The impact of multilateral liberalisation on European regions: a CGE assessment

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Abstract:

This study proposes a full-fledged, bottom-up CGE model (nicknamed DREAM) intended to analyse the regional impact of trade policies in the EU. The two-tiered approach followed includes first an EU-wide assessment using the MIRAGE model, and taking exhaustively account of preferential agreements. The information thus produced about the impact on international trade is then used as an input for an original CGE model built on purpose, where each of the 119 NUTS-1 EU regions is considered separately. This approach is used to simulate the impact of several far-reaching liberalisation scenarios, and to highlight the sources of differences in regional impacts.

JEL Classification: R13, D58, F13.

Key-words: Computable General Equilibrium (CGE) model; Regional Economics; Trade policy.

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1 Motivation

Trade liberalisation often incurs significant distributional impacts. This is true across persons, and it has been widely documented. But this can also be the case across regions, due in particular to their differences in factor endowments, in sector specialisation and in trade relationships. This problem is critical for the EU. Trade policy is a Community competence, but the EU's economy is so large and so diverse that few agreements can pretend not to hurt one region or the other, and sometimes a number of them. This does not mean that the impact is not positive for the EU as a whole, but that the gains are not evenly distributed geographically. This raises various types of concerns. Politically, it means that a globally beneficial agreement may meet important opposition, in places where it is seen as a threat for economic activity. From an equity point of view, it raises the question of whether the contrasted impact across regions is acceptable. In terms of efficiency, large regional disparities in the impact may involve higher adjustment costs, either due to local unemployment, to forced labour mobility, to local factor price increases, or to negative externalities.

This calls for an assessment of the possible impact of trade policies at the regional level, which has not been undertaken so far for the EU. At the regional level, policy makers might need a tailor-made assessment of the impact of trade policies, in order to evaluate more accurately to possible problems raised. At the EU-wide level, this raises the question of how trade policies interfere with the objective of regional and cohesion policies. In both cases, an accurate assessment is useful at least to make adapted policy choices, and possibly to define adapted accompanying policies. In the United States, for instance, such policies are common since the *Trade Adjustment Assistance Program* was launched during the Kennedy Round in 1962. In addition, asking such a question is natural in the EU, given that cohesion policy is an important Community competence.

An additional case for a regional analysis of the impact of trade policies is methodological. A well-specified, regional analysis should deliver a more accurate assessment of the induced global impact. Aggregate, EU-wide assessments indeed fail to take into account the heterogeneity and segmentation of the European economy. And this may result in a misstatement of the nature of supply and demand responses.

This study is by no way normative, in the sense that it does not intend to define such adapted policy responses. Instead, it aims at proposing a tool to provide with an accurate assessment of the regional impact of trade policies in the EU, and at applying it to a few liberalisation scenarios. This task is rendered especially complex in the case of the EU, mainly for two reasons. Firstly, the EU trade policy includes a lot of preferential agreements, that are to be thoroughly taken into account if one is to give a proper evaluation of the possible impact of any liberalisation. Secondly, the EU has a vast economy, gathering very different regions, with different degrees of integration between each other. Just sticking to the NUTS-1 classification, the EU-15 was divided in 78 regions, and this number rose to 119 in the enlarged EU. Although economic interactions are admittedly very important across these regions, income per capita varies in a proportion from one to 7 in the fifteen-member EU, and from one to more than 20 in the enlarged Union.

Various types of models have been developed in order to cope with regional issues. For the sake of simplicity, many of them basically split the assessed, economy-wide impact across regions, according to a given criterion. This is hardly satisfactory in the case of trade policy changes, which frequently involve significant and contrasted changes in prices and incomes. Agents and markets adjust to these changes, in a way that is difficult to assess based on accountancy relationships. Admittedly, computable general equilibrium (CGE) modelling is the best tool to assess the nature of these adjustments, and of the resulting impacts. Their inconvenient, however, is to be very demanding both in terms of data and of computational resources. This explains why such models have rarely been applied so far to large-scale regional analysis and in particular why they have not been used for a joint analysis of European regions.

In order to give valuable insights about the regional impact of trade policies in the EU, this work aims at side-stepping these hurdles. This is done through a two-tier approach. An EU-wide analysis is first carried out using MIRAGE, a CGE model devoted to trade policy analysis, and based on a very detailed measure of protection, taking exhaustively into account preferential agreements. In a second stage, an original CGE model nicknamed DREAM (for Deep Regional Economic Analysis Model) has been developed in order to assess the impact induced on each NUTS-1 European region. DREAM is a full-fledged, bottom-up regional CGE model, in which each NUTS-1 EU region is considered separately. This assessment takes advantage of the information delivered by MIRAGE in the previous stage, concerning the impact of the shock studied on key international trade variables. This approach makes it possible to propose a regional CGE evaluation of the impact of trade policies, while taking accurately into account the complexity of EU's trade patterns and trade policies. In order to implement this model, a database describing the necessary variables for 119 NUTS-1 EU regions and 21 sectors is built. The model is applied to several far-reaching liberalisation scenarios.

This article is structured as follows. Section 2 describes the economic rationale and the sate of the art, as far as the regional impact of trade policies is concerned. Section 3 describes the general framework and the implementation of the DREAM model and the corresponding approach. Section 4 describes how the required dataset has been built. Section 5 applies this tool to the liberalisation scenarios considered. Section 6 concludes.

2 Economic rationale and state of the art

There are many reasons why the impact of trade policies should differ across regions. The most straightforward are probably the differences in sector specialisation. By nature, trade agreements have strongly contrasted impacts on sectors relative prices within economies. According to the sectoral specialisation of each region, this will result in different aggregate impacts. Another important aspect is the nature of each region's trade relationships. This will influence the results both through the direct impact of trade flows on sector demand within each region, and through the indirect impact resulting from the induced changes in intermediate demands.

Beyond these direct effects, trade policies also impact local factor markets, as soon as cross-regional factor mobility is not perfect, as is obviously the case for labour. A positive, ex-ante impact on the demand addressed to a region's firms might therefore induce an upward pressure on wages in the region. This is likely to have two kinds of impacts. It will first raise producers' costs, thus limiting the ex-ante demand increase.

But higher wages might also attract some immigrants, in particular from other regions within the country, with which the mobility of labour is relatively high. This labour inflow will in turn limit the upward pressure on wages, and increase the output potential of the region. If the skill-mix of migrants is different from the regional skill-mix, this will in addition have an impact on the skilled to unskilled relative wage. Other possible important consequences have also to do with factor mobility. The strong capital mobility makes it likely that large cross-region capital flows would be created. In contrast, immobile production factors such as land should suffer from more contrasted impacts across regions, since no mobility can smooth the adjustment.

Trade liberalisation also modifies local demand, both through price and income changes. For instance, any income increase will raise consumers' demand. Since a "home bias" exists even across regions within a given country (see e.g. Combes et al., 2003), this demand increase will be mainly addressed to local producers, but part of it will be sourced in other regions, thus transmitting the impact to other regions.

Finally, local externalities might magnify or dampen the cross-regional impact. They be might positive, through local accumulation of skills and know-how, through networks, providers and infrastructure. But they can also be negative, through congestion effects and increased real estate prices. Although these effects have been largely studied in the framework of economic geography literature, there is no robust ground to incorporate them in an applied, large-scale model.

How to assess this multifaceted impact of trade policies at the regional level? To answer this question, a rapid overview of existing methodologies is useful.

Three kinds of models are commonly used to deal with regional economic issues (Anselin and Madden, 1990; see also West, 1995, for a comparison of these three classes of models): Input-Output (IO), integrated IO and econometric models (IOE) and computable general equilibrium (CGE) models. The IO approach is the oldest one, but it is still widespread, notably because it is not too much demanding in terms of data or of computation. IO models are demand driven. Market clearing occurs through supply adjustment to demand shocks. Prices are assumed to remain constant and do not play any role in the adjustment, while budget constraints are not considered, either at the agent's level or at the macro-economic level. Such models are basically used to share out a given demand shock across regions, using linear function and fixed technologies.

To overcome these limits, and in particular the lack of price responsiveness, integrated IO and econometric (IOE) modelling have been developed (see Rey, 1999 for a recent survey). The idea underlying this approach is to combine the sector detail of IO analysis with the flexibility of econometric models, which are frequently dynamic, include some price effects and make use of non-linear function, with flexible coefficients. In addition, such models can be used for impact analysis, but also for forecasting. IOE models have a wide range of specifications and of modelling purposes. However, they suffer from several drawbacks. Given the nature of econometric models, IOE models are most of all interesting for short-term or mid-term analysis. They do not take into account consistency constraints, for agents as well as for economies. Sectoral detail is very poor in the econometric part of the model; although several types of linking between IO and econometric models are used, this implies that price response is only taken into account at the aggregate level, not in terms of relative prices across sectors. Finally, IOE models remain basically demand driven, even though some supply adjustment is taken into account.

The approach used in CGE modelling is radically different. Their description of the economy relies on optimising agents, the behaviour of which is microfounded, and it is fully consistent theoretically. This means that each agent (generally households, firms and government) behaves in order to maximise its objective function, subject to his own (budget or technology) constraints. The response to any shock in exogenous variables will then result from the endogenous reactions of agents, under the consistency constraints: this results in a new equilibrium, in which agents still behave optimally, all markets are cleared (although some market imperfection can be introduced) and all macro-economic constraints are met. Following the pioneering work of Scarf (1967, 1973) on their computational implementation, the use of CGE models for policy-oriented analysis has widely spread since the late seventies. Indeed, based on a robust and widely accepted modelling of agents' behaviour, CGE models are able to provide a detailed description of the impact of a shock on an economy. A number of robust and well-identified mechanisms are quantified in a single, rigorous and consistent framework, where agents' endogenous adaptation is taken into account. This makes this assessment very valuable, most of all when the price system is strongly impacted by the shock, as is generally the case as a result of a trade liberalisation.

As is well known, however, CGE models are very demanding in terms of data and parameters, as well as in computational resources. This has strongly limited their use at the regional level. Still, several regional, CGE models have been developed during the last twenty years. Basically, they follow three different approaches: top-down, hybrid and bottom-up.

Top-down models include two separate parts, describing respectively the economy as a whole and the regions. As a matter of fact, only the first one belongs to the category of CGE models. The economy-wide impact obtained is then shared across regions through the regional part of the model. This regional part is simplified, in that agents behaviour is not fully specified (or not at all), and there is no feedback to the national level. The ORANI model of the Australian economy (Dixon et al., 1982) has been the pioneering work in this domain, with a follow-up through the MONASH model (Adams et al., 1994).

Obviously, the top-down structure is not really satisfactory. It has been designed for the sake of tractability, given data and computational constraints. Hybrid models (see e.g. Higgs et al., 1983) are based on a similar structure, but introduce some direct link between the national and the regional dimension. Typically, one or several sectors will be represented, in the national model, as segmented across regions: production will be considered separately according to the region where it takes place. The sectors concerned by such modelling will be those deserving special interest given the topic studied, provided that the corresponding data is available. For those variables that where only considered at the economy-wide level in the national model, a regional model will determine how the impact is shared across regions, as is done in top-down models.

Bottom-up models are full-fledged regional, CGE model (see Partridge and Rickman, 1998, for a survey of this class of models): a single CGE model is used, in which each region is considered separately, as would a country in a multi-country model. Most of the time, such models are specified in a standard fashion, which does not differ significantly from what is done in countrywide models. Bottom-up models are the most satisfactory from an analytical point of view. But this comes at a cost, since they are also the most demanding both in terms of data and of computational resources. This is why such models have mainly be used for one single region (12 such models, mostly for US regions, are listed in Partridge and Rickman, 1998, Table 1, and this list is far from exhaustive). Numerous applications have also been devoted to studying a handful of regions.

To the best of our knowledge, Australia is the only country where large-scale, bottom-up regional CGE modelling have been developed and applied. This has been done first through the MONASH-MRF model (Peter et al., 1996). This Johansen-ORANI type model disaggregates the Australian economy in 8 regions and 13 sectors. It has also been applied to Brazil, where 27 states and 8 sectors where considered (Haddad and Dominguez, 2003). Recently, a highly disaggregated evolution of MONASH-MRF has been proposed, the TERM model (Horridge et al., 2003). It is based on a database describing output or employment in the Australian economy for 144 sectors and 57 regions, and the model is typically solved for approximately 30 regions and 40 sectors. In order to make such a huge model tractable, a number of simplifying assumptions are made (perfect competition, perfect complementarity between intermediate inputs, demand sourcing not user-specific...). In addition (and this was already the case for MONASH-MRF), only a small part of the data is available at the most detailed level, the rest is estimated. However, this model is fully-fledged, with most features common with the ORANI model, and it can serve a variety of purposes in analysing in great regional detail the Australian economy. This model probably represents so far the cutting-edge of regional CGE analysis.

CGE models are widely considered by now as the best-suited tool to assess the impact of trade policies. The reason for this is that trade agreements can involve substantial changes in prices, in allocated resources and in income, which are frequently strongly contrasted across sectors and countries. As outlined above, this is the case where the robust and consistent modelling of agents' behaviour is the most valuable. This is also true at the regional level, and it should be obvious after the discussion above that bottom-up CGE models appear as the best tool to assess accurately the regional impact of trade policies. It should also be obvious that such analysis is very costly and difficult to implement. In such a model, each region trades with each other (and with the rest of the world) in each sector, and the corresponding flows result from the optimisation of agents behaviour. Needless to say, such optimisation is very heavy to compute, if one is to break down a large number of regions. In addition, the data required to feed such a model is very difficult to gather (or better said is lacking most of the time) at the regional level. This is why multi-region, bottom-up models are so rare.

3 The DREAM model: general framework and implementation

Given present computational resources and data constraints, implementing a full-fledged, European interregional CGE model is a challenge. This is achieved here by using an original, two-tier approach where a regional general equilibrium model is tied to an EU-wide, trade policy general equilibrium model. The first tier involves assessing, for the EU as a whole, the impact of the trade policy shock considered, by using the MIRAGE model. In the second tier, the impacts obtained as a result for some key EU-wide variables are used as input for the DREAM model, created on purpose. DREAM is a CGE model in which each of EU's 119 NUTS-1 regions is considered separately, and where trade relationships with the rest of the world are described based on MIRAGE's results. Agents' behaviour is described in a consistent, microfounded fashion, including their endogenous reactions to changes in prices and incomes. As far as possible, DREAM's theoretical set-up is consistent with MIRAGE’s one, although some simplifications are made in order to make it possible to consider separately each NUTS-1 European region.

This section provides a general overview of the DREAM model. It does not intend to present exhaustively the model (the list of equations is given in Appendix 1), but it describes the general framework and the key assumptions. For the sake of simplicity, the structure of the MIRAGE model will not be recalled (for a detailed presentation, see Bchir et al., 2002a, b).

3.1 General approach

MIRAGE is a multi-region, multi-sector CGE model been developed by the CEPII, with the collaboration of ITC (WTO-UNCTAD), with the specific purpose of assessing the impact of trade policies. It incorporates imperfect competition and product differentiation by variety and by quality, in a sequential dynamic set-up where installed capital is assumed to be immobile. Adjustment inertia is linked to capital stock reallocation and to market structure changes. MIRAGE draws upon a very detailed measure of trade barriers and of their evolution under given hypotheses, thanks to the *MAcMap* database.[1] For the remaining variables, the model is calibrated using the GTAP 5.3 database (Dimaranan and McDougall, 2002). The geographical and sectoral aggregation is chosen specifically for each study and generally includes a rather large number of regions (up to 21 in the applications carried out so far), and up to 57 sectors.

This framework enables an accurate description of the impact of a liberalisation scenario to be delivered. However, as outlined above, it cannot be applied at the level of European regions, due both to computational constraints and to data limitations. The approach followed here is to carry out, in a first step, MIRAGE's simulations of the trade policy shock considered. This provides with a satisfactory assessment of the impact on international trade volumes and prices, while considering the EU as a whole. We take stock of this information, by subsequently considering as exogenous the changes calculated by MIRAGE for import prices and for exports demand curves.

The DREAM model then assesses in a CGE framework the impact induced at the regional level in the EU, enlarged to 25 countries. This regional model does not concentrate on external trade relationships. The geographical breakdown outside the EU used in the MIRAGE simulation is also used in DREAM, but non-EU economies are only considered through their trade relationships with the EU, with prices set exogenously for EU's imports, and notional demand set exogenously for EU's exports. In addition, the sectoral breakdown is less detailed. These are necessary conditions in order to make the model tractable, and to focus on the regional dimension. This makes it possible to use a CGE model that is completely specified for each of the 119 NUTS-1 EU regions. The trade policy shock considered in DREAM's simulations thus include both the change in the EU's custom duties, and the changes in import prices and in export demand curves obtained as a result of MIRAGE's simulation.

[1] For a detailed description of MAcMap and the associated methodology, see Bouët et al. (2004).

DREAM mimics MIRAGE's theoretical structure, as far as possible given data and size constraints. It incorporates horizontal and vertical product differentiation, with formulations identical or close to those used in MIRAGE. Nevertheless, some simplifications had to be made in the theoretical framework. The main ones are the following:

(i) The country mix of imports (geographical distribution across providers, including foreign EU regions) as well as the country mix of exports (geographical distribution across markets, including foreign EU regions) is assumed to be constant across regions, within each EU country. In other words every external trade flow has a geographical composition that is country-specific, but uniform across regions within each country. This is rendered necessary by the very high number of regions considered (119): one-to-one regional flows would be untractable, with 119 x 119 = 14,161 flows for each sector.

(ii) Unlike MIRAGE, DREAM assumes perfect competition to hold in every sector, with constant-return-to-scale production functions.

(iii) The composition of the intermediate consumption basket for each sector is assumed to be fixed (Leontief function).

In parallel, several issues become more relevant at the regional level: capital mobility, cross-regional investment and capital ownership, labour mobility, cross-regional redistribution through national budget. Special attention has been devoted to their treatment in the DREAM model. Capital is assumed to be perfectly mobile across the EU, with a single rate of return. The corresponding cross-regional flows of capital income are taken into account. Labour is assumed to be imperfectly mobile across regions within each country. Contributions to and benefits from the national public budget are explicitly modelled.

3.2 The supply side

Production makes use of five factors: capital, labour (skilled and unskilled), land and natural resources. The first three are generic factors, whereas the latter two are sector-specific. The production function assumes perfect complementarity between value added and the intermediate consumption. The combination of production factors is represented by a nested CES structure which allows taking into account different degrees of substitution between factors. Thus, a first CES function gives value added by combining the aggregate of skilled labour and capital to other factors, with an elasticity of substitution equal to 1.1. In a second stage, skilled labour and capital are combined with an elasticity of substitution of 0.6. This aims at reflecting the well-documented skill-capital relative complementarity.

For the sake of simplicity, the sectoral distribution of intermediate inputs used by each sector is assumed to be fixed (Leontief function), although it varies across utilisation sectors. This prevents from the additional complexity associated with modelling a sector-specific endogenous trade-off in the choice of intermediate inputs. For each sector of origin, the nesting across different origins is exactly the same as for final consumption (see below). Production uses constant-returns-to-scale technology in each sector, and perfect competition is assumed to hold.

