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### **Has the crisis altered the Belgian economy's DNA?**

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Owing to the development of information and communication technologies combined with the integration of new economies into global trade, production processes nowadays are fragmented. Instead of operating self-sufficiently, managing all the successive production phases themselves, firms make extensive use of outsourcing, obtaining intermediate goods and services from other companies. Typically, some specialise in providing services – such as accounting, transport, marketing, etc. – for third parties while others specialise in producing intermediate goods or components. They do not necessarily aim to make a finished product for the end user, but instead form a link in the production chain. Today, an economy's production capacity therefore comprises a veritable network of interlinked firms. That network is not confined to national territory. Firms establish many buying and selling relationships with partners in other countries, especially in a small open economy like Belgium.

Various indicators at the level of the firm are relevant for describing this fragmentation of production. Among them, the concept of the total length of the production chain to which a firm belongs indicates the number of successive firms involved in making the end product. In addition, each firm is distinguished by its position in a production chain. This second concept gauges whether a firm specialises in the initial production phases or, conversely, in the final stage that delivers the finished product. Hitherto, economic analysis had taken very little notice of these dimensions, but they are now beginning to attract attention in the academic world, partly as a result of the recent publication of macroeconomic data linking the output of various branches of activity located in different countries. On the basis of that research, and by applying the principles of input-output analysis to an original microeconomic database, this article presents a new way of understanding the operation of the Belgian economy and draws some initial lessons, notably in regard to the recent crisis situation.

In practice, the analysis reveals that Belgian firms generally form part of relatively long production chains. In addition, the Belgian economy specialises in production segments at a relatively early stage in the production process. On average, the goods and services produced in Belgium are therefore relatively distant from the end user. There are two combined effects here: (i) the branches of activity that tend to be involved in the initial production stages, such as chemicals, metallurgy and certain business services, are relatively predominant in Belgium, and (ii) compared to firms of other European countries belonging to the same branches of activity, Belgian firms generally specialise in the initial production stages, the goods or services produced then undergoing subsequent processing before being offered to the end user.

As far as economic performance is concerned, the econometric analysis presented in this article establishes that, during the period 2002-2011, the fragmentation of production processes was beneficial overall to Belgian firms, as the fastest-growing firms are the ones which succeeded in securing a place in the longest production chains. However, the ones that benefited the most are those at the end of the chain, i.e. close to the end user. Fragmentation and proximity to the consumer therefore appear to be determinants of economic performance.

However, the fragmentation process came to a halt during the economic crisis. In Belgium, the crisis caused the production network to shrink. Transactions by new firms did not fully offset the destruction of existing businesses or economic links. Within the Belgian network, the most vulnerable firms were essentially small businesses with low productivity, specialising in the initial production phases.

In the end, whether a firm be new or long-established, the productivity gains that it achieves remain crucial to its survival and development. Specialisation in a particular production segment by resorting to outsourcing or spin-offs for production phases in which the firm has less expertise is one way of achieving that objective. Another strategy involves getting closer to the end user, e.g. by offering goods or services directly targeting consumers or by establishing a customer-based approach. As always, staff training and innovation in design, communication and marketing are crucial to make products attractive to consumers.