ORIGINAL PAPER

Sectoral effects of the Japan-EU Economic Partnership Agreement for the European Union countries

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Abstract

This paper assesses the economic impact of the Japan-EU Economic Partnership Agreement (JEEPA) on all EU member states as well as Japan. The novelty of this study is that it refers to all EU countries and provides an overview of the expected output effects of JEEPA for all member states in a detailed sectoral breakdown. This impact is investigated using the Computable General Equilibrium (CGE) framework. Calculations revealed that economic returns from JEEPA vary among the EU countries. Some of the more highly developed EU countries will experience beneficial effects from tariff reductions to a greater extent than others, while some of the newer, less-developed EU members will experience losses, caused by the lower competitiveness of these countries. Beneficial effects in the EU countries are expected mainly in the primary sector industries like meat and animal products, leather, grains, and crops; while in Japan, economic gains are expected in the motor vehicle and transport equipment industries. Despite the overall optimism accompanying the signing of the JEEPA, it is worth paying attention to the sectors that are expected to shrink as a result.

JEL classification F15 · F17

Introduction

Economic Partnership Agreements (EPAs) negotiated between countries are economic arrangements that eliminate barriers to the free movement of goods, services, and investment between these countries. These agreements are often considered as an intermediate step in the process of economic integration. Bilateral EPAs are supposed to be beneficial for both sides of the agreement, but in some cases, one of the partners has larger economic returns than the other. The need to explore the effects

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of EPAs for both sides is even more important when one of the partners is not a single country, but an economic and political union, as is the case of the European Union (EU).

The present paper aims to investigate the sectoral effects of the Japan-EU Economic Partnership Agreement (JEEPA) for the involved countries, particularly how the agreement arrangements could change the structure of production in the EU countries. The JEEPA was signed on 17 July 2018, by the President of the European Commission, Jean-Claude Juncker, the President of the European Council, Donald Tusk, and Prime Minister of Japan, Shinzo Abe, and entered into force on 1 February 2019. According to the agreement, Japan will liberalise 91% of its imports from the EU at entry into force. At the end of the staging period, 99% of its imports from the EU will be liberalised, while the remaining 1% of imports will be partly liberalised through quotas and tariff reductions (in agriculture).[1] In terms of tariff lines, Japan fully liberalised 86% of its tariff lines at entry into force, which will go up to 97% after 15 years. The EU liberalised only 75% of its imports at entry into force, but this share will rise over 15 years to nearly 100%. In terms of lines, the overall level of liberalisation of the EU is set at 99% with 96% of its lines eliminated at entry into force.[2] Additionally, the JEEPA assumes that many non-tariff barriers, which are the major source of trade restrictions, will also be eliminated. During the negotiations, the political interests of the EU and Japan in JEEPA were different. While Japan was primarily interested in tariff liberalisation, the EU demanded the elimination of Japan's non-tariff barriers. The optimism accompanying the ratification of the Japan-EU Economic Partnership Agreement was expressed by Cecilia Malmström, Commissioner for Trade: "Together with Japan, we are sending a strong signal to the world that two of its biggest economies still believe in open trade, opposing both unilateralism and protectionism. The economic benefits of this agreement are clear. By removing billions of euros of duties, simplifying customs procedures and tackling behind-the-border barriers to trade, it will offer opportunities for companies on both sides to boost their exports and expand their business…."[3]

The research questions of the present study are as follows: how will the elimination of trade barriers in line with JEEPA affect the structure of production in the EU member states as well as Japan, and will it significantly alter the economic competitiveness of the countries involved. This impact will be investigated using the Computable General Equilibrium (CGE) framework.

The economy of the EU is the joint economy of all member states. However, EU countries are not a homogeneous group. Table 1 shows nominal GDP per capita, nominal GDP, and the Human Development Index (HDI) of the member states.

The EU member states have different GDP per capita, varying levels of economic development measured by HDI, as well as different production structure. Figure 1

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[1] EU-Japan EPA – The Agreement in Principle, 2017, 6 July, p. 2.

[2] EU-Japan EPA – The Agreement in Principle, 2017, 6 July, p. 2.

[3] European Commission, 2018, July 17, *EU and Japan sign Economic Partnership Agreement*, Press release.