3.3 The demand side

In each region, demand is modelled through a single, representative household, who maximises his utility, subject to his budget constraint. This household has two sources of income: the return to the production factors it earns, and government transfers. Labour wages paid in a region are always assumed to accrue wholly to the region's representative household. This is also the case for land and natural resources, for the sake of simplicity (landowners are thus assumed to live in the region). In contrast, capital ownership is not assumed to be specifically regional. Each region thus earns the capital incomes generated by the capital stock its representative agent owns, within the region as well as outside, but production in the region is made using the capital stock installed in the region, whatever its owner.

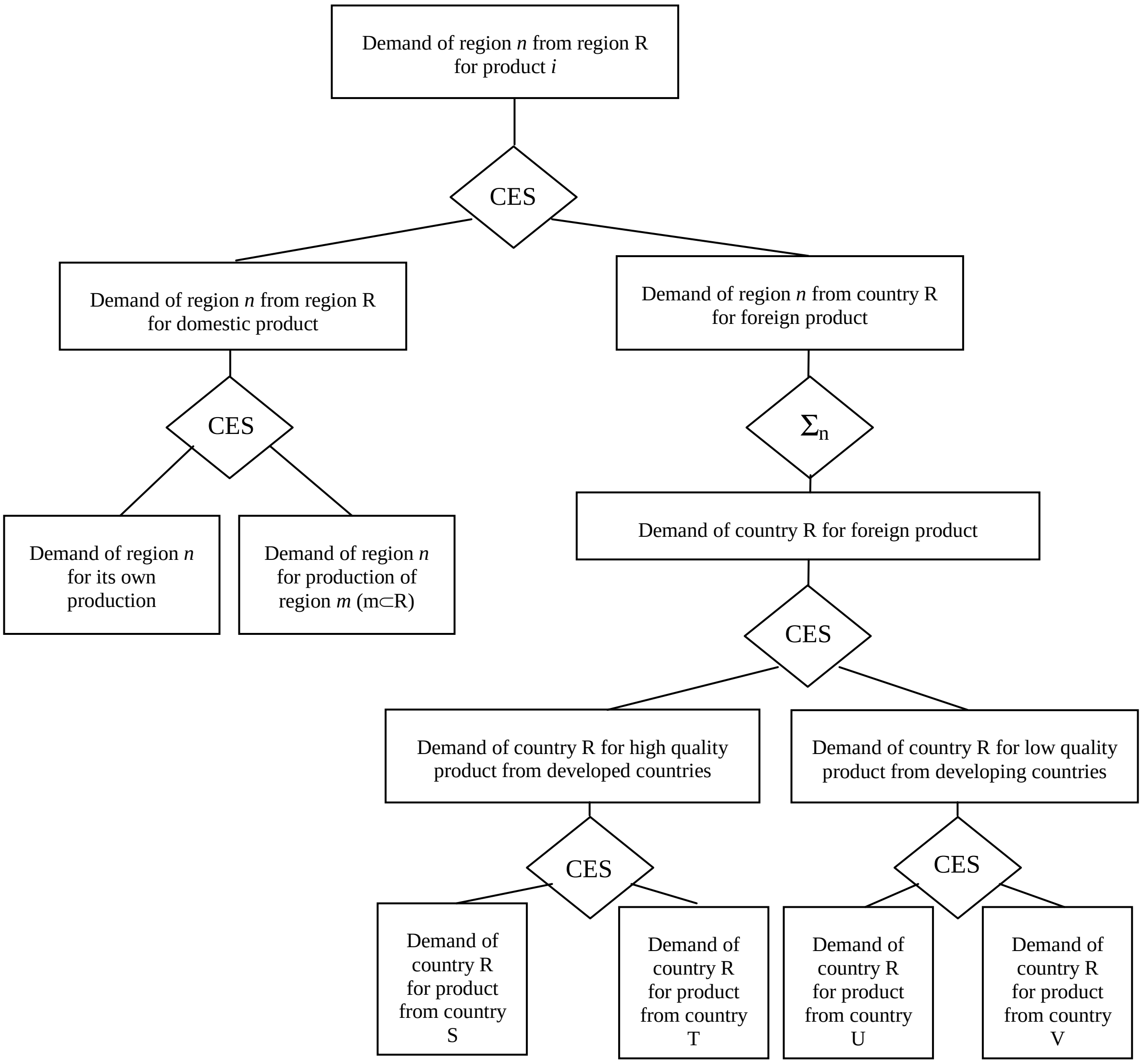
National governments collect taxes and transfer credits to each region in the country. Taxes (with rates as measured in the GTAP database) are collected mainly on output and on consumption. Tariff revenues also accrue to the government. The whole taxes are assumed to be redistributed to the regions. Throughout the simulations, the corresponding amounts of taxes redistributed evolve as a linear function of the number of workers by region. Altogether (private and public credits included), each region does not necessarily have a balanced current external account in the benchmark. The imbalance is in this case held constant across simulations, and is considered as a (positive or negative) transfer to the region, which adds to available income.

The representative household saves a constant share of its disposable income. The remaining part is used for consumption, seeking to maximise the household LES-CES utility function. This function is not homothetic, due to the existence of a minimum level of consumption for each product. This results in income elasticities of consumption being different from unity, and potentially different across sectors.

The geographical distribution of demand across providers is the same for capital good, intermediate consumption and final consumption. It follows a three-tier, nested CES structure, reflecting choices across different origins, with a constant elasticity of substitution for each of them (see Figure 1). At the first level, an Armington specification splits the demand between domestic goods, goods from a foreign, developed country, and goods from a foreign, developing country. As in the MIRAGE model (although in a slightly different way), this distinction between goods originating in developed and in developing countries intends to reflect the corresponding difference in quality. These quality differences have been widely illustrated empirically in recent years (see e.g. Fontagné et al., 1997). Within each of the two bundles of goods originating from developed and from developing countries, a second level reflects the choice across countries of origin, with higher substitution elasticity.

This demand specification enables an accurate description of the consumer behaviour to be made. However, it is rather complex to implement as soon as the geographical breakdown is detailed. This is why, for the sake of simplicity, the geographical distribution of demand between domestic and foreign providers, and across foreign providers is assumed, within each country and each sector, to be the same across regions. This assumption prevents some region-specific patterns of trade from being taken into account, but it is necessary in order to keep the model tractable. The regional “home bias” and the regional product diversity are still taken into account, since each region produces its own varieties, the weight of which in the regional consumption basket is calibrated.

Figure 1: Demand side



3.4 Cross-regional mobility of production factors

The mobility of production factor is an important topic to deal with in the context of EU's regions, given the very large cross-regional flows observed. For obvious reasons, however, this does not concern land and natural resources, which are assumed to be immobile across regions. For the sake of simplicity, they are also assumed to be owned entirely by the region's representative household.

In contrast, capital is assumed to be perfectly mobile across sectors and across regions. This implies that the nominal return to capital is unique across the EU. This entails also large cross-regional flows of capital income, from where the capital stock is to where its owner lives. The supply of capital stock within each region is thus very elastic with respect to its price, and this implies that any ex-ante upward pressure on the rate of return to capital in a region will result, ex-post, in a capital inflow from other European regions.

Both types of labour, skilled and unskilled, are perfectly mobile across sectors but imperfectly mobile across regions, within each country. This is important since trade policies, by modifying prices and income, may have an impact on cross-regional migrations. This is potentially an important channel in shaping the relative impact of a given shock across regions. The economic determinants of migration are numerous, and the corresponding specification varies across the models in which migration is incorporated. In DREAM, migration flows are expressed as a proportion of the labour force in the region of origin and of destination, and they are linked to the relative changes in the real incomes in these two regions. This results from the relative change in wages, from the share of wages in households' income, and from the relative changes in consumption prices. Practically, migration flows are set as follows:

$$MIGR_{n \to m} = \sigma^{migr} \times \frac{Pop_n \times Pop_m}{\sum Pop_i} \times \log\left(\frac{\Delta\left(\frac{y_m}{p_m}\right)}{\Delta\left(\frac{y_n}{p_n}\right)} \right) \qquad (2)$$

with σ^{migr} the elasticity of migration, Pop_k the population of the region k (m, n and i belong to the same country) and $\Delta \frac{y_m}{p_m}$ the real income variation of an agent living in the region m.

This same equation is used for skilled and unskilled labour. The same elasticity of migration is used in both cases, and its value is chosen mainly based on Eichengreen (1993).

3.5 Market clearing and macro-economic closure

Equilibrium is reached when all good and factor markets clear. Given the conditions of cross-regional mobility defined above, each production factor market is assumed to be fully employed at the equilibrium, with a market behaving in a perfectly competitive way. As a consequence, unemployment is not modelled. However, this does not prevent from drawing employment lessons from the results displayed, in particular from those related to migrations and wages.

Exchange rates are assumed to be exogenously fixed throughout EU's regions. This assumption is compulsory across Euroland regions, and it is extended to other regions. A consequence of this assumption is that each region's current balance (i.e., the difference between savings and investment) is endogenous. For the EU as a whole, the current balance is given by MIRAGE simulations, in which it is assumed to be exogenous. As a consequence, the EU's current external balance is also assumed to be exogenous in DREAM. The macroeconomic closure is neo-classical. Investment is set to be equal to savings, for the EU as a whole.

DREAM also incorporates a variable number of (group of) countries outside the UE. However, as outlined above, the results for these countries are drawn for the MIRAGE model, which is better suited to analyse the international consequences of trade policies. This is why these non-EU countries only enter the model through their external trade flows, under conditions that are tied to MIRAGE simulations results. Practically, the price change of EU's imports from a given foreign partner in a given sector is exogenously set equal to the change obtained as a result of MIRAGE's simulation. For EU's exports in a given sector toward a given partner, the notional demand is exogenously set, according to MIRAGE's simulation. This means that the result obtained from MIRAGE's simulation is used to re-calibrate the function expressing the demand expressed by the partner to EU's exports in this sector. If the initial MIRAGE simulation is carried out considering separately some or all EU countries, these exogenous import prices and notional demand for exports are set individually for each of these countries. In each case, this approach enables the key international trade variables to be drawn from MIRAGE simulations, which are precisely designed to study trade policies.

4 Building a consistent and exhaustive, European regional database

CGE models require an exhaustive and coherent dataset. Output, value-added split, consumption, income and factor endowments need to be described for each sector and each region throughout the EU.

First, the source of national data is the GTAP 5.3 Database (Dimaranan and McDougall, 2002), except for market access, for which we rely on the MAcMaps database (Bouët et alii, 2002).

Second, the EUROSTAT’s REGIO database provides data at the regional (NUTS-1) level. For acceding countries, however, this data did not proved to be satisfactory, with an excessive level of sector aggregation, and a high missing rate –in the NUTS1 classification, it exceeds 30%-. We thus had to use data from national statistical institutes for these countries. Moreover, some information about industrial sectors is drawn from the EUROSTAT’s NeoCronos database. For European budget and transfers, the European Commission budget articles of the last six years were used.

A large-scale harmonisation procedure has been developed to ensure the consistency of regional and national data. The European NACE classification is mapped to the GTAP one in order to obtain a homogeneous dataset. The year of reference is 1997. This results in a 119-European region, and 21-sector database (3 agricultural sectors, 2 other primary activities, 9 industrial sectors and 7 services), covering the EU-25.

Harmonisation is not sufficient, however, when no consistent regional data is available, as is the case in the EU for trade flows between regions belonging to the same country, for foreign trade flows and for regional factor endowments. In both cases, data had to be reconstructed based other existing regional and national data, using well-suited assumptions.

4.1 Cross-regional, intra-national trade flows

Trade linkages across regions are obviously important when assessing how a trade policy shock spreads. However, no external (either foreign or intra-national) trade data is available at the regional level for the EU as a whole.[2] As far as foreign trade is concerned, this problem was solved by considering that, for any trading partner, import penetration rate and export intensity are the same across regions within the country. As to trade flows between regions, within a given country, three main assumptions are made:

- The geographical pattern of consumption is independent of its use (in a region the bundle of goods for final demand, intermediate consumption and capital good demand has the same geographical composition).

- For each good and each region, the allocation of demand across other regions within the country follows the regional allocation of output for this good.

- A "home-bias" effect is taken into account. The share of local supply is increased compared with its share in national production (this effect is stronger for services than for other sectors).

$$\begin{aligned} shC_{i,n,n} &= \frac{k(i) \times shP_{i,n}}{1 + (k(i)-1) \times shP_{i,n}} \\ shC_{i,m,n} &= \left(1 - shC_{i,n,n}\right) \times \frac{shP_{i,m}}{\sum_{l \neq n} shP_{i,l}} \end{aligned} \qquad (3)$$

with $shC_{i,m,n}$ the share of region n's demand in good i of domestic origin addressed to region m, $shP_{i,n}$ the share of region n in the national production of good i and $k(i)$ the home-bias effect parameter (set to 3 for services and to 2 elsewhere).

Since this approach is driven by the demand side, there is no ex-ante guarantee that the demand computed will match with the effective level of production of each region. We thus use a minimisation entropy strategy to equilibrate our interregional trade pattern matrix.

4.2 Foreign trade flows

To the best of our knowledge, no foreign trade data is available for NUTS-1 regions at the EU-wide level. This prevents from measuring accurately the regional specificities of foreign trade, which are likely to be especially important in the case of border regions and of near countries. As soon as the partner is a distant country, however, the regional patterns are less likely to very uneven, at least within each sector.

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[2] Some information is available in some countries for foreign trade at the regional level, but this is not systematically the case.

Absent any additional information, we thus assume for each sector that all regions in a given country have the same geographical sourcing of imports. For each enlarged-EU's country, the foreign trade pattern is given by the GTAP database, with full sectoral and geographical detail. At the aggregate level, this does not mean that a given partner has the same weight in each region's foreign trade within a given country, since sectoral specialisation introduce differences.

The lack of well-suited regional data about foreign trade is thus a limitation for the exercise carried out here. In particular, intense, "proximity" trade relationships cannot be reflected in the data. Still, countrywide foreign trade flows are accurately measured, and the approximation involved for the structure of foreign trade is likely to be limited, as soon as the partner concerned is distant.

4.3 Factor endowments

First, we assume that technology is homogeneous across the different regions of a country. As the European capital market is fully integrated, capital earnings are also equal across regions and sectors. Price of capital differs for some subsidized sectors. Since the sectoral value-added and the level of employment in each region is known, and the national level of endowments, factor uses and production are given by the GTAP database, we can solve the supply side of the DREAM model in order to compute the initial level of factor use for every region and every sector. This system also gives us initial factor prices in every region.

Finally, if for both labour and land factors, regional uses equal to regional endowments, capital ownership is distributed across regions by following the no-labour income distribution in the household accounts.

5 Applications to multilateral liberalisation scenarios

In order to provide a basis for the simulation exercise, the alternative agendas of tariff cuts considered need to be translated into scenarios, that is in quantified changes of trade barriers in each sector, for each bilateral trade flow between regions, for each year of the phase-in period. This exercise is carried out here based on the *MAcMaps* database. While it allows the most detailed information to be taken into account, it is subject to various constraints.

Four types of protection instruments a taken into account: ad-valorem tariffs, specific duties, tariff quotas, anti-dumping duties. The information considered here refers to the ad-valorem equivalent tariff of these instruments considered globally. This implies defining scenarios on this global ad-valorem equivalent. Due to the absence of reliable protection data, services are not included in any of the scenarios considered hereafter.

All the scenarios presented in this Section share the following two characteristics. They are based on a systematic rule of evolution of the ad-valorem tariff equivalent of the five protection instruments (ad-valorem tariffs, specific duties, tariff quotas, prohibitions, anti-dumping duties) considered a whole. This rule of evolution may be conditional to the initial level of the ad-valorem tariff equivalent.

Before turning to the results, let us emphasise that such an assessment is tributary of the regional classification used. In particular, although the NUTS1 classification includes an already large number of regions, several countries do not have any regional disaggregation at all at this level. This is the case of Cyprus, Denmark, Estonia, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovenia, and Sweden. Continental Portugal and continental Finland are also considered each as one single region. In parallel, the economic weight of NUTS-1 regions differs widely, even excluding single-region countries, spreading from 662 thousands euros (Åland region, Finland) to 419 millions euros (Nordrhein-Westfalen, Germany), as measured by their 1997 GDP. The percent changes presented below should therefore be interpreted by keeping in mind these strong disparities in the classification's definition.

5.1.1 Experiment design

A pre-experiment simulation is carried out in order to account for the EU enlargement and the MFA phasing out. The result of this pre-experiment simulation is used as the benchmark for subsequent simulations. Six scenarios are considered, covering a wide range of far-reaching liberalisation hypotheses:

(a) Tariff peak removal: all tariffs, defined at the HS-6 level, exceeding an ad-valorem equivalent of 15% are cut back to 15% (see Table 2)[3].

(b) Complete liberalisation: all tariffs, domestic support measures and export subsidies are cut by 50%.

(c) Agricultural tariff liberalisation: tariffs are removed in agricultural and food products.

(d) Ag. tariff+DS+XS: tariffs, domestic support measures and export subsidies are removed for agricultural and food products.

(e) Manufacturing (except textile-wearing): tariffs are removed for non-agricultural products, except textile-wearing-leather and shoes.

(f) Textile-wearing liberalisation: tariffs are removed for the textile, wearing, leather and shoes sectors.

Scenarios (d), (e) and (f) thus provide with a decomposition of scenario (b) between three important areas in terms of protection: agriculture, text-ile-wearing and other manufacturing products. Scenario (a) is intended to shed light on the specific impact of removing tariff peaks, scenario (c) isolate the impact of agricultural tariff protection alone. By difference between scenarios (c) and (d), the impact of removing domestic support and export subsidies in agriculture can also be characterised.

5.1.2 The regional impact of a complete liberalisation

Let us first focus on the impact of a complete liberalisation (scenario (b)). Table 3 presents the impact on value added by large sector (agriculture, textile-wearing, other manufacturing), and for the whole economy, for each region. This allows the structure of the impact across regions to be highlighted, with both the proportional changes in value added by sector, and the output mix of each region explaining the different results obtained. The broad pattern is

[3] The evening out to 15% is made on the detailed protection database, measuring ad-valorem equivalent protection on a bilateral basis for each HS-6 product. Once these changes are made, these detailed-level tariff duties are aggregated back to the model's classification, as was made initially to obtain the benchmark's initial protection.

common to all regions: a reduced value added in agriculture (in most cases between 2% and 5%, -5.24% in average for the whole enlarged EU)) and in textile-wearing (generally between 4 and 7%, -6.5% for the EU-25), an increased value added in other manufacturing sectors (0.9% in average). The agricultural activity shrinking is very weak in acceding countries (-0.79%), since the CAP is not assumed to be extended to these countries in the benchmark. In contrast, the decline in textile and wearing is steeper in these countries, mainly due to their substantial exports to the rest of the EU, which are faced with heightened competition as a result of liberalisation.

Broadly speaking, the changes in value added by sector are similar across regions within each country,[4] although their differ both due to the differences in product mix within large sector, and because of region-specific changes in factor costs. Noteworthily, the results frequently exhibit higher proportional changes in small economy, and the relative sizes of EU regions, should be borne in mind while studying the results, given their very strong disparities.

Noticeably, the negative impact on agriculture is especially strong in Spain and Ireland. In these regions, where agriculture frequently accounts for more than 10% of total value added, this represents a large shock. This is illustrated by the rather high value of the structural adjustment index. This index, computed as the root mean-squared employment change across sectors within each region (and across sector-regions within countries), gives insights about the magnitude of adjustment costs to be expected, based on the assumption that these costs are a quadratic function of employment changes. The values of more than 4.5% obtained for Noroeste and Centro in Spain as well as in Ireland, are fairly large.

