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Economic implications of the EU accession of Bulgaria and Romania: a CGE approach¹

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ABSTRACT

On the dawn of the fifth round of enlargement of the European Union the question arising for both EU-skeptics and advocates is the following: will it work again? The relative success of the eight communist states that have joined the EU in 2004 is given, however the Balkan pair is different (if not backwards) in several aspects.

The paper examines the economic implications of Bulgaria's and Romania's recent accession to the EU. The analysis has been carried out by using the GTAP model and database – a tool powerful enough for assessing policy shocks such as those considered here.

Scenarios have been developed in order to consider this multifaceted process. In a first attempt the effects of the removal of formal trade barriers and the adoption of common external tariffs are considered and not surprisingly we find that associated impacts are not large, given that existing barriers have been gradually removed in accordance with the Europe Agreements. Further, we take into account the so-called "value of the current preferences", representing a scenario where there is a potential return to the MFN tariff schedule.

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1. INTRODUCTION

On the dawn of the fifth round of enlargement of the European Union the question arising for both EU-skeptics and advocates is the following: *will it work again?* The relative success of the eight communist states that have joined the EU in 2004 is given, however the Balkan pair is different (if not backwards) in several aspects.

The problem arises when one tries to associate the relative economic underdevelopment with the Balkans being “different” from the rest of Europe. In contemporary terms, backwardness is synonym with lower GDP per capita, fewer doctors per capita, it means higher unemployment, lack of industry etc. But these are in fact only consequences of backwardness. In any case, the European Community have by now accepted that “the entire region *is* already part of Europe, that its problems *are* European ones, and that any viable solution *has to be* a European solution” (van Meurs et al., 2002) strengthened by the potential future enlargement plans in the Western Balkans.

The present paper aims at quantifying the economic implications of Bulgaria’s and Romania’s recent accession to the EU. Enlargement is first of all equivalent with eliminating trade barriers among members (typical to regional trade agreements) and applying the same common external tariff by new members as the existing EU countries (typical to custom unions), while in addition, it entails the harmonization of domestic policies.

If the process of enlargement with its main, trade liberalization component was to occur immediately, it would be discovered that the allocation of resources in the region is not efficient. Accordingly, trade liberalization between the EU and Romania and Bulgaria has been gradually implemented under the Europe Agreements: over 95% of both countries’ trade with the EU has been already conducted freely before the actual accession, with the exception of some agricultural and processed agricultural products.

Nevertheless, focusing liberalization on products originating from the EU, might have as an effect the so-called hub and spoke syndrome – by favoring rich and large countries and impoverishing small and poor ones and offering higher benefits to EU firms at the expense of those from the Balkans. In the absence of both multilateral liberalization and regional liberalization, suppliers from the EU might exclude more efficient suppliers from countries

subject to MFN tariffs. Moreover, since the EU is already the major partner for the region, the goal to shift trade patterns would only be limited.

Scenarios have been developed such that they allow us to thoroughly examine this multifaceted process and have been carried out by using the GTAP model and database – a tool powerful enough for assessing policy shocks such as those considered here.

2. LITERATURE REVIEW

There are an increasing number of CGE models developed to analyze the effects of the economic implications of the Eastern enlargement of the European Union. Some of them evaluate the costs and benefits of the integration from the acceding countries' point of view, while others from the European Union perspective.

Brown, Deardorff, Djankov and Stern (1995) employ a specially constructed version of the University of Michigan CGE world trade model to analyze the effects of EU-CEEC integration. The model defines 8 regions and 29 sectors that are monopolistically competitive with free entry and integration is being represented through policy changes such as the formation of CEFTA, the implementation of the CEEC-EU free trade agreements, the elimination of tariffs and non-tariff barriers.

Banse, Tangermann (1996) apply a recursive dynamic CGE model to analyze the agricultural implications of Hungary's accession to the European Union. Results are being compared to those obtained with ESIM (European Simulation Model), a static partial equilibrium model used to analyze changes in the CAP. Agricultural production and exports are predicted to increase in both of the simulation frameworks.

