Belgium's position in world trade

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Introduction

The central role played by international trade in goods and services in the operation of the developed economies has been strongly highlighted by the economic crisis of 2008-2009. At the end of 2008 and beginning of 2009, paralysis of a part of world trade led to the very rapid spread, throughout the world, of an economic recession without precedent since the Second World War. In Belgium, exports and imports of goods both declined by 20 p.c. in volume terms between mid 2008 and mid 2009, in parallel with a decrease of comparable scope in industrial production. Conversely, the recovery in activity in Belgium will not be started up in a sustainable manner until external trade has become more robust in the various economic zones, and only on the condition that firms are in a position to respond to this resurgence in demand.

More widely, the advanced economies including Belgium have had to face up to a profound transformation of the international environment over the last two decades. Affected by a combination of institutional, financial and technological factors, economies have become far more interlinked as regards not only international trade in goods and services, but also movements of capital, exchanges of technology and migration flows.

The causes and consequences of the accelerated globalisation of the economy during the last two decades have already been widely documented[1]. However, two elements can be picked out in order to assess their effects on the Belgian economy, namely the modification of the overall organisation of production processes and the very rapidly growing importance of new economic centres.

On the one hand, the movement to liberalise commercial and financial trade in the majority of economic zones, the reduction of transport costs and the progress of information technologies have given rise to a marked tendency for the production chain to be fragmented. Influenced notably by multinational enterprises, the various stages of production – from the initial development, through to production, and then final distribution – are increasingly broadly spread between different locations according to the advantages that each of these offers in terms of efficiency. This organisation of production is shown by a more rapid increase in external trade than in global GDP. It also leads to a higher level of imports in production, in particular for intermediate goods, as well as to a growing importance of intra-branch or intra-firm trade. Overall, this tendency leads to a raising of productivity. By offering firms in the advanced economies the possibility of benefiting from lower-cost inputs, it allows them to strengthen their competitiveness and to consolidate their position by concentrating on activities with higher value added, for which they have a comparative advantage. However, this requires reallocating resources within the enterprise and in the economy on the one hand, and profiting from the demand which is building up on the new markets on the other.

The current phase of globalisation is also characterised by the rapid emergence of new economic centres,

(1) Cf. for example OECD (2007).

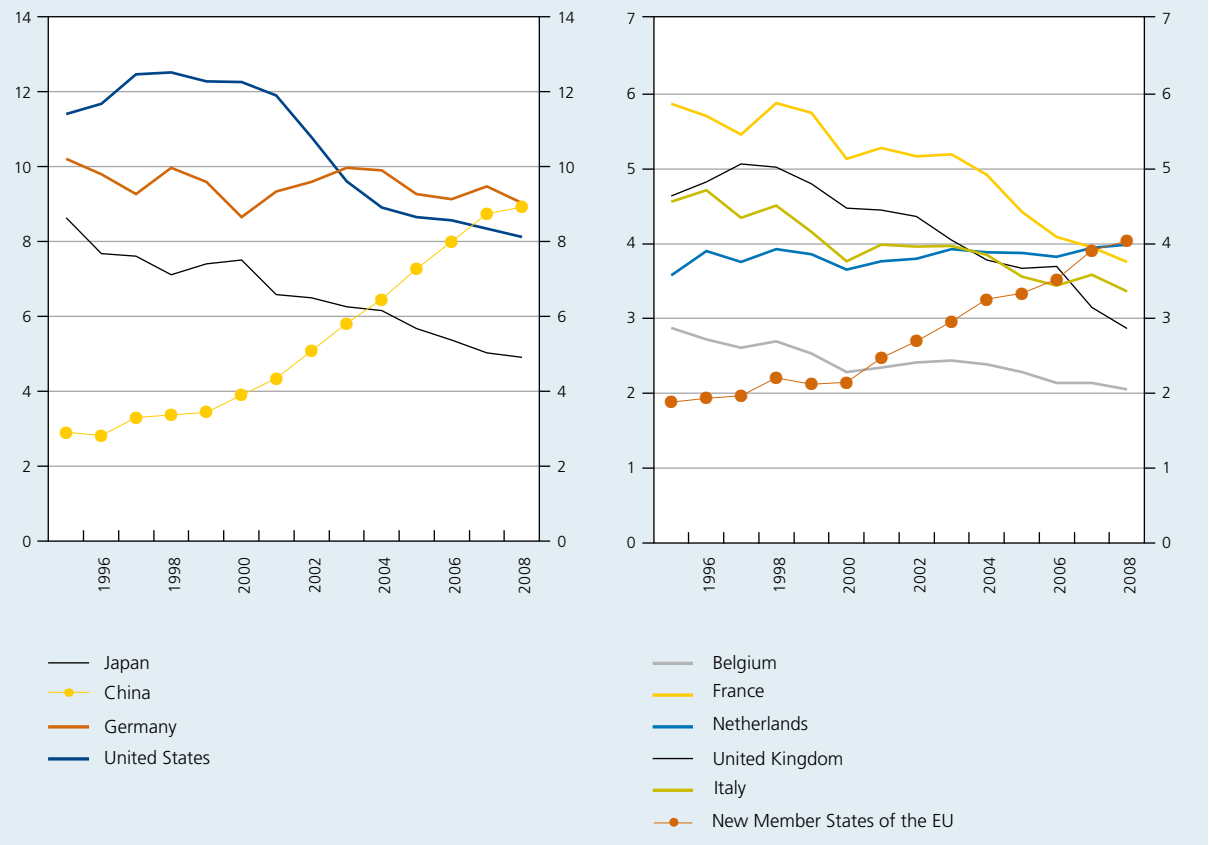
whether they are countries of great size – the BRIC economies – or countries near at hand, such as the economies of Central and Eastern Europe. These countries, in particular China, hold an increasingly large share of global production and over time have become essential trading partners for the more advanced economies, both as outlet markets and as suppliers of consumer goods, intermediate goods, and increasingly equipment goods. In this context, the emerging economies are equipped with abundant reserves of labour, but also, in step with their economic progress, increasingly sophisticated equipment and technology. The participation of these new stakeholders in international trade thus has the effect of progressively modifying the balance of comparative advantages. With regard to the countries that have long been active in external trade, which include Belgium, this tends to undermine the relative position in terms of labour-intensive or even capital-intensive production and in contrast to reinforce production which incorporates a greater knowledge content.

Therefore, following the example of individual firms, the various economies need to display the capacity to adapt in order to exploit their comparative advantages to the best effect and profit from the dynamism of the global economy.

Given this perspective, it is therefore appropriate to widen the view of competitiveness beyond the aspects of price and cost, to a wide set of factors of a more qualitative nature. It is true that price competitiveness, associated with production costs – labour costs, return on capital and costs of intermediate inputs – remains essential in the positioning of the economy in relation to those partners having structural characteristics comparable to Belgium. These elements are notably taken into account in the choice of location for production units within multinational enterprises. Over and above this, more intangible factors determine the capacity of the economy to offer goods and services which are distinguished, for example, by their quality or their innovative nature, so as to respond

CHART 1 IMPORTANCE OF EXPORTS BY REGION OR BY COUNTRY IN WORLD TRADE

(world exports of goods by value, in percent)



Sources : EC, NAI, UNCTAD.

to the changes in overall demand. Amongst these factors can be found the quality of the physical and human capital, the innovation efforts and the operation of the markets.

In order to assess how Belgium is positioned in the face of a world environment in transition, this article is divided into five sections. The first section presents the overall results observed since 1995. The following sections relate to four aspects which determine the external competitiveness of the economy, namely the importance of price and cost competitiveness; the structure of exports; the characteristics and the demography of exporting firms; and innovation.

1. Belgium's position in the globalised economy

The growing participation of the emerging economies in world trade, both as exporters and importers, has provided strong support for its growth. The volume of international trade expanded by 5.8 p.c. per year over the period extending from 1995 to 2008, a growth rate which is twice as fast as that of GDP. In the same context, the advanced economies have generally experienced a decrease in their share of the market. This phenomenon is endogenous in nature, reflecting the recovery of the emerging economies. However, significant differences can be seen between the advanced economies. Between 1995 and 2008, the cumulative share of the United States, Japan and the EU15 in world trade in goods dropped by 25 p.c. in relative terms, falling back from 61 p.c. of world trade in goods in 1995 to 46 p.c. in 2008. The decline has been particularly pronounced for Japan whose share fell from 8.6 p.c. to 4.9 p.c., representing a decrease of more than 40 p.c. The rate of decrease reached nearly 30 p.c. for the United States and 20 p.c. for the EU15. During this period, China tripled its share of world trade, reaching 8.9 p.c. in 2008, and the new Member States of the EU doubled theirs, to 4 p.c.

Calculated on the basis of statistics drawn up according to the so-called "national" concept of foreign trade, Belgium's exports represented 2.9 p.c. of world trade in 1995. This share fell to 2.1 p.c. in 2008, which is a decline of nearly 30 p.c. A large number of other EU15 countries recorded a decrease on the same scale. Amongst the neighbouring countries, however, the decline over the period as a whole was proportionally lower in Germany whilst the Netherlands' share increased slightly, in the latter case probably owing partly to the "port effect" associated with the port of Rotterdam [1].

The results for Belgium can usefully be compared to those for twelve European countries, to the extent that the latter have levels of development and structures that are fairly close, they form part of the same customs zone and the majority share the same currency. They therefore display the same general conditions as Belgium in the face of the effects of globalisation. This comparison reveals that the growth in Belgium's exports between 1995 and 2008 remained behind the reference zone, at a level of around 1 percentage point per year, with an annual average growth in nominal exports of goods of 5.4 p.c. as against 6.5 p.c. on average for the countries under consideration. This result is certainly better than that of France and the United Kingdom, but significantly lower than that of the Netherlands, Germany, Austria and even Spain and Ireland.

The differences in the pace at which exports are expanding may result either from the dynamism of the underlying markets served or from the development of market shares. In this instance, the development of "relevant markets" comprises the average growth in imports of partners, weighted according to their importance in the exports

TABLE 1 COMPARISON OF DEVELOPMENT OF EXPORTS, RELEVANT MARKETS AND MARKET SHARES

(average annual change in percent, goods by value, unless stated otherwise, 1995-2008)

	Exports	Relevant markets [1]	Market shares
Belgium	**5.4**	**8.1**	**–2.5**
Reference zone [2]	6.5	8.4	–1.7
Netherlands	9.1	7.7	1.3
Ireland	7.3	7.3	0.0
Spain	7.5	7.8	–0.3
Austria	8.2	8.7	–0.4
Germany	7.2	8.9	–1.6
Finland	5.9	9.3	–3.1
Sweden	5.6	8.3	–2.5
Portugal	6.2	8.2	–1.9
Greece	5.6	9.2	–3.2
Italy	5.7	8.7	–2.8
France	4.5	8.3	–3.5
United Kingdom	4.3	8.2	–3.6

Sources: EC, IMF, NAI, OECD, UNCTAD.

(1) Average growth rate of trading partners' imports, weighted by their importance in the exports of the country in question.

(2) Non-weighted average of the 12 countries.

(1) This "port effect" is largely corrected in the statistics for Belgium drawn up according to the national concept, which excludes transactions attributable to non-residents.

of the country in question. The relationship between the observed development in exports and that of the relevant markets is a measure of performance in terms of market share. With regard to trade in goods, the losses observed for Belgium were, in value terms, 0.7 percentage points per year higher than the average for the reference zone. As indicated in Box 1, the calculation of market shares can be carried out on the basis of other variables, but this makes little difference to Belgium's position in the hierarchy of results.

