

## Impact case study (REF3)

<b>Institution:</b> LONDON BUSINESS SCHOOL		
<b>Unit of Assessment:</b> 17 – Business and Management studies		
<b>Title of case study:</b> Macroeconomic policies and inequality		
<b>Period when the underpinning research was undertaken:</b> 2014-2019		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b> Paolo Surico	<b>Role(s) (e.g. job title):</b> Professor of Economics	<b>Period(s) employed by submitting HEI:</b> From 01/08/2009
<b>Period when the claimed impact occurred:</b> 2017-present day		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<p><b>1. Summary of the impact</b></p> <p>The macroeconomic policies of several governments and central banks have been <b>directly influenced</b> by the research described in this case study. For example, the research findings underpinned a 2015 decision by the Italian government to <b>abolish property tax</b> on main dwellings.</p> <p>The work and its findings also helped <b>guide European Central Bank</b> policy to keep interest rates at ultra-low levels, because the research shows how this leads to a significant increase in income across society and a significant increase in consumption for households with high mortgage debt payments.</p> <p>“These scientific findings have been <b>influential</b> not only in the public debate, but also in <b>in-house policy deliberations</b> on the costs and benefits of the low interest rates policy,” says Oreste Tristani, a senior adviser with the ECB.</p>		
<p><b>2. Underpinning research</b></p> <p>When politicians want to stimulate a sluggish economy, or cool an overheating economy, they can change taxes, interest rates and government spending. But the true impacts of these macroeconomic policies on consumer spending, borrowing and saving have been argued over for decades.</p> <p>This research <b>revealed an important step</b> in this economic chain. In studies of major economies across the world, Paolo Surico showed that households with large mortgages are the <b>most influenced</b> by large-scale policy changes.</p> <p>Andrew Haldane, <b>chief economist at the Bank of England</b>, says this research is: “Vital for monetary policymakers to <b>judge properly</b> the appropriate level of interest rates for the economy, to <b>understand fully</b> the ultimate effects of changes in monetary policy and to <b>forecast accurately</b> the evolution of the economy”. [5.1]</p> <p>As usual in economics research, the published papers emerged several years after the studies were completed and the findings disseminated and acted upon. Early results were circulated as working papers between 2014 and 2018.</p> <p>In one study (for which the final paper was published in 2018) he used household survey data for the US and UK to show that having a mortgage was the <b>most significant</b> factor in how families choose to spend more or less after a change in interest rates. Households with mortgage debt <b>increased spending by up to 1.2%</b>. People who owned their homes outright did not adjust their expenditure at all. Renters do change their spending but by less than those with</p>		

a mortgage. [3.1] The research also showed that, when interest rates are lowered, **income rises significantly** for all households, by about 1%-1.2% over the next three years.

A related study found the same pattern of spending changes after income tax cuts in the UK. This research examined data on spending collected from 7,000 households each year from 1978 to 2009 as part of the government's Living Costs and Food Survey. The consumption of those with a mortgage rose **quicker and further** -- up to 2% three years after a cut in the basic rate of income tax-- than other families. [3.2]

Another study examined the impact of a **sudden and temporary hike** in property taxes in Italy in 2011 Called the Imposta Municipale Unica, it affected 25.8 million tax-payers (around 70% of households) with an average contribution per tax-paying household around €357 on the main dwelling and about €905 on other residential properties. Surico's study showed the introduction of the property taxes on the main dwelling generated **only a modest increase** in tax revenues, but that it was associated with a **very significant contraction** in consumption, equivalent to about 0.11% of GDP in 2012. The largest drop in spending was among households with mortgage debt, a group particularly affected by the financial crisis. [3.3]

