA, CH, CL, CN, CO, CZ, DE, DK, ES, FI, FR, GB, GR, HK, HU, ID, IE, IL, IN, IT, JP, KR, LU, MX, MY, NL, NO, NZ, PL, PT, RU, SA, SE, SG, TH, TR, US and ZA. <sup>6</sup> Data as of Q1 2019. <sup>7</sup> Difference of the DSRs for the household sector from country-specific long-run averages since 1999.

Sources: national data; OECD *Wealth Database*; BIS, *Debt Service Ratios Database*; author's calculations.

While the debt ratio varies both between countries and over time, the composition of aggregate household debt is broadly similar, with mortgages accounting for the lion's share (Graph 1, second panel, grey bars). Largely stable in the decade since the GFC, the aggregate mortgage share stands above 90% in Germany, France, Spain, the United Kingdom and the United States. That said, within a country the share of property-collateralised debt varies significantly across households with different wealth levels. The mortgage share of middle- and high-wealth households – those in the middle and top 20% of the net wealth distribution – broadly matches the aggregate share (blue triangles and black crosses). The debt of low-wealth households, by contrast, tends to be non-property-linked (red dots). Auto, consumption (eg credit card) and student loans account for more than half of overall debt for households in the bottom 20% of the wealth distribution in Italy, Korea and the United States.

Middle- and high-wealth households have larger liabilities than low-wealth households (Graph 1, third panel). With a few exceptions (Denmark, the Netherlands, Spain and Japan), households in the middle 20% of the net wealth distribution (red bars) hold more aggregate debt than do those in the bottom 20% (red dots). Households in the top 20% of the wealth distribution (black crosses) typically have more debt than do those in the middle and the bottom segments.

Debt service burdens – the sum of interest payments and amortisations – have increased in countries where debt has been rising (Graph 1, fourth panel, red line). Internationally consistent aggregate debt service ratios (the ratio of debt service burdens to household income) are available from the BIS Debt Service Ratios (DSR) Database. Despite the prolonged low interest rate environment, aggregate DSRs in

these countries are hovering above historical averages. By contrast, the cost of servicing debt has declined steadily in jurisdictions where households have been repairing their balance sheets (the Netherlands, the United Kingdom and the United States), and DSRs now stand below historical levels (blue line).

## Liquid buffers and household resilience

Household buffers – in the form of liquid asset holdings – are a key driver of households’ financial resilience, that is, their capacity to continue servicing their financial commitments while maintaining reasonable levels of consumption in the face of income loss. Implicit in this definition is the assumption that households will respond to an adverse income shock by reducing consumption to some minimum level (by cutting expenditure on non-essentials and durables), before eventually starting to fall behind on debt repayments.<sup>1</sup>

Since buffers and debt are not uniformly distributed across households, aggregate numbers can paint an inaccurate picture of resilience. Given the available data, it would be a challenge to document buffers by taking the quantiles of the household debt distribution and relating them to reasonable minimum levels of consumption and to debt service burdens. But progress can be made by drawing on some of the survey-based indicators in the OECD Wealth Inequality Database. The database contains information on liquid asset holdings and debt levels by quintiles of the net worth distribution (ie bottom 20%, middle 20% etc) for OECD countries.

Although aggregate data suggest that households have large holdings of financial assets, micro data indicate that a significant share of the population in high-debt countries is “asset poor”, meaning that its liquid buffers fall short of yearly “subsistence consumption” levels (Graph 2).<sup>2</sup> The OECD defines subsistence consumption as half of median income. Low-wealth households live hand to mouth, with liquid buffers falling below yearly subsistence consumption in every country except France, Korea and Japan (left-hand panel, red bars). In Australia, Canada, Finland, Germany, Italy, the United Kingdom and the United States, households in the bottom 20% of the wealth distribution could not cover more than three months of lost income by drawing down savings. By contrast, households in the top 20% of the distribution have financial asset holdings that dwarf subsistence consumption levels (right-hand panel, red bars). Middle-wealth households vary more between countries (centre panel, red bars). In Australia, Denmark, Finland, Italy, the Netherlands, Norway and the United States, the middle 20% of the net wealth distribution could not cover two years of subsistence consumption in case of income loss (wealthy hand to mouth). Elsewhere, the middle-wealth look more like the high-wealth.