Textiles and wearing can also originate significant adjustments, when a substantial initial size is combined with a strong decline, as is the case of many regions in acceding countries, such as in particular Estonia, Latvia, Lithuania and Malta as well as, to a lesser extent, Hungarian regions (except Budapest's one).

This complete liberalisation scenario is modestly welfare improving for the EU as whole. Real income, as measured through the equivalent variation of income, increases by 0.16%. However, this increase is slightly higher both for the richest and for the poorest European regions (+0.19%).

In contrast, the equivalent variation turns out to be negative for Southern Europe regions exhibiting a strong specialisation in agriculture, such as the Centre and South of Spain, Greek regions except Athens, Emilia-Romagna, South and Sardegna in Italy, the West of France, and the Azores. This mainly results from the negative shock suffered by their agriculture, both due to import competition and to the decreased domestic support (which constitutes a positive transfer for these regions).

The highest income gains are registered in acceding countries (Baltic and Island states in particular), as well as in regions including capitals, such as London, Madrid, Paris and Brussels. This directly stems from the relative price changes resulting from liberalisation.

Beyond these aggregate impacts, it is worth identifying the sectors and regions where the highest changes take place. For output, extra-EU exports and imports, Table 4 displays the

[4] The lack of information about the region-specific geographical pattern of trade is probably here a drawback of the analysis.

top 5 absolute changes across regions, for each sector.[5] The largest external trade changes are experienced in agricultural sectors, where exports surge by more than 25% in various regions in food products ("agri_ind"), cereals and animal products. This represents large amounts of new exports in Denmark, the West of France and in the Netherlands. Hungarian cereals exports are also substantially increased. But changes in imports are even larger in these sectors (although they do not reach the same percentage changes), especially in Flanders for food products and in Scandinavian countries for other vegetable products. Not surprisingly, agriculture, and in particular food products, is also the sector where largest output declines are found, with more than 1 billion 1997 USD[6] output decreases in food products in Ireland, Flanders, East of Spain , West of France, and Denmark, as well as in animal products in the West region in France. The textile and clothing industry also experience strong ouptput decline, especially in Germany (Nordrhein-Westfalen, Bayern, Baden-Wurttenberg), in Portugal and in Lombardia. By comparison, output declines in other industries appear as small, with few exceptions (like transport equipment industry, for which significant decline are experienced in the Northwest of Italy as well as in Austria).

Output increases are concentrated in services and in heavy industry. Namely, transport equipment in Germany (Baden-Wurttenberg, Bayern, Nordrhein-Westfalen, Niedersachsen) and in Flanders, machinery in Sweden, Ireland and Finland, and "other industries" in Flanders, are the main beneficiaries in industry. In services, the main gains accrue to transport and communication, with a strong impact on West of Netherlands (+1.3 billion $, +3.6%). Noteworthily, the transport and communication service sector tends to be larger in richer regions. The favourable outcome in this sector is therefore likely to increase inequalities across regions.

Liberalisation also entails significant capital flows across regions.[7] The results show that both the 20 highest-income and the 40 lowest-income regions benefit from a slight capital inflow (worth respectively 0.37% and 0.38% their capital stock). This inflow is rather strong in several acceding' regions: Estonia, Lithuania, Latvia, Malta (more than 2% of their capital stock for these four small countries), as well as Praha's and Budapest's regions. Among the wealthiest regions, the main beneficiaries are Austria's East, Netherlands' West, Brussels, Paris; in each case, a region including the capital city. Significant capital outflows (up to -4% of capital stock) are mainly found in regions with a strong agricultural sector, such as Greece (except Athens' region), Ireland, mainland Portugal, France's West, Spain's Centre and South.

Migration flows (which are only assumed to hold across regions within a given country) are generally very small, seldom reaching 0.1% of local labour endowment. Still, it is noteworthy that a non-negligible movement from rural regions to Madrid and Barcelona's ones is experienced in Spain.

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[5] Focusing on the top changes in absolute value puts more emphasis on large regions, and might not give an accurate picture of changes occurred in small regions. In addition, it has the shortcoming of being contingent to the regional classification used. However, it makes it possible to highlight the main sources of change, without focusing on large percentage changes occurring in small sector-regions, as it often turns out to be the case.

[6] 1997 USD are used by default as the accounting unit in describing the results below, except otherwise specified.

[7] Due to space limitations, the corresponding figures are not displayed in this paper. However, they are shown in Appendix tables posted on a separate file.

5.1.3 Comparing different liberalisation scenarios

In a second stage, the analysis is extended to the whole set of scenarios presented above ((a) through (f)). The large number of regions, coupled with these 6 scenarios, does not allow for a detailed presentation of results. Table 5 shows the changes involved under each scenario, on the equivalent variation of income, on real GDP and on the index of structural change. In addition, Table 6 and Table 7 show the top and bottom variations observed under each scenario, across sector-region pairs.

These scenarios are not directly comparable. Complete liberalisation (b) provides with the broadest picture, already commented above. In contrast, tariff peak removal (a) and liberalisation in textile-wearing-leather-shoes (hereafter referred to as textile-wearing) (f) scenarios are intended to shed light on the impact of a particular, sensitive topic. Naturally, these two scenarios involve both lesser adjustment, and negligible welfare gains. Removing tariff peaks is not found to induce any strong negative impact at the sector-region level, with decreases in value added never exceeding $ 300 millions, and no more than 3% for large sectors. However, this scenario creates significant gains for extra-EU, agricultural exporters, as illustrated by the significant gains (about 10% increases in VA) registered in agriculture and/or agrofood in Denmark, France West and Paris basin, Netherlands West and South.

Although the average adjustment induced by textile and wearing liberalisation is also limited, as witnessed by the weak value of the adjustment index (close to 1%), its impact is concentrated in one sector, and in regions where this industry is developed. The EU's position is mainly defensive in this sector, and it is therefore no surprise that this impact is negative. It reaches –10% of VA in Portugal and in some German regions (Nordrhein-Westfalen, Bayern, Baden-Wurttenberg), and –6%, but more than $ -1 billion in Lombardia and Centre of Italy. Italy and Portugal are, broadly speaking, the two EU-15 countries were the real income impact is negative, but this is also the case in Estonia, Slovakia and (insignificantly) the Czech Republic.

Liberalising trade in manufacturing outside textiles and wearing mainly conveys strong offensive interests in the transport equipment sector in EU-15, and in particular in Germany (Baden-Wurttenberg, Bayern and Niedersachsen). Transport and communications are the other sector where the main output increases take place. Increased competition, but also general equilibrium effects when increased demand for exports induce a price increase, entails declines in several sectors and regions, notably in machinery, textiles-wearing and other services, a result that can be assimilated to a slight crowding out by the expanding sectors mentioned above. Adjustment costs are generally low, included in acceding countries. Baltic States are here an exception, with a surge in their transport equipment industry, fuelled by a significant capital inflow (worth 3 to 6% their capital stock) and by the decline experienced in other sectors. Still, these disparities across regions do not translate into contrasted impact on real income, frequently close the EU (weak) average (+0.06%), although income gains are clearly higher for Baltic States.

Not surprisingly, agricultural liberalisation, whether limited to tariff barriers (c) or including domestic support and export subsidies (d), conveys the largest adjustments. However, scenario (c) results are somewhat counterintuitive. Indeed, this scenario assumes that tariff barriers are removed but that domestic support and export subsidies are maintained (without limitations to the magnitude of the corresponding subsidies. This gives raise to a surge in extra-EU exports in regions such as Denmark, France West and Paris basin, the Netherlands (except East), *i.e.* those regions that are strong net exporters of agricultural goods outside the

EU, as witnessed by Table 7. It should be remembered, however, that this comes at the cost of surging agricultural subsidy amounts. As a matter of fact, this export increase is not welfare-improving, and the equivalent variation of income is insignificant at the EU-wide level (+0.06%).

Including subsidies in the agricultural liberalisation leads to a very different scenario. Here, the main rural areas bear the bulk of the adjustment, namely Greece (except Athens' region), mainland Portugal, Ireland, France's West, Spain's Centre and South, Southern Italy (plus Emilia-Romagna). The decline in food products and animal products output almost reaches 20% in Ireland, Malta and Cyprus, and almost 10% in several instances (Spanish regions in particular). Other vegetable products output is reduced by more than 10% in the Centre and South of Spain. Logically, these regions also experience capital outflow, worth in several instances more than 2% of their capital stock. Although the CAP is not assumed to be extended to them in the benchmark, acceding countries also bear significant adjustment as a result of agricultural liberalisation (the adjustment index almost reaches 4%), but also slightly higher real income gains (+0.18% in average, and more than +0.30% in several countries). Agricultural liberalisation has positive effects, through general equilibrium mechanisms, on services, in particular in transport and communications (where increased international trade raises demand), where VA is increased by more than 2% in several regions where this sector is large (West-Netherlands and Flanders, in particular). These positive, indirect effects sharpen the contrast between rural and urban (especially capital city) regions.

6 Conclusion

Assessing the impact of trade policies at the regional level is useful for various reasons. The cross-regional distributional impact is important from a policy point of view. It gives a better idea of the nature of the adjustments to be expected and it helps addressing the question of whether flanking policies are required. It also helps understand how trade policy and cohesion policy interfere. However, such a regional approach to trade policies was still lacking in the EU.

This article proposes a tool for filling this gap. This tool consists in a two-tier approach, embedding two CGE models. The MIRAGE model is used for a preliminary, EU-wide analysis of the impact of the shock studied. The information thus produced about the impact on international trade, and more specifically on the price of EU imports and on the demand addressed to EU's exports is then used as input for a second stage, regional analysis. This regional analysis is carried out using DREAM, an original model built on purpose. DREAM is a bottom-up, CGE model describing separately each NUTS-1 EU region, and its relationships with the rest of the world.

This approach is costly in terms of time, data and computational resources. However, it makes it possible to combine, in a true CGE approach, a detailed analysis of EU's trade policy (taking preferential agreements into account) together with a fully specified modelling of the regional structure of the EU's economy. In this study, this tool is used to assess the impact of several far-reaching liberalisation scenarios.

Cross-regional differences mainly arise as a result of differences in sectoral output specialisation, along with sectoral and geographical trade specialisation. These differences interact with the nature of the shock, with region-wide equilibrium constraints, and with close cross-regional economic links. As illustrated by the comparison with the results of an accounting allocation methodology, the results are not easily proxied based on a simple calculation, even when economy-wide constraints and regional characteristics are taken into account. Agricultural sectors are especially sensitive ones, due both to their relatively high level of protection and to their uneven distribution across EU regions. However, the results points to two different kinds of regions with agricultural specialisation: for net extra-EU exporters such as Denmark, Paris basin and the Netherlands (except East), offensive interest are dominant; for the remainder of rural regions, in particular Greece (except Athens' region), mainland Portugal, Ireland, France's West, Spain's Centre and South, Southern Italy, Malta, Cyprus, several Polish and Slovak regions, liberalisation would lead to a decline in agricultural activity. This is not neutral since poorer regions tend on average to be more specialised in agriculture (without being net extra-EU exporters).

The specific role of transport and communication is also noteworthy. This sector is in average more important in wealthier regions (West Netherlands and Flanders in particular), and it is generally among the most favoured ones as a result of a liberalisation, both due to general equilibrium effects, and because increased international trade results in a higher demand addressed to this sector.

Many developments could be undertaken based on the tools presented here. Our feeling is that the main limitations so far are linked to data availability. In particular, the lack of harmonised regional data on external trade, covering the whole EU, prevents important effects from being taken into account. These effects are most of all relevant for "proximity" trade relationships, involving close partners and border regions, but they certainly deserve attention. An effort to collect and harmonise such data would therefore be useful. Other limitations have to do with the level of detail. Although the model presented here is already extremely large and complex, the analysis can still be considered as carried out at a rather aggregated level, in geographical as well as sectoral terms. Going into more details would certainly raise technical difficulties, but actually the limiting factor is data availability.

Theoretical developments are also worth considering. The economic geography literature opens a wide range of possibilities in this respect. However, it is essential to keep in mind that applied analysis shall be based on proved and robustly measured relationships. In particular, externalities are a very interesting subject of theoretical analysis, but they should be handled very carefully when it turns to carrying out policy-oriented assessments.

The kind of analysis presented here intends to bridge the gap between economy-wide analyses and local concerns about trade policy impact. It is likely to be complementary to many other approaches, either by providing a more detailed assessment, of by delivering well-suited inputs for more specific analyses. As such, it will hopefully help gaining a better understanding of various dimensions of the impact of trade policies.

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Appendix 1: Sectoral and geographical aggregations

Table A. 1: Geographical aggregation

GTAP code	GTAP description	Corresponding region
aus	Australia	Cairns
nzl	New Zealand	Cairns
chn	China	DvgAsia
hkg	Hong Kong	DvgAsia
jpn	Japan	Japan
kor	Korea	Row
twn	Taiwan	Row
idn	Indonesia	Cairns
mys	Malaysia	Cairns
phl	Philippines	Cairns
sgp	Singapore	Row
tha	Thailand	Cairns
vnm	Vietnam	DvgAsia
bgd	Bangladesh	DvgAsia
ind	India	DvgAsia
lka	Sri Lanka	DvgAsia
xsa	Rest of South Asia	DvgAsia
can	Canada	Cairns
usa	United States	USA
mex	Mexico	Row
xcm	Central America, Caribbean	ACP
col	Colombia	Cairns
per	Peru	Row
ven	Venezuela	Row
xap	Rest of Andean Pact	Cairns
arg	Argentina	Cairns
bra	Brazil	Cairns
chl	Chile	Cairns
ury	Uruguay	Cairns
xsm	Rest of South America	Cairns
aut	Austria	aut
bel	Belgium	bel
dnk	Denmark	dnk
fin	Finland	fin
fra	France	fra
deu	Germany	deu
gbr	United Kingdom	gbr
grc	Greece	grc

Geographical aggregation (continued)

GTAP code	GTAP description	Corresponding region
irl	Ireland	irl
ita	Italy	ita
lux	Luxembourg	lux
nld	Netherlands	nld
prt	Portugal	prt
esp	Spain	esp
swe	Sweden	swe
che	Switzerland	Row
xef	Rest of Eur Free Trade Area	Row
alb	Albania	Row
bgr	Bulgaria	Row
hrv	Croatia	Row
cze	Czech Republic	cze
hun	Hungary	hun
mlt	Malta	mlt
pol	Poland	pol
rom	Romania	Row
svk	Slovakia	svk
svn	Slovenia	svn
est	Estonia	est
lva	Latvia	lva
ltu	Lithuania	ltu
rus	Russian Federation	Row
xsu	Rest of Former Soviet Union	Row
cyp	Cyprus	cyp
tur	Turkey	Row
xme	Rest of Middle East	Row
mar	Morocco	Row
xnf	Rest of North Africa	Row
bwa	Botswana	ACP
xsc	Rest of South Afr C Union	Cairns
mwi	Malawi	ACP
moz	Mozambique	ACP
tza	Tanzania	ACP
zmb	Zambia	ACP
zwe	Zimbabwe	ACP
xsf	Other Southern Africa	ACP
uga	Uganda	ACP
xss	Rest of Sub-Saharan Africa	ACP
xrw	Rest of World	Row

Table A. 2: Sectoral aggregation

GTAP code	GTAP description	Corresponding sector	Competition
pdr	Paddy rice	Cereals	Perfect
wht	Wheat	Cereals	Perfect
gro	Cereal grains nec	Cereals	Perfect
v_f	Vegetables, fruit, nuts	OthVeg	Perfect
osd	Oil seeds	OthVeg	Perfect
c_b	Sugar cane, sugar beet	OthVeg	Perfect
pfb	Plant-based fibers	OthVeg	Perfect
ocr	Crops nec	OthVeg	Perfect
ctl	Cattle,sheep,goats,horses	Animals	Perfect
oap	Animal products nec	Animals	Perfect
rmk	Raw milk	Animals	Perfect
wol	Wool, silk-worm cocoons	Animals	Perfect
for	Forestry	OthVeg	Perfect
fsh	Fishing	Fishing	Perfect
col	Coal	Extraction	Perfect
oil	Oil	Extraction	Perfect
gas	Gas	Extraction	Perfect
omn	Minerals nec	Extraction	Perfect
cmt	Meat: cattle,sheep,goats,horse	Agri_Ind	Imperfect
omt	Meat products nec	Agri_Ind	Imperfect
vol	Vegetable oils and fats	Agri_Ind	Imperfect
mil	Dairy products	Agri_Ind	Imperfect
pcr	Processed rice	Agri_Ind	Imperfect
sgr	Sugar	Agri_Ind	Imperfect
ofd	Food products nec	Agri_Ind	Imperfect
b_t	Beverages and tobacco products	Agri_Ind	Imperfect
tex	Textiles	Tex_Ind	Imperfect
wap	Wearing apparel	Tex_Ind	Imperfect
lea	Leather products	Tex_Ind	Imperfect
lum	Wood products	Wood_Ind	Imperfect
ppp	Paper products, publishing	Paper_Ind	Imperfect
p_c	Petroleum, coal products	Chim_Ind	Imperfect
crp	Chemical,rubber,plastic prods	Chim_Ind	Imperfect
nmm	Mineral products nec	Metal_Ind	Imperfect
i_s	Ferrous metals	Metal_Ind	Imperfect
nfm	Metals nec	Metal_Ind	Imperfect
fmp	Metal products	Metal_Ind	Imperfect
mvh	Motor vehicles and parts	Tran_Ind	Imperfect
otn	Transport equipment nec	Tran_Ind	Imperfect
ele	Electronic equipment	Mach_Ind	Imperfect
ome	Machinery and equipment nec	Mach_Ind	Imperfect
omf	Manufactures nec	OthInd	Imperfect
ely	Electricity	Services	Imperfect
gdt	Gas manufacture, distribution	Services	Imperfect
wtr	Water	Services	Imperfect
cns	Construction	Services	Imperfect
trd	Trade	Trade	Imperfect
otp	Transport nec	TransCom	Perfect
wtp	Sea transport	TransCom	Perfect
atp	Air transport	TransCom	Perfect
cmn	Communication	TransCom	Perfect
ofi	Financial services nec	Finance	Imperfect
isr	Insurance	Finance	Imperfect
obs	Business services nec	Services	Imperfect
ros	Recreation and other services	Services	Imperfect
osg	PubAdmin/Defence/Health/Educat	Services	Imperfect
dwe	Dwellings	Services	Imperfect

Tables

Table 1: List of NUTS-1 EU regions, with GDP, population and GDP per capita in 1997

