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Productivity Dynamics in the Great Stagnation: Evidence from British businesses

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Rebecca Riley[1,2], Chiara Rosazza Bondibene[1,2] and Garry Young[1,3]
[1]Centre for Macroeconomics; [2]National Institute of Economic & Social Research; and [3]Bank of England

The process whereby highly productive firms gain market share and less productive firms either lose market share or go out of business is thought to be a crucial driver of productivity gains. Several empirical studies suggest that such changes in the composition of the business population account for a significant part of productivity growth. A separate empirical literature suggests that recessions that are accompanied by a financial crisis tend to be both deeper and longer lasting in terms of output losses than normal recessions. Why financial crises should lead to permanent losses of output is probably less well understood. One hypothesis is that a banking crisis reduces the efficiency of resource allocation across businesses, thereby hindering one of the key mechanisms through which productivity growth arises. Yet despite some compelling arguments and popular suggestion, there is little evidence on the importance of these types of distortions to resource allocation in terms of enhancing the severity of recessions and weakening the productive potential of the economy when recessions are accompanied by a banking crisis. This paper helps fill this gap, investigating to what extent inefficiencies in resource allocation across businesses are likely to explain the weakness of productivity in the aftermath of the global financial crisis of 2007/8.

Specifically, we document how the weakness of productivity growth in the United Kingdom following the financial crisis can be accounted for by shifts in the distribution of firm-level productivity and by changes in the composition of the business population, respectively. This is a simple accounting exercise. The objective is to assess whether in the wake of the credit crisis compositional effects represented a significant drag on productivity growth. Based on this decomposition analysis we highlight the extent to which the stagnation in productivity since the financial crisis may be due to resource misallocation between existing firms and a lack of creative destruction or cleansing effect of recession, as might be expected in a banking crisis, or a widespread productivity shock, which may or may not be directly associated with the credit crunch, but which is not obviously directly related to the efficiency with which resources are allocated across more and less productive firms.

To illustrate these patterns in the data we propose a new decomposition method that is a hybrid of methods used previously in the literature. This hybrid avoids known biases in estimates of the magnitude of productivity contributions arising with the restructuring of the business population, inherent to some of the most widely used decomposition methods, at the same time being more robust to measurement error than available alternatives and retaining comparability between restructuring measured at the intensive and extensive margins. We show that this is important to the conclusions one might draw from this type of analysis.

Our analysis suggests that aggregate productivity weakness in the UK during the Great Stagnation is a phenomenon that is associated with widespread productivity weakness within firms. It does not appear to be the case that this is associated with a sharp reduction in the productivity contributions from external restructuring. On the face of it this does not suggest that, in and of themselves, credit constraints and bank forbearance have been key in explaining the weakness of aggregate UK labor productivity. We say this because we would expect these factors to reduce the contribution of external restructuring to labor productivity growth. Credit constraints and bank forbearance may of course also influence productivity weakness within firms and we do not intend to rule this out.

We do find patterns in the data that are consistent with the suggestion that the credit crunch lessened the contributions to productivity of external restructuring relative to what we might have expected in a 'normal' recession. For example, the productivity contribution of resource reallocation did fall sharply amongst smaller businesses in bank dependent service sectors. This is very different to the experience in service sectors that rely less on bank finance. We also find some suggestive evidence that the efficiency of resource allocation was impaired in manufacturing relative to what we might have expected based on the historical data. Finally, we find that a reduction in the relative productivity of entering firms may account for a small part of the productivity gap; difficulties in accessing finance may have hindered investment amongst new firms. These findings suggest that there is an empirical link between banking crises and the efficiency of resource allocation, which feeds through to aggregate productivity. But, in terms of explaining recent developments in aggregate productivity these linkages are of relatively little importance, certainly when contrasted with the large productivity declines observed within businesses.

The paper does not explore alternative explanations for productivity weakness since the credit crunch. But, on the basis of these results we conclude that other factors, for example general demand weakness, uncertainty, and wider forbearance are likely to be more important in explaining the Great Stagnation and the influence of banking crises on economic outcomes.