Table 1 Nominal GDP per capita, nominal GDP, and HDI of the EU member states

	GDP per capita (USD) (IMF estimates 2020)	GDP (USD) (IMF estimates 2020)[a]	HDI[b]
Austria	48 634	432 894	0.922
Belgium	43 814	503 416	0.931
Bulgaria	9 826	67 917	0.816
Croatia	14 033	56 768	0.851
Cyprus	26 240	23 246	0.887
Czech Republic	22 627	241 975	0.900
Denmark	58 439	339 626	0.940
Estonia	22 986	30 468	0.892
Finland	48 461	267 856	0.938
France	39 257	2 551 451	0.901
Germany	45 466	3 780 553	0.947
Greece	18 168	194 376	0.888
Hungary	15 373	149 939	0.854
Ireland	79 669	399 064	0.955
Italy	30 657	1 848 222	0.892
Latvia	17 230	33 015	0.866
Lithuania	19 883	55 064	0.882
Luxembourg	109 602	68 613	0.916
Malta	28 469	14 290	0.895
Netherlands	51 290	886 339	0.944
Poland	15 304	580 894	0.880
Portugal	21 608	221 716	0.864
Romania	12 813	248 624	0.828
Slovakia	18 669	101 892	0.860
Slovenia	25 039	51 802	0.917
Spain	26 832	1 247 464	0.904
Sweden	50 339	529 054	0.945

Source: IMF, Human Development reports.

[a]World Economic Outlook Database. October 2020. International Monetary Fund.

[b]Human Development Reports, http://hdr.undp.org/en/content/latest-human-development-index-ranking

shows the shares of primary, secondary, and tertiary sectors in the total output of all analysed countries.[4]

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[4] Industries are aggregated to 3 main economic sectors — primary, secondary, and tertiary sector. The primary sector contains the following: grains and crops, meat, forestry, fishing, processed food, and extraction. The secondary sector contains the manufacturing industries: leather, wood, paper, textiles, fuels, chemicals, minerals, metals, metal products, motor vehicles, transport equipment, electronics, machinery, and other manufacturing. The tertiary sector includes all services.
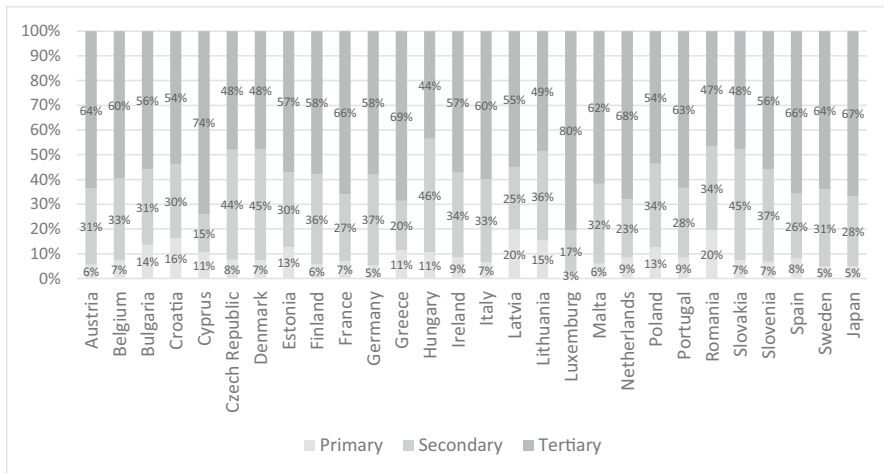
Fig. 1 Structure of industry output of the EU countries and Japan (%). *Source*: GTAP database ver.9

The share of the primary sector in industry output highly developed countries is about 3–9%, while in the less developed countries is above 10%. The share of secondary sector indicates the industrial development. The share of services is higher in developed countries.

Figure 2 shows the shares of primary, secondary, and tertiary sectors in the total export of all analysed countries.[5]

The differences between the EU countries are substantial. As the level of economic development, structure of productions, and structure of exports vary widely among the EU member states, it could be expected that the effects of JEEPA for the EU countries will be different.

Literature review

The economic and welfare effects of the JEEPA have already been investigated in some research papers. The most widely used tool for the assessment of these effects has been a CGE framework. However, the simulation results are not always comparable because researchers have made different assumptions and used various datasets.