A fourth research project used a set of newly-added questions in the 2011–2014 Bank of England/NMG Consulting Survey to investigate **household behaviour after a change** in income. Up to 6,000 households were asked questions on income, influences on spending and balance sheet and debt positions. This information allowed the researchers to examine differences between the traits of households that received different types of income shocks. It found that British households tend to change their consumption by significantly more in reaction to temporary and unanticipated **falls** in income than to **rises of the same size**. Specifically, the “marginal propensity to consume” of households after a negative income shock is estimated to change by between 0.46 and 0.68, but the range is only 0.07 to 0.17 following a positive income shock. Again, having a mortgage – and so relatively constrained access to disposable income - helped to explain this spending asymmetry. In other words, taxing those with large but illiquid assets could cause **more of a fall in spending than previously expected**. [3.4]

### 3. References to the research

[3.1] James Cloyne, Clodomiro Ferreira, Paolo Surico. (2020). Monetary Policy when Households have Debt: New Evidence on the Transmission Mechanism. *The Review of Economic Studies*, Volume 87, Issue 1, January 2020, Pages 102–129, DOI: <https://doi.org/10.1093/restud/rdy074>

[3.2] James S Cloyne and Paolo Surico. (2017). Household Debt and the Dynamic Effects of Income Tax Changes, *The Review of Economic Studies*, Volume 84, Issue 1, January, Pages 45–81, DOI: <https://doi.org/10.1093/restud/rdw021>

[3.3] Paolo Surico and Riccardo Trezzi. (2019). Consumer Spending and Property Taxes, *Journal of the European Economic Association*, Volume 17, Issue 2, Pages 606 - 649, DOI: <https://doi.org/10.1093/jeea/jvy008>

[3.4] Philip Bunn, Jeanne Le Roux, Kate Reinold and Paolo Surico. (2018). The Consumption Response to Positive and Negative Income Shocks, *Journal of Monetary Economics* Volume 96, Pages 1-15, DOI: <https://doi.org/10.1016/j.jmoneco.2017.11.007>

### 4. Details of the impact

An important social benefit and impact of this research is to reveal a **major factor that determines** the effectiveness of commonly used monetary and fiscal policy interventions: the role of household mortgage debt in the transmission mechanism. This is **vital information** for policy makers and others because it shows that fiscal measures that affect households with a

mortgage could have a more powerful effect on consumer spending than expected. In contrast, conventional wisdom said the aggregate effects of macroeconomic policies were largely driven by households with lower income.

The results have had **direct impact** in three ways: on policy makers, on policy and on efforts to rebuild public trust in financial systems.

#### Policy makers:

**Policy makers** in governments and central banks around the world have used both the results and the analytical techniques developed in the research to make fiscal interventions more effective. For example, the Bank of England now includes Surico's findings on transmission of monetary policy to households in its own analyses.

Andrew Haldane, chief economist at the Bank of England, says Surico's work is "state-of-the-art and gradually **being embedded into the day-to-day analysis** that institutions like the Bank of England use." [5.1]

The European Central Bank is also using Surico's research. The ECB is now applying the mechanisms he developed to analyse data from the Euro area economy. The initial results appear to be "broadly similar" says Oreste Tristani, a senior adviser with the ECB, which will allow the ECB to incorporate the mechanisms and results in its work. [5.2]

#### Policy:

Results from the research have helped to **guide ECB policy** on keeping interest rates at ultra-low levels. Surico's research [3.1] shows how low interest rates lead to a significant increase in income across society. "These scientific findings have been **influential** not only in the public debate, but also in **in-house policy deliberations** on the costs and benefits of the low interest rates policy," Tristani says. [5.2]

The research also helped to **set a specific policy** in Italy: the scrapping of a property tax in 2015. "The results in Paolo's analysis could not have been more timely from our perspective, as the discussion among members of the government, parliament and their staff had been merely political until then," says Tommaso Nannicini, a senator of the Italian Parliament and former Chief Economic Adviser and Undersecretary of State to the Italian Prime Minister Matteo Renzi. [5.3]

The research was **studied by the Prime Minister's economic advisers** and discussed in parliamentary committees. It provided new impetus to the idea of abolishing the property tax on the main dwelling, and a precise quantification of the economic benefits of such a policy. When Renzi's government abolished the tax, Surico's research was **quoted in parliamentary reports and official documents**. "This represents a **great example of evidence-based policymaking** and productive interplay between academic research and political discussion," Nannicini says. [5.3]