The adequacy of household liquidity buffers drops once debt service costs are factored in together with consumption. As a rough approximation, debt service burdens can be calculated by combining the OECD Wealth Database information about debt levels in different wealth quintiles with an assumption that all household debt takes the form of instalment loans (see Drehmann et al (2015)).<sup>3</sup> In several jurisdictions, taking these debt service burdens into account reduces resilience. The decline in the adequacy of buffers is especially severe for households in the middle 20% of the net wealth distribution (Graph 2, black dots).

<sup>1</sup> This assumption is consistent with survey evidence suggesting that large cuts in spending by indebted UK households during the GFC were driven, at least in part, by concerns about their future ability to honour financial commitments (Bunn and Rostom (2015)). In some jurisdictions (ie the United States) households could also draw down housing equity, and there is evidence that equity cash-outs increase during recessions and decrease during booms (see Chen et al (2020)).

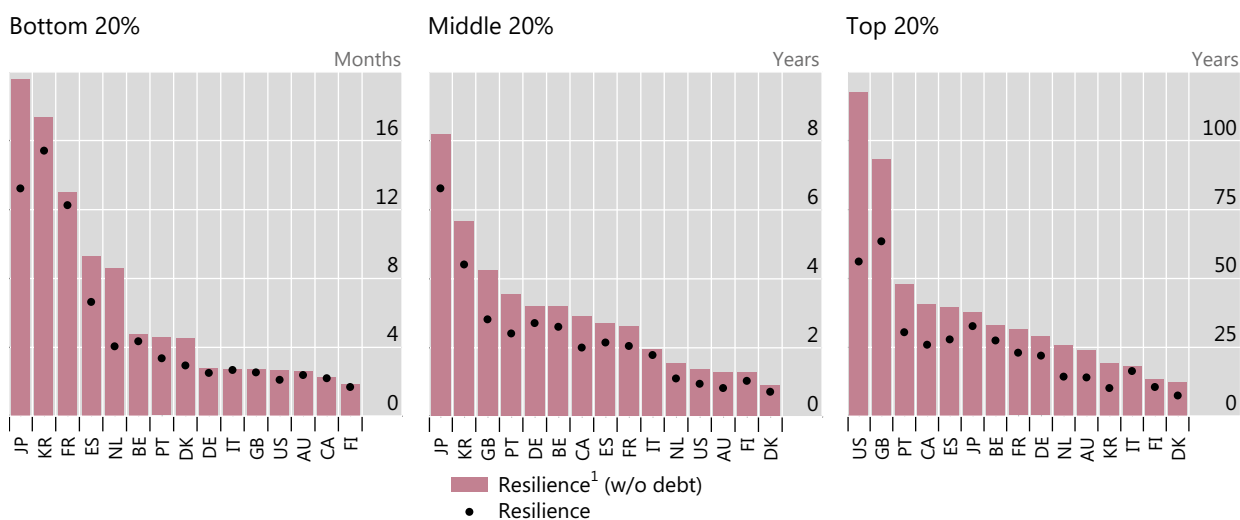
<sup>2</sup> As of 2017, the household sector in Australia, Canada, France, Italy, Singapore, Sweden, the United Kingdom and the United States held financial assets in excess of 200% of GDP. Household financial assets in Korea exceeded 150% of GDP.

<sup>3</sup> An annuity formula returns, for a given level of interest rates (from national accounts), the period-by-period cost of debt servicing. Households with instalment loans pay both interest and amortisation over the maturity of the loan. By contrast, households with interest-only loans repay interest over the maturity of the loan, and capital at maturity. See Drehmann et al (2018) for a discussion of the various shortcomings of the instalment loan approach to estimating the level of household debt service burdens.