One of the first studies on the economic effects of JEEPA was conducted by Sunesen et al. (2010). The authors analysed both the elimination of import duties (tariffs) and non-tariff barriers, from which they concluded that most of the potential economic gains reside in the reduction of trade costs associated with non-tariff

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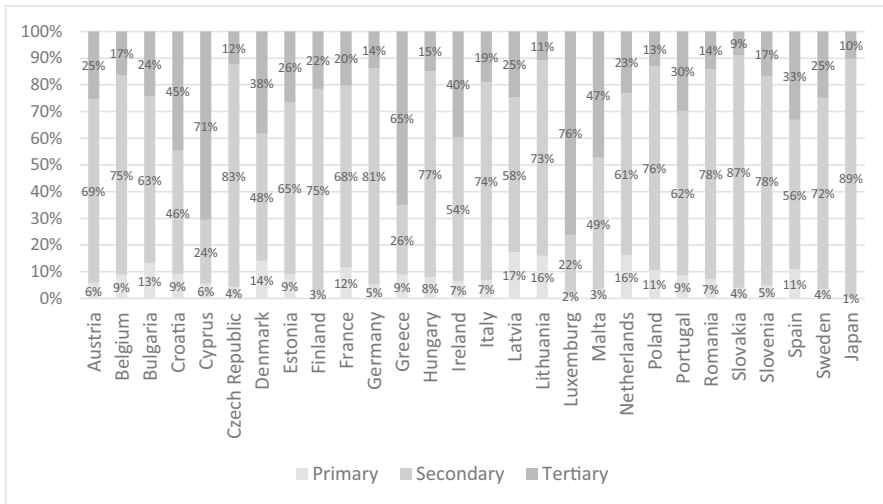
Fig. 2 Structure of export of the EU countries and Japan (%). *Source*: GTAP database ver.9

measures (NTMs). NTMs cover all non-tariff and non-quota measures that affect the cost of trade. As estimates of NTMs were not directly available, the authors presented the estimation of the NTMs based on three methods. In the maximum liberalisation scenario (if non-tariff barriers were to be reduced as much as possible), results indicated that EU exports could increase by almost 50%, or €29 billion. The largest gains from tariff dismantling would occur in agricultural and processed food exports. It was expected that the largest trade expansion from NTM reduction would be in the chemical (including pharmaceutical) industry, followed by the motor vehicles and medical equipment industries. In the case of Japan, such a scenario would mean additional exports worth €28 billion, which is an increase of about 32%. The main gains will occur in the motor vehicle sectors, followed by chemicals and electronic goods.

Another study on the effects of the JEEPA was conducted by Francois et al. (2011). The authors employed NTM estimates stemming from the Copenhagen study (2009), supplemented with information from the ECORYS (2009) survey. They analysed both the elimination of import duties and the liberalisation of non-tariff barriers, considering 8 liberalisation scenarios. In the 100% reduction of tariffs and 20% reduction of non-tariff barriers scenario, the largest production growth in the EU was expected in sectors related to the production of electromechanical devices, and in Japan — motor vehicles, electromechanical devices, other machinery, and other transport equipment.

Research conducted by Benz and Yalcin (2015) is also worth mentioning. In contrast to other studies, their model accounted for the dominance of intra-industry trade in both economies and the existence of heterogeneous firms. The authors modelled a search-and-matching labour market, which allowed the employment effects of trade liberalisation to be quantified. It was the first

analysis that considered the importance of intra-industry trade and its effects on labour markets. The model predicted strong entry and exit dynamics for firms in both Japan and the EU, which would result in less productive firms being pushed out of the market and more productive firms thriving. As a result, most of the benefits of JEEPA come not from additional employment, but from higher average business productivity. Based on the simulation of the comprehensive liberalisation, including the reduction of non-tariff barriers, Japan's GDP would increase by 0.86% and the EU's by 0.2%.

Before signing the agreement, the European Commission (2016) prepared a current report to support negotiations. The calculations were based on a CGE model, and simulations included the reduction of tariff and non-tariff barriers. The results indicated that the reduction of tariffs or non-tariff barriers would increase the nominal GDP of the EU by €34 billion and of Japan by €29 billion. EU exports to Japan would increase by 34%, and exports from Japan to the EU by 29%. The increase in total exports would be around 4% for the EU and 6% for Japan. The authors emphasised three important channels through which the expected growth is realised: lower trade costs, price reductions due to competition resulting from imports, which improves consumer welfare, and new investments measured by the inflow of foreign direct investment.