Box 1 – Various indicators of relevant markets and market shares

Indicators of relevant markets are used widely in the analysis of export performance, notably by the international institutions (OECD, EC) but also – in Belgium – by the Federal Planning Bureau, the Central Economic Council and the Bank, in the context of exercises involving forecasting and the analysis of market shares. The principle of these indicators is always the same : they involve calculating an index that reflects the weighted development in trading partners' imports by making use of weightings that reflect the structure of exports from the countries in question. The development of the market shares of each country is then obtained by relating the development of exports to the demand coming from the relevant markets.

However, various measures are possible statistically. Trade can be considered in nominal terms or by volume, by taking account of goods alone or goods and services. Apart from these measures, it is permissible to consider the geographical partners and/or the products traded in order to assess the growth in the markets. From a purely methodological viewpoint, taking account of weightings that are either fixed or variable over time, or of a more or less complete coverage by geographical area (or by product) of the trading partners, similarly entails differences between measures of the markets.

In the context of international comparisons, the measure of market share development that looks at goods and services by volume is the most frequently used. In fact, the availability of international statistics that are regularly updated in national accounts, as well as the neutralisation of price effects, make this measure easy to use and interpret. However, these measures by volume are sensitive to the way in which price effects are compiled in the statistics, and in this regard they may suffer from a lack of harmonisation between countries. Over and above a classical overall macroeconomic study of export performance, it is also of interest to have a sufficiently detailed indicator available that allows fine-scale analysis of performance. This applies particularly where the issue is to determine whether products or categories of products can explain the differences in performance between comparable countries subject to the same changes. In this context, the use of indicators by value that measure performance on the goods markets, and thus allow a level of fine detail on the basis of foreign trade statistics, is indispensable.

The table below presents the development for market shares according to whether goods or goods and services are considered, as well as the variables in nominal terms and by volume. Even though price trends in particular may occasionally have significant effects on the quantified results, it appears that the conclusions drawn remain verified for any used indicator. On average, over the period from 1995 to 2008 :

- Belgium's external performance in terms of market shares was lower than the average for the reference zone ;
- the Netherlands, Ireland, Spain and Austria recorded gains in market shares or at least performance higher than the average for the reference zone ;
- Portugal, Italy, France and the United Kingdom, like Belgium, recorded mixed performance over the period in question ;
- Germany, Finland, Sweden and Greece experienced more varied performance according to the choice of indicator, but overall in line with that of the reference zone.

COMPARISON OF EXPORT PERFORMANCE

(average annual change in percent, 1995-2008)

	Biens		Biens et services		
	Goods	Volume	Goods	Volume	Volume according to OECD[2]
Belgium	**–2.5**	**–2.6**	**–1.7**	**–1.4**	**–1.7**
Reference zone[1]	–1.7	1.0	–1.1	–0.3	–0.6
Netherlands	1.3	2.1	–0.6	–0.2	–0.3
Ireland	0.0	2.0	3.7	3.4	3.4
Spain	–0.3	0.2	0.8	0.2	–0.1
Austria	–0.4	1.4	–0.6	0.2	0.0
Germany	–1.6	–0.7	–0.9	1.0	0.7
Finland	–3.1	–2.0	–1.9	1.1	0.3
Sweden	–2.5	–1.7	–1.4	0.0	–0.2
Greece	–3.2	–2.7	0.2	–0.2	–0.4
Portugal	–1.9	–0.6	–1.4	–1.7	–1.9
Italy	–2.8	–3.2	–2.5	–4.1	–4.5
France	–3.5	–2.5	–2.8	–1.7	–2.0
United Kingdom	–3.6	–5.1	–2.0	–1.7	–2.0

Sources: EC, IMF, NAI, OECD, UNCTAD.

(1) Non-weighted average of the 12 countries.

(2) Indicators of export performance according to the Economic Perspectives of the OECD, November 2009.

2. Price and cost competitiveness

This section is devoted to assessing the role of price and cost effects in explaining Belgium's export performance and positioning it with respect to other European countries. The approach followed consists firstly in determining how far the development of market shares by volume for goods and services is explained by relative movements in the export prices of the country in question in relation to the prices of competitors, or indeed by other factors which would stem from structural elements of non-price competitiveness. The mechanism for setting export prices is then examined in more detail in a second stage.

This exercise is based on an econometric analysis using quarterly data from 1995 to 2008 in which simple specifications are applied to Belgium and a set of European countries. As far as possible, these comprise the same countries as those making up the reference zone in sections 1 and 3 of this article. However, some limitations in the availability of data have restricted the list of countries considered. The data originate from the national accounts statistics and therefore relate to trade in goods and services. They come from the databases of the *Economic Perspectives of the OECD* except for those for Belgium, which are taken directly from the NAI.

The following equation[1] makes it possible to estimate export performance. For each country, the development by volume of market shares, that is to say the relationship between movements in exports and outlets, is a function of both the development in relative prices, namely the relationship between the export prices and the weighted average of competitors' prices, and a structural variable designated "trend". This study focuses on the structural features of this relationship. In this respect, only the equilibrium equation is estimated, without taking into account the short-term dynamics:

(1) The equations were estimated by means of natural logarithms, so that the coefficient applied to the relative prices can be considered to be the price elasticity.

$$ln(XTR_i / WDR_i) = \alpha_1.ln(RP_i) + \alpha_2.trend + constant + \varepsilon$$

where: XTR_i: exports by volume of country$_i$;
WDR_i: indicator of the relevant export markets for country$_i$;
RP_i: indicator of the relative export prices of country$_i$, related to the prices of competitors.

In theory, more rapid growth in the export prices of one country in relation to those of competitors tends to weigh on the development of exports and therefore reduce market shares, so that coefficient α_1 of the variable for the relative prices should be negative. If the development of market shares depended solely on relative prices, and in the event of neutral development of those prices, exports by volume would follow the movements in the outlets. However, this is seldom the case, so the possibility of structural losses or gains in market shares is introduced into the analysis by means of a trend variable. This synthesises the presence of possible elements not linked to prices which would also have an impact on the connection between the development of exports and that of outlets.

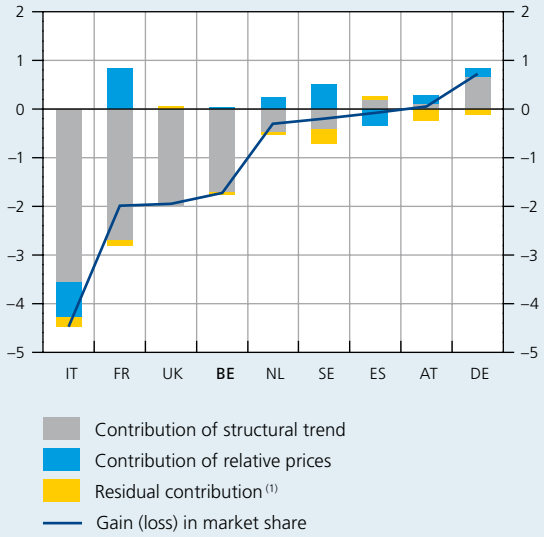
It appears in general, on the basis of the results obtained, that the contribution made by relative export prices is fairly limited. Belgium occupies a neutral position in this regard; the average total loss of market shares, of some 1.7 p.c. per year over the period extending from the first quarter of 1995 to the fourth quarter of 2008, is therefore almost entirely attributable to the trend variable. In the neighbouring countries (Germany, France and the Netherlands), the development of relative prices is found to make a slightly positive contribution.

The contribution made by the trend variable is in general, fairly clearly negative. Amongst the countries examined, only the Netherlands and Austria, where the contributions are moderately positive, and Germany, which benefits from a positive contribution of 0.7 percentage points on average per year, showed an improvement in their structural development in terms of market share during the period 1995-2008. All the other countries posted structural losses in market shares. These were most marked in Italy, whilst Belgium, with a structural loss of 1.7 percentage points per year on average, joins France and the United Kingdom in forming a group of countries whose annual average losses in market shares unrelated to relative prices fall within a range extending from –1.5 to –2.5 percentage points.

The results table for the estimation shows that the relatively small contribution made by the variables

CHART 2 DETERMINANTS OF THE DEVELOPMENT OF MARKET SHARES

(average annual contributions, percentage points, goods and services by volume)



Source: Own calculations, based on data from the OECD and the NAI.

(1) Apart from the contribution made by the relative prices and the structural trend, there is a small residual contribution which is an inverse function of the stability of the equation.

associated with the relative prices can be explained either by a small correlation between the development of relative prices and that of market shares – in which case the value of the coefficient of the relative prices tends towards zero, as for the United Kingdom, Belgium and Germany for example – or by a small difference between the development of their own prices and that of their competitors (United Kingdom, United States and Belgium), although these two reasons may both apply. Amongst the neighbouring countries, France (–0.83) and to a lesser extent the Netherlands (–0.41) display a relatively high level of price elasticity, an aspect which allows them to significantly improve their export performances by reducing their relative prices. During the period studied, Germany posted a gap of –1.8 percentage points between the development of its own export prices and the development of prices in competitor countries. Thus, notwithstanding a low level of price elasticity, that country recorded a positive contribution from prices.

All in all, the development of relative export prices only provides a limited explanation of overall performance on external markets. This would tend to indicate that the prices applied on the international markets are, to

TABLE 2 RESULTS OF THE ESTIMATION OF DETERMINANTS OF MARKET SHARES BY VOLUME

(period extending from the first quarter of 1995 to the fourth quarter of 2008)

	Coefficient of relative export prices	*p.m. Average annual change in relative export prices*[1] *(percentage change)*	Annual structural trend[2] (contribution in percentage points)	*p.m. Average annual development of market shares (percentage change)*
IT	–0.44 (***)	*+1.6*	–3.6 (***)	*–4.5*
FR	–0.83 (***)	*–1.0*	–2.7 (***)	*–2.0*
UK	–0.02 ( )	*–0.2*	–2.0 (***)	*–2.0*
BE	–0.09 (*)	*–0.4*	–1.7 (***)	*–1.7*
NL	–0.41 (***)	*–0.6*	–0.5 (***)	*–0.3*
SE	–0.26 (***)	*–1.1*	–0.4 (***)	*–0.2*
ES	–0.50 (***)	*+0.7*	+0.2 ( )	*–0.1*
AT	–0.29 (***)	*–0.6*	+0.1 ( )	*0.0*
DE	–0.10 (*)	*–1.8*	+0.7 (***)	*0.7*

Sources: Own calculations, based on data from the OECD and the NAI.
(1) Difference between average annual growth in own export prices and those of competitors' export prices.
(2) The component items cannot be added up due to the presence of a small residual contribution.
(***) / (**) / (*): significantly different from zero at the 1 p.c., 5 p.c., 10 p.c. level respectively and ( ): not significantly different from zero.

a large degree, imposed on the exporters, and that they can scarcely diverge from them since they risk having a smaller presence on those markets. As a consequence, in the face of prices that are, to a large degree, already set, exporters are only partially in a position to pass on the movements in production costs that they are faced with. In this case, the profit margins would serve as a cushion to offset the differences between movements in prices and costs. Any structurally unfavourable development of costs would weigh on profitability and would threaten to cause the activity of exporting to disappear in the long run.

The second stage of the analysis consists precisely in examining the extent to which the setting of export prices takes account of the development of production cost components, or rather prices of competitors. The main components of the cost borne by the exporter comprise the import prices of the raw materials (and more particularly, oil) and the intermediate inputs, as well as labour costs. Calculating an equilibrium export price involves attempting to estimate the extent to which the components of the cost can be passed on in the export prices. In the equation adopted, the export price depends on the unit labour cost in manufacturing industry, the import deflator and the oil price. Here again, only the equilibrium equation is estimated, without taking into account the short-term dynamics:

$$ln(XTD_i) = \alpha_1 . ln(ULC\_mf_i) + \alpha_2 . ln(MTD_i) + (1 - \alpha_1 - \alpha_2) . ln(Brent_i) + constant + \varepsilon$$

where, for each country i:
- XTD_i: export deflator;
- MTD_i: import deflator;
- ULC_mf_i: unit labour cost in manufacturing industry;
- $Brent_i$: price of crude oil, in the national currency unit.

