Peter Praet: Household heterogeneity and the transmission mechanism

Dinner speech by Mr Peter Praet, Member of the Executive Board of the European Central Bank, at the ECB Conference on Household Finance and Consumption, Frankfurt am Main, 17 October 2013.

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Distinguished members of academia, dear colleagues:

Thank you for contributing to the ECB Conference on Household Finance and Consumption.

As you know, the Eurosystem has recently released the ***Household Finance and Consumption Survey (HFCS)*** to researchers, a new dataset which gives detailed, household-level information on the cross-sectional distribution of assets, liabilities, income, indicators of financial pressure, etc. By covering 62,000 households, it is representative of 15 euro area countries, and I understand that plans to conduct the HFCS in the next wave are well advanced in the two, and soon three, remaining euro area countries. We hope the new dataset will encourage research on household heterogeneity and household finance, in particular from a cross-country perspective.

The central theme of this conference – already the third on the topic that the ECB has organised over the past five years – is that individual households are heterogeneous in many respects and that it is important to measure and analyse this heterogeneity because it can have important implications for aggregate figures.

Some of these implications are of interest not only to the research community, but also to policy-makers at central banks. This is because the interplay between the heterogeneity across households and differences in institutions and shocks can affect the functioning of the transmission mechanism of monetary policy. It is also of relevance for financial stability.

Of key interest to central bankers is the question as to how shocks – including unexpected changes in incomes, interest rates and asset prices – are transmitted in the overall economy. The survey can bring new insights into how individual households are affected by economic shocks, with due consideration of their demographic and socio-economic characteristics, as well as of the current phase of their life cycle, their income, assets or liabilities, etc.

The onset of the Great Recession in many developed countries was marked by an increase in the personal savings rate, which was more marked and persistent than those in the previous recessions. The corresponding weak dynamics of aggregate consumer spending were driven not only by the response of the "representative" consumer to aggregate shocks, but also by the different responses of individual households to these shocks, and by the response of households to household-specific shocks. I will now elaborate on how these different shocks, in particular ***wage shocks and interest rate shocks***, may affect individual households and the overall economy.

Tomorrow's keynote speech will address the question of what mechanisms households use to protect themselves against ***wage shocks*** and how the adjustment both of their spending and of the labour supply depends on demographic and economic characteristics. A key finding in Blundell et al. (2012) is that the response of household spending varies over the life cycle and depends on the amount and structure of available assets. Households with more assets, in particular those with more liquid assets, are better able to protect their consumption expenditure against adverse shocks. However, even wealthy households can find it difficult to sustain their spending if the shocks persist for a longer period of time.

This finding is in line with a number of similar recent results, including those of Anderson et al. (2013) who estimate that households respond to shocks very differently depending on

their income and wealth: while the wealthiest households respond to government spending and tax policy shocks as predicted by standard real business cycle models, poorer households act in a non-Ricardian way, on account of e.g. the existence of credit constraints.

In today's keynote address, Professor Carroll has proposed a realistically calibrated economic model with precautionary saving.[1] This model matches the uneven distribution of wealth in the data and it is able to replicate the size and the differences across households in the marginal propensity to consume out of transitory income, as reported in the existing literature, to which some participants of this conference have contributed. In particular, households with low wealth and few or not sufficiently liquid assets are not able to adequately smooth income shocks and are particularly likely to increase their spending in response to a fiscal stimulus.

Of crucial importance for the economy's response to shocks is the structure of households' balance sheets, on both the asset and the liability side – we have seen insightful presentations on these topics using data from euro area countries this morning. Much of the recent research[2] has stressed the importance of ***liquid assets***, as opposed to measures such as net wealth, which include illiquid asset types, most importantly housing wealth.

A robust fact across developed countries is that a substantial proportion of households have an only modest buffer of liquid assets that they can readily use if they experience adverse economic shocks. For example, the median value of net liquid assets in the euro area is 19% of households' annual income, as shown in an extensive report on the results of the first wave of the HFCS (HFCN (2013)). Consequently, many households may have to cut their spending quite substantially, especially when faced with large and persistent shocks like those that occurred during the Great Recession, a finding that would be in line with much of the research undertaken by Richard Blundell.

