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PRESS RELEASE

Sectoral interdependences and cost structure in the Belgian economy: an application for input-output tables

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The input-output tables (IOTs) provide an integral view of all the flows of goods and services recorded by the Belgian economy over the course of a year. They detail supply and demand flows by branch or product, and enable an understanding of the flows between these different branches, in other words, the composition of their intermediate consumption.

On the basis of these direct cross-relationships, as given by the IOTs for the year 2000 (the most recent available), the article develops the so-called cumulative approach to interrelationships between branches. This approach consists of going back up the production chain of a branch in order to take into account all the direct inputs and indirect inputs - the latter being those involved in the production of the intermediate consumption of the branch, and so on - that are necessary for that production. By using this approach, the article gradually illustrates the nature of relationships between branches, the specific features related to the degree of openness and structure of production of the Belgian economy, along with the cost structure.

It appears that, on average for the different branches of activity, one euro of production aimed at satisfying final demand gives rise to 61 additional cents of intermediate production in the economy. These second-round effects depend on the level of domestic intermediate consumption involved in the production process and thus vary significantly by branch, from 30 cents in energy to 107 cents in construction.

In general terms, all branches make wide use of the provision of market services, primarily in the form of support, commercial or transport activities. This is particularly the case for industry, where in 2000 production led to the indirect employment of some 268,000 workers in market services, nearly one sixth of total employment in this branch. Moreover, out of the 143,000 jobs created in market services between 1995 and 2000, 54,000 can be credited to the effects of industrial activity.

In relation to other European countries, industrial activity in Belgium has less of an effect on the economy as a whole, due to greater leakage via intermediate imports, Belgium being a small open economy. Conversely, the outsourcing of secondary activities to the support services seems to be particularly well developed in Belgium, including amongst market services themselves. More than in other European countries, the companies active in this branch make use of other companies for the provision of specialist services.

Between 1995 and 2000, the dependence of the national production process on intermediate imports – a characteristic of small open economies – grew by some 5 percentage points to the detriment of cumulative value added, this change resulting partly but not solely from a price effect, as IOTs are only published in current prices. In 2000, cumulative value added stood at 65.8 p.c. of the production, distributed between value added generated directly in the production process (42.9 p.c.) and value added generated indirectly through the inclusion of national intermediate products (22.9 p.c.). These two percentages prove to be less than those recorded in other European countries, the lesser indirect effect resulting from leakages abroad. As for the total dependence of final demand on imports, it is higher in Belgium than elsewhere. It amounts to 46.5 p.c.: 20.7 p.c. in direct satisfaction and 25.8 p.c. through imported intermediate consumption. While this latter essentially takes the form of industrial goods, the importation of foreign services appears to be higher in Belgium than elsewhere.

This dependence on imported goods and services is also characteristic of the economy's cost structure, of which the IOTs enable a detailed analysis. This information proves to be particularly useful when studying price formation and the inflation dynamic. It emerges that imports figure particularly prominently in the export structure and that the household consumption considered in the HICP itself consists of imports to the extent of more than one third. In the past, this high dependence on products from abroad led to the

implementation of a monetary policy focused on exchange rate stability in relation to the German mark. The launch of monetary union extended and spread this irrevocably to other Member States of the union, by eliminating exchange rate fluctuations between them.

Given this high degree of dependence on products from abroad, the components of domestic value added, namely compensation of employees, gross operating surplus and gross mixed income, are of fairly modest size. However, if one takes into account the fact that intermediate inputs also include domestic value added, the shares of compensation of employees and other components of value added turn out to be significantly higher. For the economy as a whole, wages thus cumulatively represent a little over one third of the total cost of production. This share is largest in non-market services and smallest in energy production. In industry, the cumulative cost of labour represents almost 30 p.c. of the total cost of production. From the perspective of the different categories of final expenditure, consideration of final imports, on the one hand, and of VAT and lump sum taxes, on the other, pushes the weight of wages downwards. These latter thus represent over a quarter of total costs in relation to the household consumption noted in the HICP. This share is highest in relation to the services included in the HICP and lowest in relation to non-energy industrial goods and energy products. On average, indirect taxes constitute around 17 p.c. of the consumer price.