The inclusion of the development of oil prices as a separate component in the equation, notwithstanding the fact that they are already included in the import deflator, is accounted for by the different weighting for energy in the deflator for exports and that for imports. Taking account of the coefficient associated with the "Brent" variable, the estimated total weighting of oil in export prices is equivalent to its implicit weighting in the import deflator (MTD) plus the correction measured by the coefficient $(1-\alpha_1-\alpha_2)$. Homogeneity of prices is imposed on the price equations, so that the sum of the price coefficients to be estimated must be equal to 1.

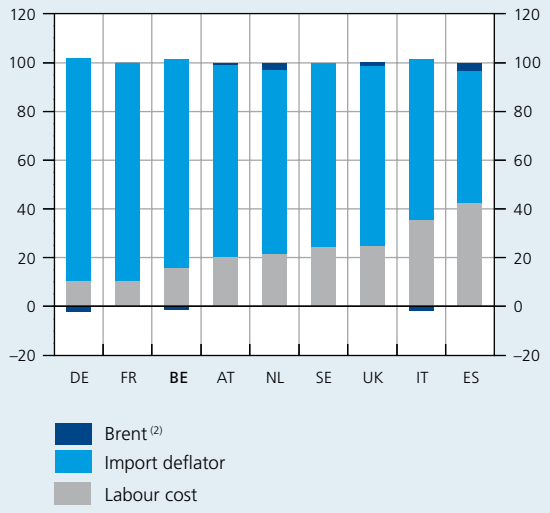
The unit labour cost adopted in the analysis relates to manufacturing industry because this is the sector that approximates best to the profile of the typical exporter. Using the concept of the unit labour cost makes it possible to take account of efficiency gains by the labour force, which have the effect of causing costs and, where relevant, export prices, to fall. As for import prices, this variable captures both the development in the cost of

imported inputs that play a part in the production of the exports, and also the effect of international competition. In this way, they reflect the extent to which prices are defined by the competition on the international markets (the proportion of *price-takers)*. Therefore, the less exporters are in a position to set their prices themselves, and find themselves obliged to align their prices with the global prices, the higher will be the coefficient associated with this variable. This means that the coefficients estimated in this context are fairly different from those obtained in the statistical breakdown for the weighting of the various cost components which comes out of the input-output tables.

The coefficients estimated in this way show that international prices exert a predominant influence on the movements of export prices. The import deflator – either owing to the importance of imported intermediate inputs, or because it largely reflects the prices operated by competitors – has a much larger weighting attached to it than unit labour costs; and the α_2 regression coefficient assumes a value of 0.6 to 0.9 according to the country. Between 1995 and 2008, amongst the countries examined in this study, the development in labour costs was passed on to export prices the least in Germany, France and Belgium, whilst the influence of labour costs was significantly higher in Italy and Spain.

CHART 3 IMPORTANCE OF THE DETERMINANTS (1) OF EXPORT PRICES

(percentages, estimate over the period 1995Q1-2008Q4)



Source: Own calculations, based on data from the OECD and the NAI.

(1) The relative share of the determinants is therefore equal to the coefficients in the equation for export prices.

(2) The determinant "Brent" is a correction factor that estimates the difference between the importance of oil in imports and exports.

The poor ability of Belgian exporters to pass on the changes in labour costs is confirmed by the results of surveys amongst enterprises (1). This phenomenon is all the more marked for standardised goods, for which the differentiation between producers is small and the competition on prices great. In this context, a controlled development of production costs is necessary in order to preserve profitability. More generally, given their key role in the operational decisions of the firm, labour costs have a direct influence on the quantity of work carried out. An increase in labour costs greater than the gains in productivity would reduce the demand for labour to the extent that other production factors (such as capital) can be substituted for it.

Lastly, any interpretation in macroeconomic terms of divergences in relative prices needs to be carried out with caution. It only makes sense if the international reference price – used as the point of comparison for the export prices – relates to a comparable basket of products in terms of quality and specialisation. Of course, this is not always the case: in practice, product markets are rather heterogeneous since countries generally specialise in a set of branches or products. This statistical phenomenon may lead to a certain underestimation of the importance of price competitiveness on the basis of data that are overly aggregated. Complementary analyses would be needed at the branch or enterprise level. However, the relevant data on prices are not always available at these levels and lend themselves less readily to international comparison. Such calculations lie outside the scope of this study, which only concerns general conditions of competitiveness.

3. Structure of exports

3.1 Export structure and performance

Since price competitiveness, considered at an aggregate level, is not sufficient to explain the development of market shares, it is necessary to take account of elements that are structural in nature. This section is concerned with assessing how the elements relating to the structure of exports, such as geographical orientation or specialisation by product, influence Belgium's involvement in international trade in goods and, conversely, how developments associated with globalisation affect the structure of exports.

(1) Aucremanne L. and M. Druant (2005).

By way of a reminder, with an average annual growth rate of 5.4 p.c. in nominal terms, the pace at which Belgium expanded its exports of goods was 1 percentage point lower than the average result for the countries considered in the reference zone over the whole of the period 1995-2008. Breaking this development down between the dynamism of the markets served and the effects of shares of those markets shows that the traditional markets are less expansive than on average in the reference zone, both in terms of geographical orientation and specialisation by product. However, these market effects only explain part of the lower growth in Belgium's exports; the losses in market shares are also larger than in the reference zone.

The negative divergence in the pace of expansion of exports includes 0.3 percentage points for an unfavourable geographical structure. In fact, the average annual expansion in the relevant markets for Belgium, calculated by weighting the development of the import demand of the various countries by the share of those countries in Belgium's exports, was less (+8.1 p.c.) than that in the relevant markets for the reference zone (+8.4 p.c.). If the geographical orientation is considered on its own, Belgium's external performance in terms of market shares was 0.7 percentage points per year lower than that of the reference zone between 1995 and 2008.

The same conclusion is reached when the relevant markets are calculated according to the breakdown by product. The structure effect is unfavourable to the tune of 0.2 percentage points, with a growth rate in the markets of 8.2 p.c. for Belgium and 8.4 p.c. for the reference zone. However, the poor dynamism of exports relative to the reference zone is the essential element that explains why Belgium's external performance is lower than that of the reference zone. The losses in market shares reach 2.6 p.c. per year for Belgium and 1.7 p.c. for the reference zone, which is a differential of –0.9 percentage points per year between 1995 and 2008.

The negative difference in the expansion of exports and the structural delay in the development of market shares were not constant over time. Compared to the reference zone, Belgium experienced a particularly unfavourable development of exports and relatively large losses in market shares from 1995 to 2000. At this point, Belgium's performance was the weakest of all the countries in the zone, with a differential in the pace of expansion of exports that reaches 3.3 percentage points per year. With regard to the development of market shares, the divergence reaches –3 percentage points per year when only the geographical orientation is taken into account and –2.3 percentage points per year when only the structure by products is taken into account.

In contrast, with an average annual growth of 4.4 p.c. in nominal terms over the period from 2000 to 2008, Belgium's exports expanded more rapidly than the average for the reference zone, rising by 0.4 percentage points. This better performance results partly from the robust demand for semi-finished products originating from the emerging countries around the middle of the

TABLE 3 COMPARISON OF THE DEVELOPMENT OF EXPORTS, EXPORT MARKETS AND MARKET SHARES

(goods, by value, average annual change in percent, unless stated otherwise)

	1995-2008			1995-2000			2000-2008		
	Belgium	Reference zone[1]	Differential[2]	Belgium	Reference zone[1]	Differential[2]	Belgium	Reference zone[1]	Differential[2]
Exports	5.4	6.5	–1.0	7.0	10.6	–3.3	4.4	4.0	0.4
World markets weighted geographically	8.1	8.4	–0.3	11.7	11.9	–0.1	5.8	6.3	–0.4
p.m. Gains (+) / losses (–) in market shares	*–2.5*	*–1.7*	*–0.7*	*–4.3*	*–1.2*	*–3.0*	*–1.3*	*–2.1*	*0.8*
World markets weighted by product	8.2	8.4	–0.2	11.7	12.8	–1.0	6.1	5.7	0.4
p.m. Gains (+) / losses (–) in market shares	*–2.6*	*–1.7*	*–0.9*	*–4.2*	*–1.9*	*–2.3*	*–1.6*	*–1.6*	*0.0*

Sources: EC, NAI, UNCTAD.

(1) Non-weighted average of 12 countries: FR, DE, NL, UK, IT, ES, SE, AT, IE, PT, EL, FI.

(2) Ratio between the growth for Belgium and that for the reference zone, in percent.

2000s, during an economic upturn at the global level. Amongst the branches that are relatively important in Belgium, the iron and steel industry and plastic products in primary forms in particular benefited from high prices and volumes. This explains why gains in market shares were observed when the specialisation by type of product was not taken into account in the calculation of relevant markets and, as a consequence, why the structure by product is favourable over this period. Furthermore, the losses in market shares recorded by Belgium from 2000 to 2008 are smaller than during the second half of the 1990s. Road vehicles, pharmaceutical products and organic chemical products partly explain this more favourable situation. Their contribution to the losses in market shares is quantified at 0.1 percentage points from 2000 to 2008 as against more than 1 point from 1995 to 2000. However, with regard to road vehicles, this improvement originates from the result for a single year (2001), and does not reflect a fundamental movement. In contrast, performance clearly deteriorated during the last few years under consideration.

The structure effects need to be examined with care since they can be influenced by particular circumstances associated notably with the cycle of business activity. It can be assumed in this regard that the favourable situation observed between 2000 and 2008 will not be repeated with the same intensity since the emerging countries are in the process of building up their own production capacity for the products referred to.

Looked at over the whole of the period from 1995 to 2008, the situations of the various countries are different with respect to the structure effects:

- the United Kingdom, Ireland, Sweden and the Netherlands benefit from a relatively favourable product effect. The structure of their exports in relation to that of the reference zone is directed at products that enjoy stronger world demand. On the other hand, the demand in markets to which they export is less dynamic than that of the average of the outlets for the reference zone;
- as far as Greece, Finland, Germany and Italy are concerned, their exports display a better orientation geographically but concern products for which global demand is not very robust in relative terms;
- Austria benefits from the two favourable effects;
- France, Spain and Portugal, like Belgium, do not seem to benefit either from a product effect or from a positive location effect.

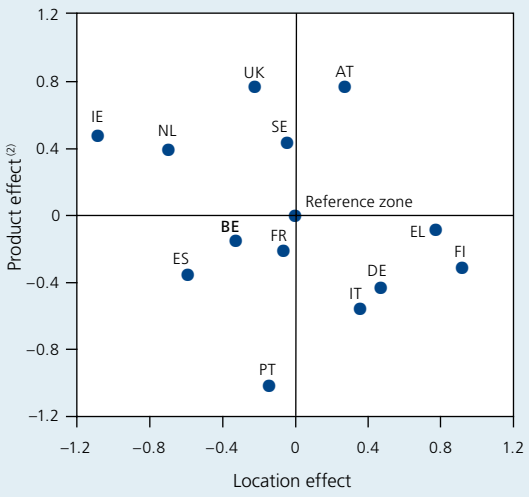
Box 2 provides a more detailed analysis of these product and location effects for Belgium and the reference countries. Even though this analysis makes it possible to bring out some solid conclusions, notably with regard to the low weighting of high-technology equipment in Belgium's exports and the high weighting of products for which demand is not very dynamic, it is wise to be wary of presenting an overly simplistic view of the results of the analysis by product, for several reasons.