Of course, the response of households also depends on the availability of financial products that make it possible to extract equity from illiquid assets (housing wealth). This availability is limited in many European countries and, accordingly, the response of consumption to wealth shocks – the wealth effect – seems to be more modest than in the United States (as much of the literature has found).[3]

However, in any case, households in many countries may currently find it difficult to smooth consumption because of the combination, size and persistence of the adverse shocks they have recently experienced: significant declines in house and stock prices, negative shocks to labour income and the substantial accumulation of debt. Much of the evidence available, based on US data,[4] suggests that households which had accumulated a large stock of debt before the crisis respond disproportionately to adverse shocks, also because many are endeavouring to deleverage and reduce their debt burdens. The HFCS data document that debt participation and debt holdings vary substantially across countries, and seem to be related to institutional settings, such as the length of repossession periods, as again documented in the report on the HFCS (HFCN (2013)). This implies that the dynamics of aggregate spending and output vary across countries, depending not only on the size of shocks and their distribution across households, but also on the institutional settings, which may have affected the accumulation of debt and house price dynamics to a varying extent before the crisis.

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1 See Carroll et al. (2013).

2 See, for example, Blundell, Pistaferri and Preston (2008), Broda and Parker (2012), Kreiner, Lassen and Leth-Petersen (2012) and Jappelli and Pistaferri (2013).

3 See, for example, Slacalek (2009).

4 See, for example, Dynan (2012) and Mian, Rao and Sufi (2013).

Additional evidence from the HFCS also suggests that low-income households may be financially particularly vulnerable to economic shocks, as they, for example, typically face higher debt-assets and debt service-to-income ratios than households with higher incomes.

In summary, research and evidence from available data thus suggest that all of the aforementioned factors, together with tighter credit constraints, depressed income expectations and heightened perceptions of uncertainty, are likely to contribute to a sluggish recovery of household spending from the recession. These additional factors also likely vary across households and geographic regions; for example, estimates from the HFCS data suggest that younger, less educated households and households living in Mediterranean countries face tighter credit constraints. Similarly, lower-income and less wealthy households may have been affected by larger adverse income shocks, and may also have cut their spending more sharply in response to these shocks.

Monetary policy, in turn, has responded to the crisis by lowering nominal ***interest rates*** to levels close to the zero lower bound. This monetary policy easing has quite substantially alleviated the financial burden on holders of mortgages.[5] In addition, as documented in Hurst and Stafford (2004), reductions in mortgage rates stimulate the economy substantially as households with accumulated home equity can refinance their mortgages at a lower rate in order to reduce their stream of mortgage payments, or to access accumulated home equity, which may be particularly relevant in times of distress. This can be partially offset by the fact that the income and spending of net savers will be negatively affected by a decline in interest rates. However, the offsetting effect is likely to remain moderate because a substantial proportion of households (50% – 80% in most countries) are not able to save and because the savings of those who do may be less sensitive to interest rates, as the latter tend to be wealthier and to have more diversified assets.

Among many other factors, two key parameters which affect the economy's response to interest rate changes are the mortgage participation rate, i.e. the proportion of households holding a mortgage, and the fixation periods of mortgage rates. As we know, both parameters vary substantially across euro area countries – for example, the proportion of households holding a mortgage on their main residence varies between around 9% (in Italy and Slovakia) and more than 30% (in Cyprus, Luxembourg, the Netherlands and Finland). Similarly, the share of variable rate mortgages ranges from less than 20% in France and Germany to more than 80% in Luxembourg, the Netherlands, Portugal and Slovakia (see Ehrmann and Ziegelmeyer (2013)).

The great variety of households revealed by household-level data stands in sharp contrast to the stark representation of consumers in many DSGE models (especially those of the first generation), in which consumption smoothing or intertemporal substitution is typically governed by a single parameter that is often calibrated in an ad hoc manner. The experience of the Great Recession, in which individual households were subject to different income, interest rate and wealth shocks that generated responses that differed from those recorded in previous recessions, suggests that we should take household heterogeneity seriously.

To conclude, the Eurosystem's Household Finance and Consumption Survey provides researchers with an invaluable source of information that will make it possible, by way of a cross-country perspective, to enhance our knowledge about the effects of specific monetary policy measures on the financial and economic decisions taken by households.

Thank you for your attention.

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[5] For example, Ehrmann and Ziegelmeyer (2013) estimate that a 300 basis point cut in interest rates would result in a substantial reduction of the median debt-service burden, in particular for households in the lowest income quintile where the ratio of median debt service to income would otherwise have been 44%, rather than the observed 32%.

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