Lejour, De Mooij and Nahujs (2001) make use of a CGE model called WorldScan to consider several dimensions of the accession process such as the accession to the internal market, the equalization of external tariffs and free movement of labor. The model is calibrated on the basis of the v.5 of the GTAP database, base year 1997. Results suggest large changes in the agriculture and food processing sectors, due to the significant tariff changes. In the food processing sector all CEECs increase their production due to cheaper intermediate inputs and an increase in exports.

Vanags (2002) evaluates the economic impacts of the Latvian accession by employing a single-country CGE model undertaking simulations such that identify the

impacts of the economic measures of the Europe Agreements going towards a more deeper integration associated with full accession. The author finds that accession brings some trade diversion with CES countries but reduced in comparison to trade creation effects with the EU.

Bayar, Majcen and Mohora (2003) analyze the effects of the Slovenian accession by employing a neoclassical structuralist recursive dynamic CGE model (integrates adaptive expectations) that evaluates the impacts of trade liberalization and those of financial flows from the EU to Slovenia. The model defines a special institution called the Fund that aims to collect transfers from both the Slovenian and EU budgets and finally redistributes them according to the stated uses.

Bchir, Fontagne and Zanghieri (2003) evaluate the impacts of the 2004 accession round assessment on the size and efficiency of firms, varieties of products and welfare and factor prices using MIRAGE, a CGE model developed by CEPIL. The model is defined by imperfect competition *à la* Cournot with products being differentiated by variety and by quality. Findings show that the impact on current EU members is negligible, while acceding countries will face important but not always beneficial consequences.

CGE models have been for long considered not to be suitable for modeling policy changes in the former centrally planned economies given that they present characteristics that are in contradiction with the foundations of such models. For example, in CGE models, consumers are utility maximizers, producers maximize their profits, while demand and supply are balanced. Nevertheless, reforms that have been carried out in these countries that set the direction towards market-driven economies and the development of structuralist CGE models allow for the necessary adjustments.

3. MODELLING FRAMEWORK AND SIMULATION DESIGN

The very nature of the EU enlargement process requires a tool powerful enough for analyzing economy wide implications, inter and intra-industry linkages and interactions within the analyzed economy as well as potential effects on the rest of the world. Therefore, for carrying out our analysis we decide to employ the Computable General Equilibrium (CGE) model developed by the Global Trade Analysis Project (GTAP).

The GTAP model is a standard multi-regional, static CGE where all markets are assumed to be perfectly competitive and technologies exhibit constant returns to scale, model fully documented by Hertel, 1997. Our simulations employ version 6.1 of the GTAP database with base-year 2001.

The GTAP model defines consumers as having identical preferences that allocate income among private consumption, government consumption and savings (Cobb-Douglas). Demand for private goods has Constant Difference of Elasticities (CDE) functional forms. The production side assumes Leontief technology with fixed production coefficients between primary and intermediate inputs. Primary factors are defined to be mobile across sectors, their degree of mobility being described by the Constant Elasticity of Transformation function (parameters used in the model are presented in Table of the Appendix).

We focus on the effects on the directly involved countries extending our analysis to the rest of the region of the Balkans. Sectoral aggregation has been set up such as to allow us to provide a consistent picture of the effects of the enlargement for both agricultural and other commodities. Thus, the 57 GTAP sectors have been aggregated into 10 representative ones of which 6 are agricultural while the world consists of 10 regions (table 1).

The baseline has been updated to the year 2004 since the current round of enlargement has to be captured in the context of the 2004 accession round.

Table 1: Used aggregation

	<i>Regional aggregation</i>	<i>Sectoral aggregation</i>	<i>Endowments</i>
1	ASEAN	1 Cereal Seeds	Capital
2	Bulgaria	2 Vegetables & Fruits	Labour
3	China/Hong Kong	3 Meat & Fats	Land
4	EFTA	4 Dairy	Natural Resources
5	EU15	5 Fishing	
6	Acceding 10	6 Food	
7	Romania	7Textile	
8	RoW	8 Wearing	
9	Rest of the Balkans	9 Motor Vehicles	
10	Rest of the Developed	10 Machinery	

Simulations have been designed as to represent key policy elements of the enlargement process and they correspond to the cumulative effects of the scenarios described before, thus scenario 3 depicting the most complete set of policy shocks applied in our simulations:

- ***scenario 1:*** adoption of the Common External Tariff by Romania and Bulgaria.
- ***scenario 2:*** regional trade agreement (RTA) between the EU and Romania and Bulgaria.
- ***scenario 3:*** full accession scenario – summarizes in one comprehensive outcome results for the two previous cases.
- ***scenario 4:*** value of current preferences – describes the case in which there would be no EU accession for Romania and Bulgaria and a return to the MFN tariff schedule.