All of the presented studies assessing the effects of the JEEPA considered the EU as a single economy. Unlike those studies, the research made in the Ifo Institute by Felbermayr et al. (2017) referred to the individual EU member states. Calculations were based on the Ifo Trade Model and took into account three scenarios: (1) a tariffs-only agreement, (2) complete tariff elimination in all sectors and a reduction of the costs of NTMs modelled to the example of the EU-Korea agreement of 2011, (3) complete tariff elimination in all sectors and a reduction of the costs of NTMs, modelled to the econometric effects estimated for the average free trade agreement. The authors provided information on the effects of the JEEPA on the expected changes to imports, exports, and real GDP of all member states. Detailed results concerning changes in sectoral output were presented for only 8 of the involved countries. The authors concluded that all member states are expected to benefit, even if the benefits are small for some. This was the case for a few peripheral countries such as Greece, Portugal, and Romania.

The novelty of the present study is that it refers to all EU countries and provides the overview of the expected output effects of JEEPA for all member states in detailed sectoral breakdowns. This enables the comparison of the effects for all EU countries.

Methodology

The impact of JEEPA on the sectoral output of the EU member states was analysed using the CGE framework. We applied a standard GTAP (Global Trade Analysis Project) model. This is a multisector, multiregional, static, comparative CGE model, widely used for bilateral tariff reduction analysis. The theoretical

framework of the GTAP model was presented by Hertel (1997) and updated later on by Corong et al. (2017). The GTAP model gives users a wide range of options to close the model, i.e. to divide the variables between exogenous and endogenous. The basic assumptions of this model are constant economies of scale, perfect competition, Armington assumption (domestic goods and imports are imperfect substitutions), and separate consideration of the value of goods and transport costs in the calculations.

The GTAP model is calibrated using the GTAP database, which contains data on global economic activity. GTAP database users perform appropriate aggregation for the purposes of a specific study. However, the aggregation process does affect the model size (number of equations), calibration time, and, more importantly, the simulation results. These problems were addressed by Britz and van der Mensbrugghe (2016), who drew attention to the undesirable effects of sectoral and regional aggregation.

The model used in this study was calibrated using version 9 of the GTAP database, which captures the global economy in 140 countries and 57 sectors. Detailed information on version 9, as well as a description of the methodology of its construction, are presented by Aguiar et al. (2016). The purpose of this study required a regional aggregation that took into account all 27 EU member states (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden), Japan and the Rest of the World. Additionally, sectoral aggregation was conducted — 57 economic sectors were aggregated to 28 industries. The sectoral aggregation was identical to the one applied by European Commission (2018). A detailed description of the industries and the aggregation map are provided in Annex 1.

Comprehensive trade liberalisation simulation scenario

In order to simulate full trade liberalisation in line with JEEPA, the scenario under consideration contained a 100% reduction of all bilateral tariffs, except for rice (elimination of tariffs on rice are not provided in JEEPA), as well as a reduction of non-tariff barriers.

During the negotiations, Japan was primarily interested in tariff reduction, whereas the EU demanded the elimination of Japan's non-tariff barriers, which in general were higher than those in the EU — the costs of satisfying Japan's quality and safety standards could be substantially higher for EU exporters. However, the introduction of non-tariff barriers into the model requires their measurement and quantification. As quantifying non-tariff barriers is not straightforward and there is no methodological consensus in the literature, the concept of non-tariff measures (NTMs) requires additional explanation. For example, the definition of NTMs proposed by Sunesen et al. (2010) is as follows: NTMs are "all non-price and non-quantity restrictions on trade in goods and services. This includes border

measures (customs procedures etc.) as well as behind-the-border measures flowing from domestic laws, regulations and practices".[6] The term NTMs are used to cover the following seven categories:

1. Standards, technical regulations, and conformity assessment (e.g. technical specifications, testing, and certification)
2. Border procedures (e.g. customs procedures)
3. Distribution restrictions (e.g. seaport and airport, secondary dealers)
4. Pricing and reimbursement rules (e.g. in selling to public clients)
5. Public procurement issues (e.g. legal framework, market access restrictions)
6. Intellectual property rights (e.g. copyright, trademark, patents)
7. Other non-tariff measures.[7]

Felbermayr et al. (2017) in turn listed the following non-tariff barriers: contingent trade protection measures, export-related measures, border inspections, price controls, quality control measures, sanitary and phytosanitary measures, technical barriers to trade, and other measures. They emphasised that sanitary and phytosanitary (SPS) requirements, as well as technical barriers to trade (TBT), are much stricter in Japan than European international standards. For example, SPS has been applied to plants sent from the EU since June 2015. Contingent trade protection measures have been applied to Spain since September 2008. This is an anti-dumping measure on electrolytic manganese dioxide from Spain. The TBT enquiry points handle enquiries into drugs, cosmetics, medical devices, foodstuffs, food additives, telecommunication facilities, motor vehicles, ships, aircraft and railway equipment, electrical equipment, gas appliances, measurement scales, foodstuffs, and food additives.[8] The authors used NTM estimates from a gravity model.

As the types and importance of NTMs within each group differ among sectors, a detailed sector analysis is essential. Japan's non-tariff barriers (in pharmaceuticals, medical devices, foods, motor vehicles, transport equipment, services, and communications) were analysed by Sunesen et al. (2010). The authors presented estimations of non-tariff measures based on three methods: assessments of trade costs derived directly from detailed business surveys and results from two types of gravity models. Benz and Yalcin (2015) quantified the ad valorem equivalent of NTBs based on recent empirical contributions that estimated the average trade creation effect of free trade agreements. According to ex-post free trade agreements evaluation, trade barrier elimination increases bilateral trade flows by 74% on average. In the European Commission (2018) report, the most recent available estimates of NTMs were based on the Kee and Nicita (2016) research. Figure 3 presents the comparison of the estimations of NTMs by three of the above-mentioned literature sources.

There are substantial differences between estimations of the NTMs (highest in the Transport Equipment sector). The NTMs applied in the present study are from the European Commission (2018) as the methodology of quantifying these measures

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[6] Sunesen et al. (2010), p. 15.
[7] Sunesen et al. (2010), p. 15.
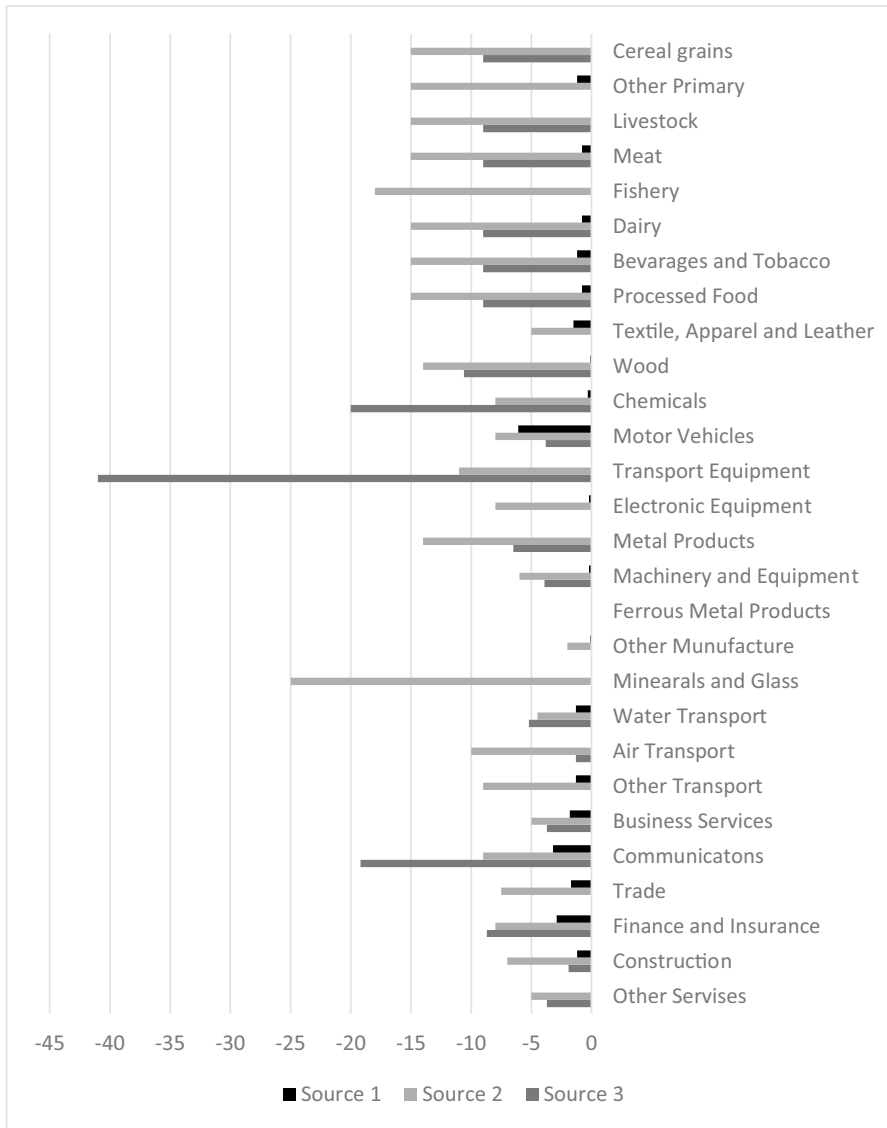[8] Felbermayr et al. (2017), p. 33.