NUTS1	Name	GDP (millions of euros)	Population (thousands)	GDP per capita (thousands)	AccCount	20HIGH	40LOW
at1	Ostösterreich	82 470.00	3 404.00	24.23		Y	
at2	Südösterreich	33 362.90	1 770.60	18.84			
at3	Westösterreich	65 811.70	2 893.20	22.75		Y	
be1	Bruxelles/Brussels	41 311.40	950.60	43.46		Y	
be2	Vlaams Gewest	123 269.10	5 898.80	20.90			
be3	Région Wallonne	51 556.80	3 320.80	15.53			
cy00	Cyprus	*7 830.20*	*700.00*	11.19	Y		
cz01	Praha	10 337.60	1 205.00	8.58	Y		
cz02	Strední Cechy	3 925.90	1 105.20	3.55	Y		Y
cz03	Jihozápad	5 093.00	1 181.00	4.31	Y		Y
cz04	Severozápad	4 517.10	1 130.40	4.00	Y		Y
cz05	Severovýchod	5 917.30	1 492.30	3.97	Y		Y
cz06	Jihovýchod	6 668.70	1 662.70	4.01	Y		Y
cz07	Strední Morava	4 811.60	1 245.20	3.86	Y		Y
cz08	Moravskoslezko	5 483.70	1 287.40	4.26	Y		Y
de1	Baden-Württemberg	264 597.80	10 374.50	25.50		Y	
de2	Bayern	310 976.80	12 043.90	25.82		Y	
de3	Berlin	74 738.10	3 458.80	21.61		Y	
de4	Brandenburg	39 311.20	2 554.40	15.39			
de5	Bremen	20 315.20	677.80	29.97		Y	
de6	Hamburg	66 444.30	1 708.00	38.90		Y	
de7	Hessen	167 095.80	6 027.30	27.72		Y	
de8	Mecklenburg-Vorpommern	27 506.80	1 817.20	15.14			
de9	Niedersachsen	162 080.80	7 815.10	20.74		Y	
dea	Nordrhein-Westfalen	418 953.40	17 947.70	23.34		Y	
deb	Rheinland-Pfalz	83 130.30	4 000.60	20.78		Y	
dec	Saarland	22 645.30	1 084.20	20.89			
ded	Sachsen	69 764.30	4 545.70	15.35			
dee	Sachsen-Anhalt	39 861.70	2 723.60	14.64			
def	Schleswig-Holstein	59 380.70	2 742.30	21.65		Y	
deg	Thüringen	36 654.90	2 491.10	14.71			
dk0	*Denmark*	*149 169.20*	*3 700.00*	40.32		Y	
ee00	*Eire*	*60 168.90*	*1 406.00*	42.79			
ei0	*Estonia*	*4 075.40*	*4 311.30*	0.95	Y		Y
es1	Noroeste	45 073.00	4 311.30	10.45			
es2	Noreste	59 712.40	4 037.40	14.79			
es3	Comunidad de Madrid	83 606.40	5 025.20	16.64			
es4	Centro (ES)	55 191.70	5 264.30	10.48			
es5	Este	153 172.20	10 746.30	14.25			
es6	Sur	79 802.20	8 347.50	9.56			
es7	Canarias (ES)	19 069.40	1 576.60	12.10			
fi1	Manner-Suomi	107 409.60	5 107.10	21.03			
fi2	Åland	662.50	25.30	26.19		Y	

NUTS1	Name	GDP (millions of euros)	Population (thousands)	GDP per capita (thousands)	AccCount	20HIGH	40LOW
fr1	Île de France	352 081.10	11 055.70	31.85		Y	
fr2	Bassin Parisien	192 977.60	10 505.50	18.37			
fr3	Nord - Pas-de-Calais	65 338.60	4 006.50	16.31			
fr4	Est	96 870.00	5 142.60	18.84			
fr5	Ouest	137 186.50	7 682.80	17.86			
fr6	Sud-Ouest	112 184.90	6 128.20	18.31			
fr7	Centre-Est	141 885.70	6 961.20	20.38			
fr8	Méditerranée	123 369.60	7 009.10	17.60			
fr9	Départements d'outre-mer (FR)	19 235.30	1 636.20	11.76			
gr1	Voreia Ellada	33 300.30	3 387.80	9.83			
gr2	Kentriki Ellada	24 142.60	2 638.30	9.15			
gr3	Attiki	38 757.60	3 447.60	11.24			
gr4	Nisia Aigaiou, Kriti	10 902.50	1 012.90	10.76			
hu01	Közép-Magyarország	17 026.40	2 880.70	5.91	Y		Y
hu02	Közép-Dunántúl	4 246.80	1 113.80	3.81	Y		Y
hu03	Nyugat-Dunántúl	4 152.80	995.10	4.17	Y		Y
hu04	Dél-Dunántúl	3 049.40	990.40	3.08	Y		Y
hu05	Észak-Magyarország	3 442.60	1 290.80	2.67	Y		Y
hu06	Észak-Alföld	4 221.20	1 539.20	2.74	Y		Y
hu07	Dél-Alföld	4 212.80	1 364.40	3.09	Y		Y
it1	Nord Ovest	123 451.30	6 064.10	20.36			
it2	Lombardia	213 840.00	8 958.70	23.87			
it3	Nord Est	140 325.60	6 557.80	21.40			
it4	Emilia-Romagna	90 086.30	3 937.90	22.88		Y	
it5	Centro (I)	109 539.10	5 802.20	18.88			
it6	Lazio	104 712.40	5 217.20	20.07			
it7	Abruzzo-Molise	23 824.50	1 604.40	14.85			
it8	Campania	66 254.80	5 785.40	11.45			
it9	Sud	76 835.30	6 769.70	11.35			
ita	Sicilia	58 904.00	5 100.80	11.55			
itb	Sardegna	22 218.00	1 663.00	13.36			
lt00	*Lituania*	*8 452.10*	*3 580.00*	2.36	Y		Y
lu0	*Luxembourg*	*15 421.80*	*424.00*	36.37		Y	
lv00	*Latvia*	*4 958.30*	*2 433.00*	2.04	Y		Y
mt00	*Malta*	*2 944.50*	*383.00*	7.69	Y		Y
nl1	Noord-Nederland	33 764.40	1 634.00	20.66			
nl2	Oost-Nederland	58 883.70	3 225.50	18.26			
nl3	West-Nederland	171 101.60	7 267.30	23.54			
nl4	Zuid-Nederland	68 904.20	3 440.30	20.03			
pl01	Dolnoslaskie	10 143.80	2 985.40	3.40	Y		Y
pl02	Kujawsko-Pomorskie	6 292.60	2 098.00	3.00	Y		Y
pl03	Lubelskie	5 486.80	2 242.00	2.45	Y		Y
pl04	Lubuskie	3 074.60	1 020.30	3.01	Y		Y
pl05	Lódzkie	7 866.30	2 672.80	2.94	Y		Y
pl06	Malopolskie	9 462.80	3 206.60	2.95	Y		Y
pl07	Mazowieckie	22 743.00	5 065.00	4.49	Y		Y
pl08	Opolskie	3 288.60	1 091.10	3.01	Y		Y
pl09	Podkarpackie	5 371.00	2 117.30	2.54	Y		Y
pl0a	Podlaskie	3 185.20	1 223.90	2.60	Y		Y
pl0b	Pomorskie	6 972.20	2 179.10	3.20	Y		Y
pl0c	Slaskie	18 941.20	4 894.20	3.87	Y		Y

NUTS1	Name	GDP (millions of euros)	Population (thousands)	GDP per capita (thousands)	AccCount	20HIGH	40LOW
pl0d	Swietokrzyskie	3 363.40	1 327.90	2.53	Y		Y
pl0e	Warminsko-Mazurskie	3 783.70	1 460.40	2.59	Y		Y
pl0f	Wielkopolskie	11 486.80	3 346.00	3.43	Y		Y
pl0g	Zachodniopomorskie	5 669.40	1 729.80	3.28	Y		Y
pt1	Portugal (Continent)	89 897.80	9 583.80	9.38			
pt2	Açores (PT)	1 627.70	238.50	6.82			Y
pt3	Madeira (PT)	2 364.20	247.50	9.55			
se0	*Sweden*	218 489.30	8 846.00	24.70			
si00	*Slovenia*	16 062.70	1 987.00	8.08	Y		Y
sk01	Bratislavský	4 457.50	618.90	7.20	Y		Y
sk02	Západné Slovensko	5 933.10	1 876.60	3.16	Y		Y
sk03	Stredné Slovensko	4 042.60	1 351.80	2.99	Y		Y
sk04	Východné Slovensko	4 162.70	1 531.60	2.72	Y		Y
ukc	North East	40 472.60	2 597.40	15.58			
ukd	North West (including Merseyside)	121 096.90	6 888.00	17.58			
uke	Yorkshire and The Humber	88 935.70	5 036.20	17.66			
ukf	East Midlands	79 033.20	4 148.90	19.05			
ukg	West Midlands	96 629.90	5 318.70	18.17			
ukh	Eastern	108 667.70	5 313.40	20.45			
uki	London	204 042.70	7 098.20	28.75		Y	
ukj	South East	171 470.20	7 927.10	21.63		Y	
ukk	South West	89 603.20	4 858.80	18.44			
ukl	Wales	46 841.50	2 924.00	16.02			
ukm	Scotland	98 079.10	5 122.50	19.15			
ukn	Northern Ireland	26 675.70	1 680.30	15.88			
EUROPE	All european regions	7561660.90	449609.80	16.82			
EU15	European union (15)	7427697.60	412340.00	18.01			
AccCount	Accessing countries	277157.40	77916.60	3.56			
20HIGH	20 highest-GDP-per-capita regions	2800240.10	108212.00	25.88			
40LOW	40 lowest-GDP-per-capita regions	260617.30	76250.10	3.42			

Source: Eurostat, GTAP

Table 2:Average level of Protection of / faced by EU

Initial levels (%)

EU's protection

i	ACP	Cairns	DvgAsia	Japan	Row	USA	Av. Tariff
Agri_Ind	24.95	28.39	12.73	17.50	10.71	28.27	20.43
Animals	0.61	23.45	12.36	3.01	16.57	8.19	10.70
Cereals	0.96	9.13	2.32	8.23	7.81	3.86	5.38
Chim_Ind	0.00	2.43	1.40	3.91	1.41	3.44	2.10
Extraction	0.00	0.02	0.03	0.18	0.00	0.05	0.05
Fishing	0.10	7.36	5.84	7.37	3.63	8.62	5.49
Mach_Ind	0.00	0.92	0.82	1.86	0.58	1.05	0.87
Metal_Ind	0.01	1.60	2.57	1.98	1.06	2.28	1.58
OthInd	0.00	1.16	1.70	1.79	0.58	1.39	1.10
OthVeg	1.26	5.78	2.78	5.66	5.16	5.03	4.28
Paper_Ind	0.00	0.05	0.02	0.30	0.03	0.19	0.10
Tex_Ind	0.00	7.72	8.69	6.84	3.63	6.87	5.62
Tran_Ind	0.00	7.10	2.05	7.90	3.21	4.06	4.05
Wood_Ind	0.00	1.19	0.39	1.88	0.19	1.44	0.85
Av. Tariff	1.99	6.88	3.84	4.89	3.90	5.34	4.47

Protection faced by EU

i	ACP	Cairns	DvgAsia	Japan	Row	USA	Av. Tariff
Agri_Ind	27.46	27.36	14.50	31.97	30.45	5.51	22.88
Animals	9.17	5.87	4.12	51.58	25.59	0.77	16.18
Cereals	6.99	8.32	17.34	151.16	54.89	1.99	40.12
Chim_Ind	10.71	5.66	7.75	1.85	4.82	2.26	5.51
Extraction	7.67	1.79	3.04	0.96	2.27	0.08	2.64
Fishing	19.13	2.16	1.39	4.68	12.46	0.46	6.71
Mach_Ind	8.36	4.23	5.64	0.12	4.58	1.19	4.02
Metal_Ind	13.84	5.67	7.10	0.97	5.03	1.94	5.76
OthInd	29.79	6.16	9.64	1.84	5.00	2.36	9.13
OthVeg	15.39	3.66	12.12	5.26	21.92	3.41	10.30
Paper_Ind	10.92	4.02	7.03	0.02	3.65	0.08	4.29
Tex_Ind	17.85	14.26	8.25	8.88	10.05	9.07	11.39
Tran_Ind	11.47	9.39	7.99	0.00	8.49	2.35	6.61
Wood_Ind	22.34	6.53	3.28	1.61	5.30	0.72	6.63
Av. Tariff	15.08	7.51	7.80	18.64	13.89	2.30	10.87

Post Tariff Peaks Cut Level(%)

EU's protection

i	ACP	Cairns	DvgAsia	Japan	Row	USA	Av. Tariff
Agri_Ind	3.13	9.52	7.69	10.57	6.00	11.08	8.00
Animals	0.44	7.06	4.64	2.66	4.88	2.82	3.75
Cereals	0.51	6.33	2.04	4.56	7.60	3.59	4.11
Chim_Ind	0.00	2.53	1.42	4.08	1.46	3.62	2.19
Extraction	0.00	0.02	0.03	0.18	0.00	0.05	0.05
Fishing	0.10	7.36	5.84	7.37	3.63	8.62	5.49
Mach_Ind	0.00	0.92	0.82	1.86	0.58	1.05	0.87
Metal_Ind	0.01	2.21	2.83	5.13	2.03	3.22	2.57
OthInd	0.00	1.23	1.97	2.09	0.63	1.48	1.23
OthVeg	1.13	4.40	2.28	5.20	4.50	4.76	3.71
Paper_Ind	0.00	0.67	0.17	1.55	0.35	1.00	0.62
Tex_Ind	0.00	7.76	8.69	7.29	3.73	7.23	5.78
Tran_Ind	0.00	7.05	2.05	7.85	3.21	4.02	4.03
Wood_Ind	0.00	1.19	0.39	1.88	0.19	1.44	0.85
Av. Tariff	0.38	4.16	2.92	4.45	2.77	3.86	3.09

Protection faced by EU

i	ACP	Cairns	DvgAsia	Japan	Row	USA	Av. Tariff
Agri_Ind	12.59	7.41	7.94	11.38	9.29	4.95	8.93
Animals	7.72	2.28	3.69	10.52	6.61	0.77	5.27
Cereals	4.83	5.09	3.59	10.79	7.57	1.99	5.64
Chim_Ind	7.44	4.90	5.82	1.88	4.42	2.49	4.49
Extraction	6.45	1.35	2.27	0.96	2.12	0.08	2.21
Fishing	11.82	1.11	1.48	4.68	7.33	0.46	4.48
Mach_Ind	6.86	4.09	5.95	0.12	4.23	1.19	3.74
Metal_Ind	9.10	5.12	5.14	1.26	4.64	2.39	4.61
OthInd	13.13	5.51	5.90	1.92	4.24	2.36	5.51
OthVeg	8.68	2.89	6.18	4.91	7.53	2.64	5.47
Paper_Ind	7.64	3.90	5.89	0.42	3.96	0.53	3.72
Tex_Ind	10.38	11.46	10.35	8.99	6.75	8.93	9.48
Tran_Ind	9.31	5.57	5.21	0.00	4.87	1.97	4.49
Wood_Ind	12.20	5.85	3.89	1.61	4.55	0.74	4.81
Av. Tariff	9.15	4.75	5.24	4.25	5.58	2.25	5.20

Source: Authors' calculations. MacMap Database.

Note: "Av. Tariff" displays the simple average of columns/lines data and not the aggregated tariffs.

Table 3: Complete liberalisation results: Value-Added in volume by sector (initial share in regional GDP and % of changes), Real GDP in volume (initial level in 1997 USD and % of changes), Equivalent variation (as % of initial income) and Adjustment indicator.