4. SIMULATION RESULTS

Trade and Output Effects

The external trade of the region has been increasing over the recent years, with a higher growth rate for the European Union (EU25) than with the rest of the world. The EU25 is the number one trading partner, a significant increase in the volume of trade being due to the removal of trade sanctions and the introduction of free trade agreements.

According to international trade theory, i.e. the Heckscher-Ohlin model, comparative advantage arises from differences in national factor endowments. Therefore, the Balkan countries should have comparative advantages in the production of labor-intensive and resource-intensive products, whereas, the EU member states should have comparative advantages in the production of capital-intensive and R&D-intensive products. The export structure of these two countries is very different from that of the most successful transition economies, showing a strong dependence on commodities from basic manufacturing sectors, relying mostly on unskilled labor and low technology inputs with high shares for clothing and footwear, base metals and mineral products. One could also notice that there is an increasing trend of the shares for machinery and electrical equipments in total exports. Conducting a more thorough analysis, it was found that the two countries have a comparative disadvantage for this section of the HS (Harmonized System) commodity classification (Baourakis et al., 2006).

Trade liberalization between the EU and Romania and Bulgaria has been gradually implemented under the Europe Agreements: over 95% of both countries' trade with the EU has been already conducted freely before the actual accession, with the exception of some agricultural and processed agricultural products (see Table 2).

As far as trade with the rest of the region of the Balkans is concerned, the EU accession of Bulgaria and Romania will result in the cessation of their bilateral Free Trade Agreements (FTAs) with the rest of the Balkans and in the application the EU's Autonomous Trade Concessions (ATCs) instead.

Table 2: Applied/faced ad valorem tariffs: a comparative view

	<i>Romania</i>		<i>Bulgaria</i>		<i>Albania</i>		<i>Croatia</i>	
	Applied	Faced	Applied	Faced	Applied	Faced	Applied	Faced
EU15	5.4%	1.0%	7.6%	2.5%	8.3%	0.4%	3.7%	0.2%
World	9.8%	5.1%	6.7%	6.9%	8.3%	5.3%	5.1%	5.7%
Rest of the Balkans	12.7%	5.3%	4.7%	5.5%	9.0%	15.1%	4.9%	17.3%
CEE	5.6%	8.8%	5.3%	9.7%	10.4%	10.1%	5.1%	5.3%

Source: CEPII's MacMapHS6v1 Database

A detailed presentation of the simulation results is to be found in the Appendix. Accession has very little effect on total trade in spite of the fact that both Romanian and Bulgarian imports/exports expand. This expansion has reduced impact on total world trade, given that the countries account for a small share of world trade. Third-country trade flows are barely affected. These results suggest that the Europe Agreements have prepared for the actual accession and been gradually shifting trade patterns. The specialization in production that occurs is manifested in the countries' exports. As a result of the EU accession, the Romania and Bulgaria become more specialized in agricultural production and their exports significantly increase while on the other hand the EU15 become more specialized in manufactures and they expand their exports of those products.

Welfare implications

The GTAP model allows us to separate different components of a given welfare change into changes in allocative efficiency, technological change effect, change in terms of trade and investment/savings effect.

Table 3, summarizes the welfare impacts of the EU accession for all scenarios described above. The welfare impact of the most comprehensive Scenario 3 representing full accession is shown to be positive for the world as a whole, for the EU15 and the two acceding countries; there are welfare losses, however, in the rest of the developed world. For Romania and Bulgaria lower production and export levels of subsidized agricultural and food commodities lead to allocative efficiency gains. As far as the change in terms of trade is concerned, an increase in the level of protection leads to an increase in terms of trade and

vice versa. As enlargement represents beyond the elimination of the remaining barriers to trade between the members the adoption of the Common External Tariff to non-members, we anticipate an improvement of terms of trade (an increase in import tariff with the rest of the world). Thus, there is a final positive terms-of-trade impact.