Fig. 3 NTM estimates. *Source 1*: Sunesen et al. (2010); *Source 2*: Felbermayr et al. (2017); *Source 3*: European Comission (2018)

takes into account individual data (HS6 codes) for their assessment and they are the most recent available estimates. Table 2 presents these NTMs by sector.

The Gragg multi-step solution procedure was selected among the variety of different solution methods for the GTAP model. Since the GTAP model is a non-linear system, and simulated shocks are not small, linearisation (Johansen single-step solution method) would not provide accurate results. The Gragg method is a variation of the Euler method. The Euler

Table 2 Reduction of NTMs affecting Japan's and the EU exports

	Affecting Japan's exports	Affecting EU exports
Cereal grains	0	0
Other primary	0	− 1.2
Livestock	0	0
Meat	0	− 0.8
Fishery	0	0
Dairy	0	− 0.8
Beverages and tobacco	1.5	− 1.2
Processed food	0	− 0.8
Textile, apparel, and leather	0	− 1.5
Wood	0	− 0.1
Chemicals	0	− 0.3
Motor vehicles	0	− 6.1
Transport equipment	0	0
Electronic equipment	0	− 0.2
Metal products	0	0
Machinery and equipment	0	− 0.2
Ferrous metal products	0	0
Other manufacture	0	− 0.1
Minerals and glass	0	0
Water transport	1.7	− 1.3
Air transport	-	-
Other transport	1.7	− 1.3
Business services	1.3	− 1.8
Communications	1.3	− 3.2
Trade	1.5	− 1.7
Finance and insurance	2.7	− 2.9
Construction	1.8	− 1.2
Other services	-	-

Source: European Commission (2018), p. 47, 48.

multi-step procedure automatically divides the exogenous shock into a number of equal components. Thus, the results obtained by the multi-step procedure are more appropriate for formulating conclusions than outcomes of a calculation with a single-step procedure.

Results

In line with other studies, our results also confirm that comprehensive liberalisation of trade will be beneficial for the EU as well as for Japan. Economic gains for the EU are expected in the following agricultural and manufacturing sectors: meat,
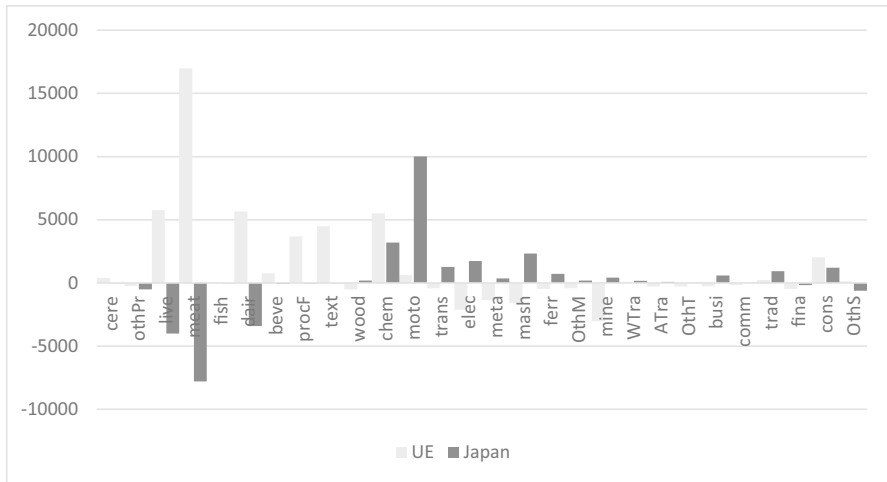
Fig. 4 The effects of trade liberalisation (mln USD). *Source*: Own calculations