Region		VA - Agric.sect.		VA - Manuf. Sect.		VA - Tex_Wea. Sect		Real GDP		Eq. Var.	Adj.
		Share	Ch. (%)	Share	Ch. (%)	Share	Ch. (%)	Init.Val.	Ch. (%)	%	Ind.
at1	Ostosterreich	4.11	-2.85	12.57	0.15	0.28	-6.50	89	0.37	0.07	1.45
at2	Sudosterreich	5.24	-2.98	20.58	0.10	0.51	-6.42	37 010	0.28	0.00	1.74
at3	Westosterreich	4.70	-2.73	20.30	0.10	0.66	-6.40	72 280	0.33	0.05	1.65
be1	Region Bruxelles	1.34	-8.37	10.17	0.82	0.26	-7.32	44 170	0.82	0.40	1.66
be2	Vlaams Gewest	5.67	-8.89	22.93	1.75	2.57	-7.63	135 600	0.59	0.14	3.02
be3	Region Wallonne	4.24	-9.04	15.82	0.99	0.55	-7.31	53 910	0.57	0.22	2.17
cy00	Chypre	3.76	-2.46	12.25	1.71	0.00	-4.21	8 397	1.55	0.45	2.36
cz01	Praha	2.66	-0.89	9.08	1.05	1.19	-8.44	10 540	0.43	0.18	1.24
cz02	Stredni Cechy	15.93	-2.05	29.18	1.02	3.82	-8.52	4 402	0.07	0.02	2.64
cz03	Jihozapad	16.64	-2.29	25.22	0.97	3.30	-8.62	5 571	-0.02	0.01	2.60
cz04	Severozapad	9.37	-1.69	21.66	1.05	2.84	-8.49	5 063	0.35	0.12	2.20
cz05	Severovychod	14.89	-1.93	29.38	1.05	3.85	-8.48	6 578	0.11	0.03	2.58
cz06	Jihovychod	15.11	-2.27	23.65	0.98	3.10	-8.60	7 335	0.03	0.03	2.51
cz07	Stredni Morava	15.15	-2.01	28.59	1.04	3.75	-8.50	5 317	0.09	0.03	2.58
cz08	Moravskoslezko	10.44	-1.43	27.58	1.11	3.61	-8.39	6 287	0.38	0.11	2.37
de1	Baden-Wurttemberg	3.84	-3.23	30.82	0.89	1.40	-8.52	282 700	0.26	0.10	1.58
de2	Bayern	5.30	-3.50	22.53	0.99	1.28	-8.37	333 500	0.23	0.03	1.66
de3	Berlin	2.99	-2.61	8.58	0.93	0.26	-7.92	85 130	0.36	0.28	0.86
de4	Brandenburg	4.75	-3.83	10.92	1.05	0.22	-7.98	50 380	0.32	0.24	1.27
de5	Bremen	8.01	-3.02	19.28	1.23	0.45	-8.32	22 530	0.26	0.10	1.34
de6	Hamburg	2.76	-2.38	11.51	0.87	0.05	-8.06	63 280	0.34	0.10	0.73
de7	Hessen	3.24	-3.07	19.00	0.86	0.58	-8.24	172 400	0.33	0.19	1.18
de8	Mecklenburg-Vorp.	9.15	-2.64	6.51	1.40	0.60	-7.93	36 210	0.28	0.18	1.54
de9	Niedersachsen	7.81	-3.83	18.15	1.12	0.58	-8.15	190 900	0.20	-0.01	1.63
dea	Nordrhein-Westfalen	3.96	-3.14	22.11	0.87	1.02	-8.25	459 300	0.29	0.11	1.41
deb	Rheinland-Pfalz	4.42	-3.21	21.65	0.84	0.81	-8.19	94 950	0.31	0.19	1.35
dec	Saarland	4.20	-3.06	26.09	0.93	0.31	-8.30	26 510	0.33	0.32	1.08
ded	Sachsen	4.65	-3.22	14.00	1.14	1.48	-8.11	83 660	0.33	0.29	1.68
dee	Sachsen-Anhalt	6.80	-3.51	12.01	1.00	0.08	-7.86	49 780	0.30	0.27	1.23
def	Schleswig-Holstein	6.91	-2.95	12.36	0.91	0.21	-7.99	72 030	0.25	0.08	1.27
deg	Thuringen	6.27	-3.45	14.43	1.00	0.77	-8.02	44 270	0.30	0.26	1.50
dk0	Danemark	7.52	-6.24	15.22	0.59	0.77	-8.08	165 100	0.30	0.36	1.93
ee00	Estonie	13.50	-1.05	18.23	8.77	3.71	-16.06	3 895	2.26	0.64	14.68
ei0	Eire	9.04	-21.40	29.29	2.85	0.77	-9.07	67 230	-0.21	0.85	4.96
es1	Noroeste	11.19	-12.21	14.64	2.38	1.03	-4.21	47 590	-0.27	-0.08	4.98
es2	Noreste	6.38	-11.44	26.33	1.81	0.97	-5.26	64 880	0.03	0.35	3.34
es3	Com. Madrid	1.86	-9.28	12.17	1.26	0.66	-5.36	85 660	0.34	1.00	1.63
es4	Centro (ES)	13.19	-11.37	11.84	2.06	1.75	-4.05	57 060	-0.56	-0.85	4.54
es5	Este	5.79	-10.44	19.96	1.62	3.35	-4.65	165 800	0.10	0.54	3.13
es6	Sur	11.61	-11.51	9.35	2.02	0.90	-4.18	83 640	-0.42	-0.45	4.44
es7	Canarias (ES)	6.83	-11.73	3.94	1.78	0.06	-4.73	20 180	0.00	0.43	3.78
fi1	Manner-Suomi	6.95	-6.19	21.82	1.97	0.76	-8.95	116 800	0.38	0.14	2.15
fi2	Aland	9.41	-6.34	7.04	1.52	0.06	-8.68	751	0.27	-0.17	2.11
fr1	Ile de France	1.50	-4.49	12.22	0.76	0.45	-5.74	359 200	0.41	0.57	0.96
fr2	Bassin Parisien	8.33	-5.65	25.97	0.91	1.00	-5.78	221 000	0.05	0.08	1.84
fr3	Nord - Pas-de-Calais	6.38	-4.94	22.22	0.97	2.24	-5.76	73 360	0.21	0.27	1.82
fr4	Est	6.04	-5.52	28.42	0.85	1.02	-5.83	110 800	0.17	0.31	1.65
fr5	Ouest	13.62	-6.67	18.84	0.98	1.21	-5.86	160 800	-0.39	-0.51	2.46
fr6	Sud-Ouest	8.57	-5.94	15.53	0.92	0.92	-5.70	125 400	0.02	-0.02	1.90
fr7	Centre-Est	5.07	-5.78	25.47	0.94	1.46	-5.92	161 300	0.18	0.31	1.69
fr8	Mediterranee	4.68	-4.58	9.76	0.97	0.35	-5.48	134 700	0.33	0.35	1.27
fr9	DOM	5.89	-4.85	5.24	1.03	0.10	-5.43	22 150	0.32	0.48	1.40
gr1	Voreia Ellada	20.44	-3.73	14.61	-0.03	5.68	-3.85	33 070	-0.39	-0.24	3.03
gr2	Kentriki Ellada	26.35	-3.25	14.30	0.39	1.57	-4.13	23 550	-0.44	-0.32	2.76
gr3	Attiki	7.97	-2.69	18.16	0.18	2.11	-3.59	46 050	0.20	0.99	1.97
gr4	Nisia Aigaiou Kriti	39.71	-1.46	5.92	-0.43	1.17	-3.94	12 690	-0.21	-0.09	2.42
hu01	Kozep-Magyarorszag	4.06	0.41	13.06	0.79	2.30	-10.98	17 190	0.63	0.17	2.79
hu02	Kozep-Dunantul	12.43	0.39	28.11	0.79	4.96	-11.12	4 188	0.51	0.23	4.64
hu03	Nyugat-Dunantul	12.28	0.35	27.02	0.77	4.77	-11.15	4 132	0.51	0.23	4.61
hu04	Del-Dunantul	15.08	-0.48	12.69	0.32	2.24	-12.24	2 930	0.28	0.36	4.79
hu05	eszak-Magyarorszag	11.22	0.10	20.05	0.62	3.54	-11.48	3 368	0.47	0.27	4.43
hu06	eszak-Alfold	15.86	-0.29	17.86	0.41	3.15	-12.04	4 167	0.31	0.36	5.02
hu07	Del-Alfold	18.25	-0.45	17.23	0.30	3.04	-12.31	4 177	0.22	0.41	5.29
it1	Nord Ovest	4.88	-2.93	19.21	0.29	1.85	-4.68	135 600	0.06	-0.03	1.44
it2	Lombardia	4.48	-3.01	23.38	0.53	3.05	-4.74	233 900	0.03	-0.03	1.59
it3	Nord Est	5.75	-3.19	20.34	0.68	3.54	-4.68	154 900	-0.01	-0.12	1.70
it4	Emilia-Romagna	7.90	-3.04	19.49	0.66	2.28	-4.74	98 450	-0.06	-0.21	1.70
it5	Centro (I)	4.61	-2.83	15.45	0.69	6.05	-4.49	120 400	0.00	-0.02	1.75
it6	Lazio	2.79	-3.21	7.66	0.19	0.43	-4.83	112 200	0.17	0.20	1.10
it7	Abruzzo-Molise	6.99	-3.00	13.83	0.38	3.74	-4.54	26 040	-0.05	-0.20	1.70
it8	Campania	5.09	-3.05	8.92	0.29	1.83	-4.65	71 730	0.07	0.04	1.39
it9	Sud	7.38	-3.23	8.47	0.56	2.31	-4.54	83 430	-0.03	-0.18	1.46
ita	Sicilia	6.63	-3.52	6.15	0.42	0.35	-4.71	63 530	0.02	-0.09	1.31
itb	Sardegna	8.14	-3.56	7.40	0.46	0.44	-4.86	24 270	-0.08	-0.28	1.64

	Region	VA - Agric.sect.		VA - Manuf. Sect.		VA - Tex_Wea. Sect		Real GDP		Eq. Var.	Adj.
		Share	Ch. (%)	Share	Ch. (%)	Share	Ch. (%)	Init.Val.	Ch. (%)	%	Ind.
lt00	Lituania	15.85	-1.15	11.71	6.78	3.57	-5.78	8 318	2.05	0.60	7.26
lu0	Luxembourg	6.99	-9.37	19.14	1.56	1.69	-8.34	9 985	0.50	0.15	2.82
lv00	Latvia	13.59	-1.34	13.45	9.04	2.94	-11.64	4 123	1.63	0.47	9.31
mt00	Malta	1.95	-11.75	24.70	4.58	3.61	-8.96	3 334	2.71	0.45	4.76
nl1	Noord-Nederland	9.02	-2.52	16.16	0.19	0.33	-6.23	34 920	0.67	0.16	1.56
nl2	Oost-Nederland	8.65	-2.39	21.64	0.33	1.14	-6.27	67 000	0.54	0.08	1.58
nl3	West-Nederland	4.36	-2.96	11.69	0.14	0.33	-6.40	184 000	0.65	0.19	1.42
nl4	Zuid-Nederland	6.91	-2.29	26.76	0.26	1.27	-6.31	77 490	0.58	0.13	1.56
pl01	Dolnoslaskie	12.58	0.14	18.42	0.74	2.60	-9.19	9 795	0.54	0.16	2.09
pl02	Kujawsko-Pomorskie	17.32	0.12	21.05	0.78	2.97	-9.10	6 021	0.51	0.15	2.25
pl03	Lubelskie	21.29	-0.15	14.71	0.64	2.08	-9.42	5 344	0.42	0.18	2.11
pl04	Lubuskie	14.87	0.04	16.91	0.73	2.39	-9.23	2 911	0.51	0.16	2.10
pl05	Lodzkie	14.47	0.14	19.64	0.77	2.78	-9.13	7 412	0.53	0.15	2.16
pl06	Malopolskie	12.73	0.25	20.80	0.80	2.94	-9.07	8 996	0.56	0.15	2.17
pl07	Mazowieckie	12.89	0.02	15.01	0.70	2.12	-9.26	21 460	0.53	0.17	2.00
pl08	Opolskie	17.49	0.10	20.91	0.77	2.95	-9.13	3 157	0.51	0.15	2.24
pl09	Podkarpackie	16.11	0.16	21.15	0.79	2.99	-9.08	5 127	0.52	0.15	2.23
pl0a	Podlaskie	22.23	-0.15	14.93	0.65	2.11	-9.41	3 062	0.42	0.18	2.14
pl0b	Pomorskie	12.27	0.19	18.94	0.76	2.68	-9.16	6 725	0.57	0.15	2.12
pl0c	Slaskie	8.24	0.23	17.13	0.67	2.42	-9.32	18 000	0.56	0.20	2.01
pl0d	Swietokrzyskie	16.87	0.05	18.64	0.74	2.63	-9.20	3 176	0.50	0.16	2.18
pl0e	Warminsko-Mazurskie	19.89	-0.07	16.25	0.69	2.30	-9.32	3 640	0.45	0.17	2.14
pl0f	Wielkopolskie	19.50	0.06	21.19	0.75	2.99	-9.17	11 300	0.48	0.15	2.27
pl0g	Zachodniopomorskie	15.79	-0.01	16.70	0.67	2.36	-9.32	5 410	0.53	0.17	2.12
pt1	Portugal (Continent)	6.41	-5.62	16.25	1.48	4.70	-8.04	94 430	-0.11	0.21	3.70
pt2	Acores (PT)	18.06	-6.45	3.50	0.89	0.20	-9.00	1 629	-0.77	-0.46	6.88
pt3	Madeira (PT)	4.66	-4.41	3.24	2.02	1.37	-8.00	2 480	0.07	0.37	2.27
se0	Sweden	4.00	-3.37	21.78	0.72	0.21	-13.41	228 400	0.31	0.18	1.56
si00	Slovenia	9.55	-0.64	24.78	2.28	4.34	-8.77	16 450	0.58	0.18	2.95
sk01	Bratislavsky	7.55	-2.83	21.58	0.46	4.19	-7.07	4 051	0.35	0.68	2.94
sk02	Zapadne Slovensko	17.39	-4.90	27.81	0.32	5.39	-7.36	5 600	-0.37	0.12	4.97
sk03	Stredne Slovensko	13.63	-4.15	26.80	0.39	5.20	-7.18	3 863	-0.02	0.14	4.23
sk04	Vychodne Slovensko	12.12	-4.33	23.65	0.33	4.59	-7.31	3 847	0.05	0.05	4.11
ukc	North East	5.28	-6.68	25.53	0.82	1.00	-7.61	44 330	0.35	0.42	1.96
ukd	North West	5.25	-7.02	20.34	0.98	2.70	-7.30	132 100	0.29	0.31	2.32
uke	Yorkshire	6.66	-7.59	21.07	1.01	2.02	-7.42	97 680	0.22	0.24	2.52
ukf	East Midlands	6.46	-8.05	22.81	1.17	4.53	-7.03	85 970	0.15	0.12	2.89
ukg	West Midlands	4.49	-8.51	29.87	0.87	1.17	-7.87	111 000	0.25	0.29	2.19
ukh	Eastern	4.31	-8.93	16.30	0.75	0.51	-7.95	126 600	0.21	0.19	2.10
uki	London	1.51	-5.36	6.51	0.68	0.75	-7.96	227 000	0.38	0.37	1.15
ukj	South East	2.40	-8.09	14.62	0.64	0.25	-8.03	187 800	0.32	0.27	1.50
ukk	South West	5.59	-9.51	18.70	0.67	0.68	-7.86	99 130	0.10	0.09	2.46
ukl	Wales	5.53	-8.29	22.73	0.80	0.74	-7.77	49 100	0.23	0.30	2.26
ukm	Scotland	6.65	-7.44	14.86	0.90	1.10	-7.64	106 200	0.23	0.24	2.41
ukn	Northern Ireland	10.46	-8.93	18.16	0.95	1.90	-7.38	30 000	-0.10	0.00	3.29
aut	**Austria**	4.54	-2.83	16.88	0.11	0.46	-6.43	198 600	0.34	0.05	1.58
bel	**Belgium**	4.53	-8.89	18.88	1.51	1.67	-7.59	233 700	0.63	0.23	2.64
cyp	**Cyprus**	3.76	-2.46	12.25	1.71	0.00	-4.21	8 397	1.55	0.45	2.36
cze	**Czech Republic**	11.61	-1.95	22.81	1.03	2.99	-8.51	51 090	0.20	0.08	2.30
deu	**Germany**	4.81	-3.30	20.25	0.94	0.89	-8.30	2 068 000	0.28	0.12	1.45
dnk	**Denmark**	7.52	-6.24	15.22	0.59	0.77	-8.08	165 100	0.30	0.36	1.93
esp	**Spain**	7.49	-11.23	15.77	1.75	1.71	-4.60	524 800	-0.06	0.19	3.62
est	**Estonia**	13.50	-1.05	18.23	8.77	3.71	-16.06	3 895	2.26	0.64	14.68
fin	**Finland**	6.96	-6.19	21.73	1.96	0.76	-8.95	117 600	0.38	0.13	2.15
fra	**France**	6.13	-5.77	18.66	0.90	0.92	-5.80	1 369 000	0.16	0.20	1.68
gbr	**United Kingdom**	4.48	-7.93	17.36	0.85	1.29	-7.48	1 297 000	0.25	0.25	2.13
grc	**Greece**	18.92	-2.90	14.97	0.13	2.93	-3.81	115 300	-0.15	0.24	2.54
hun	**Hungary**	9.88	-0.02	17.54	0.65	3.09	-11.39	40 150	0.49	0.25	4.11
irl	**Ireland**	9.04	-21.40	29.29	2.85	0.77	-9.07	67 230	-0.21	0.85	4.96
itl	**Italy**	5.36	-3.10	16.13	0.52	2.64	-4.64	1 125 000	0.02	-0.06	1.54
ltu	**Lithuania**	15.85	-1.15	11.71	6.78	3.57	-5.78	8 318	2.05	0.60	7.26
lux	**Luxembourg**	6.99	-9.37	19.14	1.56	1.69	-8.34	9 985	0.50	0.15	2.82
lva	**Latvia**	13.59	-1.34	13.45	9.04	2.94	-11.64	4 123	1.63	0.47	9.31
mlt	**Malta**	1.95	-11.75	24.70	4.58	3.61	-8.96	3 334	2.71	0.45	4.76
nld	**Netherlands**	6.13	-2.59	17.14	0.23	0.68	-6.32	363 500	0.62	0.15	1.50
pol	**Poland**	14.42	0.08	18.05	0.73	2.55	-9.21	121 500	0.52	0.17	2.12
prt	**Portugal**	6.57	-5.64	15.71	1.48	4.54	-8.04	98 530	-0.11	0.20	3.74
svk	**Slovakia**	13.08	-4.34	25.20	0.37	4.89	-7.25	17 360	-0.03	0.21	4.23
svn	**Slovenia**	9.55	-0.64	24.78	2.28	4.34	-8.77	16 450	0.58	0.18	2.95
swe	**Sweden**	4.00	-3.37	21.78	0.72	0.21	-13.41	228 400	0.31	0.18	1.56
	EU-25	5.82	-5.24	18.30	0.92	1.37	-6.50	8 255 000	0.22	0.16	2.10
	EU-15	5.59	-5.57	18.26	0.91	1.32	-6.29	7 981 000	0.21	0.16	2.03
	AccCount	12.41	-0.79	19.51	1.25	2.98	-9.18	274 700	0.57	0.20	3.74
	20-richest regions	4.11	-3.90	17.90	0.83	0.81	-7.73	3 031 000	0.30	0.19	1.45
	40-poorest regions	13.12	-0.83	20.08	1.25	3.13	-9.19	257 300	0.53	0.19	3.87

Source: Authors' calculations.

Table 4: TOP-5 of strongest variations in volume of trade (extra-EU) and production in the Complete liberalisation scenario (value in Mios of 1997 USD).