Figure 1: Welfare implications – full accession (scenario 3)

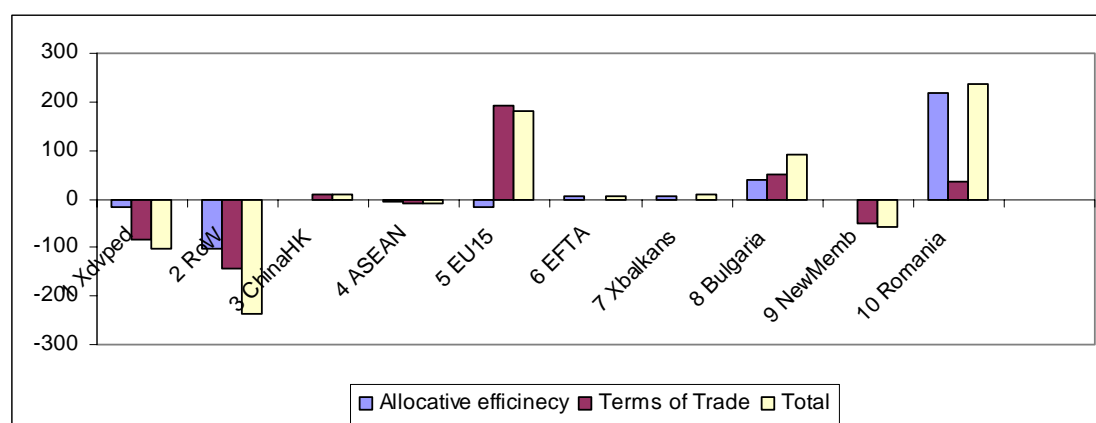
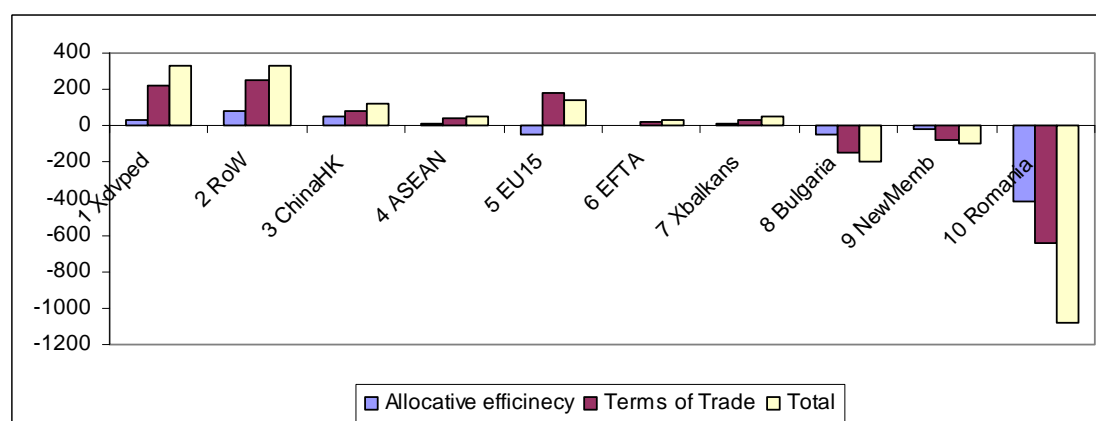


Figure 2: Welfare implications – value of current preferences (scenario 4)



World welfare, measured by equivalent variation, increases by \$12.4 billion when completing the “accession” scenario and decreases by \$66.5 billions in case that the accession would have have not taken place.