processed food, livestock, dairy, chemicals, and motor vehicles; while for Japan, the main gains are in the motor vehicle, chemicals, machinery, and equipment sectors. Concerning services, the main gains are expected in the construction, trade, transport, and business services sectors. The magnitude of these effects is shown in Fig. 4.

Moreover, the calculations revealed that expected economic gains for the EU are heterogeneously distributed across countries. Annex 2 presents the changes in output (mln USD) across the EU member states, as well for Japan, under the simulated comprehensive liberalisation scenario. The figures enable a comparison of the magnitude of the effects in industry output of the countries. Quantitative assessment of the effects for each country in sectoral breakdown allows exploring differences between countries.

As could be expected, changes in output varied among the countries and the major reason for this can be found in the existing differences between their economies in terms of size, structure, and competitiveness. For example, the countries that benefited in the agricultural sector were Spain, Portugal, Spain, Hungary, Poland, and Finland. The main gains for Germany were in the motor vehicle sector and chemicals, while for France, they were in chemicals, textiles, and processed food. Estonia would enhance their wood production sector.

Table 3 summarises information about the three most-growing and three most-shrinking agricultural and manufacturing sectors across the EU countries Japan.

Table 4 presents information about the three most-growing service sectors by country.

There are expected gains in almost all of the service sectors in most countries, with construction, business services, trade, and transport growing by the greatest extent. Similar to the agricultural and manufacturing sectors, the results vary from country to country. For example, countries with access to the sea like Croatia,

Table 3 Three most-growing and most-shrinking sectors

Country	Most-growing sectors	Most-shrinking sectors
Austria	Meat; livestock; processed food	Minerals and glass; electronic equipment; metal products
Belgium	Dairy; chemicals; processed food	Minerals and glass; machinery and equipment; ferrous metal products
Bulgaria	Cereal grains; textile, apparel and leather; meat	Minerals and glass; metal products; electronic equipment
Croatia	Processed food; livestock; textile, apparel and leather	Minerals and glass; machinery and equipment; electronic equipment
Cyprus	Processed food; textile, apparel and leather; transport equipment	Electronic equipment; machinery and equipment; other manufacture
Czech Republic	Wood; textile, apparel and leather; livestock	Electronic equipment; machinery and equipment; metal products
Denmark	Meat; livestock; chemicals	Minerals and glass; electronic equipment; textile, apparel and leather
Estonia	Wood; chemicals; textile, apparel and leather	Electronic equipment; machinery and equipment; minerals and glass
Finland	Dairy; meat; processed food	Minerals and glass; electronic equipment; metal products
France	Chemicals; meat; textile, apparel and leather	Machinery and equipment; transport equipment; electronic equipment
Germany	Chemicals; motor vehicles; dairy	Machinery and equipment; electronic equipment; transport equipment
Greece	Processed food; cereal grains; livestock	Machinery and equipment; chemicals; textile, apparel and leather
Hungary	Meat; livestock; processed food	Electronic equipment; minerals and glass; metal products
Ireland	Meat; machinery and equipment; livestock	Chemicals; electronic equipment; minerals and glass
Italy	Textile, apparel and leather; chemicals; processed food	Machinery and equipment; minerals and glass; metal products
Latvia	Wood; livestock; processed food	Minerals and glass; electronic equipment; chemicals
Lithuania	Livestock; processed food; chemicals	Minerals and glass; electronic equipment; motor vehicles
Luxembourg	Textile, apparel and leather; livestock; wood	Machinery and equipment; metal products; chemicals
Malta	Processed food; textile, apparel and leather; transport equipment	Electronic equipment; chemicals; wood
Netherlands	Dairy; meat; processed food	Minerals and glass; electronic equipment; other manufacture
Poland	Dairy; meat; processed food	Minerals and glass; electronic equipment; metal products
Portugal	Dairy; processed food; textile, apparel and leather	Minerals and glass; electronic equipment; metal products
Romania	Textile, apparel and leather; wood; livestock	Minerals and glass; electronic equipment; transport equipment
Slovakia	Textile, apparel and leather; motor vehicles; wood	Machinery and equipment; metal products; electronic equipment
Slovenia	Wood; textile, apparel and leather; livestock	Machinery and equipment; metal products; electronic equipment
Spain	Meat; livestock; dairy	Minerals and glass; machinery and equipment; metal products

