Headline Findings

There are wide-ranging differences in the characteristics of firms (including the productivity drivers studied). Specifically, the following sources of heterogeneity appeared across firms (some of them documented for the first time):

- cross-country differences in management quality
- the structure of the industry in which the firm operates
- its location on the value chain
- differences in skill levels and composition
- differences in the level of sophistication in adopting and using new technologies

The implications here are important. Policies will have different overall effects on firms: a policy aimed at increasing the use of ICT, for example, will not be successful in an economy with few skilled users of ICT, while it will have a great impact on productivity in an economy where good ICT skills are common.

It is important to recognise how several of the drivers and consequences interact. For example, management, organisation and ICT are interdependent in that, to use ICT most productively, appropriate organisational and managerial practices have to be in place. Further, innovative performance and international location are linked; being located abroad enables firms to absorb some of the spillovers and knowledge created there so that co-location plays a role even in times of advanced communication technologies. This resonates with another important result of the work, which finds interdependencies between the degree of globalisation of a firm, its management quality and its environmental performance. Multinationals are on average better managed than their domestic counterparts and tend to learn quickly about ways to improve their environmental performance. Again, looking at these interdependencies offers a picture that goes beyond simple statements such as ‘globalisation is good or bad’ or ‘well-managed firms consume less or more energy’. Rather, it illustrates the complex and multi-dimensional issues that exist when trying to explain industrial production processes across countries and firms, and with multiple (intended and unintended) outcomes.

Good management and resource efficiency are not in conflict with each other. Well managed firms are also less energy intensive, which contradicts the received wisdom that, to be economically productive, other aspects of a firm’s impact on society (such as environmental performance, or the work-life balance of employees) have to be sacrificed. Given that lower energy intensity translates into a lower energy bill this finding may not seem surprising, but it supports the view that there is no point in penalising multinational industrial firms preemptively for their supposed inferior environmental performance, as these are the ones likely to be better managed and therefore more resource-efficient.