Ladies and gentlemen,

It is a pleasure for me to join you for this annual conference on corporate credit hosted by Muzinich. In my remarks today, I would like to discuss an unusual topic for central bankers – namely the interactions between monetary policy and inequality. All economic policy-makers have some distributional impact as a result of the measures they introduce – yet until relatively recently, such consequences have been largely ignored in the theory and practice of monetary policy.

Of course, central banks are not charged with the task of addressing inequalities in the distribution of wealth, income or consumption – nor are they dealing with the broader challenge of promoting economic justice for society as a whole. This is certainly true of the European Central Bank (ECB), which has been assigned a clear mandate – to maintain price stability over the medium term.

But particularly at a time of exceptionally low interest rates and non-standard monetary policy measures, it is essential for us to be aware of all collateral effects – including the distributional ones, i.e. the potential economic damage to some parts of society; and the potential benefits for others.

So I would like to take this opportunity to explore some of the emerging evidence on the distributional effects of monetary policy. I will begin with a brief discussion of the rising prominence of inequality as an issue of global public concern.

I will then review what we are learning about the impact of low interest rates and non-standard measures on household finances. My main focus will be on the euro area but since this is a universal phenomenon, I will also look at the experiences of other major economies.

I will conclude by touching on the implications for ECB policy.

The rise of inequality

Let me begin with inequality, which has recently re-emerged as a topic of wide public debate. From a central banker’s perspective, the most relevant aspects of recent works concern the assessment that monetary policy can have sizeable distributional effects. Indeed, inequality has been largely ignored in discussions of monetary policy. But this might be changing.

In part, this is because of the potentially negative impact of rising inequality on financial stability. For example, some – not least the current governor of the Reserve Bank of India – have argued that US policies to circumvent the consequences of inequality fuelled financial instability ahead of the crisis. But while income inequality may have driven the credit boom

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that preceded the US subprime crisis, comparative and historical evidence suggests that there is little relationship between rising inequality and financial crises.³

More generally, inequality is of interest to central banking discussions because monetary policy itself has distributional consequences which in turn influence the monetary transmission mechanism. For example, the impact of changes in interest rates on the consumer spending of an individual household depend crucially on that household’s overall financial position – whether it is a net debtor or a net creditor; and whether the interest rates on its assets and liabilities are fixed or variable.

Such differences have macroeconomic implications, as the economy’s overall response to policy changes will depend on the distribution of assets, debt and income across households – especially in times of crisis, when economic shocks are large and unevenly distributed. For example, by boosting – first – aggregate demand and – second – employment, monetary easing could reduce economic disparities; at the same time, if low interest rates boost the prices of financial assets while punishing savings deposits, they could lead to widening inequality.

Insofar, central bankers have a technical, non-judgemental interest in the distribution of income and wealth in a society.

The distributional effects of monetary policy: theory and evidence

So what do we know about the impact of monetary policy on the distribution of wealth, income and consumption? A comprehensive study published recently by the National Bureau of Economic Research (NBER) outlines five potential channels by which more accommodative measures might affect inequality.⁴

The first is the “income composition channel”: while most households rely primarily on earnings from their work, others receive larger shares of their income from business and financial income. If more expansionary monetary policy raises profits more than wages, then those with claims to ownership of firms will tend to benefit disproportionately. Since the latter also tend to be wealthier, this channel should lead to higher inequality in response to more accommodative monetary policy.

The second is the “financial segmentation channel”: if some individuals and organisations frequently trade in financial markets and are affected by changes in the money supply before others, then an increase in the money supply will redistribute wealth towards those most connected to markets. To the extent that households that participate actively in financial transactions typically have higher income, then this channel also implies that consumption inequality should rise after expansionary monetary policy shocks.

The third is the “portfolio channel”: if low-income households tend to hold relatively more cash and fewer financial assets than high-income households, then potentially inflationary actions on the part of the central bank would represent a transfer from low- to high-income households. Again, this would tend to increase consumption inequality.

The NBER study outlines two further channels that tend to move inequality in the opposite direction in response to expansionary monetary policy. The first is the “savings redistribution channel”: lower interest rates will benefit borrowers and hurt savers. To the extent that savers are generally wealthier than borrowers, this will generate a reduction in consumption inequality.

³ See Bordo, M.D., Meissner, C.M., Does Inequality Lead to a Financial Crisis?, NBER Working Papers 17896, 2012.

The second is the “earnings heterogeneity channel”: earnings from jobs are the primary source of income for most households and earnings for high- and low-income households may respond differently to monetary policy. This could occur, for example, if unemployment falls disproportionately on low-income groups: evidence does suggest that that labour earnings at the bottom of the distribution are most affected by business cycle fluctuations. So if monetary policy reduces unemployment, it will also reduce inequality.

In addition, the income composition channel could potentially lead to reduced, rather than increased, inequality as a result of expansionary monetary policy. Because low-income households receive, on average, a larger share of their income from transfers and because transfers tend to be countercyclical, then this component of income heterogeneity could lead to reduced income inequality.

All these different channels imply that the effect of monetary policy on economic inequality is a priori ambiguous. The study therefore looks at US data from 1980 to assess whether monetary policy has contributed to changes in inequality and, if so, through which channels. The researchers find that contractionary monetary policy shocks have significant long-run effects on inequality.

In particular, they note the sensitivity of inequality measures to monetary policy actions at the zero-bound. They conclude that nominal interest rates hitting the zero-bound in times when the central bank’s systematic response to economic conditions calls for negative rates is conceptually similar to the economy being subject to a prolonged period of contractionary monetary policy.