	Exports (rises)				Imports (rises)				Production (rises)				Production (falls)			
		Region	Vol.	%		Region	Vol.	%		Region	Vol.	%		Region	Vol.	%
Animals	nl2	Oost-Nederlan	85	69.9	dk0	Danemark	121	89.4	mt00	Malta	2	4.5	fr5	Ouest	-1170	-10.3
	nl4	Zuid-Nederlanc	79	70.2	ei0	Eire	86	126.9	ee00	Estonie	1	0.3	ei0	Eire	-934	-23.1
	nl1	Noord-Nederla	40	69.8	be2	Vlaams Gewes	44	150.2	nl4	Zuid-Nederlanc	1	0.0	fr2	Bassin Parisiei	-563	-10.1
	nl3	West-Nederlar	29	69.6	se0	Sweden	40	135.9	de3	Berlin	0	-6.9	es6	Sur	-485	-12.5
	de2	Bayern	24	29.3	pt1	Portugal (Cont	36	170.6	de6	Hamburg	-1	-7.0	es4	Centro (ES)	-408	-12.5
Cereals	hu07	Del-Alfold	17	49.5	be2	Vlaams Gewes	28	45.9	hu07	Del-Alfold	14	6.1	fr5	Ouest	-361	-11.2
	hu06	eszak-Alfold	14	49.8	ee00	Estonie	22	46.6	hu06	eszak-Alfold	12	6.3	fr2	Bassin Parisiei	-173	-11.0
	lt00	Lituania	11	49.6	pt1	Portugal (Cont	11	14.6	hu04	Del-Dunantul	8	6.2	fr6	Sud-Ouest	-123	-11.0
	hu04	Del-Dunantul	10	49.6	lt00	Lituania	11	57.7	hu02	Kozep-Dunantı	7	6.8	dk0	Danemark	-106	-13.0
	hu02	Kozep-Dunantı	8	50.5	fi1	Manner-Suomi	7	54.6	hu03	Nyugat-Dunan	7	6.8	es6	Sur	-100	-12.7
OthVeg	nl3	West-Nederlar	157	22.9	fi1	Manner-Suomi	143	24.1	mt00	Malta	3	17.3	es6	Sur	-626	-12.6
	nl2	Oost-Nederlan	85	23.3	se0	Sweden	141	20.3	cz01	Praha	0	-2.6	es4	Centro (ES)	-528	-12.6
	nl1	Noord-Nederla	59	23.1	pt1	Portugal (Cont	136	16.7	fi2	Aland	-1	-3.1	es5	Este	-360	-13.0
	gr1	Voreia Ellada	51	18.6	dk0	Danemark	84	20.7	pl04	Lubuskie	-1	-0.6	fr2	Bassin Parisiei	-281	-3.9
	nl4	Zuid-Nederlanc	43	23.2	be2	Vlaams Gewes	37	6.2	de5	Bremen	-1	-4.8	es2	Noreste	-232	-13.3
Agri_Ind	dk0	Danemark	822	22.2	dk0	Danemark	1286	96.0	ee00	Estonie	62	7.2	ei0	Eire	-2640	-19.6
	nl3	West-Nederlar	632	27.4	pt1	Portugal (Cont	815	114.2	lt00	Lituania	47	2.8	be2	Vlaams Gewes	-1860	-8.7
	nl4	Zuid-Nederlanc	467	27.7	se0	Sweden	632	95.9	si00	Slovenia	40	1.1	es5	Este	-1530	-8.3
	fr5	Ouest	394	17.7	be2	Vlaams Gewes	568	114.7	pl07	Mazowieckie	15	0.4	fr5	Ouest	-1390	-4.6
	nl2	Oost-Nederlan	382	27.5	ei0	Eire	537	158.8	pl0c	Slaskie	15	0.4	dk0	Danemark	-1230	-5.3
Fishing	dk0	Danemark	6	30.0	dk0	Danemark	22	7.0	pt1	Portugal (Cont	11	1.7	es1	Noroeste	-367	-16.7
	ukm	Scotland	4	16.9	se0	Sweden	8	12.1	ukm	Scotland	4	0.6	es6	Sur	-153	-16.6
	fr5	Ouest	3	7.5	fi1	Manner-Suomi	7	39.0	fr5	Ouest	4	0.4	es5	Este	-122	-16.6
	gr4	Nisia Aigaiou K	3	8.0	es5	Este	6	81.7	gr3	Attiki	4	0.1	ei0	Eire	-104	-16.6
	gr2	Kentriki Ellada	2	8.0	pt1	Portugal (Cont	5	26.7	nl3	West-Nederlar	3	1.4	es7	Canarias (ES)	-72	-16.7
Extraction	ukm	Scotland	83	7.5	ei0	Eire	10	1.8	ukm	Scotland	131	1.8	ee00	Estonie	-1	-0.5
	cy00	Chypre	60	7.3	fi1	Manner-Suomi	5	0.3	nl1	Noord-Nederla	88	1.6	de5	Bremen	0	0.9
	uke	Yorkshire	24	7.5	be2	Vlaams Gewes	4	0.2	cy00	Chypre	58	5.4	fi2	Aland	0	2.0
	ukf	East Midlands	24	7.6	si00	Slovenia	2	1.2	it2	Lombardia	44	1.6	lv00	Latvia	0	0.2
	se0	Sweden	19	8.4	ee00	Estonie	2	1.4	pl0c	Slaskie	39	0.8	de3	Berlin	0	1.0
Tex_Ind	es5	Este	223	13.6	se0	Sweden	492	30.6	fi2	Aland	0	-8.7	dea	Nordrhein-We:	-1160	-8.3
	it5	Centro (I)	180	4.5	dk0	Danemark	415	30.9	pt2	Acores (PT)	-1	-9.0	pt1	Portugal (Cont	-1100	-8.0
	it2	Lombardia	164	4.2	pt1	Portugal (Cont	262	39.1	es7	Canarias (ES)	-1	-4.7	de2	Bayern	-1080	-8.4
	it3	Nord Est	129	4.2	be2	Vlaams Gewes	225	22.5	fr9	DOM	-3	-5.4	de1	Baden-Wurtter	-1020	-8.5
	fr7	Centre-Est	111	10.1	fi1	Manner-Suomi	197	37.4	de6	Hamburg	-8	-8.1	it2	Lombardia	-1010	-4.7
Chim_Ind	ei0	Eire	633	12.2	be2	Vlaams Gewes	132	6.3	ei0	Eire	662	4.5	se0	Sweden	-247	-1.1
	dea	Nordrhein-We:	479	6.2	ei0	Eire	115	6.8	be2	Vlaams Gewes	264	0.9	it2	Lombardia	-89	-0.2
	be2	Vlaams Gewes	444	7.2	se0	Sweden	105	5.9	dea	Nordrhein-We:	186	0.3	it1	Nord Ovest	-26	-0.2
	fr2	Bassin Parisiei	347	7.0	fi1	Manner-Suomi	69	4.9	nl3	West-Nederlar	147	0.7	it3	Nord Est	-25	-0.2
	de2	Bayern	292	6.2	dk0	Danemark	59	5.1	nl4	Zuid-Nederlanc	135	0.8	pt1	Portugal (Cont	-21	-0.2
Mach_Ind	se0	Sweden	1144	7.2	ei0	Eire	340	3.8	se0	Sweden	925	2.4	nl3	West-Nederlar	-48	-0.3
	de1	Baden-Wurtter	981	5.1	se0	Sweden	198	3.5	ei0	Eire	879	4.1	ee00	Estonie	-23	-4.9
	dea	Nordrhein-We:	869	5.2	fi1	Manner-Suomi	144	4.3	fi1	Manner-Suomi	780	3.6	nl1	Noord-Nederla	-6	-0.1
	de2	Bayern	828	5.3	dk0	Danemark	70	2.8	dea	Nordrhein-We:	621	0.9	nl4	Zuid-Nederlanc	-4	0.0
	fi1	Manner-Suomi	650	10.1	be2	Vlaams Gewes	30	1.8	de1	Baden-Wurtter	621	0.7	nl2	Oost-Nederlan	-1	0.0

	Exports (rises)				Imports (rises)				Production (rises)				Production (falls)			
		Region	Vol.	%		Region	Vol.	%		Region	Vol.	%		Region	Vol.	%
Metal_Ind	dea	Nordrhein-Wes	721	10.3	se0	Sweden	109	6.9	dea	Nordrhein-Wes	907	1.1	se0	Sweden	-2	0.0
	ukg	West Midlands	423	14.2	fi1	Manner-Suomi	82	6.9	es5	Este	468	2.9	be1	Region Bruxell	0	0.0
	es5	Este	316	20.7	be2	Vlaams Gewes	53	6.6	ukg	West Midlands	397	1.5	ee00	Estonie	0	0.0
	de1	Baden-Wurtter	298	10.2	dk0	Danemark	43	6.3	fr2	Bassin Parisier	381	1.1	fi2	Aland	0	1.9
	es2	Noreste	264	20.4	ei0	Eire	31	6.1	es2	Noreste	361	2.6	pt2	Acores (PT)	1	1.1
OthInd	be2	Vlaams Gewes	1291	15.9	be2	Vlaams Gewes	383	12.2	be2	Vlaams Gewes	1332	13.0	at3	Westosterreich	-11	-0.3
	be3	Region Wallon	145	15.9	lu0	Luxembourg	30	8.9	be3	Region Wallon	149	12.9	at1	Ostosterreich	-8	-0.4
	ukd	North West	101	11.3	se0	Sweden	18	4.5	ukd	North West	129	3.1	at2	Sudosterreich	-5	-0.3
	ukg	West Midlands	81	10.9	dk0	Danemark	11	3.7	uke	Yorkshire	97	3.0	se0	Sweden	-4	-0.1
	uke	Yorkshire	77	11.2	ei0	Eire	6	3.3	ukf	East Midlands	96	3.2	hu07	Del-Alfold	0	-0.3
Paper_Ind	fi1	Manner-Suomi	173	6.0	lt00	Lituania	1	3.1	fi1	Manner-Suomi	201	1.1	ei0	Eire	-21	-1.2
	se0	Sweden	72	3.6	ee00	Estonie	1	3.1	dea	Nordrhein-Wes	69	0.5	se0	Sweden	-11	-0.1
	dea	Nordrhein-Wes	53	5.4	si00	Slovenia	0	1.1	de2	Bayern	56	0.5	be1	Region Bruxell	-3	-0.2
	fr1	Ile de France	45	6.5	lv00	Latvia	0	1.8	fr1	Ile de France	52	0.3	dk0	Danemark	-1	0.0
	de1	Baden-Wurtter	44	5.3	cy00	Chypre	0	0.8	de1	Baden-Wurtter	49	0.4	be3	Region Wallon	-1	-0.1
Tran_Ind	de1	Baden-Wurtter	2837	32.4	se0	Sweden	721	45.1	de1	Baden-Wurtter	932	1.8	it1	Nord Ovest	-245	-1.5
	de2	Bayern	2482	32.7	be2	Vlaams Gewes	470	52.9	de2	Bayern	898	2.0	at3	Westosterreich	-226	-4.9
	de9	Niedersachsen	1785	32.7	dk0	Danemark	398	38.4	be2	Vlaams Gewes	717	3.8	at2	Sudosterreich	-134	-4.9
	dea	Nordrhein-Wes	1481	32.7	ei0	Eire	386	57.2	de9	Niedersachsen	647	2.0	at1	Ostosterreich	-134	-5.1
	be2	Vlaams Gewes	1430	49.3	pt1	Portugal (Cont	370	63.8	dea	Nordrhein-Wes	529	2.0	it2	Lombardia	-117	-1.6
Wood_Ind	se0	Sweden	79	5.3	se0	Sweden	9	2.5	pt1	Portugal (Cont	106	3.4	sk02	Zapadne Slove	-5	-1.8
	fi1	Manner-Suomi	75	10.1	dk0	Danemark	8	2.5	fi1	Manner-Suomi	90	1.7	sk03	Stredne Slover	-3	-1.7
	pt1	Portugal (Cont	62	15.7	ee00	Estonie	6	25.2	es5	Este	68	2.1	sk04	Vychodne Slov	-3	-1.8
	es5	Este	54	19.3	ei0	Eire	5	3.4	it3	Nord Est	60	0.9	sk01	Bratislavsky	-3	-1.7
	dea	Nordrhein-Wes	40	9.0	be2	Vlaams Gewes	5	2.7	se0	Sweden	50	0.8	lv00	Latvia	-3	-0.5
Trade	es5	Este	66	4.7	ee00	Estonie	3	1.4	es5	Este	180	0.4	fr5	Ouest	-84	-0.4
	nl3	West-Nederlar	42	3.4	fi2	Aland	0	-1.9	dea	Nordrhein-Wes	147	0.2	fr2	Bassin Parisier	-66	-0.2
	es6	Sur	39	5.0	pt2	Acores (PT)	0	-7.3	ukd	North West	129	0.4	fr1	Ile de France	-61	-0.1
	fr1	Ile de France	38	3.3	pt3	Madeira (PT)	0	-4.0	nl3	West-Nederlar	126	0.2	pt1	Portugal (Cont	-50	-0.3
	dea	Nordrhein-Wes	36	3.0	pl08	Opolskie	0	-3.3	uki	London	113	0.2	fr7	Centre-Est	-48	-0.2
Finance	uki	London	80	3.4	ee00	Estonie	0	2.2	fr1	Ile de France	170	0.5	pt1	Portugal (Cont	-273	-0.9
	ukj	South East	39	3.4	lt00	Lituania	0	1.5	uki	London	132	0.2	gr3	Attiki	-68	-0.4
	fr1	Ile de France	37	3.8	lv00	Latvia	0	0.9	be1	Region Bruxell	101	0.8	ei0	Eire	-41	-0.6
	be1	Region Bruxell	36	2.7	fi2	Aland	0	-3.8	be2	Vlaams Gewes	78	0.9	es3	Com. Madrid	-29	-0.2
	ukh	Eastern	35	3.4	pt2	Acores (PT)	0	-7.9	dea	Nordrhein-Wes	73	0.4	gr2	Kentriki Ellada	-23	-0.4
TransCom	fr1	Ile de France	139	2.7	lt00	Lituania	3	1.6	nl3	West-Nederlar	1348	3.6	pt2	Acores (PT)	4	1.2
	nl3	West-Nederlar	127	2.6	ee00	Estonie	2	1.7	dk0	Danemark	772	2.8	fi2	Aland	5	1.2
	es5	Este	97	3.9	lv00	Latvia	1	0.6	be2	Vlaams Gewes	695	3.8	hu04	Del-Dunantul	5	0.9
	uki	London	86	2.9	fi2	Aland	0	-1.8	fr1	Ile de France	665	1.2	hu07	Del-Alfold	6	0.9
	dk0	Danemark	76	2.8	pt2	Acores (PT)	0	-4.0	se0	Sweden	642	2.1	hu02	Kozep-Dunantu	7	1.3
Services	fr1	Ile de France	220	3.1	lt00	Lituania	4	1.7	fr1	Ile de France	896	0.3	ee00	Estonie	-3	-0.1
	dea	Nordrhein-Wes	136	2.8	ee00	Estonie	3	1.7	dea	Nordrhein-Wes	686	0.2	mt00	Malta	-2	-0.1
	nl3	West-Nederlar	125	2.1	lv00	Latvia	1	0.6	de2	Bayern	485	0.2	pt2	Acores (PT)	-1	-0.1
	fr2	Bassin Parisier	110	3.3	fi2	Aland	0	-2.8	dk0	Danemark	481	0.4	lv00	Latvia	-1	0.0
	at1	Ostosterreich	107	3.5	pt2	Acores (PT)	0	-5.6	ei0	Eire	444	1.1	fi2	Aland	2	0.5

Table 5: Comparison between Scenarii: Real GDP in volume (% of changes), Equivalent variation (as % of initial income) and Adjustment indicator.