Firstly, as already pointed out, the progressive or regressive nature of the demand for a product may change over time. Moreover, even if the categories taken into account in this analysis are relatively finely drawn – with a breakdown into three hundred types of product – they may be relatively heterogeneous, notably in terms of quality or technical specifications. Lastly, some products may represent markets that are important in quantitative respects without the demand relating to them being very dynamic.

To sum up, the orientation and specialisation of exports result from structural development, associated with the factors of location, economic structure and the build-up of specific centres of activity. Modifying these can therefore only be progressive, but it is a good idea to promote this in order to improve the exploitation of Belgium's comparative advantages.

CHART 4 PRODUCT AND LOCATION EFFECTS (1) OF MARKETS FOR BELGIUM AND THE COUNTRIES IN THE REFERENCE ZONE

(annual averages in percent, 1995-2008)



Source: Calculations by NBB.

(1) Difference between the growth in country i's markets and that of the reference zone.

(2) Calculated on the basis of markets weighted by product at the level of detail of the SITC 3-digit classification.

Box 2 – Product and location effects; explanation of the divergence in dynamism

Since markets are a weighted measure of the import demand directed at the country, it is possible to identify the partner(s) or product(s) that explain the divergence in dynamism between Belgium and the countries in the reference zone.

LOCATION EFFECT

Even in the era of globalisation, geographical proximity remains an important factor in the organisation of commercial trade, owing to transport costs and the existence of cultural or institutional ties. In general, the exports of Belgium and the reference countries are mostly directed towards the European countries. However, there are differences in their geographical structure which are at the root of the location effect.

TABLE 1 GROWTH IN WORLD IMPORTS AND GEOGRAPHICAL STRUCTURE OF EXPORTS

(1995-2008, markets in goods, in value)

	p.m. Development of imports[1]	FI	EL	DE	IT	AT	**Zone**[2]	SE	FR	PT	UK	**BE**	ES	NL	IE
Location effect[3]		0.9	0.8	0.5	0.4	0.3	**0.0**	–0.0	–0.1	–0.1	–0.2	**–0.3**	–0.6	–0.7	–1.1
							(destination of exports, as a percentage of the total)								
Europe	*8.7*	72.6	79.4	72.9	69.9	85.2	**75.6**	71.9	71.1	83.3	63.7	**80.3**	81.2	85.1	70.8
of which:															
EU15	*7.9*	52.7	48.8	55.8	54.7	60.6	**61.6**	55.0	62.4	79.3	56.8	**74.1**	69.7	77.6	65.3
12 new members of the EU	*15.8*	6.9	16.0	8.8	6.9	14.5	**6.0**	4.4	3.3	1.5	2.6	**3.0**	3.1	3.3	1.3
America	*8.6*	10.4	6.8	12.2	12.6	6.5	**11.1**	12.9	12.2	7.5	17.3	**6.4**	10.6	5.8	17.8
of which:															
United States	*8.3*	7.4	4.8	9.0	8.2	4.7	**7.9**	9.4	7.3	5.2	14.0	**4.7**	4.3	4.1	16.1
Asia	*9.6*	14.2	11.9	12.8	13.5	7.3	**10.6**	12.1	11.8	4.1	14.9	**10.1**	7.5	7.2	9.4
of which:															
Middle East	*13.1*	3.9	8.1	3.5	5.5	2.2	**3.7**	3.0	3.9	1.4	5.0	**3.6**	3.5	2.4	1.6
China	*19.0*	2.7	0.4	2.1	1.3	1.1	**1.2**	1.9	1.2	0.3	1.0	**0.9**	0.8	0.6	0.6
Japan	*6.5*	1.9	0.6	1.9	1.7	1.2	**1.5**	2.3	1.6	0.5	2.0	**1.0**	0.9	0.9	2.8
Africa	*10.8*	1.9	3.6	1.9	3.8	1.1	**3.0**	1.9	6.2	5.0	2.8	**2.5**	4.6	1.7	1.2
Oceania	*9.4*	1.1	0.6	0.7	0.9	0.6	**0.8**	1.3	0.6	0.4	1.5	**0.5**	0.5	0.4	0.9
Total		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Sources: EC, NAI, UNCTAD.
(1) Average annual change in percent, imports in US dollars.
(2) Reference zone: non-weighted average for the twelve countries shown (excluding Belgium).
(3) Difference between the growth in the relevant markets for the country in question and the average growth in the relevant markets for the reference zone.

With regard to Belgium, over the whole of the period 1995-2008, the unfavourable geographical orientation recorded in relation to the reference zone results from the larger share of Europe in exports, and more particularly that of the EU15, and from an under-representation of the countries with stronger growth, such as the new members of the EU, China and the countries of the Middle East. In particular, the EU15 represented nearly three-quarters of Belgium's exports on average but imports only expanded there by 7.3 p.c. as against an increase of 9.1 p.c. per year for world trade.

The countries which have a positive location effect, namely Germany, Italy, Austria, Greece and Finland, export more to the new members of the European Union, including mainly the countries of Eastern Europe where the demand for imports was twice as robust as in the old members of the EU15. These countries are also more in contact with the dynamic countries of Asia.

With regard to the countries recording a negative location effect, there are various situations:
- even though Sweden exports more than average to the countries of Asia, the weighting of the old industrialised countries such as the United States and Japan contributed to the slightly negative location effect;
- the Netherlands, Portugal and Spain, like Belgium, send more than 70 p.c. of their exports to the countries of the EU15, each of which is relatively more closely in contact with its own neighbours;
- for its part, France is relatively more oriented towards the Mediterranean countries and the countries of Africa, such as Algeria, Morocco and Ivory Coast, where growth in demand for imports has been lower than the growth in world demand;
- the United Kingdom and Ireland have an export structure more oriented towards the Anglo-Saxon countries, where the demand for imports of goods has more often than not been lower than global demand.

PRODUCT EFFECT

In the same way, it is possible to identify, within the structure of the exports of Belgium and the reference countries, the product(s) which weighed on the development of the markets throughout the period under review.

The growth in imports by product in relation to that of total imports makes it possible to calculate the progressive or regressive nature of a product, that is to say to determine whether demand at the world level for the products under consideration has grown more or less rapidly than total world imports. Too great a specialisation in progressive products, or an under-specialisation in regressive products, explains the presence of a favourable product effect and vice versa.

Belgium's over-specialisation in regressive products such as road vehicles, chemical products, diamonds and other commodities[1] and the under-specialisation in miscellaneous equipment[2] and telecommunications equipment largely explains the unfavourable product effect. These effects were partially offset by the over-specialisation in metal products, which saw a greater average annual growth than all products put together between 1995 and 2008, and also by the under-specialisation in miscellaneous manufactured articles[3], which were rated as regressive over the same period.

The countries where the product effect is favourable notably benefited from a more marked specialisation in several progressive products:
- Ireland, and to a lesser extent Austria, benefited from their over-specialisation in miscellaneous equipment and medicinal products, as well as in metal products with specific regard to Austria;

(1) Category bringing together rubber and plastic.
(2) Category bringing together notably industrial equipment and machines for processing information.
(3) Category bringing together notably weapons, munitions, printed matter, jewellery and musical instruments.

TABLE 2 GROWTH IN WORLD IMPORTS AND STRUCTURE OF EXPORTS BY PRODUCT CATEGORY [1]

(1995-2008, markets in goods, in value)

	Degree of progressiveness in global imports [2]	UK	AT	IE	SE	NL	Zone [3]	EL	BE	FR	FI	ES	DE	IT	PT
Product effect [4]		0.8	0.8	0.5	0.4	0.4	**0.0**	–0.1	**–0.2**	–0.2	–0.3	–0.4	–0.4	–0.6	–1.0
							(percentages of exports by product)								
Selection of progressive products															
Energy products	7.5	5.6	1.9	0.3	2.7	5.6	**4.7**	16.1	**5.8**	2.6	2.7	6.6	1.1	3.3	8.0
Medicinal products	5.0	5.5	4.7	10.4	5.1	3.9	**3.9**	1.1	**3.8**	5.0	1.1	2.8	3.4	2.6	1.8
Metal products	1.5	4.5	5.7	0.6	6.2	3.7	**4.5**	9.8	**8.0**	3.3	4.7	5.2	4.5	4.1	1.9
Miscellaneous equipment	1.5	11.8	5.5	17.5	5.5	12.0	**7.5**	1.8	**3.6**	7.7	7.8	3.5	6.6	5.6	4.1
Tele-communications	1.1	4.4	3.3	2.7	14.8	3.0	**4.9**	2.2	**2.1**	3.4	17.3	2.1	2.7	1.3	2.0
Selection of regressive products															
Road vehicles	–1.0	7.5	8.1	0.1	12.3	3.8	**6.8**	1.2	**13.7**	7.0	3.7	11.6	17.2	5.3	4.2
Miscellaneous manufactured articles	–1.3	6.6	4.9	6.1	3.3	3.1	**4.0**	3.8	**3.0**	3.6	2.0	3.7	3.1	5.4	2.3
Diamonds	–2.0	3.3	3.0	0.6	0.8	0.5	**2.3**	3.9	**7.6**	1.5	0.9	4.5	1.3	3.4	4.3
Chemical products	–2.2	3.6	1.8	22.7	1.0	4.4	**3.9**	0.7	**5.7**	3.1	1.0	2.7	3.0	1.7	1.2
Food	–3.8	4.7	4.3	7.3	2.6	12.4	**7.0**	17.3	**9.6**	8.0	2.6	9.7	2.6	4.4	8.1
Textiles	–4.2	4.4	3.6	0.5	2.3	3.2	**4.7**	2.5	**5.2**	16.4	5.6	6.7	3.3	3.7	3.6
Other commodities	–6.8	1.0	1.0	0.2	1.3	2.8	**1.3**	1.6	**5.4**	1.4	0.9	1.7	1.7	1.2	0.9

Sources: EC, NAI, UNCTAD.

(1) Details of the categories of products are shown in Annex 1.

(2) Difference between the growth in imports for the product in question and total growth in world imports.

(3) Reference zone: non-weighted average of the twelve countries shown (excluding Belgium).

(4) Difference between the growth in markets weighted by product for the country in question and the average growth in markets weighted by product for the reference zone.

– the United Kingdom and Sweden also benefited from an over-specialisation in medicinal products and metal products, as well as in telecommunications with regard to Sweden;
– the favourable product effect of the Netherlands originates partly from an over-specialisation in miscellaneous equipment.

These specialisations largely offset those oriented towards regressive products as in the case of Ireland, where the share of chemical products is very large, or Sweden whose specialisation in road vehicles is comparable to that of Belgium.

In contrast, the countries where the product effect is negative underwent an over-specialisation in regressive products and/or an under-specialisation in the progressive products:

– Greece, Portugal, France and Spain were faced with weaker demand on the market for food products and this was also the case on the textiles market for the latter two countries;
– Germany, like Belgium, suffered from an over-specialisation in road vehicles, which were less in demand, as well as from an under-specialisation in equipment and telecommunications.

3.2 Specialisation according to production factor content

In the context of a macroeconomic examination of export performance, it is interesting to group the products traded according to the nature of the underlying production, according to the production factor intensity. It is in fact the relative availability of the various factors which determines the comparative advantages of economies.