Households in Canada, France and Spain lose almost a year of coverage and households in the United States and Australia drop to below one year of coverage (right-hand panel, black dots).

Household liquid buffers and debt service burdens<sup>1</sup>

Graph 2



<sup>1</sup> Resilience is defined as the number of periods (months or years) during which a households can cover subsistence consumption and their debt service burden with liquid assets in case of income loss. Subsistence consumption is defined, following the OECD, as 50% of median income (poverty line).

Sources: OECD, *Wealth Database*; national data; author's calculations.

## Household resilience and the Covid-19 shock

How does the cross-country distribution of household buffers compare with the distribution of household exposure to the Covid-19 income shock? A concrete gauge of the latter can be obtained from the expected rate of increase in unemployment after the pandemic (expressed as the ratio of April 2020 (IMF WEO) unemployment forecasts for 2020 to January 2020 forecasts).

Exposure to the Covid-19 income shock ranges from a threefold increase in the 2020 unemployment forecast for the United States (from 3.5% to 10.3%) to an 8% increase for Korea (from 4.1% to 4.5%), with an average April/January forecast ratio of 1.6 (Graph 3). As current unemployment already exceeds April forecasts in some jurisdictions (eg Japan and the United States), the actual impact may be larger.

The brunt of the extra unemployment will arguably be borne by households in the lower half of the wealth distribution. This is because of a positive (albeit less than perfect) relationship between wealth and income (Balestra and Tonkin (2018)) and the greater incidence of unemployment on the low-income. Unemployment disproportionately falls upon low-income groups (Carpenter and Rogers (2004)) and incomes (labour earnings) at the bottom of the income distribution are most affected by business cycle fluctuations (Heathcote et al (2010)). The sectoral composition of the Covid-19 shock – which falls heavily on the hospitality, retail, tourism and manufacturing sectors (OECD (2020), ILO (2020)) – also supports the claim that low- and middle-income households will currently run the greatest risk of higher unemployment.<sup>4</sup>

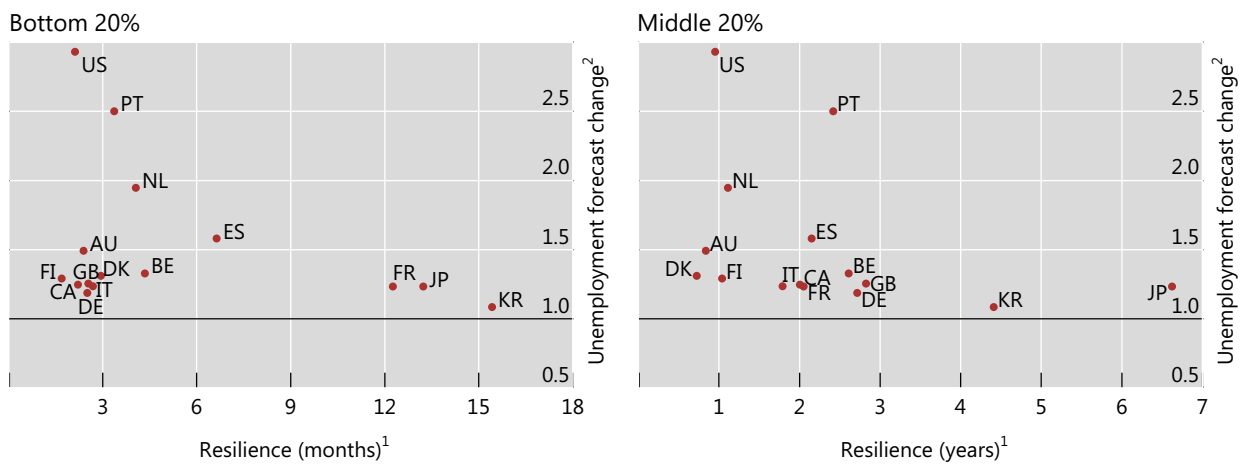
There is a negative relationship between the impact of Covid-19 on unemployment (forecasts) and financial resilience, with countries more affected by the shock also featuring smaller liquid buffers adjusted for debt service costs (Graph 3). The left-hand panel of Graph 3 relates the size of the shock – measured