	Regions	(a) Tariff peak removal			(b) Complete lib'n			(c) Agric. tariff lib'n			(d) Ag. tariff+DS+XS			(e) Manuf. (exc.text)			(f) Text-wearing		
		rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.
at1	Ostosterreich	-0.01	0.01	0.25	0.37	0.07	1.45	0.00	0.02	0.62	0.22	0.00	1.22	0.06	0.06	0.91	0.02	0.01	0.68
at2	Sudosterreich	-0.02	0.01	0.30	0.28	0.00	1.74	-0.01	0.01	0.67	0.16	-0.04	1.44	0.03	0.04	1.27	0.02	0.00	0.89
at3	Westosterreich	-0.01	0.01	0.27	0.33	0.05	1.65	-0.01	0.01	0.62	0.20	0.00	1.22	0.04	0.04	1.19	0.02	0.00	1.00
be1	Region Bruxelles	0.19	0.08	0.47	0.82	0.40	1.66	0.45	0.20	0.96	0.60	0.25	1.10	0.18	0.06	1.61	0.10	0.05	0.68
be2	Vlaams Gewest	0.19	0.10	0.87	0.59	0.14	3.02	0.43	0.15	1.87	0.35	0.27	1.82	0.26	0.13	2.49	0.12	-0.01	2.00
be3	Region Wallonne	0.17	0.07	0.74	0.57	0.22	2.17	0.40	0.12	1.79	0.39	0.26	1.53	0.18	0.04	1.41	0.10	0.04	0.96
cy00	Chypre	0.40	0.36	0.62	1.55	0.45	2.36	0.63	0.62	1.65	1.23	0.46	1.96	0.59	0.20	1.67	0.09	0.07	0.38
cz01	Praha	0.04	0.03	0.29	0.43	0.18	1.24	0.07	0.02	0.56	0.38	0.12	0.32	0.04	0.07	0.56	0.01	0.01	1.24
cz02	Stredni Cechy	0.09	0.05	0.55	0.07	0.02	2.64	0.13	0.03	1.15	0.08	0.08	2.10	0.09	0.06	1.01	0.00	-0.03	2.19
cz03	Jihozapad	0.09	0.05	0.52	-0.02	0.01	2.60	0.13	0.04	1.11	0.00	0.09	2.27	0.08	0.06	0.94	-0.01	-0.02	2.03
cz04	Severozapad	0.04	0.03	0.49	0.35	0.12	2.20	0.07	0.01	0.98	0.27	0.08	1.46	0.04	0.05	0.91	0.03	0.01	1.97
cz05	Severovychod	0.09	0.05	0.55	0.11	0.03	2.58	0.13	0.03	1.13	0.13	0.09	1.96	0.10	0.07	1.01	-0.01	-0.03	2.19
cz06	Jihovychod	0.08	0.05	0.51	0.03	0.03	2.51	0.12	0.03	1.07	0.04	0.09	2.17	0.08	0.06	0.91	0.00	-0.02	1.98
cz07	Stredni Morava	0.09	0.05	0.54	0.09	0.03	2.58	0.13	0.03	1.12	0.11	0.09	2.02	0.10	0.07	1.00	-0.01	-0.03	2.16
cz08	Moravskoslezko	0.05	0.03	0.55	0.38	0.11	2.37	0.08	0.01	1.08	0.31	0.07	1.35	0.05	0.06	1.03	0.03	0.00	2.22
de1	Baden-Wurttemberg	0.05	0.04	0.67	0.26	0.10	1.58	0.02	0.05	0.84	0.20	0.12	0.81	0.12	0.09	1.37	0.01	0.02	1.40
de2	Bayern	0.04	0.04	0.74	0.23	0.03	1.66	0.02	0.04	1.22	0.17	0.04	1.16	0.11	0.08	1.23	0.01	0.01	1.36
de3	Berlin	0.03	0.01	0.26	0.36	0.28	0.86	0.01	0.03	0.22	0.26	0.16	0.36	0.09	0.05	0.60	0.03	0.03	0.64
de4	Brandenburg	0.03	0.01	0.73	0.32	0.24	1.27	0.00	-0.01	1.41	0.19	0.01	1.35	0.09	0.05	0.88	0.03	0.02	0.59
de5	Bremen	0.05	0.09	0.57	0.26	0.10	1.34	0.02	0.09	0.36	0.20	0.14	0.64	0.12	0.18	1.44	0.03	0.04	0.82
de6	Hamburg	0.03	0.06	0.37	0.34	0.10	0.73	0.02	0.10	0.27	0.26	0.17	0.38	0.10	0.11	0.90	0.03	0.05	0.32
de7	Hessen	0.03	0.04	0.53	0.33	0.19	1.18	0.02	0.04	0.73	0.23	0.15	0.73	0.10	0.09	1.06	0.02	0.03	0.92
de8	Mecklenburg-Vorp.	0.03	0.01	0.80	0.28	0.18	1.54	0.00	-0.01	1.58	0.18	-0.01	1.51	0.08	0.05	0.91	0.03	0.00	0.96
de9	Niedersachsen	0.04	0.05	0.88	0.20	-0.01	1.63	0.01	0.04	1.62	0.11	-0.09	1.56	0.10	0.10	1.26	0.03	0.02	0.92
dea	Nordrhein-Westfalen	0.03	0.03	0.53	0.29	0.11	1.41	0.03	0.06	0.85	0.21	0.09	0.83	0.09	0.06	0.90	0.02	0.02	1.21
deb	Rheinland-Pfalz	0.03	0.02	0.54	0.31	0.19	1.35	0.01	0.02	0.82	0.21	0.10	0.82	0.10	0.08	1.01	0.02	0.01	1.08
dec	Saarland	0.04	0.03	0.55	0.33	0.32	1.08	0.01	0.01	0.54	0.23	0.20	0.63	0.12	0.11	1.23	0.03	0.05	0.69
ded	Sachsen	0.03	-0.01	0.62	0.33	0.29	1.68	0.01	-0.01	1.08	0.22	0.09	1.04	0.09	0.03	0.97	0.02	-0.01	1.49
dee	Sachsen-Anhalt	0.03	0.00	0.65	0.30	0.27	1.23	0.00	-0.01	1.27	0.19	0.03	1.25	0.09	0.04	0.73	0.03	0.03	0.39
def	Schleswig-Holstein	0.03	0.02	0.74	0.25	0.08	1.27	0.01	0.04	1.45	0.17	-0.01	1.38	0.09	0.05	0.78	0.02	0.03	0.59
deg	Thuringen	0.03	-0.01	0.67	0.30	0.26	1.50	0.01	-0.02	1.28	0.19	0.04	1.24	0.09	0.03	0.80	0.03	0.01	1.08
dk0	Danemark	0.27	0.01	2.45	0.30	0.36	1.93	0.70	-0.08	7.18	0.45	0.42	1.65	0.04	0.05	0.63	0.05	0.01	0.95
ee00	Estonie	0.51	0.22	2.19	2.26	0.64	14.68	1.44	0.38	4.73	1.65	0.25	5.85	2.65	1.91	42.91	0.11	-0.09	2.50
ei0	Eire	-0.02	-0.04	0.86	-0.21	0.85	4.96	0.16	-0.17	2.95	-0.33	1.10	4.54	-0.01	-0.17	1.40	0.12	0.03	1.57
es1	Noroeste	0.04	0.06	0.43	-0.27	-0.08	4.98	0.00	0.08	0.98	-0.32	-0.11	4.72	0.06	0.07	0.81	0.02	0.01	0.65
es2	Noreste	0.05	0.08	0.39	0.03	0.35	3.34	0.02	0.12	0.81	-0.04	0.37	2.94	0.09	0.12	0.87	0.03	0.02	0.64
es3	Com. Madrid	0.04	0.07	0.26	0.34	1.00	1.63	0.03	0.11	0.52	0.28	0.99	1.35	0.07	0.08	0.52	0.02	0.01	0.53
es4	Centro (ES)	0.04	0.06	0.44	-0.56	-0.85	4.54	-0.01	0.07	1.10	-0.59	-0.81	4.14	0.05	0.05	0.77	0.02	0.00	0.79
es5	Este	0.04	0.07	0.36	0.10	0.54	3.13	0.01	0.11	0.80	0.05	0.56	2.66	0.07	0.08	0.89	0.02	-0.01	1.07
es6	Sur	0.03	0.03	0.41	-0.42	-0.45	4.44	-0.01	0.03	1.06	-0.47	-0.53	4.10	0.05	0.04	0.64	0.02	0.00	0.60
es7	Canarias (ES)	0.03	0.03	0.32	0.00	0.43	3.78	-0.01	0.03	0.88	-0.06	0.28	3.59	0.05	0.05	0.42	0.02	0.00	0.20
fi1	Manner-Suomi	-0.02	0.02	0.99	0.38	0.14	2.15	-0.01	0.02	2.49	0.17	0.10	1.38	0.20	0.08	0.61	0.07	0.02	0.93
fi2	Aland	0.02	0.09	0.85	0.27	-0.17	2.11	0.10	0.19	2.24	0.11	-0.01	1.59	0.18	0.07	0.34	0.07	0.03	0.31
fr1	Ile de France	0.02	0.01	0.22	0.41	0.57	0.96	0.04	-0.03	0.53	0.37	0.53	0.46	-0.01	0.06	0.35	0.03	0.02	0.46
fr2	Bassin Parisien	0.05	0.03	1.11	0.05	0.08	1.84	0.10	0.01	2.59	0.05	0.06	2.12	0.00	0.06	0.49	0.03	0.01	0.66
fr3	Nord - Pas-de-Calais	0.04	0.02	0.83	0.21	0.27	1.82	0.09	-0.02	1.97	0.20	0.27	1.59	-0.01	0.05	0.63	0.02	-0.01	0.99
fr4	Est	0.04	0.02	0.89	0.17	0.31	1.65	0.10	-0.03	2.09	0.16	0.28	1.70	0.00	0.05	0.53	0.02	0.01	0.67
fr5	Ouest	0.06	0.07	1.80	-0.39	-0.51	2.46	0.13	0.10	4.17	-0.36	-0.45	3.32	-0.02	0.05	0.51	0.02	0.00	0.72
fr6	Sud-Ouest	0.04	0.03	1.26	0.02	-0.02	1.90	0.08	0.03	2.93	0.00	-0.06	2.38	-0.01	0.06	0.48	0.03	0.00	0.63
fr7	Centre-Est	0.04	0.01	0.93	0.18	0.31	1.69	0.07	-0.02	2.16	0.17	0.28	1.75	-0.01	0.06	0.53	0.02	0.00	0.80
fr8	Mediterranee	0.03	0.01	0.49	0.33	0.35	1.27	0.06	0.00	1.18	0.28	0.24	1.04	-0.01	0.08	0.32	0.04	0.01	0.40
fr9	DOM	0.02	-0.01	0.77	0.32	0.48	1.40	0.03	-0.06	1.82	0.25	0.24	1.56	-0.02	0.06	0.23	0.04	0.00	0.22
gr1	Voreia Ellada	0.07	0.06	0.53	-0.39	-0.24	3.03	0.09	0.11	1.28	-0.39	-0.29	2.34	0.02	0.05	2.10	0.01	0.00	0.50
gr2	Kentriki Ellada	0.06	0.07	0.47	-0.44	-0.32	2.76	0.11	0.14	1.26	-0.44	-0.41	2.43	0.02	0.11	1.40	0.02	0.02	0.28
gr3	Attiki	0.04	0.04	0.24	0.20	0.99	1.97	0.04	0.07	0.42	0.15	0.86	1.23	0.02	0.09	1.75	0.03	0.02	0.32
gr4	Nisia Aigaiou Kriti	0.06	0.10	0.41	-0.21	-0.09	2.42	0.11	0.22	1.07	-0.21	-0.01	2.14	0.01	0.09	1.31	0.02	0.02	0.25
hu01	Kozep-Magyarorszag	0.10	-0.01	1.46	0.63	0.17	2.79	0.37	-0.11	4.50	0.71	0.03	4.72	0.06	0.06	0.73	0.10	0.01	2.31
hu02	Kozep-Dunantul	0.18	0.12	2.72	0.51	0.23	4.64	0.55	0.31	7.88	0.67	0.48	8.84	0.10	0.06	1.00	0.13	-0.03	3.19
hu03	Nyugat-Dunantul	0.18	0.12	2.72	0.51	0.23	4.61	0.56	0.32	7.83	0.67	0.49	8.82	0.10	0.05	0.98	0.13	-0.03	3.14
hu04	Del-Dunantul	0.20	0.24	3.21	0.28	0.36	4.79	0.62	0.63	8.51	0.53	0.83	10.35	0.05	0.05	0.71	0.10	0.03	2.25
hu05	eszak-Magyarorszag	0.16	0.12	2.73	0.47	0.27	4.43	0.52	0.30	7.65	0.62	0.47	8.86	0.08	0.06	0.87	0.12	0.01	2.78
hu06	eszak-Alfold	0.21	0.26	3.26	0.31	0.36	5.02	0.65	0.68	8.76	0.56	0.89	10.50	0.07	0.04	0.82	0.11	0.01	2.61
hu07	Del-Alfold	0.24	0.33	3.48	0.22	0.41	5.29	0.72	0.88	9.24	0.53	1.13	11.16	0.06	0.04	0.80	0.11	0.01	2.56
it1	Nord Ovest	-0.03	0.02	0.16	0.06	-0.03	1.44	-0.07	0.01	0.59	0.16	-0.01	1.11	-0.11	0.03	0.77	-0.09	0.00	0.94
it2	Lombardia	-0.04	0.01	0.18	0.03	-0.03	1.59	-0.10	-0.01	0.64	0.15	0.02	1.26	-0.13	0.02	0.52	-0.13	-0.03	1.19
it3	Nord Est	-0.04	0.01	0.18	-0.01	-0.12	1.70	-0.10	-0.01	0.69	0.11	-0.08	1.32	-0.12	0.03	0.51	-0.14	-0.04	1.28
it4	Emilia-Romagna	-0.04	0.02	0.18	-0.06	-0.21	1.70	-0.07	0.01	0.64	0.06	-0.17	1.48	-0.11	0.04	0.52	-0.11	-0.02	1.04
it5	Centro (I)	-0.04	0.01	0.19	0.00	-0.02	1.75	-0.11	-0.02	0.77	0.16	0.00	1.07	-0.12	0.04	0.53	-0.19	-0.07	1.62
it6	Lazio	-0.03	0.01	0.14	0.17	0.20	1.10	-0.05	0.01	0.48	0.23	0.15	0.91	-0.08	0.06	0.52	-0.07	0.00	0.49
it7	Abruzzo-Molise	-0.04	0.01	0.18	-0.05	-0.20	1.70	-0.08	-0.01	0.71	0.07	-0.19	1.28	-0.11	0.03	0.66	-0.14	-0.04	1.29
it8	Campania	-0.04	0.00	0.16	0.07	0.04	1.39	-0.07	-0.02	0.59	0.15	-0.02	1.05	-0.10	0.04	0.62	-0.10	-0.02	0.94
it9	Sud	-0.04	0.00	0.16	-0.03	-0.18	1.46	-0.07	-0.02	0.63	0.07	-0.24	1.10	-0.10	0.04	0.51	-0.11	-0.02	1.04
ita	Sicilia	-0.03	0.00	0.14	0.02	-0.09	1.31	-0.05	-0.01	0.48	0.09	-0.17	1.17	-0.09	0.05	0.45	-0.07	0.00	0.44
itb	Sardegna	-0.03	0.01	0.17	-0.08	-0.28	1.64	-0.06	-0.01	0.54	-0.01	-0.34	1.66	-0.09	0.05	0.40	-0.07	0.00	0.49

	Regions	(a) Tariff peak removal			(b) Complete lib'n			(c) Agric. tariff lib'n			(d) Ag. tariff+DS+XS			(e) Manuf. (exc.text)			(f) Text-wearing		
		rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.	rGDP	EV	Ad.I.
lt00	Lituania	0.38	0.13	1.18	2.05	0.60	7.26	1.10	0.25	3.54	1.15	0.31	5.04	3.00	1.16	21.38	0.22	0.02	0.45
lu0	Luxembourg	0.24	0.05	2.09	0.50	0.15	2.82	0.63	0.00	5.25	0.40	0.23	1.49	0.18	0.05	1.30	0.10	0.00	2.07
lv00	Latvia	0.31	0.17	1.26	1.63	0.47	9.31	1.07	0.40	2.74	1.40	0.35	4.44	1.66	0.90	27.45	0.11	0.00	1.34
mt0(	Malta	0.29	0.30	1.52	2.71	0.45	4.76	0.84	0.65	4.10	1.71	0.56	3.64	0.17	-0.22	2.88	0.23	0.05	2.71
nl1	Noord-Nederland	0.18	0.08	1.32	0.67	0.16	1.56	0.59	0.18	4.06	0.60	0.24	2.31	0.06	0.02	0.87	0.09	0.04	0.62
nl2	Oost-Nederland	0.24	0.10	1.32	0.54	0.08	1.58	0.68	0.18	4.04	0.57	0.24	2.28	0.11	0.01	0.85	0.08	0.01	1.05
nl3	West-Nederland	0.19	0.09	0.75	0.65	0.19	1.42	0.54	0.12	2.42	0.61	0.30	1.18	0.14	0.06	0.84	0.09	0.03	0.60
nl4	Zuid-Nederland	0.23	0.08	1.27	0.58	0.13	1.56	0.66	0.12	3.97	0.59	0.26	2.13	0.11	-0.01	0.94	0.08	0.01	1.11
pl01	Dolnoslaskie	0.10	0.06	0.34	0.54	0.16	2.09	0.27	0.12	1.19	0.55	0.07	2.02	0.12	0.08	0.89	0.02	0.00	1.86
pl02	Kujawsko-Pomorskie	0.11	0.07	0.34	0.51	0.15	2.25	0.29	0.16	1.24	0.58	0.14	2.33	0.12	0.07	0.94	0.02	-0.01	1.97
pl03	Lubelskie	0.10	0.08	0.32	0.42	0.18	2.11	0.26	0.16	1.11	0.50	0.24	2.51	0.10	0.07	0.82	0.02	0.01	1.69
pl04	Lubuskie	0.10	0.07	0.32	0.51	0.16	2.10	0.27	0.14	1.15	0.55	0.10	2.19	0.12	0.08	0.88	0.02	0.00	1.80
pl05	Lodzkie	0.10	0.07	0.33	0.53	0.15	2.16	0.28	0.14	1.21	0.57	0.08	2.16	0.12	0.08	0.92	0.02	0.00	1.92
pl06	Malopolskie	0.11	0.06	0.34	0.56	0.15	2.17	0.28	0.13	1.24	0.59	0.05	2.04	0.13	0.08	0.94	0.02	-0.01	1.97
pl07	Mazowieckie	0.10	0.07	0.30	0.53	0.17	2.00	0.27	0.14	1.08	0.55	0.08	2.04	0.13	0.08	0.85	0.02	0.00	1.70
pl08	Opolskie	0.11	0.07	0.34	0.51	0.15	2.24	0.29	0.16	1.24	0.57	0.15	2.32	0.13	0.07	0.94	0.02	-0.01	1.96
pl09	Podkarpackie	0.11	0.07	0.34	0.52	0.15	2.23	0.29	0.15	1.25	0.57	0.11	2.26	0.12	0.07	0.94	0.02	-0.01	1.98
pl0a	Podlaskie	0.10	0.08	0.31	0.42	0.18	2.14	0.27	0.17	1.11	0.50	0.25	2.55	0.10	0.07	0.83	0.02	0.01	1.70
pl0b	Pomorskie	0.11	0.07	0.32	0.57	0.15	2.12	0.29	0.15	1.19	0.60	0.08	1.97	0.14	0.09	0.93	0.02	-0.01	1.88
pl0c	Slaskie	0.08	0.03	0.36	0.56	0.20	2.01	0.23	0.07	1.20	0.52	-0.04	1.69	0.12	0.08	0.86	0.04	0.04	1.83
pl0d	Swietokrzyskie	0.11	0.07	0.33	0.50	0.16	2.18	0.28	0.15	1.19	0.55	0.13	2.31	0.12	0.08	0.91	0.02	0.00	1.88
pl0e	Warminsko-Mazurskie	0.10	0.08	0.32	0.45	0.17	2.14	0.27	0.16	1.13	0.52	0.21	2.44	0.11	0.07	0.86	0.02	0.00	1.76
pl0f	Wielkopolskie	0.11	0.07	0.35	0.48	0.15	2.27	0.29	0.16	1.26	0.56	0.19	2.44	0.12	0.07	0.93	0.02	-0.01	1.97
pl0g	Zachodniopomorskie	0.11	0.08	0.32	0.53	0.17	2.12	0.29	0.16	1.15	0.57	0.14	2.20	0.14	0.09	0.90	0.03	0.00	1.79
pt1	Portugal (Continent)	0.04	0.08	0.34	-0.11	0.21	3.70	0.06	0.19	0.68	0.03	0.17	3.08	0.00	0.06	0.79	-0.18	-0.06	2.42
pt2	Acores (PT)	0.08	0.08	0.31	-0.77	-0.46	6.88	0.10	0.21	0.96	-0.68	-0.60	7.08	0.01	0.09	0.36	-0.06	0.04	0.66
pt3	Madeira (PT)	0.04	0.07	0.21	0.07	0.37	2.27	0.06	0.16	0.58	0.15	0.28	1.87	0.00	0.08	0.39	-0.11	-0.04	1.31
se0	Sweden	0.01	0.03	0.51	0.31	0.18	1.56	0.02	0.06	1.02	0.16	0.12	1.27	0.15	0.12	0.80	0.05	0.04	0.85
si00	Slovenia	0.16	0.12	0.46	0.58	0.18	2.95	0.37	0.20	1.92	0.46	0.19	2.84	0.59	0.35	3.30	0.08	0.01	1.38
sk01	Bratislavsky	0.08	0.04	0.54	0.35	0.68	2.94	0.20	0.03	0.89	0.36	0.66	2.08	0.17	0.08	0.87	-0.02	-0.08	2.12
sk02	Zapadne Slovensko	0.10	0.06	0.58	-0.37	0.12	4.97	0.21	0.05	0.93	-0.33	0.15	4.57	0.16	0.10	0.89	-0.01	-0.04	2.28
sk03	Stredne Slovensko	0.10	0.06	0.58	-0.02	0.14	4.23	0.24	0.08	0.97	-0.01	0.13	3.69	0.19	0.11	0.93	0.00	-0.03	2.27
sk04	Vychodne Slovensko	0.11	0.07	0.56	0.05	0.05	4.11	0.27	0.12	0.98	0.05	0.07	3.59	0.20	0.12	0.92	0.01	-0.01	2.16
ukc	North East	0.06	0.06	0.30	0.35	0.42	1.96	0.12	0.13	0.55	0.27	0.29	1.40	0.03	0.05	0.62	0.06	0.03	0.97
ukd	North West	0.06	0.07	0.31	0.29	0.31	2.32	0.12	0.14	0.65	0.23	0.28	1.55	0.02	0.04	0.64	0.05	0.00	1.49
uke	Yorkshire	0.06	0.07	0.36	0.22	0.24	2.52	0.12	0.14	0.79	0.15	0.21	1.96	0.02	0.04	0.64	0.05	0.01	1.32
ukf	East Midlands	0.05	0.07	0.40	0.15	0.12	2.89	0.10	0.14	0.87	0.10	0.19	2.10	0.02	0.02	0.76	0.04	-0.03	1.84
ukg	West Midlands	0.05	0.07	0.37	0.25	0.29	2.19	0.09	0.11	0.74	0.15	0.28	1.77	0.04	0.03	0.73	0.07	0.04	1.05
ukh	Eastern	0.04	0.07	0.35	0.21	0.19	2.10	0.09	0.14	0.78	0.13	0.21	1.90	0.01	0.04	0.50	0.06	0.04	0.74
uki	London	0.03	0.07	0.12	0.38	0.37	1.15	0.07	0.12	0.22	0.32	0.45	0.44	-0.01	0.01	0.35	0.04	0.01	0.85
ukj	South East	0.04	0.08	0.26	0.32	0.27	1.50	0.09	0.14	0.55	0.24	0.27	1.30	0.01	0.05	0.45	0.06	0.04	0.55
ukk	South West	0.05	0.08	0.41	0.10	0.09	2.46	0.10	0.14	0.94	0.03	0.09	2.31	0.02	0.04	0.53	0.06	0.03	0.82
ukl	Wales	0.06	0.07	0.37	0.23	0.30	2.26	0.11	0.13	0.80	0.15	0.19	1.96	0.03	0.06	0.59	0.06	0.03	0.87
ukm	Scotland	0.05	0.07	0.36	0.23	0.24	2.41	0.10	0.14	0.80	0.15	0.21	2.03	0.02	0.04	0.54	0.05	0.02	1.02
ukn	Northern Ireland	0.07	0.07	0.51	-0.10	0.00	3.29	0.13	0.14	1.19	-0.13	-0.02	2.99	0.01	0.02	0.58	0.05	0.00	1.27
aut	**Austria**	-0.01	0.01	0.27	0.34	0.05	1.58	-0.01	0.02	0.63	0.20	-0.01	1.26	0.05	0.05	1.10	0.02	0.00	0.85
bel	**Belgium**	0.19	0.09	0.78	0.63	0.23	2.64	0.43	0.16	1.73	0.41	0.26	1.65	0.23	0.09	2.14	0.11	0.02	1.63
cyp	**Cyprus**	0.40	0.36	0.62	1.55	0.45	2.36	0.63	0.62	1.65	1.23	0.46	1.96	0.59	0.20	1.67	0.09	0.07	0.38
cze	**Czech Republic**	0.07	0.04	0.49	0.20	0.08	2.30	0.10	0.03	1.01	0.18	0.09	1.74	0.07	0.06	0.90	0.01	-0.01	1.96
deu	**Germany**	0.04	0.03	0.64	0.28	0.12	1.45	0.02	0.04	1.05	0.19	0.07	1.02	0.10	0.07	1.09	0.02	0.02	1.14
dnk	**Denmark**	0.27	0.01	2.45	0.30	0.36	1.93	0.70	-0.08	7.18	0.45	0.42	1.65	0.04	0.05	0.63	0.05	0.01	0.95
esp	**Spain**	0.04	0.06	0.37	-0.06	0.19	3.62	0.01	0.09	0.87	-0.12	0.18	3.27	0.06	0.07	0.77	0.02	0.00	0.79
est	**Estonia**	0.51	0.22	2.19	2.26	0.64	14.68	1.44	0.38	4.73	1.65	0.25	5.85	2.65	1.91	42.91	0.11	-0.09	2.50
fin	**Finland**	-0.02	0.02	0.99	0.38	0.13	2.15	0.00	0.02	2.49	0.17	0.10	1.39	0.20	0.08	0.60	0.07	0.02	0.93
fra	**France**	0.04	0.02	1.00	0.16	0.20	1.68	0.08	0.00	2.34	0.14	0.17	1.90	-0.01	0.06	0.46	0.03	0.01	0.64
gbr	**United Kingdom**	0.05	0.07	0.32	0.25	0.25	2.13	0.09	0.13	0.70	0.18	0.25	1.71	0.01	0.04	0.56	0.05	0.02	1.07
grc	**Greece**	0.05	0.06	0.41	-0.15	0.24	2.54	0.08	0.11	1.00	-0.17	0.16	1.98	0.02	0.08	1.76	0.02	0.01	0.37
hun	**Hungary**	0.16	0.11	2.51	0.49	0.25	4.11	0.50	0.25	7.02	0.65	0.42	8.10	0.07	0.05	0.82	0.11	0.00	2.61
irl	**Ireland**	-0.02	-0.04	0.86	-0.21	0.85	4.96	0.16	-0.17	2.95	-0.33	1.10	4.54	-0.01	-0.17	1.40	0.12	0.03	1.57
itl	**Italy**	-0.04	0.01	0.17	0.02	-0.06	1.54	-0.08	-0.01	0.63	0.13	-0.05	1.20	-0.11	0.04	0.56	-0.12	-0.03	1.10
ltu	**Lithuania**	0.38	0.13	1.18	2.05	0.60	7.26	1.10	0.25	3.54	1.15	0.31	5.04	3.00	1.16	21.38	0.22	0.02	0.45
lux	**Luxembourg**	0.24	0.05	2.09	0.50	0.15	2.82	0.63	0.00	5.25	0.40	0.23	1.49	0.18	0.05	1.30	0.10	0.00	2.07
lva	**Latvia**	0.31	0.17	1.26	1.63	0.47	9.31	1.07	0.40	2.74	1.40	0.35	4.44	1.66	0.90	27.45	0.11	0.00	1.34
mlt	**Malta**	0.29	0.30	1.52	2.71	0.45	4.76	0.84	0.65	4.10	1.71	0.56	3.64	0.17	-0.22	2.88	0.23	0.05	2.71
nld	**Netherlands**	0.21	0.09	1.06	0.62	0.15	1.50	0.60	0.14	3.31	0.60	0.27	1.78	0.12	0.03	0.87	0.08	0.02	0.83
pol	**Poland**	0.10	0.06	0.33	0.52	0.17	2.12	0.27	0.13	1.18	0.55	0.09	2.13	0.12	0.08	0.89	0.02	0.00	1.85
prt	**Portugal**	0.04	0.08	0.34	-0.11	0.20	3.74	0.06	0.19	0.68	0.02	0.16	3.16	0.00	0.06	0.78	-0.17	-0.06	2.38
svk	**Slovakia**	0.10	0.06	0.57	-0.03	0.21	4.23	0.23	0.07	0.94	-0.01	0.22	3.71	0.18	0.10	0.90	-0.01	-0.04	2.22
svn	**Slovenia**	0.16	0.12	0.46	0.58	0.18	2.95	0.37	0.20	1.92	0.46	0.19	2.84	0.59	0.35	3.30	0.08	0.01	1.38
swe	**Sweden**	0.01	0.03	0.51	0.31	0.18	1.56	0.02	0.06	1.02	0.16	0.12	1.27	0.15	0.12	0.80	0.05	0.04	0.85
	EU-25	0.05	0.04	0.75	0.22	0.16	2.10	0.09	0.06	1.89	0.18	0.14	1.84	0.05	0.06	1.63	0.01	0.01	1.09
	EU-15	0.04	0.04	0.74	0.21	0.16	2.03	0.08	0.05	1.84	0.17	0.14	1.74	0.04	0.06	0.90	0.01	0.01	1.06
	AccCount	0.13	0.09	1.06	0.57	0.20	3.74	0.35	0.16	2.93	0.53	0.18	3.80	0.30	0.16	7.72	0.05	0.00	1.95
	20-richest regions	0.04	0.03	0.80	0.30	0.19	1.45	0.07	0.04	2.00	0.24	0.17	1.03	0.06	0.06	0.95	0.02	0.02	1.02
	40-poorest regions	0.13	0.08	1.08	0.53	0.19	3.87	0.35	0.15	3.00	0.51	0.17	3.93	0.30	0.17	7.93	0.05	0.00	1.99