Building on work done by the ECB[1], the distribution of the SITC 3-digit products is carried out on the basis of the branch of activity in which they are produced. A predominant production factor, on the one hand, and one or more products, on the other hand, are associated with each branch of activity. Five groups of products are thus defined, each designated by an abbreviation based on its designation in English:
– LI: products requiring a high level of labour *(Labour Intensive)*, the main examples of which are diamonds (processing of precious stones), paper, textiles and clothing;
– CI: products requiring a high level of capital *(Capital Intensive)*, such as vehicles for transporting people, the accessories for those vehicles and steel;
– DRI: difficult-to-imitate products incorporating a substantial level of research and innovation *(Difficult-to-imitate Research Intensive)*, including electrical equipment;
– ERI: easy-to-imitate products incorporating a substantial level of research and innovation *(Easy-to-imitate Research Intensive)*, such as medicinal products, pharmaceutical products and plastics in primary forms;
– RMI: products derived directly from raw materials *(Raw Materials Intensive)*, comprising energy products, fruit and metals.

In 1995, compared to the reference zone, Belgium was specialised in the export of goods predominantly requiring capital (CI) for their production. This group accounted for a little less than one-third of exports as against one-fifth for the reference zone. Similarly, products incorporating a technology regarded as easy to imitate (ERI) were over-represented in Belgium, making up some 19 p.c. of its exports.

On the other hand, products that are research-intensive and difficult to imitate (DRI) accounted for only 10 p.c. of Belgium's exports as against twice that amount in the reference zone, and three times as much in France and Germany. Conversely, although Belgium's specialisation is comparable to that of the reference zone in the categories associated with raw materials (RMI) and with the factor of labour (LI), the gap in relation to its neighbours is marked.

Overall, in 1995, Belgium's deficit for those products incorporating a substantial level of research and innovation was large in relation to the reference zone but especially so in relation to its main neighbours. On the world markets, facing goods produced at lower cost by the emerging economies and those of the advanced countries incorporating leading-edge technologies, Belgium seemed to undergo some delay in adapting its exporting structure so as to allow it to remain competitive.

Amongst the types of product in which it was specialised, labour-intensive products saw less robust demand than the other. Moreover, it is for these products, although also for capital-intensive products, that competition from the emerging countries was greatest. In particular, the largest divergence was found in losses in market shares for those products where production predominantly requires capital. Losses in market shares reached 2.3 p.c. per year between 1995 and 2008, and as much as 5.4 p.c. per year in the first five years of the period.

In contrast, with regard to the products requiring a substantial level of research and innovation, Belgium recorded gains in market shares over the period. These gains were higher than those found in the reference zone for products that are easy to imitate and slightly lower for products that are difficult to imitate.

As far as the products associated with raw materials are concerned, the losses in market shares, which amount to

(1) Cf. Baumann U. and F. di Mauro (2007).

TABLE 4 DEVELOPMENT OF EXPORTS AND DEMAND IN THE VARIOUS GROUPS

(average annual change in percent, 1995-2008, unless stated otherwise, by value)

	LI[1]	CI[2]	DRI[3]	ERI[4]	RMI[5]	1995-2000 CI[2]
I. Structure of exports (1995, percentages of total exports)						
Belgium	25.5	29.4	10.0	19.0	19.0	
Reference zone	26.4	19.9	19.9	16.9	16.9	
of which:						
Germany	19.0	27.4	30.2	15.5	7.9	
France	17.0	24.1	28.0	15.4	15.5	
Netherlands	15.2	15.5	14.4	24.8	30.1	
II. External demand						
Markets of Belgium[6]	5.2	8.1	8.0	9.5	10.7	11.1
Markets of the reference zone[6]	3.4	8.2	6.1	9.0	10.2	11.2
III. Exports						
Belgium	4.1	5.6	8.1	10.4	9.3	5.7
Reference zone	3.9	7.9	6.7	8.2	7.7	10.7
of which:						
Germany	6.2	7.1	7.1	7.6	8.8	9.0
France	3.7	4.7	3.8	5.0	5.0	8.0
Netherlands	6.5	7.6	8.2	8.7	8.9	7.6
IV. Market shares						
Belgium	–1.1	–2.3	0.0	0.8	–1.3	–5.4
Reference zone	0.5	–0.2	0.5	–0.8	–2.3	0.0
of which:						
Germany	1.8	–0.7	1.3	–1.1	–0.5	–2.6
France	0.1	–3.0	–0.8	–4.1	–3.5	–2.8
Netherlands	3.0	–0.5	1.7	0.4	–2.4	–2.3

Sources: EC, NAI, UNCTAD.
(1) Products where production predominantly requires labour.
(2) Products where production predominantly requires capital.
(3) Difficult-to-imitate products incorporating a substantial level of research and innovation.
(4) Easy-to-imitate products incorporating a substantial level of research and innovation.
(5) Products derived directly from raw materials.
(6) Indicators for foreign outlet markets.

1.3 p.c. per year between 1995 and 2008, were lower than those of the reference zone.

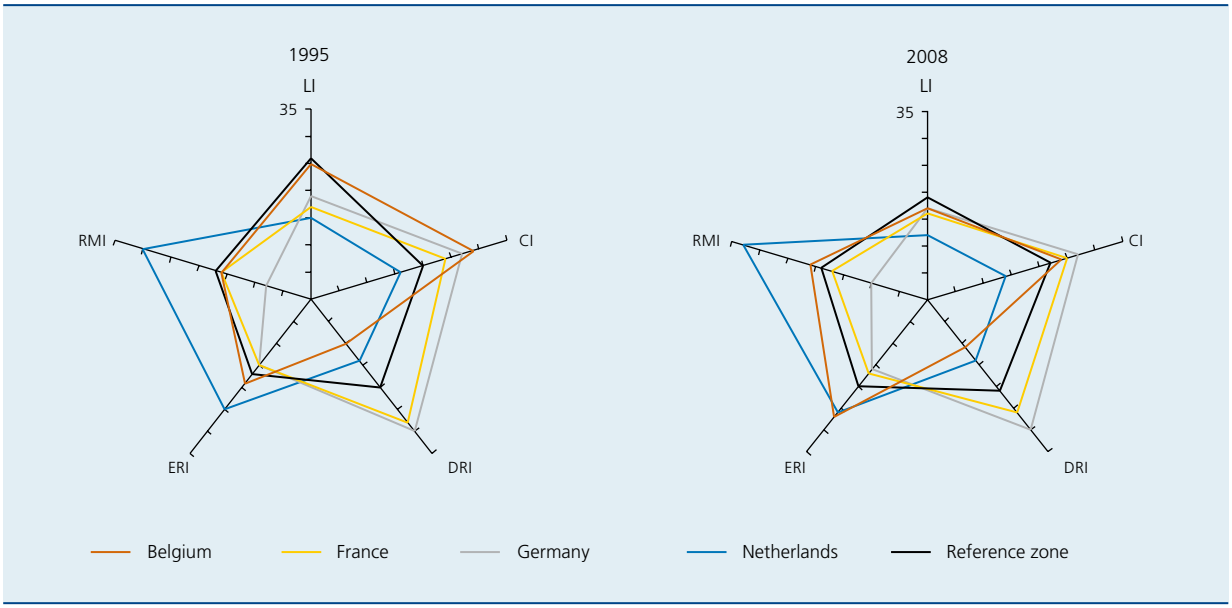
Over the period, the exports of the Netherlands were relatively dynamic in the light of the demand arising and in the light of the exports of the reference zone, for all categories. The performance of Germany, measured by way of the indicator for market shares, was equal to or higher than that of the reference zone. As for French exports, these lacked dynamism in all categories and especially in that of road vehicles and steel; the losses sustained were significant in the light of those of the zone.

3.3 Adjustment of structure

Prior to the marked deterioration of Belgium's export performance between 1995 and 2000, the structure of exports was less oriented towards countries with high growth. This structure was also characterised by an over-representation of products that mostly incorporate

CHART 5 DEVELOPMENT OF EXPORT STRUCTURE ACCORDING TO PRODUCTION FACTOR CONTENT

(percentages of total exports)



Sources : EC, NAI.
LI : products where production predominantly requires labour ;
CI : products where production predominantly requires capital ;
DRI : difficult-to-imitate products incorporating a substantial level of research and innovation ;
ERI : easy-to-imitate products incorporating a substantial level of research and innovation ;
RMI : products derived directly from raw materials.

the factors of capital and labour and an under-representation of those where their design depended strongly on research and innovation. However, this structure was modified between 1995 and 2008, both from the viewpoint of specialisation by product and geographical orientation.

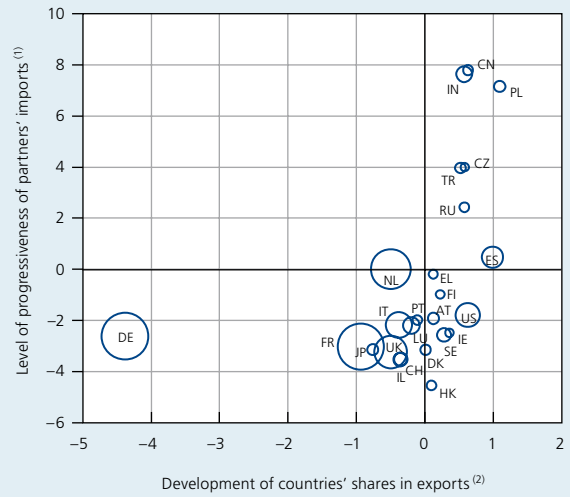
As far as specialisation by product is concerned, the restructuring was reflected more clearly than in the reference zone and even more so than amongst the three main neighbours. Thus, the share of products incorporating a substantial level of research and innovation was markedly strengthened, rising from 29 p.c. to 38 p.c. of total exports. However, this movement is based essentially on products that are easy to imitate – in this instance, pharmaceutical products. The share of products that are difficult to imitate only expanded by 1 percentage points over the whole of the period in fact, which is comparable to the expansion in the reference zone but is still insufficient in view of the relative divergence in specialisation for this type of product. Although Belgium succeeded in following external demand for this type of product, it was not able to strengthen its position. The weighting of the CI and LI groups in turn decreased markedly, by 5.6 points for capital-intensive products and 8.3 points for labour-intensive products respectively, owing both to the relative weakness of the demand for these products and to large losses in market shares. This latter movement seems therefore to have been undergone rather than expressing any willingness to reorient.

As far as the adjustment of geographical structure is concerned, Belgium's exports remain largely oriented towards Europe and in particular the old members of the European Union, the demand from which was less dynamic than other regions, such as Asia or America, over the period. However, the importance of its three main neighbours in Belgium's export structure was reduced in favour of more dynamic countries in Eastern Europe, such as Poland and the Czech Republic. The exports also served more expansive markets such as China, India, Turkey and Russia. In 1995, more than 50 p.c. of exports went to the three main neighbours. Some twelve years later, this share has fallen by nearly 6 percentage points, mainly owing to the fall in the share of exports going to Germany.

This decrease in the weighting of the traditional markets in exports is essentially due to a reorientation of the demand coming from these countries in favour of countries that are more competitive in terms of costs, rather

CHART 6 DEVELOPMENT OF THE GEOGRAPHICAL STRUCTURE OF BELGIUM'S EXPORTS

(1995-2007)



Sources: NAI, UNCTAD.

(1) Difference in percentage points between the average annual growth in the imports of the country in question and the growth in world trade.

(2) Difference in percentage points between the share of each country in Belgium's exports between 2007 and 1995. The size of the countries corresponds to their average importance in Belgium's exports over the period 1995-2007.

than any sluggishness of demand for imports. Thus, the bulk of the fall in the share of Belgium's exports going to Germany (–4.4 percentage points between 1995 and 2007) and France (–0.9 percentage points) originates from two products: road vehicles and textiles. With regard to these products, the growth in the demand for imports coming from these two countries, although it was less robust than that for other products, was markedly higher than that of Belgium's exports to them. More generally, following Belgium's example, the whole group of countries in the EU15 suffered from a re-orientation of the demand for imports coming from Germany and France for this type of product in favour of other suppliers.

