Policy Briefing

Of chickens and eggs: Exporting, innovation novelty and productivity

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It is well-known that exporting firms are more productive, but it is less clear why. In this paper, we interrogate the complex interlinkages between exporting and export persistence, innovation and innovation novelty, and productivity. We use data on a large, unbalanced panel of UK firms and our econometric method allows us to identify the causal mechanisms in these relationships.

Key Findings

The ONS estimated that in 2016, only about 5% of all UK firms were engaged in international trade. These firms were, however, around 20% more productive than non-trading firms, and they accounted for over 40% of employment. Why is this? Is it simply that more productive firms export (the Learning to Export hypothesis), or is it exporting which leads to higher productivity (the Learning by Exporting hypothesis)? Innovation plays a key role here: it allows firms to develop products and services suitable for exports and, once they export, they have access to new ideas and information from foreign markets, with which they can further innovate. However, not all innovations are created equal, and not all firms export consistently.

Our findings based on analysis of the longitudinal element of the UK Innovation Survey suggest that:

- Innovations that are truly novel and new to the market or industry drive exports, but innovations that are only new to the business do not. This suggests that invention, not adoption, drives exports.

- Exporting, in turn, drives both forms of innovations, encouraging both invention and adoption. However, not all exporting firms experience these positive interlinkages between innovation and exporting- only those that export persistently over time. This suggests that consistent exposure to foreign markets is crucial for any learning effects, and firms that export intermittently lose out.

- In terms of productivity, our findings show a direct positive impact of exporting on productivity. However, innovation has only an indirect effect on productivity through its positive links with exports. That is, innovation increases productivity only for exporting firms.

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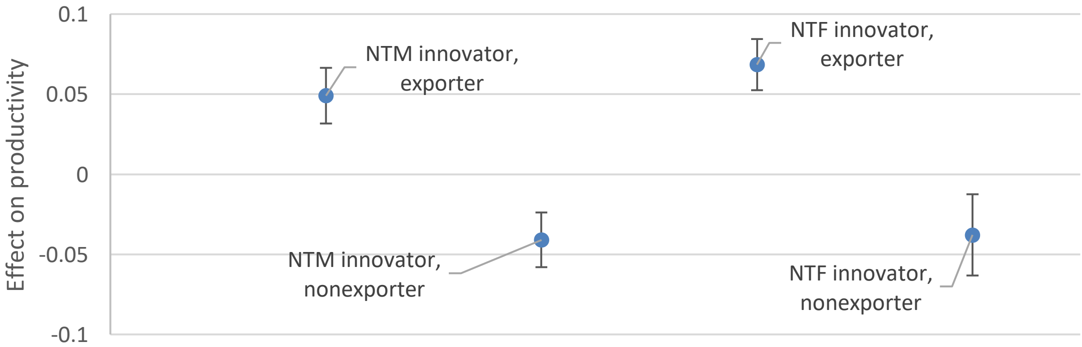
Policy Implications

Our results suggest implications for policy. First, our findings suggest that the benefits of innovation support measures with the aim of stimulating exporting are greatest for firms that already have a technological advantage in the domestic market and are achieving greater sales from their radical innovations. This suggests that identifying companies which are domestic market leaders but not exporting and targeting these firms for export support may create the greatest productivity improvements through greater and faster returns on their innovations (Figure 1).

Figure 1: The productivity effects of innovating: Exporters vs non-exporters



Second, to support the cultivation of a more innovative economy more generally, export support policies should explicitly incorporate the exploration of foreign knowledge sources as a deliberate policy objective, since exporting enhances both new-to-market and new-to-firm innovations. Our analysis by firm size suggest that smaller firms may be in a better position to translate the learning from export markets into innovations, or to at least benefit more from that learning.

Third, export promotion policies should encourage sustained and committed engagements with export markets in order to maximise the value of learning. Finally, our findings suggest that such policies can be tailored to firms in both manufacturing and services sectors; the positive links between innovation and exporting tend to larger for firms in the manufacturing sector, and firms in services display strong productivity benefits from their exports.

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