

## **LONG-LASTING CONSEQUENCES OF THE FINANCIAL CRISIS IN EUROPE**

The financial crisis and the Great Recession have left Europe worse off than before due to falling investment and low productivity alongside an ageing population. That is the central message of a study by **Juan Francisco Jimeno**, to be presented at the annual congress of the European Economic Association in Mannheim in August 2015.

He concludes that the interaction of the legacy of the crisis with long-run trends in the world economy prevailing in the pre-crisis period – mostly the decline of population and productivity growth rates – may give rise to a protracted period of subdued growth and high unemployment.

Eight years after it started, the financial crisis has left many European countries worse off than they were before it started. Recoveries are slow and unemployment is still high. The research looks at the ‘secular stagnation hypothesis’, where the economy fails to grow because investment is continuously too low, and models the economy over time and different generations.

The study finds that as a population becomes older when growth slows, more people start saving instead of spending. This is made worse when households also expect low productivity growth, meaning that they will earn less in the future. To discourage this, interest rates have been driven as low as they can be, but are still too high to encourage firms to invest – a ‘liquidity trap’.

The research suggests that over-saving could be discouraged by increasing tax rates and reducing the burden of pension costs on future generations. But the only likely way to solve low growth is to improve productivity through policies of ‘structural reform’ across Europe. Ultimately, the research indicates that we may be seeing a more permanent fall in growth. The author concludes by quoting Alvin Hansen:

‘The Western world is undergoing in this generation a structural change no less basic and profound in character than that transformation of economic life and institutions which we are wont to designate loosely by the phrase ‘the Industrial Revolution’.’

### **More...**

Almost eight years after the financial turmoil that signalled the start of the recent economic crisis, GDP and employment are still below their pre-crisis levels in many European countries. Slow and jobless recoveries, if they may even be termed recoveries, are being observed throughout Europe.

In broader terms, economic research approaches the causes of these slow recoveries by: i) addressing the financial origins of the crisis, ii) emphasising transmission mechanisms through which temporary negative shocks may have long-lasting effects, and iii) revisiting the ‘secular stagnation hypothesis’, which hints at the possibility that a temporary deleveraging shock yields a permanent liquidity trap in which demand is permanently too low and real interest rates sufficiently negative for monetary policy to be permanently constrained by the zero lower bound on policy interest rates.

Indeed, the European economy has to face the legacy of the Great Recession in a low growth scenario, due to population ageing and diminished expectations of productivity growth. Moreover, demographic prospects may have significant economic consequences, affecting patterns of consumption and potential growth (both through employment and TFP growth).

This paper shows how the interaction of the legacy of the crisis with long-run trends in the world economy prevailing in the pre-crisis period (mostly the decline of population and of productivity growth rates) may give rise to a protracted period of subdued growth and high unemployment.

The analytical framework is a simple OLG model with public debt and exogenous technical progress. In this model a deleveraging shock has long-lasting effects through the savings decision of households. As households accumulate less debt, savings increase and the natural interest rate falls, plausibly below zero when population and TFP growth are low. If then monetary policy is either unwilling or unable to accommodate a negative real interest rate by increasing inflation, then the zero lower bound on policy interest rates binds and unemployment rises.

Moreover, if households anticipate lower population and productivity growth, savings increase further, increasing the pressure on real interest rates to fall. Hence lower population and productivity growth interact with deleveraging to push the natural interest rate downwards, and for a given inflation rate and nominal and real wage rigidities, lead unemployment to increase and persist at high levels. In particular, the model highlights the following:

As population growth falls, the natural interest rate falls, since there are fewer young people demanding credit, and expected transfers to the old generation also fall, since the relative size of the middle generation to finance those transfers will be smaller. This implies lower future income for the old generation and, thus, an increase in savings that pushes down the natural interest rate even further.

A higher current productivity growth rate increases savings since it allows the middle generation to pay for its accumulated debt while young, using a lower fraction of their income, and hence, disposable income available for savings is higher, and the natural rate is lower. Higher productivity growth in the future decreases savings, since expected transfers to the old generation are higher, for given tax rates and debt ratios, and, thus, the natural interest rate is higher.

A fall in the price of capital or a higher depreciation rate decrease the equilibrium real interest rate, since future income downwards by the middle generation is lower, and, hence, its savings are higher.

The lower the demand for credit by the young generation, the lower the equilibrium real interest rate. Also, the lower the private debt accumulated by the middle generation while young, the higher savings are, and, thus, the lower the natural rate is.

A higher current tax rate crowds out savings by lowering disposable income, and, hence, increases the natural rate. A higher next-period tax rate also crowds out savings by increasing expected future income, also pushing the natural rate up. As for the debt ratios, the current one increases the demand for loans, while the future one, increases

expected transfers to the older generation, so that high debt ratios push the natural rate up.

Fiscal policy can affect the natural interest rate only by modifying intergenerational transfers. For example, decreasing the burden of debt and pension expenditures on future generations decrease savings and increase the natural rate of interest.

The second part of the paper provides data on the demographic outlooks, capital accumulation and productivity growth, and public and private debt with the goal of signalling to what extent the type of relationships among the macroeconomic variables highlighted above may condition future growth in Europe.

Among all the factors determining the natural interest rate, only a revival of productivity growth seems within the scope of policy to revert this situation. This is perhaps why 'structural reforms' are back at the top of proposals for policy agendas across all the European countries.

But even with structural reforms yielding higher productivity growth, it seems that, as Larry Summers puts it, the economy is entering a period in which the 'cyclical fluctuations would be minor relative to more permanent trends', or more drastically, as Alvin Hansen stated, this time indeed 'the Western world is undergoing in this generation a structural change no less basic and profound in character than that transformation of economic life and institutions which we are wont to designate loosely by the phrase 'the Industrial Revolution'.'

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