As far as the more weighty products are concerned, such as paper, iron and steel, where the cost of transport is larger, the pace of expansion of Belgium's exports is comparable to that of the demand directed by Germany and France towards the domestic markets (1). On the other hand, as far as medicinal products are concerned, which are the prototype of products requiring a great deal of research and innovation, the demand from Germany and France directed at the countries of the EU15 remains robust.

These examples of reallocation of import demand coming from Belgium's traditional partners confirm the theoretical predictions: in the face of the increased competition on standardised products tending to require production technologies rich in labour or equipment, it is mainly production with high value added, which is rich in innovation or research, that will make it possible for the advanced economies to profit from the growth in world trade.

(1) As far as Belgium's performance on the French market is concerned, the impact of the loss of market share resulting from vehicles and textiles was lessened by exports of energy products – and more particularly gas.

TABLE 5 DEVELOPMENT OF EXPORTS OF GOODS FROM BELGIUM TO GERMANY AND FRANCE

(1995-2007, unless stated otherwise, by value)

	Pre-dominant produc-tion factor	Belgium's exports to Germany			Germany's demand for imports		Belgium's exports to France			France's demand for imports	
		Weighting 2007	Develop-ment of weighting	Growth	Growth	*Growth outside EU15*	Weighting 2007	Develop-ment of weighting	Growth	Growth	*Growth outside EU15*
Energy products	RMI	0.9	0.3	9.0	13.5	*14.3*	1.7	1.3	18.1	14.3	*14.2*
Medicinal products	ERI	0.5	0.2	10.5	15.3	*11.4*	0.4	0.1	7.4	11.4	*10.7*
Iron and steel	CI	1.5	0.1	6.6	7.6	*8.3*	1.9	0.4	8.3	6.7	*7.3*
Road vehicles	CI	2.7	–2.1	1.0	4.9	*10.9*	1.2	–0.8	1.6	6.4	*13.6*
Paper	LI	0.3	–0.1	3.3	3.2	*5.6*	0.4	–0.2	3.0	2.7	*4.6*
Textiles	LI	0.3	–0.7	–3.2	0.2	*2.5*	0.4	–0.5	–1.3	0.3	*3.5*
Total		**16.5**	**–4.4**	**3.9**	**6.5**	***8.1***	**17.1**	**–0.9**	**5.5**	**6.1**	***7.4***

Sources: EC, NAI.

4. Population of exporting firms

Behind the overall figures for foreign trade, it is the firms that decide whether or not to involve themselves in international business. It can be seen of course that even within branches of activity defined in a relatively detailed manner, some firms decide to be active on international markets whilst others remain present solely on the domestic market. A knowledge of the features of the population of exporting firms is therefore useful in order to promote the restructuring of exports.

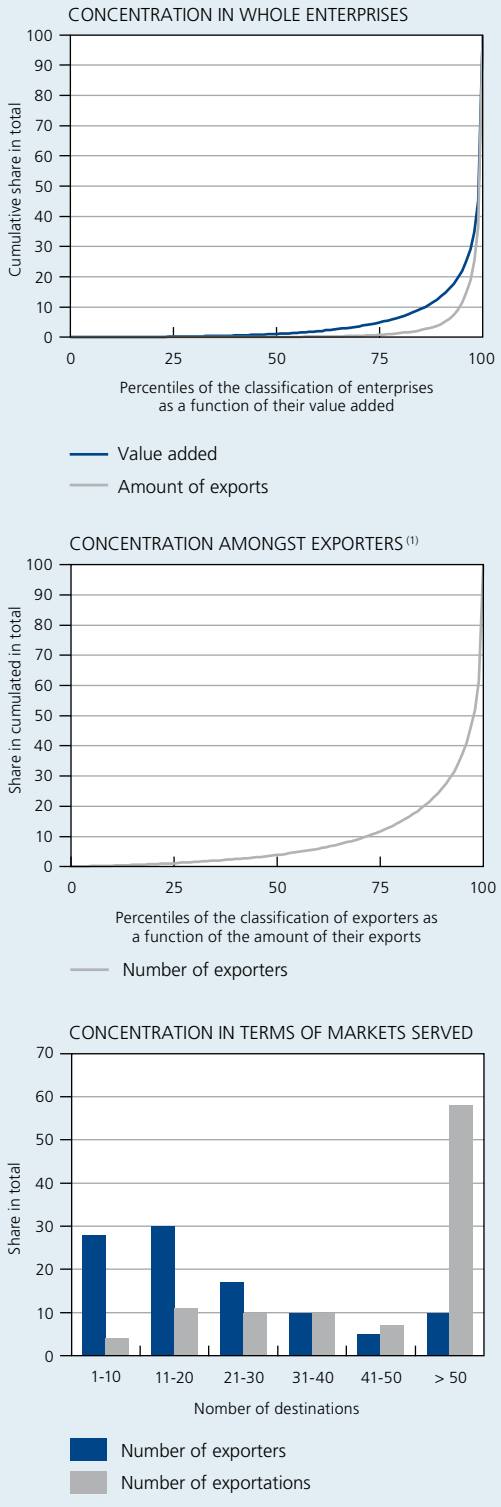
The developments described in the previous section are essentially due to a relatively limited population of firms. Of the 24,072 manufacturing firms filing annual accounts for the year 2007, only 2,762, or 11.5 p.c. of them, actually have any substantial involvement in export markets[1]. However, it should be pointed out that this figure does not take account of sales of goods to commercial intermediaries, who can in turn send them to other countries.

This concentration of exports makes itself felt at three levels. Firstly, it is mostly the large firms which export. The concentration of a large portion of economic activity within a relatively restricted number of enterprises is not limited to foreign trade, of course. It is also reflected in the distribution of value added amongst the industrial firms. As illustrated by one of the Lorenz curves shown in the first panel of Chart 7, those manufacturing enterprises situated in the upper decile of the classification drawn up according to their value added concentrate 86 p.c. of industrial value added amongst themselves alone. This phenomenon is all the more pronounced with regard to the volume of exports, which is almost entirely concentrated in the upper decile. Furthermore, amongst the exporters, a limited number of firms accounts for the largest portion of the amounts exported. Those appearing in the upper decile of the classification according to the amount of exports actually account for nearly three-quarters of the total. Lastly, the majority of exporting enterprises are only active on a relatively limited number of foreign markets. Thus, 58 p.c. of these, representing 15 p.c.

(1) Firms having a "substantial involvement in export markets" here means those firms whose total value in exports, expressed in 2006 prices, is higher than one million euro. The choice of this definition is associated with the changes that have taken place in the organisation of the Intrastat survey. In the context of this survey relating to intra-Community trade in goods, firms are required to report their exports to the other countries of the European Union once the total amount of these exports exceeds a certain threshold. In 2006, this threshold rose from 250,000 euro to one million euro, an aspect which considerably restricted the population of exporters taken into account, by excluding mainly the occasional small exporters, whilst the coverage of the amount of exports was only marginally affected. Therefore, in order to ensure the comparability over time of the microeconomic data used in the context of this article, a firm was regarded as an exporter if and only if its total exports were equal to or higher than one million euro in 2006 prices. The threshold was adjusted on the basis of the unit value index for exports, as published by the NAI, in order to neutralise the effect that the development of prices could be cast on the estimated changes in the number of exporters.

CHART 7 CONCENTRATION OF EXPORTS AMONGST MANUFACTURING FIRMS

(data for 2007; shares in percent)



Source: NBB.

(1) A firm is regarded as an exporter when its total value in exports, expressed in 2006 prices, is equal or higher than one million euro. In 2007, 11.5 p.c. of manufacturing firms fulfilled this criterion.

of the total amount of exports, export to less than twenty destinations. At the other end of the scale, firms of larger size can be found which export to many more markets. However, their number is much smaller: only 10 p.c. of exporters serve more than fifty different countries. Since they account for around 58 p.c. of total industrial exports, they make up the "hard core" of exporting enterprises and the major part of the developments in Belgium's foreign trade flows is therefore attributable to them.

In theory, this phenomenon of concentration of exports can be explained by the heterogeneous nature of the population of enterprises and by the existence of large entry costs on foreign markets. These costs take on different forms; for example, they may follow from the adaptation of products to the preferences and standards prevailing in the foreign countries or expenditure associated with the advertising or research of commercial partners. Designated by the term *sunk costs*, because they are only incurred at the time of entry into a market and are not recoverable, the result of these costs is that it is mainly the most highly performing firms which export because they are the ones that have the resources needed to meet them.

The fact that it is necessary to reach a certain level of performance in order to enter export markets is reflected in the characteristics of the firms which attain it. As Table 6 shows, the exporting firms are distinct in several respects from those that are active solely at the local level. For an equal number of employees, they use capital more intensively and produce more value added. This higher performance is similarly reflected in the overall productivity of the factors estimated according to the method of Levinsohn and Petrin (2003). This extra productivity is moreover passed on in the remuneration paid to employees. The differences between exporters and enterprises which only direct their activities at the local market are not specific to Belgium. It is a stylised fact which has already been brought out by way of microeconomic data from several other countries[1].

Furthermore, Table 6 draws a distinction between continuing exporters (i.e. those exporters present on the external markets during two consecutive years), new exporters and firms which, at a given time, exit from foreign markets. The indicators belong to the new exporters confirm the need for a firm to have a sufficient level of productivity before it is able to operate on foreign markets. In most cases, this level is not achieved at the creation of the firm, but after several years of building it up; the median age of the new exporters in 2007 is fifteen years. In other words, entry into export markets requires a certain period of preparation.

The data relating to exiting exporters tend to indicate that firms also need to be sufficiently highly performing in order to remain active at the international level: the firms which withdraw from external markets seem to suffer from a handicap both in relation to firms which manage to enter them and in relation to continuing exporters.

(1) In this regard, see notably Mayer and Ottaviano (2007) and The International Study Group on Exports and Productivity (2008).

TABLE 6 CHARACTERISTICS OF EXPORTERS

(averages over the period 2000-2007, unless stated otherwise)

	All exporters	Continuing exporters	New exporters	Exiting exporters
Differences in percent in relation to non-exporting firms of the same size[1]:				
value added	+48	+50	+43	+24
capital intensity	+57	+58	+59	+19
total factor productivity	+7	+8	+4	n.s.[2]
labour costs per worker	+12	+13	+12	+19
Percentage of foreign enterprises in 2007	18	22	9.4	0
Median age in 2007 (years)	22	26	15	24

Source: NBB.

(1) Obtained on the basis of least square regressions over the whole period 2000-2007, these indicators express the differences in percent in relation to purely local firms employing an identical number of staff. The regressions carried out to produce them also include, amongst their explanatory variables, the employment level of each firm and a series of binary variables intended to take account of effects intrinsic to each year and to the various industries (defined on the basis of the NACE 4-digit code).

(2) Non-significant effect.

Their level of productivity, in particular, is not significantly different from that of non-exporting firms on average.

