The potentially negative effects of market concentration on consumers and workers has received much attention, but Mary Amiti, Cédric Duprez, Jozef Konings and John Van Reenen find that big firms can also promote productivity in the wider economy. Analysing data from Belgium, they find that being global is not necessary for such benefits, with large domestic firms generating spillovers of the same magnitude as multinationals.

Do large firms generate positive productivity spillovers?
Numerous studies have documented the rising dominance of large firms over the last few decades in many industrialised countries. Many have focused on the potential negative effects of this increased market concentration on the wider economy, raising concerns about market power in both labour and product markets.

In a new study, we investigate whether large firms also generate positive wider effects, specifically on the productivity of their domestic suppliers. To date, such effects – what economists call total factor productivity (TFP) spillovers – have only been identified for multinational enterprises located in developing countries. Using firm-to-firm transaction data for Belgium, we find that large domestic firms, as well as multinationals, generate positive TFP spillovers.

We analyse firm-to-firm transaction data for all Belgian firms between 2002 and 2014 to study whether a firm located in Belgium that starts a new relationship with a “superstar” firm has higher TFP after the relationship starts (TFP reflects technological and organisational changes that boost output for a given quantity and quality of inputs).

We define a firm as being treated if it reaches a point where more than 10% of its sales are to a superstar firm, for three different types of superstars: large firms, multinationals and exporters. The TFP of the treatment firms is compared to the TFP of a control group, comprising firms that never sell to a superstar firm.

The first chart below plots the TFP of a “treated” firm for each year before and after treatment, for example, with “1” on the horizontal axis indicating the year of treatment and all dots indicating the effect relative to the year before treatment (“0”). The chart shows that by three years after the event, firms located in Belgium that started selling to a superstar firm enjoyed around 7% to 8% higher TFP than the control group.

The magnitude of the spillovers is roughly the same for all three types of superstar firms. This result suggests that the spillovers emerge not from a partner firm being a multinational per se, but rather from the superstar firm being more productive and successful. These are not the same. We show that these performance effects exist even if a large firm is not a multinational or an exporter.

Figure 1: Forming a new relationship with a superstar firm raises productivity

Notes: These results are produced by event studies comparing productivity of firms starting a major supply relationship with a superstar firm (the treatment group) with firms who do not start such a relationship (the control group). In the left panel, the superstar is defined as a very large firm (top 0.1% of the sales distribution), in the centre panel the superstar firm is a multinational, and in the right panel the superstar firm is an exporter. The vertical axis is in logarithmic scale, so 0.1 is about 10%. N is number of observations. CI is confidence interval. Source: Amiti et al, 2023.
Of course, very large firms are also often multinationals. But we show that the superstar spillovers are there even when we look at starting relationships with very large firms that are not multinationals in Figure 2. Further, we show that there is no effect from forming serious supply relationships with small firms, which suggests that the superstar relationship is causal.

The positive growth in productivity implies that a firm should also grow in scale and, indeed, we also see sales jumping up by about 28% for supplier firms. This effect remains even after netting out the sales going to the superstar firm. Similarly, we see big increases in intermediate inputs, labour and capital, as well as the number of buyers other than the superstar.

The classic reason for spillovers is the transfer of know-how. We show that superstars that have higher research and development, more managerial know-how and/or skills and are more IT-intensive generate the largest spillovers.

The analysis also finds that new suppliers to superstars experience higher overall profits, but the average markup falls as superstars will capture some of the relationship rents. While the supplier has lower markup on its sales to the superstar, it increases its overall profits by expanding the number of buyers it supplies to, both within and outside the superstar firm’s network.

We also show new evidence of a non-productivity-related spillover generated when a superstar firm relationship helps a supplier get access to a new network of potential customers. We call this a “dating agency” effect to reflect the matchmaking role of the superstar firm.

This spillover benefit could be working through just reducing the search costs of suitable buyers, or via a signalling effect, when dealing with the superstar firm causes other firms to update their beliefs about the quality of the supplier (and these signalling effects are particularly strong in network). Indeed, we find particularly large positive effects on the number of buyers within the superstar’s network, consistent with a dating agency effect.

Governments spend large sums of money to attract and retain multinationals, partly because of their belief in the importance of these supply chain benefits. Our results highlight that being global per se is not necessary to generate spillovers. We show that large domestic firms generate TFP spillovers of the same magnitude as multinationals.

Although there may be potential costs associated with the dominance of large firms in the modern economy (identified, for example, in research on market power and political influence), our work shows some advantages to allowing superstar firms to grow and form relationships with less successful firms.

Figure 2: Positive productivity spillovers for new suppliers, even if the large firm is not a multinational


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