<sup>4</sup> Some high-income households (ie self-employed professionals) may also be at risk. To the extent that these households are also high-wealth, they should have large buffers to help them weather the shock (Graph 2, right-hand panel).

by the ratio of the April 2020 WEO forecast of 2020 unemployment to the January 2020 forecast (vertical axis) – to the financial resilience of low-wealth households (horizontal axis). It gives a sense of how financially resilient newly unemployed households would be if they all came from the bottom 20% of the wealth distribution. The right-hand panel of Graph 3 relates the size of the shock to household liquid buffers for the middle 20% of the net wealth distribution. As the middle-wealthy tend to have more (mortgage) debt than the low-wealthy (Graph 1, third and second panels), their resilience to the Covid-19 is especially significant for financial stability.

Households' resilience and exposure to the Covid-19 shock

Graph 3



Horizontal line indicates no change in unemployment forecasts.

<sup>1</sup> Resilience is defined as the number of periods (months or years) during which a household can cover subsistence consumption and debt service burden with liquid assets in case of income loss. Subsistence consumption is defined, following the OECD, as 50% of median income (poverty line). <sup>2</sup> Ratio of April 2020 WEO forecast of 2020 unemployment to January 2020 forecast.

Sources: IMF, *World Economic Outlook*; OECD, *Wealth Database*; national data; author's calculations.

## Policy issues

The resilience of the household sector matters for both macroeconomic and financial stability in the wake of Covid-19, as household buffers will affect both the size of cuts in consumption expenditure and the likelihood that households will fall behind on debt repayments. Policymakers have taken various measures to boost households' resilience or alleviate the unemployment impact of the Covid-19 shock.

Low interest rates and debt repayment moratoriums bolster resilience by temporarily lowering debt burdens. In jurisdictions where debt service costs are more sensitive to interest rates (because mortgages, the bulk of household debt, are adjustable rather than fixed rate), rate cuts will pass through to debt servicing costs (eg Australia, Korea, Spain and the United Kingdom). At the same time, low interest rates will support the economic recovery, reducing the risk that income loss will be long-lasting. Most countries in the sample have loosened their monetary policy, with a few offering temporary debt relief (Table 1).

An expansionary fiscal policy safeguards households against the prospect of income loss. Policymakers have implemented targeted income support schemes in several jurisdictions (Table 1). They have also expanded access to unemployment benefits and social protection programmes (eg child benefits). In addition, authorities have introduced salary subsidies, which transfer (a share of) labour costs for locked-down employees from corporates to the government. Temporary moratoriums on tax payments also help, by alleviating liquidity shortfalls.

These interventions have (re)distributional implications. Debt repayment moratoriums, for example, transfer some of the Covid-19 losses from households to banks (and other creditors). Expansionary fiscal measures entail intergenerational redistribution, with current debt burdens being transferred from the

balance sheet of the current poor to that of the government, and thus to future generations of taxpayers. The ultimate extent of interventions will therefore reflect political economy considerations as well as household exposure to the Covid-19 shock.

Policy interventions that bolster household resilience in the wake of Covid-19:  
an overview

Table 1

	AU	BE	CA	DE	DK	ES	FI	FR	GB	IT	JP	KR	NL	PT	US
Expansionary monetary policy	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temporary debt relief		✓		✓		✓				✓				✓	✓
Targeted interventions	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Expansion of existing programmes			✓	✓		✓	✓	✓	✓	✓		✓	✓		✓
Wage subsidies	✓		✓	✓				✓	✓	✓		✓	✓		
Temporary tax relief		✓	✓	✓	✓	✓	✓		✓		✓			✓	✓

Source: IMF *Policy Tracker*.

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