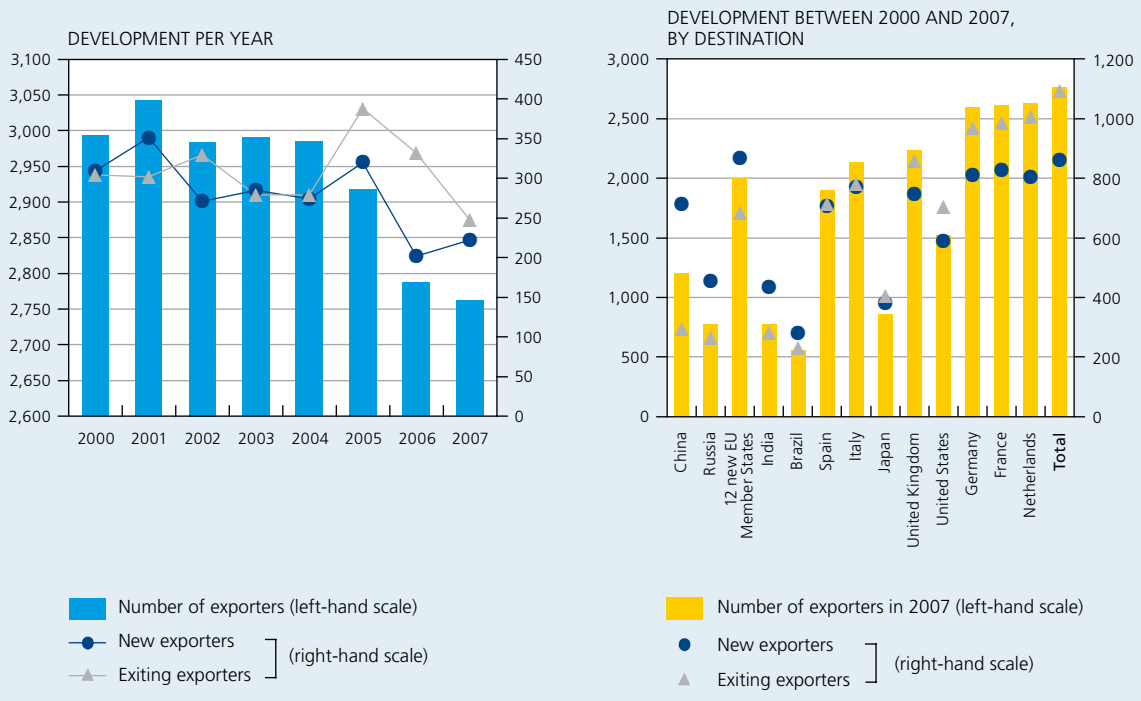
Moreover, firms belonging to a foreign group seem to benefit from an easier access to foreign markets, an aspect which may be explained by the fact that they are generally more highly performing and have a better knowledge of the external outlets. A relatively large proportion of exporting firms is in fact found to be held by foreign shareholders, whilst firms which withdrew from external markets in 2007 are held entirely by Belgian shareholders.

The movements of firms into and out of export markets may constitute one of the elements that explain the relative sluggishness in export growth observed during the last few years. Indeed, the development of exports has been negatively affected by the fact that exits from foreign markets have been more numerous than entries. This has led to a decline in the number of exporters in industry during the recent period, the number falling from 2,993 in 2000 to 2,762 in 2007. However, it is worth noting that the majority of firms which withdraw from export markets still remain active on the domestic market during the subsequent years.

This development relates to all foreign markets. However, it masks important differences. It especially reflects changes in the number of firms exporting to other industrialised countries, in particular neighbouring countries. On the other hand, an increase can be observed in the number of firms exporting to emerging markets such as Brazil, Russia, India and China (referred to below as the "BRIC" economies) or indeed the last twelve countries to have joined the European Union. The Chinese market was the one which saw the largest number of new entries of Belgian exporters, in net terms.

In general, the microeconomic data thus bring out a more mixed picture than that appearing by way of the aggregate data. The indicators constructed by means of these data especially bring out the fact that some firms are better fit than others to extend their activities beyond Belgium's frontiers. It has already been pointed out that the firms which manage to break through to external markets are often more productive than those which fail to achieve a lasting position in this regard, but of course other factors may also influence the likelihood of success on foreign markets. One of these is surely the innovative nature of the products offered by the exporters, as the data shown in Table 7 suggest. This

CHART 8 DEVELOPMENT OF THE NUMBER OF EXPORTERS



Source : NBB.

TABLE 7 TYPES OF GOODS EXPORTED TO THE EU15 AND TO THE BRIC ECONOMIES
(data for 2007, unless stated otherwise)

	Firms exporting to the EU15			Firms exporting to the BRIC economies		
	Continuing exporters	New exporters	Exiting exporters[1]	Continuing exporters	New exporters	Exiting exporters[1]
Percentage of firms mainly exporting goods which are:						
labour-intensive (LI)	42.0	38.0	49.9	35.8	31.5	43.3
capital-intensive (CI)	13.1	12.4	9.3	13.4	14.3	6.5
difficult-to-imitate research-intensive (DRI)	13.6	15.6	11.7	19.3	23.2	18.6
easy-to-imitate research-intensive (ERI)	11.7	11.9	10.2	14.8	16.4	11.7
raw-materials-intensive (RMI)	19.6	22.1	18.8	16.8	14.5	19.9
p.m. Number of firms	*1,884*	*849*	*1,045*	*834*	*758*	*506*

Source: BNB.
(1) The proportions included in this column correspond to the situation in 2000.
Note: Exporters regarded here as continuing are those firms which exported in 2000 and 2007. New exporters are those which did not export in 2000 but did in 2007, whilst exiting exporters are those which exported in 2000 but did not in 2007.

contains a breakdown of the population of exporting firms, based on the same grouping by product as that used in the previous section, according to the factors which are mainly used to produce the goods which they export. A distinction is once again applied in this regard between new exporters, exiting exporters and continuing exporters.

In the first place, the differences between these three groups seem to be relatively tenuous. Each of them in fact comprises both firms exporting research-intensive products and firms specialising in the categories of goods where production relies more widely on physical capital or labour. The enterprises mainly exporting innovative products are nevertheless better represented in the group of new exporters, in particular amongst those making their entry into emerging markets. In fact, 39.6 p.c. of these firms export research-intensive goods especially to these markets, whether they are easy to imitate or not, whilst this proportion amounts to 34 p.c. for continuing exporters and 30.3 p.c. in the case of exiting exporters. Conversely, the latter appear more frequently specialised in more labour-intensive products.

Overall, the microeconomic data therefore show that the innovative nature of the products offered by firms contributes to their success on export markets, in particular on emerging markets. This suggests that the reorientation of export activities towards these countries is promoted by a greater specialisation in the production of non-standard goods.

5. Innovation and exports

Exports of products incorporating research and innovation constituted a factor supporting Belgium's overall exports over the period 1995-2008. Maintaining, or improving, the country's position in the world economy certainly means greater specialisation in these products, and in particular in those which are difficult to imitate, and for which Belgium is lagging behind the reference countries. It is useful to see if the Belgian firms show evidence of sufficient innovation in this regard. In the following, innovation is approached from the viewpoint of its importance and its distribution amongst the firms, as well as tangible results flowing from it in terms of marketing of new goods and services on a market-wide scale and of presence on export markets.

The innovation behaviour of firms can be approached through the Community Innovation Survey (CIS). To be implemented every two years since 2004 at the behest of the EC, this survey questions a representative sample of firms – employing at least ten workers – in the European countries about their innovation activities and the different facets of this process (sources, cooperation, effects, obstacles, etc.). An advantage of surveys of this type, being qualitative in nature, is that they draw their information from the source and allow better identification of the behaviour of SMEs with respect to innovation. The non-compulsory nature of the replies and their inherent subjectivity nevertheless require the results to be treated with caution, in particular the classification of countries.

The general picture emerging from these surveys is that the population of firms which undertake innovation activities is relatively wide. Thus, according to the latest available survey relating to the period 2004-2006, 52 p.c. of Belgian firms are considered to be innovative, in the sense that they claim to have introduced a product or process that is new or significantly improved for themselves during the three years preceding the survey. As far as innovation in the whole sector is concerned, Belgium thus occupies second position out of the 29 European countries considered, surpassed only by Germany, which for its part posts a substantially higher rate of 63 p.c. On the other hand, the proportion of innovative firms is only 36 p.c. in the Netherlands. In France, where the survey's scope was limited to industry, the proportion of innovative firms is 59 p.c., which is a figure comparable to that of Belgian industry.

Innovative behaviour is positively correlated with firm sizes: in Belgium, 81 p.c. of firms employing more than 250 workers undertake innovation activities, whilst the proportion is 62 p.c. for medium-sized firms (from 50 to 249 workers) and 49 p.c. for the smallest (less than 49 workers). Compared to the neighbouring countries (with the exception of Germany), Belgian SMEs have integrated innovation into their mode of operation on a wider scale: more of them claim to be innovative, in particular by way of introducing new products or processes, but also by way of new methods of marketing or organisation. The manufacturing sector is more active as regards innovation (60 p.c.) than the services sector (46 p.c.).

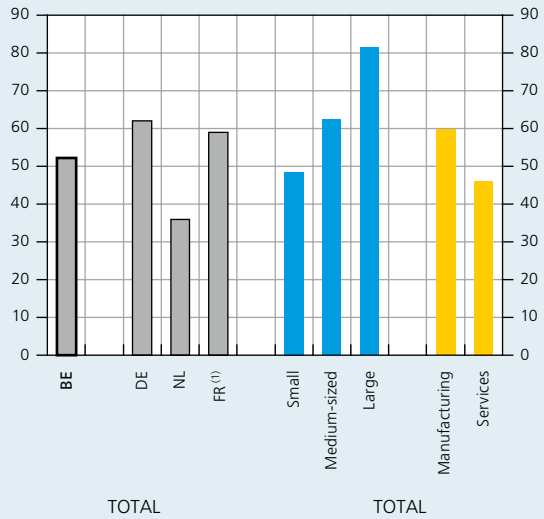
Innovation is a key factor in deployment on external markets. The CIS survey makes it possible to highlight the proportion of firms serving a given geographical market according to whether or not they have carried out innovation activities.

It can be seen firstly that the proportion of firms operating on a market decreases with its distance, except for the innovative industries of manufacturing industry which are more likely to have a pan-European dimension than a purely national one. It is also the case of medium-sized and large firms which are more active on European markets than only on the national market. Whether it is innovative or not, the larger a firm is, the more it will tend to export. Innovative firms always have a proportionally greater presence on distant markets than their non-innovative counterparts. The advantage of innovation in terms of presence on markets other than local or regional ones is more important in manufacturing industry than in services. With regard to manufacturing industry, innovation is crucial in order to penetrate the most distant markets. The advantage of innovation is proportionally more important for large firms and for medium-sized firms which are looking to export to non-European markets.