Table 3: Welfare decomposition (mill. \$)

	<i>Allocative efficiency effect</i>		<i>Terms of trade effect</i>		<i>I-S effect</i>		<i>Total</i>	
	Sim 1	Sim 2	Sim 1	Sim 2	Sim 1	Sim 2	Sim 1	Sim 2
1 Xdvpd	-5.53	-11.40	-34.62	-52.07	26.07	-28.08	-14.08	-91.54
2 RoW	-18.93	-79.18	-84.14	-53.49	10.50	-2.47	-92.57	-135.14
3 ChinaHK	-11.48	8.94	7.38	-0.28	5.64	-1.50	1.54	7.15
4 ASEAN	-6.16	1.82	-9.91	-0.11	3.65	0.66	-12.42	2.36
5 EU15	-72.47	69.59	416.99	-232.30	8.82	-4.93	353.33	-167.63
6 EFTA	1.40	4.28	2.50	-3.31	-1.17	0.86	2.73	1.83
7 Xbalkans	5.41	0.31	9.76	-10.54	1.66	1.31	16.82	-8.93
8 Bulgaria	17.52	30.09	-143.27	189.48	-4.21	4.08	-129.97	223.65
9 Newmembers	-8.11	6.78	-27.85	-21.84	-2.97	-1.32	-38.93	-16.37
10 Romania	221.32	16.68	-138.26	180.82	-48.20	31.10	34.86	228.60

	<i>Allocative efficiency effect</i>		<i>Terms of trade effect</i>		<i>I-S effect</i>		<i>Total</i>	
	Sim 3	Sim 4	Sim 3	Sim 4	Sim 3	Sim 4	Sim 3	Sim 4
1 Xdvpd	-17.3	36.24	-84.3	220.26	-2.3	71.58	-103.9	328.08
2 RoW	-103.4	81.20	-141.8	252.23	7.9	-4.35	-237.4	329.08
3 ChinaHK	-1.8	54.80	8.0	84.91	3.6	-22.88	9.9	116.83
4 ASEAN	-4.1	16.46	-10.2	45.95	4.2	-13.80	-10.2	48.61
5 EU15	-15.0	-47.91	193.4	179.57	3.4	8.10	181.8	139.76
6 EFTA	5.2	4.41	-0.3	26.00	-0.3	-1.89	4.6	28.53
7 Xbalkans	5.4	12.82	-0.2	34.61	3.0	3.08	8.2	50.51
8 Bulgaria	40.9	-43.75	49.6	-148.47	2.7	-0.18	93.2	-192.40
9 Newmembers	-2.5	-15.28	-50.2	-72.39	-4.5	-12.73	-57.1	-100.40
10 Romania	217.1	-413.17	35.7	-640.64	-17.6	-27.29	235.3	-1081.10

5. CONCLUSIONS

Whether the decision for latest round of enlargement of the European Union lies on political, strategic or economic grounds it would be hard to decide. In any case results suggest that on the overall the EU enlargement will be welfare-enhancing for the world as a whole. It will lead to specialization of countries according to their comparative advantages, Romania and Bulgaria becoming more specialized in agricultural production and their exports significantly increase while on the other hand the EU15 become more specialized in manufactures. The removal of formal trade barriers and the adoption of the Common External Tariffs produce not surprisingly reduced impacts, given that existing barriers have been gradually removed in accordance with the Europe Agreements.

APPENDIX

Table A1: Model parameters

	<i>ESUBVA*</i>	<i>ESUBD</i>	<i>ESUBM</i>
1 Cereals	0.33	3.09	5.55
2 Vegetables	0.24	1.85	3.7
3 MeatFats	0.88	3.64	7.64
4 Dairy	0.7	3.65	7.3
5 Fishing	0.2	1.25	2.5
6 Food	1.12	1.69	3.5
7 Textile	1.26	3.75	7.5
8 Wearing	1.26	3.8	7.65
9 MotorVeh	1.26	2.8	5.6
10 Machinery	1.26	4.05	8.1

*ESUBVA: CES between primary factors of production

ESUBD: Armington CES for domestic/imported allocation

ESUBM: Armington CES for regional allocation of imports

Table A1: Scenario 3 – Full Accession: quantitative effects (% changes)