Table 6: TOP-20 of strongest falls in Value Added level by scenario

Scen.	Sectors		Regions	Chg.-Value	Chg. - %	Sectors		Regions	Chg.-Value	Chg. - %
(a) Tariff peak removal	Mach_Ind	dk0	Danemark	-232	-2.98	Mach_Ind	nl3	West-Nederland	-71	-1.31
	Mach_Ind	de1	Baden-Wurttember	-172	-0.53	Mach_Ind	fi1	Manner-Suomi	-66	-0.98
	Mach_Ind	de2	Bayern	-145	-0.55	Mach_Ind	fr1	Ile de France	-64	-0.51
	Mach_Ind	dea	Nordrhein-Westfale	-138	-0.50	Mach_Ind	nl2	Oost-Nederland	-62	-1.34
	Mach_Ind	se0	Sweden	-120	-0.85	Services	dk0	Danemark	-61	-0.08
	Mach_Ind	nl4	Zuid-Nederland	-98	-1.25	Mach_Ind	fr7	Centre-Est	-61	-0.53
	Chim_Ind	ei0	Eire	-85	-1.40	Mach_Ind	fr5	Ouest	-61	-0.71
	Mach_Ind	fr2	Bassin Parisien	-79	-0.58	Services	de9	Niedersachsen	-60	-0.07
	Services	fr5	Ouest	-76	-0.11	Metal_Ind	dk0	Danemark	-56	-1.41
	Agri_Ind	es5	Este	-75	-1.36	Tex_Ind	dea	Nordrhein-Westfale	-51	-1.23
(b) Complete lib.	Agri_Ind	ei0	Eire	-573	-19.64	OthVeg	es4	Centro (ES)	-340	-12.56
	Agri_Ind	es5	Este	-462	-8.35	Agri_Ind	dea	Nordrhein-Westfale	-323	-2.47
	Agri_Ind	be2	Vlaams Gewest	-457	-8.70	Tex_Ind	de2	Bayern	-321	-8.37
	Agri_Ind	fr5	Ouest	-442	-4.62	Tex_Ind	it2	Lombardia	-307	-4.74
	Animals	ei0	Eire	-442	-25.05	Tex_Ind	de1	Baden-Wurttember	-302	-8.52
	Animals	fr5	Ouest	-440	-10.82	Agri_Ind	es6	Sur	-297	-8.19
	OthVeg	es6	Sur	-403	-12.58	Tex_Ind	it5	Centro (I)	-296	-4.49
	Agri_Ind	fr2	Bassin Parisien	-381	-4.49	Agri_Ind	ukd	North West	-289	-5.34
	Agri_Ind	dk0	Danemark	-357	-5.33	Tex_Ind	pt1	Portugal (Continent	-286	-8.04
	Tex_Ind	dea	Nordrhein-Westfale	-344	-8.25	Agri_Ind	de2	Bayern	-284	-2.48
(c) Agric. tariff lib.	Mach_Ind	dk0	Danemark	-664	-8.55	Services	fr1	Ile de France	-136	-0.07
	Mach_Ind	nl4	Zuid-Nederland	-256	-3.26	Agri_Ind	es6	Sur	-123	-3.38
	Agri_Ind	es5	Este	-194	-3.51	Mach_Ind	fr2	Bassin Parisien	-122	-0.89
	Services	dk0	Danemark	-186	-0.25	Tex_Ind	it3	Nord Est	-114	-2.29
	Mach_Ind	nl3	West-Nederland	-184	-3.39	Chim_Ind	ei0	Eire	-112	-1.84
	Metal_Ind	dk0	Danemark	-182	-4.59	Mach_Ind	se0	Sweden	-109	-0.77
	Services	fr5	Ouest	-179	-0.26	Mach_Ind	fi1	Manner-Suomi	-105	-1.56
	Mach_Ind	nl2	Oost-Nederland	-163	-3.51	Mach_Ind	fr5	Ouest	-103	-1.21
	Tex_Ind	it5	Centro (I)	-147	-2.23	Services	nl3	West-Nederland	-99	-0.12
	Tex_Ind	it2	Lombardia	-147	-2.27	Mach_Ind	fr1	Ile de France	-98	-0.77
(d) Ag. tariffs + DS + X	Agri_Ind	ei0	Eire	-559	-19.14	Agri_Ind	es4	Centro (ES)	-213	-7.70
	Agri_Ind	es5	Este	-441	-7.97	Agri_Ind	fr2	Bassin Parisien	-207	-2.44
	Animals	ei0	Eire	-433	-24.55	OthVeg	es5	Este	-196	-10.99
	Agri_Ind	be2	Vlaams Gewest	-363	-6.92	Mach_Ind	dk0	Danemark	-169	-2.17
	Animals	fr5	Ouest	-362	-8.90	Animals	fr2	Bassin Parisien	-167	-8.41
	OthVeg	es6	Sur	-339	-10.59	Agri_Ind	dea	Nordrhein-Westfale	-158	-1.21
	OthVeg	es4	Centro (ES)	-289	-10.67	Agri_Ind	es1	Noroeste	-157	-7.94
	Agri_Ind	es6	Sur	-282	-7.79	Agri_Ind	ukd	North West	-155	-2.86
	Agri_Ind	fr5	Ouest	-259	-2.70	Agri_Ind	es2	Noreste	-151	-8.04
	Fishing	es1	Noroeste	-224	-16.51	Agri_Ind	fi1	Manner-Suomi	-150	-5.54
(e) Manuf. (exc. text)	Mach_Ind	de1	Baden-Wurttember	-345	-1.07	Tex_Ind	de2	Bayern	-124	-3.25
	Mach_Ind	de2	Bayern	-273	-1.03	Tex_Ind	de1	Baden-Wurttember	-117	-3.29
	Mach_Ind	dea	Nordrhein-Westfale	-260	-0.94	Mach_Ind	nl3	West-Nederland	-106	-1.95
	Services	be2	Vlaams Gewest	-137	-0.25	Services	nl3	West-Nederland	-103	-0.13
	Tex_Ind	es5	Este	-135	-2.73	Mach_Ind	ukg	West Midlands	-102	-1.16
	Mach_Ind	nl4	Zuid-Nederland	-134	-1.70	Metal_Ind	it2	Lombardia	-101	-0.75
	Tex_Ind	dea	Nordrhein-Westfale	-130	-3.11	Mach_Ind	ukj	South East	-100	-1.19
	Tex_Ind	be2	Vlaams Gewest	-128	-3.94	Mach_Ind	be2	Vlaams Gewest	-99	-1.73
	Tran_Ind	it1	Nord Ovest	-126	-2.98	Mach_Ind	de7	Hessen	-98	-1.11
	Tran_Ind	ei0	Eire	-126	-4.60	Services	fr1	Ile de France	-91	-0.05
(f) Text.- weaving	Tex_Ind	it2	Lombardia	-386	-5.97	Tex_Ind	es5	Este	-226	-4.60
	Tex_Ind	dea	Nordrhein-Westfale	-380	-9.13	Tex_Ind	uke	Yorkshire	-138	-7.67
	Tex_Ind	it5	Centro (I)	-380	-5.76	Tex_Ind	it1	Nord Ovest	-137	-6.03
	Tex_Ind	de2	Bayern	-354	-9.23	Tex_Ind	uki	London	-125	-8.06
	Tex_Ind	pt1	Portugal (Continent	-348	-9.77	Tex_Ind	it4	Emilia-Romagna	-122	-6.00
	Tex_Ind	de1	Baden-Wurttember	-330	-9.31	Tex_Ind	dk0	Danemark	-104	-9.34
	Tex_Ind	be2	Vlaams Gewest	-299	-9.25	Tex_Ind	fr7	Centre-Est	-103	-5.08
	Tex_Ind	it3	Nord Est	-295	-5.93	Tex_Ind	it9	Sud	-103	-5.95
	Tex_Ind	ukf	East Midlands	-257	-7.22	Tex_Ind	ded	Sachsen	-99	-9.05
	Tex_Ind	ukd	North West	-244	-7.53	Tex_Ind	fr2	Bassin Parisien	-96	-5.02

Table 7: TOP-20 of strongest rises in Value Added level by scenario

Scen.	Sectors		Regions	Chg.-Value	Chg. - %	Sectors		Regions	Chg.-Value	Chg. - %
(a) Tariff peak removal	Agri_Ind	dk0	Danemark	620	9.25	TransCom	nl3	West-Nederland	91	0.51
	Tran_Ind	de1	Baden-Wurttember	250	1.60	Tran_Ind	de7	Hessen	87	1.55
	Tran_Ind	de2	Bayern	213	1.57	Agri_Ind	nl4	Zuid-Nederland	83	3.17
	Cereals	fr5	Ouest	199	10.74	Agri_Ind	ei0	Eire	81	2.77
	Animals	dk0	Danemark	142	6.04	TransCom	be2	Vlaams Gewest	77	0.66
	Tran_Ind	de9	Niedersachsen	138	1.42	Cereals	fr6	Sud-Ouest	70	10.91
	Tran_Ind	dea	Nordrhein-Westfale	132	1.63	Tran_Ind	se0	Sweden	69	1.60
	Agri_Ind	nl3	West-Nederland	110	3.05	Agri_Ind	nl2	Oost-Nederland	67	3.08
	Cereals	fr2	Bassin Parisien	99	10.97	Agri_Ind	fr2	Bassin Parisien	66	0.78
	Tran_Ind	be2	Vlaams Gewest	92	2.13	Agri_Ind	fr5	Ouest	66	0.69
(b) Complete lib.	TransCom	nl3	West-Nederland	643	3.62	Metal_Ind	dea	Nordrhein-Westfale	281	1.06
	Services	fr1	Ile de France	578	0.31	Tran_Ind	de1	Baden-Wurttember	280	1.80
	TransCom	be2	Vlaams Gewest	438	3.77	Services	fr2	Bassin Parisien	274	0.30
	Services	dea	Nordrhein-Westfale	397	0.19	Chim_Ind	ei0	Eire	273	4.50
	TransCom	fr1	Ile de France	385	1.22	Services	uki	London	271	0.24
	TransCom	dk0	Danemark	368	2.80	Tran_Ind	de2	Bayern	270	2.00
	Mach_Ind	se0	Sweden	335	2.37	TransCom	it6	Lazio	269	1.84
	TransCom	it2	Lombardia	311	1.88	TransCom	dea	Nordrhein-Westfale	262	1.23
	Services	dk0	Danemark	293	0.40	Services	fr5	Ouest	259	0.38
	Services	de2	Bayern	281	0.19	Services	ei0	Eire	256	1.09
(c) Agric. tariff lib.	Agri_Ind	dk0	Danemark	1 882	28.07	Cereals	fr2	Bassin Parisien	227	25.06
	Cereals	fr5	Ouest	453	24.47	Agri_Ind	fr2	Bassin Parisien	223	2.63
	Agri_Ind	nl3	West-Nederland	427	11.88	Agri_Ind	be2	Vlaams Gewest	174	3.32
	Animals	dk0	Danemark	420	17.82	TransCom	se0	Sweden	173	1.47
	Agri_Ind	nl4	Zuid-Nederland	322	12.26	Cereals	fr6	Sud-Ouest	159	24.91
	TransCom	nl3	West-Nederland	306	1.73	Cereals	dk0	Danemark	154	30.99
	Agri_Ind	ei0	Eire	301	10.31	TransCom	it2	Lombardia	152	0.92
	TransCom	be2	Vlaams Gewest	268	2.31	Animals	nl2	Oost-Nederland	151	12.86
	Agri_Ind	nl2	Oost-Nederland	259	11.96	Agri_Ind	fi1	Manner-Suomi	148	5.45
	Agri_Ind	fr5	Ouest	231	2.41	Animals	nl4	Zuid-Nederland	147	13.47
(d) Ag. tariff + DS + SX	Services	fr1	Ile de France	562	0.30	TransCom	it2	Lombardia	210	1.27
	TransCom	nl3	West-Nederland	394	2.22	Agri_Ind	dk0	Danemark	209	3.12
	TransCom	be2	Vlaams Gewest	298	2.57	Services	de2	Bayern	204	0.13
	Services	dea	Nordrhein-Westfale	297	0.14	Services	fr8	Mediterranee	203	0.29
	Services	dk0	Danemark	295	0.40	TransCom	it6	Lazio	193	1.31
	Services	uki	London	260	0.23	Services	be2	Vlaams Gewest	193	0.35
	TransCom	fr1	Ile de France	241	0.77	TransCom	se0	Sweden	187	1.59
	Services	ei0	Eire	234	0.99	TransCom	dea	Nordrhein-Westfale	180	0.85
	Services	fr2	Bassin Parisien	215	0.24	Services	fr7	Centre-Est	178	0.26
	TransCom	dk0	Danemark	214	1.62	Mach_Ind	ei0	Eire	175	3.32
(e) Manuf. (exc. text)	Tran_Ind	de1	Baden-Wurttember	646	4.14	Mach_Ind	se0	Sweden	181	1.28
	Tran_Ind	de2	Bayern	568	4.20	Tran_Ind	se0	Sweden	158	3.64
	Tran_Ind	de9	Niedersachsen	382	3.93	TransCom	dk0	Danemark	154	1.17
	Tran_Ind	be2	Vlaams Gewest	372	8.57	Services	dea	Nordrhein-Westfale	147	0.07
	Tran_Ind	dea	Nordrhein-Westfale	349	4.32	Metal_Ind	ukg	West Midlands	132	1.37
	TransCom	nl3	West-Nederland	323	1.82	TransCom	it2	Lombardia	127	0.77
	Tran_Ind	de7	Hessen	228	4.09	Metal_Ind	es5	Este	121	2.12
	TransCom	be2	Vlaams Gewest	199	1.72	Tran_Ind	lv00	Latvia	116	204.53
	Tran_Ind	ee00	Estonie	194	255.88	Tran_Ind	lt00	Lituania	115	208.88
	OthInd	be2	Vlaams Gewest	181	13.63	Chim_Ind	ei0	Eire	112	1.84
(f) Text- wearing	Mach_Ind	de1	Baden-Wurttember	226	0.70	Mach_Ind	it2	Lombardia	64	0.49
	Mach_Ind	dea	Nordrhein-Westfale	199	0.72	Mach_Ind	ei0	Eire	62	1.17
	Mach_Ind	de2	Bayern	199	0.75	Services	it5	Centro (I)	61	0.12
	Mach_Ind	se0	Sweden	168	1.19	Mach_Ind	de7	Hessen	60	0.68
	OthInd	be2	Vlaams Gewest	133	9.99	Mach_Ind	ukg	West Midlands	59	0.68
	Metal_Ind	dea	Nordrhein-Westfale	118	0.45	TransCom	fr1	Ile de France	57	0.18
	TransCom	nl3	West-Nederland	92	0.52	Mach_Ind	ukj	South East	57	0.68
	TransCom	be2	Vlaams Gewest	78	0.67	Tran_Ind	pt1	Portugal (Continent	56	3.17
	Mach_Ind	fi1	Manner-Suomi	73	1.08	TransCom	dk0	Danemark	56	0.42
	Mach_Ind	pt1	Portugal (Continent	66	2.32	Mach_Ind	ukd	North West	55	0.86