#### Rebuilding public trust:

In a different type of impact, the research also gives a solid evidence base to efforts by the Bank of England and other experts to **rebuild public trust** in financial institutions. One way they are doing this is to explain how different agents in the economy – by age, wealth, income, residence etc – are **personally affected** by decisions and policies, and therefore how macroeconomic policies affect inequality and how inequality shapes macroeconomic policies. Surico's research "speaks directly to this," Haldane says. "It provides an academic perspective for central banks to lean on when setting their strategy for engaging with citizens." [5.1]

In 2015, *The Economist* magazine - in its popular section on explaining economic research by academics and economists to the general public - featured Surico's work [3.2] to support the

notion that tax relief for households with mortgage debt can be an **effective policy tool** to stimulate a depressed economy. [5.4]

In 2015, the daily Italian newspapers with large national circulation, *Il sole 24 ore*, *Il Corriere* and *Il Giornale*, presented the results of Surico's research in [3.3] as part of the **social and policy discussion** on the desirability of a property tax on the main dwelling. [5.5] and [5.6, 5.7]

In 2016-2018, the Bank of England Monetary Policy Committee (MPC) has used extensive references to Surico's work [3.1] and [3.2] to explain to the general public and members of Parliament the effectiveness of monetary policy and its transmission to consumption via income effects. This has been used in both **formal communications** by the Bank of England Deputy Governor to Parliament and in **speeches** of MPC members to the **general public**. [5.8, 5.9]

## 5. Sources to corroborate the impact

[5.1] Bank of England - Beneficiary Statement

[5.2] ECB - Beneficiary Statement

[5.3] Italian Govt Beneficiary – Statement

[5.4] The Economist, Finance and Economics, "Outlaw economics", 11/04/2015, <https://www.economist.com/finance-and-economics/2015/04/11/outlaw-economics>

[5.5] Il Sole 24 Ore Italia, "Imposta sulla prima casa, ecco come risolvere il rebus delle coperture stimolando l'economia", 21/07/2015; [https://st.ilsole24ore.com/art/notizie/2015-07-21/imposta-prima-casa-ecco-come-risolvere-rebus-coperture-stimolando-economia-091921.shtml?uuid=AC0TZwU&refresh\\_ce=1](https://st.ilsole24ore.com/art/notizie/2015-07-21/imposta-prima-casa-ecco-come-risolvere-rebus-coperture-stimolando-economia-091921.shtml?uuid=AC0TZwU&refresh_ce=1)

[5.6] Il Giornale.it, Economia, "Ecco la prova che la crisi è colpa dell'Imu", 04/07/2015, (from the front page of the hard copy edition) <https://www.ilgiornale.it/news/politica/ecco-prova-che-crisi-colpa-dellimu-1148305.html>

[5.7] Corriere Della Sera, Economia, "Proposta per alleggerire le famiglie con il mutuo", 27/07/2015, [https://www.corriere.it/economia/15\\_luglio\\_27/proposta-alleggerire-b202c8c4-343e-11e5-b933-63839669b549.shtml](https://www.corriere.it/economia/15_luglio_27/proposta-alleggerire-b202c8c4-343e-11e5-b933-63839669b549.shtml)

[5.8] BoE speech given by Dr Gertjan Vlieghe, External MPC member, Bank of England, "Debt, Demographics and the Distribution of Income: New challenges for monetary policy", 18/01/2016; <https://www.bankofengland.co.uk/-/media/boe/files/speech/2016/debt-demographics-and-the-distribution-of-income-new-challenges.pdf?la=en&hash=EEF6A1AA1535B8AABCCC527EFE7125D842034BAF> .

[5.9] BoE speech given by Silvana Teneyro, External MPC member, Bank of England, "Models in macroeconomics", 04/06/2018; <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/models-in-macroeconomics-speech-by-silvana-teneyro.pdf?la=en&hash=C1E64D11B355A380F2819D7CB1F631F03D4A23A1>