Table 3 (continued)

Country	Most-growing sectors	Most-shrinking sectors
Sweden	Chemicals; wood; dairy	Electronic equipment; minerals and glass; metal products
Japan	Motor vehicles; chemicals; machinery and equipment	Meat; livestock; dairy

Source: The author's simulations based on GTAP CGE mode, database, version 9.

Table 4 Three most-growing service sectors

Country	Services
Austria	Finance and insurance; construction; trade
Belgium	Construction; trade; other services
Bulgaria	Business services; finance and insurance; communications
Croatia	Other transport; business services; water transport
Cyprus	Business services; air transport; trade
Czech Republic	Other transport; business services; finance and insurance
Denmark	Construction; trade; business services
Estonia	Construction; other transport; water transport
Finland	Construction; trade; business services
France	Construction; other services; trade
Germany	Construction; business services; water transport
Greece	Water transport; construction; business services
Hungary	Trade; construction; business services
Ireland	Business services; construction; other services
Italy	Construction; trade; water transport
Latvia	Business services; water transport; other transport
Lithuania	Other transport; water transport; finance and insurance
Luxembourg	Finance and insurance; business services; construction
Malta	Business services; air transport; trade
Netherlands	Construction; other services; trade
Poland	Construction; other services; trade
Portugal	Construction; business services; trade
Romania	Finance and insurance; business services; other transport
Slovakia	Business services; other transport; finance and insurance
Slovenia	Other transport; business services; trade
Spain	Construction; other transport; trade
Sweden	Business services; water transport; other transport
Japan	Construction; trade; business services

Source: Author's simulations based on GTAP CGE mode, database, version 9.

Estonia, Germany, Greece, Italy, Latvia, Lithuania, and Sweden are expected to gain in water transport services. The biggest gain in Luxembourg and Cyprus will be in finance and insurance services. The results are in accordance with our expectations taking into account the production structures of the analysed countries.

Conclusions

To summarise, the present study confirms that economic returns from the JEEPA, measured by output changes, vary among the EU countries and this is determined by differences in production structures of the EU member states. Additionally, the

present study shows that some of the countries reveal similar patterns in the expected effects of the JEEPA. This information could be useful in determining the common EU trade policy, as well as for the goals of individual countries. Despite the overall optimism accompanying the signing of the JEEPA, it is worth paying attention to the shrinking sectors. Opening the EU markets to Japan's producers of motor vehicles, electronic devices, and machinery will significantly increase the competition for European producers. It should be noted that these sectors will experience the most unfavourable effects.

It is important to emphasise that the simulation results of this research, as well as for CGE models in general, are sensitive to the trade liberalisation assumptions. Whereas a zero-tariff scenario is unambiguous, the assumptions on NTMs reductions are not straightforward. It is also worth mentioning that the standard GTAP model is a comparative, static model, and thus it is hard to capture some dynamic effects of trade liberalisation. The simulation conducted and presented in this paper may therefore not reflect the true outcome.

The results of the present study generally confirm the conclusions of other similar analyses conducted at the aggregate level of the EU, predicting beneficial effects for both parties of the JEEPA. Additionally, it presents detailed expected output effects of the agreement for all member states in a sectoral breakdown. The comparison of the effects for all EU countries could be a valuable source of information for the EU policymakers. Moreover, the information about effects within the EU could be useful for the individual countries in determining their specific trade policy goals.

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