



## [The banks that said no: banking relationships, credit supply and productivity in the UK](#)

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### Non-Technical Summary

The financial crisis of 2008 was associated with falls in corporate lending, business investment, labour productivity and real wages in the United Kingdom. What were the causal links between these events? Did firms retrench because they could not get financing? Or did they become pessimistic about demand for their products and demand less finance? This paper provides new evidence on the impact of the credit supply shock on corporate outcomes in the UK. We employ a new identification strategy - a means of disentangling demand and supply that exploits information on pre-crisis lending relationships within a large firm-level dataset of UK companies.

In the UK, firms are required to register the identity of any party (a 'chargeholder') that has a claim on the firm's assets as collateral for a loan. We construct a proxy for pre-crisis banking relationships by identifying UK banks among these chargeholders. We show that these relationships are persistent, and that they help to predict the amount firms borrow after the crisis.

During the financial crisis, different banks experienced different funding conditions and tightened credit conditions to different degrees. This means we can identify the variation in debt at the firm level that is likely to be due to changes in the amount of credit supplied by banks, rather than the amount of credit demanded by firms. We use this variation to quantify the impact of a change in total debt on firm outcomes. We find that firms facing a 10% contraction in credit supply led, on average, to a 5-6% fall in capital per worker, a 5-8% in labour productivity and a 7-9% fall in average pay. We also find that firms facing adverse credit supply shocks were more likely to fail. Our results predict that a 10% decrease in credit supply would increase the probability of bankruptcy by around 60%.

These parameter estimates are both statistically significant and economically large, but only when instruments based on pre-crisis banking relationships are used. We show that banking relationships



were conditionally randomly assigned and were strong predictors of credit supply, such that any bias in our estimates is likely to be small.

If we assume, as a polar case, that all of the fall in credit to firms since the crisis was due to credit supply, our estimates suggest that the credit supply shock caused by the recent financial crisis may explain around 5-8 percentage points of the 17% shortfall in labour productivity relative to its pre-crisis trend by 2013, half of the shortfall in wages, and nearly half of the pickup in company liquidations between 2007 and 2009.

A key limitation of our empirical design is that we are unable to say how persistent these effects might be. People switch banks and look for other types of finance, which means the strength of pre-crisis banking relationships as a proxy for changes in the availability of credit to firms is likely to fade over time. Indeed, beyond 2009 our identification strategy begins to fail as pre-crisis banking relationships have longer to decay, and do so non-randomly.