A report last year by the McKinsey Global Institute looks specifically at the period of what it calls ultra-low interest rates. It suggests that as a result of low rates in the US, the UK and the euro area, households have lost a combined $630 billion as lower interest earned on deposits and other fixed income investments has outweighed lower interest payments on debt. Younger households, which tend to be net borrowers, have gained while older households, which tend to be net savers, have lost at a time when many countries have introduced pension reforms affecting the benefits of pensioners.

Rising asset prices prompted by monetary easing could potentially offset this effect. But while bond prices have clearly risen, the McKinsey report finds little evidence that non-standard monetary policy has boosted equity markets.

James Bullard, president of the Federal Reserve Bank of St Louis, has also examined the post-2008 experience and whether quantitative easing has exacerbated US inequality. It has been suggested that the Fed’s policy of buying US government bonds and mortgage-backed securities has depressed real yields on relatively safe assets and thus encouraged savers to move into riskier assets, such as equities, raising their prices. Since only half of US households hold equities and they tend to be the wealthiest households, this policy could be making the wealth distribution more unequal.

The analysis suggests that quantitative easing has influenced equity prices, but he does not think that this has made the US income or wealth distribution worse. It is, he says, only as good or bad as it was before the crisis.

Bullard also examines whether current US monetary policy hurts savers. He argues that Fed policy generally and quantitative easing in particular have influenced the real yield earned by savers. The question is then whether the Fed has helped or hurt the situation by pushing real

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yields lower. This hinges on whether credit markets have been functioning smoothly during the period of quantitative easing.

If credit markets were working perfectly, then the Fed intervention to push real yields lower than normal was unwarranted and the low real yields were indeed punishing savers. At the same time, it is difficult to argue that credit markets have been working perfectly over the past five years. But as time passes, he concludes, it becomes increasingly difficult to argue that credit markets remain in a state of disrepair, and thereby to justify continued low real rates.

One final piece of literature on monetary policy and inequality outside the euro area lies in recent research by Ayako Saiki and Jon Frost at De Nederlandsche Bank. They have examined the impact of unconventional monetary policy on the distribution of income in Japan, a country whose long history of non-standard measures makes it particularly relevant. Their results show that while aggressive monetary policy finally seems to be having the desired effect on the economy, this strong medicine has come with the unwanted side-effect of higher income inequality.

They suggest a straightforward mechanism via the portfolio channel: an increase in the monetary base (through purchases of both safe and risky assets) tends to increase asset prices. Higher asset prices benefit primarily those on higher incomes, who hold a larger amount and share of overall savings in equities, and thus benefit from greater capital income. Overall, the Bank of Japan’s unconventional policies have widened income inequality, especially after the collapse of Lehman Brothers in 2008, when quantitative easing became more aggressive.

The researchers conclude that their study holds lessons for other countries undertaking unconventional monetary policy. While preventing deflation and repairing the monetary transmission mechanism at the zero-bound is inherently a difficult undertaking, Japan’s experience provides a cautionary tale on the potential side-effects. It is possible that the portfolio channel will be even larger in the US, the UK and many euro area economies, where households hold a larger portion of their savings in equities and bonds.

Household finances in the euro area

Let me now turn to what we know about the distributional effects of monetary policy in the euro area. A deep understanding of how the economy responds to various shocks or policy changes requires detailed information on the structure and composition of household finances.

Central banks have long been involved in the collection and analysis of such data. In 1983, the Federal Reserve System launched its Survey of Consumer Finances. Several other central banks have since followed suit. Here in Europe, the ECB and the national central banks of the euro area have launched the Household Finance and Consumption Survey.

The data collected by the survey are a wealth of information on the finances of over 62,000 households across 15 countries in the euro area. In April 2013, the ECB published the results of the first wave, triggering substantial research activity.

For example, ECB analysis of the immediate impact of the financial crisis suggests that between 2008 and 2013 high-income households experienced the largest declines in
wealth. But the impact on consumer spending by low-income households was probably also magnified owing to their stronger response to wealth shocks.

In the context of concerns about inequality, the survey data can be used to assess changing financial pressures on euro area households – as measured, for example, by the debt service-to-income ratio. That ratio can be used to gauge households’ capacity to take on new loans or service existing debt, making it an indicator of their ability to cope with financial shocks.

The debt service-to-income ratio has recently been affected by two countervailing factors, the magnitude of which varies across countries and households: first, a decline in interest rates; and second, an increase in unemployment rates, which has caused declines in income for some households.

ECB analysis finds that between 2008 and 2013 although households with variable rate mortgages have benefited from declines in interest rates, the impact that falling rates have had on the debt service-to-income ratios of low-income households has been dampened by the fact that those poorer households have been disproportionately affected by rises in unemployment.

**Conclusion**

Let me conclude.

As I noted at the start, the ECB has a clear mandate to deliver price stability – and that mandate does not involve policies aimed at the distribution of wealth, income or consumption.

Nevertheless, we need to be aware that there are distributional consequences of our actions – and these may well be particularly significant at times of exceptionally low interest rates and non-standard measures. It seems clear that there are different effects on different parts of society.

There is no clear evidence whether standard monetary policy has a dampening or intensifying effect on economic inequality.

Non-conventional monetary policy however, in particular large scale asset purchases, seem to widen income inequality, although this is challenging to quantify.

Still, a central bank with a clear mandate to safeguard price stability needs to act forcefully when push comes to shove. These distributional side-effects then need to be tolerated. But they clearly should not last too long. They are one more reason to recognise that the non-standard measures we have introduced have to be temporary.

Thank you for your attention.

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