Innovation should ultimately culminate in bringing innovative goods and services onto the market, in the sense that they incorporate an element of novelty. Innovation is classed as radical when it is at the origin of a good or service that is new not only for the firm, but also for the market as a whole. The rather high proportion of innovative firms in Belgium does not give rise to equally favourable performance in terms of radical innovation. Thus, still on the basis of the CIS survey, only 6 p.c. of the turnover of Belgian firms in manufacturing industry would be derived from the marketing of radically new goods, whereas the percentage is 9, 12, and even 14 p.c. respectively in the Netherlands, France and Germany. On the one hand, this could reflect the behaviour of Belgian firms in the area of innovation: they would be "followers" more than "leaders", both in terms of the products and the markets. The previous CIS survey relating to the period 2002-2004 indicated that those Belgian firms undertaking innovation activities put the emphasis rather more on improving the quality of the products and services offered, whereas in the neighbouring countries, expanding ranges and conquering market shares play a relatively greater role. Such a strategy on the part of Belgian firms is compatible with their intermediate place in the international

CHART 9 DEGREE OF INNOVATION BY FIRMS IN BELGIUM

(percentages of firms claiming to have undertaken innovation activities in each category, 2004-2006)



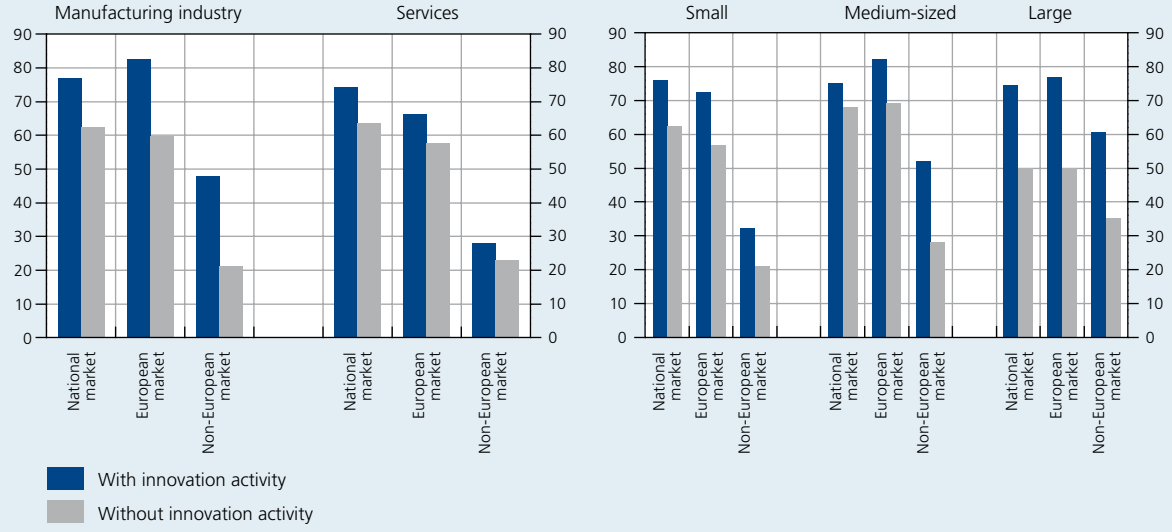
Source: EC (CIS 2006 survey).

(1) Exclusively manufacturing industry.

(2) Small firms employ less than 49 workers, medium-sized firms employ 50 to 249 workers and large firms employ 250 workers or more.

CHART 10 IMPACT OF INNOVATION ON THE INTERNATIONALISATION OF FIRMS IN BELGIUM

(firms operating on various markets (1), in percentages of firms claiming to have undertaken innovation activities or not; breakdown by branch of activity and by size of firm (2); 2004-2006)



Source: EC (CIS 2006 survey).

(1) The reference market is the regional or local market; the national level is the level where firms active in a region other than their own operate whilst still remaining within the national framework; the European market comprises the members of the EU, those of EFTA and also the candidate countries for the EU.

(2) Small firms employ less than 49 workers, medium-sized firms employ 50 to 249 workers and large firms employ 250 workers or more.

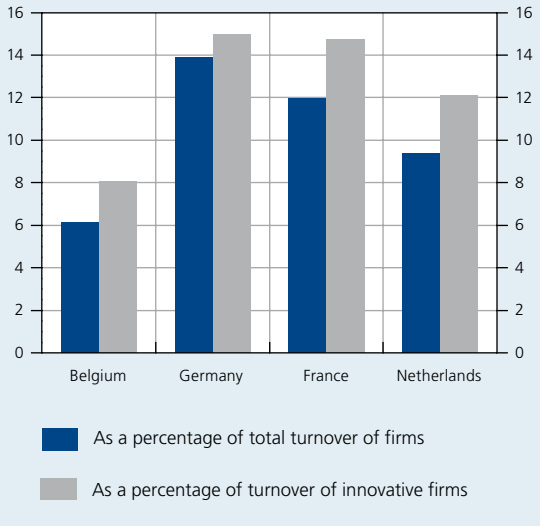
production chain and their wish to maintain it by supplying quality goods and services.

On the other hand, the weakness of radical innovation, in spite of rather high expenditure on innovation in Belgium, could be a sign of the insufficient spread of innovation – and notably of R&D – in the economy. Parallel to the concentration of exports, a concentration of R&D expenditure in large firms can in fact be observed. Thus, during the period 2003-2007, 61 p.c. of the industrial R&D in Belgium was carried out by firms employing more than 250 workers, 23 p.c. by firms employing between 50 and 249 workers and only 16 p.c. by firms employing less than 49 workers. In other respects, the number of firms linked to this expenditure is very limited. Thus, according to the EU Industrial R&D Investment Scoreboard of the EC, which provides an annual listing of the 1,000 firms in the EU that are most active in R&D, a little under forty Belgian firms – the majority of which employ more than 250 workers – alone spent some 2.6 billion euro on R&D in 2007. As a guide, the gross domestic expenditure on R&D by firms in Belgium – comprising Belgian firms and the Belgian subsidiairies of foreign firms – amounted to 3.9 billion euro in 2007.

As in the case of the production process, which is characterised by a growing geographical fragmentation, R&D

CHART 11 RADICAL INNOVATION

(turnover associated with marketing of new products on a market-wide scale, manufacturing industry, 2004-2006)



Source: EC (CIS 2006 survey).

activity is becoming increasingly internationalised, under the influence notably of multinational corporations. This process is particularly evident in Belgium, a country where the economy has long included numerous subsidiaries of foreign companies. Thus, in 2007, around 60 p.c. of the R&D was carried out by firms under foreign control. Foreign funding is dominant – in the sense that it represents more than two-thirds of the total expenditure on R&D by the branch – in chemicals, pharmaceuticals and radio, television and communications equipment and appliances, these being the branches of activity within manufacturing industry that figure amongst the most intensive in R&D.

The concentration of R&D can also be seen at the level of the branch of activity. Firstly, it turns out that R&D remains largely directed towards manufacturing industry, which accounted for 68 p.c. of the expenditure in 2007. Chemicals, with the pharmaceutical industry taking first place within it, accounts for 32 p.c. of the expenditure; then come, in order of importance, manufactures of metals, machines and equipment (12 p.c.); radio, television and communications equipment and appliances (8 p.c.); transport equipment (4 p.c.); and medical, precision, optical and watch-making instruments (2 p.c.). Services collected 30 p.c. of industrial R&D in 2007, which, referred to their weighting in the value added of the economy, represents an intensity of R&D around ten times lower than that of manufacturing industry.

Innovation is therefore a factor that is likely to strengthen the presence of firms on external markets. Moreover, the activities of innovation and exporting exhibit common features, namely that they are strongly concentrated within a limited number of big firms operating largely in the manufacturing industry and as a consequence, insufficiently spread amongst the SMEs and in the services. Belgian firms seem to have difficulty pushing their innovation efforts through to their conclusion, an aspect which culminates notably in insufficient performance in the area of exports with a high technological content. It is therefore on these aspects that economic policies should focus their efforts.

TABLE 8 BREAKDOWN OF FIRMS' INTRAMURAL R&D EXPENDITURE BY BRANCH OF ACTIVITY AND INTENSITY OF R&D IN THE VARIOUS BRANCHES IN BELGIUM

(percentages, 2007)

	Breakdown of firms' R&D expenditure	Intensity of R&D (R&D expenditure / value added)
Manufacturing industry	**68**	**6.2**
Chemical industry	32	15.2
Pharmaceutical products	*25*	–
Chemical products	*7*	–
Metal manufactures, machines and equipment	12	5.6
Radio, television and communications equipment and appliances	8	33.4
Transport equipment	4	5.3
Medical, precision, optical and watch-making instruments	2	19.0
Other manufactures	10	1.8
Services	**30**	**0.6**
Research and development	10	55.9
IT activities and associated activities	5	4.5
Telecommunications	4	2.1
Other services	12	0.2
Other	**2**	**0.4**

Sources: Federal Science Policy, NBB.

Conclusion

The development of exports constitutes an important indicator, along with others, allowing an assessment to be made of how the economy fits into the structural movement of globalisation. The new international fragmentation of the production chain that characterises this movement, as well as the emergence of new economic centres, is giving rise to a proliferation of international trade in which it is appropriate to take part.

Analysis of the period from 1995 to 2008 shows in this regard that Belgium's results remained lower than the average of a wide group of European countries. Some countries, including Germany, the Netherlands and Austria managed to maintain their position in international trade. However, this finding requires qualification. It is true that the rapid build-up of new competitors with an abundant and still inexpensive reserve of labour at their disposal on the one hand, and of wider and wider access to equipment and advanced technology on the other, constitute a major challenge for certain activities that are still relatively important in Belgium. In contrast, the figures also show that those activities that are based on a large content of knowledge and innovation manage to profit from the growth in world demand, notably on the emerging markets. The reallocation of activities within firms and between branches towards those predominantly

incorporating the factors on which the Belgian economy is in a position to differentiate itself – in particular human capital and knowledge – therefore needs to be pursued and deepened.

Even more than the specific categories of product, it is the nature of the production that is decisive. Taking account of the weighting of the factors of proximity and production structure, the traditional markets will continue to be important for Belgium's exports. However, it is a good idea to offer products that are differentiated from those of competitors even on these markets.

However, combining various types of data brings out the fact that regenerating the population of firms active internationally is a difficult matter, due to the strong concentration of exports and innovation activities within large firms. Several conditions need to be met in order to allow a larger number of firms to undertake exporting activities on a profitable basis:

– maintain a reasonable development of production costs – notably labour costs, on which the agents of the Belgian economy have a more direct grip – so as to make it possible for firms to unlock sufficient profitability in order to support their progress;
– encourage wider dissemination effects relating to innovation, between those large firms active within the domain and SMEs. Furthermore, innovation efforts are not giving rise to the marketing of new products on a sufficient scale;
– support the growth of firms and their opening up to the international environment, notably by reducing the fixed costs associated with the tapping of sometimes distant foreign markets, or by promoting contacts with foreign partners both in order to find new outlets and benefit from attractive resources in terms of inputs or technology.

The competitiveness of the economy exceeds the field of investigation examined here in a number of ways. Transactions in goods, which has been the main subject of this article, continue to represent more than 80 p.c. of international trade in goods and services, a proportion which has remained stable over the last few years. However, some categories of service can now be traded equally well at a distance, including those services with a high value-added content. Furthermore, even at the local level, the availability of some services - such as logistical and transport services, financial services and administrative support services, including those provided by the public authorities - is essential in order to organise international trade in goods effectively.

More widely, methods other than trade in goods also enable participation in global economic growth, such as direct foreign investment which makes it possible notably to offer activities that are difficult to transport, especially in the fields of construction and infrastructure (including energy and sustainable development) for which Belgian firms similarly possess trump cards on the international markets.

Moreover, the foundations on which the external competitiveness of the economy should be built are to a large extent the same as those needed to ensure structural and continuing progress of the economy in general terms and to maintain and advance the prosperity of the population.

Annex

Categories	SITC products
Energy products	32 – Coal, coke and briquettes 33 – Petroleum, petroleum products and related materials 34 – Gas, natural and manufactured 35 – Electric current
Medicinal products	54 – Medicinal and pharmaceutical products
Metal products	28 – Metalliferous ores and metal scrap 67 – Iron and steel 68 – Non-ferrous metals
Miscellaneous equipment	714 – Engines and motors, non-electric 718 – Power generating equipment 723 – Civil engineering and contractors' plant and equipment 747 – Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, etc. 752 – Automatic data processing machines and units thereof 771 – Electric power machinery and parts thereof 776 – Electronic lamps, pipes and valves
Telecommunications	76 – Telecommunications
Road vehicles	78 – Road vehicles (including air-cushion vehicles)
Miscellaneous manufactured articles	89 – Miscellaneous manufactured articles
Diamonds	66 – Diamonds
Chemical products	51 – Organic chemicals 52 – Inorganic chemicals
Food	0 – Food and live animals 1 – Beverages and tobacco
Textiles	65 – Textile yarn, fabrics, made-up articles 84 – Articles of apparel and clothing accessories
Other commodities	23 – Crude rubber (including synthetic and reclaimed) 57 – Plastics in primary forms

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