	<i>Output</i>					<i>Consumption</i>				
	Bulgaria	Romania	XBalkans	EU15	Acc10	Bulgaria	Romania	XBalkans	EU15	Acc10
Cereals	1.89	-0.07	-0.07	0.10	0.35	0.37	0.31	0.02	0.00	-0.03
Vegetables	0.28	-1.63	0.07	-0.02	-0.07	0.21	0.50	0.01	0.00	-0.03
Meat/Fats	-0.51	0.26	-0.16	0.04	0.02	0.83	1.78	0.03	0.01	0.00
Dairy	1.39	1.09	-0.20	-0.08	0.17	0.72	0.65	0.04	0.01	-0.02
Fishing	1.49	-1.08	-0.02	0.00	0.00	-0.29	1.40	0.04	0.00	-0.01
Food	5.09	-2.50	-0.09	0.02	-0.07	0.63	1.02	0.04	0.01	-0.01
Textile	-9.31	-1.96	-0.15	0.24	-0.40	1.56	2.39	0.09	0.01	-0.02
Wearing	0.40	3.35	-0.22	0.03	-0.37	2.61	2.77	0.10	0.02	-0.01
MotorVeh	-3.67	-3.20	-0.03	0.01	-0.03	1.41	2.10	0.05	0.00	-0.02
Machinery	-3.18	-3.70	0.01	0.00	0.03	1.16	1.51	0.05	0.00	-0.02

	<i>Imports</i>					<i>Exports</i>				
	Bulgaria	Romania	XBalkans	EU15	Acc10	Bulgaria	Romania	XBalkans	EU15	Acc10
Cereals	-4.59	-1.56	0.19	0.05	0.19	5.96	-8.73	0.50	0.27	2.28
Vegetables	21.54	27.00	0.18	0.05	0.04	82.11	23.90	2.29	0.02	-0.15
Meat/Fats	144.48	174.69	0.20	0.55	1.46	71.12	193.15	-1.47	0.68	0.75
Dairy	152.88	163.49	0.85	0.29	0.25	332.02	499.63	-0.89	-0.22	0.57
Fishing	13.79	9.69	0.07	0.02	-0.03	-2.46	12.89	-0.03	0.00	0.08
Food	39.31	42.80	0.04	0.06	0.11	170.27	39.23	-0.10	0.14	-0.34
Textile	41.03	8.23	0.02	0.13	-0.19	12.41	13.95	0.09	0.51	-0.69
Wearing	53.28	10.54	0.44	0.15	0.00	15.38	5.67	-0.09	0.25	-0.59
MotorVeh	19.63	21.95	0.08	0.01	-0.04	2.58	3.69	0.01	0.03	-0.05
Machinery	19.12	12.40	0.14	0.00	-0.05	-2.27	-3.68	0.19	0.02	0.01

Table A3: Scenario 1 – Adoption of the CET: quantitative effects (% changes)

	<i>Output</i>				<i>Consumption</i>		<i>Imports</i>				<i>Exports</i>			
	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	EU15	Acc10
Cereals	0.35	-0.10	0.13	0.30	-0.75	-0.02	-10.28	-6.93	0.13	0.29	17.62	1.70	0.23	1.64
Vegetables	-0.62	-1.81	0.02	-0.07	-0.80	0.17	13.23	22.21	0.04	0.08	1.99	2.24	0.09	-0.21
Meat/Fats	-2.38	-13.12	0.21	0.29	-0.91	1.16	126.75	153.03	0.07	0.18	10.34	7.37	1.19	1.25
Dairy	-0.42	-1.76	0.03	0.29	-1.02	0.14	126.25	143.55	0.02	0.05	9.31	3.64	0.10	0.79
Fishing	-0.06	-0.83	0.00	0.00	-1.00	0.62	2.73	9.05	0.03	0.04	1.69	5.37	0.01	0.08
Food	-0.46	-3.68	0.06	-0.04	-0.90	0.47	29.28	38.10	0.03	0.00	2.89	2.48	0.24	-0.33
Textile	-4.06	3.95	0.20	-0.48	-0.38	1.47	38.10	11.03	0.13	-0.24	23.06	20.63	0.49	-0.76
Wearing	7.93	10.59	-0.13	-0.61	0.54	1.85	48.11	9.78	0.32	0.18	26.65	13.34	0.05	-0.91
MotorVeh	-2.13	-3.03	0.00	-0.04	-0.69	1.21	14.84	17.87	0.01	-0.04	11.61	8.68	0.01	-0.06
Machinery	0.24	0.99	-0.04	-0.01	-0.93	0.57	11.67	8.88	0.00	-0.05	11.53	5.32	-0.04	-0.05

Table A4: Scenario 2 – RTA: quantitative effects (% changes)

	<i>Output</i>				<i>Consumption</i>		<i>Imports</i>				<i>Exports</i>			
	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	EU15	Acc10
Cereals	1.63	-0.19	-0.05	0.00	1.12	0.42	10.61	9.98	-0.08	-0.12	-2.50	-10.21	0.01	0.32
Vegetables	0.87	0.18	-0.04	0.01	1.02	0.39	7.42	4.12	0.01	-0.05	78.60	21.00	-0.07	0.08
MeatFats	1.91	13.28	-0.18	-0.28	1.73	0.66	14.33	9.59	0.43	1.15	53.82	173.39	-0.60	-0.58
Dairy	1.71	2.92	-0.11	-0.13	1.73	0.60	12.64	9.30	0.26	0.18	295.14	480.31	-0.32	-0.26
Fishing	1.52	-0.25	0.00	-0.01	0.73	0.88	10.66	0.77	-0.01	-0.07	-3.00	7.05	-0.02	0.00
Food	5.37	1.29	-0.04	-0.03	1.54	0.62	8.67	3.93	0.02	0.11	161.49	38.26	-0.10	0.01
Textile	-5.04	-5.99	0.05	0.08	1.90	1.00	3.10	-2.40	0.00	0.05	-9.36	-6.00	0.02	0.06
Wearing	-6.73	-7.00	0.15	0.23	2.00	1.00	4.53	1.03	-0.16	-0.17	-9.81	-7.34	0.20	0.31
MotorVeh	-1.52	0.12	0.01	0.01	2.09	0.98	4.47	4.00	0.00	0.00	-8.36	-5.03	0.02	0.01
Machinery	-3.27	-4.69	0.04	0.05	2.08	1.05	7.06	3.78	-0.01	0.00	-12.83	-9.18	0.06	0.07

Table A8: Scenario 4 – Value of the current preferences: quantitative effects (% changes)

	<i>Output</i>				<i>Consumption</i>		<i>Imports</i>				<i>Exports</i>			
	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	Bulgaria	Romania	EU15	Acc10	Bulgaria	Romania	EU15	Acc10
Cereals	0.18	2.12	0.00	-0.29	-1.04	-2.39	-5.39	-22.05	-0.04	-0.35	0.97	25.82	-0.01	-2.03
Vegetable	0.62	2.59	0.00	-0.02	-1.01	-2.42	-7.00	-9.81	0.00	-0.24	-6.96	7.00	0.00	-0.30
Meat/Fats	-1.21	2.69	-0.01	0.10	-1.52	-3.22	-8.61	-22.92	-0.01	0.11	-41.42	28.01	-0.11	0.49
Dairy	0.23	-1.27	-0.01	0.22	-1.57	-3.20	-17.08	-29.06	0.03	-0.19	3.52	-9.45	-0.05	0.58
Fishing	0.20	2.38	0.00	-0.03	-1.67	-5.04	-1.91	1.35	0.00	-0.18	4.48	-3.72	0.02	0.22
Food	0.07	-0.05	0.00	-0.16	-1.39	-3.00	-10.00	-19.52	-0.01	-0.14	2.14	16.07	-0.01	-1.24
Textile	-7.23	-13.96	-0.22	0.20	-1.64	-6.29	-13.53	-27.93	-0.13	0.07	-29.35	-46.41	-0.74	-0.21
Wearing	-21.64	-37.02	0.65	1.20	-1.74	-6.63	-9.68	-24.87	-0.72	-0.92	-38.64	-43.89	0.69	1.52
MotorVeh	1.00	-1.86	-0.02	-0.05	-1.81	-5.79	-4.62	-35.84	0.01	-0.10	-2.97	-2.49	-0.06	-0.12
Machinery	2.13	15.35	-0.08	-0.04	-1.80	-5.60	-7.68	-29.50	0.01	-0.10	5.19	22.99	-0.13	-0.15

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